



**Applicant: Medical Research Council**  
**Title: Crystal Structure of Antibiotics Bound to the  
30S Ribosome and Its Use**

UK Priority Application No  
0022943.5



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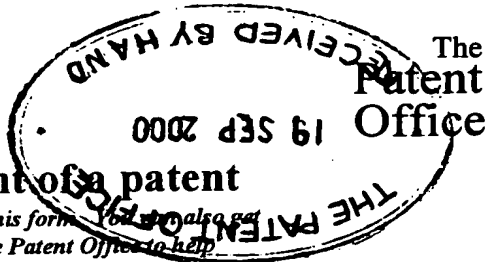
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CRYSTAL STRUCTURE (II)

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## CRYSTAL STRUCTURE (II)

This application claims priority from UK application 0017376.5 filed July 14, 2000, the contents of which are incorporated herein by reference.

### 5 Field of the Invention

The present invention relates to the provision of a high resolution crystal structure of the prokaryotic 30S ribosome subunit, and the use of this structure in drug discovery.

### Background of the Invention

10 Translation of the genetic code occurs on the ribosome, a large nucleoprotein complex that consists of two subunits. In bacteria, the two subunits are denoted 30S and 50S. The 50S subunit contains the catalytic site of peptidyl transferase activity, while the 30S subunit plays a crucial role in decoding  
15 messenger RNA. Protein synthesis is a complex, multistep process that requires several extrinsic GTP-hydrolysing protein factors during each of the main stages of initiation, elongation and termination. Despite several decades of work, the molecular details of the process are poorly understood, and the  
20 elucidation of the mechanism of translation is one of the fundamental problems in molecular biology today. A recent collection of articles summarizes the state of understanding of the field.

25 An important contribution to this problem was made by Yonath and coworkers, who after nearly a decade of work showed that structures as large as the 50S ribosomal subunit would form crystals that diffract beyond 3 Å resolution (Ref 2). Originally, it was not clear that phase information from such a large asymmetric unit could be obtained to high resolution, but  
30 the development of bright, tunable synchrotron radiation sources, large and accurate area detectors, vastly improved crystallographic computing, and the advent of cryocrystallography have all contributed to making structural



studies of the ribosome more tractable. In our work, the use of anomalous scattering from the LIII edges of lanthanides and osmium has also played a critical role in obtaining phases (Ref 3).

5 The 30S ribosomal subunit (hereafter referred to as 30S) from *Thermus thermophilus* was originally crystallized by Trakhanov et al. in 2-methyl-2,4-pentanediol (MPD) (Ref 4) and soon afterwards by Yonath and coworkers in a mixture of ethyl-  
10 cbutanol and ethanol (Ref 5). Subsequent work by both groups showed that the MPD crystal form diffracted to about 9-12 Å resolution (Refs 6,7). The diffraction limit of these crystals did not improve beyond 7 Å resolution for almost a decade, but more recently both Yonath and coworkers (Refs 8,9) and we (Ref 3) obtained crystals of the MPD form that exhibit significantly  
15 improved diffraction. However, unlike the crystals obtained by the Yonath group (Ref 9), our crystals do not require soaking in tungsten clusters or heat treatment in order to obtain high resolution diffraction.

Last year, we described the structure of the 30S at 5.5 Å  
20 resolution (Ref 12). We were able to place all seven proteins whose structures were known at the time, infer the structure of protein S20 to be a three-helix bundle, trace the fold of an entire domain of 16S RNA, and identify a long RNA helix at the interface that contains the decoding site of the 30S. Proteins  
25 S5 and S7 were also placed in electron density maps of the 30S obtained by Yonath and coworkers.

The 30S ribosomal subunit is a major target for antibiotics. The ribosome is a useful target for antibiotics since the structure of the 30S is widely conserved between prokaryotes,  
30 allowing for broad spectrum antibiotics. However, resistance to current antibiotics is currently a major problem in the field of medicine. There are presently very few new antibiotics available which can be used to treat the highly resistant strains of bacteria such as MRSA (methicilin resistant  
35 *Staphylococcus aureus*) which are becoming increasingly widespread.



Understanding the interaction of antibiotics with the ribosome at the molecular level is important for two reasons. Firstly, antibiotics act by interfering with various aspects of ribosome function. Thus understanding their interaction will help shed  
5 light on mechanisms involved in translation. Secondly, a detailed knowledge of antibiotic interactions with the ribosome could aid the development of new drugs against increasingly resistant strains of bacteria. Although antibiotics were characterized several decades ago, a detailed knowledge of their  
10 mechanism will in general require a three-dimensional structure of their complex with the ribosome.

The low (greater than 3Å resolution) crystal structures described above do not provide sufficiently detailed resolution for useful modelling of the crystal structure of the 30S and  
15 there is thus a need for a high resolution structure which can be used usefully in the development of novel therapeutics.

#### Summary of the Invention

We have now solved and refined the structure of the 30S at 3 Å resolution. The structure contains all of the ordered regions of  
20 16S RNA and 20 associated proteins, and contains over 99% of the RNA sequence and 95% of the protein sequences, with the missing parts being exclusively at the termini of RNA or polypeptide chains. Here we describe the overall architecture and the main structural features of the 30S subunit. In accompanying  
25 examples, we further describe functional insights gleaned from the structure and the location of antibiotics bound to the 30S.

In a first aspect, the present invention provides a crystal of the *Thermus thermophilus* 30S subunit having a tetragonal space group  $P4_12_12$  with unit cell dimensions of  $a = 401.375$ ,  $b =$   
30  $401.375$ ,  $c = 175.887$  Å, or more generally,  $a=401.4 \pm 0.7$ ,  $b=401.4 \pm 0.7$ ,  $c=175.9 \pm 0.7$  Å. Such a structure includes the 30S crystal of Table 2 which is bound to antibiotics. This has unit cell dimensions of  $a= 402.001$ ,  $b= 402.001$   $c =176.489$ . An  
35 advantageous feature of the structure is that it diffracts beyond 3Å resolution. Another feature of the structure is that it was obtained in a method which did not involve the use of



heavy atom clusters or heat activation. Furthermore, it is specifically of the 885-888/910-912 base pairing confirmation of 16S RNA. These features, both singly and in combination all contribute to features of the invention which are advantageous.

- 5 In a second aspect, the invention also provides a crystal of 30S having the three dimensional atomic coordinates of Table 1 or Table 2, the data of Table 2 optionally further including the data of one or more of Tables 3 to 5.

- 10 The coordinates of Tables 1 to 5 provide a measure of atomic location in Angstroms, to a third decimal place. In order to use the information in these Tables for the purposes described herein as being aspects of the present invention, these coordinates may be varied by  $\pm 0.7$ , preferably no more than  $\pm 0.5$  Angstroms, without departing from the scope of the invention.
- 15 Reference herein to the use of the coordinates of any one of Tables 1 to 5 thus includes the use of coordinates in which one or more individual values of the Tables are adjusted by this amount.

- 20 We have also observed that 30S crystals do not contain the S1 subunit protein. In our studies, we have found that by selectively removing this protein prior to crystallization, we have been able to obtain the improved resolution described herein. Although the atomic co-ordinates provided in Tables 1 and 2 (the data of Table 2 optionally including one or more of
- 25 the data of Tables 3 to 5) below allow those of skill in the art to bypass the need to undertake the crystallization of the 30S, this crystallization method nonetheless forms a further aspect of the invention.

- 30 Accordingly, there is provided a method for crystallizing a the 30S subunit to obtain a high resolution structure of a 30S subunit, which method comprises providing a 30S subunit, selectively removing the S1 subunit therefrom and crystallizing the 30S. The crystallization conditions may comprises the use of 13-17% methyl-2,4-pentanediol in the presence of 250 mM KCl,
- 35 75 mM ammonium chloride, 15 mM  $MgCl_2$  at a pH of 6.5 in sodium cacodylate or MES (2-(N-morpholino)ethane sulphonic acid). In



another aspect, the conditions may comprise the use of 250 mM KCl, 75 mM NH<sub>4</sub>Cl, 25 mM MgCl<sub>2</sub>, 6 mM 2-mercaptoethanol in 0.1 M potassium cacodylate or 0.1 M MES (2-N-morpholino-ethanesulfonic acid) at pH 6.5 with 13-17% MPD as the precipitant.

- 5 Crystals may be grown over a period of 4-8 weeks at about 4°C. Crystals obtainable by such a method are also a further aspect of the invention.

10 This methodology provides those of skill in the art a means to provide 30S crystals of *T.thermophilus*. The conservation of ribosome structure, particularly regions of structure essential for function, between prokaryotes, for example prokaryotes which are human pathogens, such as *Staphylococcus* spp, and the like, allows the structure herein to be useful in the provision of anti-bacterial agents in general.

- 15 The crystals may be grown by any suitable method known as such to those of skill in the art. The structure of the crystals so obtained may be resolved to a resolution of at least 3Å.

20 In a further aspect, the present invention provides a method for identifying a potential inhibitor of the 30S comprising the steps of:

- a. employing a three-dimensional structure of 30S, or at least one sub-domain thereof, to characterise at least one active site, the three-dimensional structure being defined by atomic coordinate data according to Table 1 or 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5); and

b. identifying the potential inhibitor by designing or selecting a compound for interaction with the active site.

The term "sub-domain" includes the following:

- 30 at least one complete element of secondary structure, i.e. an alpha helix or a beta sheet, or RNA helix, as described in the detailed description below;

a group of two or more such elements which interact with each other (including for example the subgroups of helices shown in any one of Figures 3 to 6);



at least one subunit protein;

a subgroup of subunit proteins, for example a group which includes two or more proteins which are found to interact with each other;

- 5       any of the above, when being protein or element thereof being used in conjunction with all or part of the 16S RNA structure associated with said elements or proteins.

10       A subdomain also includes a space of volume defining a region around any one particular atom of interest (e.g. an atom involved in binding to an antibiotic), the volume being less than the total volume of the tetragonal space of the complete crystal. For example, the coordinates of atoms in a volume of from about 500 to about 15,000 Å<sup>3</sup> may be selected and used for the present invention. Such a space may be a sphere having a  
15       diameter of from about 10Å to about 30Å, centred around a point of interest.

20       An active site of the 30S is any part of this structure involved in tRNA or mRNA binding, synthesis or translocation, including regions of the complex not directly associated with tRNA or mRNA binding but which are required for the ribosome to function, for example those regions which undergo structural changes associated with protein synthesis or are target sites for regulation by co-factors, phosphorylation or acetylation.

25       Particular regions of the 30S include those identified herein as antibiotic binding regions based on the data provided in Tables 2 to 5. Other regions include the three tRNA sites, i.e. the aminoacyl (A), peptidyl (P) and (exit) E sites. Other active sites are those which undergo movement during translocation of tRNAs from the A to P sites and the P to E sites.

30       Regions further include any one of the subunit proteins S2 to S21, including any of the individually identified subunit proteins in the accompanying examples.

35       Table 1 includes coordinates of two zinc ions, together with 202 other ions which are not identified, although, while not wishing to be bound by any one theory, are believed to be selected from



cobalt and magnesium. Some or all of these ions may optionally be discarded from Table 1 when using the data. The table also lists the coordinates of a 26 amino acid peptide, Thx, as well as a 6 nucleotide fragment of mRNA, NNNUCU, designated as molecule X. Both the coordinates of both these molecules may likewise optionally be discarded, i.e so that the coordinates of the 16S mRNA and the proteins S1 to S20 alone are modelled and used in applications of the invention.

Likewise, table 2 provides the coordinates of two zinc ions, together with 96 ions which in this crystal have been identified as magnesium. Some or all of these may optionally be disregarded, as well as (either together with or separately) one or both of the mRNA fragment and the Thx peptide.

There are a few N- or C-terminal sequences of the S2 to S20 proteins which were not resolved in the structure of Table 1, together with a some of the 5' and 3' residues of the 16S RNA. These are not essential for the purposes of the present invention, but are listed in Table 6 for completeness. Those of skill in the art may, if desired, wish to adapt the structures provided by the coordinate of Table 1 by modelling in one or more of the amino acids or nucleotides of Table 6. This may also be the case for Table 2. In addition, there are 8 amino acids identified in Table 1 which were not resolved in Table 2. These are: Glu B 241, Ala B 242, Glu B 243, Ala L 129, Gly S 82, His S 83, Gly S 84 and Lys S 85. The coordinates of these residues of Table 1 may be adapted, if desired, for introduction into Table 2.

In any event, the determination of the three-dimensional structure of 30S provides a basis for the design of new and specific ligands for 30S. For example, knowing the three-dimensional structure of 30S, computer modelling programs may be used to design different molecules expected to interact with possible or confirmed active sites, such as binding sites or other structural or functional features of 30S.

Paromomycin is an aminoglycoside antibiotic. Other antibiotics of this class include gentomycin and neomycin. In one aspect,



the coordinates provided in Tables 1-3 may be used to examine the binding to the 30S to other aminoglycoside antibiotics, so that common binding features may be determined and used as a basis for rational drug design.

- 5 The high resolution model of the 30S provided by Tables 1 and 2 may be used to examine and determine the binding of other antibiotics known to target this ribosome subunit. Such antibiotics include tetracyclin.

10 More specifically, a potential modulator (including antibiotics and derivatives thereof) of 30S activity can be examined through the use of computer modelling using a docking program such as GRAM, DOCK, or AUTODOCK (see Walters et al., *Drug Discovery Today*, Vol.3, No.4, (1998), 160-178, and Dunbrack et al., *Folding and Design*, 2, (1997), 27-42) to identify potential  
15 inhibitors of 30S. This procedure can include computer fitting of potential inhibitors to 30S to ascertain how well the shape and the chemical structure of the potential inhibitor will bind to the ribosome.

20 Also computer-assisted, manual examination of the active site structure of 30S may be performed. The use of programs such as GRID (Goodford, *J. Med. Chem.*, 28, (1985), 849-857) - a program that determines probable interaction sites between molecules with various functional groups and the enzyme surface - may also be used to analyse the active site to predict partial structures  
25 of inhibiting compounds.

Computer programs can be employed to estimate the attraction, repulsion, and steric hindrance of the two binding partners (e.g. the 30S and a potential inhibitor). Generally the tighter the fit, the fewer the steric hindrances, and the greater the  
30 attractive forces, the more potent the potential modulator since these properties are consistent with a tighter binding constant. Furthermore, the more specificity in the design of a potential drug, the more likely it is that the drug will not interact with other proteins as well. This will tend to minimise potential  
35 side-effects due to unwanted interactions with other proteins.



Having designed or selected possible binding partners, these can then be screened for activity. Consequently, the method preferably further comprises the further steps of:

- c. obtaining or synthesising the potential inhibitor; and
- 5        d. contacting the potential inhibitor with 30S to determine the ability of the potential inhibitor to interact with 30S.

More preferably, in step d. the potential inhibitor is contacted with 30S under conditions to determine its function, for example in a cell free translation system.

- 10        Instead of, or in addition to, performing such an assay, the method may comprise the further steps of:

- c. obtaining or synthesising said potential inhibitor;
  - d. forming a complex of 30S and said potential inhibitor;
  - and
  - 15        e. analysing said complex by X-ray crystallography to determine the ability of said potential inhibitor to interact with 30S. Detailed structural information can then be obtained about the binding of the potential inhibitor to 30S, and in the light of this information adjustments can be made to the
  - 20        structure or functionality of the potential inhibitor, e.g. to improve binding to the active site. Steps c. to e. may be repeated and re-repeated as necessary.

- 25        Another aspect of the invention includes a compound which is identified as an inhibitor of 30S by the method of the above aspects of the invention.

- 30        In another aspect, the invention provides a method of analysing a 30S-ligand complex comprising the step of employing (i) X-ray crystallographic diffraction data from the 30S-ligand complex and (ii) a three-dimensional structure of 30S, or at least one sub-domain thereof, to generate a difference Fourier electron density map of the complex, the three-dimensional structure being defined by atomic coordinate data according to Table 1 or 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5).

- 35        Therefore, 30S-ligand complexes can be crystallised and analysed



using X-ray diffraction methods, e.g. according to the approach described by Greer et al., *J. of Medicinal Chemistry*, Vol. 37, (1994), 1035-1054, and difference Fourier electron density maps can be calculated based on X-ray diffraction patterns of soaked  
5 or co-crystallised 30S and the solved structure of uncomplexed 30S. These maps can then be used to determine whether and where a particular ligand binds to 30S and/or changes the conformation of 30S.

Electron density maps can be calculated using programs such as  
10 those from the CCP4 computing package (Collaborative Computational Project 4. The CCP4 Suite: Programs for Protein Crystallography, *Acta Crystallographica*, D50, (1994), 760-763.). For map visualisation and model building programs such as "O" (Jones et al., *Acta Crystallography*, A47, (1991), 110-119) can be  
15 used.

In a further aspect, the present invention provides computer readable media with either (a) atomic coordinate data according to Table 1 or 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5) recorded thereon, said data  
20 defining the three-dimensional structure of 30S or at least one sub-domain thereof, or (b) structure factor data for 30S recorded thereon, the structure factor data being derivable from the atomic coordinate data of Table 1 or 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5).

25 As used herein, "computer readable media" refers to any media which can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media such as floppy discs, hard disc storage medium and magnetic tape; optical storage media such as optical discs or CD-ROM;  
30 electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media.

By providing such computer readable media, the atomic coordinate data can be routinely accessed to model 30S or a sub-domain thereof. For example, RASMOL is a publicly available computer  
35 software package which allows access and analysis of atomic coordinate data for structure determination and/or rational drug



design.

On the other hand, structure factor data, which are derivable from atomic coordinate data (see e.g. Blundell et al., in *Protein Crystallography*, Academic Press, New York, London and San Fransisco, (1976)), are particularly useful for calculating e.g. difference Fourier electron density maps.

In another aspect, the present invention provides systems, particularly a computer systems, intended to generate structures and/or perform rational drug design for 30S or 30S ligand complexes, the systems containing either (a) atomic coordinate data according to Table 1 or 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5), said data defining the three-dimensional structure of 30S or at least one sub-domain thereof, or (b) structure factor data for 30S, said structure factor data being derivable from the atomic coordinate data of Table 1 or 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5).

Examples of such systems are microcomputer workstations available from Silicon Graphics Incorporated and Sun Microsystems running Unix based, Windows NT or IBM OS/2 operating systems.

As used herein, "a computer system" refers to the hardware means, software means and data storage means used to analyse the atomic coordinate data of the present invention. The minimum hardware means of the computer-based systems of the present invention comprises a central processing unit (CPU), input means, output means and data storage means. Desirably a monitor is provided to visualise structure data. The data storage means may be RAM or means for accessing computer readable media of the invention.

The present high resolution structure of 30S provides a means to address the problems of antibiotic resistance in prokaryotes which are resistant to antibiotics known to act on the 30S, including paromomycin, streptomycin and spectinomycin. The data of Table 2 in conjunction with one or more of the data of Tables



3 to 5 provides high resolution of the site of action of these antibiotics. Mutant strains resistant to the action of these antibiotics can arise through mutation of a protein subunit of the 30S or through mutation in the 16S RNA. As indicated in the accompanying examples, the sites of mutations in some cases are known or can be identified. Where such sites are identified through, for example, primary sequence data, the invention provides a means to model the structure of the mutants.

There is thus provided a method which comprises providing the structure of the 30S ribosome of Table 1 or Table 2 (the data of Table 2 optionally including one or more of the data of Tables 3 to 5), changing one amino acid or nucleotide of said structure to provide a mutant 30S, and modelling the structure of the mutant 30S to provide a structure of the mutant. The mutant may be used in the manner described above for the wild type, e.g. stored in computer readable form, modelled to provide ligands, and the like. The modelling may be based upon the predicted behaviour of the atoms of the changed amino acid based upon its interaction with the surrounding atoms in the model provided herein.

This process may be iterative, e.g. to produce successive mutations into the 30S structure, for example 2, 3, 4, or 5 to 10 mutations.

Regions of 30S which may be subject to this aspect of the invention include those regions identified in the accompanying examples as regions of the 30S involved in ribosome function or in resistance to antibiotics.

The invention is illustrated below by the following examples 1 and 2, their accompanying Figures and the tables 1 to 7. In Tables 1 and 2, there is shown in each row Atom number, element type, residue (amino acid, nucleotide, etc), number in molecule (for proteins N to C terminal direction, for nucleic acid 5' to 3' direction), X, Y and Z co-ordinates, occupancy, B factor ( $\text{\AA}^2$ ) and an identifier for the member of the 30S (e.g. for the subunits in the format "A"S"n" where A is an arbitrary letter, different for each member, S is the subunit and n is the subunit



number; and for the 16S as "A16S"). Tables 3 to 5 provide the X, Y and Z coordinates of the defined atoms of the antibiotics mentioned therein. Table 6 provides a list of residues not identified in the analysis.

## 5 Description of the Drawings.

Fig. 1. Secondary structure diagram of 16S RNA (modified from ref. 53), showing the definition of the various helical elements used throughout the text. The numbering and diagram correspond to the E. coli sequence.

- 10 Fig. 2. Different modes of interhelical packing in the 16S rRNA.  
(a) The common minor-groove to minor-groove packing mode is often stabilized by a layer of adenosines, which mediate most of the hydrogen bonds between two helices. (b) The phosphate ridge to minor groove mode. Usually this mode is stabilized by  
15 hydrogen bonds between guanine N2 groups and phosphate oxygens.  
(c) The rare end-on mode of packing uses an unpaired purine (leftmost base) to mediate packing of two helices at right angles to each other.

Fig. 3. Structure of the 5' domain of 16S RNA.

- 20 Fig. 4. Structure of the central domain of 16S RNA.

Fig. 5. Structure of the 3' major domain of 16S RNA.

Fig. 6. Structure of the 3' minor domain of 16S RNA.

- Figure 7. Interaction of spectinomycin with the 30S ribosomal subunit. A chemical diagram for spectinomycin, showing  
25 interactions of the various groups with specific residues of 30S.

- Figure 8 . Interaction of streptomycin with the 30S ribosomal subunit. A chemical diagram for streptomycin, showing  
30 interactions of the various groups with specific residues of the ribosome.

Figure 9. Interaction of paromomycin with the 30S ribosomal



subunit. A chemical diagram for paromomycin, showing interactions of the various groups with specific residues of the 30S.

### Example 1

5 The crystal structure of the 30S ribosomal subunit has been solved and refined to 3 Å resolution. The final atomic model rationalizes over four decades of biochemical data on the ribosome, and provides a wealth of information about RNA and protein structure, protein-RNA interactions and ribosome  
10 assembly. It also provides a firm structural basis for the analysis of functional roles of the 30S subunit such as decoding, and for understanding the basis of antibiotic action. The structure will also provide the basis for interpretation of lower resolution structural data on functional states of the  
15 ribosome from electron microscopy and crystallography.

#### Materials and Methods:

##### Crystallization of the 30S

Crystals were obtained by a straightforward optimization of Trakhanov et al (Ref 6) with respect to pH, and concentrations  
20 of  $Mg^{2+}$  ions and MPD. The final conditions were 250 mM KCl, 75 mM  $NH_4Cl$ , 25 mM  $MgCl_2$ , 6 mM 2-mercaptoethanol in 0.1 M potassium cacodylate or 0.1 M MES (2-N-morpholino-ethanesulfonic acid) at pH 6.5 with 13-17% MPD as the precipitant. It was noticed initially that the 30S crystals completely lacked ribosomal  
25 protein S1, so care was taken to remove S1 selectively from the 30S prior to crystallization, which improved both size and reproducibility. Crystals took approximately 6 weeks at 4 °C to grow to their maximum size. The largest crystals, which were required for high resolution data collection, grew to a size of  
30 80-100 × 80-100 × 200-300 microns. The activity of redissolved crystals in poly(U)-directed protein synthesis was comparable to that of freshly isolated 30S subunits.

##### Data collection

Crystals were transferred to 26% MPD by vapor diffusion in two  
35 steps over a period of 6 days. All solutions (except for those containing osmium hexammine or osmium pentammine) also contained



1 mM cobalt hexammine in the cryoprotectant. Crystals were flash-cooled by plunging into liquid nitrogen, and data collection was done in a cryostream at 90-100 K.

- 5 A large fraction of crystals was screened at beamlines 9.6 or 14.1 at the SRS at Daresbury Laboratories, using two short exposures at least 40 degrees apart. These crystals were then analysed for diffraction limits, cell dimensions and mosaic spread. Only crystals of similar cell dimensions and with reasonable mosaic spread were used for data collection.
- 10 Potential derivatives were screened on beamlines X25 at the NSLS at Brookhaven National Laboratory and BM-14 at the ESRF (Grenoble). Data to about 4.5 Å were obtained from X25. High resolution data were collected at SBC 19ID at the APS in Argonne National Laboratory, and ID14-4 at the ESRF. In all cases,
- 15 derivative data were collected at the peak of the fluorescence at the LIII edge to maximize anomalous differences. At X25 and SBC 19ID, the kappa goniostat was used to rotate precisely about a mirror plane so that small anomalous differences could be measured accurately despite radiation decay and the use of
- 20 multiple crystals. Each crystal typically yielded 3-10 degrees of data. Data were integrated and scaled using HKL-2000 (Ref 13).

#### Structure determination

- 25 Previously determined phases at 5.5 Å (Ref 12) were used to locate heavy atom sites using anomalous difference Fourier maps. Initially, these sites were used for phasing to 3.35 Å using the program SOLVE (Ref 14) followed by density modification with SOLOMON (Ref 15) using the procedure implemented in SHARP (Ref 16). Optimization of the various parameters in the procedure was
- 30 required to obtain interpretable maps. The RNA and some of the proteins were built using the SOLVE maps. The sequence of *Thermus thermophilus* 16S RNA (Ref 17) and both previously available and unpublished (Göttingen Thermus Genome Sequencing Project) sequences for the proteins were used to build the
- 35 structure. Improved maps were obtained by calculating experimental phases using SHARP followed by density modification and phase extension to 3.05 Å with SOLOMON and DM



(Ref 18). The improved maps allowed us to build all the remaining ordered parts of the structure. The model was built using O (Ref 19), and refined using the program CNS (Ref 20). Maximum likelihood refinement was used, initially with both  
5 amplitudes and experimental phase probability distributions to 3.35 Å, and subsequently with amplitudes to 3.05 Å.

### Results

The 30S subunit from *Thermus thermophilus* consists of a 1522 nucleotide 16S ribosomal RNA and 21 associated proteins, of  
10 which 20 have known counterparts in *E. coli*. Protein S21 is not present in *Thermus*, and protein S1 has been removed from the 30S prior to our crystallization. In addition, a 26 residue peptide, Thx, is present in *Thermus* 30S subunits.

The quality of the data and phasing statistics are shown in  
15 Table 7. Experimentally phased maps clearly showed main chain density for RNA and protein, individual bases (which were often of sufficient quality to distinguish purines from pyrimidines), and large well-ordered side chains of proteins. These maps were used to build 16S RNA and the previously unknown proteins S2,  
20 S3, S9, S10, S11, S12, S13, S14 and Thx. In addition, regions that were disordered in isolated structures or had changed significantly were also built. This often consisted of significant portions of the N- and C-terminal tails of the proteins, sometimes including entire domains that were unfolded  
25 in isolation. Proteins with small cores and long loops, such as S16 and S17, had to be substantially rebuilt, since these loops were generally disordered in the solution NMR structures. Finally, the entire structure was rebuilt after an initial round of refinement. Our current model consists of nucleotides 5-1511  
30 of *Thermus thermophilus* 16S RNA (corresponding to 5-1534 of *E. coli* 16S RNA) and all of the ordered regions of the associated 20 proteins. The current model has been refined against 3.05 Å data with a conventional R-factor of 0.213, a free R-factor of 0.256 and good geometry. For the proteins, 94% of the residues  
35 were in the core or allowed regions of the Ramachandran plot, 3.9% in the generously allowed region and 1.8% in the disallowed region.



### Overview of the 30S subunit

Throughout this application, the numbering system for E.coli 16S RNA is used, as well as the standard helix numbering, denoted H1-H45, for the secondary structure elements with some  
5 modifications as shown in Fig 1. The most significant differences between the E.coli and T. thermophilus sequences are a shorter H6 and H10, and insertions in H9 and H33a. Any insertions in T. thermophilus relative to E. coli are indicated in the coordinates with an insertion letter after the nucleotide  
10 number, following the practice for tRNA.

The overall shape of the 30S is very similar to the classical model derived from negatively stained EM samples and to more recent cryo-EM reconstructions. The standard view, shown in Fig. 1b, clearly shows the head with a beak pointing leftwards, and a  
15 body with the platform to its top right and shoulder to its top right. These features have nearly identical shapes to their EM counterparts. The overall shape of the subunit is determined by the shape of the RNA component; none of the gross morphological features are all protein. As seen in Fig. 1b, individual  
20 secondary structure domains make up each of the morphological features, a feature which was also deduced in previous modelling studies. The 5' domain (fpd) makes up the bulk of the body; the central domain (cd) is most of the platform; and the 3' major domain (tpd) constitutes the bulk of the head. The 3' minor  
25 domain (tmd) is the only significant exception to this rule, as it is part of the body at the subunit interface.

The four domains of the 16S rRNA secondary structure radiate from a central point (Fig. 1c and d). In the crystal structure, this central point is found in the neck region of the subunit,  
30 around the base of the head. The four domains are especially tightly associated in this area. The W-shaped central domain wraps its outer arms around the fpd and tmd domains. The long arm of the central domain reaches around and packs against fpd. The other outer arm of the central domain wraps around the tmd.

### The structure of the RNA

The secondary structure of 16S ribosomal RNA contains forty-five double helices connected by short single-stranded segments. In



the crystal structure, many of these helices are coaxially stacked with a helix neighboring in the sequence. There are 13 groups of coaxially stacked helices and 23 unstacked helices in 16S rRNA, for a total of 36 helical elements. There are three different types of helix-helix packing. Most of the helical elements are packed in a minor groove to minor groove fashion, which often requires distortions from canonical A-form helical geometry in one of the two helices. Adenosines from internal loops or from hairpin loops often mediate docking against an A-form double helix, with a dense network of base-2' OH and 2' OH - 2' OH hydrogen bonds stabilising the packing (Fig. 2a). Less often, helix-helix packing occurs in a different mode, by insertion of a ridge of phosphates into a complementary minor groove of another helix (Fig. 2b). This packing mode is stabilized by hydrogen bonds between the ridge of phosphate oxygens and a layer of 2' OH and guanine base NH<sub>2</sub> groups. These guanine N2 groups are often made more accessible by the geometry of G-U pairs, which places this moiety farther into the minor groove than do Watson-Crick pairs. Finally, the rare end-on mode of interhelical packing uses a purine base to mediate the perpendicular packing of one helix against the minor groove of another helix (Fig. 2c). All three modes of helix-helix packing are further stabilized by idiosyncratic interactions between double-helical RNA and short non-helical RNA segments. Small bulges of one to three nucleotides are often found to pack either between helices or in the major groove of a helix.

#### The 5' domain (fpd)

The fpd of 16S RNA contains 19 double helices (Fig. 3), arranged as 7 groups of coaxially stacked helices and 5 unstacked helices, for a total of 12 double-helical elements packed tightly together. The result is a wedge-shaped mass of RNA that tapers to a single layer of double helices near the top of the domain. Like the other domains, the fpd is rather longer along the subunit interface than in the perpendicular direction.

The fpd can be divided into three subdomains, roughly corresponding to the upper, lower, and middle thirds of the secondary structure of the fpd. These subdomains make up the top and left-hand, the middle, and the lower right-hand sides of the



body, respectively, in the view from 50S. The upper subdomain is a nearly planar arrangement of four helical elements (H16/H17, H4/H15, H1/H3, and H18). The H16/H17 stack forms the left-hand border of the body as viewed from 50s. This stack is almost 120 Å long, with H16 making contact with the head and H17 reaching the bottom of the subunit. Internal loops in both helices contain S-turns, which are used to modulate the position of the phosphate backbone in the case of H17, or to create an extended minor groove surface for helix-helix docking in the case of H16. The H4/H15 stack points towards the bottom of the subunit, with H15 well-packed against H17. The H1/H3 stack is bent by the conserved bulge at position 31, which results in the proximal end being horizontal and the terminal end pointing up to the head. The fourth helical element is H18, which is sharply bent to accommodate the 530 pseudoknot, defined by the unstacked helices 505-507/524-526 (H18.2) and 521-522/527-528 (H18.1). H18 is well-packed between the other two upwards-pointing elements of the upper subdomain, H1/H3 and H16. The 530 pseudoknot packs against the central pseudoknot at the H18.1 - H1 interface.

The middle subdomain contains four helical elements (H5, H6, H12/H6A, and H13/H14) that form a layer between the upper and lower subdomains in the centre of the body. There are relatively few packing interactions within the subdomain, and several of its helices pack against the upper subdomain on one side and the lower subdomain on the other. Thus at the bottom of the subunit, the conserved root of H6 packs against H8 (lower subdomain) on one side and H15 (upper subdomain) on the other side. Similarly, the H12/H6A stack packs against H4 (upper subdomain) and H7 (lower subdomain). H12/H6A also packs against H5 and the 117 loop, which pack against elements from the upper and lower subdomains, respectively. H5 is well-packed against H15 and the 117 loop stacks with the root of H11. H5 also packs against the H13/H14 stack in the phosphate ridge-minor groove manner. H13/H14 interacts with two different regions of the lower subdomain. The conserved UACG hairpin loop at the end of H14 packs against the 160 GAAA hairpin from H8 while the large conserved hairpin at the end of H13 interacts with H7. This hairpin loop also makes many interactions with elements from the middle subdomain.



The lower subdomain is a collection of three helical elements that form an open saddle-shaped structure in the lower right-hand corner of the body. The H8/H9 stack stretches from the back of the subunit to the front, with the conserved 160  
5 GAAA hairpin pointing toward the 50S subunit. It packs tightly against the H7/H10 stack at the 4-way junction that joins them, and again at a Thermus-specific interaction between insertions at nucleotides 190 and 129. The H7/H10 stack also makes weak  
10 interactions with H15 and H17 from the upper subdomain at the bottom of the subunit. H11 contains two sharp bends that allow its conserved terminal hairpin loop to pack against H7. Both bends are stabilized by short-range minor-groove to minor-groove packing contacts.

The central domain (cd)

15 The cd is the RNA component of the platform. Its fold based on our previous 5.5 Å structure (Ref 12) is in excellent agreement with our current structure (Fig. 4). It contains nine helical elements folded into a W-shape in the 50S view. Two long  
20 single-stranded segments of RNA, the 570 and 820 loops, are also important structural elements. The domain is dominated by the long stack of H21/H22/H23, which forms the U-shaped perimeter of the domain. H21 is the only component of the left-hand arm of the W, while H22 and H23 form the base of the right-hand side. The right-hand arm of the W consists of H23B and H24A whose  
25 conserved hairpin loops are tightly packed. This arrangement requires sharp bends between H23 and H23B, and between H24 and H24A. The H23/H23B bend is stabilized by short-range minor groove-minor groove packing interactions. The H24/H24A bend is more unusual in that the bend is towards the major groove, which  
30 places a ridge of H24A phosphates in the major groove of H24. This major-groove bend is stabilized partly by short-range base-base and base-backbone interactions in the major groove of the bend, and partly by long-range interactions between the bent H24/H24A minor groove and the minor groove of H23. The heart of  
35 the central domain is the thicker middle arm of the W, which contains six helical elements (H20, H19/H25, H24, H26/H26A, H27, and H23B) and the 570 and 820 loops. On the left-hand side of the arm, the H26/H26A stack packs tightly against H22, the base of H25, and the 570 loop. The H25/H19 stack packs well with H20



and with the 570 loop. On the right-hand side of the central arm of the W, H23A packs well with H22, the 820 loop stacks on H24, and H24 packs well with the conserved GCAA hairpin loop of H27. In the centre of the arm, H23A packs with H26 in the phosphate  
5 ridge-minor groove manner, and the conserved H23A GAAG hairpin loop packs against H20. The 820 loop also interacts with H20, H25, and the 570 loop.

The 3' major domain (tmd)

The 3' major domain (tpd) is the RNA component of the head of  
10 the 30S subunit. From the 50S view, the left-hand side of the head tapers to a beak made of RNA on the 50S side and protein on the solvent side (Fig. 5). Like the other domains, the tpd is relatively thin in the direction perpendicular to the intersubunit interface. The tpd consists of fifteen helical  
15 elements, most of which do not stack on a neighboring helix, in contrast to the extensive stacking of neighboring helices seen in the fpd and the central domain. The tpd can be divided into three subdomains, which correspond to the upper, middle, and lower portions of the tpd secondary structure. The upper  
20 subdomain is an extended structure in the part of the head farthest from the 50S subunit, and makes relatively few packing contacts with RNA from the other head subdomains. The lower and middle subdomains are more globular and are more intimately packed together, and make up the front-right and front-left  
25 portions of the head, respectively. The middle subdomain includes the RNA portion of the beak.

The upper subdomain contains three helical elements that make up a well-separated structure on the solvent side of the head. The subdomain is dominated by the H35-H36-H38-H39 stack, which  
30 stretches from the top to the bottom of the head. The other two helical elements of this subdomain are H37 and H40, which pack well with each other and loosely with the H35-H36-H38-H39 stack. The H37-H40 pack is mediated by a semiconserved GAAA hp in H40 with adjacent G-C pairs in H37.

35 The smaller middle subdomain is extended and contains only four helical elements, H32, H33/H33A, H33B and H34. Two of these (H33/H33A and H33B) form the Y-shaped RNA component of the beak.



The H33/H33A stack points to the left in the 50S view while H33B points to the right, with its terminal conserved GNRA hairpin loop packed against H32, the covalent connection between the beak and the lower subdomain. H32 in turn packs against the H33-H34 junction as well as the 980 loop in the lower subdomain. With the exception of a small packing interaction with H32, the irregular H34 makes only long-range and somewhat tenuous packing interactions. The first is with H31 in the lower subdomain, an unusually weak minor-groove to minor groove packing. The second interaction is an unusual end-on packing interaction with the minor groove of the H34/H35/H38 junction in the upper subdomain.

The lower subdomain contains almost half of the tpd RNA and contains seven helical elements (H28/H29, H30, H31/980 loop, H41, H41A, H42 and H43) intimately packed into a globular mass. Helices 42 and 43 are arranged in an approximately parallel fashion at the center of the fold, and each interacts with at least three of the the other helical elements. Helices 42 and 43 dock together by means of a minor-groove to minor-groove packing of their conserved hairpin loops. On the solvent side of the H42/H43 pair, H41 packs with both H42 and H43, while the terminal GCAA hairpin loop of H41A packs against H42. This arrangement requires a sharp bend between H41 and H41A, whose minor grooves pack against each other at the bend. The H43-H41 pack is made more extensive by an underwound A-rich internal loop in H41. On the 50S side of the central H42/H43 pair are H29, H30, H31 and the 980 loop. H43 is well-packed with H29 and makes weaker interactions with H30 and the 980 loop, while H42 is well-packed with H30 and the 980 loop. The H42-H30 pack is mediated by successive conserved G-A pairs at the base of H42. The H43-H29 pack is mediated by a conserved S-turn at the base of H43. An S-turn also mediates the packing of H42 with H41. H31 is a peripheral element of the subdomain, packing well only with H30, but also packs with H34 from the middle subdomain.

### The 3' minor domain

The 3' minor domain consists of just two helices at the subunit interface (Fig. 6). H44 is the longest single helix in the subunit, and stretches from the bottom of the head to the bottom of the body. It projects prominently from the body for



interaction with the 50S subunit. H45 is approximately perpendicular to H44, with its conserved GGAA hairpin loop packed against H44 and available for interaction with the large subunit.

5 Proteins in the 30S and their interaction with 16S rRNA

The current structure includes all of the 30S proteins except S1. The proteins generally consist of one or more folded domains, about half of which were known from previous work on isolated proteins 26. However, nearly all of the proteins  
10 contain extended termini or loops which interact intimately with RNA and were disordered in the isolated structures. Although most of the proteins form intimate contacts with ribosomal RNA, there are also protein-protein interactions such as those seen in the S4-S5-S8 and S3-S10-S14 clusters. Finally, we see the  
15 same folds, e.g. a/b folds, used to interact with RNA in different ways, making prediction of mode of RNA binding from topology difficult.

In general, prior biochemical data on hydroxyl-radical footprinting (Refs 27) and crosslinking (Refs 28,29) (see also  
20 summaries in ref. 22 #39 and [www.mpimg-berlin-dahlem.mpg.de/~ag\\_ribo/ag\\_brimacombe/drc](http://www.mpimg-berlin-dahlem.mpg.de/~ag_ribo/ag_brimacombe/drc) ) agree well with the structure, and were useful as a guide to interpreting the fold at lower resolution. However, while a strong hydroxyl-radical footprint is indicative of contact, the converse is not true  
25 because extensive interactions often occur via the major groove or the phosphate backbone. Earlier base footprinting methods show poor correlation to structural contacts. Similarly, the residues in UV-induced crosslinks are generally found close together, but generally not those crosslinked using other  
30 reagents.

Proteins in the 30S and their interaction with 16S RNA.

The proteins of the 30S generally consist of one or more folded domains. The same types of folds are frequently found in different proteins, such as the  $\beta$ -barrel in S12 and S17, and  
35  $\alpha$ -helices packed against a  $\beta$ -sheet as observed in S3, S10, S6, and S11. It is interesting that these domains often interact with RNA in very different ways. The  $\beta$ -sheet of S11 packs flat



against the minor groove of RNA, while in S6 the edge of the sheet interacts with RNA. In S3 one of the a/b domains makes no contact with RNA at all.

5 In addition to a globular domain nearly all the proteins contain long extensions. These can be helical such as the a-hairpin in S2 or the C-terminal helices in S13; long b-hairpins or loops protruding from S10 or S17; or extended C or N terminal tails seen in proteins S4, S9, S11, S12, S13 and S19. These extensions make intimate contact with RNA, and were generally  
10 not visible in isolated structures because they were disordered in the absence of RNA. The extensions reach far into the surrounding RNA, and allow single proteins to contact multiple RNA elements, which is probably important for the stabilization of the RNA tertiary fold. The extensions are particularly well  
15 suited for this task because being narrow they can allow close approach of different RNA elements, while providing the basic residues required to neutralize the charge repulsion of the RNA backbone. An extension of this principle is seen in Thx. This small peptide can fit into a cavity between multiple RNA  
20 elements in the top of the head and its positive charge stabilizes the organization of these elements.

Proteins are often found bound to junctions between helices. S4 binds to the 5-way junction between H3, H4, H16, H17, H18 in the fpd, while S7 binds tightly to the junction of H29, H30, H41, H42  
25 in the tpd. Both proteins are important in early stages of 30S assembly of the body and head respectively.

The high resolution structure of the present invention agrees both with our previous model of the central domain, and subsequent high resolution structures that describe parts of  
30 this domain. New information on the protein subunits is also provided by the present invention as set out below, and this may be used by of skill in the art for the various applications of the present invention described herein.

### S18

35 S18 in the 30S consists of residues 19-88. It consists of two helices, and a third helical element formed by two short turns



from different parts of the structure that stack end-to-end. These helices together form a hydrophobic core. The C-terminus interacts with S11. Although similar in fold, the structure differs in detail from the one recently reported as part of the S6/S15/S18 complex with a fragment of RNA (Ref 31), which consisted of residues 35-84. Residues 63-80 of both structures are in agreement. Of those regions where the backbone trace is in a similar spatial location, our residues 25-40 align with their 37-52, 50-54 with 54-58, 58-62 with 59-63. The loop from 43-51 in our structure has no counterpart in theirs and has been bridged across by the peptide backbone. The C-terminus in their structure corresponds to part of this loop in ours. The differences probably arise from different interpretations of the electron density rather than conformational changes. These differences necessitate a reevaluation of some of the interactions of S18 with its neighbors, although most of the interactions previously described (Ref 31) involved the C-terminal helix, which is the same in both structures.

#### S11

S11 is a new structure and consists of two helices packed against a sheet, a type of fold seen in many ribosomal proteins. The sheet packs against the minor groove of the 690 loop (H23), and has a C-terminal extension that interacts with the C-terminal extension of S18 and also with the 790 loop (H24). Thus S11 stabilizes folding of the platform, by binding to both H23 and H24 near the tip of the platform.

#### S8

As observed previously (Ref 12) and in agreement with biochemical data, S8 binds near the H20/H21/H22 three-way junction and makes extensive interactions with H21 and H25. We now have molecular details of these interactions. In particular, two loops from S8 (87-92 and 112-118) wrap around the bulged bases 641-642 which were known to be required for high affinity binding of S8 32,33. The N-terminus of the protein also packs against the minor groove of the 825 stem (H25), thus helping the folding of the central domain. Residues K55 on S8 and 653 on RNA are next to each other as would be expected from crosslinking 29. The extension in Thermus S8 of the loop 69-76



packs against S2 from a symmetry related molecule.

The 5' domain binding proteins S17, S16 and S20

5 S17: Although originally thought to be exclusively a 5' domain binding protein, S17 also binds near the H20/H21/H22 three-way junction as we previously proposed in our low resolution structure (Ref 12) and consistent with crosslinking data (Ref 28). However, at that resolution, its orientation was ambiguous.

10 The core of S17 is known from NMR to be a  $\beta$  barrel with an OB fold, with long extended loops (Ref 34). These loops are disordered in solution but bind RNA in the 30S. In Thermus, there is a long C-terminal extension to S17 that is organized as an RNA-binding helix. The core of the protein and the C-terminal helix make extensive contacts with H11 and also contact H7. The  
15 C-terminal helix also contacts H21 in the central domain. Two long loops, loop 1 (26-36) and loop 2 (60-71) are ordered and interact with disparate domains of RNA exactly as predicted. Loop 1, which contains the site of neamine resistance, is inserted between H21 and a highly irregular structure at the  
20 base of H11. The very tip of loop 1 also touches the 560 loop of 16S RNA. Loop 2, which contains the site of a mutant defective in assembly, is involved in stitching together H7 and H11. Thus S17 interacts with H7, H11 and the 560 loop in the 5' domain, and H21 in the central domain.

25 S16: For a small protein, S16 has an extensive footprint throughout the 5' domain. Recently, the NMR structure of the protein along with its placement in the 5.5 Å map of the 30S has been described (Ref 35). Our structure reveals details of the RNA environment around the protein. All of the residues (1-88)  
30 are visible in the electron density, and were rebuilt using the NMR structure as a guide. The protein consists of an N-terminal sheet with two extended loops, and two short helices in the C-terminal end as previously described (Ref 35). All of the extensive contacts with 16S RNA are now clear. The  $\beta$  sheet is  
35 packed between the 608/620 internal loop of H21 on one side and a minor groove of H4 on the other. The two loops that extend out from this sheet both interact with RNA. Loop 1 interacts



with phosphates in major groove of H4, while residues 39-43 in loop 2 make contact with the phosphate backbone around the internal loop near 453 in H17. The first helix (53-61) also extends across the major groove of this internal loop, while the C-terminal end of the second helix along with the turn leading out of it point into a minor groove of H17. There is also interaction with the 110 loop of the 5' domain. Finally, the extended C-terminus lies across the minor groove at the tip of H17.

10 S20: In our low resolution structure (Ref 12), this protein was putatively identified as a three helix bundle in the 5' domain based on biochemical data that placed it at the bottom of the subunit (Refs 36,37). The current high resolution structure confirms this. The long N-terminal helix contacts the base of H6 and the tip of helix 44, and many conserved basic residues make salt-bridges with phosphates. Helices 2 and 3 of S20 interact with the minor groove of H9, and helix 3 also interacts with tip of H11 (263). Finally the extreme C-terminus of the protein is extended and lies along the minor groove of H9, which is longer in Thermus by 11 nucleotides. Thus S20 brings together several helices near the bottom of the subunit.

#### Proteins near the functional center

25 S4, S5 and S12 are clustered near the "functional center" of the ribosome and contain the sites of several important mutations.

In the structure of isolated S4 (Refs 38,39) the N-terminal domain was cleaved off prior to crystallization. This N-terminal region is organized as a tightly folded domain with a metal ion (presumably zinc) that is coordinated by four cysteines. The domain is packed against the body of the protein. While the N-terminus of S4 is highly conserved, the cysteines themselves are not. It is therefore likely that the addition of a "zinc finger" is for additional stability rather than essential for the fold. The linker residues 46-52 connect the N-terminal domain with the rest of the protein. All domains of S4 make intimate contacts with RNA. In particular, S4 makes extensive contacts with a five-way junction where H3, H4, H16, H17 and H18



come together in the 5' domain.

The N-terminal domain is packed against the 420 stem-loop (H16). The largely helical domain I is packed against a complicated region of RNA where H3 and the 507 bulge at the base of H18  
5 come together. The remaining domain of S4 makes extensive contact with the minor groove of the base of H16. In addition, it also makes contact with the tip of the H21, which is itself packed against H4. This position is consistent with the large body of biochemical data on S4 binding to 16S RNA.

10 As we previously noted (Ref 12), the C-terminus of S4 makes an extensive interface with S5. Most of the known mutations of S4 and S5 that confer the ram phenotype are located in this region (Refs 40,41). The interface consists of several highly conserved salt bridges, and some of the mutations break one or more of  
15 these interactions.

The structure of S5 is similar to the crystal structure of the isolated protein (Ref 42) with two important differences: The loop from residues 14-28 is folded back onto the body of the protein in the isolated structure, but is a fully extended  
20  $\beta$ -hairpin in the 30S. Also, the C-terminus of S5, which is disordered in the isolated structure, is mainly helical and packs against a complicated surface of S8 formed by many different strands.

S5 interacts closely with a region of the ribosome where the  
25 head and the body come together. In the head, the extended H35/H36 helix packs against H28, which forms the neck of the 30S connecting the body with the head. The tip of H36 makes contact with H26a, H2 and the central pseudoknot in the body. Protein S5 has contacts throughout this region, thereby  
30 stabilizing the conformation of the head with respect to the body.

The C-terminal sheet of S5 makes extensive interactions with the major groove of the H1 and the central pseudoknot. The N-terminal domain binds to the major groove of H36, as does the  
35 base of the  $\beta$ -hairpin. The tip of the hairpin interacts with the



phosphate backbone in H28 and is also very close to H34. Nucleotide 560 is very close to K121 in agreement with crosslinking data.

5 Most of the extensive interactions with RNA occur via major grooves or phosphate backbone. This explains the lack of a hydroxyl-radical footprint from S5 (Ref 27).

#### Protein S12

10 S12 is unusual both for its structure and location. It is unique among the 30S proteins in being on the interface side of the subunit. Its central core consists of  $\beta$ -barrel with an OB fold, a feature found in other proteins such as S17. This core binds together H18, the 530 stem loop (at the tip of H18), H3 and a part of H44 close to the decoding site. An unusual feature is a long extension that connects this core with a short helix  
15 at the N-terminus of the protein. This extension threads between the 560 loop and H12 on one side, and H11 on the other, to make contact with both S8 and S17 on the other side of the 30S.

20 S12 is also the only protein in the vicinity of the decoding site near 1492-1493 of RNA. It is the site of a number of functionally interesting mutations.

#### The head proteins

25 S7: Protein S7, whose structure in isolation was previously known, is known to be crucial for the assembly of the head (Ref 43). In the 30S, the entire sequence is visible, including the very basic N-terminus. S7 binds to a small but complex region of the tpd that encompasses two multiple-stem junctions at a corner of the head. The majority of the interaction surface consists of H29 tightly docked to the S-turn at the base of H43. This docking requires a tight turn at 1346, probably stabilized  
30 by S7 binding. Because S7 also makes interactions with H28, its primary surface of interaction encompasses all three of the helices around the H28/H29/H43 three-way junction. The very tight docking of H29 to H43 gives rise to a small region of very high negative charge density, which is bound by a surface of S7  
35 with very high concentration of positive charge (mainly S7 helices 1 and 4).



The second important interaction surface is centred on the second multiple stem junction that S7 binds, the H29/H30/H41/H42 junction. In this junction, H30 and the base of H42 are tightly packed together, with a tight turn between them. An S-turn  
5 between helices 41 and 42 mediates packing of H41 and H42, which also have a tight turn between them. H41 also packs very tightly against H43. S7 makes contacts to the phosphate backbone of H41, stabilizing its packing with H43, and to residues around 1240 and 1298 where the tight bends occur in the H29/H30/H41/H42  
10 junction. Contacts with U1240 are particularly intimate: the universally conserved bulge U1240 is deeply buried into a conserved hydrophobic pocket between the 35 and 115 loops of S7.

The  $\beta$ -hairpin is not tightly associated with 16S RNA, but probably fits tightly into the minor groove of the E-site tRNA.  
15 The structure is in rough agreement with a model of S7 binding to ribosomal RNA 44, but there are also significant differences, including the location of H43.

S9: S9 consists of a compact RNA-binding domain consisting of 2 helices packed against a 5-stranded sheet, with a third short  
20 helix at the C-terminal end of the domain. From this domain, there is a long 25 residue C-terminal tail that snakes into elements of the head RNA. S9 also interacts with S7 via a small hydrophobic patch.

The sheet of S9 makes extensive interactions with H38 and H39.  
25 It also has two loops that interact with the 1250 internal loop of H41. The short C-terminal helix interacts with 1177-1180 in H40.

The long C-terminal extension snakes between the H29-H43 junction on one side and the H38-H34 junction on the other to  
30 touch a portion of H31.

#### The S3 S10 S14 cluster

These three proteins form a cluster on the rear left-hand of the head, as the protein portion of the beak. S3 is clearly stacked on top of the other two proteins, consistent with the order of  
35 assembly.



S14 is bound in a crevice in the RNA and is mostly covered by S3 and S10. Almost the whole molecule contacts RNA, including helices H31, H32, H34, H38, and H43. A cross linked residue is in close proximity to the RNA (Ref 28).

- 5 S14 contains a zinc ion (Ref 45) coordinated by four cysteines from a CXXC-X12-CXXC motif. This motif is structurally similar to that found in the first zinc finger in the glucocorticoid receptor. This zinc binding motif is not conserved among all bacteria, although many of the residues surrounding it are,  
10 suggesting perhaps that in other organisms the protein folds via a hydrophobic core.

- S10 is structurally very similar to the S6 fold, with two helices packed against a 4-stranded sheet. Two of the strands in this sheet are connected by a long b-hairpin that extends out  
15 from the sheet and is inserted right into the center of the head RNA fold. The  $\beta$ -hairpin makes most of the contacts with RNA, including helices H31, H34 and H41. The two strands of the sheet pack into the shallow minor groove of H39, making contacts with backbone residues on both sides of the groove.

- 20 S3 contains two domains, both consisting of two helices packed against a 4-stranded sheet, which is similar to several other ribosomal proteins. In addition to the domains there is an N-terminal tail (all of which is visible). The C-terminal 30 residues are poorly conserved and disordered in the structure.

- 25 RNA contact is made by the N terminal tail and the C terminal domain. The N-terminal tail fits into a major groove of H34. The sheet in the C terminal domain also packs against H34.

- The N terminal domain makes few if any contacts with the RNA, but is mainly involved with making protein contacts with S10 and  
30 S14. A KH domain was predicted to occur in S3 (Ref 46). While elements of the KH domain are present in S3, they are split between the N- and C-terminal domains of the protein, so no KH domain as such is present.

Interestingly, the structure does not agree very well with



biochemical data. Although the protein does interact with H34, which it footprints (Ref 27), it is some distance ( $>10$  Å) from the H36-H37 region where it also has a footprint. Moreover, residues that crosslink RNA with iminithiolane (Ref 28) are on the same side of the N-terminal domain but about 10 Å from the nearest RNA. This RNA is the H33/H33a region, which is one of the most poorly ordered parts of our structure (as judged by the B-factor and weak density), suggesting that it could move in towards the N-terminal domain in other conformations.

10 S13 and S19

S13 and S19 form a loose dimer at the very "top" of the interface side of the head, extending both above and closer to the 50S than any of the head RNA. In spite of their location in this flexible region, they are both relatively well-defined in the electron density. Except for the C-terminal tail of S13, which reaches into the head and almost touches the tail of S9, none of these proteins are in contact with any other of the proteins in the small subunit. Together with S12, S11 and S15, these are among the few proteins that surround the region of intersubunit contact.

All 125 residues of S13 are visible in the structure. The N-terminus (app. 60 residues) forms a compact domain consisting of three small helices. Of this domain, only a small loop is in contact with the RNA and the domain appears to be clinging to the subunit only by virtue of its highly extended C-terminal region. This region begins with a long, straight alpha-helix that creeps along the top of the 30S head towards S19. It interacts mainly with the 1300 loop and H42. At this point the polypeptide chain bends by about 90 degrees, and the rest of the protein is mostly lacking in any secondary structure. This extended region curves around H41 into the head where it is buried in the RNA about 50-60 Å from the the globular, N-terminal domain. It contacts H30 in the head.

S19 consists of 92 residues. An NMR structure of isolated S19 showed a single globular domain consisting of a helix packed against a three-stranded sheet, in which residues 9-78 were ordered. In the 30S structure, residues 2-81 are visible in the



electron density. The C-terminus of the protein points towards the interface side and may become ordered in the 70S complex. Like S13, most of the globular domain of S19 is well separated from the RNA, but here both the N- and C-terminal extensions to the globular domain, as well as the loops 68-73 and 34-39 make contacts with H42. The C-terminal extension, like S13, bends around the RNA, to contact H31 while the N-terminus reaches H42 some considerable distance away. Thus, S19 straddles a portion of the head of the 30S. The residues in S13 and S19 that were crosslinked 48 are adjacent to each other in the structure.

### S2

Thermus S2 consists of 256 residues of which 7-235 are visible in our structure. The protein consists of a large central domain of about 200 residues that consists of a 5-stranded parallel sheet and four helices connecting them. Two helices that form a small coiled-coil motif protrude out of this domain. The protein is located on the back of the 30S at the interface between the head and the rest of the particle. While it is primarily regarded as a "head" protein, it also makes contacts with the central domain in our structure.

S2 is quite tenuously attached to RNA, which is consistent both with the fact that it is easy to wash off with salt and also that it is one of the last proteins to assemble onto the 30S (Ref 49). It binds RNA in H35-H38 in the head. There are also a few weak interactions with H25 and S8 in the central domain. It is not near H34 in our conformation of the 30S.

### Thx

This small 26 residue peptide was isolated and characterized from Thermus ribosomes (Ref 21). Thx fills a cavity formed by a number of different elements at the very top of the head. Residues 1-24 are visible in the electron density, of which 8-14 form a short helix, flanked by extended ends. It is surrounded by H42, the tip of H41, and the base of H41, while the bottom of the cavity is formed by the major groove of H43. The protein is highly basic, and there are extensive salt-bridges between these residues and phosphates of nearby RNA. Thus Thx stabilizes a number of different RNA elements that come close together near



the top of the head. Thx is known to exist in two other species of *Thermus* (Ref 21), and chloroplast ribosomes contain a nuclear-encoded Thx homologue (Ref 50). Because of its small size, it is difficult to determine whether it has counterparts in other bacterial genomes, but it would be surprising if homologues of the protein did not exist in many other bacteria.

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## Example 2

This Example describes in more detail some functional insights provided by the high resolution analysis of the 30S ribosome. The example further describes the crystal structure of the 30S subunit complexed simultaneously with the antibiotics paromomycin, streptomycin and spectinomycin, which interfere with decoding and translocation. This work reveals the structural basis for the action of these antibiotics, and also suggests a model for the role of the universally conserved 16S RNA residues A1492 and A1493 in the decoding process.



The ribosome is a large, template-directed enzyme with sophisticated proofreading capabilities, with tRNA and mRNA as its ligands. There are three tRNA binding sites, designated A (aminoacyl), P (peptidyl) and E (exit), after their respective tRNA substrates (reviewed in ref. 1). The anticodon stem-loops (ASL) of the A- and P-site tRNAs bind to the 30S where they are base-paired to adjacent codons on mRNA. The E-site tRNA is bound in a similar orientation but whether the E-site tRNA is base-paired to the E-site mRNA codon or not is a matter of controversy (Refs 2,3).

The decoding of mRNA into protein requires the correct recognition of each A-site codon by the anticodon of the corresponding aminoacyl-tRNA (aa-tRNA). The difference in binding energy between the codon and anticodon with correct (cognate) versus incorrect (noncognate) tRNAs is too small to account for the high accuracy of translation (Ref 4). Initially, a ternary complex of elongation factor Tu (EF-Tu), aminoacyl tRNA and GTP binds to the A-site. The high level of accuracy of translation by the ribosome is thought to be a combination of the initial codon-anticodon interaction and a proofreading step occurring after GTP hydrolysis and release of EF-Tu (Refs 5,6). The proofreading step is considered to be especially important for discriminating cognate codon-anticodon interactions from energetically similar near-cognate ones. The mechanism by which proof-reading occurs remains unclear, although a number of models have been proposed (Refs 7,8). There are also models for decoding that do not invoke a separate proofreading step (Ref 9).

It has been suggested that the 30S switches between at least two distinct states during translation, and that stabilizing one state over the other can affect accuracy (Refs 10,11). One genetically well-characterized conformational switch in the 30S subunit is the helix 27 accuracy switch (Ref 11). Genetic and biochemical data support a model in which this switch may be part of a larger-scale conformational change that occurs between initial selection and proofreading of the A-site tRNA, or it may play a role in translocation.



Until recently, there has been a large disparity between the high resolution of the genetic and biochemical data that define the RNA components of the active sites of the 30S subunit, and the relatively low-resolution of the three-dimensional structures of ribosomes available. Here we analyse the high resolution structure of the 30S from *Thermus thermophilus* reported in the Example 1, and identify the molecular details of the interaction of mRNA and tRNA with the A, P and E sites of the 30S. We also are able to see the detailed environment around the helix 27 switch, and thereby suggest the kinds of conformational changes that are involved at the molecular level. As described in the accompanying paper, we use the standard H1-H45 nomenclature to describe the helical elements in 16S RNA.

Both subunits are major targets for antibiotics. By interfering with various aspects of their function, these antibiotics help to shed light on the mechanisms involved in translation. Although antibiotics were characterized several decades ago, molecular details of their mechanism were unclear in the absence of a high resolution structure.

We describe here the crystal structure to 3 Å resolution of 30S from *Thermus thermophilus* simultaneously complexed with streptomycin and paromomycin (which reduce translational accuracy), and spectinomycin (which interferes with translocation). Difference Fourier maps calculated after the refinement of our atomic model of the 30S against these data directly reveal the bound antibiotic molecules *in situ*. The structure allows us to rationalize much of the biochemical and genetic data on these antibiotics and propose models for their mode of action. In addition, the effect of paromomycin on the universally conserved bases A1492 and A1493 suggests a model for how they participate in the decoding process.

### Results

A single round of refinement against the native 30S coordinates resulted in a model with R/R<sub>free</sub> of 0.231/0.266. During refinement, the 30S structure changed significantly only in the vicinity of the paromomycin binding site. Elsewhere, the phosphate rmsd between the antibiotic-bound and free 30S



structures fluctuated about 0.45 Å, which is comparable to the coordinate error in the original model. Electron density for the antibiotics was visible in both difference Fourier maps and sigmaa-weighted  $2mF_o - DF_c$  maps. At 3 Å resolution, it was  
5 straightforward to position each antibiotic in an unambiguous orientation in the density, so that precise conclusions could be made about the location and interactions of each antibiotic in the 30S subunit. A second round of refinement using a model that included the antibiotics reduced the R/Rfree to 0.224/0.258.  
10 Crystallographic statistics are shown in Table 9 below.

In the discussion that follows, elements of 16S RNA are described by the helix numbering of Brimacombe and coworkers (Ref 13). The numbering used is for the *E. coli* 16S RNA  
15 sequence, as described in Example 1.

#### Functional analysis of the 30S structure

Mimics of P-site tRNA and mRNA in the 30S structure

The most functionally important parts of the 30S subunit are its substrate-binding A-, P- and E-sites. In our 30S crystal  
20 structure described above, the P-site is occupied by the tip of the spur stem-loop (H6) from a symmetry-related 30S subunit, and appears to mimic the P-site tRNA anticodon stem-loop (ASL). Henceforth the term 'spur' will refer to this symmetry-related stem-loop docked in the P-site. A superposition onto our 30S  
25 structure of the 7.8 Å 70S structure with mRNA and tRNA (Ref 14) using the common elements H27 and H44 resulted in a phosphate rmsd of only 2.3 Å after rejection of outliers. This superposition results in residues 27-47 of P-site tRNA almost exactly coinciding with residues 75-95 of the spur, suggesting  
30 that it is a good mimic of the ASL. Our 30S maps also contain electron density for single-stranded RNA that mimics mRNA codons in the P and E sites, with base pairing between the P-site codon and residues that correspond to the anticodon of the spur. The mRNA mimic is of uncertain origin, but its location and sequence  
35 (UCU, as inferred from the non Watson-Crick base-pairing geometries with the UUU of the spur) suggest that it corresponds to the 3' end of 16S RNA. The last nucleotide of our 16S model is A1534, which implies that four disordered nucleotides 1535-1538 would span the 7 Å distance to the first nucleotide of the



E-site codon mimic. Alternatively, it is possible that the 3' end of 16S RNA has been cleaved somewhere between A1534 and U1539 prior to or during crystallization.

#### Definition and descriptions of the 30S A-, P- and E-sites

5 The 16S RNA-based superposition of the 70S tRNAs and mRNA onto the 30S structure also provides a basis for defining the extent of the A-, P- and E-sites on the 30S subunit. There are no serious clashes between the A-, P- and E-site tRNAs and the 30S subunit. The most striking characteristic of the three binding  
10 sites is that they are all composed of RNA elements from at least two different domains. It is clear that independent motion of the head (tpd) or platform (cd), as has been observed in low-resolution cryo-EM studies (Refs 15,16), would have important consequences for movement of the tRNA-mRNA complex, as must  
15 occur during translocation.

#### The P-site

The spur contacts several discrete regions of 16S RNA, and surprisingly, two proteins. Most of the interaction surface is found on the minor groove of the spur stem and RNA nucleotides  
20 1338-1341, 1229-1230 and small portions of the C-terminal tails of proteins S13 and S9. There are seven hydrogen bonds from the minor groove of spur residues C91-C92 and G78 to the minor groove surface of G1338-A1339. Only one of these hydrogen bonds appears to be sequence-specific. A contact from K126 of S9  
25 appears to help stabilize this minor-groove to minor-groove packing interaction. Both 1338 and 1339 have previously been implicated in P-site binding (Ref 17). A second area of contact, nearly continuous with the first, is the interaction between the 16S 1229-1230 sugar-phosphate backbone and spur residues G77 and  
30 G78. This region of contact is extended by the C-terminal tail of S13. The other areas of contact are less extensive. One interaction is the stacking of U82 on C1400, which rationalizes the ASL 34-C1400 UV-induced crosslink (Ref 18). The other region is a packing interaction between A790 and spur residues 88-89,  
35 with a single hydrogen bond present. Finally, if the spur anticodon - mRNA codon helix were a few Ångströms wider, as it would be for a Watson-Crick-paired helix, it would make van der Waals contact with the base of G966, which has been implicated



as part of the P-site by chemical modification and binding experiments (Refs 17,19).

5 The P-site codon threads through the major groove of the upper portion of helix 44, in a universally conserved region of 16S RNA. There is a tight turn between nucleotides -1 and +1, between the last E-site and the first P-site codon nucleotides. This turn is stabilized by a hydrogen bond to the N1/N2 groups of the conserved residue G926, a residue previously implicated in P-site binding (Ref 19). Additional hydrogen bonds are  
10 observed between the 2' OH of +1 to the phosphate of C1498, and between the phosphate of +2 and the 2' OH of C1498. The phosphate of +2 also stacks on the base of C1498. The phosphate of +3 is within hydrogen-bonding distance of two conserved cytidine N4 groups, from C1402 and C1403. The +3 base also  
15 stacks on the sugar of C1400. Finally, it appears likely that there are several  $Mg^{2+}$  ions that may help stabilize the location of the P-site codon in the major groove of H44. One such ion appears to interact with the N7 atom of G1401, in agreement with biochemical data implicating this residue in P-site function  
20 (Refs 17,19). The contacts are also consistent with mRNA crosslinking data (summarized in 20).

#### The A-site

The A-site is much wider and shallower than the P- or E-sites, consistent with its much lower affinity for tRNA. The  
25 shallowness of the A-site may also reflect the need to allow rotation of the A-site codon-anticodon helix during or after GTP hydrolysis by EF-Tu. The RNA components of the A-site include portions of the 530 loop, H34 in the head, as well as residues 1492-1493 from the 3' minor domain, all of which have been  
30 previously implicated as elements of the decoding site (see articles in ref. 21). Interestingly, the electron density for A1492 and A1493 is not consistent with a single conformation for these residues in the absence of antibiotics. The only protein that appears even remotely likely to participate directly in  
35 decoding is S12, whose K47 loop is close to the A-site codon-anticodon helix. Other proteins are more distant: a poorly conserved part of the C-terminal tail of S13 lies between the A and P sites, and the conserved but disordered C-terminal 12



residues of S19 may be in approximately the right location to interact with the upper portion of the A-site ASL.

#### The E-site

Unlike the A- and P-sites, the E-site consists mostly of  
5 protein. Proteins S7 and S11 have a small interface that binds  
the minor groove of the E-site ASL. The position of the highly  
conserved beta-hairpin of S7 suggests that it might help  
dissociate the E-site codon- anticodon. The RNA portion of the  
E-site makes relatively few interactions with the E-site ASL, in  
10 accordance with the observed failure of the E-site tRNA to  
footprint 16S RNA (Ref 17). The minor-groove surface of the  
conserved 16S residues 693 and 694 may interact with the minor-  
groove surface of the 37-39 residues of the E-site ASL.

#### The Helix 27 accuracy switch

15 In addition to the ligand-binding A-, P- and E- sites, the 30S  
subunit must also contain functionally important conformational  
switches. Only one of these, involving H27, has been well  
characterized genetically and biochemically (Ref 11). H27 has  
been proposed to have two alternative base-pairing schemes  
20 during translation, a ribosomal ambiguity (*ram*) or error-prone  
form with nucleotides 885-887 paired to 910-912, and an  
alternative hyperaccurate or 'restrictive' form with 888-890  
paired to 910-912. The *ram* form features an S-turn motif in H27,  
which is present in our structure. It packs against the minor  
25 groove of H44, just below the decoding site. Switching to the  
restrictive form must disrupt the S-turn and change the packing  
of H27 and H44, and perhaps the structure of the decoding site.  
Indeed, strains containing S12 restrictive mutations exhibit  
altered chemical reactivity of RNA residues at the H27-H44  
30 interface (Ref 10). However, H27 also packs against several  
other helices: the conserved hairpin loop at the end of H27  
packs against the platform (H24), and there is a long-range  
base-pair between H27 and the root of H11. Thus it seems  
probable that the switch also affects other helix-helix  
35 interactions, and in fact there could be a network of coupled  
switches amongst H1, H27, H18, H34, and H44. In support of this  
possibility, chemical protection experiments suggest that a  
number of RNA residues in these helices have greater chemical



reactivity in the 'restrictive' state, which suggests that the restrictive state may be a more 'open' state of the 30S subunit (Ref 11).

Ram mutations often occur in S4 or S5 (reviewed in ref. 22), all but one of which map to the interface between the two proteins. S4 ram strains exhibit increased chemical reactivity in two RNA sites at the interface between the central pseudoknot (H1) and the 530 pseudoknot (H18). Several streptomycin resistance mutations are also found at this RNA-RNA interface.

Interestingly, the S4-S5 and the H1-H18 interaction surfaces are contiguous, which suggests that this hybrid RNA-protein surface may move, and that an important function of the S4-S5 interaction may be to modulate the interaction of H1 with H18. It is likely that ram mutations preferentially destabilize the restrictive state, as with the S4/S5 interface and its RNA extension, or in other cases, stabilize the ram state.

#### Interaction of antibiotics with the 30S Spectinomycin

Spectinomycin inhibits EF-G catalyzed translocation of the peptidyl-tRNA from the A site to the P site (Ref 23). The fused ring system in spectinomycin makes it a rigid molecule. It binds in the minor groove at one end of H34, makes a single contact with a backbone phosphate and makes hydrogen bonds to a number of bases (Fig. 7). The most interactions are made with G1064 and C1192, consistent with protection studies 24 and mutagenesis data on spectinomycin resistance (Ref 25). These two bases are held too far apart to form Watson-Crick base pairs, but are able to make a single hydrogen bond. A loop of S5 and part of H28 of 16S RNA are within 5 Å of the spectinomycin binding site, but in this state do not make direct contacts with it. It is possible, however, that in other conformations of the 30S, spectinomycin is in more direct contact with these regions.

Translocation of tRNA from one site to the next must necessarily involve movement of elements of the head. It is probable that such movements would involve H34 and a possible rearrangement of the connections between it and helices H35 and H38. The structure suggests that the rigid spectinomycin molecule binds



near this pivot point of the head and sterically blocks movement although it is also possible that it acts to stabilize the upper stem of H34 (Ref 25). As mentioned above, mutations in S5 that cause resistance to spectinomycin (Ref 26) do not make direct  
5 contacts with the antibiotic. Rather, they map to a loop that stabilizes the interaction between H1 and the H35-H36 region which is directly connected to H34. An attractive hypothesis is that the mutants destabilize this interaction, and by thus removing the network of interactions that stabilizes the  
10 conformation of the head to the body via S5, allows it to move even when spectinomycin is bound.

### Streptomycin

Early experiments suggested that streptomycin made ribosomes error prone by predominantly affecting the proofreading step  
15 (Ref 27). More recent data suggest interference of both the initial selection and proofreading (Refs 28-30).

Streptomycin is tightly bound to the phosphate backbone of 16S RNA from four different parts of the molecule via both salt bridges and hydrogen bonds (Fig. 8). It also makes contact with  
20 K45 from protein S12. The four regions of 16S RNA (1490, 915, 526, and 13) have all been implicated in streptomycin binding on the basis of protection (Ref 24), crosslinking (Ref 31) and mutagenesis data (Refs 32-34).

The tight interactions observed for streptomycin suggests that  
25 it preferentially stabilizes the *ram* state seen in the crystal structure. The restrictive A-site has a low tRNA affinity, while the *ram* state has a higher affinity (Refs 7,11). Therefore, by stabilizing the *ram* state, streptomycin would be expected to increase initial binding of non-cognate tRNAs. The preferential  
30 stabilization of the *ram* state would also make the transition to the restrictive state more difficult, thereby also affecting proofreading. Thus our results offer a structural rationale for the observed properties of streptomycin.

This stabilization of the *ram* state by streptomycin suggested by  
35 our structure can also explain much of the genetic data on the antibiotic. Mutations in S12 lead to a hyper-accurate phenotype



(reviewed by 22). A weak phenotype manifests itself as streptomycin resistance, whereas a strong phenotype (often the result of multiple mutations) leads to streptomycin dependence. Most of these mutants are to varying degrees more hyperaccurate and slower than wild type ribosomes, consistent with destabilization of the *ram* state with respect to the restrictive state.

All the mutations in S12 map to protein loops that connect and hold in place the 908-915 and 524-527 regions, with the exception of one mutant K56 (E.coli K53) which contacts H44. Thus S12 stabilizes the same region that is stabilized by streptomycin. In the resistance mutations, the *ram* state is destabilized sufficiently so that the additional stabilization induced by streptomycin does not trap the ribosome in this state. In the streptomycin dependent mutants, the *ram* state is so destabilized that the restrictive (hyperaccurate) form predominates. Streptomycin can then help stabilize the *ram* state sufficiently to restore the balance between the two states and help restore translation.

This hypothesis is supported by analysis of the K45R (E.coli K42) mutant, which is the only known mutant that is resistant to streptomycin but not hyperaccurate (Ref 22). K45 forms a salt bridge with phosphate A913 and thus contributes to stabilization of the *ram* state. It also makes direct hydrogen bonding contacts to two OH groups on streptomycin. Mutation of this lysine to arginine would disrupt the hydrogen bonding and thereby reduce the affinity of the 30S for streptomycin, leading to resistance. However, the mutation would leave the salt bridge intact, so that the *ram* form is not destabilized and thus translation remains normal.

A number of mutations in rRNA also lead to hyperaccuracy (Refs 32,33,35-38). Some of these nucleotides are involved in hydrogen bonding interactions in regions close to the streptomycin binding site. Thus the mutations disrupt interactions that help to stabilize the *ram* state. Others such as A915 make no contacts with any other bases. It is possible that mutation of this base leads to more favourable contacts in



the restrictive state, thus acting by stabilizing the restrictive state rather than destabilizing the *ram* state.

As discussed above, we suggest that *ram* mutations in S4 and S5 preferentially destabilize the restrictive state, thus shifting the balance towards the *ram* state. The observation that *ram* mutations increase the affinity of ribosomes for streptomycin (Ref 39) is consistent with this model. Our results provide a structural basis for the notion that a delicate balance exists between the *ram* and restrictive states for optimal translation, and also explains how disruption of this balance leads to the various phenotypes observed. A definitive test of this model must await an atomic resolution structure of the restrictive form.

#### **Paromomycin**

Paromomycin is a member of the aminoglycoside family of antibiotics, and increases the error rate of the ribosome. This family is thought to reduce the dissociation rate of A-site tRNA from the ribosome (Ref 28), but recent experiments also suggest that it increases the initial binding affinity of tRNA (Ref 7).

Paromomycin binds in the major groove of H44 (Fig. 9) in a location that is in agreement with mutagenesis and protection data (Refs 24,40). Ring IV contacts the backbone of both sides of H44, while ring III makes only weak contacts with the RNA. Ring II forms tight interactions with both bases and backbone of the RNA, while ring I inserts into the RNA helix and helps to completely flip out bases A1492 and A1493, which are not well ordered in the structure of the antibiotic-free 30S. Ring I mimics a nucleotide base, stacking against G1491 and hydrogen-bonding with A1408. In addition it forms a tight H-bond interaction with the phosphate backbone of A1493 which helps lock the flipped out bases in place. The structural basis for resistance mutations has been described previously with the NMR structure of a complex of paromomycin with an RNA fragment corresponding to its binding site (Ref 41), which is generally similar to our structure. The main differences are that ring IV is dynamically disordered in the NMR structure, and A1492 and A1493 are flipped out to a far greater extent in our structure.



Consequently we do not see the base pair between A1408 and A1493 that was observed in the NMR structure.

Rings I and II of paromomycin are found in a number of other antibiotics including gentamycin. An NMR structure of  
5 gentamycin bound to the same fragment of H44 showed that these two rings interact with RNA in the same way as in paromomycin (Ref 41). This suggests that other aminoglycosides that bind to the decoding centre on H44 induce errors in translation by the same mechanism as paromomycin.

10 With respect to the model of the A-site codon and tRNA ASL described above, the flipped out bases point directly into the A site and are positioned to interact with the minor groove of the codon-anticodon helix. In this modeling, there are rather  
15 strict steric constraints on the A-site anticodon and especially the codon, which is also covalently attached to both the P-site codon and downstream message. Thus, despite the uncertainties associated with modelling, it appears unlikely that the A1492-A1493 could interact with any portion of the codon-anticodon  
20 helix other than its minor groove. This model provides clues as to how paromomycin increases the affinity of the A site for tRNA. It seems likely that in the absence of paromomycin some energy is required to flip out A1492-A1493 so they can contact the tRNA, and presumably this energetic cost is compensated by  
25 the formation of favorable interactions with tRNA. By binding to H44, paromomycin forms a structure in which these bases are already flipped out, thus reducing the energetic cost of both cognate and non-cognate tRNA binding and increasing tRNA  
affinity for the A site.

#### **Implications for decoding in normal translation**

30 The universally conserved residues A1492 and A1493 are required for viability in *E. coli* (Ref 42, and are footprinted by the A-site codon and tRNA (Ref 17). Experimental evidence for hydrogen bonding between the N1 atoms of A1492 and A1493 and 2'  
OH groups on the message (Ref 42) as well as modelling efforts  
35 (Refs 42,43) have implicated these bases in the decoding process, but it has not been clear how hydrogen bonding to mRNA alone could discriminate sufficiently between cognate and non-



cognate tRNAs. Moreover, in the structure of the 70S with tRNA and mRNA (Ref 14), these bases were considered too distant from the codon-anticodon helix to play a direct role in decoding. A flipped-out conformation for 1492-1493 suggests a decoding model that can reconcile these conflicting views.

The crux of decoding is the discrimination of near-cognate from cognate tRNAs. In the 30S structure, with the A-site codon and anticodon modelled as described above, the flipped-out A1492 and A1493 lie in the minor groove of the codon-anticodon helix, and form a portion of the decoding surface. We propose that the 1492 and 1493 adenine bases hydrogen-bond simultaneously to 2' OH groups on both sides of the codon-anticodon helix, in a structural motif that is not uncommon elsewhere in the 30S structure. Two adenines can monitor a large portion of the minor groove of three consecutive base pairs. Since the distance between the 2' OH groups across the groove is a function of the base pairing geometry, the formation of simultaneous hydrogen-bonds to both strands of the codon-anticodon helix should be sensitive to distortions arising from mispairing. We propose that the remainder of the decoding surface is composed of conserved RNA residues from the 530 pseudoknot and/or H34, which are nearby, which may monitor the shape of the correct anticodon-codon helix and contribute additional bonds. Significantly, the adenine-rich motifs that recognize minor grooves elsewhere in the 30S structure often recruit other RNA residues to complete an interaction surface.

There are at least two possible ways that adenines can hydrogen-bond simultaneously to 2' OH groups on both strands of a regular helix. The docking may involve hydrogen bonding of either adenine N1, N6, and N3, or of adenine N1, N6, and N7. The former mode would result in a steric clash if the adenine were mutated to a G, while the latter would not. The distinction is important because experiments supporting a model in which A1492 and A1493 hydrogen-bond to the 2' OH of the codon made use of adenine to guanine mutants, which seem to rule out the N1-N6-N3 mode (Ref 42). Another argument favoring the N1-N6-N7 mode is that it allows formation of a sequence-independent hydrogen bond between the adenine N6 atom and the O2 or N3 hydrogen-bond acceptor in



the codon-anticodon helix (Ref 43). However, the relative orientations of our flipped-out A1492-A1493 residues and the A-site codon-anticodon duplex appears to be more consistent with the N1-N6-N3 mode. The third or wobble position of the codon-anticodon helix could be monitored less stringently by the A1492-A1493 in this scheme, thus allowing for the greater freedom for base-pairing at the wobble position. A conclusive test of the decoding model will require the determination of the structure of cognate tRNA and mRNA ligands bound to the A-site in the restrictive form of the ribosome.

### Conclusions

In the present invention, we have analysed the functional implications of the 30S structure reported in Example 1. This has allowed us to identify molecular details of the interactions made by A-, P- and E-site codons and tRNA with the 30S. We have also determined the structure of the 30S in complex with three antibiotics that target different regions of the 30S ribosomal subunit and work in different ways. The detailed knowledge of their binding sites from the structure of their complex with the 30S subunit should help to serve as the basis for the design of novel drugs that target bacterial protein synthesis. It is striking that all three antibiotics bind at the functional center (with streptomycin and paromomycin being particularly close to each other). Another common theme is that all three antibiotics work by altering a delicate balance between conformational states of the 30S as it goes through the process of translation. Each of them sheds light on a different but fundamental process during translation: Spectinomycin on translocation, streptomycin on the switch between the ram and restrictive states, and paromomycin on decoding. Finally, the structure suggests a direct role for A1492 and A1493 in the decoding process.

### Methods

Purification of ribosomal subunits, followed by crystallization, cryoprotection and flashcooling were carried out exactly as described in the Exmple 1, except that crystallization was carried out in the presence of a 10-fold molar excess of each of a mixture of streptomycin, paromomycin and spectinomycin. Also,



no cobalt hexammine was included in the cryoprotectant, and antibiotics were present throughout the transfers into cryoprotectant solutions.

5 Data were collected on beamline ID14-4 at the ESRF in Grenoble,  
and integrated and scaled using HKL-2000<sup>44</sup>. The refined 3 Å  
structure of the 30S with the cobalt ions removed was used as a  
starting model for refinement using CNS (Ref 45). Rigid body  
refinement was followed by positional refinement using energy  
10 minimization and finally by grouped B-factor refinement. For  
cross-validation, 5% of the reflections were left out of the  
refinement, and care was taken to ensure that these corresponded  
to the same 5% that were omitted for the refinement of the  
original 30S model.

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TABLE 1A

COMPND	MOL_ID: 1;	COMPND	49 MOL_ID: 17;
COMPND	2 MOLECULE: 16S RIBOSOMAL RNA;	COMPND	50 MOLECULE: 30S RIBOSOMAL PROTEIN S16;
COMPND	3 CHAIN: A;	COMPND	51 CHAIN: P;
COMPND	4 MOL_ID: 2;	COMPND	52 MOL_ID: 18;
COMPND	5 MOLECULE: FRAGMENT OF MESSENGER RNA;	COMPND	53 MOLECULE: 30S RIBOSOMAL PROTEIN S17;
COMPND	6 CHAIN: X;	COMPND	54 CHAIN: Q;
COMPND	7 MOL_ID: 3;	COMPND	55 MOL_ID: 19;
COMPND	8 MOLECULE: 30S RIBOSOMAL PROTEIN S2;	COMPND	56 MOLECULE: 30S RIBOSOMAL PROTEIN S18;
COMPND	9 CHAIN: B;	COMPND	57 CHAIN: R;
COMPND	10 MOL_ID: 4;	COMPND	58 MOL_ID: 20;
COMPND	11 MOLECULE: 30S RIBOSOMAL PROTEIN S3;	COMPND	59 MOLECULE: 30S RIBOSOMAL PROTEIN S19;
COMPND	12 CHAIN: C;	COMPND	60 CHAIN: S;
COMPND	13 MOL_ID: 5;	COMPND	61 MOL_ID: 21;
COMPND	14 MOLECULE: 30S RIBOSOMAL PROTEIN S4;	COMPND	62 MOLECULE: 30S RIBOSOMAL PROTEIN S20;
COMPND	15 CHAIN: D;	COMPND	63 CHAIN: T;
COMPND	16 MOL_ID: 6;	COMPND	64 MOL_ID: 22;
COMPND	17 MOLECULE: 30S RIBOSOMAL PROTEIN S5;	COMPND	65 MOLECULE: 30S RIBOSOMAL PROTEIN THX;
COMPND	18 CHAIN: E;	COMPND	66 CHAIN: V
COMPND	19 MOL_ID: 7;		
COMPND	20 MOLECULE: 30S RIBOSOMAL PROTEIN S6;		
COMPND	21 CHAIN: F;		
COMPND	22 MOL_ID: 8;		
COMPND	23 MOLECULE: 30S RIBOSOMAL PROTEIN S7;		
COMPND	24 CHAIN: G;		
COMPND	25 MOL_ID: 9;		
COMPND	26 MOLECULE: 30S RIBOSOMAL PROTEIN S8;		
COMPND	27 CHAIN: H;		
COMPND	28 MOL_ID: 10;		
COMPND	29 MOLECULE: 30S RIBOSOMAL PROTEIN S9;		
COMPND	30 CHAIN: I;		
COMPND	31 MOL_ID: 11;		
COMPND	32 MOLECULE: 30S RIBOSOMAL PROTEIN S10;		
COMPND	33 CHAIN: J;		
COMPND	34 MOL_ID: 12;		
COMPND	35 MOLECULE: 30S RIBOSOMAL PROTEIN S11;		
COMPND	36 CHAIN: K;		
COMPND	37 MOL_ID: 13;		
COMPND	38 MOLECULE: 30S RIBOSOMAL PROTEIN S12;		
COMPND	39 CHAIN: L;		
COMPND	40 MOL_ID: 14;		
COMPND	41 MOLECULE: 30S RIBOSOMAL PROTEIN S13;		
COMPND	42 CHAIN: M;		
COMPND	43 MOL_ID: 15;		
COMPND	44 MOLECULE: 30S RIBOSOMAL PROTEIN S14;		
COMPND	45 CHAIN: N;		
COMPND	46 MOL_ID: 16;		
COMPND	47 MOLECULE: 30S RIBOSOMAL PROTEIN S15;		
COMPND	48 CHAIN: O;		
REMARK 105 THE PROTEIN DATA BANK HAS ADOPTED THE SACCHARIDE CHEMISTS			
REMARK 105 NOMENCLATURE FOR ATOMS OF THE DEOXYRIBOSE/RIBOSE MOIETY			
REMARK 105 RATHER THAN THAT OF THE NUCLEOSIDE CHEMISTS. THE RING			
REMARK 105 OXYGEN ATOM IS LABELLED O4* INSTEAD OF O1*.			
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY			
REMARK 290	SYMMETRY OPERATORS FOR SPACE GROUP: P 41 21 2		
REMARK 290			
REMARK 290	SYNOPSIS	SYMMETRY	
REMARK 290	NNNNMM	OPERATOR	
REMARK 290	1555	X,Y,Z	
REMARK 290	2555	-X,-Y,1/2+Z	
REMARK 290	3555	1/2-Y,1/2+X,1/4+Z	
REMARK 290	4555	1/2+Y,1/2-X,3/4+Z	
REMARK 290	5555	1/2-X,1/2+Y,1/4-Z	
REMARK 290	6555	1/2+X,1/2-Y,3/4-Z	
REMARK 290	7555	Y,X,-Z	
REMARK 290	8555	-Y,-X,1/2-Z	
REMARK 290		WHERE NNN -> OPERATOR NUMBER	
REMARK 290		MMM -> TRANSLATION VECTOR	
CRYST1	401.375 401.375 175.887 90.00 90.00 90.00 P 41 21 2		8
ORIGX1	1.000000 0.000000 0.000000		0.000000
ORIGX2	0.000000 1.000000 0.000000		0.000000
ORIGX3	0.000000 0.000000 1.000000		0.000000
SCALE1	0.002491 0.000000 0.000000		0.000000



SCALE2 SCALE3	0.000000				0.002491				0.000000				0.000000				ATOM	48	C3*	G A	7	1.00 47.85
	0.000000		0.000000		0.000000		0.005685		0.000000		0.000000		0.000000									
ATOM	1	O5*	U A	5	133.566	110.504	1.562	1.00	52.26	O	51	O2*	G A	7	146.409	109.495	2.109	1.00 47.85				
ATOM	2	C5*	U A	5	133.754	109.501	2.591	1.00	52.26	C	49	O3*	G A	7	147.574	109.417	2.939	1.00 47.85				
ATOM	3	C4*	U A	5	134.924	109.769	3.516	1.00	52.26	C	50	C2*	G A	7	146.387	110.451	0.917	1.00 47.85				
ATOM	4	O4*	U A	5	134.871	111.150	3.944	1.00	52.26	O	52	C1*	G A	7	147.627	111.044	0.639	1.00 47.85				
ATOM	5	C3*	U A	5	134.992	108.949	4.810	1.00	52.26	C	53	N9	G A	7	145.963	109.546	-0.234	1.00 47.85				
ATOM	6	O3*	U A	5	135.593	107.642	4.536	1.00	52.26	O	54	C8	G A	7	145.042	110.192	-1.155	1.00 50.02				
ATOM	7	C2*	U A	5	135.721	109.877	5.799	1.00	52.26	C	55	N7	G A	7	143.770	110.632	-0.893	1.00 50.02				
ATOM	8	O2*	U A	5	137.119	109.752	5.818	1.00	52.26	O	56	C5	G A	7	143.182	111.144	-1.936	1.00 50.02				
ATOM	9	C1*	U A	5	135.473	111.268	5.213	1.00	52.26	C	57	C6	G A	7	144.130	111.045	-2.944	1.00 50.02				
ATOM	10	N1	U A	5	134.789	112.239	6.012	1.00	79.96	N	58	O6	G A	7	143.144	112.010	-4.903	1.00 50.02				
ATOM	11	C2	U A	5	135.083	112.396	7.367	1.00	79.96	C	59	N1	G A	7	145.255	111.139	-4.970	1.00 50.02				
ATOM	12	O2	U A	5	135.811	111.610	7.952	1.00	79.96	O	60	C2	G A	7	146.350	110.540	-4.405	1.00 50.02				
ATOM	13	N3	U A	5	134.485	113.452	8.012	1.00	79.96	N	61	N2	G A	7	147.388	110.309	-5.217	1.00 50.02				
ATOM	14	O4	U A	5	133.629	114.391	7.462	1.00	79.96	O	62	N3	G A	7	146.422	110.187	-3.139	1.00 50.02				
ATOM	15	O4	U A	5	133.248	115.344	8.145	1.00	79.96	O	63	C4	G A	7	145.283	110.461	-2.474	1.00 50.02				
ATOM	16	C5	U A	5	133.340	114.191	6.079	1.00	79.96	C	64	P	A A	8	148.942	108.778	2.388	1.00 40.25				
ATOM	17	C6	U A	5	133.910	113.179	5.420	1.00	79.96	C	65	O1P	A A	8	148.899	108.736	0.901	1.00 46.78				
ATOM	18	P	G A	6	136.820	107.045	5.438	1.00	49.51	P	66	O2P	A A	8	149.139	107.517	3.145	1.00 46.78				
ATOM	19	O1P	G A	6	136.784	105.589	5.157	1.00	58.37	O	67	O5*	A A	8	150.050	109.803	2.889	1.00 40.25				
ATOM	20	O2P	G A	6	136.836	107.502	6.856	1.00	58.37	O	68	C5*	A A	8	150.261	111.040	2.212	1.00 40.25				
ATOM	21	O5*	G A	6	138.135	107.597	4.728	1.00	49.51	O	69	C4*	A A	8	151.673	111.502	2.437	1.00 40.25				
ATOM	22	C5*	G A	6	138.548	107.029	3.478	1.00	49.51	C	70	O4*	A A	8	151.798	111.990	3.792	1.00 40.25				
ATOM	23	C4*	G A	6	139.463	107.959	2.721	1.00	49.51	C	71	C3*	A A	8	152.727	110.416	2.261	1.00 40.25				
ATOM	24	O4*	G A	6	138.737	109.063	2.133	1.00	49.51	C	72	O3*	A A	8	153.915	110.986	1.717	1.00 40.25				
ATOM	25	C3*	G A	6	140.616	108.617	3.456	1.00	49.51	C	73	O2*	A A	8	152.990	109.974	3.692	1.00 40.25				
ATOM	26	O3*	G A	6	141.684	107.689	3.589	1.00	49.51	O	74	C2*	A A	8	154.291	109.462	3.892	1.00 40.25				
ATOM	27	C2*	G A	6	141.000	109.739	2.495	1.00	49.51	O	75	C1*	A A	8	152.807	111.282	4.457	1.00 40.25				
ATOM	28	O2*	G A	6	141.852	109.228	1.494	1.00	49.51	C	76	N9	A A	8	152.389	111.093	5.838	1.00 46.78				
ATOM	29	C1*	G A	6	139.658	110.090	1.836	1.00	49.51	C	77	C8	A A	8	151.123	110.932	6.331	1.00 46.78				
ATOM	30	N9	G A	6	139.063	111.395	2.126	1.00	58.37	N	78	N7	A A	8	151.080	110.792	7.631	1.00 46.78				
ATOM	31	C8	G A	6	138.518	112.239	1.195	1.00	58.37	C	79	C5	A A	8	152.410	110.861	8.014	1.00 46.78				
ATOM	32	N7	G A	6	138.069	113.351	1.707	1.00	58.37	N	80	C6	A A	8	153.035	110.772	9.260	1.00 46.78				
ATOM	33	C5	G A	6	138.326	113.235	3.064	1.00	58.37	C	81	N6	A A	8	152.369	110.597	10.401	1.00 46.78				
ATOM	34	C6	G A	6	138.067	114.140	4.123	1.00	58.37	C	82	N1	A A	8	154.380	110.871	9.300	1.00 46.78				
ATOM	35	O6	G A	6	137.529	115.255	4.073	1.00	58.37	O	83	C2	A A	8	155.034	111.051	8.157	1.00 46.78				
ATOM	36	N1	G A	6	138.503	113.637	5.341	1.00	58.37	N	84	N3	A A	8	154.559	111.152	6.923	1.00 46.78				
ATOM	37	C2	G A	6	139.109	112.425	5.516	1.00	58.37	C	85	C4	A A	8	153.223	111.046	6.922	1.00 46.78				
ATOM	38	N2	G A	6	139.462	112.130	6.766	1.00	58.37	N	86	P	G A	9	154.163	110.960	0.129	1.00 35.74				
ATOM	39	N3	G A	6	139.354	111.568	4.538	1.00	58.37	N	87	O1P	G A	9	153.617	112.241	-0.424	1.00 38.06				
ATOM	40	C4	G A	6	138.939	112.035	3.345	1.00	58.37	C	88	O2P	G A	9	153.678	109.660	-0.397	1.00 38.06				
ATOM	41	P	G A	7	143.078	108.145	4.245	1.00	47.85	P	89	O5*	G A	9	155.747	110.945	-0.009	1.00 35.74				
ATOM	42	O1P	G A	7	143.640	106.990	4.994	1.00	50.02	O	90	C5*	G A	9	156.551	111.805	0.785	1.00 35.74				
ATOM	43	O2P	G A	7	142.899	109.442	4.939	1.00	50.02	O	91	C4*	G A	9	157.207	111.035	1.903	1.00 35.74				
ATOM	44	O5*	G A	7	143.992	108.437	2.979	1.00	47.85	O	92	O4*	G A	9	156.506	109.795	2.169	1.00 35.74				
ATOM	45	C5*	G A	7	144.956	107.478	2.515	1.00	47.85	C	93	C3*	G A	9	158.632	110.588	1.679	1.00 35.74				
ATOM	46	C4*	G A	7	145.931	108.153	1.591	1.00	47.85	C	94	O3*	G A	9	159.519	111.660	1.900	1.00 35.74				
ATOM	47	O4*	G A	7	145.298	108.455	0.340	1.00	47.85	O	95	C2*	G A	9	158.787	109.488	2.719	1.00 35.74				
ATOM											96	O2*	G A	9	158.945	109.982	4.026	1.00 35.74				
ATOM											97	C1*	G A	9	157.417	108.830	2.672	1.00 35.74				



Table 1: Sheet 3/521

ATOM	98	N9	G A	9	157.456	107.689	1.769	1.00	38.06	N	ATOM	148	O6	G A	11	164.932	104.450	-2.674	1.00	33.90	O
ATOM	99	C8	G A	9	156.784	107.537	0.583	1.00	38.06	C	ATOM	149	N1	G A	11	166.182	102.856	-1.625	1.00	33.90	N
ATOM	100	N7	G A	9	157.085	106.429	-0.033	1.00	38.06	N	ATOM	150	C2	G A	11	166.992	102.396	-0.615	1.00	33.90	C
ATOM	101	C5	G A	9	157.996	105.806	0.808	1.00	38.06	C	ATOM	151	N2	G A	11	167.403	101.131	-0.721	1.00	33.90	N
ATOM	102	C6	G A	9	158.665	104.574	0.670	1.00	38.06	C	ATOM	152	N3	G A	11	167.367	103.122	0.419	1.00	33.90	N
ATOM	103	O6	G A	9	158.595	103.769	-0.261	1.00	38.06	O	ATOM	153	C4	G A	11	166.854	104.369	0.374	1.00	33.90	C
ATOM	104	N1	G A	9	159.487	104.310	1.760	1.00	38.06	N	ATOM	154	P	U A	12	171.426	108.468	1.601	1.00	41.73	P
ATOM	105	C2	G A	9	159.641	105.133	2.842	1.00	38.06	C	ATOM	155	O1P	U A	12	172.696	108.984	2.144	1.00	40.69	O
ATOM	106	N2	G A	9	160.475	104.705	3.797	1.00	38.06	N	ATOM	156	O2P	U A	12	170.493	109.400	0.910	1.00	40.69	O
ATOM	107	N3	G A	9	159.020	106.292	2.979	1.00	38.06	N	ATOM	157	O5*	U A	12	171.823	107.323	0.579	1.00	41.73	O
ATOM	108	C4	G A	9	158.220	106.561	1.930	1.00	38.06	C	ATOM	158	C5*	U A	12	172.742	106.293	0.959	1.00	41.73	C
ATOM	109	P	A A	10	160.905	111.711	1.105	1.00	38.12	P	ATOM	159	O4*	U A	12	172.792	105.227	-0.101	1.00	41.73	C
ATOM	110	O1P	A A	10	161.460	113.089	1.241	1.00	41.31	O	ATOM	160	O4*	U A	12	171.515	104.544	-0.178	1.00	41.73	O
ATOM	111	O2P	A A	10	160.658	111.152	-0.261	1.00	41.31	O	ATOM	161	C3*	U A	12	173.033	105.710	-1.516	1.00	41.73	C
ATOM	112	O5*	A A	10	161.808	110.710	1.945	1.00	38.12	O	ATOM	162	O3*	U A	12	174.409	105.950	-1.765	1.00	41.73	O
ATOM	113	C5*	A A	10	162.065	110.964	3.324	1.00	38.12	C	ATOM	163	C2*	U A	12	172.480	104.556	-2.337	1.00	41.73	C
ATOM	114	C4*	A A	10	162.805	109.805	3.942	1.00	38.12	C	ATOM	164	O2*	U A	12	173.389	103.471	-2.368	1.00	41.73	O
ATOM	115	O4*	A A	10	161.979	108.616	3.875	1.00	38.12	O	ATOM	165	C1*	U A	12	171.264	104.145	-1.510	1.00	41.73	C
ATOM	116	C3*	A A	10	164.099	109.393	3.267	1.00	38.12	C	ATOM	166	N1	U A	12	170.041	104.810	-1.979	1.00	40.69	N
ATOM	117	O3*	A A	10	165.206	110.170	3.663	1.00	38.12	O	ATOM	167	C2	U A	12	169.223	104.129	-2.870	1.00	40.69	C
ATOM	118	C2*	A A	10	164.237	107.948	3.700	1.00	38.12	C	ATOM	168	O2	U A	12	169.400	102.963	-3.193	1.00	40.69	O
ATOM	119	O2*	A A	10	164.692	107.868	5.039	1.00	38.12	O	ATOM	169	N3	U A	12	168.173	104.861	-3.360	1.00	40.69	N
ATOM	120	C1*	A A	10	162.787	107.482	3.621	1.00	38.12	C	ATOM	170	C4	U A	12	167.840	106.157	-3.042	1.00	40.69	C
ATOM	121	N9	A A	10	162.438	106.986	2.288	1.00	41.31	N	ATOM	171	O4	U A	12	166.946	106.726	-3.679	1.00	40.69	O
ATOM	122	C8	A A	10	161.744	107.656	1.314	1.00	41.31	C	ATOM	172	C5	U A	12	168.686	106.759	-2.064	1.00	40.69	C
ATOM	123	N7	A A	10	161.549	106.958	0.225	1.00	41.31	N	ATOM	173	C6	U A	12	169.731	106.084	-1.581	1.00	40.69	C
ATOM	124	C5	A A	10	162.168	105.750	0.491	1.00	41.31	C	ATOM	174	P	U A	13	174.843	107.256	-2.593	1.00	45.67	P
ATOM	125	C6	A A	10	162.307	104.586	-0.264	1.00	41.31	C	ATOM	175	O1P	U A	13	175.947	107.928	-1.864	1.00	42.15	O
ATOM	126	N6	A A	10	161.834	104.449	-1.502	1.00	41.31	N	ATOM	176	O2P	U A	13	173.608	108.017	-2.908	1.00	42.15	O
ATOM	127	N1	A A	10	162.960	103.549	0.298	1.00	41.31	N	ATOM	177	O5*	U A	13	175.423	106.673	-3.956	1.00	45.67	O
ATOM	128	C2	A A	10	163.447	103.692	1.534	1.00	41.31	C	ATOM	178	C5*	U A	13	174.545	106.187	-4.985	1.00	45.67	C
ATOM	129	N3	A A	10	163.388	104.743	2.344	1.00	41.31	N	ATOM	179	C4*	U A	13	175.348	105.717	-6.166	1.00	45.67	C
ATOM	130	C4	A A	10	162.723	105.752	1.757	1.00	41.31	C	ATOM	180	O4*	U A	13	174.455	105.197	-7.186	1.00	45.67	O
ATOM	131	P	G A	11	166.430	110.361	2.643	1.00	40.23	P	ATOM	181	C3*	U A	13	176.192	106.796	-6.834	1.00	45.67	C
ATOM	132	O1P	G A	11	167.346	111.362	3.264	1.00	33.90	O	ATOM	182	O3*	U A	13	177.415	106.219	-7.282	1.00	45.67	O
ATOM	133	O2P	G A	11	165.903	110.593	1.267	1.00	33.90	O	ATOM	183	C2*	U A	13	175.357	107.191	-8.044	1.00	45.67	C
ATOM	134	O5*	G A	11	167.152	108.949	2.688	1.00	40.23	O	ATOM	184	O2*	U A	13	176.153	107.662	-9.108	1.00	45.67	O
ATOM	135	C5*	G A	11	167.744	108.498	3.910	1.00	40.23	C	ATOM	185	C1*	U A	13	174.699	105.860	-8.407	1.00	45.67	C
ATOM	136	C4*	G A	11	168.438	107.188	3.698	1.00	40.23	C	ATOM	186	N1	U A	13	173.439	105.949	-9.160	1.00	42.15	N
ATOM	137	O4*	G A	11	167.437	106.176	3.438	1.00	40.23	O	ATOM	187	C2	U A	13	173.094	104.878	-9.951	1.00	42.15	C
ATOM	138	C3*	G A	11	169.365	107.130	2.498	1.00	40.23	C	ATOM	188	O2	U A	13	173.771	103.877	-10.041	1.00	42.15	O
ATOM	139	O3*	G A	11	170.652	107.664	2.764	1.00	40.23	O	ATOM	189	N3	U A	13	171.921	105.015	-10.639	1.00	42.15	N
ATOM	140	C2*	G A	11	169.375	105.645	2.178	1.00	40.23	C	ATOM	190	C4	U A	13	171.073	106.094	-10.618	1.00	42.15	C
ATOM	141	O2*	G A	11	170.231	104.932	3.049	1.00	40.23	O	ATOM	191	O4	U A	13	170.054	106.088	-11.320	1.00	42.15	O
ATOM	142	C1*	G A	11	167.924	105.261	2.475	1.00	40.23	C	ATOM	192	C5	U A	13	171.499	107.157	-9.773	1.00	42.15	C
ATOM	143	N9	G A	11	167.074	105.358	1.292	1.00	33.90	N	ATOM	193	C6	U A	13	172.637	107.049	-9.091	1.00	42.15	C
ATOM	144	C8	G A	11	166.358	106.451	0.865	1.00	33.90	C	ATOM	194	P	U A	14	178.803	106.673	-6.621	1.00	33.54	P
ATOM	145	N7	G A	11	165.717	106.241	-0.253	1.00	33.90	N	ATOM	195	O1P	U A	14	179.879	105.932	-7.322	1.00	47.06	O
ATOM	146	C5	G A	11	166.029	104.930	-0.581	1.00	33.90	C	ATOM	196	O2P	U A	14	178.661	106.533	-5.135	1.00	47.06	O
ATOM	147	C6	G A	11	165.642	104.136	-1.702	1.00	33.90	C	ATOM	197	O5*	U A	14	178.944	108.206	-7.031	1.00	33.54	O



Table 1: Sheet 4/521

ATOM	198	C5*	U A 14	179.359	108.553	-8.341	1.00	33.54	C	ATOM	248	C1*	A A 16	178.909	118.075	-5.608	1.00	37.44	C
ATOM	199	C4*	U A 14	179.541	110.038	-8.462	1.00	33.54	C	ATOM	249	N9	A A 16	179.084	117.269	-6.821	1.00	42.03	N
ATOM	200	O4*	U A 14	178.258	110.694	-8.372	1.00	33.54	O	ATOM	250	C8	A A 16	179.598	116.002	-6.953	1.00	42.03	C
ATOM	201	C3*	U A 14	180.402	110.711	-7.409	1.00	33.54	C	ATOM	251	N7	A A 16	179.565	115.546	-8.181	1.00	42.03	N
ATOM	202	O3*	U A 14	181.779	110.644	-7.729	1.00	33.54	O	ATOM	252	C5	A A 16	179.007	116.586	-8.907	1.00	42.03	C
ATOM	203	C2*	U A 14	179.904	112.148	-7.450	1.00	33.54	C	ATOM	253	C6	A A 16	178.707	116.728	-10.266	1.00	42.03	C
ATOM	204	O2*	U A 14	180.487	112.899	-8.496	1.00	33.54	O	ATOM	254	N6	A A 16	178.929	115.777	-11.169	1.00	42.03	N
ATOM	205	C1*	U A 14	178.410	111.950	-7.725	1.00	33.54	C	ATOM	255	N1	A A 16	178.160	117.892	-10.674	1.00	42.03	N
ATOM	206	N1	U A 14	177.628	111.930	-6.476	1.00	47.06	N	ATOM	256	C2	A A 16	177.928	118.840	-9.760	1.00	42.03	C
ATOM	207	C2	U A 14	177.190	113.131	-5.960	1.00	47.06	C	ATOM	257	N3	A A 16	178.165	118.823	-8.452	1.00	42.03	N
ATOM	208	O2	U A 14	177.381	114.198	-6.505	1.00	47.06	O	ATOM	258	C4	A A 16	178.714	117.654	-8.087	1.00	42.03	C
ATOM	209	N3	U A 14	176.514	113.033	-4.774	1.00	47.06	N	ATOM	259	P	U A 17	174.751	116.702	-3.660	1.00	47.23	P
ATOM	210	C4	U A 14	176.229	111.878	-4.072	1.00	47.06	C	ATOM	260	O1P	U A 17	173.832	117.241	-2.632	1.00	38.70	O
ATOM	211	O4	U A 14	175.640	111.948	-2.989	1.00	47.06	O	ATOM	261	O2P	U A 17	174.890	115.227	-3.806	1.00	38.70	O
ATOM	212	C5	U A 14	176.695	110.685	-4.684	1.00	47.06	C	ATOM	262	O5*	U A 17	174.356	117.326	-5.075	1.00	47.23	O
ATOM	213	C6	U A 14	177.359	110.748	-5.832	1.00	47.06	C	ATOM	263	C5*	U A 17	174.237	118.739	-5.214	1.00	47.23	C
ATOM	214	P	G A 15	182.851	110.475	-6.553	1.00	40.46	P	ATOM	264	C4*	U A 17	173.694	119.106	-6.565	1.00	47.23	C
ATOM	215	O1P	G A 15	184.177	110.188	-7.158	1.00	40.26	O	ATOM	265	O4*	U A 17	174.705	118.962	-7.587	1.00	47.23	O
ATOM	216	O2P	G A 15	182.274	109.519	-5.564	1.00	40.26	O	ATOM	266	C3*	U A 17	172.506	118.331	-7.096	1.00	47.23	O
ATOM	217	O5*	G A 15	182.929	111.927	-5.904	1.00	40.46	O	ATOM	267	O3*	U A 17	171.288	118.786	-6.542	1.00	47.23	O
ATOM	218	C5*	G A 15	183.572	112.118	-4.634	1.00	40.46	C	ATOM	268	C2*	U A 17	172.576	118.639	-8.586	1.00	47.23	C
ATOM	219	C4*	G A 15	183.574	113.573	-4.273	1.00	40.46	C	ATOM	269	O2*	U A 17	172.078	119.923	-8.890	1.00	47.23	O
ATOM	220	O4*	G A 15	184.382	114.300	-5.229	1.00	40.46	O	ATOM	270	C1*	U A 17	174.082	118.665	-8.829	1.00	47.23	C
ATOM	221	C3*	G A 15	182.213	114.230	-4.333	1.00	40.46	C	ATOM	271	N1	U A 17	174.574	117.366	-9.321	1.00	38.70	N
ATOM	222	O3*	G A 15	181.516	114.028	-3.113	1.00	40.46	O	ATOM	272	C2	U A 17	174.410	117.073	-10.667	1.00	38.70	C
ATOM	223	C2*	G A 15	182.561	115.687	-4.616	1.00	40.46	C	ATOM	273	O2	U A 17	173.875	117.832	-11.455	1.00	38.70	O
ATOM	224	O2*	G A 15	182.983	116.367	-3.455	1.00	40.46	O	ATOM	274	N3	U A 17	174.893	115.852	-11.050	1.00	38.70	N
ATOM	225	C1*	G A 15	183.774	115.540	-5.534	1.00	40.46	C	ATOM	275	C4	U A 17	175.498	114.916	-10.249	1.00	38.70	C
ATOM	226	N9	G A 15	183.431	115.508	-6.949	1.00	40.26	N	ATOM	276	O4	U A 17	175.849	113.847	-10.729	1.00	38.70	O
ATOM	227	C8	G A 15	183.553	114.425	-7.788	1.00	40.26	C	ATOM	277	C5	U A 17	175.629	115.289	-8.884	1.00	38.70	C
ATOM	228	N7	G A 15	183.180	114.678	-9.011	1.00	40.26	N	ATOM	278	C6	U A 17	175.176	116.468	-8.475	1.00	38.70	C
ATOM	229	C5	G A 15	182.781	116.004	-8.979	1.00	40.26	C	ATOM	279	P	C A 18	170.122	117.732	-6.231	1.00	37.16	P
ATOM	230	C6	G A 15	182.270	116.810	-10.003	1.00	40.26	C	ATOM	280	O1P	C A 18	169.285	118.345	-5.187	1.00	37.14	O
ATOM	231	O6	G A 15	182.045	116.496	-11.187	1.00	40.26	O	ATOM	281	O2P	C A 18	170.708	116.393	-5.997	1.00	37.14	O
ATOM	232	N1	G A 15	181.996	118.095	-9.549	1.00	40.26	N	ATOM	282	O5*	C A 18	169.287	117.671	-7.576	1.00	37.16	O
ATOM	233	C2	G A 15	182.177	118.531	-8.259	1.00	40.26	C	ATOM	283	C5*	C A 18	168.666	118.841	-8.087	1.00	37.16	C
ATOM	234	N2	G A 15	181.847	119.810	-8.013	1.00	40.26	N	ATOM	284	C4*	C A 18	168.361	118.662	-9.546	1.00	37.16	C
ATOM	235	N3	G A 15	182.645	117.775	-7.284	1.00	40.26	N	ATOM	285	O4*	C A 18	169.598	118.609	-10.304	1.00	37.16	O
ATOM	236	C4	G A 15	182.928	116.533	-7.713	1.00	40.26	C	ATOM	286	C3*	C A 18	167.657	117.366	-9.910	1.00	37.16	C
ATOM	237	P	A A 16	179.992	113.512	-3.150	1.00	37.44	P	ATOM	287	O3*	C A 18	166.268	117.408	-9.709	1.00	37.16	O
ATOM	238	O1P	A A 16	179.573	113.203	-1.750	1.00	42.03	O	ATOM	288	C2*	C A 18	168.003	117.219	-11.379	1.00	37.16	C
ATOM	239	O2P	A A 16	179.894	112.448	-4.183	1.00	42.03	O	ATOM	289	O2*	C A 18	167.174	118.024	-12.201	1.00	37.16	O
ATOM	240	O5*	A A 16	179.175	114.794	-3.635	1.00	37.44	O	ATOM	290	C1*	C A 18	169.449	117.716	-11.394	1.00	37.16	C
ATOM	241	C5*	A A 16	178.984	115.893	-2.737	1.00	37.44	C	ATOM	291	N1	C A 18	170.365	116.583	-11.196	1.00	37.14	N
ATOM	242	C4*	A A 16	178.590	117.144	-3.479	1.00	37.44	C	ATOM	292	C2	C A 18	170.734	115.819	-12.305	1.00	37.14	C
ATOM	243	O4*	A A 16	179.557	117.426	-4.522	1.00	37.44	O	ATOM	293	O2	C A 18	170.332	116.166	-13.437	1.00	37.14	O
ATOM	244	C3*	A A 16	177.261	117.116	-4.204	1.00	37.44	C	ATOM	294	N3	C A 18	171.526	114.729	-12.123	1.00	37.14	N
ATOM	245	O3*	A A 16	176.178	117.360	-3.338	1.00	37.44	O	ATOM	295	C4	C A 18	171.958	114.420	-10.902	1.00	37.14	C
ATOM	246	C2*	A A 16	177.429	118.215	-5.244	1.00	37.44	C	ATOM	296	N4	C A 18	172.732	113.346	-10.763	1.00	37.14	N
ATOM	247	O2*	A A 16	177.183	119.506	-4.737	1.00	37.44	O	ATOM	297	C5	C A 18	171.617	115.201	-9.765	1.00	37.14	C



Table 1: Sheet 5/521

ATOM	298	C6	C A	18	170.828	116.260	-9.954	1.00	37.14	C	ATOM	348	C2*	G A	21	165.319	102.667	-12.227	1.00	34.26	C
ATOM	299	P	C A	19	165.510	116.078	-9.259	1.00	40.18	P	ATOM	349	O2*	G A	21	165.967	101.532	-12.767	1.00	34.26	O
ATOM	300	O1P	C A	19	164.128	116.488	-8.941	1.00	33.33	O	ATOM	350	C1*	G A	21	166.159	103.907	-12.540	1.00	34.26	C
ATOM	301	O2P	C A	19	166.344	115.404	-8.235	1.00	33.33	O	ATOM	351	N9	G A	21	166.040	104.912	-11.492	1.00	43.64	N
ATOM	302	O5*	C A	19	165.442	115.218	-10.591	1.00	40.18	O	ATOM	352	C8	G A	21	165.143	105.949	-11.434	1.00	43.64	C
ATOM	303	C5*	C A	19	164.843	115.779	-11.765	1.00	40.18	C	ATOM	353	N7	G A	21	165.273	106.679	-10.359	1.00	43.64	N
ATOM	304	C4*	C A	19	165.116	114.917	-12.975	1.00	40.18	C	ATOM	354	C5	G A	21	166.316	106.083	-9.666	1.00	43.64	C
ATOM	305	O4*	C A	19	166.529	114.937	-13.313	1.00	40.18	O	ATOM	355	C6	G A	21	166.909	106.425	-8.423	1.00	43.64	C
ATOM	306	C3*	C A	19	164.771	113.443	-12.873	1.00	40.18	C	ATOM	356	O6	G A	21	166.609	107.352	-7.646	1.00	43.64	O
ATOM	307	O3*	C A	19	163.400	113.200	-13.110	1.00	40.18	O	ATOM	357	N1	G A	21	167.956	105.561	-8.106	1.00	43.64	N
ATOM	308	C2*	C A	19	165.622	112.851	-13.983	1.00	40.18	C	ATOM	358	C2	G A	21	168.372	104.509	-8.883	1.00	43.64	C
ATOM	309	O2*	C A	19	165.014	113.082	-15.245	1.00	40.18	O	ATOM	359	N2	G A	21	169.410	103.811	-8.421	1.00	43.64	N
ATOM	310	C1*	C A	19	166.896	113.690	-13.871	1.00	40.18	C	ATOM	360	N3	G A	21	167.816	104.173	-10.027	1.00	43.64	N
ATOM	311	N1	C A	19	167.870	113.038	-12.979	1.00	33.33	N	ATOM	361	C4	G A	21	166.805	104.996	-10.358	1.00	43.64	C
ATOM	312	C2	C A	19	168.628	111.983	-13.480	1.00	33.33	C	ATOM	362	P	G A	22	162.220	101.239	-12.149	1.00	43.91	P
ATOM	313	O2	C A	19	168.530	111.696	-14.677	1.00	33.33	O	ATOM	363	O1P	G A	22	161.261	100.326	-12.855	1.00	39.20	O
ATOM	314	N3	C A	19	169.453	111.302	-12.652	1.00	33.33	N	ATOM	364	O2P	G A	22	161.687	102.358	-11.326	1.00	39.20	O
ATOM	315	C4	C A	19	169.541	111.654	-11.373	1.00	33.33	C	ATOM	365	O5*	G A	22	163.134	100.303	-11.245	1.00	43.91	O
ATOM	316	N4	C A	19	170.316	110.920	-10.577	1.00	33.33	N	ATOM	366	C5*	G A	22	163.651	99.099	-11.805	1.00	43.91	C
ATOM	317	C5	C A	19	168.824	112.765	-10.850	1.00	33.33	C	ATOM	367	C4*	G A	22	164.821	98.587	-11.014	1.00	43.91	C
ATOM	318	C6	C A	19	168.010	113.424	-11.680	1.00	33.33	C	ATOM	368	O4*	G A	22	165.861	99.590	-10.923	1.00	43.91	O
ATOM	319	P	U A	20	162.747	111.842	-12.577	1.00	33.47	P	ATOM	369	C3*	G A	22	164.582	98.181	-9.577	1.00	43.91	C
ATOM	320	O1P	U A	20	161.292	111.869	-12.891	1.00	40.37	O	ATOM	370	O3*	G A	22	163.974	96.903	-9.485	1.00	43.91	O
ATOM	321	O2P	U A	20	163.204	111.639	-11.175	1.00	40.37	O	ATOM	371	C2*	G A	22	166.001	98.176	-9.031	1.00	43.91	C
ATOM	322	O5*	U A	20	163.449	110.724	-13.459	1.00	33.47	O	ATOM	372	O2*	G A	22	166.714	97.027	-9.438	1.00	43.91	O
ATOM	323	C4*	U A	20	163.253	110.665	-14.874	1.00	33.47	C	ATOM	373	C1*	G A	22	166.606	99.385	-9.738	1.00	43.91	C
ATOM	324	C4*	U A	20	164.094	109.561	-15.466	1.00	33.47	C	ATOM	374	N9	G A	22	166.488	100.568	-8.893	1.00	39.20	N
ATOM	325	O4*	U A	20	165.495	109.851	-15.245	1.00	33.47	O	ATOM	375	C8	G A	22	165.468	101.482	-8.887	1.00	39.20	C
ATOM	326	C3*	U A	20	163.896	108.183	-14.858	1.00	33.47	C	ATOM	376	N7	G A	22	165.611	102.398	-7.973	1.00	39.20	N
ATOM	327	O3*	U A	20	162.793	107.514	-15.437	1.00	33.47	O	ATOM	377	C5	G A	22	166.805	102.073	-7.346	1.00	39.20	C
ATOM	328	O2*	U A	20	165.216	107.491	-15.162	1.00	33.47	O	ATOM	378	C6	G A	22	167.465	102.696	-6.269	1.00	39.20	C
ATOM	329	O2*	U A	20	165.312	107.035	-16.493	1.00	33.47	O	ATOM	379	O6	G A	22	167.117	103.687	-5.625	1.00	39.20	O
ATOM	330	C1*	U A	20	166.199	108.643	-15.007	1.00	33.47	C	ATOM	380	N1	G A	22	168.647	102.050	-5.954	1.00	39.20	N
ATOM	331	N1	U A	20	166.769	108.685	-13.652	1.00	40.37	N	ATOM	381	C2	G A	22	169.131	100.947	-6.594	1.00	39.20	C
ATOM	332	C2	U A	20	167.654	107.693	-13.304	1.00	40.37	C	ATOM	382	N2	G A	22	170.300	100.487	-6.158	1.00	39.20	N
ATOM	333	O2	U A	20	167.981	106.810	-14.068	1.00	40.37	O	ATOM	383	N3	G A	22	168.519	100.347	-7.590	1.00	39.20	N
ATOM	334	N3	U A	20	168.142	107.772	-12.030	1.00	40.37	N	ATOM	384	C4	G A	22	167.366	100.960	-7.913	1.00	39.20	C
ATOM	335	C4	U A	20	167.842	108.723	-11.095	1.00	40.37	C	ATOM	385	P	C A	23	163.138	96.522	-8.168	1.00	28.89	P
ATOM	336	O4	U A	20	168.364	108.666	-9.982	1.00	40.37	O	ATOM	386	O1P	C A	23	162.657	95.120	-8.309	1.00	42.24	O
ATOM	337	C5	U A	20	166.925	109.717	-11.534	1.00	40.37	C	ATOM	387	O2P	C A	23	162.160	97.624	-7.921	1.00	42.24	O
ATOM	338	C6	U A	20	166.433	109.666	-12.764	1.00	40.37	C	ATOM	388	O5*	C A	23	164.248	96.525	-7.031	1.00	28.89	O
ATOM	339	P	G A	21	161.907	106.541	-14.532	1.00	34.26	P	ATOM	389	C5*	C A	23	165.311	95.580	-7.093	1.00	28.89	C
ATOM	340	O1P	G A	21	160.937	105.854	-15.411	1.00	43.64	O	ATOM	390	C4*	C A	23	166.290	95.814	-5.984	1.00	28.89	C
ATOM	341	O2P	G A	21	161.422	107.311	-13.361	1.00	43.64	O	ATOM	391	O4*	C A	23	166.952	97.084	-6.170	1.00	28.89	O
ATOM	342	O5*	G A	21	162.970	105.484	-14.024	1.00	34.26	O	ATOM	392	C3*	C A	23	165.696	95.900	-4.601	1.00	28.89	C
ATOM	343	C5*	G A	21	163.565	104.576	-14.933	1.00	34.26	C	ATOM	393	O3*	C A	23	165.477	94.627	-4.064	1.00	28.89	O
ATOM	344	C4*	G A	21	164.532	103.682	-14.207	1.00	34.26	C	ATOM	394	C2*	C A	23	166.759	96.673	-3.851	1.00	28.89	C
ATOM	345	O4*	G A	21	165.665	104.464	-13.741	1.00	34.26	O	ATOM	395	O2*	C A	23	167.861	95.850	-3.546	1.00	28.89	O
ATOM	346	C3*	G A	21	164.020	102.982	-12.956	1.00	34.26	C	ATOM	396	C1*	C A	23	167.193	97.681	-4.912	1.00	28.89	C
ATOM	347	O3*	G A	21	163.256	101.816	-13.248	1.00	34.26	O	ATOM	397	N1	C A	23	166.398	98.919	-4.837	1.00	42.24	N



Table 1: Sheet 6/521

ATOM	398	C2	C A	23	166.752	99.891	-3.908	1.00	42.24	C	ATOM	448	O5*	A A	26	159.594	98.056	7.755	1.00	44.70	O
ATOM	399	O2	C A	23	167.731	99.698	-3.173	1.00	42.24	O	ATOM	449	C5*	A A	26	160.084	98.681	8.941	1.00	44.70	C
ATOM	400	N3	C A	23	166.022	101.019	-3.829	1.00	42.24	N	ATOM	450	C4*	A A	26	159.409	100.009	9.132	1.00	44.70	C
ATOM	401	C4	C A	23	164.977	101.198	-4.637	1.00	42.24	C	ATOM	451	O4*	A A	26	159.688	100.850	7.989	1.00	44.70	O
ATOM	402	N4	C A	23	164.293	102.346	-4.530	1.00	42.24	N	ATOM	452	C3*	A A	26	157.892	99.980	9.217	1.00	44.70	C
ATOM	403	C5	C A	23	164.591	100.220	-5.591	1.00	42.24	C	ATOM	453	O3*	A A	26	157.467	99.722	10.550	1.00	44.70	O
ATOM	404	P	C A	23	165.321	99.110	-5.659	1.00	42.24	C	ATOM	454	C2*	A A	26	157.513	101.390	8.796	1.00	44.70	C
ATOM	405	P	C A	24	164.261	94.416	-3.060	1.00	37.78	P	ATOM	455	O2*	A A	26	157.646	102.300	9.865	1.00	44.70	O
ATOM	406	O1P	U A	24	164.256	93.008	-2.591	1.00	48.65	O	ATOM	456	C1*	A A	26	158.604	101.725	7.781	1.00	44.70	C
ATOM	407	O2P	U A	24	163.054	94.980	-3.720	1.00	48.65	O	ATOM	457	N9	A A	26	158.164	101.630	6.393	1.00	36.33	N
ATOM	408	O5*	U A	24	164.677	95.328	-1.833	1.00	37.78	O	ATOM	458	C8	A A	26	158.065	100.531	5.569	1.00	36.33	C
ATOM	409	C5*	U A	24	165.807	94.976	-1.048	1.00	37.78	C	ATOM	459	N7	A A	26	157.618	100.812	4.366	1.00	36.33	N
ATOM	410	C4*	U A	24	165.968	95.936	0.092	1.00	37.78	C	ATOM	460	C5	A A	26	157.419	102.187	4.401	1.00	36.33	C
ATOM	411	O4*	U A	24	166.351	97.240	-0.414	1.00	37.78	O	ATOM	461	C6	A A	26	156.974	103.102	3.435	1.00	36.33	C
ATOM	412	C3*	U A	24	164.720	96.212	0.907	1.00	37.78	C	ATOM	462	N6	A A	26	156.668	102.752	2.178	1.00	36.33	N
ATOM	413	O3*	U A	24	164.434	95.191	1.855	1.00	37.78	O	ATOM	463	N1	A A	26	156.864	104.407	3.802	1.00	36.33	N
ATOM	414	C2*	U A	24	165.058	97.547	1.546	1.00	37.78	C	ATOM	464	C2	A A	26	157.206	104.751	5.049	1.00	36.33	C
ATOM	415	O2*	U A	24	165.951	97.391	2.626	1.00	37.78	O	ATOM	465	N3	A A	26	157.661	103.985	6.038	1.00	36.33	N
ATOM	416	C1*	U A	24	165.804	98.248	0.412	1.00	37.78	C	ATOM	466	C4	A A	26	157.743	102.701	5.644	1.00	36.33	C
ATOM	417	N1	U A	24	164.891	99.080	-0.385	1.00	48.65	N	ATOM	467	P	G A	27	156.332	98.623	10.823	1.00	46.57	P
ATOM	418	C2	U A	24	164.582	100.339	0.105	1.00	48.65	C	ATOM	468	O1P	G A	27	155.959	98.712	12.255	1.00	39.26	O
ATOM	419	O2	U A	24	165.080	100.795	1.121	1.00	48.65	O	ATOM	469	O2P	G A	27	156.792	97.330	10.271	1.00	39.26	O
ATOM	420	N3	U A	24	163.674	101.048	-0.644	1.00	48.65	N	ATOM	470	O5*	G A	27	155.102	99.124	9.944	1.00	46.57	O
ATOM	421	C4	U A	24	163.062	100.645	-1.808	1.00	48.65	C	ATOM	471	C5*	G A	27	154.354	100.298	10.310	1.00	46.57	C
ATOM	422	O4	U A	24	162.189	101.361	-2.320	1.00	48.65	O	ATOM	472	C4*	G A	27	152.990	100.263	9.669	1.00	46.57	C
ATOM	423	C5	U A	24	163.462	99.345	-2.266	1.00	48.65	C	ATOM	473	O4*	G A	27	153.130	100.340	8.229	1.00	46.57	O
ATOM	424	C6	U A	24	164.339	98.626	-1.556	1.00	48.65	C	ATOM	474	C3*	G A	27	152.199	98.991	9.895	1.00	46.57	C
ATOM	425	P	C A	25	162.924	95.001	2.375	1.00	47.11	P	ATOM	475	O3*	G A	27	151.488	99.021	11.110	1.00	46.57	O
ATOM	426	O1P	C A	25	162.852	93.726	3.125	1.00	35.34	O	ATOM	476	C2*	G A	27	151.252	98.982	8.712	1.00	46.57	C
ATOM	427	O2P	C A	25	161.982	95.235	1.257	1.00	35.34	O	ATOM	477	O2*	G A	27	150.157	99.839	8.935	1.00	46.57	O
ATOM	428	O5*	C A	25	162.776	96.183	3.425	1.00	47.11	O	ATOM	478	C1*	G A	27	152.134	99.552	7.604	1.00	46.57	C
ATOM	429	C5*	C A	25	163.665	96.253	4.542	1.00	47.11	C	ATOM	479	N9	G A	27	152.786	98.476	6.866	1.00	39.26	N
ATOM	430	C4*	C A	25	163.439	97.523	5.310	1.00	47.11	C	ATOM	480	C8	G A	27	154.065	98.017	7.039	1.00	39.26	C
ATOM	431	O4*	C A	25	163.743	98.666	4.468	1.00	47.11	O	ATOM	481	N7	G A	27	154.343	96.980	6.297	1.00	39.26	N
ATOM	432	C3*	C A	25	162.020	97.777	5.774	1.00	47.11	C	ATOM	482	C5	G A	27	153.182	96.754	5.576	1.00	39.26	C
ATOM	433	O3*	C A	25	161.717	97.047	6.947	1.00	47.11	O	ATOM	483	C6	G A	27	152.874	95.748	4.616	1.00	39.26	C
ATOM	434	C2*	C A	25	162.012	99.290	5.962	1.00	47.11	C	ATOM	484	O6	G A	27	153.587	94.829	4.210	1.00	39.26	O
ATOM	435	O2*	C A	25	162.659	99.699	7.155	1.00	47.11	O	ATOM	485	N1	G A	27	151.586	95.883	4.126	1.00	39.26	N
ATOM	436	C1*	C A	25	162.875	99.742	4.785	1.00	47.11	C	ATOM	486	C2	G A	27	150.703	96.855	4.503	1.00	39.26	C
ATOM	437	N1	C A	25	162.088	100.077	3.579	1.00	35.34	N	ATOM	487	N2	G A	27	149.505	96.819	3.901	1.00	39.26	N
ATOM	438	C2	C A	25	161.659	101.400	3.389	1.00	35.34	C	ATOM	488	N3	G A	27	150.970	97.798	5.403	1.00	39.26	N
ATOM	439	O2	C A	25	161.927	102.254	4.248	1.00	35.34	O	ATOM	489	C4	G A	27	152.220	97.683	5.896	1.00	39.26	C
ATOM	440	N3	C A	25	160.961	101.709	2.274	1.00	35.34	N	ATOM	490	P	G A	28	151.058	97.641	11.815	1.00	43.98	P
ATOM	441	C4	C A	25	160.684	100.761	1.373	1.00	35.34	C	ATOM	491	O1P	G A	28	150.371	98.066	13.065	1.00	35.58	O
ATOM	442	N4	C A	25	160.014	101.115	0.272	1.00	35.34	N	ATOM	492	O2P	G A	28	152.229	96.722	11.902	1.00	35.58	O
ATOM	443	C5	C A	25	161.087	99.410	1.554	1.00	35.34	C	ATOM	493	O5*	G A	28	149.974	97.009	10.827	1.00	43.98	O
ATOM	444	C6	C A	25	161.781	99.114	2.656	1.00	35.34	C	ATOM	494	C5*	G A	28	148.684	97.616	10.690	1.00	43.98	C
ATOM	445	P	A A	26	160.191	96.669	7.269	1.00	44.70	P	ATOM	495	C4*	G A	28	147.887	96.948	9.602	1.00	43.98	C
ATOM	446	O1P	A A	26	160.185	95.743	8.427	1.00	36.33	O	ATOM	496	O4*	G A	28	148.548	97.115	8.322	1.00	43.98	O
ATOM	447	O2P	A A	26	159.478	96.289	6.032	1.00	36.33	O	ATOM	497	C3*	G A	28	147.701	95.451	9.712	1.00	43.98	C



Table 1: Sheet 7/521

ATOM	498	O3*	G A 28	146.685	95.074	10.610	1.00 43.98	O	ATOM	548	N1	U A 30	149.324	85.429	8.411	1.00 44.55	N
ATOM	499	C2*	G A 28	147.364	95.076	8.282	1.00 43.98	C	ATOM	549	C2	U A 30	150.613	85.057	7.054	1.00 44.55	C
ATOM	500	O2*	G A 28	146.045	95.424	7.935	1.00 43.98	O	ATOM	550	O2	U A 30	150.858	84.110	7.312	1.00 44.55	O
ATOM	501	C1*	G A 28	148.318	95.975	7.510	1.00 43.98	C	ATOM	551	N3	U A 30	151.608	85.831	8.600	1.00 44.55	N
ATOM	502	N9	G A 28	149.585	95.272	7.327	1.00 35.58	N	ATOM	552	C4	U A 30	151.448	86.901	9.452	1.00 44.55	C
ATOM	503	C8	G A 28	150.751	95.480	8.022	1.00 35.58	C	ATOM	553	O4	U A 30	152.440	87.509	9.851	1.00 44.55	O
ATOM	504	N7	G A 28	151.709	94.668	7.670	1.00 35.58	N	ATOM	554	C5	U A 30	150.089	87.199	9.785	1.00 44.55	C
ATOM	505	C5	G A 28	151.144	93.878	6.676	1.00 35.58	C	ATOM	555	C6	U A 30	149.101	86.468	9.269	1.00 44.55	C
ATOM	506	C6	G A 28	151.705	92.826	5.921	1.00 35.58	C	ATOM	556	P	G A 31	144.562	82.291	7.832	1.00 58.02	P
ATOM	507	O6	G A 28	152.846	92.372	5.979	1.00 35.58	O	ATOM	557	O1P	G A 31	145.381	82.118	6.595	1.00 55.34	O
ATOM	508	N1	G A 28	150.793	92.295	5.019	1.00 35.58	N	ATOM	558	O2P	G A 31	143.366	83.179	7.806	1.00 55.34	O
ATOM	509	C2	G A 28	149.511	92.728	4.861	1.00 35.58	C	ATOM	559	O5*	G A 31	144.087	80.837	8.280	1.00 58.02	O
ATOM	510	N2	G A 28	148.802	92.090	3.936	1.00 35.58	N	ATOM	560	C5*	G A 31	143.471	80.650	9.570	1.00 58.02	C
ATOM	511	N3	G A 28	148.967	93.714	5.557	1.00 35.58	N	ATOM	561	C4*	G A 31	143.929	79.363	10.210	1.00 58.02	C
ATOM	512	C4	G A 28	149.838	94.241	6.444	1.00 35.58	C	ATOM	562	O4*	G A 31	143.619	78.268	9.314	1.00 58.02	O
ATOM	513	P	G A 29	146.871	93.736	11.477	1.00 48.34	P	ATOM	563	C3*	G A 31	145.399	79.219	10.601	1.00 58.02	C
ATOM	514	O1P	G A 29	145.750	93.688	12.452	1.00 48.34	O	ATOM	564	O3*	G A 31	145.485	78.545	11.853	1.00 58.02	O
ATOM	515	O2P	G A 29	148.274	93.713	11.966	1.00 48.08	O	ATOM	565	C2*	G A 31	145.974	78.311	9.512	1.00 58.02	C
ATOM	516	O5*	G A 29	146.694	92.553	10.427	1.00 48.34	O	ATOM	566	O2*	G A 31	146.981	77.445	10.001	1.00 58.02	O
ATOM	517	C5*	G A 29	145.499	92.446	9.666	1.00 48.34	C	ATOM	567	C1*	G A 31	144.764	77.467	9.117	1.00 58.02	C
ATOM	518	C4*	G A 29	145.647	91.395	8.601	1.00 48.34	C	ATOM	568	N9	G A 31	144.763	77.038	7.722	1.00 55.34	N
ATOM	519	O4*	G A 29	146.738	91.747	7.716	1.00 48.34	O	ATOM	569	C8	G A 31	145.081	77.789	6.613	1.00 55.34	C
ATOM	520	C3*	G A 29	145.989	89.982	9.031	1.00 48.34	C	ATOM	570	N7	G A 31	144.915	77.142	5.492	1.00 55.34	N
ATOM	521	O3*	G A 29	144.863	89.250	9.459	1.00 48.34	O	ATOM	571	C5	G A 31	144.478	75.891	5.886	1.00 55.34	C
ATOM	522	C2*	G A 29	146.538	89.379	7.746	1.00 48.34	C	ATOM	572	O6	G A 31	144.121	74.779	5.116	1.00 55.34	O
ATOM	523	O2*	G A 29	145.507	88.963	6.870	1.00 48.34	O	ATOM	573	O6	G A 31	144.124	74.661	3.888	1.00 55.34	O
ATOM	524	C1*	G A 29	147.266	90.570	7.130	1.00 48.34	C	ATOM	574	N1	G A 31	143.724	73.716	5.913	1.00 55.34	N
ATOM	525	N9	G A 29	148.707	90.499	7.360	1.00 48.08	N	ATOM	575	C2	G A 31	143.681	73.728	7.285	1.00 55.34	C
ATOM	526	C8	G A 29	149.469	91.219	8.247	1.00 48.08	C	ATOM	576	N2	G A 31	143.255	72.594	7.870	1.00 55.34	N
ATOM	527	N7	G A 29	150.727	90.876	8.231	1.00 48.08	N	ATOM	577	N3	G A 31	144.021	74.767	8.021	1.00 55.34	N
ATOM	528	C5	G A 29	150.797	89.872	7.275	1.00 48.08	C	ATOM	578	C4	G A 31	144.400	75.807	7.261	1.00 55.34	C
ATOM	529	C6	G A 29	151.893	89.107	6.827	1.00 48.08	C	ATOM	579	P	A A 32	146.089	79.306	13.134	1.00 46.83	P
ATOM	530	O6	G A 29	153.060	89.140	7.217	1.00 48.08	O	ATOM	580	O1P	A A 32	146.347	78.301	14.190	1.00 49.38	O
ATOM	531	N1	G A 29	151.527	88.225	5.823	1.00 48.08	N	ATOM	581	O2P	A A 32	145.221	80.466	13.444	1.00 49.38	O
ATOM	532	C2	G A 29	150.264	88.090	5.316	1.00 48.08	C	ATOM	582	O5*	A A 32	147.483	79.868	12.620	1.00 46.83	O
ATOM	533	N2	G A 29	150.101	87.205	4.320	1.00 48.08	N	ATOM	583	C5*	A A 32	148.723	79.420	13.177	1.00 46.83	C
ATOM	534	N3	G A 29	149.229	88.777	5.744	1.00 48.08	N	ATOM	584	C4*	A A 32	149.605	78.892	12.079	1.00 46.83	C
ATOM	535	C4	G A 29	149.566	89.645	6.717	1.00 48.08	C	ATOM	585	O4*	A A 32	149.775	79.904	11.060	1.00 46.83	O
ATOM	536	P	U A 30	145.073	87.990	10.423	1.00 54.69	P	ATOM	586	C3*	A A 32	151.011	78.507	12.488	1.00 46.83	C
ATOM	537	O1P	U A 30	143.729	87.516	10.794	1.00 44.55	O	ATOM	587	O3*	A A 32	151.024	77.186	12.993	1.00 46.83	O
ATOM	538	O2P	U A 30	146.026	88.403	11.488	1.00 44.55	O	ATOM	588	C2*	A A 32	151.764	78.617	11.175	1.00 46.83	C
ATOM	539	O5*	U A 30	145.778	86.886	9.506	1.00 54.69	O	ATOM	589	O2*	A A 32	151.523	77.460	10.380	1.00 46.83	O
ATOM	540	C5*	U A 30	145.031	86.079	8.547	1.00 54.69	C	ATOM	590	C1*	A A 32	151.082	79.832	10.531	1.00 46.83	C
ATOM	541	C4*	U A 30	145.909	84.960	8.009	1.00 54.69	C	ATOM	591	N9	A A 32	151.732	81.125	10.778	1.00 49.38	N
ATOM	542	O4*	U A 30	147.147	85.563	7.574	1.00 54.69	O	ATOM	592	C8	A A 32	151.166	82.215	11.397	1.00 49.38	C
ATOM	543	C3*	U A 30	146.328	83.913	9.042	1.00 54.69	C	ATOM	593	N7	A A 32	151.964	83.254	11.486	1.00 49.38	N
ATOM	544	O3*	U A 30	145.505	82.729	9.088	1.00 54.69	O	ATOM	594	C5	A A 32	153.134	82.824	10.886	1.00 49.38	C
ATOM	545	C2*	U A 30	147.713	83.465	8.587	1.00 54.69	C	ATOM	595	C6	A A 32	154.357	83.465	10.664	1.00 49.38	C
ATOM	546	O2*	U A 30	147.695	82.323	7.743	1.00 54.69	O	ATOM	596	N6	A A 32	154.602	84.718	11.038	1.00 49.38	N
ATOM	547	C1*	U A 30	148.216	84.681	7.812	1.00 54.69	C	ATOM	597	N1	A A 32	155.328	82.768	10.038	1.00 49.38	N



Table 1: Sheet 8/521

ATOM	598	C2	A	A	32	155.069	81.507	9.665	1.00	49.38	C	ATOM	648	C4*	G	A	35	164.113	79.422	19.419	1.00	44.00	C
ATOM	599	N3	A	A	32	153.954	80.790	9.818	1.00	49.38	N	ATOM	649	O4*	G	A	35	163.387	80.367	18.603	1.00	44.00	O
ATOM	600	C4	A	A	32	153.011	81.514	10.443	1.00	49.38	C	ATOM	650	C3*	G	A	35	163.774	79.818	20.834	1.00	44.00	C
ATOM	601	P	A	A	33	151.534	76.918	14.490	1.00	46.57	P	ATOM	651	O3*	G	A	35	164.762	79.360	21.729	1.00	44.00	O
ATOM	602	O1P	A	A	33	150.819	75.709	15.001	1.00	47.25	O	ATOM	652	C2*	G	A	35	163.737	81.331	20.730	1.00	44.00	C
ATOM	603	O2P	A	A	33	151.475	78.191	15.257	1.00	47.25	O	ATOM	653	O2*	G	A	35	165.041	81.844	20.645	1.00	44.00	O
ATOM	604	O5*	A	A	33	153.075	76.562	14.300	1.00	46.57	O	ATOM	654	C1*	G	A	35	163.099	81.528	19.360	1.00	44.00	C
ATOM	605	C5*	A	A	33	153.497	75.496	13.425	1.00	46.57	C	ATOM	655	N9	G	A	35	161.646	81.686	19.430	1.00	47.01	N
ATOM	606	C4*	A	A	33	154.826	75.839	12.797	1.00	46.57	C	ATOM	656	C8	G	A	35	160.696	80.712	19.213	1.00	47.01	C
ATOM	607	O4*	A	A	33	154.675	77.032	11.988	1.00	46.57	O	ATOM	657	N7	G	A	35	159.473	81.149	19.350	1.00	47.01	N
ATOM	608	C3*	A	A	33	155.915	76.192	13.785	1.00	46.57	C	ATOM	658	C5	G	A	35	159.622	82.493	19.668	1.00	47.01	C
ATOM	609	O3*	A	A	33	156.558	75.036	14.267	1.00	46.57	O	ATOM	659	C6	G	A	35	158.647	83.481	19.926	1.00	47.01	C
ATOM	610	C2*	A	A	33	156.833	77.089	12.975	1.00	46.57	C	ATOM	660	O6	G	A	35	157.407	83.369	19.915	1.00	47.01	O
ATOM	611	O2*	A	A	33	157.713	76.356	12.152	1.00	46.57	O	ATOM	661	N1	G	A	35	159.233	84.704	20.223	1.00	47.01	N
ATOM	612	C1*	A	A	33	155.831	77.841	12.100	1.00	46.57	C	ATOM	662	C2	G	A	35	160.576	84.944	20.264	1.00	47.01	C
ATOM	613	N9	A	A	33	155.429	79.132	12.669	1.00	47.25	N	ATOM	663	N2	G	A	35	160.935	86.186	20.579	1.00	47.01	N
ATOM	614	C8	A	A	33	154.240	79.438	13.290	1.00	47.25	C	ATOM	664	N3	G	A	35	161.496	84.035	20.016	1.00	47.01	N
ATOM	615	N7	A	A	33	154.168	80.677	13.720	1.00	47.25	N	ATOM	665	C4	G	A	35	160.954	82.840	19.728	1.00	47.01	C
ATOM	616	C5	A	A	33	155.387	81.228	13.353	1.00	47.25	C	ATOM	666	P	C	A	36	164.319	78.756	23.147	1.00	59.31	P
ATOM	617	C6	A	A	33	155.931	82.510	13.529	1.00	47.25	C	ATOM	667	O1P	C	A	36	165.458	77.949	23.627	1.00	37.53	O
ATOM	618	N6	A	A	33	155.284	83.506	14.129	1.00	47.25	N	ATOM	668	O2P	C	A	36	162.982	78.127	22.999	1.00	37.53	O
ATOM	619	N1	A	A	33	157.175	82.736	13.061	1.00	47.25	N	ATOM	669	O5*	C	A	36	164.186	80.041	24.074	1.00	59.31	O
ATOM	620	C2	A	A	33	157.820	81.734	12.449	1.00	47.25	C	ATOM	670	C3*	C	A	36	165.326	80.878	24.331	1.00	59.31	C
ATOM	621	N3	A	A	33	157.414	80.484	12.215	1.00	47.25	N	ATOM	671	C4*	C	A	36	164.885	82.221	24.856	1.00	59.31	C
ATOM	622	C4	A	A	33	156.174	80.291	12.701	1.00	47.25	C	ATOM	672	O4*	C	A	36	164.210	82.961	23.803	1.00	59.31	O
ATOM	623	P	C	A	34	157.080	75.001	15.785	1.00	52.67	P	ATOM	673	C3*	C	A	36	163.866	82.178	25.983	1.00	59.31	C
ATOM	624	O1P	C	A	34	157.488	73.597	16.040	1.00	52.02	O	ATOM	674	O3*	C	A	36	164.434	81.943	27.256	1.00	59.31	O
ATOM	625	O2P	C	A	34	156.081	75.640	16.678	1.00	52.02	O	ATOM	675	C2*	C	A	36	163.190	83.537	25.873	1.00	59.31	C
ATOM	626	O5*	C	A	34	158.378	75.928	15.759	1.00	52.67	O	ATOM	676	O2*	C	A	36	163.951	84.573	26.452	1.00	59.31	O
ATOM	627	C5*	C	A	34	159.588	75.489	15.111	1.00	52.67	C	ATOM	677	C1*	C	A	36	163.151	83.729	24.360	1.00	59.31	C
ATOM	628	C4*	C	A	34	160.623	76.587	15.135	1.00	52.67	C	ATOM	678	N1	C	A	36	161.875	83.229	23.826	1.00	37.53	N
ATOM	629	O4*	C	A	34	160.909	77.197	16.497	1.00	52.67	C	ATOM	679	C2	C	A	36	160.757	84.077	23.835	1.00	37.53	C
ATOM	630	C3*	C	A	34	161.847	76.441	17.251	1.00	52.67	O	ATOM	680	O2	C	A	36	160.889	85.241	24.248	1.00	37.53	O
ATOM	631	O3*	C	A	34	161.415	78.591	16.141	1.00	52.67	O	ATOM	681	N3	C	A	36	159.566	83.605	23.394	1.00	37.53	N
ATOM	632	C2*	C	A	34	162.785	78.658	15.799	1.00	52.67	C	ATOM	682	C4	C	A	36	159.474	82.349	22.951	1.00	37.53	C
ATOM	633	O2*	C	A	34	160.566	78.921	14.912	1.00	52.67	O	ATOM	683	N4	C	A	36	158.281	81.906	22.547	1.00	37.53	N
ATOM	634	C1*	C	A	34	159.373	79.694	15.307	1.00	52.02	N	ATOM	684	C5	C	A	36	160.602	81.481	22.907	1.00	37.53	C
ATOM	635	N1	C	A	34	159.544	81.031	15.705	1.00	52.02	C	ATOM	685	C6	C	A	36	161.769	81.957	23.347	1.00	37.53	C
ATOM	636	C2	C	A	34	160.680	81.534	15.651	1.00	52.02	O	ATOM	686	P	U	A	37	163.608	81.082	28.334	1.00	57.11	P
ATOM	637	O2	C	A	34	158.469	81.729	16.146	1.00	52.02	N	ATOM	687	O1P	U	A	37	164.461	81.037	29.552	1.00	46.06	O
ATOM	638	N3	C	A	34	157.269	81.141	16.209	1.00	52.02	C	ATOM	688	O2P	U	A	37	163.153	79.807	27.698	1.00	46.06	O
ATOM	639	C4	C	A	34	156.256	81.843	16.711	1.00	52.02	N	ATOM	689	O5*	U	A	37	162.321	81.975	28.643	1.00	57.11	O
ATOM	640	N4	C	A	34	157.060	79.800	15.772	1.00	52.02	C	ATOM	690	C5*	U	A	37	162.451	83.254	29.299	1.00	57.11	C
ATOM	641	C5	C	A	34	158.126	79.122	15.325	1.00	52.02	C	ATOM	691	C4*	U	A	37	161.109	83.946	29.417	1.00	57.11	C
ATOM	642	C6	C	A	34	161.721	76.394	18.858	1.00	44.00	P	ATOM	692	O4*	U	A	37	160.611	84.328	28.103	1.00	57.11	O
ATOM	643	P	G	A	35	162.595	75.307	19.369	1.00	47.01	O	ATOM	693	C3*	U	A	37	159.954	83.162	30.014	1.00	57.11	C
ATOM	644	O1P	G	A	35	160.278	76.399	19.221	1.00	47.01	O	ATOM	694	O3*	U	A	37	159.964	83.069	31.426	1.00	57.11	O
ATOM	645	O2P	G	A	35	162.379	77.766	19.322	1.00	44.00	O	ATOM	695	C2*	U	A	37	158.754	83.956	29.524	1.00	57.11	C
ATOM	646	O5*	G	A	35	163.748	78.024	19.026	1.00	44.00	C	ATOM	696	O2*	U	A	37	158.541	85.131	30.275	1.00	57.11	O
ATOM	647	C5*	G	A	35				1.00	44.00	C	ATOM	697	C1*	U	A	37	159.189	84.324	28.111	1.00	57.11	C



Table 1: Sheet 9/521

ATOM	698	N1	U A	37	158.695	83.283	27.195	1.00	46.06	N	ATOM	748	C2	G A	39	146.401	86.953	34.157	1.00	63.21	C
ATOM	699	O2	U A	37	157.356	83.333	26.817	1.00	46.06	C	ATOM	749	N2	G A	39	145.358	87.410	34.859	1.00	63.21	N
ATOM	700	C2	U A	37	156.603	84.248	27.126	1.00	46.06	O	ATOM	750	N3	G A	39	147.193	86.036	34.682	1.00	63.21	N
ATOM	701	N3	U A	37	156.928	82.270	26.059	1.00	46.06	N	ATOM	751	C4	G A	39	148.203	85.709	33.852	1.00	63.21	C
ATOM	702	C4	U A	37	157.679	81.199	25.630	1.00	46.06	C	ATOM	752	P	C A	40	147.019	80.006	33.744	1.00	72.42	P
ATOM	703	O4	U A	37	157.129	80.276	25.021	1.00	46.06	O	ATOM	753	O1P	C A	40	146.583	78.646	34.150	1.00	65.87	O
ATOM	704	C5	U A	37	159.054	81.249	26.013	1.00	46.06	C	ATOM	754	O2P	C A	40	147.418	80.256	32.339	1.00	65.87	O
ATOM	705	C6	U A	37	159.505	82.263	26.759	1.00	46.06	C	ATOM	755	O5*	C A	40	145.867	81.031	34.146	1.00	72.42	O
ATOM	706	P	G A	38	159.181	81.853	32.141	1.00	47.38	P	ATOM	756	C5*	C A	40	145.322	81.032	35.477	1.00	72.42	C
ATOM	707	O1P	G A	38	159.410	82.032	33.597	1.00	59.51	O	ATOM	757	C4*	C A	40	144.105	81.916	35.550	1.00	72.42	C
ATOM	708	O2P	G A	38	159.554	80.575	31.496	1.00	59.51	O	ATOM	758	O4*	C A	40	144.496	83.300	35.397	1.00	72.42	O
ATOM	709	O5*	G A	38	157.639	82.113	31.820	1.00	47.38	O	ATOM	759	C3*	C A	40	143.083	81.691	34.453	1.00	72.42	C
ATOM	710	C5*	G A	38	156.996	83.297	32.307	1.00	47.38	C	ATOM	760	O3*	C A	40	142.228	80.605	34.739	1.00	72.42	O
ATOM	711	C4*	G A	38	155.564	83.354	31.857	1.00	47.38	C	ATOM	761	C2*	C A	40	142.357	83.027	34.387	1.00	72.42	C
ATOM	712	O4*	G A	38	155.513	83.430	30.416	1.00	47.38	O	ATOM	762	O2*	C A	40	141.345	83.186	35.354	1.00	72.42	O
ATOM	713	C3*	G A	38	154.685	82.164	32.197	1.00	47.38	C	ATOM	763	C1*	C A	40	143.494	84.004	34.679	1.00	72.42	C
ATOM	714	O3*	G A	38	154.187	82.220	33.523	1.00	47.38	O	ATOM	764	N1	C A	40	144.067	84.496	33.418	1.00	65.87	N
ATOM	715	C2*	G A	38	153.568	82.277	31.166	1.00	47.38	C	ATOM	765	C2	C A	40	143.338	85.422	32.674	1.00	65.87	C
ATOM	716	O2*	G A	38	152.559	83.213	31.488	1.00	47.38	O	ATOM	766	O2	C A	40	142.267	85.848	33.136	1.00	65.87	O
ATOM	717	C1*	G A	38	154.334	82.787	29.950	1.00	47.38	C	ATOM	767	N3	C A	40	143.815	85.831	31.478	1.00	65.87	N
ATOM	718	N9	G A	38	154.696	81.662	29.092	1.00	59.51	N	ATOM	768	C4	C A	40	144.980	85.361	31.032	1.00	65.87	C
ATOM	719	C8	G A	38	155.922	81.054	28.961	1.00	59.51	C	ATOM	769	N4	C A	40	145.411	85.780	29.841	1.00	65.87	N
ATOM	720	N7	G A	38	155.899	80.034	28.149	1.00	59.51	N	ATOM	770	C5	C A	40	145.757	84.439	31.785	1.00	65.87	C
ATOM	721	C5	G A	38	154.578	79.969	27.717	1.00	59.51	C	ATOM	771	C6	C A	40	145.271	84.039	32.962	1.00	65.87	C
ATOM	722	C6	G A	38	153.942	79.062	26.842	1.00	59.51	C	ATOM	772	P	G A	41	141.632	79.730	33.531	1.00	57.48	P
ATOM	723	O6	G A	38	154.424	78.083	26.265	1.00	59.51	O	ATOM	773	O1P	G A	41	140.987	78.553	34.184	1.00	63.39	O
ATOM	724	N1	G A	38	152.602	79.374	26.668	1.00	59.51	N	ATOM	774	O2P	G A	41	142.685	79.520	32.487	1.00	63.39	O
ATOM	725	C2	G A	38	151.954	80.416	27.262	1.00	59.51	C	ATOM	775	O5*	G A	41	140.476	80.648	32.926	1.00	57.48	O
ATOM	726	N2	G A	38	150.658	80.565	26.951	1.00	59.51	N	ATOM	776	C5*	G A	41	139.357	81.021	33.741	1.00	57.48	C
ATOM	727	N3	G A	38	152.528	81.257	28.095	1.00	59.51	N	ATOM	777	C4*	G A	41	138.539	82.096	33.070	1.00	57.48	C
ATOM	728	C4	G A	38	153.833	80.977	28.274	1.00	59.51	C	ATOM	778	O4*	G A	41	139.336	83.291	32.856	1.00	57.48	O
ATOM	729	P	G A	39	153.965	80.858	34.349	1.00	60.57	P	ATOM	779	C3*	G A	41	137.985	81.768	31.702	1.00	57.48	C
ATOM	730	O1P	G A	39	155.032	80.817	35.386	1.00	63.21	O	ATOM	780	O3*	G A	41	136.797	81.012	31.795	1.00	57.48	O
ATOM	731	O2P	G A	39	153.802	79.713	33.420	1.00	63.21	O	ATOM	781	C2*	G A	41	137.727	83.146	31.108	1.00	57.48	C
ATOM	732	O5*	G A	39	152.564	81.098	35.057	1.00	60.57	O	ATOM	782	O2*	G A	41	136.486	83.680	31.515	1.00	57.48	O
ATOM	733	C5*	G A	39	151.354	81.156	34.282	1.00	60.57	C	ATOM	783	C1*	G A	41	138.872	83.968	31.702	1.00	57.48	C
ATOM	734	C4*	G A	39	150.242	81.772	35.094	1.00	60.57	C	ATOM	784	N9	G A	41	139.987	84.130	30.773	1.00	63.39	N
ATOM	735	O4*	G A	39	150.470	83.201	35.263	1.00	60.57	O	ATOM	785	C8	G A	41	141.206	83.496	30.811	1.00	63.39	C
ATOM	736	C3*	G A	39	148.871	81.694	34.452	1.00	60.57	C	ATOM	786	N7	G A	41	141.988	83.826	29.820	1.00	63.39	N
ATOM	737	O3*	G A	39	148.247	80.445	34.676	1.00	60.57	O	ATOM	787	C5	G A	41	141.241	84.734	29.083	1.00	63.39	C
ATOM	738	C2*	G A	39	148.128	82.831	35.130	1.00	60.57	C	ATOM	788	C6	G A	41	141.560	85.431	27.883	1.00	63.39	C
ATOM	739	O2*	G A	39	147.649	82.464	36.405	1.00	60.57	O	ATOM	789	O6	G A	41	142.586	85.354	27.195	1.00	63.39	O
ATOM	740	C1*	G A	39	149.227	83.886	35.258	1.00	60.57	C	ATOM	790	N1	G A	41	140.525	86.278	27.495	1.00	63.39	N
ATOM	741	N9	G A	39	149.169	84.769	34.095	1.00	63.21	N	ATOM	791	C2	G A	41	139.331	86.420	28.163	1.00	63.39	C
ATOM	742	C8	G A	39	150.009	84.790	33.009	1.00	63.21	C	ATOM	792	N2	G A	41	138.463	87.292	27.641	1.00	63.39	N
ATOM	743	N7	G A	39	149.628	85.625	32.083	1.00	63.21	N	ATOM	793	N3	G A	41	139.014	85.758	29.264	1.00	63.39	N
ATOM	744	C5	G A	39	148.479	86.202	32.596	1.00	63.21	C	ATOM	794	C4	G A	41	140.009	84.943	29.666	1.00	63.39	C
ATOM	745	C6	G A	39	147.611	87.164	32.037	1.00	63.21	C	ATOM	795	P	G A	42	136.261	80.240	30.502	1.00	65.93	P
ATOM	746	O6	G A	39	147.671	87.697	30.929	1.00	63.21	O	ATOM	796	O1P	G A	42	135.126	79.372	30.892	1.00	53.91	O
ATOM	747	N1	G A	39	146.578	87.491	32.908	1.00	63.21	N	ATOM	797	O2P	G A	42	137.432	79.643	29.821	1.00	53.91	O



Table 1: Sheet 10/521

ATOM	798	O5*	G A	42	135.688	81.405	29.583	1.00	65.93	O	ATOM	848	O2*	G A	44	136.765	81.689	15.792	1.00	65.00	O
ATOM	799	C5*	G A	42	134.452	82.052	29.912	1.00	65.93	C	ATOM	849	C1*	G A	44	136.669	81.458	18.144	1.00	65.00	C
ATOM	800	C4*	G A	42	134.063	83.020	28.826	1.00	65.93	C	ATOM	850	N9	G A	44	137.461	80.729	19.138	1.00	51.14	N
ATOM	801	O4*	G A	42	135.065	84.062	28.736	1.00	65.93	O	ATOM	851	C8	G A	44	137.036	80.110	20.288	1.00	51.14	C
ATOM	802	C3*	G A	42	133.991	82.437	27.426	1.00	65.93	C	ATOM	852	N7	G A	44	138.007	79.534	20.947	1.00	51.14	N
ATOM	803	O3*	G A	42	132.742	81.832	27.164	1.00	65.93	O	ATOM	853	C5	G A	44	139.139	79.787	20.184	1.00	51.14	C
ATOM	804	C2*	G A	42	134.225	83.653	26.547	1.00	65.93	C	ATOM	854	C6	G A	44	140.498	79.401	20.377	1.00	51.14	C
ATOM	805	O2*	G A	42	133.051	84.424	26.368	1.00	65.93	O	ATOM	855	O6	G A	44	140.994	78.737	21.289	1.00	51.14	O
ATOM	806	C1*	G A	42	135.241	84.435	27.381	1.00	65.93	C	ATOM	856	N1	G A	44	141.307	79.867	19.359	1.00	51.14	N
ATOM	807	N9	G A	42	136.613	84.112	27.003	1.00	53.91	N	ATOM	857	C2	G A	44	140.880	80.604	18.294	1.00	51.14	C
ATOM	808	C8	G A	42	137.473	83.262	27.656	1.00	53.91	C	ATOM	858	N2	G A	44	141.814	80.965	17.420	1.00	51.14	N
ATOM	809	N7	G A	42	138.636	83.167	27.074	1.00	53.91	N	ATOM	859	N3	G A	44	139.633	80.966	18.098	1.00	51.14	N
ATOM	810	C5	G A	42	138.539	84.007	25.971	1.00	53.91	C	ATOM	860	C4	G A	44	138.820	80.527	19.073	1.00	51.14	C
ATOM	811	C6	G A	42	139.488	84.314	24.970	1.00	53.91	C	ATOM	861	P	U A	45	134.977	78.575	14.775	1.00	45.79	P
ATOM	812	O6	G A	42	140.642	83.885	24.846	1.00	53.91	O	ATOM	862	O1P	U A	45	134.492	78.705	13.374	1.00	48.28	O
ATOM	813	N1	G A	42	138.980	85.216	24.044	1.00	53.91	N	ATOM	863	O2P	U A	45	134.397	77.521	15.667	1.00	48.28	O
ATOM	814	C2	G A	42	137.716	85.745	24.069	1.00	53.91	C	ATOM	864	O5*	U A	45	136.566	78.394	14.753	1.00	45.79	O
ATOM	815	N2	G A	42	137.405	86.591	23.071	1.00	53.91	N	ATOM	865	C5*	U A	45	137.367	79.104	13.790	1.00	45.79	C
ATOM	816	N3	G A	42	136.820	85.466	24.998	1.00	53.91	N	ATOM	866	C4*	U A	45	138.840	78.847	14.011	1.00	45.79	C
ATOM	817	C4	G A	42	137.297	84.597	25.913	1.00	53.91	C	ATOM	867	O4*	U A	45	139.201	79.238	15.353	1.00	45.79	O
ATOM	818	P	C A	43	132.671	80.597	26.149	1.00	51.31	P	ATOM	868	C3*	U A	45	139.324	77.417	13.889	1.00	45.79	C
ATOM	819	O1P	C A	43	131.280	80.059	26.166	1.00	47.16	O	ATOM	869	O3*	U A	45	139.575	77.077	12.546	1.00	45.79	O
ATOM	820	O2P	C A	43	133.816	79.700	26.465	1.00	47.16	O	ATOM	870	C2*	U A	45	140.593	77.416	14.729	1.00	45.79	C
ATOM	821	O5*	C A	43	132.913	81.251	24.717	1.00	51.31	O	ATOM	871	O2*	U A	45	141.727	77.948	14.083	1.00	45.79	O
ATOM	822	C5*	C A	43	131.888	82.042	24.108	1.00	51.31	C	ATOM	872	C1*	U A	45	140.216	78.383	15.844	1.00	45.79	C
ATOM	823	C4*	C A	43	132.432	82.795	22.928	1.00	51.31	C	ATOM	873	N1	U A	45	139.707	77.684	17.032	1.00	48.28	N
ATOM	824	O4*	C A	43	133.620	83.506	23.339	1.00	51.31	O	ATOM	874	C2	U A	45	140.636	77.140	17.888	1.00	48.28	C
ATOM	825	C3*	C A	43	132.884	81.982	21.733	1.00	51.31	C	ATOM	875	O2	U A	45	141.838	77.210	17.693	1.00	48.28	O
ATOM	826	O3*	C A	43	131.808	81.691	20.862	1.00	51.31	O	ATOM	876	N3	U A	45	140.109	76.508	18.977	1.00	48.28	N
ATOM	827	C2*	C A	43	133.862	82.923	21.052	1.00	51.31	C	ATOM	877	C4	U A	45	138.775	76.367	19.290	1.00	48.28	C
ATOM	828	O2*	C A	43	133.180	83.892	20.280	1.00	51.31	O	ATOM	878	O4	U A	45	138.461	75.781	20.327	1.00	48.28	O
ATOM	829	C1*	C A	43	134.513	83.608	22.249	1.00	51.31	C	ATOM	879	C5	U A	45	137.870	76.954	18.350	1.00	48.28	C
ATOM	830	N1	C A	43	135.793	83.001	22.632	1.00	47.16	N	ATOM	880	C6	U A	45	138.350	77.574	17.284	1.00	48.28	C
ATOM	831	C2	C A	43	136.898	83.190	21.798	1.00	47.16	C	ATOM	881	P	G A	46	139.640	75.536	12.134	1.00	46.17	P
ATOM	832	O2	C A	43	136.762	83.865	20.772	1.00	47.16	O	ATOM	882	O1P	G A	46	139.782	75.462	10.656	1.00	43.00	O
ATOM	833	N3	C A	43	138.086	82.537	22.134	1.00	47.16	N	ATOM	883	O2P	G A	46	138.514	74.830	12.793	1.00	43.00	O
ATOM	834	C4	C A	43	138.191	81.929	23.258	1.00	47.16	C	ATOM	884	O5*	G A	46	141.013	75.057	12.782	1.00	46.17	O
ATOM	835	N4	C A	43	139.381	81.412	23.561	1.00	47.16	N	ATOM	885	C5*	G A	46	142.271	75.396	12.162	1.00	46.17	C
ATOM	836	C5	C A	43	137.081	81.721	24.124	1.00	47.16	C	ATOM	886	C4*	G A	46	143.398	74.641	12.816	1.00	46.17	C
ATOM	837	C6	C A	43	135.913	82.267	23.776	1.00	47.16	C	ATOM	887	O4*	G A	46	143.551	75.110	14.176	1.00	46.17	O
ATOM	838	P	G A	44	131.754	80.264	20.133	1.00	65.00	P	ATOM	888	C3*	G A	46	143.152	73.153	12.954	1.00	46.17	C
ATOM	839	O1P	G A	44	130.459	80.249	19.381	1.00	51.14	O	ATOM	889	O3*	G A	46	143.496	72.436	11.793	1.00	46.17	O
ATOM	840	O2P	G A	44	132.034	79.227	21.159	1.00	51.14	O	ATOM	890	C2*	G A	46	144.005	72.782	14.154	1.00	46.17	C
ATOM	841	O5*	G A	44	133.003	80.247	19.138	1.00	65.00	O	ATOM	891	O2*	G A	46	145.366	72.628	13.828	1.00	46.17	O
ATOM	842	C5*	G A	44	133.021	81.102	17.998	1.00	65.00	C	ATOM	892	C1*	G A	46	143.836	74.017	15.035	1.00	46.17	C
ATOM	843	C4*	G A	44	134.433	81.332	17.499	1.00	65.00	C	ATOM	893	N9	G A	46	142.715	73.853	15.959	1.00	43.00	N
ATOM	844	O4*	G A	44	135.338	81.633	18.593	1.00	65.00	O	ATOM	894	C8	G A	46	141.395	74.156	15.720	1.00	43.00	C
ATOM	845	C3*	G A	44	135.166	80.205	16.805	1.00	65.00	C	ATOM	895	N7	G A	46	140.613	73.862	16.720	1.00	43.00	N
ATOM	846	O3*	G A	44	134.747	80.013	15.468	1.00	65.00	O	ATOM	896	C5	G A	46	141.466	73.341	17.679	1.00	43.00	C
ATOM	847	C2*	G A	44	136.594	80.729	16.807	1.00	65.00	C	ATOM	897	C6	G A	46	141.188	72.841	18.969	1.00	43.00	C



ATOM	898	O6	G	A	46	140.081	72.733	19.537	1.00	43.00	O	ATOM	948	C5*	U	A	49	150.036	69.239	1.064	1.00	54.88	C
ATOM	899	N1	G	A	46	142.352	72.424	19.611	1.00	43.00	N	ATOM	949	C4*	U	A	49	151.485	68.903	1.272	1.00	54.88	C
ATOM	900	C2	G	A	46	143.613	72.462	19.068	1.00	43.00	C	ATOM	950	O4*	U	A	49	151.996	69.373	2.553	1.00	54.88	O
ATOM	901	N2	G	A	46	144.611	72.004	19.829	1.00	43.00	N	ATOM	951	C3*	U	A	49	151.622	67.396	1.286	1.00	54.88	C
ATOM	902	N3	G	A	46	143.878	72.914	17.859	1.00	43.00	N	ATOM	952	O3*	U	A	49	152.770	67.005	0.580	1.00	54.88	O
ATOM	903	C4	G	A	46	142.768	73.339	17.227	1.00	43.00	C	ATOM	953	C2*	U	A	49	151.691	67.059	2.768	1.00	54.88	C
ATOM	904	P	C	A	47	142.597	71.185	11.357	1.00	48.10	P	ATOM	954	O2*	U	A	49	152.328	65.828	3.042	1.00	54.88	O
ATOM	905	O1P	C	A	47	141.388	71.681	10.654	1.00	63.84	O	ATOM	955	C1*	U	A	49	152.448	68.266	3.310	1.00	54.88	C
ATOM	906	O2P	C	A	47	142.446	70.312	12.541	1.00	63.84	O	ATOM	956	N1	U	A	49	152.215	68.534	4.735	1.00	67.58	N
ATOM	907	O5*	C	A	47	143.506	70.426	10.303	1.00	48.10	O	ATOM	957	C2	U	A	49	153.281	68.379	5.603	1.00	67.58	C
ATOM	908	C5*	C	A	47	144.765	69.864	10.698	1.00	48.10	C	ATOM	958	O2	U	A	49	154.378	67.981	5.250	1.00	67.58	O
ATOM	909	C4*	C	A	47	145.700	69.841	9.526	1.00	48.10	C	ATOM	959	N3	U	A	49	153.014	68.702	6.907	1.00	67.58	N
ATOM	910	O4*	C	A	47	147.014	69.388	9.934	1.00	48.10	O	ATOM	960	C4	U	A	49	151.816	69.143	7.423	1.00	67.58	C
ATOM	911	C3*	C	A	47	145.266	68.940	8.382	1.00	48.10	C	ATOM	961	O4	U	A	49	151.753	69.485	8.606	1.00	67.58	O
ATOM	912	O3*	C	A	47	145.708	69.597	7.209	1.00	48.10	O	ATOM	962	C5	U	A	49	150.761	69.240	6.469	1.00	67.58	C
ATOM	913	C2*	C	A	47	146.111	67.692	8.595	1.00	48.10	C	ATOM	963	C6	U	A	49	150.992	68.939	5.192	1.00	67.58	C
ATOM	914	O2*	C	A	47	146.364	66.992	7.396	1.00	48.10	O	ATOM	964	P	A	A	50	152.605	65.992	-0.636	1.00	61.58	P
ATOM	915	C1*	C	A	47	147.403	68.308	9.120	1.00	48.10	C	ATOM	965	O1P	A	A	50	153.943	65.416	-0.908	1.00	67.74	O
ATOM	916	N1	C	A	47	148.283	67.419	9.892	1.00	63.84	N	ATOM	966	O2P	A	A	50	151.872	66.705	-1.711	1.00	67.74	O
ATOM	917	C2	C	A	47	149.432	66.901	9.265	1.00	63.84	C	ATOM	967	O5*	A	A	50	151.669	64.859	-0.029	1.00	61.58	O
ATOM	918	O2	C	A	47	149.632	67.145	8.065	1.00	63.84	O	ATOM	968	C5*	A	A	50	150.661	64.205	-0.819	1.00	61.58	C
ATOM	919	N3	C	A	47	150.286	66.145	9.983	1.00	63.84	N	ATOM	969	C4*	A	A	50	150.129	63.008	-0.065	1.00	61.58	C
ATOM	920	C4	C	A	47	150.029	65.883	11.268	1.00	63.84	C	ATOM	970	O4*	A	A	50	151.179	62.010	0.041	1.00	61.58	O
ATOM	921	N4	C	A	47	150.926	65.165	11.947	1.00	63.84	N	ATOM	971	C3*	A	A	50	149.697	63.325	1.363	1.00	61.58	C
ATOM	922	C5	C	A	47	148.848	66.356	11.916	1.00	63.84	C	ATOM	972	O3*	A	A	50	148.630	62.443	1.711	1.00	61.58	O
ATOM	923	C6	C	A	47	148.012	67.115	11.199	1.00	63.84	C	ATOM	973	C2*	A	A	50	150.937	62.975	2.177	1.00	61.58	C
ATOM	924	P	C	A	48	144.844	69.529	5.869	1.00	54.40	P	ATOM	974	O2*	A	A	50	150.641	62.640	3.512	1.00	61.58	O
ATOM	925	O1P	C	A	48	143.541	70.213	6.129	1.00	64.89	O	ATOM	975	C1*	A	A	50	151.478	61.774	1.401	1.00	61.58	C
ATOM	926	O2P	C	A	48	144.853	68.123	5.374	1.00	64.89	O	ATOM	976	N9	A	A	50	152.921	61.580	1.519	1.00	67.74	N
ATOM	927	O5*	C	A	48	145.711	70.442	4.893	1.00	54.40	O	ATOM	977	C8	A	A	50	153.916	62.226	0.832	1.00	67.74	C
ATOM	928	C5*	C	A	48	145.947	71.816	5.228	1.00	54.40	C	ATOM	978	N7	A	A	50	155.121	61.834	1.156	1.00	67.74	N
ATOM	929	C4*	C	A	48	146.958	72.435	4.299	1.00	54.40	C	ATOM	979	C5	A	A	50	154.908	60.867	2.126	1.00	67.74	C
ATOM	930	O4*	C	A	48	146.995	73.842	4.575	1.00	54.40	O	ATOM	980	C6	A	A	50	155.787	60.078	2.876	1.00	67.74	C
ATOM	931	C3*	C	A	48	148.372	71.929	4.486	1.00	54.40	C	ATOM	981	N6	A	A	50	157.112	60.141	2.763	1.00	67.74	N
ATOM	932	O3*	C	A	48	148.600	70.825	3.583	1.00	54.40	O	ATOM	982	N1	A	A	50	155.253	59.208	3.759	1.00	67.74	N
ATOM	933	C2*	C	A	48	149.280	73.152	4.325	1.00	54.40	C	ATOM	983	C2	A	A	50	153.920	59.143	3.868	1.00	67.74	C
ATOM	934	O2*	C	A	48	150.027	73.239	3.137	1.00	54.40	O	ATOM	984	N3	A	A	50	152.989	59.834	3.219	1.00	67.74	N
ATOM	935	C1*	C	A	48	148.306	74.325	4.466	1.00	54.40	C	ATOM	985	C4	A	A	50	153.556	60.694	2.354	1.00	67.74	C
ATOM	936	N1	C	A	48	148.517	75.273	5.568	1.00	64.89	N	ATOM	986	P	A	A	51	147.222	63.034	2.211	1.00	52.01	P
ATOM	937	C2	C	A	48	148.611	76.638	5.266	1.00	64.89	C	ATOM	987	O1P	A	A	51	147.335	64.523	2.170	1.00	59.65	O
ATOM	938	O2	C	A	48	148.507	77.004	4.083	1.00	64.89	O	ATOM	988	O2P	A	A	51	146.863	62.351	3.501	1.00	59.65	O
ATOM	939	N3	C	A	48	148.805	77.525	6.265	1.00	64.89	N	ATOM	989	O5*	A	A	51	146.194	62.569	1.089	1.00	52.01	O
ATOM	940	C4	C	A	48	148.904	77.099	7.525	1.00	64.89	C	ATOM	990	C5*	A	A	51	146.265	63.151	-0.197	1.00	52.01	C
ATOM	941	N4	C	A	48	149.121	78.014	8.480	1.00	64.89	N	ATOM	991	C4*	A	A	51	145.713	62.222	-1.231	1.00	52.01	C
ATOM	942	C5	C	A	48	148.795	75.717	7.863	1.00	64.89	C	ATOM	992	O4*	A	A	51	144.279	62.218	-1.148	1.00	52.01	O
ATOM	943	C6	C	A	48	148.609	74.847	6.862	1.00	64.89	C	ATOM	993	C3*	A	A	51	146.028	62.708	-2.633	1.00	52.01	C
ATOM	944	P	U	A	49	148.369	70.984	1.972	1.00	54.88	P	ATOM	994	O3*	A	A	51	147.334	62.246	-3.066	1.00	52.01	O
ATOM	945	O1P	U	A	49	148.092	72.386	1.570	1.00	67.58	O	ATOM	995	C2*	A	A	51	144.842	62.282	-3.489	1.00	52.01	C
ATOM	946	O2P	U	A	49	147.399	69.904	1.600	1.00	67.58	O	ATOM	996	O2*	A	A	51	145.085	61.103	-4.222	1.00	52.01	O
ATOM	947	O5*	U	A	49	149.773	70.594	1.347	1.00	54.88	O	ATOM	997	C1*	A	A	51	143.732	62.104	-2.446	1.00	52.01	C



Table 1: Sheet 12/521

ATOM	998	N9	A	A	51	142.518	62.926	-2.519	1.00	59.65	N	ATOM	1048	N6	A	A	53	146.517	57.747	8.112	1.00	55.95	N
ATOM	999	C8	A	A	51	142.194	64.011	-1.742	1.00	59.65	C	ATOM	1049	N1	A	A	53	147.756	56.007	8.952	1.00	55.95	N
ATOM	1000	N7	A	A	51	140.981	64.465	-1.945	1.00	59.65	N	ATOM	1050	C2	A	A	53	148.469	54.902	7.733	1.00	55.95	C
ATOM	1001	C5	A	A	51	140.480	63.643	-2.944	1.00	59.65	C	ATOM	1051	N3	A	A	53	148.756	54.301	7.584	1.00	55.95	N
ATOM	1002	C6	A	A	51	139.225	63.591	-3.590	1.00	59.65	C	ATOM	1052	C4	A	A	53	148.211	54.968	6.558	1.00	55.95	C
ATOM	1003	N6	A	A	51	138.200	64.391	-3.298	1.00	59.65	N	ATOM	1053	P	C	A	54	145.608	50.648	3.158	1.00	44.44	P
ATOM	1004	N1	A	A	51	139.057	62.664	-4.550	1.00	59.65	N	ATOM	1054	O1P	C	A	54	145.559	49.222	2.731	1.00	50.05	O
ATOM	1005	C2	A	A	51	140.076	61.835	-4.825	1.00	59.65	C	ATOM	1055	O2P	C	A	54	144.547	51.583	2.704	1.00	50.05	O
ATOM	1006	N3	A	A	51	141.289	61.772	-4.276	1.00	59.65	N	ATOM	1056	O5*	C	A	54	145.753	50.723	4.738	1.00	44.44	O
ATOM	1007	C4	A	A	51	141.429	62.713	-3.331	1.00	59.65	C	ATOM	1057	C5*	C	A	54	144.633	50.684	5.616	1.00	44.44	C
ATOM	1008	P	G	A	52	147.821	60.708	-2.804	1.00	48.02	P	ATOM	1058	C4*	C	A	54	145.138	50.730	7.029	1.00	44.44	C
ATOM	1009	O1P	G	A	52	149.138	60.646	-3.487	1.00	59.19	O	ATOM	1059	O4*	C	A	54	145.893	51.952	7.220	1.00	44.44	O
ATOM	1010	O2P	G	A	52	146.773	59.699	-3.141	1.00	59.19	O	ATOM	1060	C3*	C	A	54	144.112	50.711	8.148	1.00	44.44	C
ATOM	1011	O5*	G	A	52	148.108	60.622	-1.234	1.00	48.02	O	ATOM	1061	O3*	C	A	54	143.724	49.367	8.442	1.00	44.44	C
ATOM	1012	C5*	G	A	52	147.606	59.527	-0.447	1.00	48.02	C	ATOM	1062	C2*	C	A	54	144.863	51.380	9.302	1.00	44.44	C
ATOM	1013	C4*	G	A	52	148.717	58.552	-0.118	1.00	48.02	C	ATOM	1063	O2*	C	A	54	145.665	50.514	10.087	1.00	44.44	O
ATOM	1014	O4*	G	A	52	149.693	59.141	0.790	1.00	48.02	O	ATOM	1064	C1*	C	A	54	145.758	52.385	8.563	1.00	44.44	C
ATOM	1015	C3*	G	A	52	148.242	57.309	0.607	1.00	48.02	C	ATOM	1065	N1	C	A	54	145.163	53.729	8.577	1.00	50.05	N
ATOM	1016	O3*	G	A	52	147.745	56.357	-0.313	1.00	48.02	O	ATOM	1066	C2	C	A	54	145.250	54.489	9.748	1.00	50.05	C
ATOM	1017	C2*	G	A	52	149.493	56.829	1.330	1.00	48.02	C	ATOM	1067	O2	C	A	54	145.902	54.049	10.704	1.00	50.05	O
ATOM	1018	O2*	G	A	52	150.349	56.114	0.472	1.00	48.02	O	ATOM	1068	N3	C	A	54	144.628	55.677	9.810	1.00	50.05	N
ATOM	1019	C1*	G	A	52	150.158	58.152	1.705	1.00	48.02	C	ATOM	1069	C4	C	A	54	143.951	56.126	8.754	1.00	50.05	C
ATOM	1020	N9	G	A	52	149.830	58.578	3.065	1.00	59.19	N	ATOM	1070	N4	C	A	54	143.317	57.290	8.870	1.00	50.05	N
ATOM	1021	C8	G	A	52	149.062	59.659	3.422	1.00	59.19	C	ATOM	1071	C5	C	A	54	143.886	55.397	7.533	1.00	50.05	C
ATOM	1022	N7	G	A	52	148.944	59.803	4.712	1.00	59.19	N	ATOM	1072	C6	C	A	54	144.503	54.217	7.487	1.00	50.05	C
ATOM	1023	C5	G	A	52	149.679	58.756	5.245	1.00	59.19	C	ATOM	1073	P	A	A	55	142.656	49.076	9.607	1.00	43.56	P
ATOM	1024	C6	G	A	52	149.917	58.407	6.589	1.00	59.19	C	ATOM	1074	O1P	A	A	55	141.986	47.784	9.280	1.00	69.21	O
ATOM	1025	O6	G	A	52	149.525	58.972	7.606	1.00	59.19	O	ATOM	1075	O2P	A	A	55	141.831	50.295	9.803	1.00	69.21	O
ATOM	1026	N1	G	A	52	150.703	57.271	6.695	1.00	59.19	N	ATOM	1076	O5*	A	A	55	143.563	48.885	10.908	1.00	43.56	O
ATOM	1027	C2	G	A	52	151.201	56.559	5.643	1.00	59.19	C	ATOM	1077	C5*	A	A	55	144.501	47.788	11.004	1.00	43.56	C
ATOM	1028	N2	G	A	52	151.934	55.482	5.965	1.00	59.19	N	ATOM	1078	C4*	A	A	55	144.723	47.393	12.452	1.00	43.56	C
ATOM	1029	N3	G	A	52	150.994	56.878	4.369	1.00	59.19	N	ATOM	1079	O4*	A	A	55	145.558	48.367	13.120	1.00	43.56	O
ATOM	1030	C4	G	A	52	150.228	57.984	4.247	1.00	59.19	C	ATOM	1080	C3*	A	A	55	143.497	47.274	13.338	1.00	43.56	C
ATOM	1031	P	A	A	53	146.573	55.365	0.142	1.00	47.17	P	ATOM	1081	O3*	A	A	55	142.844	46.022	13.209	1.00	43.56	O
ATOM	1032	O1P	A	A	53	146.353	54.408	-0.976	1.00	55.95	O	ATOM	1082	C2*	A	A	55	144.072	47.444	14.738	1.00	43.56	C
ATOM	1033	O2P	A	A	53	145.433	56.166	0.662	1.00	55.95	O	ATOM	1083	O2*	A	A	55	144.547	46.230	15.268	1.00	43.56	O
ATOM	1034	O5*	A	A	53	147.235	54.575	1.350	1.00	47.17	O	ATOM	1084	CI*	A	A	55	145.234	48.412	14.497	1.00	43.56	C
ATOM	1035	C5*	A	A	53	148.342	53.696	1.121	1.00	47.17	C	ATOM	1085	N9	A	A	55	144.934	49.797	14.864	1.00	69.21	N
ATOM	1036	C4*	A	A	53	148.693	52.963	2.386	1.00	47.17	C	ATOM	1086	C8	A	A	55	144.954	50.907	14.059	1.00	69.21	C
ATOM	1037	O4*	A	A	53	149.358	53.859	3.307	1.00	47.17	O	ATOM	1087	N7	A	A	55	144.605	52.011	14.671	1.00	69.21	N
ATOM	1038	C3*	A	A	53	147.517	52.415	3.177	1.00	47.17	C	ATOM	1088	C5	A	A	55	144.343	51.603	15.970	1.00	69.21	C
ATOM	1039	O3*	A	A	53	147.044	51.176	2.690	1.00	47.17	O	ATOM	1089	C6	A	A	55	143.914	52.301	17.110	1.00	69.21	C
ATOM	1040	C2*	A	A	53	148.100	52.287	4.571	1.00	47.17	C	ATOM	1090	N6	A	A	55	143.658	53.611	17.124	1.00	69.21	N
ATOM	1041	O2*	A	A	53	148.851	51.101	4.696	1.00	47.17	O	ATOM	1091	N1	A	A	55	143.749	51.598	18.250	1.00	69.21	N
ATOM	1042	CI*	A	A	53	149.004	53.520	4.637	1.00	47.17	C	ATOM	1092	C2	A	A	55	143.994	50.288	18.232	1.00	69.21	C
ATOM	1043	N9	A	A	53	148.299	54.661	5.224	1.00	55.95	N	ATOM	1093	N3	A	A	55	144.396	49.518	17.223	1.00	69.21	N
ATOM	1044	C8	A	A	53	147.584	55.632	4.571	1.00	55.95	C	ATOM	1094	C4	A	A	55	144.554	50.246	16.106	1.00	69.21	C
ATOM	1045	N7	A	A	53	147.053	56.520	5.369	1.00	55.95	N	ATOM	1095	P	U	A	56	141.249	45.946	13.383	1.00	53.96	P
ATOM	1046	C5	A	A	53	147.449	56.113	6.630	1.00	55.95	C	ATOM	1096	O1P	U	A	56	140.857	44.520	13.473	1.00	69.73	O
ATOM	1047	C6	A	A	53	147.223	56.647	7.896	1.00	55.95	C	ATOM	1097	O2P	U	A	56	140.619	46.815	12.345	1.00	69.73	O



Table 1: Sheet 13/521

ATOM	1098	O5*	U A	56	140.993	46.620	14.803	1.00	53.96	O	ATOM	1148	O2*	C A	58	129.731	55.082	17.909	1.00	63.84	O
ATOM	1099	C5*	U A	56	141.283	45.927	16.026	1.00	53.96	C	ATOM	1149	Cl*	C A	58	131.871	54.009	17.636	1.00	63.84	C
ATOM	1100	C4*	U A	56	140.816	46.745	17.209	1.00	53.96	C	ATOM	1150	N1	C A	58	132.798	53.677	16.532	1.00	55.59	N
ATOM	1101	O4*	U A	56	141.665	47.914	17.359	1.00	53.96	O	ATOM	1151	C2	C A	58	133.405	54.725	15.801	1.00	55.59	C
ATOM	1102	C3*	U A	56	139.410	47.320	17.102	1.00	53.96	C	ATOM	1152	O2	C A	58	133.215	55.907	16.150	1.00	55.59	O
ATOM	1103	C3*	U A	56	138.388	46.417	17.470	1.00	53.96	C	ATOM	1153	N3	C A	58	134.185	54.418	14.739	1.00	55.59	N
ATOM	1104	O2*	U A	56	139.466	48.511	18.041	1.00	53.96	C	ATOM	1154	C4	C A	58	134.382	53.145	14.404	1.00	55.59	C
ATOM	1105	O2*	U A	56	139.309	48.128	19.395	1.00	53.96	O	ATOM	1155	N4	C A	58	135.134	52.894	13.343	1.00	55.59	N
ATOM	1106	C1*	U A	56	140.885	49.021	17.795	1.00	53.96	C	ATOM	1156	C5	C A	58	133.814	52.071	15.145	1.00	55.59	C
ATOM	1107	N1	U A	56	140.929	50.067	16.755	1.00	69.73	N	ATOM	1157	C6	C A	58	133.041	52.376	16.191	1.00	55.59	C
ATOM	1108	C2	U A	56	140.601	51.369	17.116	1.00	69.73	C	ATOM	1158	P	A A	59	127.720	52.691	15.798	1.00	67.75	P
ATOM	1109	O2	U A	56	140.240	51.682	18.242	1.00	69.73	O	ATOM	1159	O1P	A A	59	126.253	52.711	16.100	1.00	76.04	O
ATOM	1110	N3	U A	56	140.703	52.290	16.104	1.00	69.73	N	ATOM	1160	O2P	A A	59	128.300	51.557	15.035	1.00	76.04	O
ATOM	1111	C4	U A	56	141.078	52.053	14.796	1.00	69.73	C	ATOM	1161	O5*	A A	59	128.114	54.029	15.024	1.00	67.75	O
ATOM	1112	O4	U A	56	141.150	52.995	14.006	1.00	69.73	O	ATOM	1162	C5*	A A	59	127.769	55.316	15.564	1.00	67.75	C
ATOM	1113	C5	U A	56	141.377	50.691	14.497	1.00	69.73	C	ATOM	1163	C4*	A A	59	128.153	56.418	14.604	1.00	67.75	C
ATOM	1114	C6	U A	56	141.295	49.769	15.457	1.00	69.73	C	ATOM	1164	O4*	A A	59	129.590	56.427	14.401	1.00	67.75	O
ATOM	1115	P	G A	57	136.896	46.667	16.933	1.00	58.27	P	ATOM	1165	C3*	A A	59	127.569	56.317	13.209	1.00	67.75	C
ATOM	1116	O1P	G A	57	136.051	45.525	17.364	1.00	55.74	O	ATOM	1166	O3*	A A	59	126.271	56.871	13.175	1.00	67.75	O
ATOM	1117	O2P	G A	57	136.959	47.021	15.499	1.00	55.74	O	ATOM	1167	C2*	A A	59	128.559	57.120	12.375	1.00	67.75	C
ATOM	1118	O5*	G A	57	136.419	47.945	17.746	1.00	58.27	O	ATOM	1168	O2*	A A	59	128.347	58.511	12.469	1.00	67.75	O
ATOM	1119	C5*	G A	57	136.222	47.879	19.164	1.00	58.27	C	ATOM	1169	Cl*	A A	59	129.884	56.795	13.064	1.00	67.75	C
ATOM	1120	C4*	G A	57	135.637	49.172	19.663	1.00	58.27	C	ATOM	1170	N9	A A	59	130.593	55.686	12.420	1.00	76.04	N
ATOM	1121	O4*	G A	57	136.632	50.225	19.543	1.00	58.27	O	ATOM	1171	C8	A A	59	131.026	54.511	12.984	1.00	76.04	C
ATOM	1122	C3*	G A	57	134.437	49.694	18.884	1.00	58.27	C	ATOM	1172	N7	A A	59	131.620	53.709	12.138	1.00	76.04	N
ATOM	1123	O3*	G A	57	133.201	49.109	19.266	1.00	58.27	O	ATOM	1173	C5	A A	59	131.578	54.402	10.936	1.00	76.04	C
ATOM	1124	C2*	G A	57	134.484	51.185	19.175	1.00	58.27	C	ATOM	1174	C6	A A	59	132.036	54.087	9.649	1.00	76.04	C
ATOM	1125	O2*	G A	57	133.902	51.503	20.428	1.00	58.27	O	ATOM	1175	N6	A A	59	132.648	52.947	9.346	1.00	76.04	N
ATOM	1126	Cl*	G A	57	135.993	51.443	19.195	1.00	58.27	C	ATOM	1176	N1	A A	59	131.839	54.992	8.670	1.00	76.04	N
ATOM	1127	N9	G A	57	136.464	51.854	17.874	1.00	55.74	N	ATOM	1177	C2	A A	59	131.221	56.133	8.976	1.00	76.04	C
ATOM	1128	C8	G A	57	136.890	51.049	16.841	1.00	55.74	C	ATOM	1178	N3	A A	59	130.742	56.545	10.147	1.00	76.04	N
ATOM	1129	N7	G A	57	137.203	51.717	15.763	1.00	55.74	N	ATOM	1179	C4	A A	59	130.955	55.621	11.097	1.00	76.04	C
ATOM	1130	C5	G A	57	136.978	53.045	16.108	1.00	55.74	C	ATOM	1180	P	A A	60	125.375	56.698	11.862	1.00	49.87	P
ATOM	1131	C6	G A	57	137.131	54.238	15.350	1.00	55.74	C	ATOM	1181	O1P	A A	60	126.161	57.195	10.713	1.00	56.39	O
ATOM	1132	O6	G A	57	137.490	54.368	14.180	1.00	55.74	O	ATOM	1182	O2P	A A	60	124.017	57.239	12.125	1.00	56.39	O
ATOM	1133	N1	G A	57	136.803	55.360	16.096	1.00	55.74	N	ATOM	1183	O5*	A A	60	125.255	55.131	11.656	1.00	49.87	O
ATOM	1134	C2	G A	57	136.375	55.351	17.397	1.00	55.74	C	ATOM	1184	C5*	A A	60	124.581	54.325	12.611	1.00	49.87	C
ATOM	1135	N2	G A	57	136.114	56.539	17.943	1.00	55.74	N	ATOM	1185	C4*	A A	60	123.543	53.491	11.923	1.00	49.87	C
ATOM	1136	N3	G A	57	136.215	54.255	18.111	1.00	55.74	N	ATOM	1186	O4*	A A	60	122.530	54.352	11.361	1.00	49.87	O
ATOM	1137	C4	G A	57	136.533	53.145	17.411	1.00	55.74	C	ATOM	1187	C3*	A A	60	124.034	52.614	10.786	1.00	49.87	C
ATOM	1138	P	C A	58	132.092	48.810	18.140	1.00	63.84	P	ATOM	1188	O3*	A A	60	124.340	51.238	11.067	1.00	49.87	O
ATOM	1139	O1P	C A	58	131.034	47.982	18.775	1.00	55.59	O	ATOM	1189	C2*	A A	60	123.394	53.149	9.508	1.00	49.87	C
ATOM	1140	O2P	C A	58	132.772	48.326	16.906	1.00	55.59	O	ATOM	1190	O2*	A A	60	122.967	52.137	8.613	1.00	49.87	O
ATOM	1141	O5*	C A	58	131.449	50.233	17.833	1.00	63.84	O	ATOM	1191	Cl*	A A	60	122.193	53.920	10.057	1.00	49.87	C
ATOM	1142	C5*	C A	58	130.580	50.856	18.793	1.00	63.84	C	ATOM	1192	N9	A A	60	121.836	55.119	9.300	1.00	56.39	N
ATOM	1143	C4*	C A	58	130.489	52.339	18.547	1.00	63.84	C	ATOM	1193	C8	A A	60	122.618	56.215	9.063	1.00	56.39	C
ATOM	1144	O4*	C A	58	131.823	52.919	18.545	1.00	63.84	O	ATOM	1194	N7	A A	60	121.997	57.178	8.431	1.00	56.39	N
ATOM	1145	C3*	C A	58	129.905	52.778	17.218	1.00	63.84	C	ATOM	1195	C5	A A	60	120.723	56.674	8.221	1.00	56.39	C
ATOM	1146	O3*	C A	58	128.493	52.788	17.205	1.00	63.84	O	ATOM	1196	C6	A A	60	119.576	57.219	7.615	1.00	56.39	C
ATOM	1147	C2*	C A	58	130.456	54.185	17.089	1.00	63.84	C	ATOM	1197	N6	A A	60	119.523	58.444	7.093	1.00	56.39	N



ATOM	1198	N1	A A	60	118.469	56.455	7.567	1.00	56.39	N	ATOM	1248	O5*	C A	63	110.441	50.633	15.807	1.00	46.51	O
ATOM	1199	C2	A A	60	118.520	55.230	8.090	1.00	56.39	C	ATOM	1249	C5*	C A	63	109.465	49.658	15.862	1.00	46.51	C
ATOM	1200	N3	A A	60	119.535	54.608	8.687	1.00	56.39	N	ATOM	1250	C4*	C A	63	108.471	49.865	14.784	1.00	46.51	C
ATOM	1201	C4	A A	60	120.618	55.397	8.726	1.00	56.39	C	ATOM	1251	O4*	C A	63	109.123	50.107	13.522	1.00	46.51	O
ATOM	1202	P	G A	61	123.210	50.226	11.619	1.00	56.41	P	ATOM	1252	C3*	C A	63	107.714	48.579	14.602	1.00	46.51	C
ATOM	1203	O1P	G A	61	123.946	49.276	12.484	1.00	41.01	O	ATOM	1253	O3*	C A	63	106.704	48.536	15.577	1.00	46.51	O
ATOM	1204	O2P	G A	61	122.356	49.719	10.496	1.00	41.01	O	ATOM	1254	C2*	C A	63	107.289	48.627	13.144	1.00	46.51	C
ATOM	1205	O5*	G A	61	122.328	51.067	12.636	1.00	56.41	O	ATOM	1255	O2*	C A	63	106.101	49.368	12.937	1.00	46.51	O
ATOM	1206	C5*	G A	61	121.068	50.574	13.103	1.00	56.41	C	ATOM	1256	C1*	C A	63	108.497	49.328	12.510	1.00	46.51	C
ATOM	1207	C4*	G A	61	120.038	51.651	12.953	1.00	56.41	C	ATOM	1257	N1	C A	63	109.503	48.381	11.963	1.00	37.26	N
ATOM	1208	O4*	G A	61	119.923	51.987	11.551	1.00	56.41	O	ATOM	1258	C2	C A	63	109.284	47.803	10.698	1.00	37.26	C
ATOM	1209	C3*	G A	61	118.626	51.315	13.368	1.00	56.41	C	ATOM	1259	O2	C A	63	108.245	48.089	10.072	1.00	37.26	O
ATOM	1210	O3*	G A	61	118.471	51.459	14.765	1.00	56.41	O	ATOM	1260	N3	C A	63	110.206	46.945	10.199	1.00	37.26	N
ATOM	1211	C2*	G A	61	117.814	52.320	12.564	1.00	56.41	C	ATOM	1261	C4	C A	63	111.298	46.652	10.910	1.00	37.26	C
ATOM	1212	O2*	G A	61	117.890	53.622	13.120	1.00	56.41	O	ATOM	1262	N4	C A	63	112.168	45.801	10.392	1.00	37.26	N
ATOM	1213	C1*	G A	61	118.585	52.337	11.249	1.00	56.41	C	ATOM	1263	C5	C A	63	111.543	47.220	12.193	1.00	37.26	C
ATOM	1214	N9	G A	61	118.090	51.392	10.251	1.00	41.01	N	ATOM	1264	C6	C A	63	110.633	48.069	12.676	1.00	37.26	C
ATOM	1215	C8	G A	61	118.685	50.212	9.876	1.00	41.01	C	ATOM	1265	P	G A	64	106.917	47.632	16.884	1.00	63.28	P
ATOM	1216	N7	G A	61	118.037	49.586	8.933	1.00	41.01	N	ATOM	1266	O1P	G A	64	106.173	48.260	17.992	1.00	51.87	O
ATOM	1217	C5	G A	61	116.942	50.392	8.674	1.00	41.01	C	ATOM	1267	O2P	G A	64	108.346	47.310	17.075	1.00	51.87	O
ATOM	1218	C6	G A	61	115.890	50.222	7.750	1.00	41.01	C	ATOM	1268	O5*	G A	64	106.148	46.310	16.465	1.00	63.28	O
ATOM	1219	O6	G A	61	115.698	49.281	6.973	1.00	41.01	O	ATOM	1269	C5*	G A	64	104.777	46.361	16.017	1.00	63.28	C
ATOM	1220	N1	G A	61	114.995	51.282	7.790	1.00	41.01	N	ATOM	1270	C4*	G A	64	104.150	45.020	16.229	1.00	63.28	C
ATOM	1221	C2	G A	61	115.090	52.360	8.633	1.00	41.01	C	ATOM	1271	O4*	G A	64	104.965	44.098	15.490	1.00	63.28	O
ATOM	1222	N2	G A	61	114.126	53.278	8.509	1.00	41.01	N	ATOM	1272	C3*	G A	64	104.230	44.557	17.686	1.00	63.28	C
ATOM	1223	N3	G A	61	116.060	52.524	9.525	1.00	41.01	N	ATOM	1273	O3*	G A	64	103.019	44.684	18.466	1.00	63.28	O
ATOM	1224	C4	G A	61	116.951	51.509	9.483	1.00	41.01	C	ATOM	1274	C2*	G A	64	104.448	43.054	17.587	1.00	63.28	C
ATOM	1225	P	U A	62	117.744	50.295	15.598	1.00	48.62	P	ATOM	1275	O2*	G A	64	103.236	42.327	17.703	1.00	63.28	O
ATOM	1226	O1P	U A	62	118.163	50.397	17.021	1.00	54.26	O	ATOM	1276	C1*	G A	64	105.009	42.885	16.177	1.00	63.28	C
ATOM	1227	O2P	U A	62	117.942	49.014	14.862	1.00	54.26	O	ATOM	1277	N9	G A	64	106.329	42.284	16.053	1.00	51.87	N
ATOM	1228	O5*	U A	62	116.200	50.646	15.478	1.00	48.62	O	ATOM	1278	C8	G A	64	107.532	42.711	16.560	1.00	51.87	C
ATOM	1229	C5*	U A	62	115.762	51.994	15.430	1.00	48.62	C	ATOM	1279	N7	G A	64	108.512	41.886	16.299	1.00	51.87	N
ATOM	1230	C4*	U A	62	114.532	52.092	14.577	1.00	48.62	C	ATOM	1280	C5	G A	64	107.916	40.861	15.572	1.00	51.87	C
ATOM	1231	O4*	U A	62	114.856	51.878	13.190	1.00	48.62	O	ATOM	1281	C6	G A	64	108.463	39.668	15.023	1.00	51.87	C
ATOM	1232	C3*	U A	62	113.486	51.048	14.879	1.00	48.62	C	ATOM	1282	O6	G A	64	109.623	39.261	15.073	1.00	51.87	O
ATOM	1233	O3*	U A	62	112.739	51.488	15.997	1.00	48.62	O	ATOM	1283	N1	G A	64	107.496	38.918	14.357	1.00	51.87	N
ATOM	1234	C2*	U A	62	112.694	50.961	13.579	1.00	48.62	C	ATOM	1284	C2	G A	64	106.172	39.269	14.221	1.00	51.87	C
ATOM	1235	O2*	U A	62	111.679	51.930	13.477	1.00	48.62	O	ATOM	1285	N2	G A	64	105.395	38.433	13.515	1.00	51.87	N
ATOM	1236	C1*	U A	62	113.769	51.266	12.539	1.00	48.62	C	ATOM	1286	N3	G A	64	105.651	40.365	14.734	1.00	51.87	N
ATOM	1237	N1	U A	62	114.274	50.116	11.782	1.00	54.26	N	ATOM	1287	C4	G A	64	106.575	41.107	15.394	1.00	51.87	C
ATOM	1238	C2	U A	62	113.529	49.704	10.698	1.00	54.26	C	ATOM	1288	P	U A	65	101.756	45.548	17.949	1.00	67.32	P
ATOM	1239	O2	U A	62	112.463	50.218	10.390	1.00	54.26	O	ATOM	1289	O1P	U A	65	102.027	46.985	18.214	1.00	85.50	O
ATOM	1240	N3	U A	62	114.071	48.671	9.981	1.00	54.26	N	ATOM	1290	O2P	U A	65	100.564	44.896	18.548	1.00	85.50	O
ATOM	1241	C4	U A	62	115.261	48.017	10.226	1.00	54.26	C	ATOM	1291	O5*	U A	65	101.671	45.324	16.376	1.00	67.32	O
ATOM	1242	O4	U A	62	115.692	47.210	9.380	1.00	54.26	O	ATOM	1292	C5*	U A	65	100.409	45.159	15.710	1.00	67.32	C
ATOM	1243	C5	U A	62	115.962	48.479	11.396	1.00	54.26	C	ATOM	1293	C4*	U A	65	100.212	46.235	14.659	1.00	67.32	C
ATOM	1244	C6	U A	62	115.454	49.485	12.115	1.00	54.26	C	ATOM	1294	O4*	U A	65	99.234	47.213	15.091	1.00	67.32	O
ATOM	1245	P	C A	63	111.722	50.489	16.721	1.00	46.51	P	ATOM	1295	C3*	U A	65	101.442	47.018	14.217	1.00	67.32	C
ATOM	1246	O1P	C A	63	111.404	51.030	18.081	1.00	37.26	O	ATOM	1296	O3*	U A	65	101.330	47.260	12.819	1.00	67.32	O
ATOM	1247	O2P	C A	63	112.259	49.109	16.586	1.00	37.26	O	ATOM	1297	C2*	U A	65	101.283	48.350	14.946	1.00	67.32	C



Table 1: Sheet 15/521

ATOM	1298	O2*	U A	65	101.920	49.422	14.265	1.00	67.32	O	ATOM	1348	N4	C A	67	107.412	40.264	11.626	1.00	32.58	N
ATOM	1299	C1*	U A	65	99.763	48.508	14.927	1.00	67.32	C	ATOM	1349	C5	C A	67	105.181	40.500	10.781	1.00	32.58	C
ATOM	1300	N1	U A	65	99.167	49.382	15.945	1.00	85.50	N	ATOM	1350	C6	C A	67	104.256	40.036	9.928	1.00	32.58	C
ATOM	1301	C2	U A	65	98.346	50.403	15.498	1.00	85.50	C	ATOM	1351	P	G A	68	100.264	36.004	10.710	1.00	56.03	P
ATOM	1302	O2	U A	65	98.129	50.618	14.313	1.00	85.50	O	ATOM	1352	O1P	G A	68	98.903	35.443	10.610	1.00	41.68	O
ATOM	1303	N3	U A	65	97.785	51.167	16.488	1.00	85.50	N	ATOM	1353	O2P	G A	68	100.640	36.823	11.878	1.00	41.68	O
ATOM	1304	C4	U A	65	97.959	51.020	17.844	1.00	85.50	C	ATOM	1354	O5*	G A	68	101.312	34.814	10.625	1.00	56.03	O
ATOM	1305	O4	U A	65	97.361	51.771	18.609	1.00	85.50	O	ATOM	1355	C5*	G A	68	101.212	33.836	9.585	1.00	56.03	C
ATOM	1306	C5	U A	65	98.832	49.954	18.225	1.00	85.50	C	ATOM	1356	C4*	G A	68	102.490	33.052	9.487	1.00	56.03	C
ATOM	1307	C6	U A	65	99.395	49.192	17.286	1.00	85.50	C	ATOM	1357	O4*	G A	68	103.581	33.940	9.127	1.00	56.03	O
ATOM	1308	P	G A	66	102.501	46.794	11.835	1.00	61.27	P	ATOM	1358	C3*	G A	68	102.988	32.405	10.762	1.00	56.03	C
ATOM	1309	O1P	G A	66	103.583	46.170	12.659	1.00	46.41	O	ATOM	1359	O3*	G A	68	102.309	31.202	11.075	1.00	56.03	O
ATOM	1310	O2P	G A	66	102.821	47.925	10.927	1.00	46.41	O	ATOM	1360	C2*	G A	68	104.465	32.187	10.450	1.00	56.03	C
ATOM	1311	O5*	G A	66	101.816	45.663	10.964	1.00	61.27	O	ATOM	1361	O2*	G A	68	104.715	31.050	9.642	1.00	56.03	O
ATOM	1312	C5*	G A	66	100.593	45.911	10.267	1.00	61.27	C	ATOM	1362	C1*	G A	68	104.798	33.439	9.650	1.00	56.03	C
ATOM	1313	C4*	G A	66	100.559	45.081	9.019	1.00	61.27	C	ATOM	1363	N9	G A	68	105.423	34.445	10.503	1.00	41.68	N
ATOM	1314	O4*	G A	66	101.651	45.523	8.178	1.00	61.27	O	ATOM	1364	C8	G A	68	104.810	35.426	11.239	1.00	41.68	C
ATOM	1315	C3*	G A	66	100.829	43.602	9.242	1.00	61.27	C	ATOM	1365	N7	G A	68	105.650	36.123	11.959	1.00	41.68	N
ATOM	1316	O3*	G A	66	99.675	42.852	9.592	1.00	61.27	O	ATOM	1366	C5	G A	68	106.890	35.579	11.666	1.00	41.68	C
ATOM	1317	C2*	G A	66	101.444	43.183	7.921	1.00	61.27	C	ATOM	1367	C6	G A	68	108.179	35.912	12.152	1.00	41.68	C
ATOM	1318	O2*	G A	66	100.458	42.987	6.923	1.00	61.27	O	ATOM	1368	O6	G A	68	108.492	36.777	12.965	1.00	41.68	O
ATOM	1319	C1*	G A	66	102.299	44.406	7.598	1.00	61.27	C	ATOM	1369	N1	G A	68	109.164	35.110	11.594	1.00	41.68	N
ATOM	1320	N9	G A	66	103.637	44.304	8.189	1.00	46.41	N	ATOM	1370	C2	G A	68	108.943	34.112	10.687	1.00	41.68	C
ATOM	1321	C8	G A	66	104.225	45.156	9.103	1.00	46.41	C	ATOM	1371	N2	G A	68	110.034	33.447	10.272	1.00	41.68	N
ATOM	1322	N7	G A	66	105.420	44.773	9.467	1.00	46.41	N	ATOM	1372	N3	G A	68	107.745	33.787	10.223	1.00	41.68	N
ATOM	1323	C5	G A	66	105.639	43.607	8.746	1.00	46.41	C	ATOM	1373	C4	G A	68	106.771	34.556	10.756	1.00	41.68	C
ATOM	1324	C6	G A	66	106.750	42.742	8.727	1.00	46.41	C	ATOM	1374	P	G A	69	102.693	30.409	12.424	1.00	49.58	P
ATOM	1325	O6	G A	66	107.810	42.843	9.348	1.00	46.41	O	ATOM	1375	O1P	G A	69	101.765	29.250	12.459	1.00	48.67	O
ATOM	1326	N1	G A	66	106.547	41.668	7.872	1.00	46.41	N	ATOM	1376	O2P	G A	69	102.745	31.350	13.580	1.00	48.67	O
ATOM	1327	C2	G A	66	105.424	41.461	7.113	1.00	46.41	C	ATOM	1377	O5*	G A	69	104.179	29.903	12.139	1.00	49.58	O
ATOM	1328	N2	G A	66	105.416	40.365	6.336	1.00	46.41	N	ATOM	1378	C5*	G A	69	105.116	29.685	13.199	1.00	49.58	C
ATOM	1329	N3	G A	66	104.383	42.267	7.110	1.00	46.41	N	ATOM	1379	C4*	G A	69	106.516	29.605	12.640	1.00	49.58	C
ATOM	1330	C4	G A	66	104.554	43.309	7.947	1.00	46.41	C	ATOM	1380	O4*	G A	69	106.901	30.920	12.163	1.00	49.58	O
ATOM	1331	P	C A	67	99.806	41.654	10.662	1.00	66.03	P	ATOM	1381	C3*	G A	69	107.583	29.245	13.661	1.00	49.58	C
ATOM	1332	O1P	C A	67	98.432	41.115	10.840	1.00	32.58	O	ATOM	1382	O3*	G A	69	107.699	27.841	13.852	1.00	49.58	O
ATOM	1333	O2P	C A	67	100.569	42.136	11.842	1.00	32.58	O	ATOM	1383	C2*	G A	69	108.842	29.901	13.100	1.00	49.58	C
ATOM	1334	O5*	C A	67	100.697	40.555	9.928	1.00	66.03	O	ATOM	1384	O2*	G A	69	109.526	29.143	12.118	1.00	49.58	O
ATOM	1335	C5*	C A	67	100.276	39.984	8.677	1.00	66.03	C	ATOM	1385	C1*	G A	69	108.268	31.174	12.476	1.00	49.58	C
ATOM	1336	C4*	C A	67	101.218	38.879	8.251	1.00	66.03	C	ATOM	1386	N9	G A	69	108.316	32.303	13.402	1.00	48.67	N
ATOM	1337	O4*	C A	67	102.527	39.418	7.926	1.00	66.03	O	ATOM	1387	C8	G A	69	107.240	33.006	13.878	1.00	48.67	C
ATOM	1338	C3*	C A	67	101.522	37.790	9.267	1.00	66.03	C	ATOM	1388	N7	G A	69	107.568	33.928	14.736	1.00	48.67	N
ATOM	1339	O3*	C A	67	100.489	36.818	9.344	1.00	66.03	O	ATOM	1389	C5	G A	69	108.949	33.838	14.832	1.00	48.67	C
ATOM	1340	C2*	C A	67	102.823	37.200	8.733	1.00	66.03	C	ATOM	1390	C6	G A	69	109.857	34.575	15.634	1.00	48.67	C
ATOM	1341	O2*	C A	67	102.617	36.303	7.664	1.00	66.03	O	ATOM	1391	O6	G A	69	109.605	35.467	16.460	1.00	48.67	O
ATOM	1342	C1*	C A	67	103.519	38.438	8.178	1.00	66.03	C	ATOM	1392	N1	G A	69	111.172	34.177	15.415	1.00	48.67	N
ATOM	1343	N1	C A	67	104.523	38.969	9.118	1.00	32.58	N	ATOM	1393	C2	G A	69	111.562	33.193	14.547	1.00	48.67	C
ATOM	1344	C2	C A	67	105.783	38.339	9.172	1.00	32.58	C	ATOM	1394	N2	G A	69	112.884	32.972	14.477	1.00	48.67	N
ATOM	1345	O2	C A	67	105.999	37.360	8.438	1.00	32.58	O	ATOM	1395	N3	G A	69	110.718	32.479	13.802	1.00	48.67	N
ATOM	1346	N3	C A	67	106.725	38.807	10.021	1.00	32.58	N	ATOM	1396	C4	G A	69	109.434	32.856	13.997	1.00	48.67	C
ATOM	1347	C4	C A	67	106.452	39.845	10.805	1.00	32.58	C	ATOM	1397	P	G A	70	108.059	27.264	15.315	1.00	62.18	P



ATOM	1398	O1P	G A 70	107.798	25.804	15.237	1.00	50.67	O	ATOM	1448	O3*	C A 74	115.324	26.162	27.972	1.00	91.61	O
ATOM	1399	O2P	G A 70	107.388	28.075	16.374	1.00	50.67	O	ATOM	1449	C2*	C A 74	114.684	28.470	27.430	1.00	91.61	C
ATOM	1400	O5*	G A 70	109.634	27.466	15.438	1.00	62.18	O	ATOM	1450	O2*	C A 74	115.556	28.926	28.445	1.00	91.61	O
ATOM	1401	C5*	G A 70	110.522	26.806	14.527	1.00	62.18	C	ATOM	1451	C1*	C A 74	114.889	29.289	26.159	1.00	91.61	C
ATOM	1402	C4*	G A 70	111.948	27.126	14.869	1.00	62.18	C	ATOM	1452	N1	C A 74	113.614	29.385	25.431	1.00	47.00	N
ATOM	1403	O4*	G A 70	112.208	28.536	14.660	1.00	62.18	O	ATOM	1453	C2	C A 74	112.695	30.373	25.812	1.00	47.00	C
ATOM	1404	C3*	G A 70	112.301	26.901	16.320	1.00	62.18	C	ATOM	1454	O2	C A 74	113.000	31.152	26.733	1.00	47.00	O
ATOM	1405	O3*	G A 70	112.589	25.549	16.579	1.00	62.18	O	ATOM	1455	N3	C A 74	111.497	30.447	25.170	1.00	47.00	N
ATOM	1406	C2*	G A 70	113.488	27.827	16.531	1.00	62.18	C	ATOM	1456	C4	C A 74	111.210	29.579	24.191	1.00	47.00	C
ATOM	1407	O2*	G A 70	114.702	27.268	16.074	1.00	62.18	O	ATOM	1457	N4	C A 74	110.018	29.666	23.601	1.00	47.00	N
ATOM	1408	C1*	G A 70	113.096	29.016	15.656	1.00	62.18	C	ATOM	1458	C5	C A 74	112.136	28.575	23.777	1.00	47.00	C
ATOM	1409	N9	G A 70	112.407	30.063	16.405	1.00	50.67	N	ATOM	1459	C6	C A 74	113.314	28.517	24.414	1.00	47.00	C
ATOM	1410	C8	G A 70	111.054	30.325	16.415	1.00	50.67	C	ATOM	1460	P	G A 75	114.180	25.188	28.547	1.00	87.94	P
ATOM	1411	N7	G A 70	110.736	31.356	17.150	1.00	50.67	N	ATOM	1461	O1P	G A 75	114.897	24.391	29.566	1.00	55.62	O
ATOM	1412	C5	G A 70	111.949	31.800	17.663	1.00	50.67	C	ATOM	1462	O2P	G A 75	113.475	24.495	27.430	1.00	55.62	O
ATOM	1413	C6	G A 70	112.243	32.901	18.520	1.00	50.67	C	ATOM	1463	O5*	G A 75	113.137	26.172	29.257	1.00	87.94	O
ATOM	1414	O6	G A 70	111.458	33.758	18.990	1.00	50.67	O	ATOM	1464	C5*	G A 75	113.562	26.968	30.375	1.00	87.94	C
ATOM	1415	N1	G A 70	113.607	32.964	18.816	1.00	50.67	N	ATOM	1465	O4*	G A 75	112.482	27.923	30.846	1.00	87.94	C
ATOM	1416	C2	G A 70	114.563	32.098	18.345	1.00	50.67	C	ATOM	1466	O4*	G A 75	112.188	28.931	29.848	1.00	87.94	O
ATOM	1417	N2	G A 70	115.817	32.312	18.775	1.00	50.67	N	ATOM	1467	C3*	G A 75	111.099	27.430	31.238	1.00	87.94	C
ATOM	1418	N3	G A 70	114.307	31.092	17.524	1.00	50.67	N	ATOM	1468	O3*	G A 75	111.068	26.774	32.502	1.00	87.94	O
ATOM	1419	C4	G A 70	112.989	31.000	17.229	1.00	50.67	C	ATOM	1469	C2*	G A 75	110.329	28.749	31.314	1.00	87.94	C
ATOM	1420	P	C A 73	112.201	24.935	18.004	1.00	57.01	P	ATOM	1470	O2*	G A 75	110.544	29.443	32.527	1.00	87.94	O
ATOM	1421	O1P	C A 73	112.540	23.487	17.917	1.00	58.22	O	ATOM	1471	C1*	G A 75	110.961	29.559	30.182	1.00	87.94	C
ATOM	1422	O2P	C A 73	110.806	25.344	18.342	1.00	58.22	O	ATOM	1472	N9	G A 75	110.069	29.583	29.027	1.00	55.62	N
ATOM	1423	O5*	C A 73	113.228	25.651	18.982	1.00	57.01	O	ATOM	1473	C8	G A 75	110.102	28.792	27.904	1.00	55.62	C
ATOM	1424	C5*	C A 73	114.637	25.411	18.867	1.00	57.01	C	ATOM	1474	N7	G A 75	109.092	28.999	27.101	1.00	55.62	N
ATOM	1425	O4*	C A 73	115.415	26.402	19.692	1.00	57.01	O	ATOM	1475	C5	G A 75	108.362	30.003	27.723	1.00	55.62	C
ATOM	1426	C4*	C A 73	115.126	27.739	19.215	1.00	57.01	C	ATOM	1476	C6	G A 75	107.146	30.636	27.338	1.00	55.62	C
ATOM	1427	C3*	C A 73	115.069	26.454	21.167	1.00	57.01	C	ATOM	1477	O6	G A 75	106.444	30.422	26.339	1.00	55.62	O
ATOM	1428	O3*	C A 73	115.727	25.454	21.925	1.00	57.01	O	ATOM	1478	N1	G A 75	106.763	31.604	28.260	1.00	55.62	N
ATOM	1429	C2*	C A 73	115.471	27.869	21.566	1.00	57.01	C	ATOM	1479	C2	G A 75	107.453	31.920	29.411	1.00	55.62	C
ATOM	1430	O2*	C A 73	116.847	28.018	21.859	1.00	57.01	O	ATOM	1480	N2	G A 75	106.920	32.881	30.189	1.00	55.62	N
ATOM	1431	C1*	C A 73	115.111	28.650	20.303	1.00	57.01	C	ATOM	1481	N3	G A 75	108.579	31.336	29.778	1.00	55.62	N
ATOM	1432	N1	C A 73	113.764	29.252	20.390	1.00	58.22	N	ATOM	1482	C4	G A 75	108.970	30.393	28.896	1.00	55.62	C
ATOM	1433	C2	C A 73	113.585	30.381	21.194	1.00	58.22	C	ATOM	1483	P	C A 76	109.775	25.898	32.921	1.00	60.94	P
ATOM	1434	O2	C A 73	114.567	30.851	21.794	1.00	58.22	O	ATOM	1484	O1P	C A 76	110.115	25.280	34.227	1.00	49.75	O
ATOM	1435	N3	C A 73	112.351	30.926	21.299	1.00	58.22	N	ATOM	1485	O2P	C A 76	109.342	25.027	31.789	1.00	49.75	O
ATOM	1436	C4	C A 73	111.326	30.392	20.638	1.00	58.22	C	ATOM	1486	O5*	C A 76	108.640	26.986	33.170	1.00	60.94	O
ATOM	1437	N4	C A 73	110.132	30.957	20.779	1.00	58.22	N	ATOM	1487	C5*	C A 76	108.744	27.900	34.267	1.00	60.94	C
ATOM	1438	C5	C A 73	111.480	29.253	19.803	1.00	58.22	C	ATOM	1488	C4*	C A 76	107.546	28.812	34.319	1.00	60.94	C
ATOM	1439	C6	C A 73	112.702	28.718	19.709	1.00	58.22	C	ATOM	1489	O4*	C A 76	107.560	29.709	33.178	1.00	60.94	O
ATOM	1440	P	C A 74	114.972	24.811	23.186	1.00	91.61	P	ATOM	1490	C3*	C A 76	106.180	28.155	34.243	1.00	60.94	C
ATOM	1441	O1P	C A 74	115.797	23.671	23.648	1.00	47.00	O	ATOM	1491	O3*	C A 76	105.727	27.584	35.458	1.00	60.94	O
ATOM	1442	O2P	C A 74	113.540	24.593	22.824	1.00	47.00	O	ATOM	1492	C2*	C A 76	105.302	29.307	33.779	1.00	60.94	C
ATOM	1443	O5*	C A 74	115.064	25.955	24.285	1.00	91.61	O	ATOM	1493	O2*	C A 76	104.954	30.201	34.816	1.00	60.94	O
ATOM	1444	C5*	C A 74	116.325	26.275	24.888	1.00	91.61	C	ATOM	1494	C1*	C A 76	106.230	30.012	32.798	1.00	60.94	C
ATOM	1445	C4*	C A 74	116.144	27.318	25.959	1.00	91.61	C	ATOM	1495	N1	C A 76	105.980	29.480	31.454	1.00	49.75	N
ATOM	1446	O4*	C A 74	115.817	28.591	25.344	1.00	91.61	O	ATOM	1496	C2	C A 76	104.882	29.966	30.744	1.00	49.75	C
ATOM	1447	C3*	C A 74	115.003	27.068	26.931	1.00	91.61	C	ATOM	1497	O2	C A 76	104.191	30.865	31.253	1.00	49.75	O



Table 1: Sheet 17/521

ATOM	1498	N3	C A	76	104.598	29.447	29.526	1.00	49.75	N	ATOM	1548	C4	G A	78	96.871	25.766	29.515	1.00	50.42	C
ATOM	1499	C4	C A	76	105.369	28.486	29.017	1.00	49.75	C	ATOM	1549	P	G A	79	93.529	23.964	34.071	1.00	54.36	P
ATOM	1500	N4	C A	76	105.043	27.992	27.828	1.00	49.75	N	ATOM	1550	O1P	G A	79	92.419	23.795	35.045	1.00	48.51	O
ATOM	1501	C5	C A	76	106.509	27.988	29.710	1.00	49.75	C	ATOM	1551	O2P	G A	79	94.692	23.032	34.101	1.00	48.51	O
ATOM	1502	C6	C A	76	106.778	28.510	30.912	1.00	49.75	C	ATOM	1552	O5*	G A	79	92.907	23.986	32.606	1.00	54.36	O
ATOM	1503	P	G A	77	104.580	26.458	35.405	1.00	54.20	P	ATOM	1553	C5*	G A	79	92.670	22.785	31.876	1.00	54.36	C
ATOM	1504	O1P	G A	77	104.400	25.907	36.773	1.00	49.31	O	ATOM	1554	C4*	G A	79	92.341	23.128	30.449	1.00	54.36	C
ATOM	1505	O2P	G A	77	104.866	25.532	34.272	1.00	49.31	O	ATOM	1555	O4*	G A	79	93.515	23.669	29.792	1.00	54.36	C
ATOM	1506	O5*	G A	77	103.275	27.279	35.023	1.00	54.20	O	ATOM	1556	C3*	G A	79	91.934	21.960	29.579	1.00	54.36	C
ATOM	1507	C5*	G A	77	102.757	28.273	35.906	1.00	54.20	C	ATOM	1557	O3*	G A	79	90.575	21.661	29.771	1.00	54.36	O
ATOM	1508	C4*	G A	77	101.501	28.866	35.330	1.00	54.20	C	ATOM	1558	O2*	G A	79	92.264	22.449	28.176	1.00	54.36	C
ATOM	1509	O4*	G A	77	101.825	29.580	34.113	1.00	54.20	O	ATOM	1559	C2*	G A	79	91.280	23.304	27.619	1.00	54.36	C
ATOM	1510	C3*	G A	77	100.452	27.865	34.890	1.00	54.20	C	ATOM	1560	C1*	G A	79	93.542	23.247	28.437	1.00	54.36	C
ATOM	1511	O3*	G A	77	99.652	27.392	35.938	1.00	54.20	O	ATOM	1561	N9	G A	79	94.751	22.451	28.227	1.00	48.51	N
ATOM	1512	C2*	G A	77	99.657	28.654	33.870	1.00	54.20	C	ATOM	1562	C8	G A	79	95.781	22.256	29.114	1.00	48.51	C
ATOM	1513	O2*	G A	77	98.747	29.552	34.474	1.00	54.20	O	ATOM	1563	N7	G A	79	96.726	21.492	28.641	1.00	48.51	N
ATOM	1514	C1*	G A	77	100.769	29.433	33.175	1.00	54.20	C	ATOM	1564	C5	G A	79	96.297	21.160	27.365	1.00	48.51	C
ATOM	1515	N9	G A	77	101.257	28.664	32.032	1.00	49.31	N	ATOM	1565	C6	G A	79	96.902	20.351	26.381	1.00	48.51	C
ATOM	1516	C8	G A	77	102.424	27.942	31.944	1.00	49.31	C	ATOM	1566	O6	G A	79	97.974	19.742	26.440	1.00	48.51	O
ATOM	1517	N7	G A	77	102.540	27.294	30.818	1.00	49.31	N	ATOM	1567	N1	G A	79	96.131	20.280	25.230	1.00	48.51	N
ATOM	1518	C5	G A	77	101.387	27.617	30.115	1.00	49.31	C	ATOM	1568	C2	G A	79	94.934	20.913	25.040	1.00	48.51	C
ATOM	1519	C6	G A	77	100.935	27.193	28.828	1.00	49.31	C	ATOM	1569	N2	G A	79	94.360	20.740	23.838	1.00	48.51	N
ATOM	1520	O6	G A	77	101.468	26.390	28.046	1.00	49.31	O	ATOM	1570	N3	G A	79	94.348	21.668	25.956	1.00	48.51	N
ATOM	1521	N1	G A	77	99.723	27.793	28.488	1.00	49.31	N	ATOM	1571	C4	G A	79	95.083	21.746	27.089	1.00	48.51	C
ATOM	1522	C2	G A	77	99.026	28.671	29.286	1.00	49.31	C	ATOM	1572	P	G A	80	90.164	20.200	30.200	1.00	63.96	P
ATOM	1523	N2	G A	77	97.892	29.165	28.773	1.00	49.31	N	ATOM	1573	O1P	G A	80	88.752	20.291	30.631	1.00	61.19	O
ATOM	1524	N3	G A	77	99.418	29.043	30.495	1.00	49.31	N	ATOM	1574	O2P	G A	80	91.178	19.626	31.127	1.00	61.19	O
ATOM	1525	C4	G A	77	100.599	28.485	30.840	1.00	49.31	C	ATOM	1575	O5*	G A	80	90.251	19.366	28.838	1.00	63.96	O
ATOM	1526	P	G A	78	98.955	25.960	35.793	1.00	46.47	P	ATOM	1576	C5*	G A	80	89.324	19.630	27.783	1.00	63.96	C
ATOM	1527	O1P	G A	78	98.318	25.699	37.109	1.00	50.42	O	ATOM	1577	C4*	G A	80	89.707	18.880	26.534	1.00	63.96	C
ATOM	1528	O2P	G A	78	99.937	24.993	35.256	1.00	50.42	O	ATOM	1578	O4*	G A	80	90.953	19.406	25.999	1.00	63.96	O
ATOM	1529	O5*	G A	78	97.829	26.193	34.695	1.00	46.47	O	ATOM	1579	C3*	G A	80	89.949	17.380	26.644	1.00	63.96	C
ATOM	1530	C5*	G A	78	96.784	27.120	34.954	1.00	46.47	C	ATOM	1580	O3*	G A	80	88.730	16.618	26.729	1.00	63.96	O
ATOM	1531	C4*	G A	78	95.817	27.164	33.810	1.00	46.47	C	ATOM	1581	C2*	G A	80	90.788	17.117	25.389	1.00	63.96	C
ATOM	1532	O4*	G A	78	96.494	27.631	32.620	1.00	46.47	O	ATOM	1582	O2*	G A	80	90.029	17.044	24.197	1.00	63.96	O
ATOM	1533	C3*	G A	78	95.204	25.847	33.392	1.00	46.47	C	ATOM	1583	C1*	G A	80	91.647	18.380	25.313	1.00	63.96	C
ATOM	1534	O3*	G A	78	94.121	25.449	34.220	1.00	46.47	O	ATOM	1584	N9	G A	80	92.942	18.184	25.954	1.00	61.19	N
ATOM	1535	C2*	G A	78	94.780	26.129	31.956	1.00	46.47	C	ATOM	1585	C7	G A	80	93.348	18.674	27.170	1.00	61.19	C
ATOM	1536	O2*	G A	78	93.540	26.804	31.851	1.00	46.47	O	ATOM	1586	N8	G A	80	94.556	18.300	27.495	1.00	61.19	N
ATOM	1537	C1*	G A	78	95.915	27.031	31.478	1.00	46.47	C	ATOM	1587	C5	G A	80	94.975	17.521	26.427	1.00	61.19	C
ATOM	1538	N9	G A	78	96.948	26.267	30.790	1.00	50.42	N	ATOM	1588	C6	G A	80	96.203	16.829	26.215	1.00	61.19	C
ATOM	1539	C8	G A	78	98.174	25.894	31.280	1.00	50.42	C	ATOM	1589	O6	G A	80	97.197	16.763	26.962	1.00	61.19	O
ATOM	1540	N7	G A	78	98.873	25.201	30.427	1.00	50.42	N	ATOM	1590	N1	G A	80	96.207	16.164	24.992	1.00	61.19	N
ATOM	1541	C5	G A	78	98.057	25.112	29.307	1.00	50.42	C	ATOM	1591	C2	G A	80	95.167	16.160	24.093	1.00	61.19	C
ATOM	1542	C6	G A	78	98.273	24.480	28.064	1.00	50.42	C	ATOM	1592	N2	G A	80	95.361	15.464	22.965	1.00	61.19	N
ATOM	1543	O6	G A	78	99.258	23.833	27.689	1.00	50.42	O	ATOM	1593	N3	G A	80	94.021	16.794	24.283	1.00	61.19	N
ATOM	1544	N1	G A	78	97.194	24.650	27.211	1.00	50.42	N	ATOM	1594	C4	G A	80	93.994	17.448	25.462	1.00	61.19	C
ATOM	1545	C2	G A	78	96.054	25.331	27.517	1.00	50.42	C	ATOM	1595	P	U A	81	88.762	15.068	27.180	1.00	134.90	P
ATOM	1546	N2	G A	78	95.132	25.397	26.558	1.00	50.42	N	ATOM	1596	O1P	U A	81	89.256	14.289	26.022	1.00	165.17	O
ATOM	1547	N3	G A	78	95.833	25.910	28.674	1.00	50.42	N	ATOM	1597	O2P	U A	81	87.426	14.770	27.741	1.00	165.17	O



Table 1: Sheet 18/521

ATOM	1598	U A 81	89.816	14.933	28.377	1.00134.90	O	ATOM	1648	C2	U A 83	97.435	6.417	30.913	1.00 64.20	C
ATOM	1599	C5*	91.227	15.251	28.206	1.00134.90	C	ATOM	1649	O2	U A 83	98.409	5.668	30.993	1.00 64.20	O
ATOM	1600	C4*	92.083	13.991	28.094	1.00134.90	C	ATOM	1650	N3	U A 83	96.606	6.433	29.816	1.00 64.20	N
ATOM	1601	O4*	93.452	14.400	27.813	1.00134.90	O	ATOM	1651	C4	U A 83	95.500	7.230	29.618	1.00 64.20	C
ATOM	1602	C3*	92.190	13.091	29.326	1.00134.90	C	ATOM	1652	O4	U A 83	94.866	7.137	28.566	1.00 64.20	O
ATOM	1603	O3*	91.179	12.085	29.330	1.00134.90	O	ATOM	1653	C5	U A 83	95.214	8.125	30.692	1.00 64.20	C
ATOM	1604	C2*	93.562	12.430	29.174	1.00134.90	C	ATOM	1654	C6	U A 83	95.999	8.134	31.774	1.00 64.20	C
ATOM	1605	O2*	93.543	11.231	28.417	1.00134.90	O	ATOM	1655	P	U A 84	100.870	11.175	32.526	1.00 93.80	P
ATOM	1606	C1*	94.364	13.508	28.438	1.00134.90	C	ATOM	1656	O1P	U A 84	102.045	11.836	33.153	1.00 54.91	O
ATOM	1607	N1	95.279	14.283	29.295	1.00165.17	N	ATOM	1657	O2P	U A 84	99.703	12.000	32.095	1.00 54.91	O
ATOM	1608	C2	96.633	13.950	29.276	1.00165.17	C	ATOM	1658	O5*	U A 84	101.379	10.304	31.288	1.00 93.80	O
ATOM	1609	O2	97.096	13.044	28.591	1.00165.17	O	ATOM	1659	C5*	U A 84	102.415	9.316	31.466	1.00 93.80	C
ATOM	1610	N3	97.428	14.719	30.091	1.00165.17	N	ATOM	1660	C4*	U A 84	102.524	8.415	30.255	1.00 93.80	C
ATOM	1611	C4	97.026	15.759	30.908	1.00165.17	C	ATOM	1661	O4*	U A 84	101.306	7.637	30.095	1.00 93.80	O
ATOM	1612	O4	97.867	16.362	31.577	1.00165.17	O	ATOM	1662	C3*	U A 84	102.701	9.081	28.902	1.00 93.80	C
ATOM	1613	C5	95.621	16.037	30.878	1.00165.17	C	ATOM	1663	O3*	U A 84	104.020	9.537	28.635	1.00 93.80	O
ATOM	1614	C6	94.817	15.311	30.095	1.00165.17	C	ATOM	1664	C2*	U A 84	102.254	7.984	27.947	1.00 93.80	C
ATOM	1615	P	90.447	11.687	30.705	1.00 86.18	P	ATOM	1665	O2*	U A 84	103.233	6.991	27.707	1.00 93.80	O
ATOM	1616	O1P	89.841	10.340	30.496	1.00 80.56	O	ATOM	1666	C1*	U A 84	101.092	7.368	28.719	1.00 93.80	C
ATOM	1617	O2P	89.569	12.838	31.082	1.00 80.56	O	ATOM	1667	N1	U A 84	99.819	7.969	28.283	1.00 54.91	N
ATOM	1618	O5*	91.623	11.542	31.779	1.00 86.18	O	ATOM	1668	C2	U A 84	99.362	7.622	27.014	1.00 54.91	C
ATOM	1619	C5*	91.445	11.999	33.140	1.00 86.18	C	ATOM	1669	O2	U A 84	99.963	8.848	26.279	1.00 54.91	O
ATOM	1620	C4*	92.120	11.060	34.118	1.00 86.18	C	ATOM	1670	N3	U A 84	98.180	6.210	26.638	1.00 54.91	N
ATOM	1621	O4*	91.460	9.766	34.118	1.00 86.18	O	ATOM	1671	C4	U A 84	97.414	9.088	27.375	1.00 54.91	C
ATOM	1622	C3*	93.577	10.745	33.841	1.00 86.18	C	ATOM	1672	O4	U A 84	96.336	9.492	26.907	1.00 54.91	O
ATOM	1623	O3*	94.446	11.747	34.340	1.00 86.18	O	ATOM	1673	C5	U A 84	97.951	9.402	28.676	1.00 54.91	C
ATOM	1624	C2*	93.778	9.411	34.547	1.00 86.18	C	ATOM	1674	C6	U A 84	99.103	8.844	27.074	1.00 54.91	C
ATOM	1625	O2*	94.043	9.571	35.921	1.00 86.18	O	ATOM	1675	P	A A 88	104.227	10.954	27.891	1.00 98.04	P
ATOM	1626	C1*	92.414	8.737	34.352	1.00 86.18	C	ATOM	1676	O1P	A A 88	105.674	11.298	27.990	1.00 61.43	O
ATOM	1627	N1	92.384	7.791	33.218	1.00 80.56	N	ATOM	1677	O2P	A A 88	103.198	11.917	28.406	1.00 61.43	O
ATOM	1628	O2	93.230	6.682	33.255	1.00 80.56	C	ATOM	1678	O5*	A A 88	103.875	10.656	26.364	1.00 98.04	O
ATOM	1629	C2	93.966	6.432	34.197	1.00 80.56	O	ATOM	1679	C5*	A A 88	104.652	9.723	25.592	1.00 98.04	C
ATOM	1630	N3	93.176	5.875	32.145	1.00 80.56	N	ATOM	1680	C4*	A A 88	103.957	9.417	24.286	1.00 98.04	C
ATOM	1631	C4	92.380	6.044	31.031	1.00 80.56	C	ATOM	1681	O4*	A A 88	102.672	8.807	24.564	1.00 98.04	O
ATOM	1632	O4	92.467	5.250	30.096	1.00 80.56	C	ATOM	1682	C3*	A A 88	103.631	10.612	23.407	1.00 98.04	C
ATOM	1633	C5	91.526	7.188	31.076	1.00 80.56	C	ATOM	1683	O3*	A A 88	104.741	10.975	22.592	1.00 98.04	O
ATOM	1634	C6	91.554	8.000	32.137	1.00 80.56	C	ATOM	1684	C2*	A A 88	102.448	10.106	22.589	1.00 98.04	C
ATOM	1635	P	95.740	12.159	33.486	1.00 95.84	P	ATOM	1685	O2*	A A 88	102.830	9.300	21.491	1.00 98.04	O
ATOM	1636	O1P	96.456	13.245	34.204	1.00 64.20	O	ATOM	1686	C1*	A A 88	101.716	9.234	23.610	1.00 98.04	C
ATOM	1637	O2P	95.308	12.370	32.082	1.00 64.20	O	ATOM	1687	N9	A A 88	100.675	9.984	25.315	1.00 61.43	N
ATOM	1638	O5*	96.642	10.853	33.516	1.00 95.84	O	ATOM	1688	C8	A A 88	100.757	10.574	25.559	1.00 61.43	C
ATOM	1639	C5*	97.326	10.465	34.707	1.00 95.84	C	ATOM	1689	N7	A A 88	99.675	11.227	25.910	1.00 61.43	N
ATOM	1640	C4*	98.178	9.257	34.435	1.00 95.84	C	ATOM	1690	C5	A A 88	98.818	11.048	24.834	1.00 61.43	C
ATOM	1641	O4*	97.320	8.138	34.095	1.00 95.84	O	ATOM	1691	C6	A A 88	97.519	11.502	24.589	1.00 61.43	C
ATOM	1642	C3*	99.107	9.385	33.243	1.00 95.84	C	ATOM	1692	N6	A A 88	96.833	12.267	25.447	1.00 61.43	N
ATOM	1643	O3*	100.310	10.075	33.556	1.00 95.84	O	ATOM	1693	N1	A A 88	96.938	11.144	23.418	1.00 61.43	N
ATOM	1644	C2*	99.320	7.936	32.827	1.00 95.84	C	ATOM	1694	C2	A A 88	97.638	10.384	22.559	1.00 61.43	C
ATOM	1645	O2*	100.285	7.262	33.609	1.00 95.84	O	ATOM	1695	N3	A A 88	98.873	9.901	22.676	1.00 61.43	N
ATOM	1646	C1*	97.945	7.335	33.109	1.00 95.84	C	ATOM	1696	C4	A A 88	99.414	10.273	23.849	1.00 61.43	C
ATOM	1647	N1	97.094	7.308	31.910	1.00 64.20	N	ATOM	1697	P	C A 89	105.019	12.526	22.267	1.00 57.13	P



Table 1: Sheet 19/521

ATOM	1698	O1P	C A	89	106.123	12.576	21.277	1.00	67.15	O	ATOM	1748	C1*	C A	91	95.338	23.270	21.678	1.00	46.44	C
ATOM	1699	O2P	C A	89	105.151	13.272	23.555	1.00	67.15	O	ATOM	1749	N1	C A	91	96.459	23.043	22.594	1.00	37.27	N
ATOM	1700	O3*	C A	89	103.696	12.989	21.516	1.00	57.13	O	ATOM	1750	C2	C A	91	96.339	23.480	23.919	1.00	37.27	C
ATOM	1701	C5*	C A	89	103.350	12.409	20.253	1.00	57.13	C	ATOM	1751	O2	C A	91	95.270	23.999	24.289	1.00	37.27	O
ATOM	1702	C4*	C A	89	101.962	12.819	19.844	1.00	57.13	C	ATOM	1752	N3	C A	91	97.383	23.323	24.767	1.00	37.27	N
ATOM	1703	O4*	C A	89	100.999	12.296	20.794	1.00	57.13	O	ATOM	1753	C4	C A	91	98.503	22.740	24.340	1.00	37.27	C
ATOM	1704	C3*	C A	89	101.690	14.310	19.822	1.00	57.13	C	ATOM	1754	N4	C A	91	99.503	22.605	25.212	1.00	37.27	N
ATOM	1705	O3*	C A	89	102.162	14.934	18.641	1.00	57.13	O	ATOM	1755	C5	C A	91	98.645	22.265	22.998	1.00	37.27	C
ATOM	1706	C2*	C A	89	100.174	14.362	19.966	1.00	57.13	C	ATOM	1756	C6	C A	91	97.609	22.437	22.170	1.00	37.27	C
ATOM	1707	O2*	C A	89	99.472	14.112	18.762	1.00	57.13	O	ATOM	1757	P	C A	92	96.805	26.897	19.005	1.00	53.83	P
ATOM	1708	C1*	C A	89	99.930	13.215	20.944	1.00	57.13	C	ATOM	1758	O1P	C A	92	96.402	27.769	17.862	1.00	46.48	O
ATOM	1709	N1	C A	89	99.933	13.721	22.328	1.00	67.15	N	ATOM	1759	O2P	C A	92	98.220	26.497	19.173	1.00	46.48	O
ATOM	1710	C2	C A	89	98.811	14.427	22.785	1.00	67.15	C	ATOM	1760	O5*	C A	92	96.359	27.587	20.369	1.00	53.83	O
ATOM	1711	O2	C A	89	97.836	14.569	22.023	1.00	67.15	O	ATOM	1761	C5*	C A	92	95.010	28.038	20.549	1.00	53.83	C
ATOM	1712	N3	C A	89	98.818	14.936	24.038	1.00	67.15	N	ATOM	1762	C4*	C A	92	94.856	28.704	21.888	1.00	53.83	C
ATOM	1713	C4	C A	89	99.882	14.755	24.826	1.00	67.15	C	ATOM	1763	O4*	C A	92	94.997	27.732	22.955	1.00	53.83	O
ATOM	1714	N4	C A	89	99.848	15.286	26.053	1.00	67.15	N	ATOM	1764	C3*	C A	92	95.888	29.766	22.208	1.00	53.83	C
ATOM	1715	C5	C A	89	101.028	14.026	24.392	1.00	67.15	C	ATOM	1765	O3*	C A	92	95.564	31.017	21.638	1.00	53.83	O
ATOM	1716	C6	C A	89	101.011	13.530	23.151	1.00	67.15	C	ATOM	1766	C2*	C A	92	95.835	29.819	23.722	1.00	53.83	C
ATOM	1717	P	U A	90	102.686	16.451	18.706	1.00	55.61	P	ATOM	1767	O2*	C A	92	94.741	30.599	24.159	1.00	53.83	O
ATOM	1718	O1P	U A	90	103.177	16.797	17.340	1.00	56.77	O	ATOM	1768	C1*	C A	92	95.606	28.349	24.070	1.00	53.83	C
ATOM	1719	O2P	U A	90	103.591	16.597	19.884	1.00	56.77	O	ATOM	1769	N1	C A	92	96.877	27.672	24.330	1.00	46.48	N
ATOM	1720	O5*	U A	90	101.365	17.290	18.996	1.00	55.61	O	ATOM	1770	C2	C A	92	97.529	27.892	25.558	1.00	46.48	C
ATOM	1721	C5*	U A	90	100.245	17.194	18.111	1.00	55.61	C	ATOM	1771	O2	C A	92	97.017	28.659	26.388	1.00	46.48	O
ATOM	1722	C4*	U A	90	99.005	17.742	18.766	1.00	55.61	C	ATOM	1772	N3	C A	92	98.698	27.266	25.805	1.00	46.48	N
ATOM	1723	O4*	U A	90	98.736	17.015	19.993	1.00	55.61	O	ATOM	1773	C4	C A	92	99.219	26.449	24.891	1.00	46.48	C
ATOM	1724	C3*	U A	90	99.032	19.198	19.199	1.00	55.61	C	ATOM	1774	N4	C A	92	100.360	25.843	25.187	1.00	46.48	N
ATOM	1725	O3*	U A	90	98.743	20.077	18.129	1.00	55.61	O	ATOM	1775	C5	C A	92	98.587	26.214	23.635	1.00	46.48	C
ATOM	1726	C2*	U A	90	97.926	19.235	20.241	1.00	55.61	C	ATOM	1776	C6	C A	92	97.430	32.841	23.397	1.00	46.48	C
ATOM	1727	O2*	U A	90	96.650	19.309	19.627	1.00	55.61	O	ATOM	1777	P	G A	93	96.692	32.160	21.546	1.00	48.96	P
ATOM	1728	C1*	U A	90	98.107	17.877	20.925	1.00	55.61	C	ATOM	1778	O1P	G A	93	96.000	33.303	20.889	1.00	50.73	O
ATOM	1729	N1	U A	90	98.959	17.985	22.122	1.00	56.77	N	ATOM	1779	O2P	G A	93	97.952	31.630	20.961	1.00	50.73	O
ATOM	1730	C2	U A	90	98.362	18.418	23.292	1.00	56.77	C	ATOM	1780	O5*	G A	93	97.002	32.521	23.064	1.00	48.96	O
ATOM	1731	O2	U A	90	97.169	18.658	23.379	1.00	56.77	O	ATOM	1781	C5*	G A	93	96.021	33.197	23.842	1.00	48.96	C
ATOM	1732	N3	U A	90	99.211	18.555	24.362	1.00	56.77	N	ATOM	1782	C4*	G A	93	96.536	33.457	25.220	1.00	48.96	C
ATOM	1733	C4	U A	90	100.558	18.294	24.390	1.00	56.77	C	ATOM	1783	O4*	G A	93	96.797	32.199	25.880	1.00	48.96	O
ATOM	1734	O4	U A	90	101.183	18.453	25.441	1.00	56.77	O	ATOM	1784	C3*	G A	93	97.847	34.207	25.317	1.00	48.96	C
ATOM	1735	C5	U A	90	101.099	17.830	23.151	1.00	56.77	C	ATOM	1785	O3*	G A	93	97.674	35.609	25.192	1.00	48.96	O
ATOM	1736	C6	U A	90	100.301	17.693	22.086	1.00	56.77	C	ATOM	1786	C2*	G A	93	98.336	33.809	26.701	1.00	48.96	O
ATOM	1737	P	C A	91	99.129	21.631	18.250	1.00	46.44	P	ATOM	1787	O2*	G A	93	97.718	34.564	27.726	1.00	48.96	O
ATOM	1738	O1P	C A	91	99.058	22.177	16.867	1.00	37.27	O	ATOM	1788	C1*	G A	93	97.868	32.356	26.786	1.00	48.96	C
ATOM	1739	O2P	C A	91	100.379	21.783	19.050	1.00	37.27	O	ATOM	1789	N9	G A	93	98.926	31.427	26.415	1.00	50.73	N
ATOM	1740	O5*	C A	91	97.917	22.260	19.064	1.00	46.44	O	ATOM	1790	C8	G A	93	99.019	30.696	25.258	1.00	50.73	C
ATOM	1741	C5*	C A	91	96.629	22.422	18.444	1.00	46.44	C	ATOM	1791	N7	G A	93	100.099	29.964	25.199	1.00	50.73	N
ATOM	1742	C4*	C A	91	95.692	23.168	19.362	1.00	46.44	C	ATOM	1792	C5	G A	93	100.759	30.228	26.392	1.00	50.73	C
ATOM	1743	O4*	C A	91	95.471	22.397	20.575	1.00	46.44	O	ATOM	1793	C6	G A	93	101.997	29.735	26.888	1.00	50.73	C
ATOM	1744	C3*	C A	91	96.186	24.511	19.862	1.00	46.44	C	ATOM	1794	O6	G A	93	102.778	28.937	26.356	1.00	50.73	O
ATOM	1745	O3*	C A	91	95.945	25.543	18.925	1.00	46.44	O	ATOM	1795	N1	G A	93	102.295	30.270	28.136	1.00	50.73	N
ATOM	1746	C2*	C A	91	95.377	24.693	21.137	1.00	46.44	C	ATOM	1796	C2	G A	93	101.509	31.162	28.817	1.00	50.73	C
ATOM	1747	O2*	C A	91	94.050	25.099	20.874	1.00	46.44	O	ATOM	1797	N2	G A	93	101.973	31.564	29.997	1.00	50.73	N



Table 1: Sheet 20/521

ATOM	1798	N3	G A	93	100.354	31.628	28.370	1.00	50.73	N	ATOM	1848	C4*	G A	97	112.631	38.491	27.804	1.00	81.59	C
ATOM	1799	C4	G A	93	100.045	31.123	27.157	1.00	50.73	C	ATOM	1849	O4*	G A	97	112.077	37.150	27.773	1.00	81.59	O
ATOM	1800	P	U A	95	98.853	36.498	24.560	1.00	61.45	P	ATOM	1850	C3*	G A	97	113.368	38.604	26.483	1.00	81.59	C
ATOM	1801	O1P	U A	95	98.320	37.877	24.530	1.00	62.07	O	ATOM	1851	O3*	G A	97	114.356	39.622	26.472	1.00	81.59	O
ATOM	1802	O2P	U A	95	99.337	35.878	23.304	1.00	62.07	O	ATOM	1852	C2*	G A	97	113.965	37.212	26.332	1.00	81.59	C
ATOM	1803	O5*	U A	95	100.026	36.417	25.642	1.00	61.45	O	ATOM	1853	O2*	G A	97	115.146	37.040	27.085	1.00	81.59	O
ATOM	1804	C5*	U A	95	99.824	36.902	26.989	1.00	61.45	C	ATOM	1854	C1*	G A	97	112.853	36.338	26.909	1.00	81.59	C
ATOM	1805	C4*	U A	95	100.987	36.525	27.883	1.00	61.45	C	ATOM	1855	N9	G A	97	112.011	35.826	25.830	1.00	52.14	N
ATOM	1806	O4*	U A	95	101.049	35.584	28.037	1.00	61.45	O	ATOM	1856	C8	G A	97	110.779	36.280	25.409	1.00	52.14	C
ATOM	1807	C3*	U A	95	102.367	36.903	27.375	1.00	61.45	C	ATOM	1857	N7	G A	97	110.330	35.645	24.356	1.00	52.14	N
ATOM	1808	O3*	U A	95	102.699	38.266	27.607	1.00	61.45	O	ATOM	1858	C5	G A	97	111.316	34.707	24.077	1.00	52.14	C
ATOM	1809	C2*	U A	95	103.280	35.911	28.093	1.00	61.45	C	ATOM	1859	C6	G A	97	111.406	33.745	23.040	1.00	52.14	C
ATOM	1810	O2*	U A	95	103.637	36.264	29.418	1.00	61.45	O	ATOM	1860	O6	G A	97	110.610	33.527	22.121	1.00	52.14	O
ATOM	1811	C1*	U A	95	102.405	34.661	28.111	1.00	61.45	C	ATOM	1861	N1	G A	97	112.578	33.003	23.132	1.00	52.14	N
ATOM	1812	N1	U A	95	102.687	33.794	26.955	1.00	62.07	N	ATOM	1862	C2	G A	97	113.551	33.171	24.090	1.00	52.14	C
ATOM	1813	C2	U A	95	103.816	32.984	27.004	1.00	62.07	C	ATOM	1863	N2	G A	97	114.622	32.371	24.004	1.00	52.14	N
ATOM	1814	O2	U A	95	104.573	32.951	27.960	1.00	62.07	O	ATOM	1864	N3	G A	97	113.483	34.063	25.059	1.00	52.14	N
ATOM	1815	N3	U A	95	104.020	32.213	25.888	1.00	62.07	N	ATOM	1865	C4	G A	97	112.349	34.794	24.991	1.00	52.14	C
ATOM	1816	C4	U A	95	103.226	32.159	24.756	1.00	62.07	C	ATOM	1866	P	U A	98	114.618	40.454	25.117	1.00	75.31	P
ATOM	1817	O4	U A	95	103.506	31.364	23.853	1.00	62.07	O	ATOM	1867	O1P	U A	98	115.550	41.545	25.490	1.00	41.22	O
ATOM	1818	C5	U A	95	102.088	33.020	24.785	1.00	62.07	C	ATOM	1868	O2P	U A	98	113.325	40.784	24.444	1.00	41.22	O
ATOM	1819	C6	U A	95	101.863	33.787	25.853	1.00	62.07	C	ATOM	1869	O5*	U A	98	115.414	39.428	24.203	1.00	75.31	O
ATOM	1820	P	G A	96	103.734	39.000	26.619	1.00	72.94	P	ATOM	1870	C5*	U A	98	116.697	38.948	24.614	1.00	75.31	C
ATOM	1821	O1P	G A	96	103.464	40.452	26.744	1.00	63.78	O	ATOM	1871	C4*	U A	98	117.088	37.747	23.800	1.00	75.31	C
ATOM	1822	O2P	G A	96	103.677	38.354	25.278	1.00	63.78	O	ATOM	1872	O4*	U A	98	116.078	36.713	23.959	1.00	75.31	O
ATOM	1823	O5*	G A	96	105.152	38.663	27.256	1.00	72.94	O	ATOM	1873	C3*	U A	98	117.138	37.948	22.299	1.00	75.31	C
ATOM	1824	C5*	G A	96	105.398	38.957	28.630	1.00	72.94	C	ATOM	1874	O3*	U A	98	118.306	38.580	21.821	1.00	75.31	O
ATOM	1825	C4*	G A	96	106.674	38.311	29.098	1.00	72.94	C	ATOM	1875	C2*	U A	98	116.988	36.528	21.780	1.00	75.31	C
ATOM	1826	O4*	G A	96	106.528	36.869	29.156	1.00	72.94	O	ATOM	1876	O2*	U A	98	118.187	35.781	21.859	1.00	75.31	O
ATOM	1827	C3*	G A	96	107.917	38.499	28.251	1.00	72.94	C	ATOM	1877	C1*	U A	98	115.964	35.965	22.758	1.00	75.31	C
ATOM	1828	O3*	G A	96	108.516	39.771	28.389	1.00	72.94	O	ATOM	1878	N1	U A	98	114.602	36.105	22.213	1.00	41.22	N
ATOM	1829	C2*	G A	96	108.813	37.382	28.765	1.00	72.94	C	ATOM	1879	C2	U A	98	114.225	35.208	21.214	1.00	41.22	C
ATOM	1830	O2*	G A	96	109.444	37.689	29.993	1.00	72.94	O	ATOM	1880	O2	U A	98	114.964	34.325	20.797	1.00	41.22	O
ATOM	1831	C1*	G A	96	107.802	36.266	28.997	1.00	72.94	C	ATOM	1881	N3	U A	98	112.961	35.383	20.715	1.00	41.22	N
ATOM	1832	N9	G A	96	107.785	35.349	27.860	1.00	63.78	N	ATOM	1882	C4	U A	98	112.050	36.338	21.089	1.00	41.22	C
ATOM	1833	C8	G A	96	106.836	35.215	26.871	1.00	63.78	C	ATOM	1883	O4	U A	98	110.952	36.379	20.518	1.00	41.22	O
ATOM	1834	N7	G A	96	107.139	34.290	25.996	1.00	63.78	N	ATOM	1884	C5	U A	98	112.504	37.223	22.130	1.00	41.22	C
ATOM	1835	C5	G A	96	108.359	33.786	26.435	1.00	63.78	C	ATOM	1885	C6	U A	98	113.732	37.076	22.644	1.00	41.22	C
ATOM	1836	C6	G A	96	109.190	32.757	25.899	1.00	63.78	C	ATOM	1886	P	C A	99	118.248	39.349	20.408	1.00	70.83	P
ATOM	1837	O6	G A	96	109.001	32.047	24.902	1.00	63.78	O	ATOM	1887	O1P	C A	99	119.568	40.007	20.208	1.00	53.57	O
ATOM	1838	N1	G A	96	110.343	32.585	26.660	1.00	63.78	N	ATOM	1888	O2P	C A	99	117.001	40.159	20.372	1.00	53.57	O
ATOM	1839	C2	G A	96	110.659	33.298	27.792	1.00	63.78	C	ATOM	1889	O5*	C A	99	118.082	38.179	19.337	1.00	70.83	O
ATOM	1840	N2	G A	96	111.819	32.998	28.385	1.00	63.78	N	ATOM	1890	C5*	C A	99	119.086	37.157	19.211	1.00	70.83	C
ATOM	1841	N3	G A	96	109.894	34.241	28.305	1.00	63.78	N	ATOM	1891	C4*	C A	99	118.799	36.276	18.026	1.00	70.83	C
ATOM	1842	C4	G A	96	108.770	34.433	27.581	1.00	63.78	C	ATOM	1892	O4*	C A	99	117.668	35.417	18.297	1.00	70.83	O
ATOM	1843	P	G A	97	109.272	40.421	27.124	1.00	81.59	P	ATOM	1893	C3*	C A	99	118.424	36.994	16.746	1.00	70.83	C
ATOM	1844	O1P	G A	97	109.596	41.817	27.523	1.00	52.14	O	ATOM	1894	O3*	C A	99	119.558	37.476	16.057	1.00	70.83	O
ATOM	1845	O2P	G A	97	108.469	40.173	25.895	1.00	52.14	O	ATOM	1895	C2*	C A	99	117.686	35.915	15.970	1.00	70.83	C
ATOM	1846	O5*	G A	97	110.613	39.569	26.992	1.00	81.59	O	ATOM	1896	O2*	C A	99	118.551	35.024	15.297	1.00	70.83	O
ATOM	1847	C5*	G A	97	111.544	39.503	28.082	1.00	81.59	C	ATOM	1897	C1*	C A	99	116.960	35.177	17.092	1.00	70.83	C



ATOM	1898	N1	C A 99	115.579	35.662	17.245	1.00 53.57	N	ATOM	1948	N2	G A 102	108.519	36.442	8.278	1.00 40.33	N
ATOM	1899	C2	C A 99	114.577	35.135	16.409	1.00 53.57	C	ATOM	1949	N3	G A 102	110.808	36.453	8.524	1.00 40.33	N
ATOM	1900	O2	C A 99	114.877	34.267	15.564	1.00 53.57	O	ATOM	1950	C4	G A 102	111.805	37.068	9.192	1.00 40.33	C
ATOM	1901	N3	C A 99	113.305	35.583	16.541	1.00 53.57	N	ATOM	1951	P	C A 103	115.116	38.036	4.236	1.00 46.93	P
ATOM	1902	C4	C A 99	113.019	36.511	17.453	1.00 53.57	C	ATOM	1952	O1P	C A 103	115.863	37.847	2.955	1.00 41.39	O
ATOM	1903	N4	C A 99	111.758	36.923	17.547	1.00 53.57	N	ATOM	1953	O2P	C A 103	115.526	39.115	5.203	1.00 41.39	O
ATOM	1904	C5	C A 99	114.016	37.060	18.311	1.00 53.57	C	ATOM	1954	O5*	C A 103	113.574	38.173	3.887	1.00 46.93	O
ATOM	1905	C6	C A 99	115.269	36.612	18.175	1.00 53.57	C	ATOM	1955	C5*	C A 103	112.954	37.167	3.110	1.00 46.93	C
ATOM	1906	P	A A 101	119.587	39.002	15.548	1.00 61.22	P	ATOM	1956	C4*	C A 103	111.468	37.203	3.284	1.00 46.93	C
ATOM	1907	O1P	A A 101	121.034	39.318	15.386	1.00 50.48	O	ATOM	1957	O4*	C A 103	111.122	37.065	4.680	1.00 46.93	O
ATOM	1908	O2P	A A 101	118.745	39.852	16.434	1.00 50.48	O	ATOM	1958	C3*	C A 103	110.753	38.467	2.875	1.00 46.93	C
ATOM	1909	O5*	A A 101	118.890	38.945	14.113	1.00 61.22	O	ATOM	1959	O3*	C A 103	110.575	38.538	1.478	1.00 46.93	O
ATOM	1910	C5*	A A 101	119.650	38.582	12.952	1.00 61.22	C	ATOM	1960	C2*	C A 103	109.426	38.315	3.597	1.00 46.93	C
ATOM	1911	C4*	A A 101	118.947	37.496	12.189	1.00 61.22	C	ATOM	1961	O2*	C A 103	108.550	37.433	2.921	1.00 46.93	O
ATOM	1912	O4*	A A 101	118.159	36.724	13.127	1.00 61.22	O	ATOM	1962	C1*	C A 103	109.866	37.679	4.914	1.00 46.93	C
ATOM	1913	C3*	A A 101	117.950	37.923	11.123	1.00 61.22	C	ATOM	1963	N1	C A 103	110.007	38.698	5.967	1.00 41.39	N
ATOM	1914	O3*	A A 101	118.595	38.172	9.879	1.00 61.22	O	ATOM	1964	C2	C A 103	108.863	39.099	6.383	1.00 41.39	C
ATOM	1915	C2*	A A 101	117.053	36.698	11.023	1.00 61.22	C	ATOM	1965	O2	C A 103	107.769	39.099	5.875	1.00 41.39	O
ATOM	1916	O2*	A A 101	117.627	35.682	10.225	1.00 61.22	O	ATOM	1966	N3	C A 103	108.977	40.364	7.316	1.00 41.39	N
ATOM	1917	C1*	A A 101	117.010	36.222	12.475	1.00 61.22	C	ATOM	1967	C4	C A 103	110.175	40.665	7.821	1.00 41.39	C
ATOM	1918	N9	A A 101	115.817	36.720	13.154	1.00 50.48	N	ATOM	1968	N4	C A 103	110.250	41.664	8.707	1.00 41.39	N
ATOM	1919	C8	A A 101	115.713	37.686	14.123	1.00 50.48	C	ATOM	1969	C5	C A 103	111.356	39.961	7.433	1.00 41.39	C
ATOM	1920	N7	A A 101	114.473	37.965	14.458	1.00 50.48	N	ATOM	1970	C6	C A 103	111.224	38.988	6.517	1.00 41.39	C
ATOM	1921	C5	A A 101	113.713	37.115	13.665	1.00 50.48	C	ATOM	1971	P	G A 104	110.783	39.947	0.732	1.00 53.75	P
ATOM	1922	C6	A A 101	112.325	36.942	13.520	1.00 50.48	C	ATOM	1972	O1P	G A 104	110.356	39.762	-0.693	1.00 32.55	O
ATOM	1923	N6	A A 101	111.422	37.687	14.151	1.00 50.48	N	ATOM	1973	O2P	G A 104	112.169	40.388	1.029	1.00 32.55	O
ATOM	1924	N1	A A 101	111.894	35.983	12.675	1.00 50.48	N	ATOM	1974	O5*	G A 104	109.742	40.921	1.458	1.00 53.75	O
ATOM	1925	C2	A A 101	112.808	35.276	11.993	1.00 50.48	C	ATOM	1975	C5*	G A 104	108.337	40.851	1.140	1.00 53.75	C
ATOM	1926	N3	A A 101	114.136	35.370	12.015	1.00 50.48	N	ATOM	1976	C4*	G A 104	107.544	41.877	1.921	1.00 53.75	C
ATOM	1927	C4	A A 101	114.529	36.318	12.884	1.00 50.48	C	ATOM	1977	O4*	G A 104	107.613	41.609	3.343	1.00 53.75	O
ATOM	1928	P	A A 102	117.846	39.028	8.738	1.00 55.46	P	ATOM	1978	C3*	G A 104	107.958	43.330	1.816	1.00 53.75	C
ATOM	1929	O1P	G A 102	118.868	39.320	7.694	1.00 40.33	O	ATOM	1979	O3*	G A 104	107.504	43.932	0.622	1.00 53.75	O
ATOM	1930	O2P	G A 102	117.090	40.137	9.358	1.00 40.33	O	ATOM	1980	C2*	G A 104	107.308	43.938	3.053	1.00 53.75	C
ATOM	1931	O5*	G A 102	116.748	38.056	8.120	1.00 55.46	O	ATOM	1981	O2*	G A 104	105.919	44.157	2.909	1.00 53.75	O
ATOM	1932	C5*	G A 102	117.103	36.762	7.611	1.00 55.46	C	ATOM	1982	C1*	G A 104	107.484	42.821	4.066	1.00 53.75	C
ATOM	1933	C4*	G A 102	115.862	35.969	7.295	1.00 55.46	C	ATOM	1983	N9	G A 104	108.684	43.020	4.869	1.00 32.55	N
ATOM	1934	O4*	G A 102	115.133	35.684	8.515	1.00 55.46	O	ATOM	1984	C8	G A 104	109.871	42.334	4.771	1.00 32.55	C
ATOM	1935	C3*	G A 102	114.852	36.698	6.435	1.00 55.46	C	ATOM	1985	N7	G A 104	110.757	42.722	5.646	1.00 32.55	N
ATOM	1936	O3*	G A 102	115.178	36.670	5.065	1.00 55.46	O	ATOM	1986	C5	G A 104	110.122	43.728	6.359	1.00 32.55	C
ATOM	1937	O2*	G A 102	113.549	35.998	6.773	1.00 55.46	C	ATOM	1987	C6	G A 104	110.591	44.522	7.435	1.00 32.55	C
ATOM	1938	O2*	G A 102	113.402	34.774	6.095	1.00 55.46	O	ATOM	1988	O6	G A 104	111.677	44.480	7.995	1.00 32.55	O
ATOM	1939	C1*	G A 102	113.738	35.728	8.261	1.00 55.46	C	ATOM	1989	N1	G A 104	109.642	45.437	7.854	1.00 32.55	N
ATOM	1940	N9	G A 102	113.144	36.777	9.088	1.00 40.33	N	ATOM	1990	C2	G A 104	108.397	45.574	7.310	1.00 32.55	C
ATOM	1941	C8	G A 102	113.795	37.648	9.927	1.00 40.33	C	ATOM	1991	N2	G A 104	107.640	46.540	7.847	1.00 32.55	N
ATOM	1942	N7	G A 102	112.983	38.442	10.567	1.00 40.33	N	ATOM	1992	N3	G A 104	107.930	44.826	6.309	1.00 32.55	N
ATOM	1943	C5	G A 102	111.722	38.078	10.121	1.00 40.33	C	ATOM	1993	C4	G A 104	108.846	43.931	5.887	1.00 32.55	C
ATOM	1944	C6	G A 102	110.443	38.567	10.489	1.00 40.33	C	ATOM	1994	P	G A 105	108.381	45.096	-0.049	1.00 56.32	P
ATOM	1945	O6	G A 102	110.159	39.441	11.325	1.00 40.33	O	ATOM	1995	O1P	G A 105	107.666	45.462	-1.292	1.00 45.75	O
ATOM	1946	N1	G A 102	109.430	37.923	9.785	1.00 40.33	N	ATOM	1996	O2P	G A 105	109.801	44.649	-0.116	1.00 45.75	O
ATOM	1947	C2	G A 102	109.622	36.930	8.859	1.00 40.33	C	ATOM	1997	O5*	G A 105	108.284	46.309	0.983	1.00 56.32	O



ATOM	1998	C5*	G A 105	107.018	46.915	1.247	1.00	56.32	C	ATOM	2048	C1*	G A 107	115.219	55.182	5.575	1.00	41.17	C
ATOM	1999	C4*	G A 105	107.109	47.923	2.374	1.00	56.32	C	ATOM	2049	N9	G A 107	115.346	53.835	5.017	1.00	45.49	N
ATOM	2000	C4*	G A 105	107.564	47.302	3.598	1.00	56.32	O	ATOM	2050	C8	G A 107	114.545	53.238	4.074	1.00	45.49	C
ATOM	2001	C3*	G A 105	108.048	49.108	2.248	1.00	56.32	C	ATOM	2051	N7	G A 107	114.987	52.072	3.691	1.00	45.49	N
ATOM	2002	O3*	G A 105	107.525	50.109	1.379	1.00	56.32	O	ATOM	2052	C5	G A 107	116.133	51.878	4.442	1.00	45.49	C
ATOM	2003	C2*	G A 105	108.108	49.608	3.694	1.00	56.32	C	ATOM	2053	C6	G A 107	117.055	50.803	4.442	1.00	45.49	C
ATOM	2004	O2*	G A 105	107.018	50.427	4.064	1.00	56.32	O	ATOM	2054	O6	G A 107	117.038	49.779	3.752	1.00	45.49	O
ATOM	2005	C1*	G A 105	107.989	48.313	4.492	1.00	56.32	C	ATOM	2055	N1	G A 107	118.082	51.010	5.360	1.00	45.49	N
ATOM	2006	N9	G A 105	109.259	47.930	5.092	1.00	45.75	N	ATOM	2056	C2	G A 107	118.198	52.118	6.173	1.00	45.49	C
ATOM	2007	C8	G A 105	110.120	46.945	4.674	1.00	45.75	C	ATOM	2057	N2	G A 107	119.243	52.141	7.013	1.00	45.49	N
ATOM	2008	N7	G A 105	111.197	46.863	5.407	1.00	45.75	N	ATOM	2058	N3	G A 107	117.351	53.128	6.168	1.00	45.49	N
ATOM	2009	C5	G A 105	111.033	47.850	6.371	1.00	45.75	C	ATOM	2059	C4	G A 107	116.351	52.943	5.287	1.00	45.49	C
ATOM	2010	O6	G A 105	111.884	48.240	7.432	1.00	45.75	O	ATOM	2060	P	G A 108	116.990	57.555	1.741	1.00	38.64	P
ATOM	2011	C6	G A 105	112.990	47.768	7.743	1.00	45.75	O	ATOM	2061	O1P	G A 108	117.318	58.925	1.283	1.00	58.20	O
ATOM	2012	N1	G A 105	111.343	49.294	8.166	1.00	45.75	N	ATOM	2062	O2P	G A 108	116.209	56.655	0.855	1.00	58.20	O
ATOM	2013	C2	G A 105	110.135	49.897	7.906	1.00	45.75	C	ATOM	2063	O5*	G A 108	118.331	56.803	2.149	1.00	38.64	O
ATOM	2014	N2	G A 105	109.790	50.913	8.719	1.00	45.75	N	ATOM	2064	C5*	G A 108	118.858	56.944	3.467	1.00	38.64	C
ATOM	2015	N3	G A 105	109.326	49.536	6.917	1.00	45.75	N	ATOM	2065	C4*	G A 108	119.819	55.824	3.801	1.00	38.64	C
ATOM	2016	C4	G A 105	109.839	48.514	6.194	1.00	45.75	C	ATOM	2066	O4*	G A 108	119.193	54.501	3.726	1.00	38.64	O
ATOM	2017	P	C A 106	108.525	50.970	0.462	1.00	53.83	P	ATOM	2067	C3*	G A 108	121.044	55.591	2.935	1.00	38.64	C
ATOM	2018	O1P	C A 106	107.656	51.670	-0.520	1.00	40.73	O	ATOM	2068	O3*	G A 108	122.081	56.555	3.007	1.00	38.64	O
ATOM	2019	O2P	C A 106	109.642	50.121	-0.021	1.00	40.73	O	ATOM	2069	C2*	G A 108	121.531	54.275	3.523	1.00	38.64	C
ATOM	2020	O5*	C A 106	109.138	52.030	1.472	1.00	53.83	O	ATOM	2070	O2*	G A 108	122.155	54.472	4.778	1.00	38.64	O
ATOM	2021	C5*	C A 106	108.349	53.142	1.886	1.00	53.83	C	ATOM	2071	C1*	G A 108	120.220	53.518	3.736	1.00	38.64	C
ATOM	2022	C4*	C A 106	108.990	53.840	3.045	1.00	53.83	C	ATOM	2072	N9	G A 108	120.064	52.541	2.650	1.00	58.20	N
ATOM	2023	O4*	C A 106	109.043	52.947	4.180	1.00	53.83	O	ATOM	2073	C8	G A 108	120.920	51.479	2.406	1.00	58.20	C
ATOM	2024	C3*	C A 106	110.430	54.266	2.857	1.00	53.83	C	ATOM	2074	N7	G A 108	120.624	50.809	1.328	1.00	58.20	N
ATOM	2025	O3*	C A 106	110.553	55.448	2.103	1.00	53.83	O	ATOM	2075	C5	G A 108	119.495	51.443	0.841	1.00	58.20	C
ATOM	2026	C2*	C A 106	110.906	54.410	4.293	1.00	53.83	C	ATOM	2076	C6	G A 108	118.735	51.162	-0.303	1.00	58.20	C
ATOM	2027	O2*	C A 106	110.512	55.621	4.911	1.00	53.83	O	ATOM	2077	O6	G A 108	118.920	50.278	-1.148	1.00	58.20	O
ATOM	2028	C1*	C A 106	110.200	53.226	4.949	1.00	53.83	C	ATOM	2078	N1	G A 108	117.661	52.038	-0.427	1.00	58.20	N
ATOM	2029	N1	C A 106	111.096	52.072	4.867	1.00	40.73	N	ATOM	2079	C2	G A 108	117.365	53.062	0.457	1.00	58.20	C
ATOM	2030	C2	C A 106	112.120	51.955	5.915	1.00	40.73	C	ATOM	2080	N2	G A 108	116.271	53.809	0.169	1.00	58.20	N
ATOM	2031	O2	C A 106	112.175	52.779	6.751	1.00	40.73	O	ATOM	2081	N3	G A 108	118.081	53.336	1.536	1.00	58.20	N
ATOM	2032	N3	C A 106	113.023	50.957	5.685	1.00	40.73	N	ATOM	2082	C4	G A 108	119.121	52.500	1.663	1.00	58.20	C
ATOM	2033	C4	C A 106	112.923	50.097	4.666	1.00	40.73	C	ATOM	2083	P	A A 109	123.145	56.552	1.793	1.00	45.62	P
ATOM	2034	N4	C A 106	113.870	49.170	4.540	1.00	40.73	N	ATOM	2084	O1P	A A 109	123.668	55.282	1.497	1.00	48.83	O
ATOM	2035	C5	C A 106	111.856	50.162	3.722	1.00	40.73	C	ATOM	2085	O2P	A A 109	124.105	57.745	2.090	1.00	48.83	O
ATOM	2036	C6	C A 106	110.973	51.152	3.860	1.00	40.73	C	ATOM	2086	O5*	A A 109	122.266	57.087	0.539	1.00	45.62	O
ATOM	2037	P	G A 107	111.883	55.692	1.241	1.00	41.17	P	ATOM	2087	C5*	A A 109	121.544	58.328	0.554	1.00	45.62	C
ATOM	2038	O1P	G A 107	111.652	57.065	0.706	1.00	45.49	O	ATOM	2088	C4*	A A 109	121.876	59.152	-0.670	1.00	45.62	C
ATOM	2039	O2P	G A 107	112.120	54.565	0.281	1.00	45.49	O	ATOM	2089	O4*	A A 109	121.577	58.386	-1.865	1.00	45.62	O
ATOM	2040	O5*	G A 107	113.019	55.759	2.362	1.00	41.17	O	ATOM	2090	C3*	A A 109	121.097	60.458	-0.784	1.00	45.62	C
ATOM	2041	C5*	G A 107	113.007	56.857	3.288	1.00	41.17	C	ATOM	2091	O3*	A A 109	121.911	61.428	-1.437	1.00	45.62	O
ATOM	2042	C4*	G A 107	114.163	56.794	4.246	1.00	41.17	C	ATOM	2092	C2*	A A 109	119.964	60.087	-1.738	1.00	45.62	C
ATOM	2043	O4*	G A 107	113.963	55.718	5.192	1.00	41.17	O	ATOM	2093	O2*	A A 109	119.458	61.196	-2.464	1.00	45.62	O
ATOM	2044	C3*	G A 107	115.553	56.550	3.684	1.00	41.17	C	ATOM	2094	C1*	A A 109	120.669	59.100	-2.665	1.00	45.62	C
ATOM	2045	O3*	G A 107	116.188	57.693	3.131	1.00	41.17	O	ATOM	2095	N9	A A 109	119.817	58.134	-3.330	1.00	48.83	N
ATOM	2046	C2*	G A 107	116.287	56.057	4.915	1.00	41.17	C	ATOM	2096	C8	A A 109	119.501	58.092	-4.658	1.00	48.83	C
ATOM	2047	O2*	G A 107	116.673	57.129	5.749	1.00	41.17	O	ATOM	2097	N7	A A 109	118.765	57.065	-4.997	1.00	48.83	N



Table 1: Sheet 23/521

ATOM	2098	C5	A A 109	118.566	56.396	-3.800	1.00 48.83	C	ATOM	2148	P	G A 112	126.191	68.116	6.962	1.00 40.63	P
ATOM	2099	C6	A A 109	117.863	55.231	-3.481	1.00 48.83	C	ATOM	2149	O1P	G A 112	126.489	69.451	7.546	1.00 41.02	O
ATOM	2100	N6	A A 109	117.202	54.503	-4.381	1.00 48.83	N	ATOM	2150	O2P	G A 112	125.976	67.964	5.502	1.00 41.02	O
ATOM	2101	N1	A A 109	117.858	54.834	-2.192	1.00 48.83	N	ATOM	2151	O5*	G A 112	127.331	67.106	7.422	1.00 40.63	O
ATOM	2102	C2	A A 109	118.520	55.573	-1.291	1.00 48.83	C	ATOM	2152	C5*	G A 112	127.682	66.984	8.810	1.00 40.63	C
ATOM	2103	N3	A A 109	119.217	56.688	-1.468	1.00 48.83	N	ATOM	2153	C4*	G A 112	128.782	65.964	8.987	1.00 40.63	C
ATOM	2104	C4	A A 109	119.200	57.052	-2.762	1.00 48.83	C	ATOM	2154	O4*	G A 112	128.277	64.661	8.581	1.00 40.63	O
ATOM	2105	P	C A 110	122.855	62.402	-0.587	1.00 47.89	P	ATOM	2155	C3*	G A 112	130.039	66.133	8.145	1.00 40.63	C
ATOM	2106	O1P	C A 110	123.079	63.592	-1.441	1.00 58.42	O	ATOM	2156	O3*	G A 112	130.983	67.087	8.614	1.00 40.63	O
ATOM	2107	O2P	C A 110	124.020	61.625	-0.093	1.00 58.42	O	ATOM	2157	C2*	G A 112	130.594	64.720	8.146	1.00 40.63	C
ATOM	2108	O5*	C A 110	121.968	62.859	0.656	1.00 47.89	O	ATOM	2158	O2*	G A 112	131.207	64.404	9.381	1.00 40.63	O
ATOM	2109	C5*	C A 110	120.871	63.782	0.493	1.00 47.89	C	ATOM	2159	C1*	G A 112	129.318	63.903	7.987	1.00 40.63	C
ATOM	2110	C4*	C A 110	120.297	64.155	1.840	1.00 47.89	C	ATOM	2160	N9	G A 112	129.009	63.725	6.568	1.00 41.02	N
ATOM	2111	O4*	C A 110	119.827	62.953	2.493	1.00 47.89	O	ATOM	2161	C8	G A 112	127.926	64.218	5.880	1.00 41.02	C
ATOM	2112	C3*	C A 110	121.298	64.749	2.814	1.00 47.89	C	ATOM	2162	N7	G A 112	127.947	63.923	4.607	1.00 41.02	N
ATOM	2113	O3*	C A 110	121.427	66.143	2.659	1.00 47.89	O	ATOM	2163	C5	G A 112	129.111	63.189	4.445	1.00 41.02	C
ATOM	2114	C2*	C A 110	120.740	64.380	4.181	1.00 47.89	C	ATOM	2164	C6	G A 112	129.676	62.613	3.281	1.00 41.02	C
ATOM	2115	O2*	C A 110	119.797	65.279	4.729	1.00 47.89	O	ATOM	2165	O6	G A 112	129.267	62.660	2.125	1.00 41.02	O
ATOM	2116	C1*	C A 110	120.072	63.042	3.885	1.00 47.89	C	ATOM	2166	N1	G A 112	130.850	61.937	3.563	1.00 41.02	N
ATOM	2117	N1	C A 110	120.904	61.911	4.315	1.00 58.42	N	ATOM	2167	C2	G A 112	131.424	61.839	4.808	1.00 41.02	C
ATOM	2118	C2	C A 110	120.878	61.569	5.655	1.00 58.42	C	ATOM	2168	N2	G A 112	132.557	61.117	4.880	1.00 41.02	N
ATOM	2119	O2	C A 110	120.171	62.243	6.430	1.00 58.42	O	ATOM	2169	N3	G A 112	130.924	62.396	5.900	1.00 41.02	N
ATOM	2120	N3	C A 110	121.618	60.524	6.086	1.00 58.42	N	ATOM	2170	C4	G A 112	129.771	63.046	5.647	1.00 41.02	C
ATOM	2121	C4	C A 110	122.368	59.840	5.226	1.00 58.42	C	ATOM	2171	P	G A 113	131.861	67.920	7.535	1.00 52.97	P
ATOM	2122	N4	C A 110	123.077	58.817	5.703	1.00 58.42	N	ATOM	2172	O1P	G A 113	132.678	68.953	8.254	1.00 30.50	O
ATOM	2123	C5	C A 110	122.422	60.176	3.846	1.00 58.42	C	ATOM	2173	O2P	G A 113	130.946	68.329	6.436	1.00 30.50	O
ATOM	2124	C6	C A 110	121.682	61.209	3.436	1.00 58.42	C	ATOM	2174	O5*	G A 113	132.867	66.855	6.907	1.00 52.97	O
ATOM	2125	P	G A 111	122.836	66.836	2.968	1.00 39.60	P	ATOM	2175	C5*	G A 113	133.680	66.022	7.750	1.00 52.97	C
ATOM	2126	O1P	G A 111	122.590	68.308	2.913	1.00 62.13	O	ATOM	2176	C4*	G A 113	134.598	65.173	6.917	1.00 52.97	C
ATOM	2127	O2P	G A 111	123.877	66.221	2.102	1.00 62.13	O	ATOM	2177	O4*	G A 113	133.816	64.271	6.103	1.00 52.97	O
ATOM	2128	O5*	G A 111	123.158	66.436	4.470	1.00 39.60	O	ATOM	2178	C3*	G A 113	135.452	65.925	5.916	1.00 52.97	C
ATOM	2129	C5*	G A 111	122.515	67.114	5.535	1.00 39.60	C	ATOM	2179	O3*	G A 113	136.626	66.460	6.499	1.00 52.97	O
ATOM	2130	C4*	G A 111	122.842	66.457	6.829	1.00 39.60	C	ATOM	2180	C2*	G A 113	135.771	64.856	4.889	1.00 52.97	C
ATOM	2131	O4*	G A 111	122.388	65.087	6.780	1.00 39.60	O	ATOM	2181	O2*	G A 113	136.796	64.011	5.370	1.00 52.97	O
ATOM	2132	C3*	G A 111	124.317	66.342	7.119	1.00 39.60	C	ATOM	2182	C1*	G A 113	134.466	64.066	4.859	1.00 52.97	C
ATOM	2133	O3*	G A 111	124.860	67.535	7.631	1.00 39.60	O	ATOM	2183	N9	G A 113	133.543	64.429	3.787	1.00 30.50	N
ATOM	2134	C2*	G A 111	124.371	65.165	8.077	1.00 39.60	C	ATOM	2184	C8	G A 113	132.331	65.040	3.940	1.00 30.50	C
ATOM	2135	O2*	G A 111	124.035	65.519	9.409	1.00 39.60	O	ATOM	2185	N7	G A 113	131.680	65.174	2.820	1.00 30.50	N
ATOM	2136	C1*	G A 111	123.306	64.253	7.468	1.00 39.60	C	ATOM	2186	C5	G A 113	132.521	64.638	1.861	1.00 30.50	C
ATOM	2137	N8	G A 111	123.909	63.346	6.495	1.00 62.13	N	ATOM	2187	C6	G A 113	132.339	64.497	0.451	1.00 30.50	C
ATOM	2138	C9	G A 111	124.031	63.534	5.139	1.00 62.13	C	ATOM	2188	O6	G A 113	131.370	64.816	-0.237	1.00 30.50	O
ATOM	2139	N7	G A 111	124.684	62.573	4.546	1.00 62.13	N	ATOM	2189	N1	G A 113	133.437	63.908	-0.149	1.00 30.50	N
ATOM	2140	C5	G A 111	124.997	61.694	5.569	1.00 62.13	C	ATOM	2190	C2	G A 113	134.563	63.499	0.511	1.00 30.50	C
ATOM	2141	C6	G A 111	125.699	60.478	5.541	1.00 62.13	C	ATOM	2191	N2	G A 113	135.513	62.947	-0.261	1.00 30.50	N
ATOM	2142	O6	G A 111	126.230	59.916	4.577	1.00 62.13	O	ATOM	2192	N3	G A 113	134.745	63.618	1.829	1.00 30.50	N
ATOM	2143	N1	G A 111	125.764	59.901	6.800	1.00 62.13	N	ATOM	2193	C4	G A 113	133.686	64.191	2.434	1.00 30.50	C
ATOM	2144	C2	G A 111	125.233	60.434	7.940	1.00 62.13	C	ATOM	2194	P	U A 114	137.188	67.873	5.972	1.00 42.84	P
ATOM	2145	N2	G A 111	125.391	59.726	9.053	1.00 62.13	N	ATOM	2195	O1P	U A 114	138.209	68.354	6.947	1.00 37.41	O
ATOM	2146	N3	G A 111	124.592	61.575	7.985	1.00 62.13	N	ATOM	2196	O2P	U A 114	136.032	68.748	5.622	1.00 37.41	O
ATOM	2147	C4	G A 111	124.507	62.147	6.772	1.00 62.13	C	ATOM	2197	O5*	U A 114	137.896	67.504	4.599	1.00 42.84	O



ATOM	2198	C5*	U A 114	138.852	66.460	4.528	1.00	42.84	C	ATOM	2248	C1*	A A 116	142.300	64.697	-6.293	1.00	40.54	C
ATOM	2199	C4*	U A 114	139.027	66.039	3.103	1.00	42.84	C	ATOM	2249	N9	A A 116	141.075	65.459	-6.062	1.00	34.96	N
ATOM	2200	O4*	U A 114	137.802	65.454	2.618	1.00	42.84	O	ATOM	2250	C8	A A 116	140.880	66.531	-5.217	1.00	34.96	C
ATOM	2201	C3*	U A 114	139.326	67.150	2.118	1.00	42.84	C	ATOM	2251	N7	A A 116	139.669	67.019	-5.259	1.00	34.96	N
ATOM	2202	O3*	U A 114	140.705	67.421	2.097	1.00	42.84	O	ATOM	2252	C5	A A 116	139.019	66.214	-6.182	1.00	34.96	C
ATOM	2203	C2*	U A 114	138.881	66.549	0.799	1.00	42.84	C	ATOM	2253	C6	A A 116	137.717	66.214	-6.667	1.00	34.96	C
ATOM	2204	O2*	U A 114	139.869	65.678	0.270	1.00	42.84	O	ATOM	2254	N6	A A 116	136.786	67.087	-6.290	1.00	34.96	N
ATOM	2205	C1*	U A 114	137.672	65.722	1.236	1.00	42.84	C	ATOM	2255	N1	A A 116	137.389	65.276	-7.570	1.00	34.96	N
ATOM	2206	N1	U A 114	136.369	66.359	0.994	1.00	37.41	N	ATOM	2256	C2	A A 116	138.323	64.403	-7.958	1.00	34.96	C
ATOM	2207	C2	U A 114	135.896	66.377	-0.311	1.00	37.41	C	ATOM	2257	N3	A A 116	139.583	64.304	-7.581	1.00	34.96	N
ATOM	2208	O2	U A 114	136.541	65.962	-1.260	1.00	37.41	O	ATOM	2258	C4	A A 116	139.871	65.250	-6.679	1.00	34.96	C
ATOM	2209	N3	U A 114	134.644	66.905	-0.464	1.00	37.41	N	ATOM	2259	P	G A 117	144.777	67.649	-9.202	1.00	41.76	P
ATOM	2210	C4	U A 114	133.840	67.420	0.520	1.00	37.41	C	ATOM	2260	O1P	G A 117	146.112	67.792	-9.861	1.00	53.38	O
ATOM	2211	O4	U A 114	132.687	67.746	0.241	1.00	37.41	O	ATOM	2261	O2P	G A 117	144.201	68.799	-8.444	1.00	53.38	O
ATOM	2212	C5	U A 114	134.418	67.411	1.832	1.00	37.41	C	ATOM	2262	O5*	G A 117	143.712	67.171	-10.292	1.00	41.76	O
ATOM	2213	C6	U A 114	135.629	66.894	2.018	1.00	37.41	C	ATOM	2263	C5*	G A 117	143.853	65.914	-10.979	1.00	41.76	C
ATOM	2214	P	G A 115	141.215	68.896	1.767	1.00	37.16	P	ATOM	2264	C4*	G A 117	142.514	65.464	-11.516	1.00	41.76	C
ATOM	2215	O1P	G A 115	142.646	68.912	2.173	1.00	38.54	O	ATOM	2265	O4*	G A 117	141.616	65.313	-10.394	1.00	41.76	O
ATOM	2216	O2P	G A 115	140.281	69.854	2.389	1.00	38.54	O	ATOM	2266	C3*	G A 117	141.827	66.457	-12.442	1.00	41.76	C
ATOM	2217	O5*	G A 115	141.062	69.001	0.186	1.00	37.16	O	ATOM	2267	O3*	G A 117	142.191	66.274	-13.804	1.00	41.76	O
ATOM	2218	C5*	G A 115	141.753	68.090	-0.677	1.00	37.16	C	ATOM	2268	C2*	G A 117	140.349	66.192	-12.209	1.00	41.76	C
ATOM	2219	C4*	G A 115	141.295	68.284	-2.099	1.00	37.16	C	ATOM	2269	O2*	G A 117	139.850	65.131	-12.985	1.00	41.76	O
ATOM	2220	O4*	G A 115	139.872	68.084	-2.117	1.00	37.16	O	ATOM	2270	C1*	G A 117	140.337	65.815	-10.729	1.00	41.76	C
ATOM	2221	C3*	G A 115	141.526	69.682	-2.637	1.00	37.16	C	ATOM	2271	N9	G A 117	140.064	66.943	-9.844	1.00	53.38	N
ATOM	2222	O3*	G A 115	142.910	69.811	-3.080	1.00	37.16	O	ATOM	2272	C8	G A 117	140.912	67.470	-8.899	1.00	53.38	C
ATOM	2223	C2*	G A 115	140.307	69.999	-3.519	1.00	37.16	C	ATOM	2273	N7	G A 117	140.379	68.446	-8.216	1.00	53.38	N
ATOM	2224	O1*	G A 115	140.428	69.850	-4.920	1.00	37.16	O	ATOM	2274	C5	G A 117	139.104	68.572	-8.743	1.00	53.38	C
ATOM	2225	C2*	G A 115	139.268	68.994	-3.001	1.00	37.16	C	ATOM	2275	C6	G A 117	138.059	69.439	-8.382	1.00	53.38	C
ATOM	2226	N9	G A 115	137.988	69.397	-2.422	1.00	38.54	N	ATOM	2276	O6	G A 117	138.037	70.266	-7.469	1.00	53.38	O
ATOM	2227	C8	G A 115	137.676	69.531	-1.087	1.00	38.54	C	ATOM	2277	N1	G A 117	136.944	69.258	-9.194	1.00	53.38	N
ATOM	2228	N7	G A 115	136.409	69.773	-0.879	1.00	38.54	N	ATOM	2278	C2	G A 117	136.848	68.337	-10.209	1.00	53.38	C
ATOM	2229	C5	G A 115	135.858	69.831	-2.151	1.00	38.54	C	ATOM	2279	N2	G A 117	135.694	68.311	-10.887	1.00	53.38	N
ATOM	2230	C6	G A 115	134.531	70.051	-2.560	1.00	38.54	C	ATOM	2280	N3	G A 117	137.813	67.501	-10.536	1.00	53.38	N
ATOM	2231	O6	G A 115	133.538	70.203	-1.863	1.00	38.54	O	ATOM	2281	C4	G A 117	138.904	67.670	-9.768	1.00	53.38	C
ATOM	2232	N1	G A 115	134.412	70.064	-3.939	1.00	38.54	N	ATOM	2282	P	U A 118	142.619	67.549	-14.689	1.00	45.08	P
ATOM	2233	C2	G A 115	135.439	69.862	-4.816	1.00	38.54	C	ATOM	2283	O1P	U A 118	143.026	67.057	-16.036	1.00	45.97	O
ATOM	2234	N2	G A 115	135.128	69.913	-6.110	1.00	38.54	N	ATOM	2284	O2P	U A 118	143.575	68.374	-13.882	1.00	45.97	O
ATOM	2235	N3	G A 115	136.681	69.629	-4.455	1.00	38.54	N	ATOM	2285	O5*	U A 118	141.250	68.339	-14.875	1.00	45.08	O
ATOM	2236	C4	G A 115	136.822	69.632	-3.114	1.00	38.54	C	ATOM	2286	C5*	U A 118	140.135	67.695	-15.502	1.00	45.08	C
ATOM	2237	P	A A 116	143.418	69.304	-4.531	1.00	40.54	P	ATOM	2287	C4*	U A 118	138.895	68.526	-15.346	1.00	45.08	C
ATOM	2238	O1P	A A 116	144.827	69.769	-4.551	1.00	34.96	O	ATOM	2288	O4*	U A 118	138.523	68.590	-13.946	1.00	45.08	O
ATOM	2239	O2P	A A 116	142.514	69.697	-5.654	1.00	34.96	O	ATOM	2289	C3*	U A 118	138.998	69.971	-15.783	1.00	45.08	C
ATOM	2240	O5*	A A 116	143.449	67.712	-4.502	1.00	40.54	O	ATOM	2290	O3*	U A 118	138.795	70.105	-17.178	1.00	45.08	O
ATOM	2241	C5*	A A 116	144.638	66.983	-4.910	1.00	40.54	C	ATOM	2291	C2*	U A 118	137.869	70.615	-14.993	1.00	45.08	C
ATOM	2242	C4*	A A 116	144.289	65.854	-5.859	1.00	40.54	C	ATOM	2292	O2*	U A 118	136.620	70.370	-15.613	1.00	45.08	O
ATOM	2243	O4*	A A 116	143.220	65.060	-5.285	1.00	40.54	O	ATOM	2293	C1*	U A 118	137.933	69.846	-13.668	1.00	45.08	C
ATOM	2244	C3*	A A 116	143.777	66.270	-7.226	1.00	40.54	C	ATOM	2294	N1	U A 118	138.743	70.521	-12.638	1.00	45.97	N
ATOM	2245	O3*	A A 116	144.836	66.444	-8.146	1.00	40.54	O	ATOM	2295	C2	U A 118	138.166	71.557	-11.904	1.00	45.97	C
ATOM	2246	C2*	A A 116	142.915	65.091	-7.632	1.00	40.54	C	ATOM	2296	O2	U A 118	137.018	71.936	-12.067	1.00	45.97	O
ATOM	2247	O2*	A A 116	143.692	64.029	-8.138	1.00	40.54	O	ATOM	2297	N3	U A 118	138.990	72.136	-10.971	1.00	45.97	N



ATOM	2298	C4	U A 118	140.298	71.799	-10.696	1.00	45.97	C	ATOM	2348	O2P	C A 121	132.415	75.296	-22.468	1.00	38.38	O
ATOM	2299	O4	U A 118	140.907	72.395	-9.807	1.00	45.97	O	ATOM	2349	O5*	C A 121	130.565	74.552	-20.971	1.00	60.44	O
ATOM	2300	C5	U A 118	140.817	70.730	-11.489	1.00	45.97	C	ATOM	2350	C5*	C A 121	129.513	73.667	-20.560	1.00	60.44	C
ATOM	2301	C6	U A 118	140.043	70.142	-12.406	1.00	45.97	C	ATOM	2351	C4*	C A 121	129.012	74.055	-19.194	1.00	60.44	C
ATOM	2302	P	A A 119	139.614	71.225	-18.003	1.00	48.07	P	ATOM	2352	O4*	C A 121	128.601	75.448	-19.195	1.00	60.44	O
ATOM	2303	O1P	A A 119	139.120	71.125	-19.415	1.00	38.23	O	ATOM	2353	C3*	C A 121	127.813	73.248	-18.729	1.00	60.44	C
ATOM	2304	O2P	A A 119	141.080	71.092	-17.716	1.00	38.23	O	ATOM	2354	O3*	C A 121	127.898	73.044	-17.326	1.00	60.44	O
ATOM	2305	O5*	A A 119	139.143	72.614	-17.376	1.00	48.07	O	ATOM	2355	O2*	C A 121	126.642	74.176	-19.031	1.00	60.44	O
ATOM	2306	C5*	A A 119	137.898	73.214	-17.761	1.00	48.07	C	ATOM	2356	O2*	C A 121	125.524	73.948	-18.203	1.00	60.44	O
ATOM	2307	C4*	A A 119	138.129	74.631	-18.203	1.00	48.07	C	ATOM	2357	C1*	C A 121	127.255	75.554	-18.778	1.00	60.44	C
ATOM	2308	O4*	A A 119	138.634	75.359	-17.077	1.00	48.07	O	ATOM	2358	N1	C A 121	126.606	76.638	-19.547	1.00	38.38	N
ATOM	2309	C3*	A A 119	139.202	74.763	-19.262	1.00	48.07	C	ATOM	2359	C2	C A 121	126.075	77.765	-18.874	1.00	38.38	C
ATOM	2310	O3*	A A 119	138.689	74.537	-20.596	1.00	48.07	O	ATOM	2360	O2	C A 121	126.163	77.850	-17.638	1.00	38.38	O
ATOM	2311	C2*	A A 119	139.922	76.079	-18.962	1.00	48.07	C	ATOM	2361	N3	C A 121	125.474	78.734	-19.600	1.00	38.38	N
ATOM	2312	O2*	A A 119	139.664	77.171	-19.812	1.00	48.07	O	ATOM	2362	C4	C A 121	125.379	78.619	-20.927	1.00	38.38	C
ATOM	2313	C1*	A A 119	139.492	76.374	-17.521	1.00	48.07	C	ATOM	2363	N4	C A 121	124.748	79.575	-21.594	1.00	38.38	N
ATOM	2314	N9	A A 119	140.559	76.538	-16.537	1.00	38.23	N	ATOM	2364	C5	C A 121	125.916	77.513	-21.627	1.00	38.38	C
ATOM	2315	C8	A A 119	141.570	75.673	-16.208	1.00	38.23	C	ATOM	2365	C6	C A 121	126.513	76.553	-20.909	1.00	38.38	C
ATOM	2316	N7	A A 119	142.385	76.140	-15.293	1.00	38.23	N	ATOM	2366	P	G A 122	128.668	71.761	-16.746	1.00	41.73	P
ATOM	2317	C5	A A 119	141.871	77.393	-14.998	1.00	38.23	C	ATOM	2367	O1P	G A 122	130.013	71.718	-17.342	1.00	50.85	O
ATOM	2318	C6	A A 119	142.289	78.399	-14.118	1.00	38.23	C	ATOM	2368	O2P	G A 122	127.779	70.582	-16.875	1.00	50.85	O
ATOM	2319	N6	A A 119	143.373	78.304	-13.355	1.00	38.23	N	ATOM	2369	O5*	G A 122	128.844	72.130	-15.213	1.00	41.73	O
ATOM	2320	N1	A A 119	141.552	79.527	-14.056	1.00	38.23	N	ATOM	2370	C5*	G A 122	129.196	71.140	-14.264	1.00	41.73	C
ATOM	2321	C2	A A 119	140.475	79.628	-14.841	1.00	38.23	C	ATOM	2371	C4*	G A 122	130.146	71.720	-13.267	1.00	41.73	C
ATOM	2322	N3	A A 119	139.988	78.755	-15.717	1.00	38.23	N	ATOM	2372	O4*	G A 122	131.377	72.074	-13.954	1.00	41.73	O
ATOM	2323	C4	A A 119	140.741	77.646	-15.747	1.00	38.23	C	ATOM	2373	C3*	G A 122	129.689	73.020	-12.642	1.00	41.73	C
ATOM	2324	P	A A 120	137.462	75.415	-21.188	1.00	50.08	P	ATOM	2374	O3*	G A 122	128.772	72.841	-11.578	1.00	41.73	O
ATOM	2325	O1P	A A 120	137.452	75.217	-22.665	1.00	34.56	O	ATOM	2375	C2*	G A 122	131.006	73.681	-12.242	1.00	41.73	C
ATOM	2326	O2P	A A 120	137.457	76.793	-20.639	1.00	34.56	O	ATOM	2376	O2*	G A 122	131.530	73.218	-11.007	1.00	41.73	O
ATOM	2327	O5*	A A 120	136.163	74.683	-20.640	1.00	50.08	O	ATOM	2377	C1*	G A 122	131.918	73.268	-13.402	1.00	41.73	C
ATOM	2328	C5*	A A 120	135.850	73.336	-21.019	1.00	50.08	C	ATOM	2378	N9	G A 122	131.951	74.274	-14.461	1.00	50.85	N
ATOM	2329	C4*	A A 120	134.739	72.826	-20.151	1.00	50.08	C	ATOM	2379	C8	G A 122	131.490	74.129	-15.746	1.00	50.85	C
ATOM	2330	O4*	A A 120	135.182	72.907	-18.778	1.00	50.08	O	ATOM	2380	N7	G A 122	131.604	75.213	-16.457	1.00	50.85	N
ATOM	2331	C3*	A A 120	133.487	73.673	-20.219	1.00	50.08	C	ATOM	2381	C5	G A 122	132.182	76.127	-15.594	1.00	50.85	C
ATOM	2332	O3*	A A 120	132.640	73.132	-21.220	1.00	50.08	O	ATOM	2382	C6	G A 122	132.522	77.466	-15.801	1.00	50.85	C
ATOM	2333	C2*	A A 120	132.900	73.519	-18.823	1.00	50.08	C	ATOM	2383	O6	G A 122	132.353	78.147	-16.817	1.00	50.85	O
ATOM	2334	O2*	A A 120	132.220	72.291	-18.684	1.00	50.08	O	ATOM	2384	N1	G A 122	133.103	78.026	-14.674	1.00	50.85	N
ATOM	2335	C1*	A A 120	134.159	73.432	-17.960	1.00	50.08	C	ATOM	2385	N2	G A 122	133.312	77.375	-13.489	1.00	50.85	C
ATOM	2336	N9	A A 120	134.660	74.693	-17.405	1.00	34.56	N	ATOM	2386	N2	G A 122	133.898	78.089	-12.509	1.00	50.85	N
ATOM	2337	C8	A A 120	134.712	75.924	-18.018	1.00	34.56	C	ATOM	2387	N3	G A 122	132.975	76.120	-13.276	1.00	50.85	N
ATOM	2338	N7	A A 120	135.285	76.855	-17.292	1.00	34.56	N	ATOM	2388	C4	G A 122	132.421	75.560	-14.365	1.00	50.85	C
ATOM	2339	C5	A A 120	135.618	76.201	-16.116	1.00	34.56	C	ATOM	2389	P	C A 123	127.532	73.848	-11.448	1.00	43.55	P
ATOM	2340	C6	A A 120	136.269	76.640	-14.949	1.00	34.56	C	ATOM	2390	O1P	C A 123	126.582	73.312	-10.448	1.00	46.40	O
ATOM	2341	N6	A A 120	136.730	77.883	-14.793	1.00	34.56	N	ATOM	2391	O2P	C A 123	127.067	74.121	-12.833	1.00	46.40	O
ATOM	2342	N1	A A 120	136.444	75.747	-13.949	1.00	34.56	N	ATOM	2392	O5*	C A 123	128.183	75.189	-10.886	1.00	43.55	O
ATOM	2343	C2	A A 120	136.009	74.489	-14.138	1.00	34.56	C	ATOM	2393	C5*	C A 123	129.061	75.153	-9.737	1.00	43.55	C
ATOM	2344	N3	A A 120	135.395	73.949	-15.202	1.00	34.56	N	ATOM	2394	C4*	C A 123	129.862	76.441	-9.617	1.00	43.55	C
ATOM	2345	C4	A A 120	135.226	74.871	-16.164	1.00	34.56	C	ATOM	2395	O4*	C A 123	130.794	76.571	-10.728	1.00	43.55	O
ATOM	2346	P	C A 121	131.653	74.094	-22.043	1.00	60.44	P	ATOM	2396	C3*	C A 123	129.074	77.740	-9.628	1.00	43.55	C
ATOM	2347	O1P	C A 121	130.977	73.246	-23.069	1.00	38.38	O	ATOM	2397	O3*	C A 123	128.533	78.045	-8.351	1.00	43.55	O



ATOM	2398	C2*	C A 123	130.120	78.751	-10.082	1.00	43.55	C	ATOM	2448	C4	U A 125	124.118	82.039	-14.529	1.00	33.10	C
ATOM	2399	O2*	C A 123	130.997	79.132	-9.047	1.00	43.55	O	ATOM	2449	O4	U A 125	124.128	80.941	-15.117	1.00	33.10	O
ATOM	2400	C1*	C A 123	130.920	77.934	-11.091	1.00	43.55	C	ATOM	2450	O5	U A 125	124.305	82.252	-13.120	1.00	33.10	C
ATOM	2401	N1	C A 123	130.369	78.103	-12.444	1.00	46.40	N	ATOM	2451	C6	U A 125	124.423	83.509	-12.645	1.00	33.10	C
ATOM	2402	C2	C A 123	130.548	79.331	-13.101	1.00	46.40	C	ATOM	2452	P	G A 126	120.598	86.987	-10.276	1.00	29.85	P
ATOM	2403	O2	C A 123	131.219	80.222	-12.544	1.00	46.40	O	ATOM	2453	O1P	G A 126	120.040	88.112	-9.473	1.00	42.41	O
ATOM	2404	N3	C A 123	129.987	79.514	-14.321	1.00	46.40	N	ATOM	2454	O2P	G A 126	120.557	85.601	-9.728	1.00	42.41	O
ATOM	2405	C4	C A 123	129.282	78.529	-14.882	1.00	46.40	C	ATOM	2455	O5*	G A 126	119.916	86.976	-11.715	1.00	29.85	O
ATOM	2406	N4	C A 123	128.713	78.759	-16.062	1.00	46.40	N	ATOM	2456	C5*	G A 126	119.817	88.184	-12.454	1.00	29.85	C
ATOM	2407	C5	C A 123	129.119	77.263	-14.251	1.00	46.40	C	ATOM	2457	C4*	G A 126	119.513	87.900	-13.889	1.00	29.85	C
ATOM	2408	C6	C A 123	129.673	77.094	-13.048	1.00	46.40	C	ATOM	2458	O4*	G A 126	120.543	87.059	-14.461	1.00	29.85	O
ATOM	2409	P	G A 124	127.073	78.706	-8.259	1.00	42.53	P	ATOM	2459	C3*	G A 126	118.255	87.115	-14.165	1.00	29.85	C
ATOM	2410	O1P	G A 124	126.674	78.715	-6.822	1.00	29.37	O	ATOM	2460	C3*	G A 126	117.089	87.931	-14.076	1.00	29.85	C
ATOM	2411	O2P	G A 124	126.206	78.038	-9.250	1.00	29.37	O	ATOM	2461	C2*	G A 126	118.508	86.598	-15.582	1.00	29.85	C
ATOM	2412	O5*	G A 124	127.286	80.201	-8.765	1.00	42.53	O	ATOM	2462	O2*	G A 126	118.195	87.572	-16.549	1.00	29.85	O
ATOM	2413	C5*	G A 124	128.162	81.095	-8.063	1.00	42.53	C	ATOM	2463	C1*	G A 126	120.024	86.390	-15.595	1.00	29.85	C
ATOM	2414	C4*	G A 124	128.270	82.407	-8.797	1.00	42.53	C	ATOM	2464	N9	G A 126	120.420	84.985	-15.547	1.00	42.41	N
ATOM	2415	O4*	G A 124	128.945	82.208	-10.061	1.00	42.53	O	ATOM	2465	C8	G A 126	120.766	84.267	-14.430	1.00	42.41	C
ATOM	2416	C3*	G A 124	126.966	83.066	-9.200	1.00	42.53	C	ATOM	2466	N7	G A 126	121.054	83.019	-14.688	1.00	42.41	N
ATOM	2417	O3*	G A 124	126.384	83.810	-8.157	1.00	42.53	O	ATOM	2467	C5	G A 126	120.895	82.903	-16.058	1.00	42.41	C
ATOM	2418	C2*	G A 124	127.395	83.984	-10.328	1.00	42.53	C	ATOM	2468	C6	G A 126	121.066	81.782	-16.900	1.00	42.41	C
ATOM	2419	O2*	G A 124	127.970	85.165	-9.808	1.00	42.53	O	ATOM	2469	O6	G A 126	121.404	80.633	-16.589	1.00	42.41	O
ATOM	2420	C1*	G A 124	128.469	83.146	-11.009	1.00	42.53	C	ATOM	2470	N1	G A 126	120.796	82.092	-18.229	1.00	42.41	N
ATOM	2421	N9	G A 124	127.983	82.425	-12.180	1.00	29.37	N	ATOM	2471	C2	G A 126	120.410	83.322	-18.687	1.00	42.41	C
ATOM	2422	C8	G A 124	127.624	81.102	-12.258	1.00	29.37	C	ATOM	2472	N2	G A 126	120.177	83.404	-19.997	1.00	42.41	N
ATOM	2423	N7	G A 124	127.279	80.735	-13.463	1.00	29.37	N	ATOM	2473	N3	G A 126	120.256	84.391	-17.910	1.00	42.41	N
ATOM	2424	C5	G A 124	127.410	81.887	-14.220	1.00	29.37	C	ATOM	2474	C4	G A 126	120.510	84.107	-16.612	1.00	42.41	C
ATOM	2425	C6	G A 124	127.183	82.104	-15.592	1.00	29.37	C	ATOM	2475	P	G A 127	115.632	87.238	-14.093	1.00	46.19	P
ATOM	2426	O6	G A 124	126.801	81.298	-16.446	1.00	29.37	O	ATOM	2476	O1P	G A 127	114.606	88.314	-13.962	1.00	38.25	O
ATOM	2427	N1	G A 124	127.430	83.418	-15.947	1.00	29.37	N	ATOM	2477	O2P	G A 127	115.643	86.108	-13.121	1.00	38.25	O
ATOM	2428	C2	G A 124	127.830	84.402	-15.090	1.00	29.37	C	ATOM	2478	O5*	G A 127	115.540	86.678	-15.582	1.00	46.19	O
ATOM	2429	N2	G A 124	127.995	85.618	-15.629	1.00	29.37	N	ATOM	2479	C5*	G A 127	114.780	85.519	-15.911	1.00	46.19	C
ATOM	2430	N3	G A 124	128.049	84.216	-13.802	1.00	29.37	N	ATOM	2480	C4*	G A 127	115.085	85.122	-17.324	1.00	46.19	C
ATOM	2431	C4	G A 124	127.824	82.942	-13.439	1.00	29.37	C	ATOM	2481	O4*	G A 127	116.503	84.848	-17.428	1.00	46.19	O
ATOM	2432	P	U A 125	124.790	83.900	-8.066	1.00	34.41	P	ATOM	2482	C3*	G A 127	114.421	83.853	-17.819	1.00	46.19	C
ATOM	2433	O1P	U A 125	124.523	84.631	-6.805	1.00	33.10	O	ATOM	2483	O3*	G A 127	113.095	84.058	-18.264	1.00	46.19	O
ATOM	2434	O2P	U A 125	124.181	82.563	-8.303	1.00	33.10	O	ATOM	2484	C2*	G A 127	115.361	83.387	-18.923	1.00	46.19	C
ATOM	2435	O5*	U A 125	124.381	84.788	-9.315	1.00	34.41	O	ATOM	2485	O2*	G A 127	115.163	84.004	-20.180	1.00	46.19	O
ATOM	2436	C5*	U A 125	124.765	86.153	-9.375	1.00	34.41	C	ATOM	2486	C1*	G A 127	116.721	83.779	-18.343	1.00	46.19	C
ATOM	2437	C4*	U A 125	124.435	86.707	-10.718	1.00	34.41	C	ATOM	2487	N9	G A 127	117.276	82.650	-17.604	1.00	38.25	N
ATOM	2438	O4*	U A 125	125.201	86.005	-11.729	1.00	34.41	O	ATOM	2488	C8	G A 127	117.559	82.598	-16.264	1.00	38.25	C
ATOM	2439	C3*	U A 125	123.008	86.504	-11.172	1.00	34.41	C	ATOM	2489	N7	G A 127	117.974	81.425	-15.877	1.00	38.25	N
ATOM	2440	O3*	U A 125	122.119	87.430	-10.579	1.00	34.41	O	ATOM	2490	C5	G A 127	117.978	80.659	-17.037	1.00	38.25	C
ATOM	2441	C2*	U A 125	123.130	86.667	-12.681	1.00	34.41	C	ATOM	2491	C6	G A 127	118.328	79.300	-17.238	1.00	38.25	C
ATOM	2442	O2*	U A 125	123.219	88.027	-13.067	1.00	34.41	O	ATOM	2492	O6	G A 127	118.695	78.471	-16.405	1.00	38.25	O
ATOM	2443	C1*	U A 125	124.478	86.001	-12.947	1.00	34.41	C	ATOM	2493	N1	G A 127	118.214	78.930	-18.568	1.00	38.25	N
ATOM	2444	N1	U A 125	124.362	84.626	-13.463	1.00	33.10	N	ATOM	2494	C2	G A 127	117.810	79.750	-19.577	1.00	38.25	C
ATOM	2445	C2	U A 125	124.175	84.490	-14.828	1.00	33.10	C	ATOM	2495	N2	G A 127	117.785	79.195	-20.801	1.00	38.25	N
ATOM	2446	O2	U A 125	124.110	85.441	-15.585	1.00	33.10	O	ATOM	2496	N3	G A 127	117.462	81.019	-19.405	1.00	38.25	N
ATOM	2447	N3	U A 125	124.062	83.198	-15.278	1.00	33.10	N	ATOM	2497	C4	G A 127	117.574	81.403	-18.114	1.00	38.25	C



Table 1: Sheet 27/521

ATOM	2498	P	G A 128	111.987	82.936	-17.960	1.00	50.41	P	ATOM	2548	C3*	G A 129A	107.271	73.692	-24.935	1.00	59.33	C
ATOM	2499	O1P	G A 128	110.643	83.529	-18.138	1.00	41.13	O	ATOM	2549	O3*	G A 129A	108.700	73.581	-25.219	1.00	59.33	O
ATOM	2500	O2P	G A 128	112.310	82.352	-16.624	1.00	41.13	O	ATOM	2550	C2*	G A 129A	106.382	74.209	-26.065	1.00	59.33	C
ATOM	2501	O5*	G A 128	112.254	81.830	-19.071	1.00	50.41	O	ATOM	2551	O2*	G A 129A	106.829	73.984	-27.378	1.00	59.33	O
ATOM	2502	C5*	G A 128	112.286	82.180	-20.456	1.00	50.41	C	ATOM	2552	C1*	G A 129A	105.055	73.481	-25.820	1.00	59.33	C
ATOM	2503	C4*	G A 128	112.743	81.002	-21.272	1.00	50.41	C	ATOM	2553	N9	G A 129A	103.901	74.324	-25.527	1.00	53.56	N
ATOM	2504	O4*	G A 128	114.098	80.652	-20.899	1.00	50.41	O	ATOM	2554	C8	G A 129A	103.673	75.067	-24.393	1.00	53.56	C
ATOM	2505	C3*	G A 128	111.975	79.714	-21.059	1.00	50.41	C	ATOM	2555	N7	G A 129A	102.558	75.746	-24.444	1.00	53.56	N
ATOM	2506	O3*	G A 128	110.785	79.675	-21.804	1.00	50.41	O	ATOM	2556	C5	G A 129A	102.016	75.426	-25.681	1.00	53.56	C
ATOM	2507	C2*	G A 128	112.967	78.657	-21.510	1.00	50.41	C	ATOM	2557	O6	G A 129A	100.824	75.857	-26.290	1.00	53.56	O
ATOM	2508	O2*	G A 128	113.026	78.536	-22.915	1.00	50.41	O	ATOM	2558	C6	G A 129A	99.978	76.651	-25.847	1.00	53.56	C
ATOM	2509	C1*	G A 128	114.277	79.249	-21.006	1.00	50.41	C	ATOM	2559	N1	G A 129A	100.649	75.275	-27.545	1.00	53.56	N
ATOM	2510	N9	G A 128	114.651	78.725	-19.694	1.00	41.13	N	ATOM	2560	C2	G A 129A	101.515	74.392	-28.134	1.00	53.56	C
ATOM	2511	C8	G A 128	114.722	79.415	-18.504	1.00	41.13	C	ATOM	2561	N2	G A 129A	101.169	73.930	-29.347	1.00	53.56	N
ATOM	2512	N7	G A 128	115.116	78.671	-17.506	1.00	41.13	N	ATOM	2562	N3	G A 129A	102.638	73.988	-27.574	1.00	53.56	N
ATOM	2513	C5	G A 128	115.310	77.412	-18.067	1.00	41.13	C	ATOM	2563	C4	G A 129A	102.825	74.540	-26.357	1.00	53.56	C
ATOM	2514	C6	G A 128	115.751	76.205	-17.480	1.00	41.13	C	ATOM	2564	P	A A 130	109.275	72.536	-26.335	1.00	45.22	P
ATOM	2515	O6	G A 128	116.074	75.994	-16.310	1.00	41.13	O	ATOM	2565	O1P	A A 130	110.675	72.888	-26.593	1.00	55.87	O
ATOM	2516	N1	G A 128	115.811	75.175	-18.409	1.00	41.13	N	ATOM	2566	O2P	A A 130	108.381	72.306	-27.474	1.00	55.87	O
ATOM	2517	C2	G A 128	115.495	75.289	-19.735	1.00	41.13	C	ATOM	2567	O5*	A A 130	109.354	71.155	-25.562	1.00	45.22	O
ATOM	2518	N2	G A 128	115.625	74.178	-20.478	1.00	41.13	N	ATOM	2568	C5*	A A 130	109.348	69.906	-26.272	1.00	45.22	C
ATOM	2519	N3	G A 128	115.086	76.408	-20.298	1.00	41.13	N	ATOM	2569	C4*	A A 130	109.776	68.800	-25.347	1.00	45.22	C
ATOM	2520	C4	G A 128	115.018	77.425	-19.412	1.00	41.13	C	ATOM	2570	O4*	A A 130	111.203	68.916	-25.110	1.00	45.22	O
ATOM	2521	P	U A 129	109.501	78.972	-21.171	1.00	52.71	P	ATOM	2571	C3*	A A 130	109.107	68.834	-23.979	1.00	45.22	C
ATOM	2522	O1P	U A 129	108.398	79.095	-22.155	1.00	43.10	O	ATOM	2572	O3*	A A 130	108.911	67.480	-23.563	1.00	45.22	O
ATOM	2523	O2P	U A 129	109.332	79.487	-19.790	1.00	43.10	O	ATOM	2573	C2*	A A 130	110.139	69.572	-23.124	1.00	45.22	C
ATOM	2524	O5*	U A 129	109.914	77.442	-21.104	1.00	52.71	O	ATOM	2574	O2*	A A 130	110.103	69.319	-21.736	1.00	45.22	O
ATOM	2525	C5*	U A 129	110.070	76.678	-22.305	1.00	52.71	C	ATOM	2575	C1*	A A 130	111.450	69.081	-23.732	1.00	45.22	C
ATOM	2526	C4*	U A 129	110.316	75.233	-21.963	1.00	52.71	C	ATOM	2576	N9	A A 130	112.581	69.999	-23.583	1.00	55.87	N
ATOM	2527	O4*	U A 129	111.570	75.095	-21.258	1.00	52.71	O	ATOM	2577	C8	A A 130	112.665	71.298	-24.012	1.00	55.87	C
ATOM	2528	C3*	U A 129	109.294	74.602	-21.036	1.00	52.71	C	ATOM	2578	N7	A A 130	113.822	71.859	-23.771	1.00	55.87	N
ATOM	2529	O3*	U A 129	108.213	74.137	-21.819	1.00	52.71	O	ATOM	2579	C5	A A 130	114.551	70.865	-23.132	1.00	55.87	C
ATOM	2531	O2*	U A 129	110.066	72.286	-21.230	1.00	52.71	O	ATOM	2580	C6	A A 130	115.860	70.831	-22.628	1.00	55.87	C
ATOM	2532	C1*	U A 129	111.492	73.994	-20.382	1.00	52.71	C	ATOM	2581	N6	A A 130	116.702	71.858	-22.698	1.00	55.87	N
ATOM	2533	N1	U A 129	111.959	74.403	-19.053	1.00	43.10	N	ATOM	2582	N1	A A 130	116.281	69.691	-22.046	1.00	55.87	N
ATOM	2534	C2	U A 129	112.630	73.452	-18.302	1.00	43.10	C	ATOM	2583	C2	A A 130	115.440	68.659	-21.986	1.00	55.87	C
ATOM	2535	O2	U A 129	112.862	72.316	-18.709	1.00	43.10	O	ATOM	2584	N3	A A 130	114.190	68.565	-22.428	1.00	55.87	N
ATOM	2536	N3	U A 129	113.026	73.875	-17.060	1.00	43.10	N	ATOM	2585	C4	A A 130	113.797	69.718	-22.999	1.00	55.87	C
ATOM	2537	C4	U A 129	112.829	75.122	-16.505	1.00	43.10	C	ATOM	2586	P	C A 131	107.734	67.110	-22.526	1.00	52.71	P
ATOM	2538	O4	U A 129	113.195	75.330	-15.344	1.00	43.10	O	ATOM	2587	O1P	C A 131	107.720	65.629	-22.432	1.00	39.17	O
ATOM	2539	C5	U A 129	112.145	76.050	-17.350	1.00	43.10	C	ATOM	2588	O2P	C A 131	106.487	67.832	-22.894	1.00	39.17	O
ATOM	2540	C6	U A 129	111.741	75.667	-18.563	1.00	43.10	C	ATOM	2589	O5*	C A 131	108.272	67.696	-21.146	1.00	52.71	O
ATOM	2541	P	G A 129A	106.715	74.179	-21.247	1.00	59.33	P	ATOM	2590	C5*	C A 131	107.832	67.173	-19.893	1.00	52.71	C
ATOM	2542	O1P	G A 129A	106.192	75.559	-21.405	1.00	53.56	O	ATOM	2591	C4*	C A 131	108.960	66.450	-19.201	1.00	52.71	C
ATOM	2543	O2P	G A 129A	106.734	73.553	-19.896	1.00	53.56	O	ATOM	2592	O4*	C A 131	110.140	67.287	-19.168	1.00	52.71	O
ATOM	2544	O5*	G A 129A	105.948	72.287	-22.287	1.00	59.33	O	ATOM	2593	C3*	C A 131	108.680	66.120	-17.747	1.00	52.71	C
ATOM	2545	C5*	G A 129A	106.650	72.174	-22.973	1.00	59.33	C	ATOM	2594	O3*	C A 131	107.958	64.905	-17.630	1.00	52.71	O
ATOM	2546	C4*	G A 129A	106.606	72.401	-24.460	1.00	59.33	C	ATOM	2595	C2*	C A 131	110.074	66.036	-17.146	1.00	52.71	C
ATOM	2547	O4*	G A 129A	105.210	72.545	-24.783	1.00	59.33	O	ATOM	2596	O2*	C A 131	110.670	64.776	-17.373	1.00	52.71	O
ATOM										ATOM	2597	C1*	C A 131	110.818	67.116	-17.936	1.00	52.71	C



Table 1: Sheet 28/521

ATOM	2598	N1	C A 131	110.850	68.417	-17.238	1.00	39.17	N	ATOM	2648	O2P	A A 134	106.005	63.231	-4.980	1.00	47.00	O
ATOM	2599	C2	C A 131	111.622	68.556	-16.072	1.00	39.17	C	ATOM	2649	O5*	A A 134	106.642	60.897	-4.433	1.00	58.90	O
ATOM	2600	O2	C A 131	112.335	67.620	-15.701	1.00	39.17	O	ATOM	2650	C5*	A A 134	106.838	59.485	-4.680	1.00	58.90	C
ATOM	2601	N3	C A 131	111.583	69.714	-15.388	1.00	39.17	N	ATOM	2651	C4*	A A 134	107.512	58.855	-3.483	1.00	58.90	C
ATOM	2602	C4	C A 131	110.848	70.727	-15.837	1.00	39.17	C	ATOM	2652	O4*	A A 134	108.888	59.297	-3.453	1.00	58.90	O
ATOM	2603	N4	C A 131	110.832	71.850	-15.120	1.00	39.17	N	ATOM	2653	C3*	A A 134	106.926	59.307	-2.155	1.00	58.90	C
ATOM	2604	C5	C A 131	110.093	70.635	-17.039	1.00	39.17	C	ATOM	2654	O3*	A A 134	105.825	58.511	-1.757	1.00	58.90	O
ATOM	2605	P6	C A 131	110.121	69.473	-17.071	1.00	39.17	C	ATOM	2655	O2*	A A 134	108.110	59.237	-1.205	1.00	58.90	C
ATOM	2606	P	C A 132	106.879	64.730	-16.456	1.00	51.51	P	ATOM	2656	O2*	A A 134	108.343	57.962	-0.666	1.00	58.90	C
ATOM	2607	O1P	C A 132	106.053	63.593	-16.904	1.00	54.80	O	ATOM	2657	C1*	A A 134	109.267	59.608	-2.128	1.00	58.90	C
ATOM	2608	O2P	C A 132	106.239	66.030	-16.133	1.00	54.80	O	ATOM	2658	N9	A A 134	109.590	61.033	-2.078	1.00	47.00	N
ATOM	2609	O5*	C A 132	107.734	64.270	-15.199	1.00	51.51	O	ATOM	2659	C8	A A 134	109.373	61.975	-3.049	1.00	47.00	C
ATOM	2610	C5*	C A 132	108.447	63.032	-15.232	1.00	51.51	C	ATOM	2660	N7	A A 134	109.788	63.170	-2.723	1.00	47.00	N
ATOM	2611	C4*	C A 132	109.395	62.951	-14.076	1.00	51.51	C	ATOM	2661	C5	A A 134	110.314	63.007	-1.452	1.00	47.00	C
ATOM	2612	O4*	C A 132	110.320	64.054	-14.174	1.00	51.51	O	ATOM	2662	C6	A A 134	110.923	63.903	-0.565	1.00	47.00	C
ATOM	2613	C3*	C A 132	108.787	63.094	-12.688	1.00	51.51	C	ATOM	2663	N6	A A 134	111.139	65.185	-0.853	1.00	47.00	N
ATOM	2614	O3*	C A 132	108.272	61.862	-12.184	1.00	51.51	O	ATOM	2664	N1	A A 134	111.317	63.432	0.638	1.00	47.00	N
ATOM	2615	C2*	C A 132	109.962	63.599	-11.860	1.00	51.51	C	ATOM	2665	C2	A A 134	111.121	62.140	0.908	1.00	47.00	C
ATOM	2616	O2*	C A 132	110.821	62.582	-11.381	1.00	51.51	O	ATOM	2666	N3	A A 134	110.573	61.193	0.148	1.00	47.00	N
ATOM	2617	C1*	C A 132	110.707	64.463	-12.874	1.00	51.51	C	ATOM	2667	C4	A A 134	110.186	61.701	-1.035	1.00	47.00	C
ATOM	2618	N1	C A 132	110.375	65.880	-12.698	1.00	54.80	N	ATOM	2668	P	C A 135	104.386	59.200	-1.547	1.00	45.70	P
ATOM	2619	C2	C A 132	110.951	66.567	-11.627	1.00	54.80	C	ATOM	2669	O1P	C A 135	103.389	58.091	-1.501	1.00	60.79	O
ATOM	2620	O2	C A 132	111.765	65.973	-10.907	1.00	54.80	O	ATOM	2670	O2P	C A 135	104.218	60.276	-2.551	1.00	60.79	O
ATOM	2621	N3	C A 132	110.609	67.853	-11.406	1.00	54.80	N	ATOM	2671	O5*	C A 135	104.501	59.878	-0.110	1.00	45.70	O
ATOM	2622	C4	C A 132	109.740	68.453	-12.216	1.00	54.80	C	ATOM	2672	C5*	C A 135	104.781	59.072	1.024	1.00	45.70	C
ATOM	2623	N4	C A 132	109.409	69.712	-11.951	1.00	54.80	N	ATOM	2673	C4*	C A 135	105.587	59.831	2.041	1.00	45.70	C
ATOM	2624	C5	C A 132	109.164	67.786	-13.335	1.00	54.80	C	ATOM	2674	O4*	C A 135	106.801	60.336	1.433	1.00	45.70	O
ATOM	2625	C6	C A 132	109.506	66.514	-13.538	1.00	54.80	C	ATOM	2675	C3*	C A 135	104.961	61.066	2.655	1.00	45.70	C
ATOM	2626	P	U A 133	107.078	61.880	-11.104	1.00	55.03	P	ATOM	2676	O3*	C A 135	104.034	60.764	3.676	1.00	45.70	O
ATOM	2627	O1P	U A 133	106.773	60.476	-10.728	1.00	38.07	O	ATOM	2677	C2*	C A 135	106.180	61.798	3.193	1.00	45.70	C
ATOM	2628	O2P	U A 133	105.994	62.752	-11.658	1.00	38.07	O	ATOM	2678	CI*	C A 135	106.627	61.210	4.394	1.00	45.70	O
ATOM	2629	O5*	U A 133	107.734	62.555	-9.822	1.00	55.03	O	ATOM	2679	O1*	C A 135	107.203	61.530	2.092	1.00	45.70	C
ATOM	2630	C5*	U A 133	108.839	61.934	-9.178	1.00	55.03	C	ATOM	2680	N1	C A 135	107.277	62.634	1.108	1.00	60.79	N
ATOM	2631	C4*	U A 133	109.311	62.786	-8.044	1.00	55.03	C	ATOM	2681	C2	C A 135	107.876	63.837	1.499	1.00	60.79	C
ATOM	2632	O4*	U A 133	109.829	64.033	-8.560	1.00	55.03	O	ATOM	2682	O2	C A 135	108.318	63.938	2.655	1.00	60.79	O
ATOM	2633	C3*	U A 133	108.231	63.210	-7.074	1.00	55.03	C	ATOM	2683	N3	C A 135	107.960	64.858	0.610	1.00	60.79	N
ATOM	2634	O3*	U A 133	107.983	62.219	-6.100	1.00	55.03	O	ATOM	2684	C4	C A 135	107.480	64.706	-0.631	1.00	60.79	C
ATOM	2635	C2*	U A 133	108.805	64.477	-6.454	1.00	55.03	C	ATOM	2685	N4	C A 135	107.605	65.735	-1.490	1.00	60.79	N
ATOM	2636	O2*	U A 133	109.676	64.221	-5.375	1.00	55.03	O	ATOM	2686	C5	C A 135	106.856	63.494	-1.051	1.00	60.79	C
ATOM	2637	CI*	U A 133	109.581	65.076	-7.628	1.00	55.03	C	ATOM	2687	C6	C A 135	106.776	62.496	-0.159	1.00	60.79	C
ATOM	2638	N1	U A 133	108.854	66.168	-8.297	1.00	38.07	N	ATOM	2688	P	C A 136	102.552	61.361	3.574	1.00	50.00	P
ATOM	2639	C2	U A 133	108.838	67.399	-7.674	1.00	38.07	C	ATOM	2689	O1P	C A 136	101.758	60.805	4.707	1.00	47.04	O
ATOM	2640	O2	U A 133	109.403	67.622	-6.623	1.00	38.07	O	ATOM	2690	O2P	C A 136	102.079	61.187	2.174	1.00	47.04	O
ATOM	2641	N3	U A 133	108.131	68.369	-8.330	1.00	38.07	N	ATOM	2691	O5*	C A 136	102.746	62.925	3.758	1.00	50.00	O
ATOM	2642	C4	U A 133	107.453	68.246	-9.522	1.00	38.07	C	ATOM	2692	C5*	C A 136	103.326	63.467	4.951	1.00	50.00	C
ATOM	2643	O4	U A 133	106.801	69.205	-9.944	1.00	38.07	O	ATOM	2693	C4*	C A 136	103.238	64.969	4.921	1.00	50.00	C
ATOM	2644	C5	U A 133	107.523	66.948	-10.116	1.00	38.07	C	ATOM	2694	O4*	C A 136	104.220	65.509	4.000	1.00	50.00	O
ATOM	2645	C6	U A 133	108.202	65.978	-9.497	1.00	38.07	C	ATOM	2695	C3*	C A 136	101.914	65.505	4.416	1.00	50.00	C
ATOM	2646	P	A A 134	106.478	61.961	-5.611	1.00	58.90	P	ATOM	2696	O3*	C A 136	100.929	65.531	5.427	1.00	50.00	O
ATOM	2647	O1P	A A 134	105.726	61.378	-6.775	1.00	47.00	O	ATOM	2697	C2*	C A 136	102.286	66.890	3.913	1.00	50.00	C



Table 1: Sheet 29/521

ATOM	2698	O2*	C A 136	102.355	67.842	4.952	1.00	50.00	O	ATOM	2748	N2	G A 138	93.707	69.110	-6.125	1.00	51.96	N
ATOM	2699	C1*	C A 136	103.683	66.644	3.347	1.00	50.00	C	ATOM	2749	N3	G A 138	94.195	69.359	-3.880	1.00	51.96	N
ATOM	2700	N1	C A 136	103.606	66.371	1.909	1.00	47.04	N	ATOM	2750	C4	G A 138	94.789	68.733	-2.847	1.00	51.96	C
ATOM	2701	C2	C A 136	103.477	67.451	1.041	1.00	47.04	C	ATOM	2751	P	G A 139	90.280	69.033	1.319	1.00	68.59	P
ATOM	2702	O2	C A 136	103.517	68.602	1.514	1.00	47.04	O	ATOM	2752	O1P	G A 139	89.126	69.615	2.046	1.00	62.53	O
ATOM	2703	N3	C A 136	103.322	67.223	-0.287	1.00	47.04	N	ATOM	2753	O2P	G A 139	90.948	67.813	1.868	1.00	62.53	O
ATOM	2704	C4	C A 136	103.323	65.975	-0.749	1.00	47.04	C	ATOM	2754	O5*	G A 139	89.877	68.780	-0.206	1.00	68.59	O
ATOM	2705	N4	C A 136	103.150	65.793	-2.053	1.00	47.04	N	ATOM	2755	C5*	G A 139	89.277	69.837	-0.971	1.00	68.59	C
ATOM	2706	C5	C A 136	103.495	64.855	0.113	1.00	47.04	C	ATOM	2756	C4*	G A 139	89.114	69.447	-2.422	1.00	68.59	C
ATOM	2707	C6	C A 136	103.630	65.096	1.422	1.00	47.04	C	ATOM	2757	O4*	G A 139	90.408	69.312	-3.065	1.00	68.59	O
ATOM	2708	P	C A 137	99.384	65.351	5.026	1.00	62.18	P	ATOM	2758	C3*	G A 139	86.409	68.141	-2.741	1.00	68.59	C
ATOM	2709	O1P	C A 137	98.634	65.133	6.293	1.00	50.84	O	ATOM	2759	O3*	G A 139	88.994	68.235	-2.634	1.00	68.59	O
ATOM	2710	O2P	C A 137	99.267	64.373	3.909	1.00	50.84	O	ATOM	2760	C2*	G A 139	88.874	67.871	-4.172	1.00	68.59	C
ATOM	2711	O5*	C A 137	98.978	66.759	4.420	1.00	62.18	O	ATOM	2761	O2*	G A 139	88.156	68.587	-5.156	1.00	68.59	O
ATOM	2712	C5*	C A 137	99.135	67.958	5.176	1.00	62.18	C	ATOM	2762	C1*	G A 139	90.317	68.377	-4.135	1.00	68.59	C
ATOM	2713	C4*	C A 137	98.773	69.121	4.314	1.00	62.18	C	ATOM	2763	N9	G A 139	91.252	67.274	-3.900	1.00	62.53	N
ATOM	2714	O4*	C A 137	99.745	69.233	3.247	1.00	62.18	O	ATOM	2764	C8	G A 139	91.847	66.917	-2.710	1.00	62.53	C
ATOM	2715	C3*	C A 137	97.462	68.925	3.584	1.00	62.18	C	ATOM	2765	N7	G A 139	92.585	65.842	-2.809	1.00	62.53	N
ATOM	2716	O3*	C A 137	96.339	69.235	4.382	1.00	62.18	O	ATOM	2766	C5	G A 139	92.484	65.470	-4.145	1.00	62.53	C
ATOM	2717	C2*	C A 137	97.615	69.806	2.354	1.00	62.18	C	ATOM	2767	C6	G A 139	93.061	64.372	-4.844	1.00	62.53	C
ATOM	2718	O2*	C A 137	97.306	71.168	2.576	1.00	62.18	O	ATOM	2768	O6	G A 139	93.798	63.481	-4.406	1.00	62.53	O
ATOM	2719	C1*	C A 137	99.103	69.640	2.052	1.00	62.18	C	ATOM	2769	N1	G A 139	92.699	64.371	-6.185	1.00	62.53	N
ATOM	2720	N1	C A 137	99.343	68.635	0.996	1.00	50.84	N	ATOM	2770	C2	G A 139	91.886	65.299	-6.784	1.00	62.53	C
ATOM	2721	C2	C A 137	98.865	68.911	-0.287	1.00	50.84	C	ATOM	2771	N2	G A 139	91.645	65.119	-8.092	1.00	62.53	N
ATOM	2722	O2	C A 137	98.281	69.983	-0.483	1.00	50.84	O	ATOM	2772	N3	G A 139	91.343	66.329	-6.148	1.00	62.53	N
ATOM	2723	N3	C A 137	99.043	68.013	-1.278	1.00	50.84	N	ATOM	2773	C4	G A 139	91.680	66.350	-4.839	1.00	62.53	C
ATOM	2724	C4	C A 137	99.670	66.871	-1.029	1.00	50.84	C	ATOM	2774	P	A A 140	86.132	66.925	-2.250	1.00	80.32	P
ATOM	2725	N4	C A 137	99.802	66.008	-2.041	1.00	50.84	N	ATOM	2775	O1P	A A 140	84.750	67.420	-2.038	1.00	62.85	O
ATOM	2726	C5	C A 137	100.185	66.560	0.271	1.00	50.84	C	ATOM	2776	O2P	A A 140	86.795	66.137	-1.173	1.00	62.85	O
ATOM	2727	P	C A 137	100.001	67.463	1.245	1.00	50.84	P	ATOM	2777	O5*	A A 140	86.166	66.045	-3.579	1.00	80.32	O
ATOM	2728	C6	G A 138	94.947	68.501	4.084	1.00	70.55	C	ATOM	2778	C5*	A A 140	85.684	66.575	-4.823	1.00	80.32	C
ATOM	2729	O1P	G A 138	94.058	68.963	5.166	1.00	51.96	O	ATOM	2779	C4*	A A 140	85.926	65.592	-5.941	1.00	80.32	C
ATOM	2730	O2P	G A 138	95.168	67.049	3.876	1.00	51.96	O	ATOM	2780	O4*	A A 140	87.345	65.502	-6.234	1.00	80.32	O
ATOM	2731	C5*	G A 138	94.480	69.114	2.691	1.00	70.55	C	ATOM	2781	C3*	A A 140	85.525	64.156	-5.663	1.00	80.32	C
ATOM	2732	C5*	G A 138	94.267	70.519	2.561	1.00	70.55	C	ATOM	2782	O3*	A A 140	84.142	63.929	-5.826	1.00	80.32	O
ATOM	2733	C4*	G A 138	93.730	70.843	1.198	1.00	70.55	C	ATOM	2783	C2*	A A 140	86.371	63.368	-6.655	1.00	80.32	C
ATOM	2734	O4*	G A 138	94.776	70.734	0.202	1.00	70.55	O	ATOM	2784	O2*	A A 140	85.814	63.304	-7.953	1.00	80.32	O
ATOM	2735	C3*	G A 138	92.636	69.934	0.671	1.00	70.55	C	ATOM	2785	C1*	A A 140	87.658	64.190	-6.680	1.00	80.32	C
ATOM	2736	O3*	G A 138	91.362	70.214	1.216	1.00	70.55	O	ATOM	2786	N9	A A 140	88.681	63.619	-5.803	1.00	62.85	N
ATOM	2737	C2*	G A 138	92.698	70.175	-0.833	1.00	70.55	C	ATOM	2787	C8	A A 140	89.033	63.996	-4.525	1.00	62.85	C
ATOM	2738	O2*	G A 138	91.972	71.314	-1.251	1.00	70.55	O	ATOM	2788	N7	A A 140	89.995	63.271	-4.005	1.00	62.85	N
ATOM	2739	C1*	G A 138	94.196	70.393	-1.052	1.00	70.55	C	ATOM	2789	C5	A A 140	90.301	62.357	-5.005	1.00	62.85	C
ATOM	2740	N9	G A 138	94.820	69.176	-1.552	1.00	51.96	N	ATOM	2790	C6	A A 140	91.245	61.323	-5.079	1.00	62.85	C
ATOM	2741	C8	G A 138	95.522	68.235	-0.835	1.00	51.96	C	ATOM	2791	N6	A A 140	92.087	61.025	-4.089	1.00	62.85	N
ATOM	2742	N7	G A 138	95.915	67.224	-1.564	1.00	51.96	N	ATOM	2792	N1	A A 140	91.298	60.599	-6.222	1.00	62.85	N
ATOM	2743	C5	G A 138	95.457	67.526	-2.839	1.00	51.96	C	ATOM	2793	C2	A A 140	90.450	60.904	-7.215	1.00	62.85	C
ATOM	2744	C6	G A 138	95.573	66.800	-4.050	1.00	51.96	C	ATOM	2794	N3	A A 140	89.520	61.855	-7.266	1.00	62.85	N
ATOM	2745	O6	G A 138	96.130	65.710	-4.244	1.00	51.96	O	ATOM	2795	C4	A A 140	89.498	62.557	-6.117	1.00	62.85	C
ATOM	2746	N1	G A 138	94.950	67.461	-5.104	1.00	51.96	N	ATOM	2796	P	A A 141	83.398	62.910	-4.835	1.00	85.18	P
ATOM	2747	C2	G A 138	94.291	68.661	-5.002	1.00	51.96	C	ATOM	2797	O1P	A A 141	81.946	63.057	-5.107	1.00	54.57	O



ATOM	2798	O2P	A A 141	83.918	63.140	-3.460	1.00 54.57	O	ATOM	2848	C3*	A A 143	87.125	47.842	-2.450	1.00 93.75	C
ATOM	2799	O5*	A A 141	83.886	61.472	-5.327	1.00 85.18	O	ATOM	2849	O3*	A A 143	86.647	46.507	-2.518	1.00 93.75	O
ATOM	2800	C5*	A A 141	83.501	60.980	-6.623	1.00 85.18	C	ATOM	2850	C2*	A A 143	88.564	47.904	-1.958	1.00 93.75	C
ATOM	2801	C4*	A A 141	84.308	59.758	-7.011	1.00 85.18	C	ATOM	2851	O2*	A A 143	89.348	46.862	-2.498	1.00 93.75	O
ATOM	2802	O4*	A A 141	85.715	60.101	-7.138	1.00 85.18	O	ATOM	2852	C1*	A A 143	89.040	49.226	-2.556	1.00 93.75	C
ATOM	2803	C3*	A A 141	84.329	58.553	-6.081	1.00 85.18	C	ATOM	2853	N9	A A 143	88.909	50.333	-1.611	1.00 69.76	N
ATOM	2804	O3*	A A 141	83.177	57.731	-6.131	1.00 85.18	O	ATOM	2854	C8	A A 143	87.956	51.321	-1.596	1.00 69.76	C
ATOM	2805	O2*	A A 141	85.549	57.799	-6.590	1.00 85.18	C	ATOM	2855	N7	A A 143	88.085	52.163	-0.601	1.00 69.76	N
ATOM	2806	C2*	A A 141	85.289	57.084	-7.784	1.00 85.18	O	ATOM	2856	C5	A A 143	89.200	51.703	0.085	1.00 69.76	C
ATOM	2807	C1*	A A 141	86.505	58.945	-6.895	1.00 85.18	C	ATOM	2857	C6	A A 143	89.858	52.163	1.248	1.00 69.76	C
ATOM	2808	N9	A A 141	87.386	59.171	-5.747	1.00 54.57	N	ATOM	2858	N6	A A 143	89.464	53.233	1.948	1.00 69.76	N
ATOM	2809	C8	A A 141	87.313	60.124	-4.755	1.00 54.57	C	ATOM	2859	N1	A A 143	90.946	51.475	1.670	1.00 69.76	N
ATOM	2810	N7	A A 141	88.241	60.002	-3.834	1.00 54.57	N	ATOM	2860	C2	A A 143	91.338	50.400	0.965	1.00 69.76	C
ATOM	2811	C5	A A 141	88.982	58.999	-4.247	1.00 54.57	C	ATOM	2861	N3	A A 143	90.803	49.873	-0.141	1.00 69.76	N
ATOM	2812	C6	A A 141	90.106	58.243	-3.694	1.00 54.57	C	ATOM	2862	C4	A A 143	89.724	50.580	-0.531	1.00 69.76	C
ATOM	2813	N6	A A 141	90.684	58.603	-2.546	1.00 54.57	N	ATOM	2863	P	G A 144	85.921	45.855	-1.243	1.00107.07	P
ATOM	2814	N1	A A 141	90.614	57.187	-4.370	1.00 54.57	N	ATOM	2864	O1P	G A 144	84.901	46.810	-0.726	1.00 76.69	O
ATOM	2815	C2	A A 141	90.024	56.810	-5.516	1.00 54.57	C	ATOM	2865	O2P	G A 144	86.981	45.351	-0.332	1.00 76.69	O
ATOM	2816	N3	A A 141	88.960	57.331	-6.128	1.00 54.57	N	ATOM	2866	O5*	G A 144	85.157	44.609	-1.870	1.00107.07	O
ATOM	2817	C4	A A 141	88.480	58.388	-5.434	1.00 54.57	C	ATOM	2867	C5*	G A 144	83.745	44.662	-2.130	1.00107.07	C
ATOM	2818	P	G A 142	82.855	56.750	-4.890	1.00 88.81	P	ATOM	2868	C4*	G A 144	83.395	43.789	-3.309	1.00107.07	C
ATOM	2819	O1P	G A 142	81.512	56.177	-5.156	1.00 49.76	O	ATOM	2869	O4*	G A 144	83.806	44.437	-4.539	1.00107.07	O
ATOM	2820	O2P	G A 142	83.107	57.459	-3.610	1.00 49.76	O	ATOM	2870	C3*	G A 144	84.065	42.424	-3.349	1.00107.07	C
ATOM	2821	O5*	G A 142	83.943	55.585	-4.997	1.00 88.81	O	ATOM	2871	O3*	G A 144	83.406	41.461	-2.529	1.00107.07	O
ATOM	2822	C5*	G A 142	84.059	54.786	-6.190	1.00 88.81	C	ATOM	2872	C2*	G A 144	84.026	42.081	-4.834	1.00107.07	C
ATOM	2823	C4*	G A 142	85.259	53.865	-6.112	1.00 88.81	C	ATOM	2873	O2*	G A 144	82.795	41.521	-5.246	1.00107.07	O
ATOM	2824	O4*	G A 142	86.485	54.635	-5.998	1.00 88.81	O	ATOM	2874	C1*	G A 144	84.223	43.459	-5.478	1.00107.07	C
ATOM	2825	C3*	G A 142	85.326	52.903	-4.939	1.00 88.81	C	ATOM	2875	N9	G A 144	85.627	43.701	-5.800	1.00 76.69	N
ATOM	2826	O3*	G A 142	84.550	51.735	-5.144	1.00 88.81	O	ATOM	2876	C8	G A 144	86.500	44.548	-5.153	1.00 76.69	C
ATOM	2827	C2*	G A 142	86.811	52.566	-4.877	1.00 88.81	C	ATOM	2877	N7	G A 144	87.716	44.496	-5.632	1.00 76.69	N
ATOM	2828	O2*	G A 142	87.189	51.604	-5.835	1.00 88.81	O	ATOM	2878	C5	G A 144	87.638	43.572	-6.668	1.00 76.69	C
ATOM	2829	C1*	G A 142	87.443	53.897	-5.257	1.00 88.81	C	ATOM	2879	C6	G A 144	88.646	43.082	-7.544	1.00 76.69	C
ATOM	2830	N9	G A 142	87.808	54.647	-4.061	1.00 49.76	N	ATOM	2880	O6	G A 144	89.855	43.378	-7.579	1.00 76.69	O
ATOM	2831	C8	G A 142	87.163	55.730	-3.518	1.00 49.76	C	ATOM	2881	N1	G A 144	88.131	42.146	-8.441	1.00 76.69	N
ATOM	2832	N7	G A 142	87.745	56.184	-2.442	1.00 49.76	N	ATOM	2882	C2	G A 144	86.822	41.728	-8.485	1.00 76.69	C
ATOM	2833	C5	G A 142	88.835	55.348	-2.264	1.00 49.76	C	ATOM	2883	N2	G A 144	86.520	40.808	-9.409	1.00 76.69	N
ATOM	2834	C6	G A 142	89.832	55.358	-1.276	1.00 49.76	C	ATOM	2884	N3	G A 144	85.877	42.177	-7.677	1.00 76.69	N
ATOM	2835	O6	G A 142	89.960	56.144	-0.324	1.00 49.76	O	ATOM	2885	C4	G A 144	86.351	43.087	-6.797	1.00 76.69	C
ATOM	2836	N1	G A 142	90.759	54.331	-1.467	1.00 49.76	N	ATOM	2886	P	G A 145	84.274	40.335	-1.768	1.00 91.54	P
ATOM	2837	C2	G A 142	90.725	53.418	-2.489	1.00 49.76	C	ATOM	2887	O1P	G A 145	83.317	39.571	-0.927	1.00 83.54	O
ATOM	2838	N2	G A 142	91.703	52.495	-2.504	1.00 49.76	N	ATOM	2888	O2P	G A 145	85.446	40.984	-1.120	1.00 83.54	O
ATOM	2839	N3	G A 142	89.796	53.407	-3.428	1.00 49.76	N	ATOM	2889	O5*	G A 145	84.778	39.392	-2.957	1.00 91.54	O
ATOM	2840	C4	G A 142	88.887	54.393	-3.252	1.00 49.76	C	ATOM	2890	C5*	G A 145	83.819	38.726	-3.802	1.00 91.54	C
ATOM	2841	P	A A 143	84.114	50.845	-3.877	1.00 93.75	P	ATOM	2891	C4*	G A 145	84.495	37.940	-4.905	1.00 91.54	C
ATOM	2842	O1P	A A 143	83.069	49.929	-4.400	1.00 69.76	O	ATOM	2892	O4*	G A 145	85.011	38.822	-5.935	1.00 91.54	O
ATOM	2843	O2P	A A 143	83.819	51.734	-2.718	1.00 69.76	O	ATOM	2893	C3*	G A 145	85.674	37.047	-4.561	1.00 91.54	C
ATOM	2844	O5*	A A 143	85.417	50.014	-3.494	1.00 93.75	O	ATOM	2894	O3*	G A 145	85.312	35.802	-3.990	1.00 91.54	O
ATOM	2845	C5*	A A 143	85.966	49.051	-4.400	1.00 93.75	C	ATOM	2895	C2*	G A 145	86.306	36.829	-5.929	1.00 91.54	C
ATOM	2846	C4*	A A 143	87.231	48.461	-3.833	1.00 93.75	C	ATOM	2896	O2*	G A 145	85.644	35.821	-6.669	1.00 91.54	O
ATOM	2847	O4*	A A 143	88.228	49.500	-3.683	1.00 93.75	O	ATOM	2897	C1*	G A 145	86.104	38.193	-6.592	1.00 91.54	C



Table 1: Sheet 31/521

ATOM	2898	N9	G A 145	87.310	38.997	-6.402	1.00 83.54	N	ATOM	2948	C6	G A 147	96.906	35.470	-4.904	1.00 75.66	C
ATOM	2899	C8	G A 145	87.519	39.972	-5.456	1.00 83.54	C	ATOM	2949	O6	G A 147	96.852	36.168	-3.885	1.00 75.66	O
ATOM	2900	N7	G A 145	88.732	40.459	-5.480	1.00 83.54	N	ATOM	2950	N1	G A 147	98.074	35.435	-5.661	1.00 75.66	N
ATOM	2901	C5	G A 145	89.357	39.778	-6.516	1.00 83.54	C	ATOM	2951	C2	G A 147	98.259	34.688	-6.798	1.00 75.66	C
ATOM	2902	C6	G A 145	90.685	39.875	-7.006	1.00 83.54	C	ATOM	2952	N2	G A 147	99.462	34.784	-7.388	1.00 75.66	N
ATOM	2903	O6	G A 145	91.606	40.600	-6.600	1.00 83.54	O	ATOM	2953	N3	G A 147	97.334	33.902	-7.319	1.00 75.66	N
ATOM	2904	N1	G A 145	90.900	39.008	-8.074	1.00 83.54	N	ATOM	2954	C4	G A 147	96.186	33.927	-6.601	1.00 75.66	C
ATOM	2905	C2	G A 145	89.961	38.156	-8.599	1.00 83.54	C	ATOM	2955	P	G A 148	96.178	28.303	-5.756	1.00 77.79	P
ATOM	2906	N2	G A 145	90.358	37.405	-9.628	1.00 83.54	N	ATOM	2956	O1P	G A 148	96.380	26.844	-5.915	1.00 63.16	O
ATOM	2907	N3	G A 145	88.723	38.051	-8.146	1.00 83.54	N	ATOM	2957	O2P	G A 148	95.712	28.848	-4.453	1.00 63.16	O
ATOM	2908	C4	G A 145	88.490	38.886	-7.110	1.00 83.54	C	ATOM	2958	O5*	G A 148	97.562	29.016	-6.088	1.00 77.79	O
ATOM	2909	P	G A 146	86.431	34.922	-3.231	1.00 86.70	P	ATOM	2959	C5*	G A 148	98.222	28.804	-7.344	1.00 77.79	C
ATOM	2910	O1P	G A 146	85.724	33.709	-2.747	1.00 76.00	O	ATOM	2960	C4*	G A 148	99.495	29.613	-7.409	1.00 77.79	C
ATOM	2911	O2P	G A 146	87.161	35.781	-2.256	1.00 76.00	O	ATOM	2961	O4*	G A 148	99.192	31.030	-7.310	1.00 77.79	O
ATOM	2912	O5*	G A 146	87.460	34.488	-4.378	1.00 88.70	O	ATOM	2962	C3*	G A 148	100.487	29.361	-6.290	1.00 77.79	C
ATOM	2913	C5*	G A 146	87.072	33.554	-5.409	1.00 88.70	C	ATOM	2963	O3*	G A 148	101.294	28.230	-6.565	1.00 77.79	O
ATOM	2914	C4*	G A 146	88.181	33.368	-6.429	1.00 88.70	C	ATOM	2964	C2*	G A 148	101.296	30.650	-6.261	1.00 77.79	C
ATOM	2915	O4*	G A 146	88.526	34.649	-7.019	1.00 88.70	O	ATOM	2965	O2*	G A 148	102.305	30.667	-7.244	1.00 77.79	O
ATOM	2916	C3*	G A 146	89.521	32.819	-5.958	1.00 88.70	C	ATOM	2966	C1*	G A 148	100.236	31.693	-6.613	1.00 77.79	C
ATOM	2917	O3*	G A 146	89.560	31.409	-5.838	1.00 88.70	O	ATOM	2967	N9	G A 148	99.674	32.334	-5.428	1.00 63.16	N
ATOM	2918	C2*	G A 146	90.463	33.271	-7.064	1.00 88.70	C	ATOM	2968	C8	G A 148	98.425	32.131	-4.893	1.00 63.16	C
ATOM	2919	O2*	G A 146	90.435	32.436	-8.205	1.00 88.70	O	ATOM	2969	N7	G A 148	98.207	32.835	-3.818	1.00 63.16	N
ATOM	2920	C1*	G A 146	89.894	34.644	-7.409	1.00 88.70	C	ATOM	2970	C5	G A 148	99.381	33.546	-3.627	1.00 63.16	C
ATOM	2921	N9	G A 146	90.621	35.659	-6.652	1.00 76.00	N	ATOM	2971	C6	G A 148	99.729	34.471	-2.622	1.00 63.16	C
ATOM	2922	C8	G A 146	90.191	36.363	-5.553	1.00 76.00	C	ATOM	2972	O6	G A 148	99.048	34.849	-1.660	1.00 63.16	O
ATOM	2923	N7	G A 146	91.106	37.151	-5.060	1.00 76.00	N	ATOM	2973	N1	G A 148	101.013	34.974	-2.810	1.00 63.16	N
ATOM	2924	C5	G A 146	92.199	36.969	-5.892	1.00 76.00	C	ATOM	2974	C2	G A 148	101.854	34.630	-3.837	1.00 63.16	C
ATOM	2925	C6	G A 146	93.479	37.557	-5.856	1.00 76.00	C	ATOM	2975	N2	G A 148	103.048	35.240	-3.850	1.00 63.16	N
ATOM	2926	O6	G A 146	93.921	38.387	-5.050	1.00 76.00	O	ATOM	2976	N3	G A 148	101.543	33.755	-4.783	1.00 63.16	N
ATOM	2927	N1	G A 146	94.282	37.091	-6.893	1.00 76.00	N	ATOM	2977	C4	G A 148	100.297	33.256	-4.616	1.00 63.16	C
ATOM	2928	C2	G A 146	93.893	36.179	-7.843	1.00 76.00	C	ATOM	2978	P	A A 149	102.085	27.511	-5.367	1.00 67.94	P
ATOM	2929	N2	G A 146	94.799	35.851	-8.763	1.00 76.00	N	ATOM	2979	O1P	A A 149	102.364	26.120	-5.810	1.00 63.12	O
ATOM	2930	N3	G A 146	92.701	35.628	-7.885	1.00 76.00	N	ATOM	2980	O2P	A A 149	101.347	27.752	-4.090	1.00 63.12	O
ATOM	2931	C4	G A 146	91.911	36.063	-6.887	1.00 76.00	C	ATOM	2981	O5*	A A 149	103.469	28.294	-5.291	1.00 67.94	O
ATOM	2932	P	G A 147	90.699	30.724	-4.928	1.00 74.64	P	ATOM	2982	C5*	A A 149	104.224	28.571	-6.483	1.00 67.94	C
ATOM	2933	O1P	G A 147	90.310	29.295	-4.790	1.00 75.66	O	ATOM	2983	C4*	A A 149	105.221	29.676	-6.230	1.00 67.94	C
ATOM	2934	O2P	G A 147	90.914	31.550	-3.713	1.00 75.66	O	ATOM	2984	O4*	A A 149	104.529	30.909	-5.915	1.00 67.94	O
ATOM	2935	O5*	G A 147	92.031	30.813	-5.800	1.00 74.64	O	ATOM	2985	C3*	A A 149	106.175	29.447	-5.072	1.00 67.94	C
ATOM	2936	C5*	G A 147	92.167	30.061	-7.013	1.00 74.64	C	ATOM	2986	O3*	A A 149	107.295	28.706	-5.532	1.00 67.94	O
ATOM	2937	C4*	G A 147	93.473	30.395	-7.702	1.00 74.64	C	ATOM	2987	C2*	A A 149	106.559	30.864	-4.660	1.00 67.94	O
ATOM	2938	O4*	G A 147	93.532	31.807	-8.008	1.00 74.64	O	ATOM	2988	O2*	A A 149	107.616	31.389	-5.438	1.00 67.94	O
ATOM	2939	C3*	G A 147	94.753	30.143	-6.928	1.00 74.64	C	ATOM	2989	C1*	A A 149	105.279	31.645	-4.970	1.00 67.94	C
ATOM	2940	O3*	G A 147	95.177	28.797	-6.918	1.00 74.64	O	ATOM	2990	N9	A A 149	104.421	31.905	-3.816	1.00 63.12	N
ATOM	2941	C2*	G A 147	95.739	31.028	-7.671	1.00 74.64	C	ATOM	2991	C8	A A 149	103.209	31.332	-3.530	1.00 63.12	C
ATOM	2942	O2*	G A 147	96.151	30.467	-8.896	1.00 74.64	O	ATOM	2992	N7	A A 149	102.648	31.796	-2.444	1.00 63.12	N
ATOM	2943	C1*	G A 147	94.881	32.249	-7.967	1.00 74.64	C	ATOM	2993	C5	A A 149	103.556	32.733	-1.976	1.00 63.12	C
ATOM	2944	N9	G A 147	95.044	33.208	-6.877	1.00 75.66	N	ATOM	2994	C6	A A 149	103.537	33.584	-0.869	1.00 63.12	C
ATOM	2945	C8	G A 147	94.132	33.546	-5.908	1.00 75.66	C	ATOM	2995	N6	A A 149	102.526	33.643	-0.004	1.00 63.12	N
ATOM	2946	N7	G A 147	94.603	34.393	-5.035	1.00 75.66	N	ATOM	2996	N1	A A 149	104.601	34.392	-0.680	1.00 63.12	N
ATOM	2947	C5	G A 147	95.902	34.638	-5.457	1.00 75.66	C	ATOM	2997	C2	A A 149	105.601	34.346	-1.561	1.00 63.12	C



ATOM	2998	N3	A A 149	105.728	33.600	-2.650	1.00 63.12	N	ATOM	3048	O4*	A A 152	113.043	31.697	6.805	1.00 52.87	O
ATOM	2999	C4	A A 149	104.658	32.803	-2.803	1.00 63.12	C	ATOM	3049	C3*	A A 152	114.128	30.512	8.466	1.00 52.87	C
ATOM	3000	P	C A 150	108.213	27.910	-4.486	1.00 55.00	P	ATOM	3050	O3*	A A 152	115.077	30.535	9.516	1.00 52.87	O
ATOM	3001	O1P	C A 150	109.122	27.020	-5.263	1.00 64.00	O	ATOM	3051	C2*	A A 152	112.726	30.798	8.985	1.00 52.87	C
ATOM	3002	O2P	C A 150	107.334	27.324	-3.432	1.00 64.00	O	ATOM	3052	O2*	A A 152	112.734	31.754	10.030	1.00 52.87	O
ATOM	3003	O5*	C A 150	109.105	29.046	-3.808	1.00 55.00	O	ATOM	3053	C1*	A A 152	112.039	31.378	7.747	1.00 52.87	C
ATOM	3004	C5*	C A 150	109.943	29.925	-4.587	1.00 55.00	C	ATOM	3054	N9	A A 152	111.074	30.455	7.154	1.00 45.70	N
ATOM	3005	C4*	C A 150	110.498	31.008	-3.698	1.00 55.00	C	ATOM	3055	C8	A A 152	111.183	29.616	6.065	1.00 45.70	C
ATOM	3006	O4*	C A 150	109.423	31.867	-3.245	1.00 55.00	O	ATOM	3056	N7	A A 152	110.111	28.888	5.850	1.00 45.70	N
ATOM	3007	C3*	C A 150	111.125	30.480	-2.424	1.00 55.00	C	ATOM	3057	C5	A A 152	109.235	29.282	6.856	1.00 45.70	C
ATOM	3008	O3*	C A 150	112.475	30.146	-2.653	1.00 55.00	O	ATOM	3058	C6	A A 152	107.922	28.881	7.194	1.00 45.70	C
ATOM	3009	C2*	C A 150	110.959	31.626	-1.432	1.00 55.00	C	ATOM	3059	N6	A A 152	107.232	27.949	6.529	1.00 45.70	N
ATOM	3010	O2*	C A 150	111.994	32.583	-1.484	1.00 55.00	O	ATOM	3060	N1	A A 152	107.336	29.478	8.258	1.00 45.70	N
ATOM	3011	C1*	C A 150	109.651	32.259	-1.900	1.00 55.00	C	ATOM	3061	C2	A A 152	108.028	30.407	8.932	1.00 45.70	C
ATOM	3012	N1	C A 150	108.473	31.903	-1.083	1.00 64.00	N	ATOM	3062	N3	A A 152	109.259	30.863	8.718	1.00 45.70	N
ATOM	3013	C2	C A 150	108.149	32.712	0.006	1.00 64.00	C	ATOM	3063	C4	A A 152	109.813	30.253	7.657	1.00 45.70	C
ATOM	3014	O2	C A 150	108.874	33.680	0.270	1.00 64.00	O	ATOM	3064	P	C A 153	115.905	29.202	9.840	1.00 61.43	P
ATOM	3015	N3	C A 150	107.056	32.423	0.743	1.00 64.00	N	ATOM	3065	O1P	C A 153	116.671	29.416	11.097	1.00 54.06	O
ATOM	3016	C4	C A 150	106.299	31.375	0.430	1.00 64.00	C	ATOM	3066	O2P	C A 153	116.617	28.818	8.601	1.00 54.06	O
ATOM	3017	N4	C A 150	105.222	31.140	1.177	1.00 64.00	N	ATOM	3067	O5*	C A 153	114.778	28.108	10.087	1.00 61.43	O
ATOM	3018	C5	C A 150	106.611	30.522	-0.665	1.00 64.00	C	ATOM	3068	C5*	C A 153	113.989	28.126	11.289	1.00 61.43	C
ATOM	3019	C6	C A 150	107.698	30.817	-1.385	1.00 64.00	C	ATOM	3069	C4*	C A 153	112.943	27.040	11.246	1.00 61.43	C
ATOM	3020	P	A A 151	113.304	29.389	-1.511	1.00 42.32	P	ATOM	3070	O4*	C A 153	111.950	27.352	10.236	1.00 61.43	O
ATOM	3021	O1P	A A 151	114.666	29.120	-2.058	1.00 51.13	O	ATOM	3071	C3*	C A 153	113.452	25.661	10.860	1.00 61.43	C
ATOM	3022	O2P	A A 151	112.487	28.265	-0.966	1.00 51.13	O	ATOM	3072	C2*	C A 153	113.996	24.946	11.949	1.00 61.43	O
ATOM	3023	O5*	A A 151	113.427	30.486	-0.372	1.00 42.32	O	ATOM	3073	C3*	C A 153	112.204	24.991	10.319	1.00 61.43	C
ATOM	3024	C5*	A A 151	113.899	30.143	0.926	1.00 42.32	C	ATOM	3074	O2*	C A 153	111.365	24.512	11.354	1.00 61.43	O
ATOM	3025	C4*	A A 151	114.029	31.387	1.746	1.00 42.32	C	ATOM	3075	C1*	C A 153	111.531	26.158	9.601	1.00 61.43	C
ATOM	3026	O4*	A A 151	112.801	32.149	1.662	1.00 42.32	O	ATOM	3076	N1	C A 153	111.954	26.214	8.195	1.00 54.06	N
ATOM	3027	C3*	A A 151	114.261	31.159	3.220	1.00 42.32	C	ATOM	3077	C2	C A 153	111.210	25.508	7.235	1.00 54.06	C
ATOM	3028	O3*	A A 151	115.653	31.005	3.449	1.00 42.32	O	ATOM	3078	O2	C A 153	110.247	24.814	7.603	1.00 54.06	O
ATOM	3029	C2*	A A 151	113.703	32.431	3.851	1.00 42.32	C	ATOM	3079	N3	C A 153	111.568	25.591	5.934	1.00 54.06	N
ATOM	3030	O2*	A A 151	114.642	33.480	3.851	1.00 42.32	O	ATOM	3080	C4	C A 153	112.629	26.319	5.579	1.00 54.06	C
ATOM	3031	C1*	A A 151	112.570	32.802	2.890	1.00 42.32	C	ATOM	3081	N4	C A 153	112.933	26.375	4.292	1.00 54.06	N
ATOM	3032	N9	A A 151	111.224	32.468	3.345	1.00 51.13	N	ATOM	3082	C5	C A 153	113.420	27.022	6.534	1.00 54.06	C
ATOM	3033	C8	A A 151	110.301	31.645	2.748	1.00 51.13	C	ATOM	3083	C6	C A 153	113.051	26.943	7.818	1.00 54.06	C
ATOM	3034	N7	A A 151	109.160	31.582	3.388	1.00 51.13	N	ATOM	3084	P	C A 154	115.116	23.839	11.671	1.00 79.19	P
ATOM	3035	C5	A A 151	109.348	32.412	4.483	1.00 51.13	C	ATOM	3085	O1P	C A 154	115.433	23.230	12.983	1.00 79.24	O
ATOM	3036	C6	A A 151	108.511	32.779	5.548	1.00 51.13	C	ATOM	3086	O2P	C A 154	116.203	23.454	10.867	1.00 79.24	O
ATOM	3037	N6	A A 151	107.259	32.338	5.693	1.00 51.13	N	ATOM	3087	O5*	C A 154	114.361	22.755	10.785	1.00 79.19	O
ATOM	3038	N1	A A 151	109.007	33.627	6.472	1.00 51.13	N	ATOM	3088	C5*	C A 154	113.394	21.877	11.377	1.00 79.19	C
ATOM	3039	C2	A A 151	110.259	34.068	6.329	1.00 51.13	C	ATOM	3089	C4*	C A 154	112.940	20.850	10.374	1.00 79.19	C
ATOM	3040	N3	A A 151	111.139	33.796	5.376	1.00 51.13	N	ATOM	3090	O4*	C A 154	112.201	21.512	9.316	1.00 79.19	O
ATOM	3041	C4	A A 151	110.616	32.955	4.473	1.00 51.13	C	ATOM	3091	C3*	C A 154	114.050	20.109	9.650	1.00 79.19	C
ATOM	3042	P	A A 152	116.165	29.883	4.467	1.00 52.87	P	ATOM	3092	O3*	C A 154	114.553	19.006	10.377	1.00 79.19	O
ATOM	3043	O1P	A A 152	117.594	30.143	4.789	1.00 45.70	O	ATOM	3093	C2*	C A 154	113.374	19.677	8.360	1.00 79.19	C
ATOM	3044	O2P	A A 152	115.767	28.568	3.908	1.00 45.70	O	ATOM	3094	O2*	C A 154	112.605	18.501	8.517	1.00 79.19	O
ATOM	3045	O5*	A A 152	115.302	30.178	5.772	1.00 52.87	O	ATOM	3095	C1*	C A 154	112.468	20.877	8.074	1.00 79.19	C
ATOM	3046	C5*	A A 152	115.425	31.442	6.438	1.00 52.87	C	ATOM	3096	N1	C A 154	113.144	21.845	7.187	1.00 79.24	N
ATOM	3047	C4*	A A 152	114.332	31.624	7.457	1.00 52.87	C	ATOM	3097	C2	C A 154	113.113	21.634	5.804	1.00 79.24	C



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ATOM	3098	O2	C A 154	112.473	20.671	5.358	1.00	79.24	O	ATOM	3148	O1P	G A 157	124.876	12.631	3.944	1.00	76.35	O
ATOM	3099	N3	C A 154	113.782	22.485	4.992	1.00	79.24	N	ATOM	3149	O2P	G A 157	123.967	14.724	5.115	1.00	76.35	O
ATOM	3100	C4	C A 154	114.454	23.513	5.513	1.00	79.24	C	ATOM	3150	O5*	G A 157	124.664	14.780	2.688	1.00	73.67	O
ATOM	3101	N4	C A 154	115.115	24.317	4.684	1.00	79.24	N	ATOM	3151	C5*	G A 157	124.898	14.166	1.416	1.00	73.67	C
ATOM	3102	C5	C A 154	114.481	23.764	6.911	1.00	79.24	C	ATOM	3152	C4*	G A 157	125.423	15.155	0.394	1.00	73.67	C
ATOM	3103	C6	C A 154	113.818	22.918	7.703	1.00	79.24	C	ATOM	3153	O4*	G A 157	124.429	16.161	0.074	1.00	73.67	O
ATOM	3104	P	C A 155	116.117	18.649	10.281	1.00	73.93	P	ATOM	3154	C3*	G A 157	126.682	15.969	0.649	1.00	73.67	C
ATOM	3105	O1P	C A 155	116.386	17.698	11.391	1.00	83.48	O	ATOM	3155	O3*	G A 157	127.884	15.238	0.478	1.00	73.67	O
ATOM	3106	O2P	C A 155	116.887	19.922	10.204	1.00	83.48	O	ATOM	3156	C2*	G A 157	126.576	17.011	-0.455	1.00	73.67	C
ATOM	3107	O5*	C A 155	116.269	17.907	8.877	1.00	73.93	O	ATOM	3157	O2*	G A 157	126.968	16.484	-1.708	1.00	73.67	O
ATOM	3108	C5*	C A 155	115.540	16.701	8.602	1.00	73.93	C	ATOM	3158	C1*	G A 157	125.076	17.298	-0.473	1.00	73.67	C
ATOM	3109	C4*	C A 155	115.806	16.217	7.193	1.00	73.93	C	ATOM	3159	N9	G A 157	124.816	18.463	0.367	1.00	76.35	N
ATOM	3110	O4*	C A 155	115.134	17.068	6.227	1.00	73.93	O	ATOM	3160	C8	G A 157	124.253	18.502	1.622	1.00	76.35	C
ATOM	3111	C3*	C A 155	117.251	16.192	6.723	1.00	73.93	C	ATOM	3161	N7	G A 157	124.261	19.698	2.150	1.00	76.35	N
ATOM	3112	O3*	C A 155	117.977	15.062	7.161	1.00	73.93	O	ATOM	3162	C5	G A 157	124.845	20.501	1.176	1.00	76.35	C
ATOM	3113	C2*	C A 155	117.111	16.199	5.207	1.00	73.93	C	ATOM	3163	C6	G A 157	125.152	21.897	1.181	1.00	76.35	C
ATOM	3114	O2*	C A 155	116.881	14.920	4.660	1.00	73.93	O	ATOM	3164	O6	G A 157	124.972	22.733	2.089	1.00	76.35	O
ATOM	3115	C1*	C A 155	115.880	17.085	5.012	1.00	73.93	C	ATOM	3165	N1	G A 157	125.742	22.290	-0.021	1.00	76.35	N
ATOM	3116	N1	C A 155	116.292	18.469	4.698	1.00	83.48	N	ATOM	3166	C2	G A 157	126.017	21.455	-1.083	1.00	76.35	C
ATOM	3117	C2	C A 155	116.572	18.803	3.359	1.00	83.48	C	ATOM	3167	N2	G A 157	126.602	22.011	-2.151	1.00	76.35	N
ATOM	3118	O2	C A 155	116.395	17.952	2.468	1.00	83.48	O	ATOM	3168	N3	G A 157	125.745	20.166	-1.093	1.00	76.35	N
ATOM	3119	N3	C A 155	117.025	20.043	3.075	1.00	83.48	N	ATOM	3169	C4	G A 157	125.166	19.758	0.059	1.00	76.35	C
ATOM	3120	C4	C A 155	117.187	20.935	4.055	1.00	83.48	C	ATOM	3170	P	G A 158	129.264	15.835	1.049	1.00103.42	P	
ATOM	3121	N4	C A 155	117.664	22.134	3.732	1.00	83.48	N	ATOM	3171	O1P	G A 158	130.326	14.835	0.798	1.00	89.48	O
ATOM	3122	C5	C A 155	116.873	20.635	5.412	1.00	83.48	C	ATOM	3172	O2P	G A 158	129.028	16.319	2.434	1.00	89.48	O
ATOM	3123	C6	C A 155	116.432	19.405	5.686	1.00	83.48	C	ATOM	3173	O5*	G A 158	129.558	17.082	0.104	1.00103.42	O	
ATOM	3124	P	G A 156	119.580	15.116	7.163	1.00	75.54	P	ATOM	3174	C5*	G A 158	129.916	16.895	-1.284	1.00103.42	C	
ATOM	3125	O1P	G A 156	120.048	13.891	7.869	1.00	73.63	O	ATOM	3175	C4*	G A 158	130.400	18.198	-1.890	1.00103.42	C	
ATOM	3126	O2P	G A 156	119.995	16.452	7.655	1.00	73.63	O	ATOM	3176	O4*	G A 158	129.303	19.153	-1.936	1.00103.42	O	
ATOM	3127	O5*	G A 156	119.977	15.017	5.622	1.00	75.54	O	ATOM	3177	C3*	G A 158	131.499	18.917	-1.120	1.00103.42	C	
ATOM	3128	C5*	G A 156	119.732	13.809	4.884	1.00	75.54	C	ATOM	3178	O3*	G A 158	132.805	18.428	-1.404	1.00103.42	O	
ATOM	3129	C4*	G A 156	120.223	13.943	3.465	1.00	75.54	C	ATOM	3179	C2*	G A 158	131.311	20.365	-1.552	1.00103.42	C	
ATOM	3130	O4*	G A 156	119.410	14.914	2.758	1.00	75.54	O	ATOM	3180	O2*	G A 158	131.899	20.636	-2.810	1.00103.42	O	
ATOM	3131	C3*	G A 156	121.643	14.453	3.297	1.00	75.54	C	ATOM	3181	C1*	G A 158	129.787	20.458	-1.659	1.00103.42	C	
ATOM	3132	O3*	G A 156	122.634	13.463	3.417	1.00	75.54	C	ATOM	3182	N9	G A 158	129.183	20.922	-0.409	1.00	89.48	N
ATOM	3133	C2*	G A 156	121.620	15.024	1.892	1.00	75.54	C	ATOM	3183	C8	G A 158	128.470	20.172	0.500	1.00	89.48	C
ATOM	3134	O2*	G A 156	121.786	14.014	0.913	1.00	75.54	O	ATOM	3184	N7	G A 158	128.071	20.861	1.536	1.00	89.48	N
ATOM	3135	C1*	G A 156	120.223	15.648	1.848	1.00	75.54	C	ATOM	3185	C5	G A 158	128.542	22.146	1.297	1.00	89.48	C
ATOM	3136	N9	G A 156	120.293	17.041	2.299	1.00	73.63	N	ATOM	3186	C6	G A 158	128.419	23.331	2.075	1.00	89.48	C
ATOM	3137	C8	G A 156	119.948	17.540	3.536	1.00	73.63	C	ATOM	3187	O6	G A 158	127.833	23.488	3.150	1.00	89.48	O
ATOM	3138	N7	G A 156	120.201	18.813	3.664	1.00	73.63	N	ATOM	3188	N1	G A 158	129.064	24.406	1.475	1.00	89.48	N
ATOM	3139	C5	G A 156	120.731	19.186	2.435	1.00	73.63	C	ATOM	3189	C2	G A 158	129.733	24.357	0.277	1.00	89.48	C
ATOM	3140	C6	G A 156	121.212	20.448	1.977	1.00	73.63	C	ATOM	3190	N2	G A 158	130.298	25.499	-0.131	1.00	89.48	N
ATOM	3141	O6	G A 156	121.280	21.523	2.595	1.00	73.63	O	ATOM	3191	N3	G A 158	129.842	23.266	-0.467	1.00	89.48	N
ATOM	3142	N1	G A 156	121.653	20.376	0.658	1.00	73.63	N	ATOM	3192	C4	G A 158	129.230	22.203	0.102	1.00	89.48	C
ATOM	3143	C2	G A 156	121.647	19.244	-0.115	1.00	73.63	C	ATOM	3193	P	G A 159	133.938	18.505	-0.266	1.00116.51	P	
ATOM	3144	N2	G A 156	122.110	19.371	-1.353	1.00	73.63	N	ATOM	3194	O1P	G A 159	135.182	17.930	-0.835	1.00	85.02	O
ATOM	3145	N3	G A 156	121.218	18.070	0.299	1.00	73.63	N	ATOM	3195	O2P	G A 159	133.383	17.962	1.001	1.00	85.02	O
ATOM	3146	C4	G A 156	120.775	18.111	1.574	1.00	73.63	C	ATOM	3196	O5*	G A 159	134.165	20.065	-0.055	1.00116.51	O	
ATOM	3147	P	G A 157	124.102	13.892	3.891	1.00	73.67	P	ATOM	3197	C5*	G A 159	134.802	20.862	-1.069	1.00116.51	C	



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ATOM	3198	C4*	G A 159	135.091	22.243	-0.538	1.00116.51	C	ATOM	3248	O2*	A A 161	136.406	31.020	6.114	1.00 89.57	O
ATOM	3199	O4*	G A 159	133.857	22.987	-0.392	1.00116.51	O	ATOM	3249	C1*	A A 161	136.939	28.999	4.943	1.00 89.57	C
ATOM	3200	C3*	G A 159	135.718	22.277	0.844	1.00116.51	C	ATOM	3250	N9	A A 161	136.631	28.361	3.666	1.00 79.30	N
ATOM	3201	O3*	G A 159	137.121	22.110	0.806	1.00116.51	O	ATOM	3251	C8	A A 161	136.077	27.122	3.468	1.00 79.30	C
ATOM	3202	C2*	G A 159	135.329	23.652	1.357	1.00116.51	C	ATOM	3252	N7	A A 161	135.948	26.797	2.207	1.00 79.30	N
ATOM	3203	O2*	G A 159	136.189	24.658	0.867	1.00116.51	O	ATOM	3253	C5	A A 161	136.443	27.898	1.526	1.00 79.30	C
ATOM	3204	C1*	G A 159	133.939	23.827	0.748	1.00116.51	C	ATOM	3254	C6	A A 161	136.592	28.172	0.157	1.00 79.30	C
ATOM	3205	N9	G A 159	132.887	23.440	1.691	1.00 85.02	N	ATOM	3255	N6	A A 161	136.244	27.323	-0.814	1.00 79.30	N
ATOM	3206	C8	G A 159	132.169	22.272	1.675	1.00 85.02	C	ATOM	3256	N1	A A 161	137.120	29.365	-0.188	1.00 79.30	N
ATOM	3207	N7	G A 159	131.293	22.205	2.640	1.00 85.02	N	ATOM	3257	C2	A A 161	137.466	30.215	0.784	1.00 79.30	C
ATOM	3208	C5	G A 159	131.441	23.401	3.326	1.00 85.02	C	ATOM	3258	N3	A A 161	137.376	30.071	2.103	1.00 79.30	N
ATOM	3209	C6	G A 159	130.760	23.888	4.463	1.00 85.02	C	ATOM	3259	C4	A A 161	136.855	28.875	2.412	1.00 79.30	C
ATOM	3210	O6	G A 159	129.862	23.348	5.103	1.00 85.02	O	ATOM	3260	P	A A 162	132.839	30.056	7.288	1.00100.86	P
ATOM	3211	N1	G A 159	131.222	25.145	4.841	1.00 85.02	N	ATOM	3261	O1P	A A 162	132.412	30.576	8.620	1.00 84.75	O
ATOM	3212	C2	G A 159	132.211	25.846	4.199	1.00 85.02	C	ATOM	3262	O2P	A A 162	132.141	28.886	6.696	1.00 84.75	O
ATOM	3213	N2	G A 159	132.512	27.050	4.712	1.00 85.02	N	ATOM	3263	O5*	A A 162	132.763	31.239	6.224	1.00100.86	O
ATOM	3214	N3	G A 159	132.856	25.400	3.130	1.00 85.02	N	ATOM	3264	C5*	A A 162	133.135	32.588	6.571	1.00100.86	C
ATOM	3215	C4	G A 159	132.421	24.177	2.751	1.00 85.02	C	ATOM	3265	C4*	A A 162	133.216	33.432	5.323	1.00100.86	C
ATOM	3216	P	A A 160	137.847	21.360	2.020	1.00 79.38	P	ATOM	3266	O4*	A A 162	134.222	32.853	4.452	1.00100.86	O
ATOM	3217	O1P	A A 160	139.324	21.549	1.895	1.00 90.17	O	ATOM	3267	C3*	A A 162	131.944	33.445	4.490	1.00100.86	C
ATOM	3218	O2P	A A 160	137.272	19.985	2.077	1.00 90.17	O	ATOM	3268	O3*	A A 162	131.029	34.449	4.911	1.00100.86	O
ATOM	3219	O5*	A A 160	137.356	22.157	3.307	1.00 79.38	O	ATOM	3269	O2*	A A 162	132.468	33.672	3.079	1.00100.86	O
ATOM	3220	C5*	A A 160	137.655	21.668	4.619	1.00 79.38	C	ATOM	3270	C2*	A A 162	132.745	35.031	2.800	1.00100.86	O
ATOM	3221	C4*	A A 160	138.225	22.773	5.464	1.00 79.38	C	ATOM	3271	C1*	A A 162	133.770	32.872	3.110	1.00100.86	C
ATOM	3222	O4*	A A 160	139.437	23.271	4.843	1.00 79.38	O	ATOM	3272	N9	A A 162	133.582	31.480	2.683	1.00 84.75	N
ATOM	3223	C3*	A A 160	137.349	24.003	5.629	1.00 79.38	C	ATOM	3273	C8	A A 162	133.387	30.378	3.483	1.00 84.75	C
ATOM	3224	O3*	A A 160	136.402	23.837	6.677	1.00 79.38	O	ATOM	3274	N7	A A 162	133.251	29.259	2.819	1.00 84.75	N
ATOM	3225	C2*	A A 160	138.367	25.088	5.951	1.00 79.38	C	ATOM	3275	C5	A A 162	133.361	29.644	1.491	1.00 84.75	C
ATOM	3226	O2*	A A 160	138.750	25.061	7.310	1.00 79.38	O	ATOM	3276	C6	A A 162	133.309	28.917	0.290	1.00 84.75	C
ATOM	3227	C1*	A A 160	139.560	24.662	5.093	1.00 79.38	C	ATOM	3277	N6	A A 162	133.135	27.595	0.230	1.00 84.75	N
ATOM	3228	N9	A A 160	139.628	25.370	3.810	1.00 90.17	N	ATOM	3278	N1	A A 162	133.449	29.603	-0.864	1.00 84.75	N
ATOM	3229	C8	A A 160	139.356	24.883	2.551	1.00 90.17	C	ATOM	3279	C2	A A 162	133.631	30.927	-0.804	1.00 84.75	C
ATOM	3230	N7	A A 160	139.493	25.774	1.598	1.00 90.17	N	ATOM	3280	N3	A A 162	133.703	31.721	0.260	1.00 84.75	N
ATOM	3231	C5	A A 160	139.884	26.923	2.269	1.00 90.17	C	ATOM	3281	C4	A A 162	133.560	31.009	1.391	1.00 84.75	C
ATOM	3232	C6	A A 160	140.187	28.213	1.821	1.00 90.17	C	ATOM	3282	P	C A 163	129.509	34.045	5.255	1.00 68.86	P
ATOM	3233	N6	A A 160	140.133	28.579	0.542	1.00 90.17	N	ATOM	3283	O1P	C A 163	128.767	35.316	5.453	1.00102.86	O
ATOM	3234	N1	A A 160	140.550	29.130	2.744	1.00 90.17	N	ATOM	3284	O2P	C A 163	129.539	33.036	6.346	1.00102.86	O
ATOM	3235	C2	A A 160	140.597	28.761	4.031	1.00 90.17	C	ATOM	3285	O5*	C A 163	128.965	33.332	3.934	1.00 68.86	O
ATOM	3236	N3	A A 160	140.330	27.579	4.579	1.00 90.17	N	ATOM	3286	C5*	C A 163	129.129	33.954	2.651	1.00 68.86	C
ATOM	3237	C4	A A 160	139.976	26.690	3.632	1.00 90.17	C	ATOM	3287	C4*	C A 163	129.378	32.921	1.573	1.00 68.86	C
ATOM	3238	P	A A 161	134.915	24.425	6.503	1.00 89.57	P	ATOM	3288	O4*	C A 163	130.282	31.894	2.070	1.00 68.86	O
ATOM	3239	O1P	A A 161	134.165	24.147	7.758	1.00 79.30	O	ATOM	3289	C3*	C A 163	128.192	32.125	1.059	1.00 68.86	C
ATOM	3240	O2P	A A 161	134.381	23.940	5.205	1.00 79.30	O	ATOM	3290	O3*	C A 163	127.426	32.828	0.095	1.00 68.86	O
ATOM	3241	O5*	A A 161	135.139	25.999	6.381	1.00 89.57	O	ATOM	3291	C2*	C A 163	128.873	30.912	0.437	1.00 68.86	C
ATOM	3242	C5*	A A 161	135.752	26.750	7.454	1.00 89.57	C	ATOM	3292	O2*	C A 163	129.419	31.192	-0.839	1.00 68.86	O
ATOM	3243	C4*	A A 161	136.168	28.123	6.971	1.00 89.57	C	ATOM	3293	C1*	C A 163	130.013	30.658	1.421	1.00 68.86	C
ATOM	3244	O4*	A A 161	137.134	27.978	5.903	1.00 89.57	O	ATOM	3294	N1	C A 163	129.625	29.639	2.425	1.00102.86	N
ATOM	3245	C3*	A A 161	135.064	28.995	6.389	1.00 89.57	C	ATOM	3295	C2	C A 163	129.372	28.322	1.988	1.00102.86	C
ATOM	3246	O3*	A A 161	134.408	29.730	7.414	1.00 89.57	O	ATOM	3296	O2	C A 163	129.535	28.041	0.791	1.00102.86	O
ATOM	3247	C2*	A A 161	135.826	29.917	5.447	1.00 89.57	C	ATOM	3297	N3	C A 163	128.957	27.395	2.882	1.00102.86	N



Table 1: Sheet 35/521

ATOM	3298	C4	C A 163	128.802	27.727	4.165	1.00102.86	C	ATOM	3348	O4*	G A 166	120.167	20.977	-5.393	1.00 74.48	O
ATOM	3299	N4	C A 163	128.369	26.785	5.007	1.00102.86	N	ATOM	3349	C3*	G A 166	117.918	21.284	-5.922	1.00 74.48	C
ATOM	3300	C5	C A 163	129.080	29.044	4.643	1.00102.86	C	ATOM	3350	O3*	G A 166	116.912	21.086	-6.890	1.00 74.48	O
ATOM	3301	C6	C A 163	129.487	29.958	3.749	1.00102.86	C	ATOM	3351	C2*	G A 166	117.992	20.142	-4.922	1.00 74.48	C
ATOM	3302	P	U A 164	125.941	32.317	-0.258	1.00 80.26	P	ATOM	3352	O2*	G A 166	117.814	18.879	-5.529	1.00 74.48	O
ATOM	3303	O1P	U A 164	125.337	33.257	-1.240	1.00 75.42	O	ATOM	3353	C1*	G A 166	119.429	20.270	-4.413	1.00 74.48	C
ATOM	3304	O2P	U A 164	125.223	32.004	1.014	1.00 75.42	O	ATOM	3354	N9	G A 166	119.471	21.015	-3.159	1.00 80.50	N
ATOM	3305	O5*	U A 164	126.182	30.946	-1.023	1.00 80.26	O	ATOM	3355	C8	G A 166	119.913	22.300	-2.964	1.00 80.50	C
ATOM	3306	C5*	U A 164	126.899	30.916	-2.259	1.00 80.26	C	ATOM	3356	N7	G A 166	119.761	22.711	-1.734	1.00 80.50	N
ATOM	3307	C4*	U A 164	127.030	29.498	-2.738	1.00 80.26	C	ATOM	3357	C5	G A 166	119.196	21.627	-1.076	1.00 80.50	C
ATOM	3308	O4*	U A 164	127.704	28.714	-1.722	1.00 80.26	O	ATOM	3358	C6	G A 166	118.789	21.485	0.269	1.00 80.50	C
ATOM	3309	C3*	U A 164	125.719	28.768	-2.974	1.00 80.26	C	ATOM	3359	O6	G A 166	118.837	22.316	1.175	1.00 80.50	O
ATOM	3310	O3*	U A 164	125.205	29.047	-4.268	1.00 80.26	O	ATOM	3360	N1	G A 166	118.274	20.219	0.519	1.00 80.50	N
ATOM	3311	C2*	U A 164	126.114	27.307	-2.803	1.00 80.26	C	ATOM	3361	C2	G A 166	118.155	19.219	-0.409	1.00 80.50	C
ATOM	3312	O2*	U A 164	126.703	26.743	-3.956	1.00 80.26	O	ATOM	3362	N2	G A 166	117.634	18.064	0.029	1.00 80.50	N
ATOM	3313	C1*	U A 164	127.174	27.402	-1.708	1.00 80.26	C	ATOM	3363	N3	G A 166	118.521	19.341	-1.673	1.00 80.50	N
ATOM	3314	N1	U A 164	126.623	27.120	-0.374	1.00 75.42	N	ATOM	3364	C4	G A 166	119.030	20.565	-1.935	1.00 80.50	C
ATOM	3315	C2	U A 164	126.422	25.794	-0.051	1.00 75.42	C	ATOM	3365	P	G A 167	115.417	21.581	-6.572	1.00 63.33	P
ATOM	3316	O2	U A 164	126.686	24.880	-0.816	1.00 75.42	O	ATOM	3366	O1P	G A 167	114.585	21.307	-7.785	1.00 79.32	O
ATOM	3317	N3	U A 164	125.902	25.572	1.197	1.00 75.42	N	ATOM	3367	O2P	G A 167	115.475	22.961	-6.021	1.00 79.32	O
ATOM	3318	C4	U A 164	125.576	26.516	2.134	1.00 75.42	C	ATOM	3368	O5*	G A 167	114.966	20.629	-5.371	1.00 63.33	O
ATOM	3319	O4	U A 164	125.145	26.150	3.225	1.00 75.42	O	ATOM	3369	C5*	G A 167	114.852	19.206	-5.560	1.00 63.33	C
ATOM	3320	C5	U A 164	125.813	27.869	1.730	1.00 75.42	C	ATOM	3370	C4*	G A 167	114.215	18.564	-4.357	1.00 63.33	C
ATOM	3321	C6	U A 164	126.314	28.119	0.520	1.00 75.42	C	ATOM	3371	O4*	G A 167	115.139	18.578	-3.241	1.00 63.33	O
ATOM	3322	P	C A 165	123.652	28.782	-4.582	1.00 76.65	P	ATOM	3372	C3*	G A 167	112.966	19.248	-3.830	1.00 63.33	C
ATOM	3323	O1P	C A 165	123.358	29.385	-5.916	1.00 79.12	O	ATOM	3373	O3*	G A 167	111.800	18.881	-4.546	1.00 63.33	O
ATOM	3324	O2P	C A 165	122.841	29.182	-3.396	1.00 79.12	O	ATOM	3374	C2*	G A 167	112.921	18.800	-2.374	1.00 63.33	C
ATOM	3325	O5*	C A 165	123.582	27.203	-4.750	1.00 76.65	O	ATOM	3375	O2*	G A 167	112.280	17.558	-2.184	1.00 63.33	O
ATOM	3326	C5*	C A 165	124.270	26.564	-5.833	1.00 76.65	C	ATOM	3376	C1*	G A 167	114.411	18.703	-2.029	1.00 63.33	C
ATOM	3327	O4*	C A 165	123.931	25.101	-5.876	1.00 76.65	O	ATOM	3377	N9	G A 167	114.869	19.898	-1.334	1.00 79.32	N
ATOM	3328	C4*	C A 165	124.587	24.407	-4.786	1.00 76.65	C	ATOM	3378	C8	G A 167	115.650	20.909	-1.837	1.00 79.32	C
ATOM	3329	C3*	C A 165	122.462	24.771	-5.700	1.00 76.65	C	ATOM	3379	N7	G A 167	115.849	21.873	-0.983	1.00 79.32	N
ATOM	3330	O3*	C A 165	121.718	24.916	-6.891	1.00 76.65	O	ATOM	3380	C5	G A 167	115.168	21.467	0.156	1.00 79.32	C
ATOM	3331	C2*	C A 165	122.505	23.334	-5.206	1.00 76.65	C	ATOM	3381	C6	G A 167	115.020	22.105	1.412	1.00 79.32	C
ATOM	3332	O2*	C A 165	122.671	22.397	-6.249	1.00 76.65	O	ATOM	3382	O6	G A 167	115.475	23.192	1.777	1.00 79.32	O
ATOM	3333	C1*	C A 165	123.759	23.353	-4.334	1.00 76.65	C	ATOM	3383	N1	G A 167	114.248	21.344	2.285	1.00 79.32	N
ATOM	3334	N1	C A 165	123.397	23.603	-2.937	1.00 79.12	N	ATOM	3384	C2	G A 167	113.691	20.127	1.987	1.00 79.32	C
ATOM	3335	C2	C A 165	122.966	22.530	-2.169	1.00 79.12	C	ATOM	3385	N2	G A 167	112.976	19.551	2.956	1.00 79.32	N
ATOM	3336	O2	C A 165	122.937	21.404	-2.686	1.00 79.12	O	ATOM	3386	N3	G A 167	113.825	19.522	0.821	1.00 79.32	N
ATOM	3337	N3	C A 165	122.586	22.740	-0.888	1.00 79.12	N	ATOM	3387	C4	G A 167	114.569	20.245	-0.042	1.00 79.32	C
ATOM	3338	C4	C A 165	122.629	23.970	-0.375	1.00 79.12	C	ATOM	3388	P	G A 168	110.525	19.857	-4.526	1.00 54.99	P
ATOM	3339	N4	C A 165	122.225	24.137	0.886	1.00 79.12	N	ATOM	3389	O1P	G A 168	109.468	19.263	-5.397	1.00 79.35	O
ATOM	3340	C5	C A 165	123.082	25.085	-1.135	1.00 79.12	C	ATOM	3390	O2P	G A 168	110.992	21.256	-4.786	1.00 79.35	O
ATOM	3341	C6	C A 165	123.456	24.858	-2.399	1.00 79.12	C	ATOM	3391	O5*	G A 168	110.039	19.782	-3.011	1.00 54.99	O
ATOM	3342	P	G A 166	120.127	25.101	-6.795	1.00 74.48	P	ATOM	3392	C5*	G A 168	109.442	18.591	-2.499	1.00 54.99	C
ATOM	3343	O1P	G A 166	119.604	25.345	-8.171	1.00 80.50	O	ATOM	3393	C4*	G A 168	108.999	18.788	-1.071	1.00 54.99	C
ATOM	3344	O2P	G A 166	119.832	26.073	-5.703	1.00 80.50	O	ATOM	3394	O4*	G A 168	110.151	18.952	-0.206	1.00 54.99	O
ATOM	3345	O5*	G A 166	119.619	23.668	-6.328	1.00 74.48	O	ATOM	3395	C3*	G A 168	108.129	19.986	-0.756	1.00 54.99	C
ATOM	3346	C5*	G A 166	119.753	22.544	-7.203	1.00 74.48	C	ATOM	3396	O3*	G A 168	106.765	19.767	-1.057	1.00 54.99	O
ATOM	3347	C4*	G A 166	119.306	21.278	-6.520	1.00 74.48	C	ATOM	3397	C2*	G A 168	108.321	20.125	0.744	1.00 54.99	C



Table 1: Sheet 36/521

ATOM	3398	O2*	G A 168	107.494	19.211	1.434	1.00	54.99	O	ATOM	3448	O4	U A 170	108.227	28.173	1.004	1.00	53.24	O
ATOM	3399	C1*	G A 168	109.794	19.742	0.916	1.00	54.99	C	ATOM	3449	C5	U A 170	106.089	27.363	1.620	1.00	53.24	C
ATOM	3400	N9	G A 168	110.661	20.921	0.959	1.00	79.35	N	ATOM	3450	C6	U A 170	105.144	27.394	2.561	1.00	53.24	C
ATOM	3401	C8	G A 168	111.446	21.407	-0.062	1.00	79.35	C	ATOM	3451	P	A A 171	100.019	29.592	3.097	1.00	45.50	P
ATOM	3402	N7	G A 168	112.058	22.519	0.246	1.00	79.35	N	ATOM	3452	O1P	A A 171	98.545	29.381	3.047	1.00	60.28	O
ATOM	3403	C5	G A 168	111.666	22.782	1.553	1.00	79.35	C	ATOM	3453	O2P	A A 171	100.800	29.634	1.831	1.00	60.28	O
ATOM	3404	C6	G A 168	111.995	23.867	2.410	1.00	79.35	C	ATOM	3454	O5*	A A 171	100.300	30.928	3.906	1.00	45.50	O
ATOM	3405	O6	G A 168	112.704	24.842	2.169	1.00	79.35	O	ATOM	3455	C5*	A A 171	99.915	31.023	5.277	1.00	45.50	C
ATOM	3406	N1	G A 168	111.395	23.738	3.656	1.00	79.35	N	ATOM	3456	C4*	A A 171	100.217	32.396	5.817	1.00	45.50	C
ATOM	3407	C2	G A 168	110.574	22.704	4.034	1.00	79.35	C	ATOM	3457	O4*	A A 171	101.606	32.513	6.221	1.00	45.50	O
ATOM	3408	N2	G A 168	110.108	22.751	5.291	1.00	79.35	N	ATOM	3458	C3*	A A 171	99.982	33.561	4.879	1.00	45.50	C
ATOM	3409	N3	G A 168	110.241	21.693	3.239	1.00	79.35	N	ATOM	3459	O3*	A A 171	98.610	33.908	4.827	1.00	45.50	O
ATOM	3410	C4	G A 168	110.821	21.796	2.020	1.00	79.35	C	ATOM	3460	C2*	A A 171	100.828	34.642	5.526	1.00	45.50	C
ATOM	3411	P	C A 169	105.760	21.027	-1.136	1.00	64.85	P	ATOM	3461	O2*	A A 171	100.148	35.160	6.655	1.00	45.50	O
ATOM	3412	O1P	C A 169	104.385	20.525	-1.424	1.00	73.88	O	ATOM	3462	C1*	A A 171	102.039	33.842	6.019	1.00	45.50	C
ATOM	3413	O2P	C A 169	106.367	22.057	-2.022	1.00	73.88	O	ATOM	3463	N9	A A 171	103.165	33.810	5.081	1.00	60.28	N
ATOM	3414	O5*	C A 169	105.748	21.604	0.347	1.00	64.85	C	ATOM	3464	C8	A A 171	103.271	33.053	3.941	1.00	60.28	C
ATOM	3415	C5*	C A 169	105.175	20.843	1.407	1.00	64.85	C	ATOM	3465	N7	A A 171	104.413	33.195	3.314	1.00	60.28	N
ATOM	3416	C4*	C A 169	105.001	21.693	2.635	1.00	64.85	C	ATOM	3466	C5	A A 171	105.107	34.114	4.087	1.00	60.28	C
ATOM	3417	O4*	C A 169	106.280	22.011	3.230	1.00	64.85	O	ATOM	3467	C6	A A 171	106.390	34.675	3.962	1.00	60.28	C
ATOM	3418	C3*	C A 169	104.361	23.056	2.464	1.00	64.85	C	ATOM	3468	N6	A A 171	107.237	34.362	2.989	1.00	60.28	N
ATOM	3419	O3*	C A 169	102.954	22.975	3.362	1.00	64.85	O	ATOM	3469	N1	A A 171	106.778	35.571	4.889	1.00	60.28	N
ATOM	3420	C2*	C A 169	104.749	23.749	3.763	1.00	64.85	C	ATOM	3470	C2	A A 171	105.936	35.870	5.877	1.00	60.28	C
ATOM	3421	O2*	C A 169	103.870	23.399	4.814	1.00	64.85	O	ATOM	3471	N3	A A 171	104.710	35.404	6.113	1.00	60.28	N
ATOM	3422	C1*	C A 169	106.122	23.144	4.060	1.00	64.85	C	ATOM	3472	C4	A A 171	104.348	34.515	5.170	1.00	60.28	C
ATOM	3423	N1	C A 169	107.227	24.093	3.844	1.00	73.88	N	ATOM	3473	P	A A 172	98.040	34.681	3.539	1.00	55.35	P
ATOM	3424	O2	C A 169	107.612	24.917	4.913	1.00	73.88	O	ATOM	3474	O1P	A A 172	96.568	34.781	3.679	1.00	51.47	O
ATOM	3425	O2	C A 169	107.039	24.792	6.013	1.00	73.88	O	ATOM	3475	O2P	A A 172	98.610	34.087	2.291	1.00	51.47	O
ATOM	3426	N3	C A 169	108.594	25.828	4.722	1.00	73.88	N	ATOM	3476	O5*	A A 172	98.643	36.138	3.740	1.00	55.35	O
ATOM	3427	C4	C A 169	109.185	25.932	3.533	1.00	73.88	C	ATOM	3477	C5*	A A 172	98.312	36.909	4.908	1.00	55.35	C
ATOM	3428	N4	C A 169	110.131	26.861	3.388	1.00	73.88	N	ATOM	3478	C4*	A A 172	99.133	38.175	4.958	1.00	55.35	C
ATOM	3429	C5	C A 169	108.829	25.093	2.438	1.00	73.88	C	ATOM	3479	O4*	A A 172	100.511	37.856	5.276	1.00	55.35	O
ATOM	3430	C6	C A 169	107.856	24.195	2.635	1.00	73.88	C	ATOM	3480	C3*	A A 172	99.203	38.980	3.668	1.00	55.35	C
ATOM	3431	P	U A 170	102.148	24.160	1.643	1.00	47.26	P	ATOM	3481	O3*	A A 172	98.054	39.807	3.493	1.00	55.35	O
ATOM	3432	O1P	U A 170	100.702	23.826	1.720	1.00	53.24	O	ATOM	3482	C2*	A A 172	100.497	39.762	3.847	1.00	55.35	C
ATOM	3433	O2P	U A 170	102.780	24.396	0.316	1.00	53.24	O	ATOM	3483	O2*	A A 172	100.324	40.925	4.632	1.00	55.35	O
ATOM	3434	O5*	U A 170	102.414	25.436	2.561	1.00	47.26	O	ATOM	3484	C1*	A A 172	101.374	38.743	4.587	1.00	55.35	C
ATOM	3435	C5*	U A 170	101.881	25.505	3.893	1.00	47.26	C	ATOM	3485	N9	A A 172	102.188	37.961	3.651	1.00	51.47	N
ATOM	3436	C4*	U A 170	102.298	26.790	4.579	1.00	47.26	C	ATOM	3486	C8	A A 172	101.756	36.972	2.798	1.00	51.47	C
ATOM	3437	O4*	U A 170	103.725	26.814	4.845	1.00	47.26	O	ATOM	3487	N7	A A 172	102.692	36.510	2.007	1.00	51.47	N
ATOM	3438	C3*	U A 170	102.018	28.078	3.832	1.00	47.26	C	ATOM	3488	C5	A A 172	103.821	37.226	2.371	1.00	51.47	C
ATOM	3439	O3*	U A 170	100.671	28.467	4.035	1.00	47.26	O	ATOM	3489	C6	A A 172	105.128	37.214	1.891	1.00	51.47	C
ATOM	3440	C2*	U A 170	103.004	29.048	4.472	1.00	47.26	C	ATOM	3490	N6	A A 172	105.528	36.452	0.882	1.00	51.47	N
ATOM	3441	O2*	U A 170	102.529	29.528	5.715	1.00	47.26	O	ATOM	3491	N1	A A 172	106.023	38.031	2.480	1.00	51.47	N
ATOM	3442	C1*	U A 170	104.206	28.141	4.742	1.00	47.26	C	ATOM	3492	C2	A A 172	105.613	38.821	3.474	1.00	51.47	C
ATOM	3443	N1	U A 170	105.236	28.180	3.689	1.00	53.24	N	ATOM	3493	N3	A A 172	104.402	38.940	4.005	1.00	51.47	N
ATOM	3444	C2	U A 170	106.316	29.019	3.874	1.00	53.24	C	ATOM	3494	C4	A A 172	103.537	38.103	3.402	1.00	51.47	C
ATOM	3445	O2	U A 170	106.419	29.767	4.832	1.00	53.24	O	ATOM	3495	P	U A 173	97.848	40.623	2.118	1.00	48.39	P
ATOM	3446	N3	U A 170	107.273	28.956	2.890	1.00	53.24	N	ATOM	3496	O1P	U A 173	96.388	40.833	1.910	1.00	66.66	O
ATOM	3447	C4	U A 170	107.254	28.171	1.760	1.00	53.24	C	ATOM	3497	O2P	U A 173	98.639	39.956	1.050	1.00	66.66	O



Table 1: Sheet 37/521

ATOM	3498	O5*	U A 173	98.528	42.027	2.469	1.00	48.39	O	ATOM	3548	C2	C A 175	101.339	37.371	-6.071	1.00	61.76	C
ATOM	3499	C5*	U A 173	98.238	43.212	1.699	1.00	48.39	C	ATOM	3549	O2	C A 175	101.381	36.581	-7.033	1.00	61.76	O
ATOM	3500	C4*	U A 173	99.393	44.204	1.745	1.00	48.39	C	ATOM	3550	N3	C A 175	100.284	37.407	-5.230	1.00	61.76	N
ATOM	3501	O4*	U A 173	99.182	45.288	2.691	1.00	48.39	O	ATOM	3551	C4	C A 175	100.273	38.262	-4.209	1.00	61.76	C
ATOM	3502	C3*	U A 173	100.808	43.681	1.980	1.00	48.39	C	ATOM	3552	N4	C A 175	99.211	38.255	-3.400	1.00	61.76	N
ATOM	3503	O3*	U A 173	101.650	44.335	1.050	1.00	48.39	O	ATOM	3553	C5	C A 175	101.347	39.162	-3.968	1.00	61.76	C
ATOM	3504	C2*	U A 173	101.130	44.203	3.383	1.00	48.39	C	ATOM	3554	C6	C A 175	102.384	39.123	-4.807	1.00	61.76	C
ATOM	3505	O2*	U A 173	102.516	44.371	3.630	1.00	48.39	O	ATOM	3555	P	C A 176	102.679	41.708	-9.844	1.00	58.53	P
ATOM	3506	C1*	U A 173	100.396	45.544	3.362	1.00	48.39	C	ATOM	3556	O1P	C A 176	103.197	42.459	-11.011	1.00	58.99	O
ATOM	3507	N1	U A 173	100.117	46.196	4.649	1.00	66.66	N	ATOM	3557	O2P	C A 176	101.926	42.440	-8.779	1.00	58.99	O
ATOM	3508	C2	U A 173	101.026	47.140	5.100	1.00	66.66	C	ATOM	3558	O5*	C A 176	101.751	40.538	-10.403	1.00	58.53	O
ATOM	3509	O2	U A 173	102.045	47.429	4.499	1.00	66.66	O	ATOM	3559	C5*	C A 176	102.246	39.615	-11.384	1.00	58.53	C
ATOM	3510	N3	U A 173	100.698	47.739	6.282	1.00	66.66	N	ATOM	3560	C4*	C A 176	101.237	38.525	-11.638	1.00	58.53	C
ATOM	3511	C4	U A 173	99.582	47.503	7.046	1.00	66.66	C	ATOM	3561	O4*	C A 176	100.961	37.823	-10.403	1.00	58.53	O
ATOM	3512	O4	U A 173	99.435	48.121	8.102	1.00	66.66	O	ATOM	3562	C3*	C A 176	99.870	38.961	-12.124	1.00	58.53	C
ATOM	3513	C5	U A 173	98.697	46.509	6.524	1.00	66.66	C	ATOM	3563	O3*	C A 176	99.862	39.137	-13.521	1.00	58.53	O
ATOM	3514	C6	U A 173	98.992	45.902	5.375	1.00	66.66	C	ATOM	3564	C2*	C A 176	98.981	37.796	-11.722	1.00	58.53	C
ATOM	3515	P	C A 174	101.686	43.835	-0.466	1.00	50.39	P	ATOM	3565	O2*	C A 176	99.034	36.720	-12.627	1.00	58.53	O
ATOM	3516	O1P	C A 174	102.125	44.961	-1.334	1.00	66.64	O	ATOM	3566	C1*	C A 176	99.629	37.349	-10.416	1.00	58.53	C
ATOM	3517	O2P	C A 174	100.401	43.162	-0.766	1.00	66.64	O	ATOM	3567	N1	C A 176	98.914	37.867	-9.242	1.00	58.99	N
ATOM	3518	O5*	C A 174	102.838	42.740	-0.428	1.00	50.39	O	ATOM	3568	C2	C A 176	97.599	37.443	-9.030	1.00	58.99	C
ATOM	3519	C3*	C A 174	104.227	43.107	-0.287	1.00	50.39	C	ATOM	3569	O2	C A 176	97.086	36.643	-9.841	1.00	58.99	O
ATOM	3520	C4*	C A 174	105.086	42.083	-0.981	1.00	50.39	C	ATOM	3570	N3	C A 176	96.921	37.910	-7.962	1.00	58.99	N
ATOM	3521	O4*	C A 174	105.016	40.836	-0.245	1.00	50.39	O	ATOM	3571	C4	C A 176	97.503	38.763	-7.127	1.00	58.99	C
ATOM	3522	C3*	C A 174	104.589	41.737	-2.376	1.00	50.39	C	ATOM	3572	N4	C A 176	96.792	39.200	-6.095	1.00	58.99	N
ATOM	3523	O3*	C A 174	105.108	42.624	-3.353	1.00	50.39	O	ATOM	3573	C5	C A 176	98.841	39.209	-7.316	1.00	58.99	C
ATOM	3524	C2*	C A 174	105.049	40.297	-2.567	1.00	50.39	C	ATOM	3574	C6	C A 176	99.504	38.741	-8.375	1.00	58.99	C
ATOM	3525	O2*	C A 174	106.387	40.176	-3.003	1.00	50.39	O	ATOM	3575	P	C A 177	98.742	40.064	-14.186	1.00	67.04	P
ATOM	3526	C1*	C A 174	104.920	39.740	-1.148	1.00	50.39	C	ATOM	3576	O1P	C A 177	99.122	40.240	-15.605	1.00	61.20	O
ATOM	3527	N1	C A 174	103.633	39.047	-0.917	1.00	66.64	N	ATOM	3577	O2P	C A 177	98.533	41.246	-13.317	1.00	61.20	O
ATOM	3528	C2	C A 174	103.360	37.865	-1.616	1.00	66.64	C	ATOM	3578	O5*	C A 177	97.432	39.168	-14.153	1.00	67.04	O
ATOM	3529	O2	C A 174	104.206	37.418	-2.403	1.00	66.64	O	ATOM	3579	C5*	C A 177	97.310	38.030	-15.017	1.00	67.04	C
ATOM	3530	N3	C A 174	102.178	37.245	-1.421	1.00	66.64	N	ATOM	3580	C4*	C A 177	95.974	37.371	-14.815	1.00	67.04	C
ATOM	3531	C4	C A 174	101.287	37.758	-0.574	1.00	66.64	C	ATOM	3581	O4*	C A 177	95.868	36.934	-13.434	1.00	67.04	O
ATOM	3532	N4	C A 174	100.132	37.117	-0.418	1.00	66.64	N	ATOM	3582	C3*	C A 177	94.768	38.271	-15.015	1.00	67.04	C
ATOM	3533	C5	C A 174	101.539	38.952	0.152	1.00	66.64	C	ATOM	3583	O3*	C A 177	94.392	38.387	-16.378	1.00	67.04	O
ATOM	3534	C6	C A 174	102.712	39.555	-0.044	1.00	66.64	C	ATOM	3584	C2*	C A 177	93.698	37.596	-14.164	1.00	67.04	C
ATOM	3535	P	C A 175	104.205	43.018	-4.619	1.00	61.28	P	ATOM	3585	O2*	C A 177	93.058	36.516	-14.811	1.00	67.04	O
ATOM	3536	O1P	C A 175	104.968	44.023	-5.393	1.00	61.76	O	ATOM	3586	C1*	C A 177	94.526	37.055	-12.998	1.00	67.04	C
ATOM	3537	O2P	C A 175	102.819	43.337	-4.157	1.00	61.76	O	ATOM	3587	N1	C A 177	94.480	37.934	-11.817	1.00	61.20	N
ATOM	3538	O5*	C A 175	104.160	41.681	-5.481	1.00	61.28	O	ATOM	3588	C2	C A 177	93.313	37.950	-11.037	1.00	61.20	C
ATOM	3539	C5*	C A 175	105.310	41.247	-6.219	1.00	61.28	C	ATOM	3589	O2	C A 177	92.356	37.219	-11.360	1.00	61.20	O
ATOM	3540	C4*	C A 175	104.949	40.073	-7.083	1.00	61.28	C	ATOM	3590	N3	C A 177	93.254	38.757	-9.956	1.00	61.20	N
ATOM	3541	O4*	C A 175	104.634	38.951	-6.223	1.00	61.28	O	ATOM	3591	C4	C A 177	94.297	39.642	-9.642	1.00	61.20	C
ATOM	3542	C3*	C A 175	103.700	40.260	-7.927	1.00	61.28	C	ATOM	3592	N4	C A 177	94.193	40.303	-8.566	1.00	61.20	N
ATOM	3543	O3*	C A 175	103.910	40.927	-9.161	1.00	61.28	O	ATOM	3593	C5	C A 177	95.493	39.526	-10.415	1.00	61.20	C
ATOM	3544	C2*	C A 175	103.213	38.836	-8.128	1.00	61.28	C	ATOM	3594	C6	C A 177	95.542	38.723	-11.482	1.00	61.20	C
ATOM	3545	O2*	C A 175	103.889	38.169	-9.175	1.00	61.28	O	ATOM	3595	P	C A 178	93.558	39.675	-16.853	1.00	78.21	P
ATOM	3546	C1*	C A 175	103.563	38.206	-6.782	1.00	61.28	C	ATOM	3596	O1P	C A 178	93.370	39.591	-18.326	1.00	79.32	O
ATOM	3547	N1	C A 175	102.413	38.247	-5.855	1.00	61.76	N	ATOM	3597	O2P	C A 178	94.199	40.876	-16.253	1.00	79.32	O



Table 1: Sheet 38/521

ATOM	3598	O5*	C A 178	92.136	39.504	-16.155	1.00	78.21	O	ATOM	3648	C1*	U A 180	84.493	48.136	-11.214	1.00	69.57	C
ATOM	3599	C5*	C A 178	91.258	38.425	-16.515	1.00	78.21	C	ATOM	3649	N1	U A 180	85.895	47.975	-11.627	1.00	76.45	N
ATOM	3600	C4*	C A 178	89.978	38.495	-15.715	1.00	78.21	C	ATOM	3650	C2	U A 180	86.864	48.594	-10.861	1.00	76.45	C
ATOM	3601	O4*	C A 178	90.245	38.233	-15.312	1.00	78.21	O	ATOM	3651	O2	U A 180	86.605	49.239	-9.855	1.00	76.45	O
ATOM	3602	C3*	C A 178	89.254	39.832	-14.705	1.00	78.21	C	ATOM	3652	N3	U A 180	88.148	48.428	-11.314	1.00	76.45	N
ATOM	3603	O3*	C A 178	88.463	40.024	-16.867	1.00	78.21	O	ATOM	3653	C4	U A 180	88.556	47.712	-12.422	1.00	76.45	C
ATOM	3604	C2*	C A 178	88.402	39.743	-14.444	1.00	78.21	C	ATOM	3654	O4	U A 180	89.756	47.638	-12.688	1.00	76.45	O
ATOM	3605	O2*	C A 178	87.198	39.033	-14.636	1.00	78.21	O	ATOM	3655	C5	U A 180	87.496	47.094	-13.154	1.00	76.45	C
ATOM	3606	C1*	C A 178	89.301	38.934	-13.513	1.00	78.21	C	ATOM	3656	C6	U A 180	86.236	47.243	-12.745	1.00	76.45	C
ATOM	3607	N1	C A 178	90.001	39.781	-12.526	1.00	79.32	N	ATOM	3657	P	G A 181	82.351	50.634	-14.774	1.00	82.45	P
ATOM	3608	C2	C A 178	89.333	40.109	-11.337	1.00	79.32	C	ATOM	3658	O1P	G A 181	81.228	51.597	-14.844	1.00	65.63	O
ATOM	3609	O2	C A 178	88.192	39.668	-11.149	1.00	79.32	O	ATOM	3659	O2P	G A 181	82.606	49.704	-15.910	1.00	65.63	O
ATOM	3610	N3	C A 178	89.945	40.897	-10.426	1.00	79.32	N	ATOM	3660	C5*	G A 181	83.685	51.451	-14.473	1.00	82.45	C
ATOM	3611	C4	C A 178	91.174	41.357	-10.661	1.00	79.32	C	ATOM	3661	O5*	G A 181	83.749	52.385	-13.375	1.00	82.45	O
ATOM	3612	N4	C A 178	91.734	42.142	-9.734	1.00	79.32	N	ATOM	3662	C4*	G A 181	84.801	53.432	-13.641	1.00	82.45	C
ATOM	3613	C5	C A 178	91.883	41.037	-11.857	1.00	79.32	C	ATOM	3663	O4*	G A 181	86.131	52.876	-13.416	1.00	82.45	O
ATOM	3614	C6	C A 178	91.266	40.252	-12.754	1.00	79.32	C	ATOM	3664	C3*	G A 181	84.815	53.964	-15.064	1.00	82.45	C
ATOM	3615	P	C A 179	88.031	41.514	-17.292	1.00	67.61	P	ATOM	3665	O3*	G A 181	83.910	54.984	-15.538	1.00	82.45	O
ATOM	3616	O1P	A A 179	87.074	41.377	-18.427	1.00	73.05	O	ATOM	3666	C2*	G A 181	86.036	53.348	-15.747	1.00	82.45	C
ATOM	3617	O2P	A A 179	89.258	42.330	-17.466	1.00	73.05	O	ATOM	3667	O2*	G A 181	86.679	54.186	-16.687	1.00	82.45	O
ATOM	3618	O5*	A A 179	87.233	42.064	-16.021	1.00	67.61	O	ATOM	3668	C1*	G A 181	86.960	53.122	-14.542	1.00	82.45	C
ATOM	3619	C5*	A A 179	85.946	41.523	-15.686	1.00	67.61	C	ATOM	3669	N9	G A 181	87.925	52.026	-14.670	1.00	65.63	N
ATOM	3620	C4*	A A 179	85.392	42.170	-14.444	1.00	67.61	C	ATOM	3670	C8	G A 181	87.785	50.871	-15.401	1.00	65.63	C
ATOM	3621	O4*	A A 179	86.317	42.013	-13.342	1.00	67.61	O	ATOM	3671	N7	G A 181	88.842	50.102	-15.359	1.00	65.63	N
ATOM	3622	C3*	A A 179	85.149	43.667	-14.470	1.00	67.61	C	ATOM	3672	C5	G A 181	89.735	50.780	-14.541	1.00	65.63	C
ATOM	3623	O3*	A A 179	83.927	43.986	-15.123	1.00	67.61	O	ATOM	3673	C6	G A 181	91.059	50.435	-14.126	1.00	65.63	C
ATOM	3624	C2*	A A 179	85.076	44.014	-12.984	1.00	67.61	C	ATOM	3674	O6	G A 181	91.728	49.430	-14.412	1.00	65.63	O
ATOM	3625	O2*	A A 179	83.802	43.797	-12.416	1.00	67.61	O	ATOM	3675	N1	G A 181	91.598	51.402	-13.291	1.00	65.63	N
ATOM	3626	C1*	A A 179	86.026	42.992	-12.365	1.00	67.61	C	ATOM	3676	C2	G A 181	90.958	52.547	-12.897	1.00	65.63	C
ATOM	3627	N9	A A 179	87.267	43.573	-11.850	1.00	73.05	N	ATOM	3677	N2	G A 181	91.645	53.350	-12.079	1.00	65.63	N
ATOM	3628	C8	A A 179	88.560	43.380	-12.267	1.00	73.05	C	ATOM	3678	N3	G A 181	89.733	52.884	-13.274	1.00	65.63	N
ATOM	3629	N7	A A 179	89.446	44.038	-11.558	1.00	73.05	N	ATOM	3679	C4	G A 181	89.184	51.962	-14.093	1.00	65.63	C
ATOM	3630	C5	A A 179	88.684	44.713	-10.615	1.00	73.05	C	ATOM	3680	P	U A 182	84.296	56.550	-15.425	1.00	82.79	P
ATOM	3631	C6	A A 179	89.029	45.571	-9.566	1.00	73.05	C	ATOM	3681	O1P	U A 182	83.767	57.268	-16.623	1.00	107.53	O
ATOM	3632	N6	A A 179	90.287	45.898	-9.261	1.00	73.05	N	ATOM	3682	O2P	U A 182	85.731	56.657	-15.091	1.00	107.53	O
ATOM	3633	N1	A A 179	88.028	46.083	-8.820	1.00	73.05	N	ATOM	3683	O5*	U A 182	83.484	57.057	-14.152	1.00	82.79	O
ATOM	3634	C2	A A 179	86.773	45.738	-9.110	1.00	73.05	C	ATOM	3684	C5*	U A 182	83.957	56.770	-12.824	1.00	82.79	C
ATOM	3635	N3	A A 179	86.324	44.933	-10.060	1.00	73.05	N	ATOM	3685	C4*	U A 182	84.189	58.053	-12.053	1.00	82.79	C
ATOM	3636	C4	A A 179	87.343	44.446	-10.789	1.00	73.05	C	ATOM	3686	O4*	U A 182	84.962	57.723	-10.869	1.00	82.79	O
ATOM	3637	P	U A 180	83.742	45.431	-15.804	1.00	69.57	P	ATOM	3687	C3*	U A 182	85.008	59.098	-12.802	1.00	82.79	C
ATOM	3638	O1P	U A 180	82.415	45.449	-16.472	1.00	76.45	O	ATOM	3688	O3*	U A 182	84.131	59.987	-13.502	1.00	82.79	O
ATOM	3639	O2P	U A 180	84.963	45.702	-16.604	1.00	76.45	O	ATOM	3689	C2*	U A 182	85.787	59.800	-11.693	1.00	82.79	C
ATOM	3640	O5*	U A 180	83.696	46.443	-14.571	1.00	69.57	O	ATOM	3690	O2*	U A 182	85.054	60.838	-11.076	1.00	82.79	O
ATOM	3641	C5*	U A 180	82.512	46.554	-13.762	1.00	69.57	C	ATOM	3691	C1*	U A 182	86.007	58.660	-10.693	1.00	82.79	C
ATOM	3642	C4*	U A 180	82.722	47.539	-12.635	1.00	69.57	C	ATOM	3692	N1	U A 182	87.282	57.931	-10.831	1.00	107.53	N
ATOM	3643	O4*	U A 180	83.742	47.047	-11.730	1.00	69.57	O	ATOM	3693	C2	U A 182	88.276	58.167	-9.897	1.00	107.53	C
ATOM	3644	C3*	U A 180	83.210	48.916	-11.037	1.00	69.57	C	ATOM	3694	O2	U A 182	88.170	58.990	-9.008	1.00	107.53	O
ATOM	3645	O3*	U A 180	82.157	49.752	-13.457	1.00	69.57	O	ATOM	3695	N3	U A 182	89.411	57.409	-10.052	1.00	107.53	N
ATOM	3646	C2*	U A 180	83.889	49.423	-11.771	1.00	69.57	C	ATOM	3696	C4	U A 182	89.661	56.474	-11.031	1.00	107.53	C
ATOM	3647	O2*	U A 180	83.004	49.978	-10.821	1.00	69.57	O	ATOM	3697	O4	U A 182	90.731	55.866	-11.027	1.00	107.53	O



Table 1: Sheet 39/521

ATOM	3698	C5	U A 182	88.603	56.304	-11.976	1.00107.53	C	ATOM	3748	O2P	A A 185	95.056	61.510	-20.252	1.00	57.60	O	
ATOM	3699	C6	U A 182	87.479	57.018	-11.850	1.00107.53	C	ATOM	3749	O5*	A A 185	97.059	60.073	-20.069	1.00	64.18	O	
ATOM	3700	P	G A 183	84.699	60.920	-14.684	1.00	81.99	P	ATOM	3750	C5*	A A 185	98.274	59.583	-19.480	1.00	64.18	C
ATOM	3701	O1P	G A 183	83.928	62.187	-14.624	1.00	70.59	O	ATOM	3751	C4*	A A 185	98.672	58.272	-20.114	1.00	64.18	C
ATOM	3702	O2P	G A 183	84.735	60.139	-15.965	1.00	70.59	O	ATOM	3752	O4*	A A 185	97.733	57.244	-19.718	1.00	64.18	O
ATOM	3703	O5*	G A 183	86.175	61.265	-14.192	1.00	81.99	O	ATOM	3753	C3*	A A 185	98.637	58.254	-21.630	1.00	64.18	C
ATOM	3704	C5*	G A 183	87.286	61.277	-15.099	1.00	81.99	C	ATOM	3754	O3*	A A 185	99.826	58.748	-22.199	1.00	64.18	O
ATOM	3705	C4*	G A 183	88.554	60.949	-14.356	1.00	81.99	C	ATOM	3755	C2*	A A 185	98.416	56.785	-21.953	1.00	64.18	C
ATOM	3706	O4*	G A 183	88.418	59.641	-13.746	1.00	81.99	O	ATOM	3756	O2*	A A 185	99.610	56.032	-21.924	1.00	64.18	O
ATOM	3707	C3*	G A 183	89.798	60.852	-15.224	1.00	81.99	C	ATOM	3757	C1*	A A 185	97.507	56.357	-20.802	1.00	64.18	C
ATOM	3708	O3*	G A 183	90.403	62.130	-15.400	1.00	81.99	O	ATOM	3758	N9	A A 185	96.084	56.404	-21.146	1.00	57.60	N
ATOM	3709	C2*	G A 183	90.680	59.896	-14.431	1.00	81.99	C	ATOM	3759	C8	A A 185	95.119	57.243	-20.650	1.00	57.60	C
ATOM	3710	O2*	G A 183	91.387	60.544	-13.391	1.00	81.99	O	ATOM	3760	N7	A A 185	93.925	57.019	-21.136	1.00	57.60	N
ATOM	3711	C1*	G A 183	89.644	58.935	-13.837	1.00	81.99	C	ATOM	3761	C5	A A 185	94.118	55.964	-22.015	1.00	57.60	C
ATOM	3712	N9	G A 183	89.427	57.764	-14.687	1.00	70.59	N	ATOM	3762	C6	A A 185	93.237	55.249	-22.840	1.00	57.60	C
ATOM	3713	C8	G A 183	88.314	57.500	-15.451	1.00	70.59	C	ATOM	3763	N6	A A 185	91.929	55.482	-22.898	1.00	57.60	N
ATOM	3714	N7	G A 183	88.416	56.401	-16.150	1.00	70.59	N	ATOM	3764	N1	A A 185	93.752	54.268	-23.607	1.00	57.60	N
ATOM	3715	C5	G A 183	89.666	55.900	-15.823	1.00	70.59	C	ATOM	3765	C2	A A 185	95.058	54.018	-23.530	1.00	57.60	C
ATOM	3716	C6	G A 183	90.326	54.748	-16.283	1.00	70.59	C	ATOM	3766	N3	A A 185	95.984	54.608	-22.783	1.00	57.60	N
ATOM	3717	O6	G A 183	89.914	53.902	-17.073	1.00	70.59	O	ATOM	3767	C4	A A 185	95.442	55.584	-22.040	1.00	57.60	C
ATOM	3718	N1	G A 183	91.592	55.495	-14.815	1.00	70.59	N	ATOM	3768	P	C A 186	99.755	59.545	-23.586	1.00	47.94	P
ATOM	3719	C2	G A 183	92.145	55.495	-14.815	1.00	70.59	C	ATOM	3769	O1P	C A 186	101.118	60.088	-23.825	1.00	56.00	O
ATOM	3720	N2	G A 183	93.390	55.204	-14.387	1.00	70.59	N	ATOM	3770	O2P	C A 186	98.590	60.469	-23.516	1.00	56.00	O
ATOM	3721	N3	G A 183	91.528	56.575	-14.363	1.00	70.59	N	ATOM	3771	O5*	C A 186	99.468	58.418	-24.670	1.00	47.94	O
ATOM	3722	C4	G A 183	90.303	56.720	-14.911	1.00	70.59	C	ATOM	3772	C5*	C A 186	100.462	57.432	-24.936	1.00	47.94	C
ATOM	3723	P	G A 184	91.051	62.525	-16.821	1.00	61.96	P	ATOM	3773	C4*	C A 186	99.982	56.463	-25.974	1.00	47.94	C
ATOM	3724	O1P	G A 184	91.451	63.947	-16.645	1.00	56.99	O	ATOM	3774	O4*	C A 186	98.938	55.621	-25.432	1.00	47.94	O
ATOM	3725	O2P	G A 184	90.144	62.146	-17.948	1.00	56.99	O	ATOM	3775	C3*	C A 186	99.365	57.062	-27.222	1.00	47.94	C
ATOM	3726	O5*	G A 184	92.351	61.604	-16.936	1.00	61.96	O	ATOM	3776	O3*	C A 186	100.345	57.492	-28.136	1.00	47.94	O
ATOM	3727	C5*	G A 184	93.504	61.826	-16.093	1.00	61.96	C	ATOM	3777	C2*	C A 186	98.543	55.902	-27.758	1.00	47.94	C
ATOM	3728	C4*	G A 184	94.472	60.667	-16.198	1.00	61.96	C	ATOM	3778	O2*	C A 186	99.355	54.953	-28.425	1.00	47.94	O
ATOM	3729	O4*	G A 184	93.794	59.453	-15.786	1.00	61.96	O	ATOM	3779	C1*	C A 186	98.019	55.286	-26.461	1.00	47.94	C
ATOM	3730	C3*	G A 184	94.995	60.337	-17.584	1.00	61.96	C	ATOM	3780	N1	C A 186	96.692	55.813	-26.090	1.00	56.00	N
ATOM	3731	O3*	G A 184	96.101	61.127	-17.971	1.00	61.96	O	ATOM	3781	C2	C A 186	95.547	55.282	-26.708	1.00	56.00	C
ATOM	3732	C2*	G A 184	95.369	58.870	-17.459	1.00	61.96	C	ATOM	3782	O2	C A 186	95.674	54.368	-27.543	1.00	56.00	O
ATOM	3733	O2*	G A 184	96.623	58.665	-16.839	1.00	61.96	O	ATOM	3783	N3	C A 186	94.334	55.778	-26.377	1.00	56.00	N
ATOM	3734	C1*	G A 184	94.258	58.355	-16.551	1.00	61.96	C	ATOM	3784	C4	C A 186	94.238	56.752	-25.470	1.00	56.00	C
ATOM	3735	N9	G A 184	93.148	57.830	-17.343	1.00	56.99	N	ATOM	3785	N4	C A 186	93.027	57.215	-25.174	1.00	56.00	N
ATOM	3736	C8	G A 184	91.946	58.439	-17.611	1.00	56.99	C	ATOM	3786	C5	C A 186	95.381	57.297	-24.822	1.00	56.00	C
ATOM	3737	N7	G A 184	91.187	57.739	-18.411	1.00	56.99	N	ATOM	3787	C6	C A 186	96.574	56.806	-25.159	1.00	56.00	C
ATOM	3738	C5	G A 184	91.924	56.592	-18.676	1.00	56.99	C	ATOM	3788	P	C A 187	99.981	58.632	-29.199	1.00	58.34	P
ATOM	3739	C6	G A 184	91.628	55.467	-19.503	1.00	56.99	C	ATOM	3789	O1P	C A 187	101.283	59.009	-29.796	1.00	64.76	O
ATOM	3740	O6	G A 184	90.620	55.255	-20.187	1.00	56.99	O	ATOM	3790	O2P	C A 187	99.144	59.669	-28.547	1.00	64.76	O
ATOM	3741	N1	G A 184	92.660	54.534	-19.486	1.00	56.99	N	ATOM	3791	O5*	C A 187	99.108	57.852	-30.278	1.00	58.34	O
ATOM	3742	C2	G A 184	93.825	54.657	-18.769	1.00	56.99	C	ATOM	3792	C5*	C A 187	99.659	56.712	-30.954	1.00	58.34	C
ATOM	3743	N2	G A 184	94.701	53.648	-18.869	1.00	56.99	N	ATOM	3793	C4*	C A 187	98.634	56.085	-31.861	1.00	58.34	C
ATOM	3744	N3	G A 184	94.113	55.697	-18.006	1.00	56.99	N	ATOM	3794	O4*	C A 187	97.623	55.397	-31.085	1.00	58.34	O
ATOM	3745	C4	G A 184	93.127	56.622	-18.009	1.00	56.99	C	ATOM	3795	C3*	C A 187	97.855	57.038	-32.744	1.00	58.34	C
ATOM	3746	P	A A 185	96.359	61.403	-19.534	1.00	64.18	P	ATOM	3796	O3*	C A 187	98.594	57.361	-33.907	1.00	58.34	O
ATOM	3747	O1P	A A 185	97.311	62.535	-19.583	1.00	57.60	O	ATOM	3797	C2*	C A 187	96.594	56.240	-33.060	1.00	58.34	C



Table 1: Sheet 40/521

ATOM	3798	O2*	C A 187	96.775	55.313	-34.116	1.00	58.34	O	ATOM	3848	N2	G A 189	87.084	64.163	-31.726	1.00	52.11	N
ATOM	3799	C1*	C A 187	96.376	55.481	-31.752	1.00	58.34	C	ATOM	3849	N3	G A 189	88.546	63.539	-33.391	1.00	52.11	N
ATOM	3800	N1	C A 187	95.412	56.145	-30.861	1.00	64.76	N	ATOM	3850	C4	G A 189	89.833	63.224	-33.610	1.00	52.11	C
ATOM	3801	C2	C A 187	94.051	55.975	-31.106	1.00	64.76	C	ATOM	3851	P	C A 190	91.364	66.219	-38.931	1.00	65.38	P
ATOM	3802	O2	C A 187	93.702	55.277	-32.069	1.00	64.76	O	ATOM	3852	O1P	C A 190	91.127	66.785	-40.286	1.00	68.17	O
ATOM	3803	N3	C A 187	93.150	56.578	-30.290	1.00	64.76	N	ATOM	3853	O2P	C A 190	92.742	66.206	-38.380	1.00	68.17	O
ATOM	3804	C4	C A 187	93.572	57.327	-29.265	1.00	64.76	C	ATOM	3854	O5*	C A 190	90.414	66.956	-37.882	1.00	65.38	O
ATOM	3805	N4	C A 187	92.653	57.897	-28.479	1.00	64.76	N	ATOM	3855	C5*	C A 190	89.024	67.177	-38.184	1.00	65.38	C
ATOM	3806	C5	C A 187	94.956	57.523	-28.999	1.00	64.76	C	ATOM	3856	C4*	C A 190	88.312	67.782	-37.000	1.00	65.38	C
ATOM	3807	C6	C A 187	95.833	56.918	-29.813	1.00	64.76	C	ATOM	3857	O4*	C A 190	88.253	66.822	-35.909	1.00	65.38	O
ATOM	3808	P	C A 188	98.505	58.844	-34.516	1.00	65.16	P	ATOM	3858	C3*	C A 190	88.947	69.012	-36.375	1.00	65.38	C
ATOM	3809	O1P	C A 188	99.448	58.855	-35.666	1.00	51.22	O	ATOM	3859	O3*	C A 190	88.668	70.220	-37.073	1.00	65.38	O
ATOM	3810	O2P	C A 188	98.666	59.825	-33.411	1.00	51.22	O	ATOM	3860	C2*	C A 190	88.354	69.013	-34.972	1.00	65.38	C
ATOM	3811	O5*	C A 188	97.015	58.943	-35.074	1.00	65.16	O	ATOM	3861	O2*	C A 190	87.090	69.644	-34.912	1.00	65.38	O
ATOM	3812	C5*	C A 188	96.598	58.099	-36.162	1.00	65.16	C	ATOM	3862	C1*	C A 190	88.255	67.512	-34.668	1.00	65.38	C
ATOM	3813	C4*	C A 188	95.110	58.204	-36.380	1.00	65.16	C	ATOM	3863	N1	C A 190	89.407	67.060	-33.860	1.00	68.17	N
ATOM	3814	O4*	C A 188	94.397	57.623	-35.261	1.00	65.16	O	ATOM	3864	C2	C A 190	89.357	67.215	-32.455	1.00	68.17	C
ATOM	3815	C3*	C A 188	94.527	59.597	-36.506	1.00	65.16	C	ATOM	3865	O2	C A 190	88.309	67.624	-31.927	1.00	68.17	O
ATOM	3816	O3*	C A 188	94.686	60.142	-37.805	1.00	65.16	O	ATOM	3866	N3	C A 190	90.450	66.911	-31.716	1.00	68.17	N
ATOM	3817	C2*	C A 188	93.065	59.356	-36.174	1.00	65.16	C	ATOM	3867	C4	C A 190	91.553	66.452	-32.313	1.00	68.17	C
ATOM	3818	O2*	C A 188	92.358	58.800	-37.262	1.00	65.16	O	ATOM	3868	N4	C A 190	92.621	66.210	-31.549	1.00	68.17	N
ATOM	3819	C1*	C A 188	93.174	58.307	-35.074	1.00	65.16	C	ATOM	3869	C5	C A 190	91.614	66.231	-33.725	1.00	68.17	C
ATOM	3820	N1	C A 188	93.181	58.948	-33.749	1.00	51.22	N	ATOM	3870	C6	C A 190	90.528	66.541	-34.452	1.00	68.17	C
ATOM	3821	C2	C A 188	91.962	59.359	-33.199	1.00	51.22	C	ATOM	3871	P	C A 190A	89.598	71.514	-36.816	1.00	74.20	P
ATOM	3822	O2	C A 188	90.914	59.161	-33.838	1.00	51.22	O	ATOM	3872	O1P	C A 190A	89.262	72.556	-37.837	1.00	62.02	O
ATOM	3823	N3	C A 188	91.955	59.966	-31.990	1.00	51.22	N	ATOM	3873	O2P	C A 190A	91.017	71.068	-36.655	1.00	62.02	O
ATOM	3824	C4	C A 188	93.099	60.169	-31.338	1.00	51.22	C	ATOM	3874	O5*	C A 190A	89.108	72.050	-35.404	1.00	74.20	O
ATOM	3825	N4	C A 188	93.040	60.776	-30.152	1.00	51.22	N	ATOM	3875	C5*	C A 190A	87.818	72.627	-35.261	1.00	74.20	C
ATOM	3826	C5	C A 188	94.353	59.758	-31.871	1.00	51.22	C	ATOM	3876	C4*	C A 190A	87.622	73.070	-33.848	1.00	74.20	C
ATOM	3827	C6	C A 188	94.349	59.155	-33.067	1.00	51.22	C	ATOM	3877	O4*	C A 190A	87.745	71.908	-32.995	1.00	74.20	O
ATOM	3828	P	G A 189	94.648	61.737	-37.999	1.00	78.69	P	ATOM	3878	C3*	C A 190A	88.677	74.030	-33.330	1.00	74.20	C
ATOM	3829	O1P	G A 189	94.898	61.978	-39.432	1.00	52.11	O	ATOM	3879	O3*	C A 190A	88.423	75.379	-33.699	1.00	74.20	O
ATOM	3830	O2P	G A 189	95.518	62.378	-36.990	1.00	52.11	O	ATOM	3880	C2*	C A 190A	88.641	73.776	-31.829	1.00	74.20	C
ATOM	3831	O5*	G A 189	93.143	62.126	-37.657	1.00	78.69	O	ATOM	3881	O2*	C A 190A	87.585	74.448	-31.160	1.00	74.20	O
ATOM	3832	C5*	G A 189	92.071	61.751	-38.536	1.00	78.69	C	ATOM	3882	C1*	C A 190A	88.399	72.266	-31.788	1.00	74.20	C
ATOM	3833	C4*	G A 189	90.788	62.412	-38.109	1.00	78.69	C	ATOM	3883	N1	C A 190A	89.658	71.496	-31.687	1.00	62.02	N
ATOM	3834	O4*	G A 189	90.312	61.803	-36.885	1.00	78.69	O	ATOM	3884	C2	C A 190A	90.330	71.454	-30.456	1.00	62.02	C
ATOM	3835	C3*	G A 189	90.881	63.896	-37.790	1.00	78.69	C	ATOM	3885	O2	C A 190A	89.830	72.030	-29.481	1.00	62.02	O
ATOM	3836	O3*	G A 189	90.791	64.711	-38.961	1.00	78.69	O	ATOM	3886	N3	C A 190A	91.503	70.783	-30.362	1.00	62.02	N
ATOM	3837	C2*	G A 189	89.702	64.102	-36.851	1.00	78.69	C	ATOM	3887	C4	C A 190A	92.004	70.166	-31.435	1.00	62.02	C
ATOM	3838	O2*	G A 189	88.492	64.250	-37.560	1.00	78.69	O	ATOM	3888	N4	C A 190A	93.174	69.534	-31.308	1.00	62.02	C
ATOM	3839	C1*	G A 189	89.674	62.779	-36.087	1.00	78.69	C	ATOM	3889	C5	C A 190A	91.330	70.173	-32.691	1.00	62.02	C
ATOM	3840	N9	G A 189	90.379	62.868	-34.815	1.00	52.11	N	ATOM	3890	C6	C A 190A	90.174	70.844	-32.772	1.00	62.02	C
ATOM	3841	C8	G A 189	91.710	62.628	-34.583	1.00	52.11	C	ATOM	3891	P	C A 190B	89.659	76.363	-34.022	1.00	71.53	P
ATOM	3842	N7	G A 189	92.051	62.805	-33.337	1.00	52.11	N	ATOM	3892	O1P	C A 190B	89.076	77.588	-34.624	1.00	68.74	O
ATOM	3843	C5	G A 189	90.872	63.182	-32.709	1.00	52.11	C	ATOM	3893	O2P	C A 190B	90.708	75.614	-34.756	1.00	68.74	O
ATOM	3844	C6	G A 189	90.608	63.509	-31.342	1.00	52.11	C	ATOM	3894	O5*	C A 190B	90.215	76.756	-32.586	1.00	71.53	O
ATOM	3845	O6	G A 189	91.390	63.522	-30.378	1.00	52.11	O	ATOM	3895	C5*	C A 190B	89.342	77.389	-31.643	1.00	71.53	C
ATOM	3846	N1	G A 189	89.277	63.836	-31.147	1.00	52.11	N	ATOM	3896	C4*	C A 190B	89.946	77.382	-30.268	1.00	71.53	C
ATOM	3847	C2	G A 189	88.318	63.838	-32.123	1.00	52.11	C	ATOM	3897	O4*	C A 190B	90.134	76.018	-29.815	1.00	71.53	O



Table 1: Sheet 41/521

ATOM	3898	C3*	C A 190B	91.313	78.020	-30.137	1.00	71.53	C	ATOM	3948	O4	U A 190D	97.404	77.390	-34.939	1.00	61.76	O
ATOM	3899	O3*	C A 190B	91.207	79.431	-30.026	1.00	71.53	O	ATOM	3949	C5	U A 190D	97.991	78.466	-32.906	1.00	61.76	C
ATOM	3900	C2*	C A 190B	91.861	77.356	-28.878	1.00	71.53	C	ATOM	3950	C6	U A 190D	98.836	78.451	-31.871	1.00	61.76	C
ATOM	3901	O2*	C A 190B	91.372	77.948	-27.690	1.00	71.53	O	ATOM	3951	P	U A 190E	104.653	77.274	-28.800	1.00	61.49	P
ATOM	3902	C1*	C A 190B	91.295	75.940	-29.005	1.00	71.53	C	ATOM	3952	O1P	U A 190E	105.042	76.767	-27.458	1.00	50.73	O
ATOM	3903	N1	C A 190B	92.246	74.994	-29.630	1.00	68.74	N	ATOM	3953	O2P	U A 190E	105.338	78.469	-29.358	1.00	50.73	O
ATOM	3904	C2	C A 190B	93.233	74.401	-28.826	1.00	68.74	C	ATOM	3954	O5*	U A 190E	104.797	76.103	-29.866	1.00	61.49	O
ATOM	3905	O2	C A 190B	93.266	74.674	-27.612	1.00	68.74	O	ATOM	3955	C5*	U A 190E	104.689	74.745	-29.461	1.00	61.49	C
ATOM	3906	N3	C A 190B	94.123	73.551	-29.390	1.00	68.74	N	ATOM	3956	C4*	U A 190E	105.217	73.841	-30.533	1.00	61.49	C
ATOM	3907	C4	C A 190B	94.055	73.285	-30.695	1.00	68.74	C	ATOM	3957	O4*	U A 190E	106.472	74.370	-31.025	1.00	61.49	O
ATOM	3908	N4	C A 190B	94.963	72.451	-31.208	1.00	68.74	N	ATOM	3958	C3*	U A 190E	105.486	72.429	-30.042	1.00	61.49	C
ATOM	3909	C5	C A 190B	93.056	73.864	-31.534	1.00	68.74	C	ATOM	3959	O3*	U A 190E	105.138	71.487	-31.030	1.00	61.49	O
ATOM	3910	C6	C A 190B	92.181	74.701	-30.968	1.00	68.74	C	ATOM	3960	C2*	U A 190E	106.986	72.418	-29.786	1.00	61.49	C
ATOM	3911	P	C A 190C	92.473	80.352	-30.393	1.00	82.51	P	ATOM	3961	O2*	U A 190E	107.586	71.150	-29.955	1.00	61.49	O
ATOM	3912	O1P	C A 190C	92.038	81.774	-30.334	1.00	68.88	O	ATOM	3962	C1*	U A 190E	107.509	73.433	-30.803	1.00	61.49	C
ATOM	3913	O2P	C A 190C	93.112	79.822	-31.643	1.00	68.88	O	ATOM	3963	N1	U A 190E	108.671	74.160	-30.265	1.00	50.73	N
ATOM	3914	O5*	C A 190C	93.431	80.123	-29.148	1.00	82.51	O	ATOM	3964	C2	U A 190E	109.928	73.845	-30.750	1.00	50.73	C
ATOM	3915	C5*	C A 190C	94.837	80.085	-29.309	1.00	82.51	C	ATOM	3965	O2	U A 190E	110.121	73.013	-31.625	1.00	50.73	O
ATOM	3916	C4*	C A 190C	95.436	79.130	-28.317	1.00	82.51	C	ATOM	3966	N3	U A 190E	110.956	74.546	-30.174	1.00	50.73	N
ATOM	3917	O4*	C A 190C	94.940	77.790	-28.548	1.00	82.51	O	ATOM	3967	C4	U A 190E	110.852	75.510	-29.193	1.00	50.73	C
ATOM	3918	C3*	C A 190C	96.933	79.014	-28.458	1.00	82.51	C	ATOM	3968	O4	U A 190E	111.867	76.070	-28.781	1.00	50.73	O
ATOM	3919	O3*	C A 190C	97.543	80.050	-27.740	1.00	82.51	O	ATOM	3969	C5	U A 190E	109.525	75.778	-28.759	1.00	50.73	C
ATOM	3920	C2*	C A 190C	97.222	77.628	-27.917	1.00	82.51	C	ATOM	3970	C6	U A 190E	108.510	75.118	-29.296	1.00	50.73	C
ATOM	3921	O2*	C A 190C	97.265	77.612	-26.500	1.00	82.51	O	ATOM	3971	P	G A 190F	103.858	70.560	-30.800	1.00	53.65	P
ATOM	3922	C1*	C A 190C	96.004	76.860	-28.435	1.00	82.51	C	ATOM	3972	O1P	G A 190F	104.092	69.291	-31.537	1.00	60.55	O
ATOM	3923	N1	C A 190C	96.224	76.280	-29.774	1.00	68.88	N	ATOM	3973	O2P	G A 190F	102.637	71.372	-31.088	1.00	60.55	O
ATOM	3924	C2	C A 190C	97.174	75.260	-29.939	1.00	68.88	C	ATOM	3974	O5*	G A 190F	103.879	70.265	-29.235	1.00	53.65	O
ATOM	3925	O2	C A 190C	97.840	74.884	-28.961	1.00	68.88	O	ATOM	3975	C5*	G A 190F	102.787	69.571	-28.612	1.00	53.65	C
ATOM	3926	N3	C A 190C	97.346	74.714	-31.163	1.00	68.88	N	ATOM	3976	C4*	G A 190F	103.295	68.672	-27.513	1.00	53.65	C
ATOM	3927	C4	C A 190C	96.628	75.154	-32.197	1.00	68.88	C	ATOM	3977	O4*	G A 190F	104.310	67.786	-28.050	1.00	53.65	O
ATOM	3928	N4	C A 190C	96.828	74.580	-33.385	1.00	68.88	N	ATOM	3978	C3*	G A 190F	103.923	69.371	-26.309	1.00	53.65	C
ATOM	3929	C5	C A 190C	95.673	76.199	-32.062	1.00	68.88	C	ATOM	3979	O3*	G A 190F	103.615	68.624	-25.139	1.00	53.65	O
ATOM	3930	C6	C A 190C	95.505	76.727	-30.847	1.00	68.88	C	ATOM	3980	C2*	G A 190F	105.421	69.209	-26.555	1.00	53.65	C
ATOM	3931	P	U A 190D	98.378	81.154	-28.534	1.00	68.01	P	ATOM	3981	O2*	G A 190F	106.147	69.162	-25.347	1.00	53.65	O
ATOM	3932	O1P	U A 190D	97.944	82.452	-27.963	1.00	61.76	O	ATOM	3982	C1*	G A 190F	105.452	67.844	-27.228	1.00	53.65	C
ATOM	3933	O2P	U A 190D	98.272	80.922	-30.019	1.00	61.76	O	ATOM	3983	N9	G A 190F	106.633	67.448	-27.998	1.00	60.55	N
ATOM	3934	O5*	U A 190D	99.861	80.852	-28.037	1.00	68.01	O	ATOM	3984	C8	G A 190F	106.934	67.726	-29.311	1.00	60.55	C
ATOM	3935	C5*	U A 190D	100.911	80.496	-28.956	1.00	68.01	C	ATOM	3985	N7	G A 190F	108.023	67.132	-29.722	1.00	60.55	N
ATOM	3936	C4*	U A 190D	101.213	79.018	-28.864	1.00	68.01	C	ATOM	3986	C5	G A 190F	108.480	66.441	-28.608	1.00	60.55	C
ATOM	3937	O4*	U A 190D	100.176	78.278	-29.559	1.00	68.01	O	ATOM	3987	C6	G A 190F	109.613	65.589	-28.441	1.00	60.55	C
ATOM	3938	C3*	U A 190D	102.526	78.616	-29.518	1.00	68.01	C	ATOM	3988	O6	G A 190F	110.473	65.264	-29.274	1.00	60.55	O
ATOM	3939	O3*	U A 190D	103.076	77.553	-28.754	1.00	68.01	O	ATOM	3989	N1	G A 190F	109.685	65.090	-27.143	1.00	60.55	N
ATOM	3940	C2*	U A 190D	102.101	78.140	-30.902	1.00	68.01	C	ATOM	3990	C2	G A 190F	108.791	65.369	-26.135	1.00	60.55	C
ATOM	3941	O2*	U A 190D	102.968	77.204	-31.509	1.00	68.01	O	ATOM	3991	N2	G A 190F	109.020	64.786	-24.952	1.00	60.55	N
ATOM	3942	C1*	U A 190D	100.749	77.512	-30.596	1.00	68.01	C	ATOM	3992	N3	G A 190F	107.746	66.156	-26.276	1.00	60.55	N
ATOM	3943	N1	U A 190D	99.846	77.522	-31.751	1.00	61.76	N	ATOM	3993	C4	G A 190F	107.647	66.649	-27.530	1.00	60.55	C
ATOM	3944	C2	U A 190D	100.043	76.555	-32.718	1.00	61.76	C	ATOM	3994	P	G A 190G	102.127	68.642	-24.534	1.00	55.16	P
ATOM	3945	O2	U A 190D	100.941	75.733	-32.656	1.00	61.76	O	ATOM	3995	O1P	G A 190G	102.232	67.919	-23.236	1.00	52.38	O
ATOM	3946	N3	U A 190D	99.155	76.591	-33.765	1.00	61.76	N	ATOM	3996	O2P	G A 190G	101.193	68.140	-25.584	1.00	52.38	O
ATOM	3947	C4	U A 190D	98.121	77.486	-33.944	1.00	61.76	C	ATOM	3997	O5*	G A 190G	101.819	70.175	-24.237	1.00	55.16	O



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ATOM	3998	C5*	G A 190G	102.270	70.795	-23.021	1.00	55.16	C	ATOM	4048	O3*	G A 190I	87.758	68.710	-21.859	1.00	74.09	O
ATOM	3999	C4*	G A 190G	101.374	71.955	-22.666	1.00	55.16	C	ATOM	4049	C2*	G A 190I	88.392	69.401	-24.095	1.00	74.09	C
ATOM	4000	O4*	G A 190G	101.368	72.886	-23.775	1.00	55.16	C	ATOM	4050	O2*	G A 190I	87.203	70.165	-24.104	1.00	74.09	O
ATOM	4001	C3*	G A 190G	99.916	71.595	-22.474	1.00	55.16	C	ATOM	4051	C1*	G A 190I	89.550	70.252	-24.605	1.00	74.09	C
ATOM	4002	O3*	G A 190G	99.646	71.169	-21.156	1.00	55.16	O	ATOM	4052	N9	G A 190I	90.459	69.416	-25.376	1.00	67.80	N
ATOM	4003	C2*	G A 190G	99.196	72.881	-22.845	1.00	55.16	C	ATOM	4053	C8	G A 190I	91.619	68.820	-24.944	1.00	67.80	C
ATOM	4004	O2*	G A 190G	99.209	73.842	-21.806	1.00	55.16	O	ATOM	4054	N7	G A 190I	92.183	68.077	-25.858	1.00	67.80	N
ATOM	4005	C1*	G A 190G	100.056	73.372	-24.003	1.00	55.16	C	ATOM	4055	C5	G A 190I	91.353	68.201	-26.965	1.00	67.80	C
ATOM	4006	N9	G A 190G	99.614	72.831	-25.283	1.00	52.38	N	ATOM	4056	C6	G A 190I	91.441	67.608	-28.257	1.00	67.80	C
ATOM	4007	C8	G A 190G	100.340	72.026	-26.132	1.00	52.38	C	ATOM	4057	O6	G A 190I	92.302	66.833	-28.695	1.00	67.80	O
ATOM	4008	N7	G A 190G	99.680	71.683	-27.203	1.00	52.38	N	ATOM	4058	N1	G A 190I	90.378	67.992	-29.068	1.00	67.80	N
ATOM	4009	C5	G A 190G	98.443	72.297	-27.054	1.00	52.38	C	ATOM	4059	C2	G A 190I	89.358	68.830	-28.689	1.00	67.80	C
ATOM	4010	C6	G A 190G	97.304	72.275	-27.893	1.00	52.38	C	ATOM	4060	N2	G A 190I	88.409	69.060	-29.607	1.00	67.80	N
ATOM	4011	O6	G A 190G	97.153	71.688	-28.966	1.00	52.38	O	ATOM	4061	N3	G A 190I	89.268	69.395	-27.493	1.00	67.80	N
ATOM	4012	N1	G A 190G	96.267	73.031	-27.365	1.00	52.38	N	ATOM	4062	C4	G A 190I	90.291	69.034	-26.687	1.00	67.80	C
ATOM	4013	C2	G A 190G	96.313	73.711	-26.170	1.00	52.38	C	ATOM	4063	P	U A 190J	87.266	67.176	-21.787	1.00	72.42	P
ATOM	4014	N2	G A 190G	95.200	74.375	-25.813	1.00	52.38	N	ATOM	4064	O1P	U A 190J	86.080	67.168	-20.887	1.00	83.32	O
ATOM	4015	N3	G A 190G	97.370	73.735	-25.375	1.00	52.38	N	ATOM	4065	O2P	U A 190J	88.424	66.297	-21.475	1.00	83.32	O
ATOM	4016	C4	G A 190G	98.390	73.013	-25.876	1.00	52.38	C	ATOM	4066	O5*	U A 190J	86.800	66.853	-23.279	1.00	72.42	O
ATOM	4017	P	G A 190H	98.630	69.950	-20.925	1.00	77.89	P	ATOM	4067	C5*	U A 190J	85.683	67.543	-23.858	1.00	72.42	C
ATOM	4018	O1P	G A 190H	98.735	69.650	-19.472	1.00	59.31	O	ATOM	4068	C4*	U A 190J	85.422	67.053	-25.263	1.00	72.42	C
ATOM	4019	O2P	G A 190H	98.920	68.881	-21.925	1.00	59.31	O	ATOM	4069	O4*	U A 190J	86.524	67.422	-26.128	1.00	72.42	O
ATOM	4020	O5*	G A 190H	97.195	70.555	-21.280	1.00	77.89	O	ATOM	4070	C3*	U A 190J	85.278	65.554	-25.463	1.00	72.42	C
ATOM	4021	C5*	G A 190H	96.580	71.526	-20.421	1.00	77.89	C	ATOM	4071	O3*	U A 190J	83.983	65.080	-25.138	1.00	72.42	O
ATOM	4022	C4*	G A 190H	95.253	71.988	-20.984	1.00	77.89	C	ATOM	4072	C2*	U A 190J	85.596	65.386	-26.946	1.00	72.42	C
ATOM	4023	O4*	G A 190H	95.462	72.642	-22.262	1.00	77.89	O	ATOM	4073	O2*	U A 190J	84.504	65.657	-27.802	1.00	72.42	O
ATOM	4024	C3*	G A 190H	94.189	70.944	-21.283	1.00	77.89	C	ATOM	4074	C1*	U A 190J	86.674	66.448	-27.150	1.00	72.42	C
ATOM	4025	O3*	G A 190H	93.450	70.511	-20.151	1.00	77.89	O	ATOM	4075	N1	U A 190J	88.026	65.874	-27.067	1.00	83.32	N
ATOM	4026	C2*	G A 190H	93.291	71.677	-22.269	1.00	77.89	C	ATOM	4076	C2	U A 190J	88.544	65.299	-28.218	1.00	83.32	C
ATOM	4027	O2*	G A 190H	92.393	72.564	-21.633	1.00	77.89	O	ATOM	4077	O2	U A 190J	87.934	65.259	-29.273	1.00	83.32	O
ATOM	4028	C1*	G A 190H	94.313	72.472	-23.075	1.00	77.89	C	ATOM	4078	N3	U A 190J	89.803	64.773	-28.086	1.00	83.32	N
ATOM	4029	N9	G A 190H	94.690	71.724	-24.268	1.00	59.31	N	ATOM	4079	C4	U A 190J	90.585	64.764	-26.949	1.00	83.32	C
ATOM	4030	C8	G A 190H	95.835	70.995	-24.469	1.00	59.31	C	ATOM	4080	O4	U A 190J	91.718	64.280	-27.000	1.00	83.32	O
ATOM	4031	N7	G A 190H	95.879	70.428	-25.644	1.00	59.31	N	ATOM	4081	C5	U A 190J	89.980	65.376	-25.799	1.00	83.32	C
ATOM	4032	C5	G A 190H	94.689	70.804	-26.255	1.00	59.31	C	ATOM	4082	C6	U A 190J	88.754	65.896	-25.896	1.00	83.32	C
ATOM	4033	C6	G A 190H	94.176	70.495	-27.548	1.00	59.31	C	ATOM	4083	P	G A 190K	83.786	63.543	-24.705	1.00	72.26	P
ATOM	4034	O6	G A 190H	94.696	69.815	-28.441	1.00	59.31	O	ATOM	4084	O1P	G A 190K	82.461	63.503	-24.036	1.00	61.26	O
ATOM	4035	N1	G A 190H	92.931	71.073	-27.755	1.00	59.31	N	ATOM	4085	O2P	G A 190K	84.990	63.069	-23.971	1.00	61.26	O
ATOM	4036	C2	G A 190H	92.268	71.854	-26.842	1.00	59.31	C	ATOM	4086	O5*	G A 190K	83.692	62.758	-26.092	1.00	72.26	O
ATOM	4037	N2	G A 190H	91.078	72.318	-27.222	1.00	59.31	N	ATOM	4087	C5*	G A 190K	82.587	62.990	-26.981	1.00	72.26	C
ATOM	4038	N3	G A 190H	92.737	72.159	-25.642	1.00	59.31	N	ATOM	4088	C4*	G A 190K	82.757	62.216	-28.265	1.00	72.26	O
ATOM	4039	C4	G A 190H	93.943	71.602	-25.417	1.00	59.31	C	ATOM	4089	O4*	G A 190K	83.818	62.792	-29.069	1.00	72.26	C
ATOM	4040	P	G A 190I	92.698	69.088	-20.205	1.00	74.09	P	ATOM	4090	C3*	G A 190K	83.143	60.757	-28.136	1.00	72.26	C
ATOM	4041	O1P	G A 190I	92.071	68.885	-18.867	1.00	67.80	O	ATOM	4091	O3*	G A 190K	82.054	59.913	-27.819	1.00	72.26	O
ATOM	4042	O2P	G A 190I	93.659	68.078	-20.721	1.00	67.80	O	ATOM	4092	C2*	G A 190K	83.747	60.457	-29.503	1.00	72.26	C
ATOM	4043	O5*	G A 190I	91.561	69.298	-21.309	1.00	74.09	O	ATOM	4093	O2*	G A 190K	82.778	60.205	-30.502	1.00	72.26	O
ATOM	4044	C5*	G A 190I	90.537	70.284	-21.108	1.00	74.09	C	ATOM	4094	C1*	G A 190K	84.471	61.768	-29.807	1.00	72.26	C
ATOM	4045	C4*	G A 190I	89.568	70.327	-22.269	1.00	74.09	C	ATOM	4095	N9	G A 190K	85.858	61.698	-29.359	1.00	61.26	N
ATOM	4046	O4*	G A 190I	90.236	70.764	-23.477	1.00	74.09	O	ATOM	4096	C8	G A 190K	86.338	62.043	-28.115	1.00	61.26	C
ATOM	4047	C3*	G A 190I	88.861	69.051	-22.689	1.00	74.09	C	ATOM	4097	N7	G A 190K	87.624	61.852	-27.989	1.00	61.26	N



Table 1: Sheet 43/521

ATOM	4098	C5	G A 190K	88.024	61.358	-29.225	1.00	61.26	C	ATOM	4148	C4	G A 191	89.955	53.543	-28.841	1.00	64.89	C
ATOM	4099	C6	G A 190K	89.309	60.977	-29.684	1.00	61.26	C	ATOM	4149	P	U A 192	86.882	48.629	-27.360	1.00	69.96	P
ATOM	4100	O6	G A 190K	90.385	61.006	-29.073	1.00	61.26	O	ATOM	4150	O1P	U A 192	86.355	47.238	-27.346	1.00	66.45	O
ATOM	4101	N1	G A 190K	89.268	60.531	-31.000	1.00	61.26	N	ATOM	4151	O2P	U A 192	86.301	49.654	-26.444	1.00	66.45	O
ATOM	4102	C2	G A 190K	88.137	60.464	-31.778	1.00	61.26	C	ATOM	4152	O5*	U A 192	88.445	48.570	-27.061	1.00	69.96	O
ATOM	4103	N2	G A 190K	88.307	60.001	-33.020	1.00	61.26	N	ATOM	4153	C5*	U A 192	89.323	47.797	-27.893	1.00	69.96	C
ATOM	4104	N3	G A 190K	86.931	60.823	-31.365	1.00	61.26	N	ATOM	4154	C4*	U A 192	90.758	48.034	-27.499	1.00	69.96	C
ATOM	4105	C4	G A 190K	86.947	61.257	-30.086	1.00	61.26	C	ATOM	4155	O4*	U A 192	91.113	49.417	-27.755	1.00	69.96	O
ATOM	4106	P	U A 190L	82.321	58.586	-26.950	1.00	64.02	P	ATOM	4156	C3*	U A 192	91.101	47.835	-26.034	1.00	69.96	C
ATOM	4107	O1P	U A 190L	80.988	58.112	-26.497	1.00	71.90	O	ATOM	4157	O3*	U A 192	91.313	46.472	-25.707	1.00	69.96	O
ATOM	4108	O2P	U A 190L	83.380	58.866	-25.939	1.00	71.90	O	ATOM	4158	C2*	U A 192	92.366	48.669	-25.884	1.00	69.96	C
ATOM	4109	O5*	U A 190L	82.905	57.549	-28.013	1.00	64.02	O	ATOM	4159	O2*	U A 192	93.523	48.009	-26.360	1.00	69.96	O
ATOM	4110	C5*	U A 190L	82.095	57.119	-29.111	1.00	64.02	C	ATOM	4160	C1*	U A 192	92.064	49.849	-26.801	1.00	69.96	C
ATOM	4111	C4*	U A 190L	82.891	56.291	-30.089	1.00	64.02	C	ATOM	4161	N1	U A 192	91.497	50.974	-26.049	1.00	66.45	N
ATOM	4112	O4*	U A 190L	83.864	57.112	-30.782	1.00	64.02	O	ATOM	4162	C2	U A 192	92.375	51.842	-25.425	1.00	66.45	C
ATOM	4113	C3*	U A 190L	83.713	55.132	-29.561	1.00	64.02	C	ATOM	4163	O2	U A 192	93.587	51.710	-25.463	1.00	66.45	O
ATOM	4114	O3*	U A 190L	82.951	53.981	-29.269	1.00	64.02	O	ATOM	4164	N3	U A 192	91.780	52.869	-24.743	1.00	66.45	N
ATOM	4115	C2*	U A 190L	84.675	54.883	-30.716	1.00	64.02	C	ATOM	4165	C4	U A 192	90.431	53.108	-24.617	1.00	66.45	C
ATOM	4116	O2*	U A 190L	84.089	54.164	-31.780	1.00	64.02	O	ATOM	4166	O4	U A 192	90.047	54.083	-23.967	1.00	66.45	O
ATOM	4117	C1*	U A 190L	84.964	56.306	-31.184	1.00	64.02	C	ATOM	4167	C5	U A 192	89.595	52.163	-25.285	1.00	66.45	C
ATOM	4118	N1	U A 190L	86.198	56.798	-30.549	1.00	71.90	N	ATOM	4168	C6	U A 192	90.143	51.157	-25.962	1.00	66.45	C
ATOM	4119	C2	U A 190L	87.400	56.397	-31.112	1.00	71.90	C	ATOM	4169	P	C A 193	91.145	45.989	-24.180	1.00	65.89	P
ATOM	4120	O2	U A 190L	87.465	55.718	-32.131	1.00	71.90	O	ATOM	4170	O1P	C A 193	91.488	44.546	-24.174	1.00	51.61	O
ATOM	4121	N3	U A 190L	88.523	56.820	-30.440	1.00	71.90	N	ATOM	4171	O2P	C A 193	89.839	46.444	-23.640	1.00	51.61	O
ATOM	4122	C4	U A 190L	88.572	57.596	-29.299	1.00	71.90	C	ATOM	4172	O5*	C A 193	92.281	46.782	-23.398	1.00	65.89	O
ATOM	4123	O4	U A 190L	89.667	57.840	-28.780	1.00	71.90	O	ATOM	4173	C5*	C A 193	93.665	46.638	-23.770	1.00	65.89	C
ATOM	4124	C5	U A 190L	87.291	57.999	-28.796	1.00	71.90	C	ATOM	4174	C4*	C A 193	94.526	47.595	-22.986	1.00	65.89	C
ATOM	4125	C6	U A 190L	86.177	57.600	-29.422	1.00	71.90	C	ATOM	4175	O4*	C A 193	94.265	48.963	-23.389	1.00	65.89	O
ATOM	4126	P	G A 191	83.506	52.927	-28.194	1.00	69.52	P	ATOM	4176	C3*	C A 193	94.288	47.603	-21.489	1.00	65.89	C
ATOM	4127	O1P	G A 191	82.547	51.796	-28.172	1.00	64.89	O	ATOM	4177	O3*	C A 193	94.937	46.529	-20.840	1.00	65.89	O
ATOM	4128	O2P	G A 191	83.794	53.659	-26.945	1.00	64.89	O	ATOM	4178	C2*	C A 193	94.826	48.964	-21.077	1.00	65.89	C
ATOM	4129	O5*	G A 191	84.885	52.415	-28.814	1.00	69.52	O	ATOM	4179	O2*	C A 193	96.229	48.998	-20.948	1.00	65.89	O
ATOM	4130	C5*	G A 191	84.897	51.584	-29.994	1.00	69.52	C	ATOM	4180	C1*	C A 193	94.438	49.820	-22.276	1.00	65.89	C
ATOM	4131	C4*	G A 191	86.299	51.117	-30.310	1.00	69.52	C	ATOM	4181	N1	C A 193	93.190	50.547	-22.020	1.00	51.61	N
ATOM	4132	O4*	G A 191	87.107	52.241	-30.757	1.00	69.52	O	ATOM	4182	C2	C A 193	93.251	51.737	-21.283	1.00	51.61	C
ATOM	4133	C3*	G A 191	87.095	50.522	-29.161	1.00	69.52	C	ATOM	4183	O2	C A 193	94.353	52.142	-20.879	1.00	51.61	O
ATOM	4134	O3*	G A 191	86.782	49.162	-28.880	1.00	69.52	O	ATOM	4184	N3	C A 193	92.116	52.415	-21.025	1.00	51.61	N
ATOM	4135	C2*	G A 191	88.530	50.715	-29.635	1.00	69.52	C	ATOM	4185	C4	C A 193	90.953	51.952	-21.467	1.00	51.61	C
ATOM	4136	O2*	G A 191	88.898	49.750	-30.602	1.00	69.52	O	ATOM	4186	N4	C A 193	89.862	52.656	-21.183	1.00	51.61	N
ATOM	4137	C1*	G A 191	88.447	52.090	-30.298	1.00	69.52	C	ATOM	4187	C5	C A 193	90.857	50.747	-22.221	1.00	51.61	C
ATOM	4138	N9	G A 191	88.726	53.167	-29.345	1.00	64.89	N	ATOM	4188	C6	C A 193	91.991	50.082	-22.474	1.00	51.61	C
ATOM	4139	C8	G A 191	87.802	54.005	-28.763	1.00	64.89	C	ATOM	4189	P	C A 194	94.342	45.979	-19.457	1.00	55.07	P
ATOM	4140	N7	G A 191	88.333	54.865	-27.940	1.00	64.89	N	ATOM	4190	O1P	C A 194	95.072	44.724	-19.155	1.00	54.52	O
ATOM	4141	C5	G A 191	89.694	54.590	-27.985	1.00	64.89	C	ATOM	4191	O2P	C A 194	92.853	45.976	-19.510	1.00	54.52	O
ATOM	4142	C6	G A 191	90.779	55.210	-27.306	1.00	64.89	C	ATOM	4192	O5*	C A 194	94.777	47.072	-18.385	1.00	55.07	O
ATOM	4143	O6	G A 191	90.755	56.172	-26.532	1.00	64.89	O	ATOM	4193	C5*	C A 194	96.135	47.141	-17.927	1.00	55.07	C
ATOM	4144	N1	G A 191	91.986	54.605	-27.616	1.00	64.89	N	ATOM	4194	C4*	C A 194	96.306	48.304	-16.994	1.00	55.07	C
ATOM	4145	C2	G A 191	92.138	53.557	-28.479	1.00	64.89	C	ATOM	4195	O4*	C A 194	95.921	49.515	-17.685	1.00	55.07	O
ATOM	4146	N2	G A 191	93.386	53.116	-28.640	1.00	64.89	N	ATOM	4196	C3*	C A 194	95.439	48.280	-15.751	1.00	55.07	C
ATOM	4147	N3	G A 191	91.143	52.982	-29.136	1.00	64.89	N	ATOM	4197	O3*	C A 194	96.047	47.483	-14.733	1.00	55.07	O



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ATOM	4198	C2*	C A 194	95.335	49.763	-15.396	1.00	55.07	C	ATOM	4248	N6	A A 196	88.511	48.949	-7.625	1.00	52.59	N
ATOM	4199	O2*	C A 194	96.455	50.278	-14.707	1.00	55.07	O	ATOM	4249	N1	A A 196	89.347	50.704	-6.365	1.00	52.59	N
ATOM	4200	Cl*	C A 194	95.307	50.411	-16.779	1.00	55.07	C	ATOM	4250	N2	A A 196	90.322	51.202	-5.598	1.00	52.59	N
ATOM	4201	N1	C A 194	93.941	50.679	-17.255	1.00	54.52	N	ATOM	4251	N3	A A 196	91.480	50.652	-5.251	1.00	52.59	C
ATOM	4202	C2	C A 194	93.214	51.746	-16.693	1.00	54.52	C	ATOM	4252	C4	A A 196	91.606	49.433	-5.800	1.00	52.59	C
ATOM	4203	O2	C A 194	93.760	52.472	-15.840	1.00	54.52	O	ATOM	4253	P	A A 197	96.272	44.775	-3.219	1.00	77.88	P
ATOM	4204	N3	C A 194	91.940	51.957	-17.103	1.00	54.52	N	ATOM	4254	O1P	A A 197	97.472	44.395	-4.017	1.00	64.53	O
ATOM	4205	C4	C A 194	91.402	51.170	-18.041	1.00	54.52	C	ATOM	4255	O2P	A A 197	94.965	44.123	-3.496	1.00	64.53	O
ATOM	4206	N4	C A 194	90.147	51.400	-18.411	1.00	54.52	N	ATOM	4256	O5*	A A 197	96.621	44.593	-1.673	1.00	77.88	O
ATOM	4207	C5	C A 194	92.127	50.105	-18.641	1.00	54.52	C	ATOM	4257	C5*	A A 197	95.976	43.582	-0.871	1.00	77.88	C
ATOM	4208	C6	C A 194	93.377	49.894	-18.223	1.00	54.52	C	ATOM	4258	C4*	A A 197	95.321	44.221	0.329	1.00	77.88	C
ATOM	4209	P	A A 195	95.236	46.246	-14.081	1.00	55.92	P	ATOM	4259	O4*	A A 197	96.334	44.928	1.052	1.00	77.88	O
ATOM	4210	O1P	A A 195	96.187	45.114	-13.908	1.00	61.87	O	ATOM	4260	C3*	A A 197	94.244	45.234	-0.017	1.00	77.88	C
ATOM	4211	O2P	A A 195	93.976	46.032	-14.839	1.00	61.87	O	ATOM	4261	O3*	A A 197	92.954	44.563	0.001	1.00	77.88	O
ATOM	4212	O5*	A A 195	94.828	46.777	-12.635	1.00	55.92	O	ATOM	4262	C2*	A A 197	94.441	46.410	0.945	1.00	77.88	C
ATOM	4213	C5*	A A 195	93.987	47.936	-12.482	1.00	55.92	C	ATOM	4263	O2*	A A 197	93.570	46.405	2.049	1.00	77.88	O
ATOM	4214	C4*	A A 195	94.517	48.829	-11.382	1.00	55.92	C	ATOM	4264	Cl*	A A 197	95.862	46.185	1.455	1.00	77.88	C
ATOM	4215	O4*	A A 195	93.803	50.080	-11.420	1.00	55.92	O	ATOM	4265	N9	A A 197	96.958	47.123	1.251	1.00	64.53	N
ATOM	4216	C3*	A A 195	94.366	48.301	-9.960	1.00	55.92	C	ATOM	4266	C8	A A 197	97.753	47.278	0.146	1.00	64.53	C
ATOM	4217	O3*	A A 195	95.524	47.554	-9.594	1.00	55.92	O	ATOM	4267	N7	A A 197	98.831	47.987	0.373	1.00	64.53	N
ATOM	4218	C2*	A A 195	94.237	49.573	-9.121	1.00	55.92	C	ATOM	4268	C5	A A 197	98.698	48.377	1.696	1.00	64.53	C
ATOM	4219	O2*	A A 195	95.469	50.128	-8.690	1.00	55.92	O	ATOM	4269	C6	A A 197	99.525	49.110	2.547	1.00	64.53	C
ATOM	4220	Cl*	A A 195	93.550	50.525	-10.103	1.00	55.92	C	ATOM	4270	N6	A A 197	100.721	49.578	2.191	1.00	64.53	N
ATOM	4221	N9	A A 195	92.102	50.639	-9.965	1.00	61.87	N	ATOM	4271	N1	A A 197	99.088	49.337	3.803	1.00	64.53	N
ATOM	4222	C8	A A 195	91.142	49.840	-10.524	1.00	61.87	C	ATOM	4272	C2	A A 197	97.904	48.846	4.167	1.00	64.53	C
ATOM	4223	N7	A A 195	89.923	50.254	-10.308	1.00	61.87	N	ATOM	4273	N3	A A 197	97.045	48.124	3.464	1.00	64.53	N
ATOM	4224	C5	A A 195	90.091	51.388	-9.531	1.00	61.87	C	ATOM	4274	C4	A A 197	97.512	47.915	2.224	1.00	64.53	C
ATOM	4225	C6	A A 195	89.177	52.300	-8.981	1.00	61.87	C	ATOM	4275	P	G A 198	92.380	43.831	1.354	1.00	62.70	P
ATOM	4226	N6	A A 195	87.852	52.214	-9.146	1.00	61.87	N	ATOM	4276	O1P	G A 198	91.833	42.531	0.885	1.00	48.95	O
ATOM	4227	N1	A A 195	89.674	53.323	-8.251	1.00	61.87	N	ATOM	4277	O2P	G A 198	91.499	44.752	2.126	1.00	48.95	O
ATOM	4228	C2	A A 195	90.999	53.414	-8.099	1.00	61.87	C	ATOM	4278	O5*	G A 198	93.638	43.460	2.258	1.00	62.70	O
ATOM	4229	N3	A A 195	91.956	52.623	-8.574	1.00	61.87	N	ATOM	4279	C5*	G A 198	93.475	43.165	3.654	1.00	62.70	C
ATOM	4230	C4	A A 195	91.427	51.620	-9.291	1.00	61.87	C	ATOM	4280	C4*	G A 198	94.689	43.620	4.408	1.00	62.70	C
ATOM	4231	P	A A 196	95.370	46.139	-8.852	1.00	59.36	P	ATOM	4281	O4*	G A 198	95.017	44.951	3.957	1.00	62.70	O
ATOM	4232	O1P	A A 196	96.653	45.417	-9.041	1.00	52.59	O	ATOM	4282	C3*	G A 198	94.549	43.763	5.913	1.00	62.70	C
ATOM	4233	O2P	A A 196	94.094	45.506	-9.284	1.00	52.59	O	ATOM	4283	O3*	G A 198	94.778	42.562	6.619	1.00	62.70	O
ATOM	4234	O5*	A A 196	95.248	46.518	-7.314	1.00	59.36	O	ATOM	4284	C2*	G A 198	95.631	44.775	6.228	1.00	62.70	C
ATOM	4235	C5*	A A 196	96.381	47.015	-6.584	1.00	59.36	C	ATOM	4285	O2*	G A 198	96.902	44.154	6.188	1.00	62.70	O
ATOM	4236	C4*	A A 196	95.907	47.740	-5.357	1.00	59.36	C	ATOM	4286	Cl*	G A 198	95.500	45.721	5.040	1.00	62.70	C
ATOM	4237	O4*	A A 196	94.969	48.742	-5.797	1.00	59.36	O	ATOM	4287	N9	G A 198	94.543	46.796	5.309	1.00	48.95	N
ATOM	4238	C3*	A A 196	95.144	46.865	-4.377	1.00	59.36	C	ATOM	4288	C8	G A 198	93.262	46.920	4.824	1.00	48.95	C
ATOM	4239	O3*	A A 196	96.047	46.361	-3.384	1.00	59.36	O	ATOM	4289	N7	G A 198	92.651	47.990	5.256	1.00	48.95	N
ATOM	4240	C2*	A A 196	94.142	47.831	-3.756	1.00	59.36	C	ATOM	4290	C5	G A 198	93.581	48.608	6.080	1.00	48.95	C
ATOM	4241	O2*	A A 196	94.681	48.543	-2.661	1.00	59.36	O	ATOM	4291	C6	G A 198	93.487	49.805	6.842	1.00	48.95	C
ATOM	4242	Cl*	A A 196	93.883	48.808	-4.905	1.00	59.36	C	ATOM	4292	O6	G A 198	92.525	50.571	6.957	1.00	48.95	O
ATOM	4243	N9	A A 196	92.665	48.568	-5.672	1.00	52.59	N	ATOM	4293	N1	G A 198	94.668	49.283	7.526	1.00	48.95	N
ATOM	4244	C8	A A 196	92.336	47.461	-6.416	1.00	52.59	C	ATOM	4294	C2	G A 198	95.789	49.283	7.497	1.00	48.95	C
ATOM	4245	N7	A A 196	91.166	47.547	-7.001	1.00	52.59	N	ATOM	4295	N2	G A 198	96.829	49.699	8.225	1.00	48.95	N
ATOM	4246	C5	A A 196	90.691	48.790	-6.614	1.00	52.59	C	ATOM	4296	N3	G A 198	95.887	48.160	6.802	1.00	48.95	N
ATOM	4247	C6	A A 196	89.500	49.466	-6.889	1.00	52.59	C	ATOM	4297	C4	G A 198	94.754	47.888	6.119	1.00	48.95	C



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ATOM	4298	P	G A 199	94.040	42.318	8.025	1.00	59.11	P	ATOM	4348	C5*	C A 201	93.119	47.181	20.743	1.00109.34	C	
ATOM	4299	O1P	G A 199	94.406	40.938	8.440	1.00	48.72	O	ATOM	4349	C4*	C A 201	92.716	48.608	20.495	1.00109.34	C	
ATOM	4300	O2P	G A 199	92.606	42.689	7.849	1.00	48.72	O	ATOM	4350	O4*	C A 201	92.617	48.816	19.073	1.00109.34	O	
ATOM	4301	O5*	G A 199	94.740	43.329	9.037	1.00	59.11	O	ATOM	4351	C3*	C A 201	91.363	48.997	21.056	1.00109.34	C	
ATOM	4302	C5*	G A 199	96.098	43.111	9.447	1.00	59.11	C	ATOM	4352	O3*	C A 201	91.544	49.469	22.383	1.00109.34	O	
ATOM	4303	C4*	G A 199	96.636	44.322	10.164	1.00	59.11	C	ATOM	4353	C2*	C A 201	90.902	50.108	20.119	1.00109.34	C	
ATOM	4304	O4*	G A 199	96.465	45.493	9.325	1.00	59.11	O	ATOM	4354	O2*	C A 201	91.375	51.394	20.465	1.00109.34	O	
ATOM	4305	C3*	G A 199	95.939	44.704	11.457	1.00	59.11	C	ATOM	4355	C1*	C A 201	91.558	49.702	18.801	1.00109.34	C	
ATOM	4306	O3*	G A 199	96.385	43.935	12.558	1.00	59.11	O	ATOM	4356	N1	C A 201	90.664	49.081	17.817	1.00	44.82	N
ATOM	4307	C2*	G A 199	96.277	46.185	11.591	1.00	59.11	C	ATOM	4357	C2	C A 201	89.602	49.848	17.301	1.00	44.82	C
ATOM	4308	O2*	G A 199	97.561	46.463	12.122	1.00	59.11	O	ATOM	4358	O2	C A 201	89.406	50.993	17.762	1.00	44.82	O
ATOM	4309	C1*	G A 199	96.231	46.631	10.135	1.00	59.11	C	ATOM	4359	N3	C A 201	88.821	49.324	16.323	1.00	44.82	N
ATOM	4310	N9	G A 199	94.916	47.177	9.824	1.00	48.72	N	ATOM	4360	C4	C A 201	89.059	48.086	15.871	1.00	44.82	C
ATOM	4311	C8	G A 199	93.945	46.658	8.998	1.00	48.72	C	ATOM	4361	N4	C A 201	88.290	47.626	14.875	1.00	44.82	N
ATOM	4312	N7	G A 199	92.870	47.400	8.945	1.00	48.72	N	ATOM	4362	C5	C A 201	90.103	47.267	16.415	1.00	44.82	C
ATOM	4313	C5	G A 199	93.149	48.467	9.793	1.00	48.72	C	ATOM	4363	C6	C A 201	90.869	47.799	17.378	1.00	44.82	C
ATOM	4314	C6	G A 199	92.363	49.597	10.148	1.00	48.72	C	ATOM	4364	P	U A 202	90.864	48.693	23.608	1.00164.70	P	
ATOM	4315	O6	G A 199	91.208	49.883	9.789	1.00	48.72	O	ATOM	4365	O1P	U A 202	91.959	48.367	24.564	1.00115.31	O	
ATOM	4316	N1	G A 199	93.051	50.442	11.016	1.00	48.72	N	ATOM	4366	O2P	U A 202	90.007	47.598	23.055	1.00115.31	O	
ATOM	4317	C2	G A 199	94.324	50.229	11.486	1.00	48.72	C	ATOM	4367	O5*	U A 202	89.951	49.813	24.279	1.00164.70	O	
ATOM	4318	N2	G A 199	94.837	51.174	12.292	1.00	48.72	N	ATOM	4368	C5*	U A 202	88.543	49.603	24.486	1.00164.70	C	
ATOM	4319	N3	G A 199	95.051	49.173	11.184	1.00	48.72	N	ATOM	4369	C4*	U A 202	87.760	50.800	24.001	1.00164.70	C	
ATOM	4320	C4	G A 199	94.409	48.344	10.335	1.00	48.72	C	ATOM	4370	O4*	U A 202	88.153	51.973	24.746	1.00164.70	O	
ATOM	4321	P	G A 200	95.363	43.610	13.756	1.00	70.59	P	ATOM	4371	C3*	U A 202	87.962	51.176	22.541	1.00164.70	C	
ATOM	4322	O1P	G A 200	96.056	42.625	14.626	1.00	45.87	O	ATOM	4372	O3*	U A 202	87.122	50.381	21.688	1.00164.70	O	
ATOM	4323	O2P	G A 200	94.036	43.284	13.172	1.00	45.87	O	ATOM	4373	C2*	U A 202	87.689	52.681	22.498	1.00164.70	C	
ATOM	4324	O5*	G A 200	95.235	44.988	14.542	1.00	70.59	O	ATOM	4374	O2*	U A 202	86.357	53.043	22.210	1.00164.70	O	
ATOM	4325	C5*	G A 200	96.412	45.672	15.000	1.00	70.59	C	ATOM	4375	C1*	U A 202	88.035	53.119	23.926	1.00164.70	C	
ATOM	4326	C4*	G A 200	96.050	47.003	15.612	1.00	70.59	O	ATOM	4376	N1	U A 202	89.214	53.978	24.133	1.00115.31	N	
ATOM	4327	O4*	G A 200	95.543	47.903	14.596	1.00	70.59	O	ATOM	4377	C2	U A 202	89.297	55.171	23.423	1.00115.31	C	
ATOM	4328	C3*	G A 200	94.965	46.973	16.669	1.00	70.59	C	ATOM	4378	O2	U A 202	88.479	55.510	22.582	1.00115.31	O	
ATOM	4329	O3*	G A 200	95.495	46.584	17.930	1.00	70.59	O	ATOM	4379	N3	U A 202	90.382	55.953	23.733	1.00115.31	N	
ATOM	4330	C2*	G A 200	94.437	48.404	16.641	1.00	70.59	C	ATOM	4380	C4	U A 202	91.380	55.670	24.646	1.00115.31	C	
ATOM	4331	O2*	G A 200	95.251	49.314	17.353	1.00	70.59	O	ATOM	4381	O4	U A 202	92.259	56.509	24.863	1.00115.31	O	
ATOM	4332	C1*	G A 200	94.561	48.750	15.161	1.00	70.59	C	ATOM	4382	C5	U A 202	91.244	54.407	25.306	1.00115.31	C	
ATOM	4333	N9	G A 200	93.328	48.609	14.396	1.00	45.87	N	ATOM	4383	C6	U A 202	90.197	53.625	25.034	1.00115.31	C	
ATOM	4334	C8	G A 200	92.965	47.559	13.590	1.00	45.87	C	ATOM	4384	P	U A 203	85.612	50.016	22.143	1.00111.48	P	
ATOM	4335	N7	G A 200	91.830	47.752	12.974	1.00	45.87	N	ATOM	4385	O1P	U A 203	84.907	51.235	22.600	1.00	99.15	O
ATOM	4336	C5	G A 200	91.410	48.997	13.415	1.00	45.87	C	ATOM	4386	O2P	U A 203	85.705	48.841	23.049	1.00	99.15	O
ATOM	4337	C6	G A 200	90.245	49.742	13.088	1.00	45.87	C	ATOM	4387	O5*	U A 203	84.893	49.542	20.807	1.00111.48	O	
ATOM	4338	O6	G A 200	89.326	49.436	12.309	1.00	45.87	O	ATOM	4388	C5*	U A 203	84.791	50.415	19.679	1.00111.48	C	
ATOM	4339	N1	G A 200	90.208	50.959	13.769	1.00	45.87	N	ATOM	4389	C4*	U A 203	84.896	49.613	18.415	1.00111.48	C	
ATOM	4340	C2	G A 200	91.171	51.399	14.646	1.00	45.87	C	ATOM	4390	O4*	U A 203	86.155	48.916	18.427	1.00111.48	O	
ATOM	4341	N2	G A 200	90.966	52.605	15.197	1.00	45.87	N	ATOM	4391	C3*	U A 203	83.860	48.511	18.266	1.00111.48	C	
ATOM	4342	N3	G A 200	92.259	50.710	14.958	1.00	45.87	N	ATOM	4392	O3*	U A 203	82.738	49.049	17.567	1.00111.48	O	
ATOM	4343	C4	G A 200	92.315	49.530	14.308	1.00	45.87	C	ATOM	4393	C2*	U A 203	84.565	47.464	17.387	1.00111.48	C	
ATOM	4344	P	C A 201	94.549	45.828	18.987	1.00109.34	P	ATOM	4394	O2*	U A 203	84.300	47.607	16.003	1.00111.48	O		
ATOM	4345	O1P	C A 201	95.310	44.728	19.614	1.00	44.82	O	ATOM	4395	C1*	U A 203	86.048	47.784	17.600	1.00111.48	C	
ATOM	4346	O2P	C A 201	93.238	45.530	18.332	1.00	44.82	O	ATOM	4396	N1	U A 203	86.991	46.740	18.044	1.00	99.15	N
ATOM	4347	O5*	C A 201	94.383	46.926	20.126	1.00109.34	O	ATOM	4397	C2	U A 203	87.085	45.576	17.283	1.00	99.15	C	



Table 1: Sheet 46/521

ATOM	4398	O2	U A 203	86.323	45.315	16.360	1.00 99.15	O	ATOM	4448	O1P	C A 217	82.628	59.304	12.106	1.00 71.00	O
ATOM	4399	N3	U A 203	88.101	44.726	17.652	1.00 99.15	N	ATOM	4449	O2P	C A 217	83.017	57.163	10.725	1.00 71.00	O
ATOM	4400	C4	U A 203	88.996	44.892	18.697	1.00 99.15	C	ATOM	4450	O5*	C A 217	84.582	57.815	12.597	1.00126.29	O
ATOM	4401	O4	U A 203	89.956	44.121	18.798	1.00 99.15	O	ATOM	4451	C5*	C A 217	85.082	58.833	13.498	1.00126.29	C
ATOM	4402	C5	U A 203	88.780	46.071	19.487	1.00 99.15	C	ATOM	4452	C4*	C A 217	86.345	58.380	14.216	1.00126.29	C
ATOM	4403	C6	U A 203	87.810	46.931	19.146	1.00 99.15	C	ATOM	4453	O4*	C A 217	86.152	57.055	14.777	1.00126.29	O
ATOM	4404	P	U A 204	81.552	49.785	18.365	1.00130.54	P	ATOM	4454	C3*	C A 217	87.652	58.246	13.445	1.00126.29	C
ATOM	4405	O1P	U A 204	82.082	50.333	19.638	1.00172.64	O	ATOM	4455	O3*	C A 217	88.330	59.476	13.245	1.00126.29	C
ATOM	4406	O2P	U A 204	80.403	48.845	18.394	1.00172.64	O	ATOM	4456	C2*	C A 217	88.465	57.354	14.371	1.00126.29	C
ATOM	4407	O5*	U A 204	81.176	51.011	17.413	1.00130.54	O	ATOM	4457	O2*	C A 217	88.996	58.052	15.478	1.00126.29	O
ATOM	4408	C5*	U A 204	79.797	51.333	17.116	1.00130.54	C	ATOM	4458	C1*	C A 217	87.401	56.391	14.873	1.00126.29	C
ATOM	4409	C4*	U A 204	79.574	51.376	15.619	1.00130.54	C	ATOM	4459	N1	C A 217	87.393	55.195	14.016	1.00 71.00	N
ATOM	4410	O4*	U A 204	80.267	50.257	15.016	1.00130.54	O	ATOM	4460	C2	C A 217	88.209	54.116	14.375	1.00 71.00	C
ATOM	4411	C3*	U A 204	78.111	51.238	15.199	1.00130.54	C	ATOM	4461	O2	C A 217	88.885	54.196	15.414	1.00 71.00	O
ATOM	4412	O3*	U A 204	77.372	52.475	15.068	1.00130.54	O	ATOM	4462	N3	C A 217	88.245	53.020	13.585	1.00 71.00	N
ATOM	4413	C2*	U A 204	78.206	50.552	13.835	1.00130.54	C	ATOM	4463	C4	C A 217	87.502	52.974	12.480	1.00 71.00	C
ATOM	4414	O2*	U A 204	78.339	51.443	12.744	1.00130.54	O	ATOM	4464	N4	C A 217	87.566	51.870	11.736	1.00 71.00	N
ATOM	4415	C1*	U A 204	79.483	49.715	13.972	1.00130.54	C	ATOM	4465	C5	C A 217	86.659	54.055	12.091	1.00 71.00	C
ATOM	4416	N1	U A 204	79.255	48.289	14.254	1.00172.64	N	ATOM	4466	C6	C A 217	86.632	55.133	12.881	1.00 71.00	C
ATOM	4417	C2	U A 204	79.089	47.433	13.174	1.00172.64	C	ATOM	4467	P	C A 218	89.502	59.567	12.143	1.00 78.70	P
ATOM	4418	O2	U A 204	79.095	47.813	12.012	1.00172.64	O	ATOM	4468	O1P	C A 218	90.063	60.934	12.266	1.00 53.47	O
ATOM	4419	N3	U A 204	78.914	46.112	13.507	1.00172.64	N	ATOM	4469	O2P	C A 218	88.991	59.085	10.830	1.00 53.47	O
ATOM	4420	C4	U A 204	78.886	45.569	14.776	1.00172.64	C	ATOM	4470	O5*	C A 218	90.627	58.563	12.654	1.00 78.70	O
ATOM	4421	O4	U A 204	78.796	44.348	14.910	1.00172.64	O	ATOM	4471	C5*	C A 218	91.367	58.858	13.852	1.00 78.70	C
ATOM	4422	C5	U A 204	79.044	46.518	15.836	1.00172.64	C	ATOM	4472	C4*	C A 218	92.459	57.842	14.067	1.00 78.70	C
ATOM	4423	C6	U A 204	79.218	47.811	15.547	1.00172.64	C	ATOM	4473	O4*	C A 218	91.880	56.537	14.310	1.00 78.70	O
ATOM	4424	P	G A 216	78.137	53.900	15.018	1.00149.99	P	ATOM	4474	C3*	C A 218	93.397	57.619	12.899	1.00 78.70	C
ATOM	4425	O1P	G A 216	78.763	54.130	16.341	1.00 70.59	O	ATOM	4475	O3*	C A 218	94.414	58.595	12.838	1.00 78.70	O
ATOM	4426	O2P	G A 216	77.228	54.933	14.462	1.00 70.59	O	ATOM	4476	C2*	C A 218	93.945	56.232	13.186	1.00 78.70	C
ATOM	4427	O5*	G A 216	79.266	53.654	13.923	1.00149.99	O	ATOM	4477	O2*	C A 218	94.958	56.256	14.172	1.00 78.70	O
ATOM	4428	C5*	G A 216	79.930	54.743	13.265	1.00149.99	C	ATOM	4478	C1*	C A 218	92.711	55.535	13.751	1.00 78.70	C
ATOM	4429	C4*	G A 216	81.188	55.083	14.011	1.00149.99	C	ATOM	4479	N1	C A 218	91.953	54.823	12.704	1.00 53.47	N
ATOM	4430	O4*	G A 216	81.736	53.872	14.578	1.00149.99	O	ATOM	4480	C2	C A 218	92.338	53.524	12.362	1.00 53.47	C
ATOM	4431	C3*	G A 216	82.319	55.687	13.201	1.00149.99	C	ATOM	4481	O2	C A 218	93.330	53.028	12.921	1.00 53.47	O
ATOM	4432	O3*	G A 216	82.194	57.093	13.099	1.00149.99	O	ATOM	4482	N3	C A 218	91.628	52.847	11.424	1.00 53.47	N
ATOM	4433	C2*	G A 216	83.546	55.315	14.022	1.00149.99	C	ATOM	4483	C4	C A 218	90.586	53.431	10.826	1.00 53.47	C
ATOM	4434	O2*	G A 216	83.735	56.210	15.100	1.00149.99	O	ATOM	4484	N4	C A 218	89.907	52.730	9.914	1.00 53.47	N
ATOM	4435	C1*	G A 216	83.144	53.957	14.593	1.00149.99	C	ATOM	4485	C5	C A 218	90.189	54.761	11.137	1.00 53.47	C
ATOM	4436	N9	G A 216	83.691	52.785	13.914	1.00 70.59	N	ATOM	4486	C6	C A 218	90.890	55.414	12.075	1.00 53.47	C
ATOM	4437	C8	G A 216	83.279	52.210	12.732	1.00 70.59	C	ATOM	4487	P	C A 219	94.996	59.034	11.410	1.00 83.02	P
ATOM	4438	N7	G A 216	83.933	51.115	12.443	1.00 70.59	N	ATOM	4488	O1P	C A 219	95.806	60.241	11.707	1.00 37.10	O
ATOM	4439	C5	G A 216	84.839	50.969	13.489	1.00 70.59	C	ATOM	4489	O2P	C A 219	93.896	59.093	10.397	1.00 37.10	O
ATOM	4440	C6	G A 216	85.807	49.954	13.748	1.00 70.59	C	ATOM	4490	O5*	C A 219	95.958	57.830	11.005	1.00 83.02	O
ATOM	4441	O6	G A 216	86.049	48.934	13.096	1.00 70.59	O	ATOM	4491	C5*	C A 219	97.095	57.504	11.821	1.00 83.02	C
ATOM	4442	N1	G A 216	86.523	50.215	14.912	1.00 70.59	N	ATOM	4492	C4*	C A 219	97.667	56.158	11.442	1.00 83.02	C
ATOM	4443	C2	G A 216	86.330	51.302	15.729	1.00 70.59	C	ATOM	4493	O4*	C A 219	96.730	55.099	11.773	1.00 83.02	O
ATOM	4444	N2	G A 216	87.123	51.399	16.797	1.00 70.59	N	ATOM	4494	C3*	C A 219	97.971	55.914	9.979	1.00 83.02	C
ATOM	4445	N3	G A 216	85.425	52.236	15.514	1.00 70.59	N	ATOM	4495	O3*	C A 219	99.165	56.524	9.548	1.00 83.02	O
ATOM	4446	C4	G A 216	84.719	52.007	14.386	1.00 70.59	C	ATOM	4496	C2*	C A 219	98.021	54.396	9.919	1.00 83.02	C
ATOM	4447	P	C A 217	83.086	57.893	12.028	1.00126.29	P	ATOM	4497	O2*	C A 219	99.223	53.859	10.448	1.00 83.02	O



ATOM	4498	C1*	C A 219	96.874	54.029	10.853	1.00	83.02	C	ATOM	4548	C5	C A 221	94.722	54.385	1.780	1.00	57.06	C
ATOM	4499	N1	C A 219	95.613	53.867	10.101	1.00	37.10	N	ATOM	4549	C6	C A 221	95.513	53.339	1.499	1.00	57.06	C
ATOM	4500	C2	C A 219	95.447	52.720	9.301	1.00	37.10	C	ATOM	4550	P	U A 222	99.241	52.895	-3.024	1.00	55.88	P
ATOM	4501	O2	C A 219	96.353	51.880	9.258	1.00	37.10	O	ATOM	4551	O1P	U A 222	100.379	52.416	-3.854	1.00	52.25	O
ATOM	4502	N3	C A 219	94.307	52.562	8.593	1.00	37.10	N	ATOM	4552	O2P	U A 222	99.280	54.264	-2.412	1.00	52.25	O
ATOM	4503	C4	C A 219	93.356	53.495	8.648	1.00	37.10	C	ATOM	4553	O5*	U A 222	97.921	52.754	-3.897	1.00	55.88	O
ATOM	4504	N4	C A 219	92.267	53.311	7.899	1.00	37.10	N	ATOM	4554	C5*	U A 222	97.637	51.532	-4.568	1.00	55.88	C
ATOM	4505	C5	C A 219	93.488	54.663	9.462	1.00	37.10	C	ATOM	4555	C4*	U A 222	96.448	51.703	-5.463	1.00	55.88	C
ATOM	4506	C6	C A 219	94.622	54.807	10.163	1.00	37.10	C	ATOM	4556	O4*	U A 222	95.256	51.891	-4.665	1.00	55.88	O
ATOM	4507	P	G A 220	99.159	57.354	8.172	1.00	73.02	P	ATOM	4557	C3*	U A 222	96.491	52.915	-6.370	1.00	55.88	C
ATOM	4508	O1P	G A 220	100.529	57.901	8.045	1.00	58.44	O	ATOM	4558	O3*	U A 222	97.269	52.649	-7.523	1.00	55.88	O
ATOM	4509	O2P	G A 220	98.003	58.272	8.186	1.00	58.44	O	ATOM	4559	C2*	U A 222	95.015	53.153	-6.663	1.00	55.88	C
ATOM	4510	O5*	G A 220	98.884	56.261	7.034	1.00	73.02	O	ATOM	4560	O2*	U A 222	94.515	52.263	-7.640	1.00	55.88	O
ATOM	4511	C5*	G A 220	99.817	55.182	6.840	1.00	73.02	C	ATOM	4561	C1*	U A 222	94.384	52.793	-5.320	1.00	55.88	C
ATOM	4512	C4*	G A 220	99.207	54.028	6.068	1.00	73.02	C	ATOM	4562	N1	U A 222	94.165	53.942	-4.427	1.00	52.25	N
ATOM	4513	O4*	G A 220	98.007	53.525	6.714	1.00	73.02	O	ATOM	4563	C2	U A 222	93.057	54.740	-4.654	1.00	52.25	C
ATOM	4514	C3*	G A 220	98.757	54.208	4.628	1.00	73.02	C	ATOM	4564	O2	U A 222	92.284	54.560	-5.579	1.00	52.25	O
ATOM	4515	O3*	G A 220	99.833	54.217	3.693	1.00	73.02	O	ATOM	4565	N3	U A 222	92.890	55.762	-3.757	1.00	52.25	N
ATOM	4516	C2*	G A 220	97.943	52.936	4.420	1.00	73.02	C	ATOM	4566	C4	U A 222	93.700	56.070	-2.689	1.00	52.25	C
ATOM	4517	O2*	G A 220	98.769	51.825	4.155	1.00	73.02	O	ATOM	4567	O4	U A 222	93.418	57.034	-1.975	1.00	52.25	O
ATOM	4518	C1*	G A 220	97.288	52.732	5.785	1.00	73.02	C	ATOM	4568	C5	U A 222	94.833	55.213	-2.531	1.00	52.25	C
ATOM	4519	N9	G A 220	95.903	53.177	5.685	1.00	58.44	N	ATOM	4569	C6	U A 222	95.024	54.208	-3.383	1.00	52.25	C
ATOM	4520	C8	G A 220	95.316	54.292	6.231	1.00	58.44	C	ATOM	4570	P	U A 223	98.151	53.825	-8.176	1.00	59.26	P
ATOM	4521	N7	G A 220	94.080	54.459	5.841	1.00	58.44	N	ATOM	4571	O1P	U A 223	99.086	53.145	-9.114	1.00	51.88	O
ATOM	4522	C5	G A 220	93.832	53.375	5.007	1.00	58.44	C	ATOM	4572	O2P	U A 223	98.688	54.687	-7.100	1.00	51.88	O
ATOM	4523	C6	G A 220	92.672	53.026	4.256	1.00	58.44	C	ATOM	4573	O5*	U A 223	97.092	54.659	-9.019	1.00	59.26	O
ATOM	4524	O6	G A 220	91.594	53.627	4.168	1.00	58.44	O	ATOM	4574	C5*	U A 223	96.372	54.019	-10.080	1.00	59.26	C
ATOM	4525	N1	G A 220	92.858	51.846	3.549	1.00	58.44	N	ATOM	4575	C4*	U A 223	95.253	54.895	-10.573	1.00	59.26	C
ATOM	4526	C2	G A 220	94.001	51.096	3.558	1.00	58.44	C	ATOM	4576	O4*	U A 223	94.161	54.913	-9.623	1.00	59.26	O
ATOM	4527	N2	G A 220	93.974	49.982	2.825	1.00	58.44	N	ATOM	4577	C3*	U A 223	95.588	56.356	-10.784	1.00	59.26	C
ATOM	4528	N3	G A 220	95.088	51.412	4.236	1.00	58.44	N	ATOM	4578	O3*	U A 223	96.287	56.580	-12.003	1.00	59.26	O
ATOM	4529	C4	G A 220	94.935	52.559	4.931	1.00	58.44	C	ATOM	4579	C2*	U A 223	94.209	56.994	-10.753	1.00	59.26	C
ATOM	4530	P	C A 221	99.573	54.698	2.170	1.00	50.66	P	ATOM	4580	O2*	U A 223	93.529	56.788	-11.977	1.00	59.26	O
ATOM	4531	O1P	C A 221	100.912	54.743	1.534	1.00	57.06	O	ATOM	4581	C1*	U A 223	93.519	56.174	-9.663	1.00	59.26	C
ATOM	4532	O2P	C A 221	98.699	55.900	2.135	1.00	57.06	O	ATOM	4582	N1	U A 223	93.653	56.816	-8.344	1.00	51.88	N
ATOM	4533	O5*	C A 221	98.738	53.527	1.495	1.00	50.66	O	ATOM	4583	C2	U A 223	92.733	57.793	-8.004	1.00	51.88	C
ATOM	4534	C5*	C A 221	99.311	52.236	1.294	1.00	50.66	C	ATOM	4584	O2	U A 223	91.789	58.090	-8.709	1.00	51.88	O
ATOM	4535	O4*	C A 221	98.397	51.408	0.443	1.00	50.66	C	ATOM	4585	N3	U A 223	92.955	58.407	-6.799	1.00	51.88	N
ATOM	4536	C4*	C A 221	97.127	51.240	1.123	1.00	50.66	C	ATOM	4586	C4	U A 223	93.965	58.137	-5.909	1.00	51.88	C
ATOM	4537	C3*	C A 221	98.034	52.061	-0.871	1.00	50.66	C	ATOM	4587	O4	U A 223	94.051	58.799	-4.874	1.00	51.88	O
ATOM	4538	O3*	C A 221	99.031	51.828	-1.845	1.00	50.66	O	ATOM	4588	C5	U A 223	94.851	57.092	-6.311	1.00	51.88	C
ATOM	4539	C2*	C A 221	96.688	51.431	-1.204	1.00	50.66	C	ATOM	4589	C6	U A 223	94.669	56.483	-7.484	1.00	51.88	C
ATOM	4540	O2*	C A 221	96.804	50.149	-1.787	1.00	50.66	O	ATOM	4590	P	C A 224	97.397	57.749	-12.077	1.00	67.45	P
ATOM	4541	C1*	C A 221	96.063	51.296	0.184	1.00	50.66	C	ATOM	4591	O1P	C A 224	98.157	57.495	-13.336	1.00	43.30	O
ATOM	4542	N1	C A 221	95.173	52.433	0.525	1.00	57.06	N	ATOM	4592	O2P	C A 224	98.132	57.853	-10.782	1.00	43.30	O
ATOM	4543	C2	C A 221	93.963	52.582	-0.187	1.00	57.06	C	ATOM	4593	O5*	C A 224	96.514	59.068	-12.222	1.00	67.45	O
ATOM	4544	O2	C A 221	93.657	51.735	-1.050	1.00	57.06	O	ATOM	4594	C5*	C A 224	95.503	59.152	-13.239	1.00	67.45	C
ATOM	4545	N3	C A 221	93.161	53.641	0.085	1.00	57.06	N	ATOM	4595	C4*	C A 224	94.559	60.301	-12.969	1.00	67.45	C
ATOM	4546	C4	C A 221	93.513	54.523	1.026	1.00	57.06	C	ATOM	4596	O4*	C A 224	93.731	60.033	-11.810	1.00	67.45	O
ATOM	4547	N4	C A 221	92.694	55.557	1.244	1.00	57.06	N	ATOM	4597	C3*	C A 224	95.165	61.663	-12.681	1.00	67.45	C



Table 1: Sheet 48/521

ATOM	4598	O3*	C A 224	95.598	62.318	-13.863	1.00	67.45	O	ATOM	4648	N1	G A 226	98.521	68.590	-4.022	1.00	53.18	N
ATOM	4599	O2*	C A 224	94.007	62.386	-12.005	1.00	67.45	C	ATOM	4649	C2	G A 226	97.850	69.779	-4.124	1.00	53.18	C
ATOM	4600	O2*	C A 224	93.054	62.885	-12.923	1.00	67.45	O	ATOM	4650	N2	G A 226	97.749	70.493	-3.013	1.00	53.18	N
ATOM	4601	C1*	C A 224	93.369	61.257	-11.200	1.00	67.45	C	ATOM	4651	N3	G A 226	97.316	70.235	-5.240	1.00	53.18	N
ATOM	4602	N1	C A 224	93.856	61.259	-9.819	1.00	43.30	N	ATOM	4652	C4	G A 226	97.497	69.388	-6.272	1.00	53.18	C
ATOM	4603	C2	C A 224	93.318	62.190	-8.918	1.00	43.30	C	ATOM	4653	P	G A 227	99.958	73.318	-9.769	1.00	56.58	P
ATOM	4604	O2	C A 224	92.427	62.963	-9.308	1.00	43.30	C	ATOM	4654	O1P	G A 227	100.262	74.539	-10.549	1.00	53.10	O
ATOM	4605	N3	C A 224	93.783	62.230	-7.651	1.00	43.30	N	ATOM	4655	O2P	G A 227	100.709	72.061	-10.049	1.00	53.10	O
ATOM	4606	C4	C A 224	94.748	61.397	-7.270	1.00	43.30	C	ATOM	4656	O5*	G A 227	100.112	73.628	-8.215	1.00	56.58	O
ATOM	4607	N4	C A 224	95.199	61.504	-6.028	1.00	43.30	N	ATOM	4657	C5*	G A 227	99.420	74.723	-7.617	1.00	56.58	C
ATOM	4608	C5	C A 224	95.300	60.426	-8.155	1.00	43.30	C	ATOM	4658	C4*	G A 227	99.527	74.637	-6.124	1.00	56.58	C
ATOM	4609	C6	C A 224	94.828	60.391	-9.410	1.00	43.30	C	ATOM	4659	O4*	G A 227	99.078	73.324	-5.706	1.00	56.58	O
ATOM	4610	P	C A 225	96.819	63.362	-13.788	1.00	64.72	P	ATOM	4660	C3*	G A 227	100.934	74.723	-5.566	1.00	56.58	C
ATOM	4611	O1P	C A 225	97.253	63.588	-15.202	1.00	61.67	O	ATOM	4661	O3*	G A 227	101.362	76.057	-5.406	1.00	56.58	O
ATOM	4612	O2P	C A 225	97.803	62.896	-12.788	1.00	61.67	O	ATOM	4662	C2*	G A 227	100.815	74.000	-4.231	1.00	56.58	C
ATOM	4613	O5*	C A 225	96.161	64.686	-13.186	1.00	64.72	O	ATOM	4663	O2*	G A 227	100.275	74.792	-3.199	1.00	56.58	O
ATOM	4614	C5*	C A 225	95.143	65.398	-13.910	1.00	64.72	C	ATOM	4664	C1*	G A 227	99.805	72.911	-4.559	1.00	56.58	C
ATOM	4615	C4*	C A 225	94.524	66.467	-13.042	1.00	64.72	C	ATOM	4665	N9	G A 227	100.449	71.626	-4.816	1.00	53.10	N
ATOM	4616	O4*	C A 225	93.878	65.855	-11.898	1.00	64.72	O	ATOM	4666	C8	G A 227	100.545	70.942	-6.006	1.00	53.10	C
ATOM	4617	C3*	C A 225	95.473	67.479	-12.429	1.00	64.72	C	ATOM	4667	N7	G A 227	101.156	69.794	-5.887	1.00	53.10	N
ATOM	4618	O3*	C A 225	95.813	68.524	-13.325	1.00	64.72	O	ATOM	4668	C5	G A 227	101.487	69.718	-4.541	1.00	53.10	C
ATOM	4619	C2*	C A 225	94.683	67.987	-11.233	1.00	64.72	C	ATOM	4669	C6	G A 227	102.143	68.698	-3.814	1.00	53.10	C
ATOM	4620	O2*	C A 225	93.723	68.960	-11.583	1.00	64.72	O	ATOM	4670	O6	G A 227	102.558	67.615	-4.223	1.00	53.10	O
ATOM	4621	C1*	C A 225	93.967	66.718	-10.779	1.00	64.72	C	ATOM	4671	N1	G A 227	102.287	69.035	-2.470	1.00	53.10	N
ATOM	4622	N1	C A 225	94.720	66.040	-9.710	1.00	61.67	N	ATOM	4672	C2	G A 227	101.843	70.202	-1.896	1.00	53.10	C
ATOM	4623	C2	C A 225	94.731	66.613	-8.431	1.00	61.67	C	ATOM	4673	N2	G A 227	102.063	70.343	-0.588	1.00	53.10	N
ATOM	4624	O2	C A 225	94.086	67.659	-8.233	1.00	61.67	O	ATOM	4674	N3	G A 227	101.222	71.159	-2.562	1.00	53.10	N
ATOM	4625	N3	C A 225	95.444	66.018	-7.448	1.00	61.67	N	ATOM	4675	C4	G A 227	101.076	70.850	-3.871	1.00	53.10	C
ATOM	4626	C4	C A 225	96.125	64.898	-7.701	1.00	61.67	C	ATOM	4676	P	A A 228	102.915	76.405	-5.585	1.00	59.24	P
ATOM	4627	N4	C A 225	96.828	64.353	-6.702	1.00	61.67	N	ATOM	4677	O1P	A A 228	103.082	77.862	-5.316	1.00	46.07	O
ATOM	4628	C5	C A 225	96.120	64.287	-8.988	1.00	61.67	C	ATOM	4678	O2P	A A 228	103.356	75.837	-6.882	1.00	46.07	O
ATOM	4629	C6	C A 225	95.410	64.883	-9.953	1.00	61.67	C	ATOM	4679	O5*	A A 228	103.624	75.612	-4.406	1.00	59.24	O
ATOM	4630	P	G A 226	97.283	69.175	-13.253	1.00	73.08	P	ATOM	4680	C5*	A A 228	103.436	76.031	-3.050	1.00	59.24	C
ATOM	4631	O1P	G A 226	97.372	70.122	-14.401	1.00	53.18	O	ATOM	4681	C4*	A A 228	104.122	75.082	-2.110	1.00	59.24	C
ATOM	4632	O2P	G A 226	98.260	68.072	-13.145	1.00	53.18	O	ATOM	4682	O4*	A A 228	103.511	73.769	-2.213	1.00	59.24	O
ATOM	4633	O5*	G A 226	97.300	69.963	-11.864	1.00	73.08	O	ATOM	4683	C3*	A A 228	105.586	74.821	-2.397	1.00	59.24	C
ATOM	4634	C5*	G A 226	96.444	71.088	-11.677	1.00	73.08	C	ATOM	4684	O3*	A A 228	106.437	75.849	-1.925	1.00	59.24	O
ATOM	4635	C4*	G A 226	96.468	71.564	-10.246	1.00	73.08	C	ATOM	4685	C2*	A A 228	105.804	73.476	-1.714	1.00	59.24	C
ATOM	4636	O4*	G A 226	95.898	70.572	-9.355	1.00	73.08	O	ATOM	4686	O2*	A A 228	105.926	73.569	-0.302	1.00	59.24	O
ATOM	4637	C3*	G A 226	97.801	71.872	-9.592	1.00	73.08	C	ATOM	4687	C1*	A A 228	104.497	72.762	-2.043	1.00	59.24	C
ATOM	4638	O3*	G A 226	98.379	73.097	-9.982	1.00	73.08	O	ATOM	4688	N9	A A 228	104.608	71.998	-3.289	1.00	46.07	N
ATOM	4639	C2*	G A 226	97.419	71.912	-8.120	1.00	73.08	C	ATOM	4689	C8	A A 228	104.308	72.411	-4.572	1.00	46.07	C
ATOM	4640	O2*	G A 226	96.813	73.132	-7.747	1.00	73.08	O	ATOM	4690	N7	A A 228	104.516	71.493	-5.489	1.00	46.07	N
ATOM	4641	C1*	G A 226	96.394	70.788	-8.041	1.00	73.08	C	ATOM	4691	C5	A A 228	104.985	70.403	-4.764	1.00	46.07	C
ATOM	4642	N9	G A 226	97.071	69.591	-7.562	1.00	53.18	N	ATOM	4692	C6	A A 228	105.381	69.114	-5.153	1.00	46.07	C
ATOM	4643	C8	G A 226	97.449	68.480	-8.275	1.00	53.18	C	ATOM	4693	N6	A A 228	105.377	68.693	-6.421	1.00	46.07	N
ATOM	4644	N7	G A 226	98.099	67.607	-7.552	1.00	53.18	N	ATOM	4694	N1	A A 228	105.791	68.263	-4.185	1.00	46.07	N
ATOM	4645	C5	G A 226	98.141	68.173	-6.284	1.00	53.18	C	ATOM	4695	C2	A A 228	105.808	68.695	-2.919	1.00	46.07	C
ATOM	4646	C6	G A 226	98.725	67.697	-5.069	1.00	53.18	C	ATOM	4696	N3	A A 228	105.465	69.881	-2.428	1.00	46.07	N
ATOM	4647	O6	G A 226	99.350	66.647	-4.868	1.00	53.18	O	ATOM	4697	C4	A A 228	105.052	70.700	-3.411	1.00	46.07	C



Table 1: Sheet 49/521

ATOM	4698	P	U A 229	107.758	76.227	-2.765	1.00	57.16	P	ATOM	4748	C3*	G A 231	118.104	68.940	-9.029	1.00	41.26	C
ATOM	4699	O1P	U A 229	108.275	77.455	-2.105	1.00	32.20	O	ATOM	4749	O3*	G A 231	119.428	68.553	-9.372	1.00	41.26	O
ATOM	4700	O2P	U A 229	107.468	76.222	-4.240	1.00	32.20	O	ATOM	4750	C2*	G A 231	117.090	68.084	-9.771	1.00	41.26	C
ATOM	4701	O5*	U A 229	108.777	75.048	-2.448	1.00	57.16	O	ATOM	4751	O2*	G A 231	117.473	66.728	-9.812	1.00	41.26	O
ATOM	4702	C5*	U A 229	109.090	74.730	-1.089	1.00	57.16	C	ATOM	4752	C1*	G A 231	115.844	68.241	-8.901	1.00	41.26	C
ATOM	4703	O4*	U A 229	109.752	73.382	-0.994	1.00	57.16	C	ATOM	4753	N9	G A 231	114.974	69.259	-9.483	1.00	44.23	N
ATOM	4704	C4*	U A 229	108.827	72.318	-1.328	1.00	57.16	C	ATOM	4754	C8	G A 231	114.634	70.493	-8.978	1.00	44.23	C
ATOM	4705	C3*	U A 229	110.915	73.154	-1.933	1.00	57.16	C	ATOM	4755	N7	G A 231	113.923	71.208	-9.810	1.00	44.23	N
ATOM	4706	O3*	U A 229	112.098	73.776	-1.479	1.00	57.16	O	ATOM	4756	C5	G A 231	113.770	70.386	-10.920	1.00	44.23	C
ATOM	4707	C2*	U A 229	111.005	71.638	-1.955	1.00	57.16	C	ATOM	4757	C6	G A 231	112.124	70.621	-12.164	1.00	44.23	C
ATOM	4708	O2*	U A 229	111.616	71.134	-0.787	1.00	57.16	O	ATOM	4758	O6	G A 231	112.565	71.658	-12.571	1.00	44.23	O
ATOM	4709	C1*	U A 229	109.530	71.256	-1.948	1.00	57.16	C	ATOM	4759	N1	G A 231	113.191	69.500	-12.986	1.00	44.23	N
ATOM	4710	N1	U A 229	109.059	71.116	-3.333	1.00	32.20	N	ATOM	4760	C2	G A 231	113.817	68.325	-12.667	1.00	44.23	C
ATOM	4711	C2	U A 229	109.275	69.897	-3.967	1.00	32.20	C	ATOM	4761	N2	G A 231	113.769	67.358	-13.582	1.00	44.23	N
ATOM	4712	O2	U A 229	109.776	68.938	-3.397	1.00	32.20	O	ATOM	4762	N3	G A 231	114.443	68.109	-11.534	1.00	44.23	N
ATOM	4713	N3	U A 229	108.886	69.845	-5.288	1.00	32.20	N	ATOM	4763	C4	G A 231	114.381	69.170	-10.714	1.00	44.23	C
ATOM	4714	C4	U A 229	108.315	70.863	-6.023	1.00	32.20	C	ATOM	4764	P	G A 232	120.176	69.270	-10.622	1.00	42.66	P
ATOM	4715	O4	U A 229	108.137	70.713	-7.231	1.00	32.20	O	ATOM	4765	O1P	G A 232	121.624	68.955	-10.443	1.00	46.21	O
ATOM	4716	C5	U A 229	108.089	72.075	-5.289	1.00	32.20	C	ATOM	4766	O2P	G A 232	119.758	70.699	-10.753	1.00	46.21	O
ATOM	4717	C6	U A 229	108.456	72.158	-4.001	1.00	32.20	C	ATOM	4767	O5*	G A 232	119.598	68.515	-11.908	1.00	42.66	O
ATOM	4718	P	G A 230	113.199	74.233	-2.551	1.00	60.13	P	ATOM	4768	C5*	G A 232	119.769	67.099	-12.080	1.00	42.66	C
ATOM	4719	O1P	G A 230	114.215	74.965	-1.749	1.00	36.75	O	ATOM	4769	C4*	G A 232	119.231	66.663	-13.421	1.00	42.66	C
ATOM	4720	O2P	G A 230	112.538	74.898	-3.720	1.00	36.75	O	ATOM	4770	O4*	G A 232	117.790	66.811	-13.452	1.00	42.66	O
ATOM	4721	O5*	G A 230	113.810	72.856	-3.065	1.00	60.13	O	ATOM	4771	C3*	G A 232	119.717	67.459	-14.613	1.00	42.66	C
ATOM	4722	C5*	G A 230	114.537	72.007	-2.169	1.00	60.13	C	ATOM	4772	O3*	G A 232	120.967	66.998	-15.082	1.00	42.66	O
ATOM	4723	C4*	G A 230	114.810	70.678	-2.816	1.00	60.13	C	ATOM	4773	C2*	G A 232	118.611	67.241	-15.634	1.00	42.66	C
ATOM	4724	O4*	G A 230	113.553	70.003	-3.086	1.00	60.13	O	ATOM	4774	O2*	G A 232	118.742	66.003	-16.288	1.00	42.66	O
ATOM	4725	C3*	G A 230	115.488	70.735	-4.172	1.00	60.13	C	ATOM	4775	C1*	G A 232	117.372	67.207	-14.745	1.00	42.66	C
ATOM	4726	O3*	G A 230	116.887	70.914	-4.106	1.00	60.13	O	ATOM	4776	N9	G A 232	116.764	68.524	-14.624	1.00	46.21	N
ATOM	4727	C3*	G A 230	115.103	69.399	-4.779	1.00	60.13	C	ATOM	4777	C8	G A 232	116.922	69.395	-13.579	1.00	46.21	C
ATOM	4728	O2*	G A 230	115.900	68.347	-4.294	1.00	60.13	O	ATOM	4778	N7	G A 232	116.281	70.515	-13.743	1.00	46.21	N
ATOM	4729	C1*	G A 230	113.668	69.246	-4.280	1.00	60.13	C	ATOM	4779	C5	G A 232	115.656	70.374	-14.974	1.00	46.21	C
ATOM	4730	N9	G A 230	112.792	69.825	-5.293	1.00	36.75	N	ATOM	4780	O6	G A 232	114.812	71.278	-15.688	1.00	46.21	O
ATOM	4731	C8	G A 230	112.209	71.070	-5.292	1.00	36.75	C	ATOM	4781	O6	G A 232	114.437	72.426	-15.357	1.00	46.21	O
ATOM	4732	N7	G A 230	111.572	71.329	-6.400	1.00	36.75	N	ATOM	4782	N1	G A 232	114.394	70.729	-16.894	1.00	46.21	N
ATOM	4733	C5	G A 230	111.731	70.183	-7.168	1.00	36.75	C	ATOM	4783	C2	G A 232	114.733	69.481	-17.351	1.00	46.21	C
ATOM	4734	C6	G A 230	111.286	69.883	-8.483	1.00	36.75	C	ATOM	4784	N2	G A 232	114.211	69.138	-18.534	1.00	46.21	N
ATOM	4735	O6	G A 230	110.675	70.607	-9.273	1.00	36.75	O	ATOM	4785	N3	G A 232	115.515	68.637	-16.700	1.00	46.21	N
ATOM	4736	N1	G A 230	111.635	68.594	-8.861	1.00	36.75	N	ATOM	4786	C4	G A 232	115.938	69.146	-15.527	1.00	46.21	C
ATOM	4737	C2	G A 230	112.338	67.714	-8.087	1.00	36.75	C	ATOM	4787	P	C A 233	121.979	68.036	-15.759	1.00	39.34	P
ATOM	4738	N2	G A 230	112.538	66.499	-8.609	1.00	36.75	N	ATOM	4788	O1P	C A 233	123.170	67.288	-16.206	1.00	39.49	O
ATOM	4739	N3	G A 230	112.798	67.998	-6.881	1.00	36.75	N	ATOM	4789	O2P	C A 233	122.126	69.164	-14.804	1.00	39.49	O
ATOM	4740	C4	G A 230	112.452	69.237	-6.487	1.00	36.75	C	ATOM	4790	O5*	C A 233	121.215	68.524	-17.065	1.00	39.34	O
ATOM	4741	P	G A 231	117.618	71.788	-5.243	1.00	41.26	P	ATOM	4791	C5*	C A 233	120.952	67.593	-18.112	1.00	39.34	C
ATOM	4742	O1P	G A 231	119.006	71.977	-4.734	1.00	44.23	O	ATOM	4792	C4*	C A 233	120.081	68.213	-19.168	1.00	39.34	C
ATOM	4743	O2P	G A 231	116.795	72.977	-5.565	1.00	44.23	O	ATOM	4793	O4*	C A 233	118.749	68.457	-18.646	1.00	39.34	O
ATOM	4744	O5*	G A 231	117.602	70.853	-6.540	1.00	41.26	O	ATOM	4794	C3*	C A 233	120.518	69.564	-19.687	1.00	39.34	C
ATOM	4745	C5*	G A 231	118.246	69.572	-6.502	1.00	41.26	C	ATOM	4795	O3*	C A 233	121.555	69.463	-20.635	1.00	39.34	O
ATOM	4746	C4*	G A 231	117.739	68.654	-7.589	1.00	41.26	C	ATOM	4796	C2*	C A 233	119.221	70.102	-20.274	1.00	39.34	C
ATOM	4747	O4*	G A 231	116.286	68.656	-7.620	1.00	41.26	O	ATOM	4797	O2*	C A 233	118.909	69.488	-21.505	1.00	39.34	O



Table 1: Sheet 50/521

ATOM	4798	CI*	C A 233	118.213	69.638	-19.228	1.00	39.34	C	ATOM	4848	OlP	G A 236	125.248	80.817	-26.937	1.00	33.99	O
ATOM	4799	N1	C A 233	118.093	70.660	-18.171	1.00	39.49	N	ATOM	4849	O2P	G A 236	125.336	80.034	-24.483	1.00	33.99	O
ATOM	4800	C2	C A 233	117.413	71.848	-18.454	1.00	39.49	C	ATOM	4850	O5*	G A 236	124.191	82.163	-25.051	1.00	42.74	O
ATOM	4801	O2	C A 233	116.900	71.997	-19.573	1.00	39.49	O	ATOM	4851	C5*	G A 236	123.626	83.147	-25.938	1.00	42.74	C
ATOM	4802	N3	C A 233	117.335	72.803	-17.506	1.00	39.49	N	ATOM	4852	C4*	G A 236	123.526	84.482	-25.239	1.00	42.74	C
ATOM	4803	C4	C A 233	117.906	72.611	-16.321	1.00	39.49	C	ATOM	4853	O4*	G A 236	122.585	84.400	-24.143	1.00	42.74	O
ATOM	4804	N4	C A 233	117.823	73.586	-15.428	1.00	39.49	N	ATOM	4854	C3*	G A 236	124.807	84.956	-24.593	1.00	42.74	C
ATOM	4805	C5	C A 233	118.590	71.411	-16.000	1.00	39.49	C	ATOM	4855	O3*	G A 236	125.620	85.618	-25.528	1.00	42.74	O
ATOM	4806	C6	C A 233	118.656	70.469	-16.940	1.00	39.49	C	ATOM	4856	C2*	G A 236	124.310	85.884	-23.501	1.00	42.74	C
ATOM	4807	P	C A 234	122.598	70.674	-20.788	1.00	41.79	P	ATOM	4857	O2*	G A 236	123.945	87.152	-24.010	1.00	42.74	O
ATOM	4808	OlP	C A 234	123.619	70.147	-21.712	1.00	32.76	O	ATOM	4858	CI*	G A 236	123.052	85.157	-23.039	1.00	42.74	C
ATOM	4809	O2P	C A 234	123.002	71.219	-19.461	1.00	32.76	O	ATOM	4859	N9	G A 236	123.308	84.227	-21.944	1.00	33.99	N
ATOM	4810	O5*	C A 234	121.783	71.779	-21.582	1.00	41.79	O	ATOM	4860	C8	G A 236	123.451	82.864	-22.054	1.00	33.99	C
ATOM	4811	C5*	C A 234	121.272	71.474	-22.885	1.00	41.79	C	ATOM	4861	N7	G A 236	123.652	82.276	-20.914	1.00	33.99	N
ATOM	4812	C4*	C A 234	120.434	72.608	-23.401	1.00	41.79	C	ATOM	4862	C5	G A 236	123.644	83.310	-19.991	1.00	33.99	C
ATOM	4813	O4*	C A 234	119.262	72.786	-22.573	1.00	41.79	O	ATOM	4863	C6	G A 236	123.805	83.280	-18.569	1.00	33.99	C
ATOM	4814	C3*	C A 234	121.099	73.967	-23.387	1.00	41.79	C	ATOM	4864	O6	G A 236	123.967	82.284	-17.817	1.00	33.99	O
ATOM	4815	O3*	C A 234	121.969	74.117	-24.489	1.00	41.79	O	ATOM	4865	N1	G A 236	123.752	84.559	-18.029	1.00	33.99	N
ATOM	4816	C2*	C A 234	119.903	74.900	-23.417	1.00	41.79	C	ATOM	4866	C2	G A 236	123.555	85.709	-18.748	1.00	33.99	C
ATOM	4817	O2*	C A 234	119.326	74.974	-24.711	1.00	41.79	O	ATOM	4867	N2	G A 236	123.523	86.844	-18.028	1.00	33.99	N
ATOM	4818	CI*	C A 234	118.938	74.162	-22.494	1.00	41.79	C	ATOM	4868	N3	G A 236	123.397	85.748	-20.068	1.00	33.99	N
ATOM	4819	N1	C A 234	119.110	74.581	-21.098	1.00	32.76	N	ATOM	4869	C4	G A 236	123.449	84.523	-20.616	1.00	33.99	C
ATOM	4820	C2	C A 234	118.690	75.869	-20.705	1.00	32.76	C	ATOM	4870	P	C A 237	127.200	85.376	-25.495	1.00	45.60	P
ATOM	4821	O2	C A 234	118.130	76.607	-21.532	1.00	32.76	O	ATOM	4871	OlP	C A 237	127.717	86.024	-26.746	1.00	29.24	O
ATOM	4822	N3	C A 234	118.903	76.270	-19.435	1.00	32.76	N	ATOM	4872	O2P	C A 237	127.435	83.927	-25.273	1.00	29.24	O
ATOM	4823	C4	C A 234	119.500	75.447	-18.569	1.00	32.76	C	ATOM	4873	O5*	C A 237	127.670	86.141	-24.176	1.00	45.60	O
ATOM	4824	N4	C A 234	119.735	75.899	-17.331	1.00	32.76	N	ATOM	4874	C5*	C A 237	127.488	87.550	-24.069	1.00	45.60	C
ATOM	4825	C5	C A 234	119.898	74.123	-18.933	1.00	32.76	C	ATOM	4875	C4*	C A 237	127.599	87.995	-22.639	1.00	45.60	C
ATOM	4826	C6	C A 234	119.687	73.739	-20.192	1.00	32.76	C	ATOM	4876	O4*	C A 237	126.546	87.396	-21.846	1.00	45.60	O
ATOM	4827	P	C A 235	123.351	74.899	-24.293	1.00	43.61	P	ATOM	4877	C3*	C A 237	128.855	87.604	-21.899	1.00	45.60	C
ATOM	4828	OlP	C A 235	124.169	74.529	-25.485	1.00	42.42	O	ATOM	4878	O3*	C A 237	129.951	88.408	-22.237	1.00	45.60	O
ATOM	4829	O2P	C A 235	123.886	74.637	-22.912	1.00	42.42	O	ATOM	4879	C2*	C A 237	128.429	87.725	-20.440	1.00	45.60	C
ATOM	4830	O5*	C A 235	122.908	76.433	-24.390	1.00	43.61	O	ATOM	4880	O2*	C A 237	128.389	89.038	-19.937	1.00	45.60	O
ATOM	4831	C5*	C A 235	122.214	76.922	-25.554	1.00	43.61	C	ATOM	4881	CI*	C A 237	126.997	87.215	-20.509	1.00	45.60	C
ATOM	4832	C4*	C A 235	121.603	78.277	-25.289	1.00	43.61	C	ATOM	4882	N1	C A 237	126.949	85.783	-20.156	1.00	29.24	N
ATOM	4833	O4*	C A 235	120.610	78.181	-24.242	1.00	43.61	O	ATOM	4883	C2	C A 237	126.967	85.438	-18.810	1.00	29.24	C
ATOM	4834	C3*	C A 235	122.535	79.368	-24.805	1.00	43.61	C	ATOM	4884	O2	C A 237	127.007	86.342	-17.969	1.00	29.24	O
ATOM	4835	O3*	C A 235	123.219	79.981	-25.867	1.00	43.61	O	ATOM	4885	N3	C A 237	126.951	84.133	-18.459	1.00	29.24	N
ATOM	4836	C2*	C A 235	121.581	80.340	-24.127	1.00	43.61	C	ATOM	4886	C4	C A 237	126.928	83.192	-19.400	1.00	29.24	C
ATOM	4837	O2*	C A 235	120.886	81.189	-25.023	1.00	43.61	O	ATOM	4887	N4	C A 237	126.940	81.928	-19.013	1.00	29.24	N
ATOM	4838	CI*	C A 235	120.584	79.382	-23.491	1.00	43.61	C	ATOM	4888	C5	C A 237	126.897	83.511	-20.782	1.00	29.24	C
ATOM	4839	N1	C A 235	120.965	79.088	-22.098	1.00	42.42	N	ATOM	4889	C6	C A 237	126.907	84.807	-21.116	1.00	29.24	C
ATOM	4840	C2	C A 235	120.746	80.071	-21.122	1.00	42.42	C	ATOM	4890	P	G A 238	131.401	87.736	-22.325	1.00	36.54	P
ATOM	4841	O2	C A 235	120.255	81.162	-21.464	1.00	42.42	O	ATOM	4891	OlP	G A 238	132.268	88.735	-22.983	1.00	33.91	O
ATOM	4842	N3	C A 235	121.075	79.813	-19.840	1.00	42.42	N	ATOM	4892	O2P	G A 238	131.264	86.386	-22.922	1.00	33.91	O
ATOM	4843	C4	C A 235	121.600	78.633	-19.513	1.00	42.42	C	ATOM	4893	O5*	G A 238	131.838	87.591	-20.802	1.00	36.54	O
ATOM	4844	N4	C A 235	121.892	78.413	-18.230	1.00	42.42	N	ATOM	4894	C5*	G A 238	132.023	88.763	-20.006	1.00	36.54	C
ATOM	4845	C5	C A 235	121.848	77.622	-20.486	1.00	42.42	C	ATOM	4895	C4*	G A 238	132.255	88.403	-18.570	1.00	36.54	C
ATOM	4846	C6	C A 235	121.521	77.889	-21.753	1.00	42.42	C	ATOM	4896	O4*	G A 238	131.075	87.757	-18.033	1.00	36.54	O
ATOM	4847	P	G A 236	124.613	80.719	-25.583	1.00	42.74	P	ATOM	4897	C3*	G A 238	133.375	87.420	-18.302	1.00	36.54	C



Table 1: Sheet 51/521

ATOM	4898	O3*	G A 238	134.652	88.043	-18.292	1.00	36.54	O	ATOM	4948	N3	C A 240	144.359	78.904	-16.696	1.00	36.18	N
ATOM	4899	C2*	G A 238	132.982	86.845	-16.946	1.00	36.54	C	ATOM	4949	C4	C A 240	143.284	79.006	-17.484	1.00	36.18	C
ATOM	4900	O2*	G A 238	133.356	87.713	-15.890	1.00	36.54	O	ATOM	4950	N4	C A 240	142.957	77.966	-18.251	1.00	36.18	N
ATOM	4901	Cl*	G A 238	131.455	86.786	-17.067	1.00	36.54	C	ATOM	4951	C5	C A 240	142.493	80.179	-17.518	1.00	36.18	C
ATOM	4902	N9	G A 238	130.978	85.480	-17.522	1.00	33.91	N	ATOM	4952	C6	C A 240	142.850	81.188	-16.717	1.00	36.18	C
ATOM	4903	C8	G A 238	130.565	85.145	-18.792	1.00	33.91	C	ATOM	4953	P	C A 241	145.584	85.555	-18.040	1.00	50.32	P
ATOM	4904	N7	G A 238	130.225	83.892	-18.907	1.00	33.91	N	ATOM	4954	O1P	C A 241	145.991	86.975	-18.140	1.00	40.09	O
ATOM	4905	C5	G A 238	130.416	83.368	-17.635	1.00	33.91	C	ATOM	4955	O2P	C A 241	144.638	84.975	-19.045	1.00	40.09	O
ATOM	4906	C6	G A 238	130.212	82.050	-17.144	1.00	33.91	C	ATOM	4956	O5*	C A 241	146.900	84.658	-18.010	1.00	50.32	O
ATOM	4907	O6	G A 238	129.845	81.045	-17.772	1.00	33.91	O	ATOM	4957	C5*	C A 241	147.967	84.953	-17.103	1.00	50.32	C
ATOM	4908	N1	G A 238	130.499	81.957	-17.784	1.00	33.91	N	ATOM	4958	C4*	C A 241	149.074	83.943	-17.260	1.00	50.32	C
ATOM	4909	C2	G A 238	130.945	82.989	-15.006	1.00	33.91	C	ATOM	4959	O4*	C A 241	148.596	82.634	-16.868	1.00	50.32	O
ATOM	4910	N2	G A 238	131.160	82.706	-13.718	1.00	33.91	N	ATOM	4960	C3*	C A 241	149.595	83.748	-18.669	1.00	50.32	C
ATOM	4911	N3	G A 238	131.163	84.218	-15.456	1.00	33.91	N	ATOM	4961	O3*	C A 241	150.565	84.732	-18.993	1.00	50.32	O
ATOM	4912	C4	G A 238	130.872	84.336	-16.768	1.00	33.91	C	ATOM	4962	C2*	C A 241	150.169	82.339	-18.614	1.00	50.32	C
ATOM	4913	P	U A 239	135.924	87.232	-18.847	1.00	57.75	P	ATOM	4963	O2*	C A 241	151.426	82.289	-17.978	1.00	50.32	O
ATOM	4914	O1P	U A 239	137.112	88.123	-18.758	1.00	42.85	O	ATOM	4964	Cl*	C A 241	149.178	81.641	-17.690	1.00	50.32	C
ATOM	4915	O2P	U A 239	135.558	86.612	-20.151	1.00	42.85	O	ATOM	4965	N1	C A 241	148.097	80.948	-18.410	1.00	40.09	N
ATOM	4916	O5*	U A 239	136.119	86.074	-17.775	1.00	57.75	O	ATOM	4966	C2	C A 241	148.381	79.756	-19.076	1.00	40.09	C
ATOM	4917	C5*	U A 239	136.596	86.374	-16.457	1.00	57.75	C	ATOM	4967	O2	C A 241	149.546	79.342	-19.086	1.00	40.09	O
ATOM	4918	C4*	U A 239	136.785	85.102	-15.670	1.00	57.75	C	ATOM	4968	N3	C A 241	147.382	79.093	-19.703	1.00	40.09	N
ATOM	4919	O4*	U A 239	135.498	84.486	-15.422	1.00	57.75	O	ATOM	4969	C4	C A 241	146.145	79.594	-19.697	1.00	40.09	C
ATOM	4920	C3*	U A 239	137.603	84.016	-16.344	1.00	57.75	C	ATOM	4970	N4	C A 241	145.183	78.916	-20.324	1.00	40.09	N
ATOM	4921	O3*	U A 239	138.999	84.219	-16.152	1.00	57.75	O	ATOM	4971	C5	C A 241	145.835	80.818	-19.048	1.00	40.09	C
ATOM	4922	C2*	U A 239	137.114	82.756	-15.644	1.00	57.75	C	ATOM	4972	C6	C A 241	146.829	81.455	-18.422	1.00	40.09	C
ATOM	4923	O2*	U A 239	137.736	82.591	-14.392	1.00	57.75	O	ATOM	4973	P	C A 242	150.632	85.307	-20.491	1.00	51.38	P
ATOM	4924	Cl*	U A 239	135.639	83.080	-15.409	1.00	57.75	C	ATOM	4974	O1P	C A 242	151.498	86.501	-20.453	1.00	47.53	O
ATOM	4925	N1	U A 239	134.753	82.505	-16.433	1.00	42.85	N	ATOM	4975	O2P	C A 242	149.258	85.419	-21.049	1.00	47.53	O
ATOM	4926	C2	U A 239	134.065	81.352	-16.113	1.00	42.85	C	ATOM	4976	O5*	C A 242	151.391	84.158	-21.279	1.00	51.38	O
ATOM	4927	O2	U A 239	134.116	80.832	-15.006	1.00	42.85	O	ATOM	4977	C5*	C A 242	152.699	83.762	-20.879	1.00	51.38	C
ATOM	4928	N3	U A 239	133.301	80.831	-17.128	1.00	42.85	N	ATOM	4978	C4*	C A 242	153.137	82.572	-21.669	1.00	51.38	C
ATOM	4929	O4	U A 239	133.139	81.343	-18.392	1.00	42.85	O	ATOM	4979	O4*	C A 242	152.399	81.404	-21.246	1.00	51.38	O
ATOM	4930	O4	U A 239	132.388	80.770	-19.197	1.00	42.85	O	ATOM	4980	C3*	C A 242	152.873	82.651	-23.158	1.00	51.38	C
ATOM	4931	C5	U A 239	133.860	82.552	-18.631	1.00	42.85	C	ATOM	4981	O3*	C A 242	153.859	83.397	-23.838	1.00	51.38	O
ATOM	4932	C6	U A 239	134.622	83.077	-17.670	1.00	42.85	C	ATOM	4982	C2*	C A 242	152.865	81.188	-23.573	1.00	51.38	C
ATOM	4933	P	C A 240	140.006	84.103	-17.406	1.00	57.26	P	ATOM	4983	O2*	C A 242	154.173	80.683	-23.777	1.00	51.38	O
ATOM	4934	O1P	C A 240	140.083	85.452	-18.028	1.00	36.18	O	ATOM	4984	Cl*	C A 242	152.233	80.526	-22.348	1.00	51.38	C
ATOM	4935	O2P	C A 240	139.621	82.927	-18.238	1.00	36.18	O	ATOM	4985	N1	C A 242	150.800	80.256	-22.538	1.00	47.53	N
ATOM	4936	O5*	C A 240	141.413	83.834	-16.720	1.00	57.26	O	ATOM	4986	C2	C A 242	150.417	79.036	-23.091	1.00	47.53	C
ATOM	4937	C5*	C A 240	141.877	84.695	-15.676	1.00	57.26	C	ATOM	4987	O2	C A 242	151.288	78.216	-23.378	1.00	47.53	O
ATOM	4938	C4*	C A 240	143.242	84.261	-15.215	1.00	57.26	C	ATOM	4988	N3	C A 242	149.107	78.784	-23.303	1.00	47.53	N
ATOM	4939	O4*	C A 240	143.147	82.923	-14.676	1.00	57.26	O	ATOM	4989	C4	C A 242	148.195	79.705	-22.990	1.00	47.53	C
ATOM	4940	C3*	C A 240	144.295	84.144	-16.300	1.00	57.26	C	ATOM	4990	N4	C A 242	146.920	79.440	-23.250	1.00	47.53	N
ATOM	4941	O3*	C A 240	144.944	85.355	-16.588	1.00	57.26	O	ATOM	4991	C5	C A 242	148.555	80.948	-22.406	1.00	47.53	C
ATOM	4942	C2*	C A 240	145.267	83.152	-15.707	1.00	57.26	C	ATOM	4992	C6	C A 242	149.858	81.181	-22.197	1.00	47.53	C
ATOM	4943	O2*	C A 240	146.095	83.780	-14.758	1.00	57.26	O	ATOM	4993	P	A A 243	153.431	84.281	-25.101	1.00	39.47	P
ATOM	4944	Cl*	C A 240	144.316	82.196	-15.003	1.00	57.26	C	ATOM	4994	O1P	A A 243	154.677	84.849	-25.667	1.00	40.15	O
ATOM	4945	N1	C A 240	143.938	81.092	-15.895	1.00	36.18	N	ATOM	4995	O2P	A A 243	152.317	85.178	-24.708	1.00	40.15	O
ATOM	4946	C2	C A 240	144.710	79.944	-15.888	1.00	36.18	C	ATOM	4996	O5*	A A 243	152.871	83.212	-26.123	1.00	39.47	O
ATOM	4947	O2	C A 240	145.708	79.904	-15.139	1.00	36.18	O	ATOM	4997	C5*	A A 243	153.700	82.133	-26.525	1.00	39.47	C



ATOM	4998	C4*	A	A	243	153.554	81.896	-27.993	1.00	39.47	C	ATOM	5048	C2	C	A	245	149.201	77.023	-28.320	1.00	44.62	C
ATOM	4999	O4*	A	A	243	152.245	81.341	-28.247	1.00	39.47	O	ATOM	5049	O2	C	A	245	148.634	76.139	-28.982	1.00	44.62	O
ATOM	5000	C3*	A	A	243	153.671	83.120	-28.884	1.00	39.47	C	ATOM	5050	N3	C	A	245	148.520	78.064	-27.795	1.00	44.62	N
ATOM	5001	O3*	A	A	243	154.976	83.606	-29.248	1.00	39.47	O	ATOM	5051	C4	C	A	245	149.162	78.991	-27.089	1.00	44.62	C
ATOM	5002	C2*	A	A	243	152.306	83.305	-29.572	1.00	39.47	C	ATOM	5052	N4	C	A	245	148.450	80.006	-26.612	1.00	44.62	N
ATOM	5003	O2*	A	A	243	152.315	83.560	-30.961	1.00	39.47	O	ATOM	5053	C5	C	A	245	150.565	78.918	-26.848	1.00	44.62	C
ATOM	5004	C1*	A	A	243	151.710	81.905	-29.420	1.00	39.47	C	ATOM	5054	C6	C	A	245	151.232	77.882	-27.377	1.00	44.62	C
ATOM	5005	N9	A	A	243	150.253	81.808	-29.332	1.00	40.15	N	ATOM	5055	P	A	A	246	153.262	77.199	-32.904	1.00	49.94	P
ATOM	5006	C8	A	A	243	149.353	82.672	-28.779	1.00	40.15	C	ATOM	5056	O1P	A	A	246	154.087	76.600	-33.977	1.00	37.03	O
ATOM	5007	N7	A	A	243	148.107	82.287	-28.906	1.00	40.15	N	ATOM	5057	O2P	A	A	246	153.540	78.567	-32.439	1.00	37.03	O
ATOM	5008	C5	A	A	243	148.197	81.084	-29.583	1.00	40.15	C	ATOM	5058	O5*	A	A	246	151.735	77.205	-33.347	1.00	49.94	O
ATOM	5009	C6	A	A	243	147.230	80.187	-30.038	1.00	40.15	C	ATOM	5059	C5*	A	A	246	151.100	76.011	-33.800	1.00	49.94	C
ATOM	5010	N6	A	A	243	145.933	80.372	-29.893	1.00	40.15	N	ATOM	5060	C4*	A	A	246	150.125	76.320	-34.908	1.00	49.94	C
ATOM	5011	N1	A	A	243	147.649	79.077	-30.667	1.00	40.15	N	ATOM	5061	O4*	A	A	246	148.958	77.012	-34.394	1.00	49.94	O
ATOM	5012	C2	A	A	243	148.961	78.895	-30.837	1.00	40.15	C	ATOM	5062	C3*	A	A	246	150.632	77.143	-36.088	1.00	49.94	C
ATOM	5013	N3	A	A	243	149.968	79.671	-30.466	1.00	40.15	N	ATOM	5063	O3*	A	A	246	150.013	76.607	-37.233	1.00	49.94	O
ATOM	5014	C4	A	A	243	149.511	80.767	-29.836	1.00	40.15	C	ATOM	5064	C2*	A	A	246	149.978	78.502	-35.873	1.00	49.94	C
ATOM	5015	P	U	A	244	155.761	83.010	-30.521	1.00	43.12	P	ATOM	5065	O2*	A	A	246	149.679	79.166	-37.084	1.00	49.94	O
ATOM	5016	O1P	U	A	244	156.940	83.885	-30.719	1.00	48.78	O	ATOM	5066	C1*	A	A	246	148.655	78.083	-35.250	1.00	49.94	C
ATOM	5017	O2P	U	A	244	154.843	82.752	-31.644	1.00	48.78	O	ATOM	5067	N9	A	A	246	147.948	79.121	-34.511	1.00	37.03	N
ATOM	5018	O5*	U	A	244	156.295	81.599	-30.052	1.00	43.12	O	ATOM	5068	C8	A	A	246	148.441	80.129	-33.719	1.00	37.03	C
ATOM	5019	C5*	U	A	244	156.452	81.319	-28.685	1.00	43.12	C	ATOM	5069	N7	A	A	246	147.516	80.926	-33.245	1.00	37.03	N
ATOM	5020	C4*	U	A	244	156.892	79.906	-28.508	1.00	43.12	C	ATOM	5070	C5	A	A	246	146.336	80.396	-33.748	1.00	37.03	C
ATOM	5021	O4*	U	A	244	158.214	79.778	-29.078	1.00	43.12	O	ATOM	5071	C6	A	A	246	144.999	80.783	-33.618	1.00	37.03	C
ATOM	5022	C3*	U	A	244	157.002	79.537	-27.043	1.00	43.12	C	ATOM	5072	N6	A	A	246	144.597	81.842	-32.908	1.00	37.03	N
ATOM	5023	O3*	U	A	244	156.613	78.183	-26.863	1.00	43.12	O	ATOM	5073	N1	A	A	246	144.071	80.040	-34.255	1.00	37.03	N
ATOM	5024	C2*	U	A	244	158.473	79.782	-26.736	1.00	43.12	C	ATOM	5074	C2	A	A	246	144.472	78.983	-34.968	1.00	37.03	C
ATOM	5025	O2*	U	A	244	158.968	79.009	-25.655	1.00	43.12	O	ATOM	5075	N3	A	A	246	145.694	78.519	-35.160	1.00	37.03	N
ATOM	5026	C1*	U	A	244	159.134	79.435	-28.070	1.00	43.12	C	ATOM	5076	C4	A	A	246	146.590	79.280	-34.519	1.00	37.03	C
ATOM	5027	N1	U	A	244	160.374	80.187	-28.301	1.00	48.78	N	ATOM	5077	P	G	A	247	150.897	75.986	-38.406	1.00	49.41	P
ATOM	5028	O2	U	A	244	161.571	79.563	-28.000	1.00	48.78	O	ATOM	5078	O1P	G	A	247	151.489	74.723	-37.861	1.00	40.25	O
ATOM	5029	C2	U	A	244	161.641	78.431	-27.542	1.00	48.78	C	ATOM	5079	O2P	G	A	247	151.787	77.052	-38.925	1.00	40.25	O
ATOM	5030	N3	U	A	244	162.687	80.318	-28.239	1.00	48.78	N	ATOM	5080	O5*	G	A	247	149.783	75.646	-39.500	1.00	49.41	O
ATOM	5031	C4	U	A	244	162.733	81.603	-28.715	1.00	48.78	C	ATOM	5081	C5*	G	A	247	148.893	74.512	-39.330	1.00	49.41	C
ATOM	5032	O4	U	A	244	163.819	82.144	-28.861	1.00	48.78	O	ATOM	5082	C4*	G	A	247	148.124	74.635	-38.030	1.00	49.41	C
ATOM	5033	C5	U	A	244	161.465	82.184	-28.995	1.00	48.78	C	ATOM	5083	O4*	G	A	247	147.322	75.843	-38.065	1.00	49.41	O
ATOM	5034	C6	U	A	244	160.354	81.472	-28.791	1.00	48.78	C	ATOM	5084	C3*	G	A	247	147.117	73.542	-37.713	1.00	49.41	C
ATOM	5035	P	C	A	245	155.073	77.843	-26.543	1.00	48.88	P	ATOM	5085	O3*	G	A	247	147.679	72.378	-37.132	1.00	49.41	O
ATOM	5036	O1P	C	A	245	154.459	79.039	-25.898	1.00	44.62	O	ATOM	5086	C2*	G	A	247	146.198	74.244	-36.737	1.00	49.41	C
ATOM	5037	O2P	C	A	245	155.024	76.521	-25.842	1.00	44.62	O	ATOM	5087	O2*	G	A	247	146.799	74.333	-35.466	1.00	49.41	O
ATOM	5038	O5*	C	A	245	154.418	77.678	-27.987	1.00	48.88	O	ATOM	5088	C1*	G	A	247	146.113	75.630	-37.363	1.00	49.41	C
ATOM	5039	C5*	C	A	245	154.795	76.580	-28.824	1.00	48.88	C	ATOM	5089	N9	G	A	247	145.008	75.687	-38.318	1.00	40.25	N
ATOM	5040	C4*	C	A	245	153.576	75.853	-29.312	1.00	48.88	C	ATOM	5090	C8	G	A	247	145.083	75.784	-39.687	1.00	40.25	C
ATOM	5041	O4*	C	A	245	152.624	75.746	-28.225	1.00	48.88	O	ATOM	5091	N7	G	A	247	143.912	75.798	-40.269	1.00	40.25	N
ATOM	5042	C3*	C	A	245	152.805	76.532	-30.426	1.00	48.88	C	ATOM	5092	C5	G	A	247	143.007	75.705	-39.219	1.00	40.25	C
ATOM	5043	O3*	C	A	245	153.344	76.172	-31.680	1.00	48.88	O	ATOM	5093	C6	G	A	247	141.582	75.677	-39.223	1.00	40.25	C
ATOM	5044	C2*	C	A	245	151.403	75.965	-30.258	1.00	48.88	C	ATOM	5094	O6	G	A	247	140.808	75.740	-40.187	1.00	40.25	O
ATOM	5045	O2*	C	A	245	151.238	74.707	-30.866	1.00	48.88	O	ATOM	5095	N1	G	A	247	141.073	75.570	-37.936	1.00	40.25	N
ATOM	5046	C1*	C	A	245	151.308	75.808	-28.741	1.00	48.88	C	ATOM	5096	C2	G	A	247	141.826	75.514	-36.790	1.00	40.25	C
ATOM	5047	N1	C	A	245	150.584	76.934	-28.119	1.00	44.62	N	ATOM	5097	N2	G	A	247	141.154	75.437	-35.641	1.00	40.25	N



Table 1: Sheet 53/521

ATOM	5098	N3	G A 247	143.144	75.540	-36.769	1.00	40.25	N	ATOM	5148	O3*	A A 250	136.831	59.664	-36.274	1.00	75.86	O
ATOM	5099	C4	G A 247	143.667	75.637	-38.009	1.00	40.25	C	ATOM	5149	C2*	A A 250	135.880	60.695	-38.443	1.00	75.86	C
ATOM	5100	F	C A 248	146.951	70.955	-37.352	1.00	53.63	P	ATOM	5150	O2*	A A 250	134.850	59.725	-38.484	1.00	75.86	O
ATOM	5101	O1P	C A 248	147.811	69.925	-36.705	1.00	51.41	O	ATOM	5151	C1*	A A 250	135.259	62.090	-38.595	1.00	75.86	C
ATOM	5102	O2P	C A 248	146.581	70.817	-38.786	1.00	51.41	O	ATOM	5152	C8	A A 250	135.876	63.072	-39.482	1.00	89.04	N
ATOM	5103	O5*	C A 248	145.614	71.057	-36.497	1.00	53.63	O	ATOM	5153	N9	A A 250	136.894	63.948	-39.170	1.00	89.04	C
ATOM	5104	C5*	C A 248	145.682	71.078	-35.073	1.00	53.63	C	ATOM	5154	N7	A A 250	137.139	64.833	-40.107	1.00	89.04	N
ATOM	5105	C4*	C A 248	144.306	70.977	-34.475	1.00	53.63	C	ATOM	5155	C5	A A 250	136.249	64.499	-41.121	1.00	89.04	C
ATOM	5106	O4*	C A 248	143.538	72.151	-34.835	1.00	53.63	O	ATOM	5156	C6	A A 250	135.994	65.073	-42.388	1.00	89.04	C
ATOM	5107	O3*	C A 248	143.434	69.821	-34.929	1.00	53.63	C	ATOM	5157	N6	A A 250	136.627	66.155	-42.856	1.00	89.04	N
ATOM	5108	C3*	C A 248	143.715	68.588	-34.282	1.00	53.63	C	ATOM	5158	N1	A A 250	135.047	64.488	-43.160	1.00	89.04	N
ATOM	5109	C2*	C A 248	142.048	70.332	-34.581	1.00	53.63	C	ATOM	5159	C2	A A 250	134.402	63.405	-42.682	1.00	89.04	C
ATOM	5110	O2*	C A 248	141.804	70.209	-33.195	1.00	53.63	O	ATOM	5160	N3	A A 250	134.546	62.782	-41.506	1.00	89.04	N
ATOM	5111	C1*	C A 248	142.169	71.808	-34.944	1.00	53.63	C	ATOM	5161	C4	A A 250	135.492	63.388	-40.763	1.00	89.04	C
ATOM	5112	N1	C A 248	141.720	72.056	-36.327	1.00	51.41	N	ATOM	5162	P	G A 251	135.585	58.869	-35.592	1.00	84.60	P
ATOM	5113	C2	C A 248	140.352	72.059	-36.595	1.00	51.41	C	ATOM	5163	O1P	G A 251	136.082	58.288	-34.303	1.00	62.41	O
ATOM	5114	O2	C A 248	139.562	71.909	-35.658	1.00	51.41	O	ATOM	5164	O2P	G A 251	134.970	57.977	-36.620	1.00	62.41	O
ATOM	5115	N3	C A 248	139.923	72.229	-37.865	1.00	51.41	N	ATOM	5165	O5*	G A 251	134.500	59.961	-35.176	1.00	84.60	O
ATOM	5116	C4	C A 248	140.806	72.414	-38.842	1.00	51.41	C	ATOM	5166	C5*	G A 251	133.568	59.686	-34.111	1.00	84.60	C
ATOM	5117	N4	C A 248	140.345	72.565	-40.082	1.00	51.41	N	ATOM	5167	C4*	G A 251	132.708	60.895	-33.826	1.00	84.60	C
ATOM	5118	C5	C A 248	142.203	72.448	-38.594	1.00	51.41	C	ATOM	5168	O4*	G A 251	131.799	61.126	-34.927	1.00	84.60	O
ATOM	5119	C6	C A 248	142.614	72.263	-37.335	1.00	51.41	C	ATOM	5169	C3*	G A 251	131.845	60.780	-32.571	1.00	84.60	C
ATOM	5120	P	U A 249	143.413	67.207	-35.057	1.00	59.20	P	ATOM	5170	O3*	G A 251	131.744	62.051	-31.920	1.00	84.60	O
ATOM	5121	O1P	U A 249	143.728	66.117	-34.108	1.00	44.01	O	ATOM	5171	C2*	G A 251	130.477	60.389	-33.127	1.00	84.60	C
ATOM	5122	O2P	U A 249	144.039	67.216	-36.406	1.00	44.01	O	ATOM	5172	O2*	G A 251	129.414	60.805	-32.293	1.00	84.60	O
ATOM	5123	O5*	U A 249	141.838	67.235	-35.278	1.00	59.20	O	ATOM	5173	C1*	G A 251	130.469	61.142	-34.455	1.00	84.60	C
ATOM	5124	C5*	U A 249	140.953	67.321	-34.152	1.00	59.20	C	ATOM	5174	N9	G A 251	129.632	60.603	-35.519	1.00	62.41	N
ATOM	5125	C4*	U A 249	139.517	67.267	-34.598	1.00	59.20	C	ATOM	5175	C8	G A 251	129.633	59.321	-36.015	1.00	62.41	C
ATOM	5126	O4*	U A 249	139.158	68.479	-35.298	1.00	59.20	O	ATOM	5176	N7	G A 251	128.889	59.185	-37.081	1.00	62.41	N
ATOM	5127	C3*	U A 249	139.148	66.149	-35.553	1.00	59.20	C	ATOM	5177	C5	G A 251	128.341	60.448	-37.283	1.00	62.41	C
ATOM	5128	O3*	U A 249	138.937	64.937	-34.846	1.00	59.20	O	ATOM	5178	C6	G A 251	127.487	60.934	-38.315	1.00	62.41	C
ATOM	5129	C2*	U A 249	137.879	66.682	-36.207	1.00	59.20	C	ATOM	5179	O6	G A 251	127.064	60.333	-39.319	1.00	62.41	O
ATOM	5130	O2*	U A 249	136.713	66.469	-35.434	1.00	59.20	O	ATOM	5180	N1	G A 251	127.146	62.268	-38.112	1.00	62.41	N
ATOM	5131	C1*	U A 249	138.672	68.581	-37.591	1.00	44.01	N	ATOM	5181	C2	G A 251	127.579	63.042	-37.074	1.00	62.41	C
ATOM	5132	N1	U A 249	137.726	68.861	-38.562	1.00	44.01	C	ATOM	5182	N2	G A 251	127.111	64.296	-37.047	1.00	62.41	N
ATOM	5133	C2	U A 249	136.524	68.854	-38.339	1.00	44.01	O	ATOM	5183	N3	G A 251	128.402	62.618	-36.130	1.00	62.41	N
ATOM	5134	O2	U A 249	138.241	69.147	-39.802	1.00	44.01	O	ATOM	5184	C4	G A 251	128.743	61.319	-36.296	1.00	62.41	C
ATOM	5135	N3	U A 249	139.569	69.188	-40.160	1.00	44.01	C	ATOM	5185	P	U A 252	133.052	62.979	-31.740	1.00	55.50	P
ATOM	5136	C4	U A 249	139.856	69.274	-41.344	1.00	44.01	O	ATOM	5186	O1P	U A 252	134.244	62.110	-31.647	1.00	45.49	O
ATOM	5137	O4	U A 249	139.856	69.274	-41.344	1.00	44.01	O	ATOM	5187	O2P	U A 252	132.797	63.957	-30.654	1.00	45.49	O
ATOM	5138	C5	U A 249	140.489	68.938	-39.094	1.00	44.01	C	ATOM	5188	O5*	U A 252	133.111	63.785	-33.117	1.00	55.50	O
ATOM	5139	C6	U A 249	140.023	68.648	-37.875	1.00	44.01	C	ATOM	5189	C5*	U A 252	134.127	64.759	-33.310	1.00	55.50	C
ATOM	5140	P	A A 250	139.238	63.537	-35.566	1.00	75.86	P	ATOM	5190	C4*	U A 252	133.899	65.578	-34.559	1.00	55.50	C
ATOM	5141	O1P	A A 250	139.515	62.554	-34.485	1.00	89.04	O	ATOM	5191	O4*	U A 252	134.166	64.814	-35.752	1.00	55.50	O
ATOM	5142	O2P	A A 250	140.233	63.743	-36.650	1.00	89.04	O	ATOM	5192	C3*	U A 252	132.565	66.246	-34.848	1.00	55.50	C
ATOM	5143	O5*	A A 250	137.853	63.184	-36.256	1.00	75.86	O	ATOM	5193	O3*	U A 252	132.403	67.426	-34.053	1.00	55.50	O
ATOM	5144	C5*	A A 250	136.729	62.733	-35.478	1.00	75.86	C	ATOM	5194	O2*	U A 252	132.750	66.640	-36.318	1.00	55.50	C
ATOM	5145	C4*	A A 250	135.840	61.876	-36.335	1.00	75.86	C	ATOM	5195	O2*	U A 252	133.497	67.835	-36.467	1.00	55.50	O
ATOM	5146	O4*	A A 250	135.187	62.699	-37.323	1.00	75.86	O	ATOM	5196	C1*	U A 252	133.633	65.510	-36.856	1.00	55.50	C
ATOM	5147	C3*	A A 250	136.616	60.825	-37.106	1.00	75.86	C	ATOM	5197	N1	U A 252	132.945	64.570	-37.753	1.00	45.49	N



Table 1: Sheet 54/521

ATOM	5198	C2	U A 252	132.824	64.939	-39.085	1.00	45.49	C	ATOM	5248	P	G A 255	120.313	69.000	-37.833	1.00	48.14	P
ATOM	5199	O2	U A 252	133.258	65.995	-39.526	1.00	45.49	O	ATOM	5249	O1P	G A 255	119.153	69.818	-37.408	1.00	58.95	O
ATOM	5200	N3	U A 252	132.177	64.026	-39.884	1.00	45.49	N	ATOM	5250	O2P	G A 255	120.893	68.000	-36.897	1.00	58.95	O
ATOM	5201	C4	U A 252	131.658	62.811	-39.503	1.00	45.49	C	ATOM	5251	O5*	G A 255	119.899	68.228	-39.160	1.00	48.14	O
ATOM	5202	O4	U A 252	131.102	62.102	-40.342	1.00	45.49	O	ATOM	5252	C5*	G A 255	119.503	68.948	-40.332	1.00	48.14	C
ATOM	5203	C5	U A 252	131.822	62.501	-38.114	1.00	45.49	C	ATOM	5253	C4*	G A 255	119.297	67.995	-41.479	1.00	48.14	C
ATOM	5204	C6	U A 252	132.439	63.370	-37.305	1.00	45.49	C	ATOM	5254	O4*	G A 255	120.544	67.333	-41.790	1.00	48.14	C
ATOM	5205	P	U A 253	130.935	67.890	-37.571	1.00	43.66	P	ATOM	5255	C3*	G A 255	118.330	66.858	-41.211	1.00	48.14	C
ATOM	5206	O1P	U A 253	131.178	69.000	-32.601	1.00	41.16	O	ATOM	5256	O3*	G A 255	116.986	67.251	-41.427	1.00	48.14	O
ATOM	5207	O2P	U A 253	130.146	66.710	-33.151	1.00	41.16	O	ATOM	5257	C2*	G A 255	118.775	65.790	-42.195	1.00	48.14	C
ATOM	5208	O5*	U A 253	130.259	68.504	-34.871	1.00	43.66	O	ATOM	5258	O2*	G A 255	118.246	65.968	-43.489	1.00	48.14	O
ATOM	5209	C5*	U A 253	130.315	69.908	-35.089	1.00	43.66	C	ATOM	5259	C1*	G A 255	120.282	66.019	-42.237	1.00	48.14	C
ATOM	5210	C4*	U A 253	129.551	70.284	-36.318	1.00	43.66	C	ATOM	5260	N9	G A 255	121.001	65.078	-41.392	1.00	58.95	N
ATOM	5211	O4*	U A 253	130.252	69.825	-37.497	1.00	43.66	O	ATOM	5261	C8	G A 255	121.609	65.321	-40.186	1.00	58.95	C
ATOM	5212	C3*	U A 253	128.167	69.699	-36.489	1.00	43.66	C	ATOM	5262	N7	G A 255	122.191	64.266	-39.688	1.00	58.95	N
ATOM	5213	O3*	U A 253	127.194	70.351	-35.716	1.00	43.66	O	ATOM	5263	C5	G A 255	121.946	63.268	-40.621	1.00	58.95	C
ATOM	5214	C2*	U A 253	127.947	69.900	-37.978	1.00	43.66	C	ATOM	5264	C6	G A 255	122.332	61.908	-40.633	1.00	58.95	C
ATOM	5215	O2*	U A 253	127.672	71.248	-38.311	1.00	43.66	O	ATOM	5265	O6	G A 255	122.997	61.292	-39.807	1.00	58.95	O
ATOM	5216	C1*	U A 253	129.321	69.543	-38.523	1.00	43.66	C	ATOM	5266	N1	G A 255	121.862	61.250	-41.760	1.00	58.95	N
ATOM	5217	N1	U A 253	129.335	68.102	-38.795	1.00	41.16	N	ATOM	5267	C2	G A 255	121.121	61.824	-42.751	1.00	58.95	C
ATOM	5218	O2	U A 253	128.872	67.700	-40.022	1.00	41.16	O	ATOM	5268	N2	G A 255	120.756	61.010	-43.748	1.00	58.95	N
ATOM	5219	C2	U A 253	128.532	68.485	-40.882	1.00	41.16	C	ATOM	5269	N3	G A 255	120.762	63.096	-42.763	1.00	58.95	N
ATOM	5220	N3	U A 253	128.818	66.347	-40.207	1.00	41.16	N	ATOM	5270	C4	G A 255	121.206	63.752	-41.671	1.00	58.95	C
ATOM	5221	C4	U A 253	129.186	65.368	-39.306	1.00	41.16	C	ATOM	5271	P	U A 256	115.826	66.618	-40.515	1.00	59.21	P
ATOM	5222	O4	U A 253	128.992	64.180	-39.593	1.00	41.16	O	ATOM	5272	O1P	U A 256	114.577	67.372	-40.815	1.00	68.29	O
ATOM	5223	C5	U A 253	129.695	65.865	-38.059	1.00	41.16	C	ATOM	5273	O2P	U A 256	116.333	66.563	-39.118	1.00	68.29	O
ATOM	5224	C6	U A 253	129.753	67.182	-37.854	1.00	41.16	C	ATOM	5274	O5*	U A 256	115.681	65.128	-41.067	1.00	59.21	O
ATOM	5225	P	G A 254	125.851	69.572	-35.321	1.00	42.49	P	ATOM	5275	C5*	U A 256	115.028	64.875	-42.325	1.00	59.21	C
ATOM	5226	O1P	G A 254	125.163	70.509	-34.415	1.00	45.74	O	ATOM	5276	C4*	U A 256	115.032	63.400	-42.636	1.00	59.21	C
ATOM	5227	O2P	G A 254	126.138	68.192	-34.878	1.00	45.74	O	ATOM	5277	O4*	U A 256	116.396	62.958	-42.844	1.00	59.21	O
ATOM	5228	O5*	G A 254	125.016	69.531	-36.669	1.00	42.49	O	ATOM	5278	C3*	U A 256	114.507	62.474	-41.553	1.00	59.21	C
ATOM	5229	C5*	G A 254	124.392	70.731	-37.123	1.00	42.49	C	ATOM	5279	O3*	U A 256	113.098	62.349	-41.546	1.00	59.21	O
ATOM	5230	C4*	G A 254	123.854	70.550	-38.499	1.00	42.49	C	ATOM	5280	C2*	U A 256	115.173	61.154	-41.899	1.00	59.21	C
ATOM	5231	O4*	G A 254	124.928	70.081	-39.343	1.00	42.49	O	ATOM	5281	O2*	U A 256	114.485	60.473	-42.929	1.00	59.21	O
ATOM	5232	C3*	G A 254	122.764	69.505	-38.644	1.00	42.49	C	ATOM	5282	C1*	U A 256	116.539	61.622	-42.392	1.00	59.21	C
ATOM	5233	O3*	G A 254	121.469	70.014	-38.313	1.00	42.49	O	ATOM	5283	N1	U A 256	117.522	61.602	-41.301	1.00	68.29	N
ATOM	5234	C2*	G A 254	122.904	69.125	-40.112	1.00	42.49	C	ATOM	5284	C2	U A 256	118.165	60.409	-41.041	1.00	68.29	C
ATOM	5235	O2*	G A 254	122.294	70.062	-40.982	1.00	42.49	O	ATOM	5285	O2	U A 256	117.973	59.395	-41.698	1.00	68.29	O
ATOM	5236	C1*	G A 254	124.424	69.165	-40.288	1.00	42.49	C	ATOM	5286	N3	U A 256	119.043	60.444	-39.982	1.00	68.29	N
ATOM	5237	N9	G A 254	124.960	67.850	-39.970	1.00	45.74	N	ATOM	5287	C4	U A 256	119.343	61.532	-39.181	1.00	68.29	C
ATOM	5238	C8	G A 254	125.599	67.458	-38.815	1.00	45.74	C	ATOM	5288	O4	U A 256	120.142	61.402	-38.253	1.00	68.29	O
ATOM	5239	N7	G A 254	125.843	66.175	-38.777	1.00	45.74	N	ATOM	5289	C5	U A 256	118.651	62.733	-39.526	1.00	68.29	C
ATOM	5240	C5	G A 254	125.354	65.698	-39.989	1.00	45.74	C	ATOM	5290	C6	U A 256	117.786	62.729	-40.549	1.00	68.29	C
ATOM	5241	C6	G A 254	125.292	64.377	-40.504	1.00	45.74	C	ATOM	5291	P	G A 257	112.352	61.976	-40.172	1.00	78.78	P
ATOM	5242	O6	G A 254	125.648	63.325	-39.968	1.00	45.74	O	ATOM	5292	O1P	G A 257	110.898	62.155	-40.414	1.00	67.37	O
ATOM	5243	N1	G A 254	124.732	64.351	-41.776	1.00	45.74	N	ATOM	5293	O2P	G A 257	113.007	62.718	-39.061	1.00	67.37	O
ATOM	5244	C2	G A 254	124.278	65.449	-42.461	1.00	45.74	C	ATOM	5294	O5*	G A 257	112.686	60.428	-39.956	1.00	78.78	O
ATOM	5245	N2	G A 254	123.794	65.224	-43.683	1.00	45.74	N	ATOM	5295	C5*	G A 257	112.216	59.418	-40.883	1.00	78.78	C
ATOM	5246	N3	G A 254	124.303	66.677	-41.986	1.00	45.74	N	ATOM	5296	C4*	G A 257	112.841	58.071	-40.571	1.00	78.78	C
ATOM	5247	C4	G A 254	124.848	66.728	-40.752	1.00	45.74	C	ATOM	5297	O4*	G A 257	114.278	58.151	-40.758	1.00	78.78	O



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ATOM	5298	C3*	G A 257	112.684	57.571	-39.144	1.00	78.78	C	ATOM	5348	C1*	G A 259	117.241	53.562	-29.957	1.00	73.19	C
ATOM	5299	O3*	G A 257	111.465	56.902	-38.898	1.00	78.78	O	ATOM	5349	N9	G A 259	116.991	55.001	-30.027	1.00	64.52	N
ATOM	5300	C2*	G A 257	113.859	56.621	-38.989	1.00	78.78	C	ATOM	5350	C8	G A 259	116.010	55.631	-30.754	1.00	64.52	C
ATOM	5301	O2*	G A 257	113.604	55.345	-39.538	1.00	78.78	O	ATOM	5351	N7	G A 259	116.038	56.928	-30.636	1.00	64.52	N
ATOM	5302	C1*	G A 257	114.936	57.336	-39.798	1.00	78.78	C	ATOM	5352	C5	G A 259	117.099	57.173	-29.779	1.00	64.52	C
ATOM	5303	N9	G A 257	115.736	58.187	-38.919	1.00	67.37	N	ATOM	5353	C6	G A 259	117.613	58.398	-29.285	1.00	64.52	C
ATOM	5304	C8	G A 257	115.624	59.548	-38.740	1.00	67.37	C	ATOM	5354	O6	G A 259	117.216	59.549	-29.514	1.00	64.52	O
ATOM	5305	N7	G A 257	116.467	60.019	-37.861	1.00	67.37	N	ATOM	5355	N1	G A 259	118.697	58.193	-28.443	1.00	64.52	N
ATOM	5306	C5	G A 257	117.184	58.907	-37.439	1.00	67.37	C	ATOM	5356	C2	G A 259	119.217	56.968	-28.114	1.00	64.52	C
ATOM	5307	C6	G A 257	118.240	58.797	-36.493	1.00	67.37	C	ATOM	5357	N2	G A 259	120.264	56.976	-27.283	1.00	64.52	N
ATOM	5308	O6	G A 257	118.764	59.686	-35.818	1.00	67.37	O	ATOM	5358	N3	G A 259	118.746	55.819	-28.566	1.00	64.52	N
ATOM	5309	N1	G A 257	118.680	57.483	-36.368	1.00	67.37	N	ATOM	5359	C4	G A 259	117.695	55.995	-29.389	1.00	64.52	C
ATOM	5310	C2	G A 257	118.165	56.409	-37.053	1.00	67.37	C	ATOM	5360	P	G A 260	114.304	51.368	-26.831	1.00	55.76	P
ATOM	5311	N2	G A 257	118.704	55.214	-36.777	1.00	67.37	N	ATOM	5361	O1P	G A 260	114.188	50.018	-26.214	1.00	77.06	O
ATOM	5312	N3	G A 257	117.185	56.499	-37.940	1.00	67.37	N	ATOM	5362	O2P	G A 260	113.073	52.106	-27.210	1.00	77.06	O
ATOM	5313	C4	G A 257	116.747	57.769	-38.082	1.00	67.37	C	ATOM	5363	O5*	G A 260	115.169	52.313	-25.877	1.00	55.76	O
ATOM	5314	P	G A 258	110.854	56.909	-37.413	1.00	76.02	P	ATOM	5364	C5*	G A 260	116.417	51.866	-25.317	1.00	55.76	C
ATOM	5315	O1P	G A 258	109.654	56.041	-37.528	1.00	65.32	O	ATOM	5365	C4*	G A 260	117.100	52.990	-24.565	1.00	55.76	C
ATOM	5316	O2P	G A 258	110.695	58.320	-36.979	1.00	65.32	O	ATOM	5366	O4*	G A 260	117.626	53.980	-25.489	1.00	55.76	O
ATOM	5317	O5*	G A 258	111.973	56.225	-36.484	1.00	76.02	O	ATOM	5367	C3*	G A 260	116.215	53.783	-23.623	1.00	55.76	C
ATOM	5318	C5*	G A 258	112.197	54.801	-36.548	1.00	76.02	C	ATOM	5368	O3*	G A 260	116.065	53.174	-22.354	1.00	55.76	O
ATOM	5319	C4*	G A 258	113.399	54.352	-35.717	1.00	76.02	C	ATOM	5369	C2*	G A 260	116.943	55.114	-23.506	1.00	55.76	C
ATOM	5320	O4*	G A 258	114.603	55.075	-36.091	1.00	76.02	O	ATOM	5370	O2*	G A 260	117.951	55.073	-22.520	1.00	55.76	O
ATOM	5321	C3*	G A 258	113.405	54.433	-34.194	1.00	76.02	C	ATOM	5371	C1*	G A 260	117.535	55.274	-24.908	1.00	55.76	C
ATOM	5322	O3*	G A 258	112.679	53.402	-33.531	1.00	76.02	O	ATOM	5372	N9	G A 260	116.684	56.100	-25.760	1.00	77.06	N
ATOM	5323	C2*	G A 258	114.885	54.239	-33.878	1.00	76.02	C	ATOM	5373	C8	G A 260	115.768	55.652	-26.683	1.00	77.06	C
ATOM	5324	O2*	G A 258	115.271	52.881	-33.878	1.00	76.02	O	ATOM	5374	N7	G A 260	115.126	56.617	-27.281	1.00	77.06	N
ATOM	5325	C1*	G A 258	115.557	54.960	-35.042	1.00	76.02	C	ATOM	5375	C5	G A 260	115.650	59.129	-26.988	1.00	77.06	C
ATOM	5326	N9	G A 258	115.980	56.284	-34.600	1.00	65.32	N	ATOM	5376	O6	G A 260	115.340	59.589	-27.781	1.00	77.06	O
ATOM	5327	C8	G A 258	115.342	57.486	-34.788	1.00	65.32	C	ATOM	5377	C6	G A 260	114.509	59.589	-27.781	1.00	77.06	C
ATOM	5328	N7	G A 258	115.964	58.489	-34.225	1.00	65.32	N	ATOM	5378	N1	G A 260	116.110	59.986	-26.212	1.00	77.06	N
ATOM	5329	C5	G A 258	117.083	57.915	-33.638	1.00	65.32	C	ATOM	5379	C2	G A 260	117.051	59.592	-25.297	1.00	77.06	C
ATOM	5330	C6	G A 258	118.132	58.504	-32.892	1.00	65.32	C	ATOM	5380	N2	G A 260	117.670	60.582	-24.637	1.00	77.06	N
ATOM	5331	O6	G A 258	118.287	59.692	-32.584	1.00	65.32	O	ATOM	5381	N3	G A 260	117.355	58.327	-25.044	1.00	77.06	N
ATOM	5332	N1	G A 258	119.067	57.554	-32.494	1.00	65.32	N	ATOM	5382	C4	G A 260	116.619	57.477	-25.790	1.00	77.06	C
ATOM	5333	C2	G A 258	119.001	56.215	-32.780	1.00	65.32	C	ATOM	5383	P	U A 261	114.748	53.490	-21.487	1.00	66.73	P
ATOM	5334	N2	G A 258	119.996	55.462	-32.324	1.00	65.32	N	ATOM	5384	O1P	U A 261	114.739	52.619	-20.280	1.00	51.32	O
ATOM	5335	N3	G A 258	118.029	55.655	-33.469	1.00	65.32	N	ATOM	5385	O2P	U A 261	113.586	53.470	-22.430	1.00	51.32	O
ATOM	5336	C4	G A 258	117.111	56.557	-33.866	1.00	65.32	C	ATOM	5386	O5*	U A 261	114.958	54.994	-21.013	1.00	66.73	O
ATOM	5337	P	G A 259	112.332	53.562	-31.962	1.00	73.19	P	ATOM	5387	C5*	U A 261	116.066	55.344	-20.177	1.00	66.73	C
ATOM	5338	O1P	G A 259	111.357	52.496	-31.603	1.00	64.52	O	ATOM	5388	C4*	U A 261	116.034	56.816	-19.856	1.00	66.73	C
ATOM	5339	O2P	G A 259	111.985	54.980	-31.712	1.00	64.52	O	ATOM	5389	O4*	U A 261	116.360	57.587	-21.037	1.00	66.73	O
ATOM	5340	O5*	G A 259	113.705	53.272	-31.204	1.00	73.19	O	ATOM	5390	C3*	U A 261	114.700	57.364	-19.391	1.00	66.73	C
ATOM	5341	C5*	G A 259	114.299	51.960	-31.210	1.00	73.19	C	ATOM	5391	O3*	U A 261	114.510	57.133	-18.003	1.00	66.73	O
ATOM	5342	C4*	G A 259	115.588	51.960	-30.418	1.00	73.19	C	ATOM	5392	C2*	U A 261	114.817	58.842	-19.734	1.00	66.73	C
ATOM	5343	O4*	G A 259	116.497	52.934	-30.988	1.00	73.19	O	ATOM	5393	O2*	U A 261	115.547	59.548	-18.756	1.00	66.73	O
ATOM	5344	C3*	G A 259	115.464	52.347	-28.954	1.00	73.19	C	ATOM	5394	C1*	U A 261	115.632	58.798	-21.028	1.00	66.73	C
ATOM	5345	O3*	G A 259	115.188	51.209	-28.158	1.00	73.19	O	ATOM	5395	N1	U A 261	114.799	58.838	-22.238	1.00	51.32	N
ATOM	5346	C2*	G A 259	116.840	52.915	-28.628	1.00	73.19	C	ATOM	5396	C2	U A 261	114.478	60.072	-22.767	1.00	51.32	C
ATOM	5347	O2*	G A 259	117.771	51.906	-28.289	1.00	73.19	O	ATOM	5397	O2	U A 261	114.913	61.120	-22.328	1.00	51.32	O



ATOM	5398	N3	U A 261	113.642	60.035	-23.850	1.00	51.32	N	ATOM	5448	O1P	U A 264	111.735	63.385	-26.560	1.00	59.18	O
ATOM	5399	C4	U A 261	113.136	58.919	-24.471	1.00	51.32	C	ATOM	5449	O2P	U A 264	113.615	62.623	-25.024	1.00	59.18	O
ATOM	5400	O4	U A 261	112.404	59.053	-25.455	1.00	51.32	C	ATOM	5450	O5*	U A 264	113.444	64.981	-25.678	1.00	45.18	O
ATOM	5401	C5	U A 261	113.546	57.682	-23.893	1.00	51.32	C	ATOM	5451	C5*	U A 264	112.776	66.195	-26.080	1.00	45.18	C
ATOM	5402	C6	U A 261	114.338	57.683	-22.821	1.00	51.32	C	ATOM	5452	C4*	U A 264	113.795	67.262	-26.412	1.00	45.18	C
ATOM	5403	P	A A 262	113.039	56.780	-17.452	1.00	49.71	P	ATOM	5453	O4*	U A 264	114.445	67.725	-25.199	1.00	45.18	O
ATOM	5404	O1P	A A 262	113.179	56.386	-16.027	1.00	59.20	O	ATOM	5454	O3*	U A 264	114.930	66.791	-27.303	1.00	45.18	C
ATOM	5405	O2P	A A 262	112.396	55.845	-18.421	1.00	59.20	O	ATOM	5455	C3*	U A 264	114.553	66.854	-28.668	1.00	45.18	O
ATOM	5406	O5*	A A 262	112.275	58.176	-17.515	1.00	49.71	O	ATOM	5456	C2*	U A 264	116.058	67.752	-26.951	1.00	45.18	C
ATOM	5407	C5*	A A 262	110.846	58.269	-17.335	1.00	49.71	C	ATOM	5457	O2*	U A 264	115.955	68.988	-27.635	1.00	45.18	O
ATOM	5408	C4*	A A 262	110.409	59.705	-17.491	1.00	49.71	C	ATOM	5458	C1*	U A 264	115.813	67.995	-25.458	1.00	45.18	C
ATOM	5409	O4*	A A 262	110.900	60.494	-16.384	1.00	49.71	O	ATOM	5459	N1	U A 264	116.638	67.155	-24.570	1.00	59.18	N
ATOM	5410	C3*	A A 262	110.988	60.340	-18.731	1.00	49.71	C	ATOM	5460	C2	U A 264	117.865	67.648	-24.166	1.00	59.18	C
ATOM	5411	O3*	A A 262	110.097	60.123	-19.796	1.00	49.71	O	ATOM	5461	O2	U A 264	118.286	68.732	-24.508	1.00	59.18	O
ATOM	5412	C2*	A A 262	111.117	61.806	-18.356	1.00	49.71	C	ATOM	5462	N3	U A 264	118.584	66.818	-23.341	1.00	59.18	N
ATOM	5413	O2*	A A 262	109.917	62.516	-18.567	1.00	49.71	O	ATOM	5463	C4	U A 264	118.209	65.567	-22.888	1.00	59.18	C
ATOM	5414	C1*	A A 262	111.410	61.722	-16.856	1.00	49.71	C	ATOM	5464	O4	U A 264	118.954	64.942	-22.126	1.00	59.18	O
ATOM	5415	N9	A A 262	112.823	61.789	-16.461	1.00	59.20	N	ATOM	5465	C5	U A 264	116.932	65.128	-23.353	1.00	59.18	C
ATOM	5416	C8	A A 262	113.606	60.739	-16.051	1.00	59.20	C	ATOM	5466	C6	U A 264	116.210	65.917	-24.155	1.00	59.18	C
ATOM	5417	N7	A A 262	114.808	61.092	-15.668	1.00	59.20	N	ATOM	5467	P	G A 265	115.097	65.744	-29.690	1.00	46.70	P
ATOM	5418	C5	A A 262	114.828	62.465	-15.855	1.00	59.20	C	ATOM	5468	O1P	G A 265	114.662	66.147	-31.052	1.00	77.48	O
ATOM	5419	C6	A A 262	115.810	63.435	-15.607	1.00	59.20	C	ATOM	5469	O2P	G A 265	114.732	64.397	-29.174	1.00	77.48	O
ATOM	5420	N6	A A 262	117.013	63.163	-15.083	1.00	59.20	N	ATOM	5470	O5*	G A 265	116.672	65.926	-29.597	1.00	46.70	O
ATOM	5421	N1	A A 262	115.513	64.716	-15.909	1.00	59.20	N	ATOM	5471	C5*	G A 265	117.291	67.115	-30.098	1.00	46.70	C
ATOM	5422	C2	A A 262	114.310	64.993	-16.414	1.00	59.20	C	ATOM	5472	C4*	G A 265	118.747	67.146	-29.722	1.00	46.70	C
ATOM	5423	N3	A A 262	113.302	64.173	-16.679	1.00	59.20	N	ATOM	5473	O4*	G A 265	118.861	67.224	-28.278	1.00	46.70	O
ATOM	5424	C4	A A 262	113.623	62.906	-16.370	1.00	59.20	C	ATOM	5474	C3*	G A 265	119.592	65.934	-30.091	1.00	46.70	C
ATOM	5425	P	A A 263	110.660	60.040	-21.286	1.00	40.72	P	ATOM	5475	O3*	G A 265	120.023	65.930	-31.447	1.00	46.70	O
ATOM	5426	O1P	A A 263	109.509	59.868	-22.218	1.00	44.67	O	ATOM	5476	C2*	G A 265	120.754	66.048	-29.111	1.00	46.70	C
ATOM	5427	O2P	A A 263	111.768	59.056	-21.300	1.00	44.67	O	ATOM	5477	O2*	G A 265	121.766	66.951	-29.517	1.00	46.70	O
ATOM	5428	O5*	A A 263	111.243	61.498	-21.511	1.00	40.72	O	ATOM	5478	C1*	G A 265	120.062	65.598	-27.864	1.00	46.70	C
ATOM	5429	C5*	A A 263	110.354	62.616	-21.622	1.00	40.72	C	ATOM	5479	N9	G A 265	119.753	65.522	-26.930	1.00	77.48	N
ATOM	5430	C4*	A A 263	111.138	63.876	-21.833	1.00	40.72	C	ATOM	5480	C8	G A 265	118.597	64.790	-26.844	1.00	77.48	C
ATOM	5431	O4*	A A 263	111.779	64.277	-20.602	1.00	40.72	O	ATOM	5481	N7	G A 265	118.653	63.852	-25.938	1.00	77.48	N
ATOM	5432	C3*	A A 263	112.258	63.790	-22.852	1.00	40.72	C	ATOM	5482	C5	G A 265	119.918	63.984	-25.387	1.00	77.48	C
ATOM	5433	O3*	A A 263	111.744	63.997	-24.148	1.00	40.72	O	ATOM	5483	C6	G A 265	120.551	63.242	-24.370	1.00	77.48	C
ATOM	5434	C2*	A A 263	113.176	64.920	-22.424	1.00	40.72	C	ATOM	5484	O6	G A 265	120.105	62.290	-23.723	1.00	77.48	O
ATOM	5435	O2*	A A 263	112.698	66.149	-22.929	1.00	40.72	O	ATOM	5485	N1	G A 265	121.837	63.706	-24.124	1.00	77.48	N
ATOM	5436	C1*	A A 263	113.019	64.892	-20.899	1.00	40.72	C	ATOM	5486	C2	G A 265	122.434	64.755	-24.773	1.00	77.48	C
ATOM	5437	N9	A A 263	114.065	64.131	-20.224	1.00	44.67	N	ATOM	5487	N2	G A 265	123.685	65.052	-24.396	1.00	77.48	N
ATOM	5438	C8	A A 263	114.152	62.773	-20.098	1.00	44.67	C	ATOM	5488	N3	G A 265	121.851	65.459	-25.723	1.00	77.48	N
ATOM	5439	N7	A A 263	115.221	62.369	-19.469	1.00	44.67	N	ATOM	5489	C4	G A 265	120.602	65.018	-25.979	1.00	77.48	C
ATOM	5440	C5	A A 263	115.886	63.540	-19.160	1.00	44.67	C	ATOM	5490	P	G A 266	120.253	64.525	-32.204	1.00	54.38	P
ATOM	5441	C6	A A 263	117.101	63.786	-18.522	1.00	44.67	C	ATOM	5491	O1P	G A 266	120.688	63.843	-33.583	1.00	81.47	O
ATOM	5442	N6	A A 263	117.912	62.824	-18.086	1.00	44.67	N	ATOM	5492	O2P	G A 266	119.083	63.642	-31.991	1.00	81.47	O
ATOM	5443	N1	A A 263	117.471	65.070	-18.353	1.00	44.67	N	ATOM	5493	O5*	G A 266	121.513	63.907	-31.466	1.00	54.38	O
ATOM	5444	C2	A A 263	116.667	66.032	-18.812	1.00	44.67	C	ATOM	5494	C5*	G A 266	122.677	64.716	-31.333	1.00	54.38	C
ATOM	5445	N3	A A 263	115.508	65.925	-19.447	1.00	44.67	N	ATOM	5495	C4*	G A 266	123.848	63.947	-30.777	1.00	54.38	C
ATOM	5446	C4	A A 263	115.173	64.635	-19.596	1.00	44.67	C	ATOM	5496	O4*	G A 266	124.056	62.726	-31.517	1.00	54.38	O
ATOM	5447	P	U A 264	112.636	63.642	-25.418	1.00	45.18	P	ATOM	5497	C3*	G A 266	125.075	64.802	-30.985	1.00	54.38	C



Table 1: Sheet 57/521

ATOM	5498	O3*	G A 266	125.192	65.684	-29.860	1.00	54.38	O	ATOM	5548	N3	C A 268	121.312	58.318	-31.012	1.00	60.39	N
ATOM	5499	C2*	G A 266	126.161	63.855	-31.493	1.00	54.38	C	ATOM	5549	C4	C A 268	121.825	59.549	-30.978	1.00	60.39	C
ATOM	5500	O2*	G A 266	127.003	63.296	-30.513	1.00	54.38	O	ATOM	5550	N4	C A 268	121.192	60.510	-31.656	1.00	60.39	N
ATOM	5501	C1*	G A 266	125.322	62.740	-32.133	1.00	54.38	C	ATOM	5551	C5	C A 268	123.017	59.846	-30.253	1.00	60.39	C
ATOM	5502	N9	G A 266	125.034	62.768	-33.558	1.00	81.47	N	ATOM	5552	C6	C A 268	123.625	58.834	-29.620	1.00	60.39	C
ATOM	5503	C8	G A 266	124.503	63.804	-34.286	1.00	81.47	C	ATOM	5553	P	C A 269	127.599	55.153	-31.588	1.00	67.71	P
ATOM	5504	N7	G A 266	124.194	63.464	-35.507	1.00	81.47	N	ATOM	5554	O1P	C A 269	128.738	54.197	-31.565	1.00	58.14	O
ATOM	5505	C5	G A 266	124.580	62.138	-35.593	1.00	81.47	C	ATOM	5555	O2P	C A 269	127.815	56.565	-32.045	1.00	58.14	O
ATOM	5506	C6	G A 266	124.473	61.241	-36.654	1.00	81.47	C	ATOM	5556	O5*	C A 269	126.436	54.515	-32.469	1.00	67.71	O
ATOM	5507	O6	G A 266	123.993	61.434	-37.759	1.00	81.47	O	ATOM	5557	C5*	C A 269	126.123	52.724	-32.357	1.00	67.71	C
ATOM	5508	N1	G A 266	124.991	59.996	-36.328	1.00	81.47	N	ATOM	5558	C4*	C A 269	124.948	52.779	-33.232	1.00	67.71	C
ATOM	5509	C2	G A 266	125.545	59.666	-35.115	1.00	81.47	C	ATOM	5559	O4*	C A 269	123.798	53.559	-32.823	1.00	67.71	O
ATOM	5510	N2	G A 266	126.012	58.408	-34.994	1.00	81.47	N	ATOM	5560	C3*	C A 269	125.085	53.073	-34.718	1.00	67.71	C
ATOM	5511	N3	G A 266	125.637	60.502	-34.102	1.00	81.47	N	ATOM	5561	O3*	C A 269	125.773	52.037	-35.417	1.00	67.71	O
ATOM	5512	C4	G A 266	125.137	61.710	-34.409	1.00	81.47	C	ATOM	5562	C2*	C A 269	123.635	53.173	-35.174	1.00	67.71	C
ATOM	5513	P	C A 267	126.093	65.325	-28.573	1.00	51.87	P	ATOM	5563	O2*	C A 269	123.057	51.920	-35.473	1.00	67.71	O
ATOM	5514	O1P	C A 267	125.840	66.475	-27.669	1.00	60.62	O	ATOM	5564	C1*	C A 269	122.952	53.765	-33.940	1.00	67.71	C
ATOM	5515	O2P	C A 267	127.496	64.964	-28.920	1.00	60.62	O	ATOM	5565	N1	C A 269	122.653	55.200	-34.089	1.00	58.14	N
ATOM	5516	O5*	C A 267	125.433	64.076	-27.838	1.00	51.87	O	ATOM	5566	C2	C A 269	121.617	55.568	-34.957	1.00	58.14	C
ATOM	5517	C5*	C A 267	125.932	63.703	-26.530	1.00	51.87	C	ATOM	5567	O2	C A 269	120.979	54.676	-35.545	1.00	58.14	O
ATOM	5518	C4*	C A 267	125.493	62.315	-26.135	1.00	51.87	C	ATOM	5568	N3	C A 269	121.336	56.877	-35.136	1.00	58.14	N
ATOM	5519	O4*	C A 267	124.096	62.305	-25.774	1.00	51.87	O	ATOM	5569	C4	C A 269	122.038	57.802	-34.488	1.00	58.14	C
ATOM	5520	C3*	C A 267	125.662	61.194	-27.148	1.00	51.87	C	ATOM	5570	N4	C A 269	121.728	59.082	-34.707	1.00	58.14	N
ATOM	5521	O3*	C A 267	126.989	60.682	-27.085	1.00	51.87	O	ATOM	5571	C5	C A 269	123.090	57.456	-33.588	1.00	58.14	C
ATOM	5522	C2*	C A 267	124.659	60.157	-26.655	1.00	51.87	C	ATOM	5572	C6	C A 269	123.360	56.156	-33.420	1.00	58.14	C
ATOM	5523	O2*	C A 267	125.194	59.370	-25.616	1.00	51.87	O	ATOM	5573	P	A A 270	126.494	52.365	-36.820	1.00	68.07	P
ATOM	5524	C1*	C A 267	123.552	61.035	-26.067	1.00	51.87	C	ATOM	5574	O1P	A A 270	127.407	51.225	-37.105	1.00	67.98	O
ATOM	5525	N1	C A 267	122.405	61.206	-26.967	1.00	60.62	N	ATOM	5575	O2P	A A 270	127.049	53.751	-36.751	1.00	67.98	O
ATOM	5526	C2	C A 267	121.400	60.250	-26.945	1.00	60.62	C	ATOM	5576	O5*	A A 270	125.304	52.343	-37.883	1.00	68.07	O
ATOM	5527	O2	C A 267	121.504	59.290	-26.166	1.00	60.62	O	ATOM	5577	C5*	A A 270	124.738	51.100	-38.324	1.00	68.07	C
ATOM	5528	N3	C A 267	120.339	60.387	-27.767	1.00	60.62	N	ATOM	5578	C4*	A A 270	123.655	51.343	-39.344	1.00	68.07	C
ATOM	5529	C4	C A 267	120.266	61.430	-28.588	1.00	60.62	C	ATOM	5579	O4*	A A 270	122.555	52.034	-38.708	1.00	68.07	O
ATOM	5530	N4	C A 267	119.210	61.522	-29.379	1.00	60.62	N	ATOM	5580	C3*	A A 270	124.022	52.226	-40.524	1.00	68.07	C
ATOM	5531	C5	C A 267	121.278	62.424	-28.633	1.00	60.62	C	ATOM	5581	O3*	A A 270	124.677	51.532	-41.573	1.00	68.07	O
ATOM	5532	C6	C A 267	122.321	62.276	-27.813	1.00	60.62	C	ATOM	5582	C2*	A A 270	122.671	52.772	-40.963	1.00	68.07	C
ATOM	5533	P	C A 268	127.668	60.029	-28.389	1.00	58.41	P	ATOM	5583	O2*	A A 270	121.941	51.861	-41.765	1.00	68.07	O
ATOM	5534	O1P	C A 268	129.029	59.626	-27.961	1.00	60.39	O	ATOM	5584	C1*	A A 270	121.969	52.952	-39.620	1.00	68.07	C
ATOM	5535	O2P	C A 268	127.509	60.938	-29.546	1.00	60.39	O	ATOM	5585	N9	A A 270	122.133	54.307	-39.079	1.00	67.98	N
ATOM	5536	O5*	C A 268	126.810	58.716	-28.658	1.00	58.41	O	ATOM	5586	C8	A A 270	123.101	54.756	-38.211	1.00	67.98	C
ATOM	5537	C5*	C A 268	126.992	57.536	-27.857	1.00	58.41	C	ATOM	5587	N7	A A 270	122.974	56.018	-37.883	1.00	67.98	N
ATOM	5538	C4*	C A 268	126.020	56.467	-28.283	1.00	58.41	C	ATOM	5588	C5	A A 270	121.852	56.433	-38.585	1.00	67.98	C
ATOM	5539	O4*	C A 268	124.671	56.920	-28.016	1.00	58.41	O	ATOM	5589	C6	A A 270	121.183	57.669	-38.653	1.00	67.98	C
ATOM	5540	C3*	C A 268	126.024	56.145	-29.766	1.00	58.41	C	ATOM	5590	N6	A A 270	121.572	58.762	-37.988	1.00	67.98	N
ATOM	5541	O3*	C A 268	127.011	55.190	-30.098	1.00	58.41	O	ATOM	5591	N1	A A 270	120.089	57.747	-39.437	1.00	67.98	N
ATOM	5542	C2*	C A 268	124.617	55.615	-30.013	1.00	58.41	C	ATOM	5592	C2	A A 270	119.706	56.657	-40.109	1.00	67.98	C
ATOM	5543	O2*	C A 268	124.458	54.240	-29.741	1.00	58.41	O	ATOM	5593	N3	A A 270	120.252	55.443	-40.131	1.00	67.98	N
ATOM	5544	C1*	C A 268	123.796	56.433	-29.020	1.00	58.41	C	ATOM	5594	C4	A A 270	121.331	55.395	-39.335	1.00	67.98	C
ATOM	5545	N1	C A 268	123.117	57.564	-29.670	1.00	60.39	N	ATOM	5595	P	C A 271	125.726	52.322	-42.501	1.00	67.28	P
ATOM	5546	C2	C A 268	121.936	57.308	-30.362	1.00	60.39	C	ATOM	5596	O1P	C A 271	126.399	51.325	-43.380	1.00	76.91	O
ATOM	5547	O2	C A 268	121.489	56.156	-30.362	1.00	60.39	O	ATOM	5597	O2P	C A 271	126.545	53.177	-41.604	1.00	76.91	O



Table 1: Sheet 58/521

ATOM	5598	O5*	C A 271	124.818	53.282	-43.394	1.00	67.28	O	ATOM	5648	C8	A A 273	126.673	63.249	-46.211	1.00	52.78	C
ATOM	5599	C5*	C A 271	123.866	52.745	-44.321	1.00	67.28	C	ATOM	5649	N7	A A 273	127.347	62.781	-45.186	1.00	52.78	N
ATOM	5600	C4*	C A 271	122.989	53.844	-44.864	1.00	67.28	C	ATOM	5650	C5	A A 273	127.435	63.863	-44.321	1.00	52.78	C
ATOM	5601	O4*	C A 271	122.164	54.377	-43.796	1.00	67.28	O	ATOM	5651	C6	A A 273	128.004	64.012	-43.041	1.00	52.78	C
ATOM	5602	C3*	C A 271	123.705	55.065	-45.420	1.00	67.28	C	ATOM	5652	N6	A A 273	128.577	63.016	-42.363	1.00	52.78	N
ATOM	5603	O3*	C A 271	124.137	54.916	-46.761	1.00	67.28	O	ATOM	5653	N1	A A 273	127.945	65.232	-42.466	1.00	52.78	N
ATOM	5604	C2*	C A 271	122.647	56.149	-45.304	1.00	67.28	C	ATOM	5654	C2	A A 273	127.331	66.224	-43.123	1.00	52.78	C
ATOM	5605	O2*	C A 271	121.726	56.099	-46.370	1.00	67.28	O	ATOM	5655	N3	A A 273	126.734	66.205	-44.312	1.00	52.78	N
ATOM	5606	C1*	C A 271	121.963	55.769	-43.991	1.00	67.28	C	ATOM	5656	C4	A A 273	126.820	64.978	-44.868	1.00	52.78	C
ATOM	5607	N1	C A 271	122.567	56.497	-42.858	1.00	76.91	N	ATOM	5657	P	A A 274	128.201	66.345	-50.839	1.00	62.88	P
ATOM	5608	C2	C A 271	122.045	57.755	-42.493	1.00	76.91	C	ATOM	5658	O1P	A A 274	128.088	67.174	-52.073	1.00	59.69	O
ATOM	5609	O2	C A 271	121.045	58.201	-43.093	1.00	76.91	O	ATOM	5659	O2P	A A 274	128.863	65.016	-50.899	1.00	59.69	O
ATOM	5610	N3	C A 271	122.644	58.448	-41.494	1.00	76.91	N	ATOM	5660	O5*	A A 274	128.964	67.169	-49.709	1.00	62.88	O
ATOM	5611	C4	C A 271	123.702	57.931	-40.861	1.00	76.91	C	ATOM	5661	C5*	A A 274	128.460	68.428	-49.240	1.00	62.88	C
ATOM	5612	N4	C A 271	124.268	58.652	-39.889	1.00	76.91	N	ATOM	5662	C4*	A A 274	129.290	68.903	-48.080	1.00	62.88	C
ATOM	5613	C5	C A 271	124.229	56.651	-41.194	1.00	76.91	C	ATOM	5663	O4*	A A 274	129.177	67.947	-46.989	1.00	62.88	O
ATOM	5614	C6	C A 271	123.637	55.975	-42.185	1.00	76.91	C	ATOM	5664	C3*	A A 274	130.784	69.047	-48.376	1.00	62.88	C
ATOM	5615	P	C A 272	125.338	55.834	-47.300	1.00	78.16	P	ATOM	5665	O3*	A A 274	131.322	70.166	-47.661	1.00	62.88	O
ATOM	5616	O1P	C A 272	125.653	55.411	-48.693	1.00	61.94	O	ATOM	5666	C2*	A A 274	131.365	67.780	-47.763	1.00	62.88	C
ATOM	5617	O2P	C A 272	126.404	55.799	-46.261	1.00	61.94	O	ATOM	5667	O2*	A A 274	132.704	67.919	-47.353	1.00	62.88	O
ATOM	5618	O5*	C A 272	124.707	57.301	-47.353	1.00	78.16	O	ATOM	5668	C1*	A A 274	130.467	67.616	-46.544	1.00	62.88	C
ATOM	5619	C5*	C A 272	123.607	57.590	-48.236	1.00	78.16	C	ATOM	5669	N9	A A 274	130.474	66.287	-45.936	1.00	59.69	N
ATOM	5620	C4*	C A 272	123.160	59.032	-48.101	1.00	78.16	C	ATOM	5670	C8	A A 274	130.246	65.054	-46.499	1.00	59.69	C
ATOM	5621	O4*	C A 272	122.623	59.273	-46.774	1.00	78.16	O	ATOM	5671	N7	A A 274	130.453	64.051	-45.675	1.00	59.69	N
ATOM	5622	C3*	C A 272	124.211	60.114	-48.265	1.00	78.16	C	ATOM	5672	C5	A A 274	130.822	64.668	-44.488	1.00	59.69	C
ATOM	5623	O3*	C A 272	123.575	61.305	-49.611	1.00	78.16	O	ATOM	5673	C6	A A 274	131.196	64.160	-43.239	1.00	59.69	C
ATOM	5624	C2*	C A 272	123.573	61.305	-49.566	1.00	78.16	C	ATOM	5674	N6	A A 274	131.321	62.867	-42.978	1.00	59.69	N
ATOM	5625	O2*	C A 272	122.654	62.010	-48.374	1.00	78.16	O	ATOM	5675	N1	A A 274	131.459	65.040	-42.258	1.00	59.69	N
ATOM	5626	C1*	C A 272	122.847	60.627	-46.407	1.00	78.16	C	ATOM	5676	C2	A A 274	131.377	66.345	-42.528	1.00	59.69	C
ATOM	5627	N1	C A 272	123.674	60.675	-45.185	1.00	61.94	N	ATOM	5677	N3	A A 274	131.067	66.950	-43.669	1.00	59.69	N
ATOM	5628	C2	C A 272	123.796	61.900	-44.501	1.00	61.94	C	ATOM	5678	C4	A A 274	130.798	66.043	-44.623	1.00	59.69	C
ATOM	5629	O2	C A 272	123.167	62.888	-44.919	1.00	61.94	O	ATOM	5679	P	G A 275	130.887	71.663	-48.060	1.00	52.30	P
ATOM	5630	N3	C A 272	124.591	61.973	-43.407	1.00	61.94	N	ATOM	5680	O1P	G A 275	130.033	71.575	-49.277	1.00	51.13	O
ATOM	5631	C4	C A 272	125.244	60.887	-42.984	1.00	61.94	C	ATOM	5681	O2P	G A 275	132.091	72.542	-48.068	1.00	51.13	O
ATOM	5632	N4	C A 272	126.038	61.006	-41.917	1.00	61.94	N	ATOM	5682	O5*	G A 275	129.918	72.098	-46.871	1.00	52.30	O
ATOM	5633	C5	C A 272	125.119	59.626	-43.643	1.00	61.94	C	ATOM	5683	C5*	G A 275	130.432	72.595	-45.628	1.00	52.30	C
ATOM	5634	C6	C A 272	124.331	59.565	-44.728	1.00	61.94	C	ATOM	5684	C4*	G A 275	129.753	71.906	-44.463	1.00	52.30	C
ATOM	5635	P	A A 273	126.004	60.975	-49.952	1.00	89.50	P	ATOM	5685	O4*	G A 275	130.164	70.513	-44.424	1.00	52.30	O
ATOM	5636	O1P	A A 273	126.171	60.998	-51.431	1.00	52.78	O	ATOM	5686	C3*	G A 275	130.160	72.474	-43.115	1.00	52.30	C
ATOM	5637	O2P	A A 273	126.963	60.195	-49.107	1.00	52.78	O	ATOM	5687	O3*	G A 275	129.341	73.581	-42.748	1.00	52.30	O
ATOM	5638	O5*	A A 273	125.974	62.485	-49.436	1.00	89.50	C	ATOM	5688	C2*	G A 275	130.043	71.279	-42.185	1.00	52.30	C
ATOM	5639	C5*	A A 273	125.029	63.427	-49.972	1.00	89.50	C	ATOM	5689	O2*	G A 275	128.715	71.068	-41.759	1.00	52.30	O
ATOM	5640	C4*	A A 273	125.092	64.730	-49.210	1.00	89.50	C	ATOM	5690	C1*	G A 275	130.503	70.140	-43.101	1.00	52.30	C
ATOM	5641	O4*	A A 273	124.742	64.501	-47.823	1.00	89.50	O	ATOM	5691	N9	G A 275	131.952	69.935	-43.078	1.00	51.13	N
ATOM	5642	C3*	A A 273	126.450	65.405	-49.143	1.00	89.50	C	ATOM	5692	C8	G A 275	132.800	69.969	-44.165	1.00	51.13	C
ATOM	5643	O3*	A A 273	126.697	66.192	-50.291	1.00	89.50	O	ATOM	5693	N7	G A 275	134.052	69.764	-43.851	1.00	51.13	N
ATOM	5644	C2*	A A 273	126.327	66.265	-47.896	1.00	89.50	C	ATOM	5694	C5	G A 275	134.036	69.579	-42.475	1.00	51.13	C
ATOM	5645	O2*	A A 273	125.601	67.452	-48.135	1.00	89.50	O	ATOM	5695	C6	G A 275	135.097	69.311	-41.576	1.00	51.13	C
ATOM	5646	C1*	A A 273	125.489	65.371	-46.991	1.00	89.50	C	ATOM	5696	O6	G A 275	136.303	69.180	-41.821	1.00	51.13	O
ATOM	5647	N9	A A 273	126.299	64.563	-46.077	1.00	52.78	N	ATOM	5697	N1	G A 275	134.640	69.192	-40.270	1.00	51.13	N



5698	C2	G A 275	133.335	69.313	-39.875	1.00	51.13	C	ATOM	5748	OS*	G A 278	136.513	80.111	-34.702	1.00	46.77	O
5699	N2	G A 275	133.107	69.163	-38.569	1.00	51.13	N	ATOM	5749	C5*	G A 278	137.209	80.032	-33.458	1.00	46.77	C
5700	N3	G A 275	132.331	69.563	-40.699	1.00	51.13	N	ATOM	5750	C4*	G A 278	138.693	80.060	-33.685	1.00	46.77	C
5701	C4	G A 275	132.749	69.681	-41.977	1.00	51.13	C	ATOM	5751	O4*	G A 278	139.096	78.913	-34.474	1.00	46.77	O
5702	P	G A 276	130.037	74.910	-42.171	1.00	50.68	P	ATOM	5752	C3*	G A 278	139.226	81.248	-34.453	1.00	46.77	C
5703	O1P	G A 276	129.059	76.040	-42.016	1.00	44.26	O	ATOM	5753	O3*	G A 278	139.391	82.355	-33.584	1.00	46.77	O
5704	O2P	G A 276	131.259	75.106	-43.000	1.00	44.26	O	ATOM	5754	C2*	G A 278	140.549	80.711	-34.982	1.00	46.77	C
5705	OS*	G A 276	130.452	74.465	-40.704	1.00	50.68	O	ATOM	5755	O2*	G A 278	141.524	80.676	-33.965	1.00	46.77	O
5706	C5*	G A 276	129.446	74.045	-39.778	1.00	50.68	C	ATOM	5756	C1*	G A 278	140.192	79.261	-35.297	1.00	46.77	C
5707	C4*	G A 276	130.072	73.648	-38.478	1.00	50.68	C	ATOM	5757	N9	G A 278	139.803	79.071	-36.689	1.00	49.60	N
5708	O4*	G A 276	130.824	72.433	-38.668	1.00	50.68	O	ATOM	5758	C8	G A 278	138.530	78.958	-37.188	1.00	49.60	C
5709	C3*	G A 276	131.070	74.644	-37.919	1.00	50.68	C	ATOM	5759	N7	G A 278	138.498	78.837	-38.485	1.00	49.60	N
5710	O2*	G A 276	130.430	75.674	-37.172	1.00	50.68	O	ATOM	5760	C5	G A 278	139.830	78.866	-38.864	1.00	49.60	C
5711	C3*	G A 276	131.961	73.757	-37.067	1.00	50.68	C	ATOM	5761	C6	G A 278	140.419	78.786	-40.152	1.00	49.60	C
5712	O2*	G A 276	131.380	73.457	-35.815	1.00	50.68	O	ATOM	5762	O6	G A 278	139.855	78.682	-41.250	1.00	49.60	O
5713	C1*	G A 276	132.012	72.484	-37.907	1.00	50.68	C	ATOM	5763	N1	G A 278	141.812	78.840	-40.085	1.00	49.60	N
5714	N9	G A 276	133.131	72.505	-38.840	1.00	44.26	N	ATOM	5764	C2	G A 278	142.541	78.961	-38.929	1.00	49.60	C
5715	C8	G A 276	133.071	72.663	-40.207	1.00	44.26	C	ATOM	5765	N2	G A 278	143.870	78.990	-39.074	1.00	49.60	N
5716	N7	G A 276	134.245	72.661	-40.773	1.00	44.26	N	ATOM	5766	N3	G A 278	142.003	79.045	-37.720	1.00	49.60	N
5717	C5	G A 276	135.134	72.481	-39.718	1.00	44.26	C	ATOM	5767	C4	G A 278	140.650	78.992	-37.765	1.00	49.60	C
5718	C6	G A 276	136.562	72.392	-39.709	1.00	44.26	C	ATOM	5768	P	A A 279	139.254	83.844	-34.161	1.00	50.39	P
5719	O6	G A 276	137.350	72.444	-40.667	1.00	44.26	O	ATOM	5769	O1P	A A 279	138.394	84.576	-33.225	1.00	47.17	O
5720	N1	G A 276	137.052	72.223	-38.419	1.00	44.26	N	ATOM	5770	O2P	A A 279	138.844	83.737	-35.567	1.00	47.17	O
5721	C2	G A 276	136.278	72.143	-37.288	1.00	44.26	C	ATOM	5771	O5*	A A 279	140.751	84.407	-34.090	1.00	50.39	O
5722	N2	G A 276	136.933	71.982	-36.138	1.00	44.26	N	ATOM	5772	C5*	A A 279	141.197	85.261	-32.996	1.00	50.39	C
5723	N3	G A 276	134.938	72.215	-37.283	1.00	44.26	N	ATOM	5773	C4*	A A 279	142.468	86.005	-33.380	1.00	50.39	C
5724	C4	G A 276	134.457	72.384	-38.521	1.00	44.26	C	ATOM	5774	O4*	A A 279	143.547	85.046	-33.471	1.00	50.39	C
5725	P	C A 277	131.069	77.144	-37.150	1.00	50.10	P	ATOM	5775	C3*	A A 279	142.402	86.691	-34.744	1.00	50.39	C
5726	O1P	C A 277	130.276	78.002	-36.229	1.00	36.49	O	ATOM	5776	O3*	A A 279	141.963	88.080	-34.757	1.00	50.39	O
5727	O2P	C A 277	131.236	77.547	-38.576	1.00	36.49	O	ATOM	5777	C2*	A A 279	143.837	86.616	-35.263	1.00	50.39	C
5728	O5*	C A 277	132.480	76.898	-36.448	1.00	50.10	C	ATOM	5778	O2*	A A 279	144.604	87.744	-34.925	1.00	50.39	C
5729	C5*	C A 277	132.515	76.390	-35.103	1.00	50.10	C	ATOM	5779	C1*	A A 279	144.392	85.384	-34.548	1.00	50.39	C
5730	C4*	C A 277	133.918	76.355	-34.567	1.00	50.10	C	ATOM	5780	N9	A A 279	144.574	84.201	-35.378	1.00	47.17	N
5731	O4*	C A 277	134.645	75.227	-35.100	1.00	50.10	O	ATOM	5781	C8	A A 279	143.649	83.402	-36.021	1.00	47.17	C
5732	O3*	C A 277	134.810	77.529	-34.888	1.00	50.10	C	ATOM	5782	N7	A A 279	144.178	82.372	-36.642	1.00	47.17	N
5733	C3*	C A 277	134.561	78.667	-34.112	1.00	50.10	C	ATOM	5783	C5	A A 279	145.534	82.514	-36.405	1.00	47.17	C
5734	C2*	C A 277	136.197	76.960	-34.644	1.00	50.10	C	ATOM	5784	C6	A A 279	146.634	81.751	-36.785	1.00	47.17	C
5735	O2*	C A 277	136.573	76.932	-33.284	1.00	50.10	O	ATOM	5785	N6	A A 279	146.550	80.640	-37.517	1.00	47.17	N
5736	C1*	C A 277	136.027	75.537	-35.157	1.00	50.10	C	ATOM	5786	N1	A A 279	147.852	82.170	-36.381	1.00	47.17	N
5737	N1	C A 277	136.474	75.490	-36.552	1.00	36.49	N	ATOM	5787	C2	A A 279	147.939	83.290	-35.637	1.00	47.17	C
5738	O2	C A 277	137.845	75.362	-36.808	1.00	36.49	C	ATOM	5788	N3	A A 279	146.972	84.092	-35.213	1.00	47.17	N
5739	O2	C A 277	138.624	75.240	-35.852	1.00	36.49	O	ATOM	5789	C4	A A 279	145.787	83.643	-35.636	1.00	47.17	C
5740	N3	C A 277	138.282	75.378	-38.085	1.00	36.49	N	ATOM	5790	P	C A 280	142.026	89.006	-33.425	1.00	46.18	P
5741	C4	C A 277	137.410	75.509	-39.084	1.00	36.49	C	ATOM	5791	O1P	C A 280	141.513	90.348	-33.812	1.00	69.34	O
5742	N4	C A 277	137.886	75.544	-40.325	1.00	36.49	N	ATOM	5792	O2P	C A 280	143.359	88.888	-32.796	1.00	69.34	O
5743	C5	C A 277	136.008	75.615	-38.853	1.00	36.49	C	ATOM	5793	O5*	C A 280	140.963	88.389	-32.422	1.00	46.18	O
5744	C6	C A 277	135.587	75.597	-37.584	1.00	36.49	C	ATOM	5794	C5*	C A 280	140.903	88.844	-31.059	1.00	46.18	C
5745	P	G A 278	134.928	80.097	-34.720	1.00	46.77	P	ATOM	5795	C4*	C A 280	139.598	88.432	-30.433	1.00	46.18	C
5746	O1P	G A 278	134.448	81.114	-33.750	1.00	49.60	O	ATOM	5796	O4*	C A 280	138.517	89.283	-30.901	1.00	46.18	O
5747	O2P	G A 278	134.476	80.141	-36.132	1.00	49.60	O	ATOM	5797	C3*	C A 280	139.186	87.000	-30.727	1.00	46.18	C



ATOM	5798	O3*	C A 280	138.577	86.464	-29.571	1.00	46.18	O	ATOM	5848	C5	A A 282	144.405	77.258	-32.269	1.00	52.06	C
ATOM	5799	O2*	C A 280	138.139	87.166	-31.822	1.00	46.18	C	ATOM	5849	N6	A A 282	145.550	76.588	-32.716	1.00	52.06	C
ATOM	5800	C2*	C A 280	137.169	86.142	-31.802	1.00	46.18	O	ATOM	5850	C6	A A 282	146.791	76.970	-32.433	1.00	52.06	N
ATOM	5801	C1*	C A 280	137.487	88.484	-31.428	1.00	46.18	C	ATOM	5851	N1	A A 282	145.376	75.496	-33.479	1.00	52.06	N
ATOM	5802	N1	C A 280	136.839	89.193	-32.541	1.00	69.34	N	ATOM	5852	C2	A A 282	144.136	75.119	-33.781	1.00	52.06	C
ATOM	5803	C2	C A 280	135.461	89.008	-32.738	1.00	69.34	C	ATOM	5853	N3	A A 282	142.984	75.666	-33.432	1.00	52.06	N
ATOM	5804	O2	C A 280	134.837	88.246	-31.979	1.00	69.34	O	ATOM	5854	C4	A A 282	143.186	76.741	-32.659	1.00	52.06	C
ATOM	5805	N3	C A 280	134.842	89.660	-33.749	1.00	69.34	N	ATOM	5855	P	C A 283	139.635	74.225	-28.496	1.00	54.49	P
ATOM	5806	C4	C A 280	135.541	90.466	-34.549	1.00	69.34	C	ATOM	5856	O1P	C A 283	138.574	73.203	-28.355	1.00	49.71	O
ATOM	5807	N4	C A 280	134.884	91.089	-35.530	1.00	69.34	N	ATOM	5857	O2P	C A 283	140.048	75.019	-27.307	1.00	49.71	O
ATOM	5808	C5	C A 280	136.945	90.669	-34.378	1.00	69.34	C	ATOM	5858	O5*	C A 283	140.926	73.488	-29.076	1.00	54.49	O
ATOM	5809	C6	C A 280	137.548	90.018	-33.370	1.00	69.34	C	ATOM	5859	C5*	C A 283	140.817	72.488	-30.106	1.00	54.49	C
ATOM	5810	P	G A 281	139.423	85.520	-28.599	1.00	48.43	P	ATOM	5860	C4*	C A 283	142.192	72.016	-30.526	1.00	54.49	C
ATOM	5811	O1P	G A 281	138.445	84.767	-27.778	1.00	46.90	O	ATOM	5861	O4*	C A 283	142.886	73.073	-31.237	1.00	54.49	O
ATOM	5812	O2P	G A 281	140.441	86.367	-27.923	1.00	46.90	O	ATOM	5862	C3*	C A 283	143.133	71.636	-29.398	1.00	54.49	C
ATOM	5813	O5*	G A 281	140.142	84.498	-29.590	1.00	48.43	O	ATOM	5863	O3*	C A 283	142.928	70.305	-28.956	1.00	54.49	O
ATOM	5814	C5*	G A 281	139.736	83.113	-29.680	1.00	48.43	C	ATOM	5864	C2*	C A 283	144.497	71.816	-30.040	1.00	54.49	C
ATOM	5815	C4*	G A 281	140.957	82.232	-29.763	1.00	48.43	C	ATOM	5865	O2*	C A 283	144.810	70.708	-30.852	1.00	54.49	O
ATOM	5816	O4*	G A 281	141.838	82.894	-30.692	1.00	48.43	O	ATOM	5866	C1*	C A 283	144.265	73.045	-30.921	1.00	54.49	C
ATOM	5817	C3*	G A 281	141.775	82.060	-28.479	1.00	48.43	C	ATOM	5867	N1	C A 283	144.591	74.294	-30.207	1.00	49.71	N
ATOM	5818	O3*	G A 281	141.232	80.984	-27.642	1.00	48.43	O	ATOM	5868	C2	C A 283	145.930	74.584	-29.906	1.00	49.71	C
ATOM	5819	C2*	G A 281	143.203	81.933	-28.978	1.00	48.43	C	ATOM	5869	O2	C A 283	146.820	73.820	-30.306	1.00	49.71	C
ATOM	5820	O2*	G A 281	143.497	80.623	-29.378	1.00	48.43	O	ATOM	5870	N3	C A 283	146.218	75.689	-29.183	1.00	49.71	N
ATOM	5821	C1*	G A 281	143.169	82.761	-30.263	1.00	48.43	C	ATOM	5871	C4	C A 283	145.239	76.493	-28.772	1.00	49.71	C
ATOM	5822	N9	G A 281	143.791	84.076	-30.216	1.00	46.90	N	ATOM	5872	N4	C A 283	145.570	77.550	-28.033	1.00	49.71	N
ATOM	5823	C8	G A 281	143.249	85.240	-29.736	1.00	46.90	C	ATOM	5873	C5	C A 283	143.876	76.246	-29.094	1.00	49.71	C
ATOM	5824	N7	G A 281	144.064	86.254	-29.815	1.00	46.90	N	ATOM	5874	C6	C A 283	143.600	75.149	-29.810	1.00	49.71	C
ATOM	5825	C5	G A 281	145.214	85.727	-30.384	1.00	46.90	C	ATOM	5875	P	G A 284	143.107	69.959	-27.399	1.00	45.44	P
ATOM	5826	C6	G A 281	146.450	86.346	-30.699	1.00	46.90	C	ATOM	5876	O1P	G A 284	142.810	68.520	-27.221	1.00	55.32	O
ATOM	5827	O6	G A 281	146.777	87.530	-30.547	1.00	46.90	O	ATOM	5877	O2P	G A 284	142.345	70.967	-26.617	1.00	55.32	O
ATOM	5828	N1	G A 281	147.355	85.438	-31.248	1.00	46.90	N	ATOM	5878	O5*	G A 284	144.667	70.190	-27.144	1.00	45.44	O
ATOM	5829	C2	G A 281	147.101	84.113	-31.478	1.00	46.90	C	ATOM	5879	C5*	G A 284	145.650	69.451	-27.893	1.00	45.44	C
ATOM	5830	N2	G A 281	148.106	83.402	-32.007	1.00	46.90	N	ATOM	5880	C4*	G A 284	147.053	69.949	-27.597	1.00	45.44	C
ATOM	5831	N3	G A 281	145.945	83.527	-31.201	1.00	46.90	N	ATOM	5881	O4*	G A 284	147.269	71.265	-28.171	1.00	45.44	O
ATOM	5832	C4	G A 281	145.057	84.387	-30.651	1.00	46.90	C	ATOM	5882	C3*	G A 284	147.446	70.093	-26.137	1.00	45.44	C
ATOM	5833	P	A A 282	141.907	79.490	-27.559	1.00	41.60	P	ATOM	5883	O3*	G A 284	147.842	68.848	-25.571	1.00	45.44	O
ATOM	5834	O1P	A A 282	141.242	78.837	-26.401	1.00	52.06	O	ATOM	5884	C2*	G A 284	148.603	71.079	-26.218	1.00	45.44	C
ATOM	5835	O2P	A A 282	143.387	79.497	-27.600	1.00	52.06	O	ATOM	5885	O2*	G A 284	149.805	70.446	-26.601	1.00	45.44	O
ATOM	5836	O5*	A A 282	141.325	78.710	-28.824	1.00	41.60	O	ATOM	5886	C1*	G A 284	148.150	72.005	-27.348	1.00	45.44	C
ATOM	5837	C5*	A A 282	139.911	78.382	-28.880	1.00	41.60	C	ATOM	5887	N9	G A 284	147.418	73.158	-26.834	1.00	55.32	N
ATOM	5838	C4*	A A 282	139.587	77.609	-30.132	1.00	41.60	C	ATOM	5888	C8	G A 284	146.064	73.367	-26.916	1.00	55.32	C
ATOM	5839	O4*	A A 282	140.203	78.306	-31.239	1.00	41.60	O	ATOM	5889	N7	G A 284	145.679	74.476	-26.346	1.00	55.32	N
ATOM	5840	C3*	A A 282	140.121	76.186	-30.205	1.00	41.60	C	ATOM	5890	C5	G A 284	146.850	75.040	-25.860	1.00	55.32	C
ATOM	5841	O3*	A A 282	139.186	75.247	-29.666	1.00	41.60	O	ATOM	5891	C6	G A 284	147.060	76.253	-25.143	1.00	55.32	C
ATOM	5842	C2*	A A 282	140.296	75.991	-31.704	1.00	41.60	C	ATOM	5892	O6	G A 284	146.221	77.099	-24.792	1.00	55.32	O
ATOM	5843	O2*	A A 282	139.071	75.723	-32.356	1.00	41.60	O	ATOM	5893	N1	G A 284	148.403	76.438	-24.837	1.00	55.32	N
ATOM	5844	C1*	A A 282	140.774	77.377	-32.140	1.00	41.60	C	ATOM	5894	C2	G A 284	149.410	75.576	-25.176	1.00	55.32	C
ATOM	5845	N9	A A 282	142.232	77.540	-32.073	1.00	52.06	N	ATOM	5895	N2	G A 284	150.631	75.924	-24.781	1.00	55.32	N
ATOM	5846	C8	A A 282	142.930	78.511	-31.392	1.00	52.06	C	ATOM	5896	N3	G A 284	149.232	74.450	-25.850	1.00	55.32	N
ATOM	5847	N7	A A 282	144.231	78.383	-31.474	1.00	52.06	N	ATOM	5897	C4	G A 284	147.936	74.244	-26.156	1.00	55.32	C



Table 1: Sheet 61/521

ATOM	5898	P	G A 285	147.714	68.611	-23.982	1.00	54.45	P	ATOM	5948	C5*	U A 287	150.961	73.737	-12.634	1.00	46.82	C
ATOM	5899	O1P	G A 285	148.073	67.193	-23.733	1.00	49.75	O	ATOM	5949	C4*	U A 287	150.052	74.841	-12.163	1.00	46.82	C
ATOM	5900	O2P	G A 285	146.398	69.112	-23.527	1.00	49.75	O	ATOM	5950	O4*	U A 287	149.533	75.563	-13.308	1.00	46.82	O
ATOM	5901	O5*	G A 285	148.846	69.551	-23.363	1.00	54.45	O	ATOM	5951	C3*	U A 287	148.804	74.384	-11.433	1.00	46.82	C
ATOM	5902	C5*	G A 285	150.236	69.327	-22.663	1.00	54.45	C	ATOM	5952	O3*	U A 287	149.002	74.126	-10.067	1.00	46.82	O
ATOM	5903	C4*	G A 285	151.110	70.362	-22.985	1.00	54.45	C	ATOM	5953	C2*	U A 287	147.863	75.551	-11.631	1.00	46.82	C
ATOM	5904	O4*	G A 285	150.953	71.663	-23.613	1.00	54.45	O	ATOM	5954	O2*	U A 287	148.156	76.590	-10.724	1.00	46.82	O
ATOM	5905	C3*	G A 285	150.830	70.627	-21.519	1.00	54.45	C	ATOM	5955	C1*	U A 287	148.200	75.971	-13.057	1.00	46.82	C
ATOM	5906	O3*	G A 285	151.405	69.682	-20.652	1.00	54.45	O	ATOM	5956	N1	U A 287	147.313	75.281	-14.003	1.00	46.58	N
ATOM	5907	C2*	G A 285	151.424	72.007	-21.304	1.00	54.45	C	ATOM	5957	C2	U A 287	146.068	75.821	-14.225	1.00	46.58	C
ATOM	5908	O2*	G A 285	152.813	71.956	-21.071	1.00	54.45	O	ATOM	5958	O2	U A 287	145.692	76.855	-13.714	1.00	46.58	O
ATOM	5909	C1*	G A 285	151.109	72.685	-22.637	1.00	54.45	C	ATOM	5959	N3	U A 287	145.270	75.100	-15.067	1.00	46.58	N
ATOM	5910	N9	G A 285	149.846	73.400	-22.514	1.00	49.75	N	ATOM	5960	C4	U A 287	145.582	73.921	-15.693	1.00	46.58	C
ATOM	5911	C8	G A 285	148.619	73.017	-23.000	1.00	49.75	C	ATOM	5961	O4	U A 287	144.719	73.340	-16.357	1.00	46.58	O
ATOM	5912	N7	G A 285	147.662	73.842	-22.678	1.00	49.75	N	ATOM	5962	C5	U A 287	146.897	73.445	-15.434	1.00	46.58	C
ATOM	5913	C5	G A 285	148.299	74.833	-21.945	1.00	49.75	C	ATOM	5963	C6	U A 287	147.696	74.125	-14.622	1.00	46.58	C
ATOM	5914	C6	G A 285	147.775	75.992	-21.322	1.00	49.75	C	ATOM	5964	P	A A 288	147.939	73.214	-9.292	1.00	51.98	P
ATOM	5915	O6	G A 285	146.602	76.381	-21.280	1.00	49.75	O	ATOM	5965	O1P	A A 288	148.362	73.172	-7.867	1.00	44.35	O
ATOM	5916	N1	G A 285	148.770	76.728	-20.697	1.00	49.75	N	ATOM	5966	O2P	A A 288	147.685	71.945	-10.029	1.00	44.35	O
ATOM	5917	C2	G A 285	150.097	76.389	-20.670	1.00	49.75	C	ATOM	5967	O5*	A A 288	146.610	74.066	-9.398	1.00	51.98	O
ATOM	5918	N2	G A 285	150.910	77.242	-20.038	1.00	49.75	N	ATOM	5968	C5*	A A 288	146.522	75.334	-8.750	1.00	51.98	C
ATOM	5919	N3	G A 285	150.596	75.300	-21.229	1.00	49.75	N	ATOM	5969	C4*	A A 288	145.114	75.835	-8.812	1.00	51.98	C
ATOM	5920	C4	G A 285	149.648	74.578	-21.848	1.00	49.75	C	ATOM	5970	O4*	A A 288	144.788	76.140	-10.187	1.00	51.98	O
ATOM	5921	P	G A 286	150.647	69.331	-19.285	1.00	43.66	P	ATOM	5971	C3*	A A 288	144.066	74.825	-8.390	1.00	51.98	C
ATOM	5922	O1P	G A 286	151.369	68.203	-18.650	1.00	49.54	O	ATOM	5972	O3*	A A 288	143.915	74.772	-6.974	1.00	51.98	O
ATOM	5923	O2P	G A 286	149.207	69.189	-19.624	1.00	49.54	O	ATOM	5973	C2*	A A 288	142.836	75.336	-9.117	1.00	51.98	C
ATOM	5924	O5*	G A 286	150.851	70.632	-18.390	1.00	43.66	O	ATOM	5974	O2*	A A 288	142.291	76.444	-8.438	1.00	51.98	O
ATOM	5925	C5*	G A 286	152.168	71.133	-18.158	1.00	43.66	C	ATOM	5975	C1*	A A 288	143.440	75.818	-10.435	1.00	51.98	C
ATOM	5926	C4*	G A 286	152.127	72.448	-17.416	1.00	43.66	C	ATOM	5976	N9	A A 288	143.403	74.783	-11.462	1.00	44.35	N
ATOM	5927	O4*	G A 286	151.645	73.521	-18.268	1.00	43.66	O	ATOM	5977	C8	A A 288	144.372	73.871	-11.809	1.00	44.35	C
ATOM	5928	C3*	G A 286	151.243	72.530	-16.193	1.00	43.66	C	ATOM	5978	N7	A A 288	143.995	73.027	-12.740	1.00	44.35	N
ATOM	5929	O3*	G A 286	151.834	71.943	-15.056	1.00	43.66	O	ATOM	5979	C5	A A 288	142.696	73.419	-13.034	1.00	44.35	C
ATOM	5930	C2*	G A 286	151.090	74.030	-16.026	1.00	43.66	C	ATOM	5980	C6	A A 288	141.736	72.918	-13.928	1.00	44.35	C
ATOM	5931	O2*	G A 286	152.255	74.573	-15.448	1.00	43.66	O	ATOM	5981	N6	A A 288	141.940	71.871	-14.726	1.00	44.35	N
ATOM	5932	C1*	G A 286	150.981	74.491	-17.478	1.00	43.66	C	ATOM	5982	N1	A A 288	140.541	73.538	-13.976	1.00	44.35	N
ATOM	5933	N9	G A 286	149.584	74.553	-17.901	1.00	49.54	N	ATOM	5983	C2	A A 288	140.333	74.589	-13.177	1.00	44.35	C
ATOM	5934	C8	G A 286	148.903	73.631	-18.655	1.00	49.54	C	ATOM	5984	N3	A A 288	141.151	75.152	-12.290	1.00	44.35	N
ATOM	5935	N7	G A 286	147.648	73.936	-18.824	1.00	49.54	N	ATOM	5985	C4	A A 288	142.328	74.509	-12.266	1.00	44.35	C
ATOM	5936	C5	G A 286	147.494	75.135	-18.153	1.00	49.54	C	ATOM	5986	P	G A 289	143.018	73.607	-6.313	1.00	45.17	P
ATOM	5937	C6	G A 286	146.352	75.941	-17.982	1.00	49.54	C	ATOM	5987	O1P	G A 289	143.458	73.393	-4.906	1.00	37.52	O
ATOM	5938	O6	G A 286	145.213	75.750	-18.403	1.00	49.54	O	ATOM	5988	O2P	G A 289	142.988	72.453	-7.255	1.00	37.52	O
ATOM	5939	N1	G A 286	146.633	77.075	-17.233	1.00	49.54	N	ATOM	5989	O5*	G A 289	141.570	74.272	-6.282	1.00	45.17	O
ATOM	5940	C2	G A 286	147.865	77.392	-16.718	1.00	49.54	C	ATOM	5990	C5*	G A 289	140.388	73.474	-6.224	1.00	45.17	C
ATOM	5941	N2	G A 286	147.954	78.539	-16.035	1.00	49.54	N	ATOM	5991	C4*	G A 289	139.500	73.755	-7.415	1.00	45.17	C
ATOM	5942	N3	G A 286	148.939	76.641	-16.866	1.00	49.54	N	ATOM	5992	O4*	G A 289	138.488	72.726	-7.427	1.00	45.17	O
ATOM	5943	C4	G A 286	148.682	75.536	-17.589	1.00	49.54	C	ATOM	5993	C3*	G A 289	138.733	75.071	-7.437	1.00	45.17	C
ATOM	5944	P	U A 287	150.888	71.413	-13.873	1.00	46.82	P	ATOM	5994	O3*	G A 289	139.416	76.139	-8.077	1.00	45.17	O
ATOM	5945	O1P	U A 287	151.751	70.860	-12.792	1.00	46.58	O	ATOM	5995	C2*	G A 289	137.464	74.693	-8.183	1.00	45.17	C
ATOM	5946	O2P	U A 287	149.828	70.564	-14.485	1.00	46.58	O	ATOM	5996	O2*	G A 289	137.641	74.601	-9.585	1.00	45.17	O
ATOM	5947	O5*	U A 287	150.198	72.734	-13.316	1.00	46.82	O	ATOM	5997	C1*	G A 289	137.215	73.301	-7.623	1.00	45.17	C



Table 1: Sheet 62/521

ATOM	5998	N9	G A 289	136.536	73.313	-6.327	1.00	37.52	N	ATOM	6048	C6	C A 291	133.183	80.918	-4.754	1.00	41.99	C
ATOM	5999	C8	G A 289	137.090	73.103	-5.080	1.00	37.52	C	ATOM	6049	P	G A 292	132.070	86.263	-5.088	1.00	38.72	P
ATOM	6000	N7	G A 289	136.212	73.123	-4.119	1.00	37.52	N	ATOM	6050	O1P	G A 292	131.883	87.616	-5.670	1.00	42.75	O
ATOM	6001	C5	G A 289	135.012	73.377	-4.763	1.00	37.52	C	ATOM	6051	O2P	G A 292	133.374	85.897	-4.502	1.00	42.75	O
ATOM	6002	C6	G A 289	133.707	73.514	-4.243	1.00	37.52	C	ATOM	6052	O5*	G A 292	130.975	86.031	-3.963	1.00	38.72	O
ATOM	6003	O6	G A 289	133.340	73.437	-3.071	1.00	37.52	O	ATOM	6053	C5*	G A 292	129.598	86.325	-4.213	1.00	38.72	C
ATOM	6004	N1	G A 289	132.778	73.772	-5.247	1.00	37.52	N	ATOM	6054	C4*	G A 292	128.800	86.158	-2.948	1.00	38.72	C
ATOM	6005	C2	G A 289	133.074	73.888	-6.586	1.00	37.52	C	ATOM	6055	O4*	G A 292	128.920	84.783	-2.507	1.00	38.72	O
ATOM	6006	N2	G A 289	132.044	74.137	-7.414	1.00	37.52	N	ATOM	6056	C3*	G A 292	129.270	86.992	-1.766	1.00	38.72	C
ATOM	6007	N3	G A 289	134.292	73.768	-7.083	1.00	37.52	N	ATOM	6057	O3*	G A 292	128.671	88.288	-1.758	1.00	38.72	O
ATOM	6008	C4	G A 289	135.202	73.511	-6.123	1.00	37.52	C	ATOM	6058	C2*	G A 292	128.814	86.168	-0.570	1.00	38.72	C
ATOM	6009	P	C A 290	139.107	77.658	-7.628	1.00	36.79	P	ATOM	6059	O2*	G A 292	127.473	86.414	-0.226	1.00	38.72	O
ATOM	6010	O1P	C A 290	139.975	78.567	-8.400	1.00	33.85	O	ATOM	6060	C1*	G A 292	128.950	84.738	-1.096	1.00	38.72	C
ATOM	6011	O2P	C A 290	139.133	77.711	-6.151	1.00	33.85	O	ATOM	6061	N9	G A 292	130.219	84.162	-0.681	1.00	42.75	N
ATOM	6012	O5*	C A 290	137.601	77.923	-8.075	1.00	36.79	O	ATOM	6062	C8	G A 292	131.422	84.221	-1.342	1.00	42.75	C
ATOM	6013	C5*	C A 290	137.281	78.368	-9.403	1.00	36.79	C	ATOM	6063	N7	G A 292	132.400	83.686	-0.667	1.00	42.75	N
ATOM	6014	C4*	C A 290	135.837	78.813	-9.470	1.00	36.79	C	ATOM	6064	C5	G A 292	131.801	83.225	0.496	1.00	42.75	C
ATOM	6015	O4*	C A 290	134.987	77.680	-9.161	1.00	36.79	O	ATOM	6065	C6	G A 292	132.357	82.566	1.606	1.00	42.75	C
ATOM	6016	C3*	C A 290	135.400	79.888	-8.481	1.00	36.79	C	ATOM	6066	O6	G A 292	133.539	82.259	1.805	1.00	42.75	O
ATOM	6017	O3*	C A 290	135.692	81.207	-8.914	1.00	36.79	O	ATOM	6067	N1	G A 292	131.387	82.275	2.560	1.00	42.75	N
ATOM	6018	C2*	C A 290	133.904	79.638	-8.382	1.00	36.79	C	ATOM	6068	C2	G A 292	130.056	82.601	2.463	1.00	42.75	C
ATOM	6019	O2*	C A 290	133.201	80.169	-9.487	1.00	36.79	O	ATOM	6069	N2	G A 292	129.287	82.290	3.502	1.00	42.75	N
ATOM	6020	C1*	C A 290	133.851	78.112	-8.426	1.00	36.79	C	ATOM	6070	N3	G A 292	129.526	83.206	1.430	1.00	42.75	N
ATOM	6021	N1	C A 290	133.941	77.579	-7.049	1.00	33.85	N	ATOM	6071	C4	G A 292	130.451	83.493	0.490	1.00	42.75	C
ATOM	6022	C2	C A 290	132.773	77.445	-6.306	1.00	33.85	C	ATOM	6072	P	G A 293	129.450	89.524	-1.075	1.00	41.55	P
ATOM	6023	O2	C A 290	131.685	77.635	-6.869	1.00	33.85	O	ATOM	6073	O1P	G A 293	128.496	90.661	-0.961	1.00	52.20	O
ATOM	6024	N3	C A 290	132.857	77.103	-4.998	1.00	33.85	N	ATOM	6074	O2P	G A 293	130.730	89.704	-1.823	1.00	52.20	O
ATOM	6025	C4	C A 290	134.048	76.870	-4.446	1.00	33.85	C	ATOM	6075	O5*	G A 293	129.778	89.022	0.398	1.00	41.55	O
ATOM	6026	N4	C A 290	134.097	76.607	-3.148	1.00	33.85	N	ATOM	6076	C5*	G A 293	130.991	89.399	1.040	1.00	41.55	C
ATOM	6027	C5	C A 290	135.249	76.916	-5.201	1.00	33.85	C	ATOM	6077	C4*	G A 293	131.627	88.192	1.680	1.00	41.55	C
ATOM	6028	C6	C A 290	135.152	77.272	-6.486	1.00	33.85	C	ATOM	6078	O4*	G A 293	131.830	87.154	0.682	1.00	41.55	O
ATOM	6029	P	C A 291	135.820	82.390	-7.836	1.00	46.89	P	ATOM	6079	C3*	G A 293	133.001	88.468	2.256	1.00	41.55	C
ATOM	6030	O1P	C A 291	136.085	83.597	-8.636	1.00	41.99	O	ATOM	6080	O3*	G A 293	132.907	88.982	3.575	1.00	41.55	O
ATOM	6031	O2P	C A 291	136.736	82.035	-6.721	1.00	41.99	O	ATOM	6081	C2*	G A 293	133.688	87.111	2.161	1.00	41.55	C
ATOM	6032	O5*	C A 291	134.351	82.524	-7.249	1.00	46.89	O	ATOM	6082	O2*	G A 293	133.356	86.241	3.228	1.00	41.55	O
ATOM	6033	C5*	C A 291	133.288	83.032	-8.070	1.00	46.89	C	ATOM	6083	C1*	G A 293	133.106	86.561	0.855	1.00	41.55	C
ATOM	6034	C4*	C A 291	131.985	83.024	-7.315	1.00	46.89	C	ATOM	6084	N9	G A 293	133.920	86.897	-0.316	1.00	52.20	N
ATOM	6035	O4*	C A 291	131.705	81.670	-6.875	1.00	46.89	O	ATOM	6085	C8	G A 293	133.530	87.630	-1.415	1.00	52.20	C
ATOM	6036	C3*	C A 291	131.930	83.841	-6.035	1.00	46.89	C	ATOM	6086	N7	G A 293	134.478	87.775	-2.301	1.00	52.20	N
ATOM	6037	O3*	C A 291	131.676	85.216	-6.240	1.00	46.89	O	ATOM	6087	C5	G A 293	135.560	87.099	-1.758	1.00	52.20	C
ATOM	6038	C2*	C A 291	130.793	83.174	-5.281	1.00	46.89	C	ATOM	6088	C6	G A 293	136.863	86.907	-2.266	1.00	52.20	C
ATOM	6039	O2*	C A 291	129.517	83.596	-5.721	1.00	46.89	O	ATOM	6089	O6	G A 293	137.345	87.313	-3.326	1.00	52.20	O
ATOM	6040	C1*	C A 291	131.011	81.708	-5.644	1.00	46.89	C	ATOM	6090	N1	G A 293	137.638	86.155	-1.402	1.00	52.20	N
ATOM	6041	N1	C A 291	131.838	81.093	-4.600	1.00	41.99	N	ATOM	6091	C2	G A 293	137.218	85.647	-0.202	1.00	52.20	C
ATOM	6042	C2	C A 291	131.214	80.729	-3.413	1.00	41.99	C	ATOM	6092	N2	G A 293	138.123	84.935	0.488	1.00	52.20	N
ATOM	6043	O2	C A 291	129.983	80.841	-3.330	1.00	41.99	O	ATOM	6093	N3	G A 293	136.006	85.819	0.288	1.00	52.20	N
ATOM	6044	N3	C A 291	131.952	80.264	-2.387	1.00	41.99	N	ATOM	6094	C4	G A 293	135.233	86.549	-0.536	1.00	52.20	C
ATOM	6045	C4	C A 291	133.266	80.142	-2.522	1.00	41.99	C	ATOM	6095	P	U A 294	133.818	90.229	3.991	1.00	44.38	P
ATOM	6046	N4	C A 291	133.956	79.734	-1.458	1.00	41.99	N	ATOM	6096	O1P	U A 294	133.492	90.688	5.354	1.00	43.79	O
ATOM	6047	C5	C A 291	133.931	80.451	-3.749	1.00	41.99	C	ATOM	6097	O2P	U A 294	133.759	91.191	2.864	1.00	43.79	O



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ATOM	6098	O5*	U A 294	135.263	89.584	4.083	1.00	44.38	O	ATOM	6148	C2	U A 296	143.408	95.262	-0.197	1.00	41.02	C
ATOM	6099	C5*	U A 294	135.478	88.457	4.930	1.00	44.38	C	ATOM	6149	O2	U A 296	144.253	95.488	-1.048	1.00	41.02	O
ATOM	6100	C4*	U A 294	136.872	87.930	4.755	1.00	44.38	C	ATOM	6150	N3	U A 296	142.070	95.335	-0.469	1.00	41.02	N
ATOM	6101	O4*	U A 294	137.016	87.284	3.462	1.00	44.38	O	ATOM	6151	C4	U A 296	141.042	95.136	0.407	1.00	41.02	C
ATOM	6102	C3*	U A 294	137.960	88.975	4.771	1.00	44.38	C	ATOM	6152	O4	U A 296	139.887	95.285	0.011	1.00	41.02	O
ATOM	6103	O3*	U A 294	138.319	89.342	6.078	1.00	44.38	O	ATOM	6153	C5	U A 296	141.444	94.801	1.742	1.00	41.02	C
ATOM	6104	O2*	U A 294	139.093	88.286	4.029	1.00	44.38	C	ATOM	6154	C6	U A 296	142.740	94.706	2.039	1.00	41.02	C
ATOM	6105	O2*	U A 294	139.778	87.393	4.876	1.00	44.38	O	ATOM	6155	P	G A 297	146.396	98.658	4.008	1.00	33.14	P
ATOM	6106	C1*	U A 294	138.325	87.505	2.961	1.00	44.38	C	ATOM	6156	O1P	G A 297	147.638	99.333	4.472	1.00	38.38	O
ATOM	6107	N1	U A 294	138.206	88.210	1.673	1.00	43.79	N	ATOM	6157	O2P	G A 297	145.183	98.692	4.847	1.00	38.38	O
ATOM	6108	C2	U A 294	139.310	88.247	0.827	1.00	43.79	C	ATOM	6158	O5*	G A 297	145.948	99.222	2.601	1.00	33.14	O
ATOM	6109	O2	U A 294	140.395	87.758	1.110	1.00	43.79	O	ATOM	6159	C5*	G A 297	146.908	99.571	1.623	1.00	33.14	C
ATOM	6110	N3	U A 294	139.095	88.888	-0.368	1.00	43.79	N	ATOM	6160	C4*	G A 297	146.207	100.072	0.401	1.00	33.14	C
ATOM	6111	C4	U A 294	137.928	89.492	-0.790	1.00	43.79	C	ATOM	6161	O4*	G A 297	145.401	99.000	-0.155	1.00	33.14	O
ATOM	6112	O4	U A 294	137.891	90.040	-1.893	1.00	43.79	O	ATOM	6162	C3*	G A 297	145.199	101.188	0.619	1.00	33.14	C
ATOM	6113	C5	U A 294	136.852	89.423	0.144	1.00	43.79	C	ATOM	6163	O3*	G A 297	145.810	102.457	0.680	1.00	33.14	O
ATOM	6114	C6	U A 294	137.022	88.804	1.310	1.00	43.79	C	ATOM	6164	C2*	G A 297	144.324	101.074	-0.617	1.00	33.14	C
ATOM	6115	P	C A 295	138.864	90.825	6.338	1.00	44.29	P	ATOM	6165	O2*	G A 297	144.939	101.730	-1.696	1.00	33.14	O
ATOM	6116	O1P	C A 295	139.007	90.997	7.828	1.00	32.61	O	ATOM	6166	C1*	G A 297	144.306	99.559	-0.855	1.00	33.14	C
ATOM	6117	O2P	C A 295	137.989	91.743	5.562	1.00	32.61	O	ATOM	6167	N9	G A 297	143.073	99.006	-0.325	1.00	38.38	N
ATOM	6118	O5*	C A 295	140.307	90.842	5.652	1.00	44.29	O	ATOM	6168	C8	G A 297	142.846	98.467	0.915	1.00	38.38	C
ATOM	6119	C5*	C A 295	141.426	90.211	6.299	1.00	44.29	C	ATOM	6169	N7	G A 297	141.584	98.214	1.134	1.00	38.38	N
ATOM	6120	C4*	C A 295	142.679	90.378	5.484	1.00	44.29	C	ATOM	6170	C5	G A 297	140.958	98.578	-0.044	1.00	38.38	C
ATOM	6121	O4*	C A 295	142.509	89.719	4.207	1.00	44.29	O	ATOM	6171	C6	G A 297	139.595	98.565	-0.394	1.00	38.38	C
ATOM	6122	C3*	C A 295	143.054	91.792	5.101	1.00	44.29	C	ATOM	6172	O6	G A 297	138.620	98.242	0.299	1.00	38.38	O
ATOM	6123	O3*	C A 295	143.727	92.480	6.114	1.00	44.29	O	ATOM	6173	N1	G A 297	139.403	98.997	-1.702	1.00	38.38	N
ATOM	6124	C2*	C A 295	143.940	91.575	3.895	1.00	44.29	C	ATOM	6174	C2	G A 297	140.404	99.400	-2.558	1.00	38.38	C
ATOM	6125	O2*	C A 295	145.222	91.139	4.287	1.00	44.29	O	ATOM	6175	N2	G A 297	140.027	99.766	-3.794	1.00	38.38	N
ATOM	6126	C1*	C A 295	143.216	90.427	3.206	1.00	44.29	C	ATOM	6176	N3	G A 297	141.677	99.437	-2.229	1.00	38.38	N
ATOM	6127	N1	C A 295	142.251	90.924	2.215	1.00	32.61	N	ATOM	6177	C4	G A 297	141.877	99.019	-0.967	1.00	38.38	C
ATOM	6128	C2	C A 295	142.717	91.327	0.970	1.00	32.61	C	ATOM	6178	P	A A 298	145.283	103.535	1.747	1.00	38.16	P
ATOM	6129	O2	C A 295	143.922	91.234	0.724	1.00	32.61	O	ATOM	6179	O1P	A A 298	146.208	104.695	1.713	1.00	43.07	O
ATOM	6130	N3	C A 295	141.845	91.803	0.058	1.00	32.61	N	ATOM	6180	O2P	A A 298	145.086	102.797	3.026	1.00	43.07	O
ATOM	6131	C4	C A 295	140.549	91.866	0.349	1.00	32.61	C	ATOM	6181	O5*	A A 298	143.874	104.001	1.154	1.00	38.16	O
ATOM	6132	N4	C A 295	139.723	92.318	-0.588	1.00	32.61	N	ATOM	6182	C5*	A A 298	142.871	104.621	1.993	1.00	38.16	C
ATOM	6133	C5	C A 295	140.044	91.461	1.611	1.00	32.61	C	ATOM	6183	C4*	A A 298	141.919	105.434	1.158	1.00	38.16	C
ATOM	6134	C6	C A 295	140.921	90.999	2.507	1.00	32.61	C	ATOM	6184	O4*	A A 298	142.650	106.525	0.569	1.00	38.16	O
ATOM	6135	P	U A 296	143.421	94.039	6.317	1.00	36.19	P	ATOM	6185	C3*	A A 298	141.322	104.670	-0.006	1.00	38.16	C
ATOM	6136	O1P	U A 296	143.944	94.420	7.657	1.00	41.02	O	ATOM	6186	O2*	A A 298	140.107	104.045	0.371	1.00	38.16	O
ATOM	6137	O2P	U A 296	141.984	94.265	5.995	1.00	41.02	O	ATOM	6187	C3*	A A 298	141.092	105.742	-1.059	1.00	38.16	C
ATOM	6138	O5*	U A 296	144.258	94.745	5.167	1.00	36.19	O	ATOM	6188	O2*	A A 298	139.851	106.375	-0.892	1.00	38.16	O
ATOM	6139	C5*	U A 296	145.642	94.447	4.977	1.00	36.19	C	ATOM	6189	C1*	A A 298	142.234	106.716	-0.768	1.00	38.16	C
ATOM	6140	C4*	U A 296	146.064	94.843	3.590	1.00	36.19	C	ATOM	6190	N9	A A 298	143.405	106.548	-1.629	1.00	43.07	N
ATOM	6141	O4*	U A 296	145.322	94.075	2.608	1.00	36.19	O	ATOM	6191	C8	A A 298	144.566	105.883	-1.336	1.00	43.07	C
ATOM	6142	C3*	U A 296	145.778	96.277	3.206	1.00	36.19	C	ATOM	6192	N7	A A 298	145.465	105.946	-2.285	1.00	43.07	N
ATOM	6143	O3*	U A 296	146.773	97.141	3.694	1.00	36.19	O	ATOM	6193	C5	A A 298	144.852	106.699	-3.276	1.00	43.07	C
ATOM	6144	C2*	U A 296	145.762	96.217	1.686	1.00	36.19	C	ATOM	6194	C6	A A 298	145.290	107.140	-4.546	1.00	43.07	C
ATOM	6145	O2*	U A 296	147.057	96.220	1.129	1.00	36.19	O	ATOM	6195	N6	A A 298	146.498	106.873	-5.053	1.00	43.07	N
ATOM	6146	C1*	U A 296	145.152	94.843	1.438	1.00	36.19	C	ATOM	6196	N1	A A 298	144.432	107.873	-5.286	1.00	43.07	N
ATOM	6147	N1	U A 296	143.724	94.930	1.109	1.00	41.02	N	ATOM	6197	C2	A A 298	143.220	108.132	-4.783	1.00	43.07	C



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ATOM	6198	N3	A	A	298	142.693	107.772	-3.611	1.00	43.07	N	ATOM	6248	O5*	G	A	301	139.572	97.352	-10.118	1.00	44.13	O
ATOM	6199	C4	A	A	298	143.574	107.056	-2.894	1.00	43.07	C	ATOM	6249	C5*	G	A	301	140.587	97.311	-11.136	1.00	44.13	C
ATOM	6200	P	G	A	299	139.850	102.512	-0.024	1.00	35.68	P	ATOM	6250	C4*	G	A	301	141.969	97.285	-10.517	1.00	44.13	C
ATOM	6201	O1P	G	A	299	138.668	102.025	0.744	1.00	48.39	O	ATOM	6251	O4*	G	A	301	141.981	98.151	-9.350	1.00	44.13	O
ATOM	6202	O2P	G	A	299	141.169	101.841	0.139	1.00	48.39	O	ATOM	6252	C3*	G	A	301	142.479	95.956	-9.981	1.00	44.13	C
ATOM	6203	O5*	G	A	299	139.455	102.559	-1.565	1.00	35.68	O	ATOM	6253	O3*	G	A	301	143.041	95.149	-11.006	1.00	44.13	O
ATOM	6204	C5*	G	A	299	138.222	103.162	-1.979	1.00	35.68	C	ATOM	6254	C2*	G	A	301	143.535	96.395	-8.972	1.00	44.13	C
ATOM	6205	O4*	G	A	299	138.371	103.749	-3.356	1.00	35.68	O	ATOM	6255	O1*	G	A	301	144.763	96.775	-9.550	1.00	44.13	O
ATOM	6206	C4*	G	A	299	139.597	104.516	-3.365	1.00	35.68	C	ATOM	6256	C1*	G	A	301	142.904	97.654	-8.394	1.00	44.13	C
ATOM	6207	C3*	G	A	299	138.511	102.744	-4.494	1.00	35.68	C	ATOM	6257	N9	G	A	301	142.216	97.363	-7.137	1.00	46.13	N
ATOM	6208	O3*	G	A	299	137.234	102.469	-5.059	1.00	35.68	O	ATOM	6258	C8	G	A	301	140.864	97.372	-6.876	1.00	46.13	C
ATOM	6209	C2*	G	A	299	139.354	103.496	-5.511	1.00	35.68	C	ATOM	6259	N7	G	A	301	140.579	97.051	-5.640	1.00	46.13	N
ATOM	6210	O2*	G	A	299	138.541	104.340	-6.292	1.00	35.68	O	ATOM	6260	C5	G	A	301	141.817	96.815	-5.055	1.00	46.13	C
ATOM	6211	C1*	G	A	299	140.244	104.360	-4.615	1.00	35.68	C	ATOM	6261	C6	G	A	301	142.144	96.420	-3.745	1.00	46.13	C
ATOM	6212	N9	G	A	299	141.590	103.850	-4.366	1.00	48.39	N	ATOM	6262	O6	G	A	301	141.383	96.188	-2.800	1.00	46.13	O
ATOM	6213	C8	G	A	299	142.007	103.127	-3.278	1.00	48.39	C	ATOM	6263	N1	G	A	301	143.518	96.290	-3.579	1.00	46.13	N
ATOM	6214	N7	G	A	299	143.289	102.898	-3.278	1.00	48.39	N	ATOM	6264	N2	G	A	301	144.457	96.506	-4.555	1.00	46.13	C
ATOM	6215	C5	G	A	299	143.748	103.487	-4.448	1.00	48.39	C	ATOM	6265	C2	G	A	301	145.738	96.329	-4.200	1.00	46.13	N
ATOM	6216	C6	G	A	299	145.070	103.599	-4.972	1.00	48.39	C	ATOM	6266	N3	G	A	301	144.164	96.870	-5.786	1.00	46.13	N
ATOM	6217	O6	G	A	299	146.140	103.194	-4.479	1.00	48.39	O	ATOM	6267	C4	G	A	301	142.834	97.006	-5.964	1.00	46.13	C
ATOM	6218	N1	G	A	299	145.079	104.281	-6.181	1.00	48.39	N	ATOM	6268	P	G	A	302	142.996	93.540	-10.876	1.00	47.25	P
ATOM	6219	C2	G	A	299	143.974	104.805	-6.799	1.00	48.39	C	ATOM	6269	O1P	G	A	302	143.447	93.013	-12.195	1.00	35.03	O
ATOM	6220	N2	G	A	299	144.186	105.454	-7.944	1.00	48.39	N	ATOM	6270	O2P	G	A	302	141.701	93.085	-10.302	1.00	35.03	O
ATOM	6221	N3	G	A	299	142.747	104.711	-6.326	1.00	48.39	N	ATOM	6271	O5*	G	A	302	144.112	93.201	-9.799	1.00	47.25	O
ATOM	6222	C4	G	A	299	142.708	104.051	-5.149	1.00	48.39	C	ATOM	6272	C5*	G	A	302	145.472	93.565	-10.022	1.00	47.25	C
ATOM	6223	P	A	A	300	136.902	101.002	-5.625	1.00	46.09	P	ATOM	6273	O4*	G	A	302	146.263	93.363	-8.766	1.00	47.25	C
ATOM	6224	O1P	A	A	300	135.457	100.962	-5.968	1.00	40.91	O	ATOM	6274	C4*	G	A	302	145.737	94.201	-7.706	1.00	47.25	O
ATOM	6225	O2P	A	A	300	137.451	100.004	-4.674	1.00	40.91	O	ATOM	6275	C3*	G	A	302	146.181	91.973	-8.184	1.00	47.25	C
ATOM	6226	O5*	A	A	300	137.727	100.900	-6.982	1.00	46.09	O	ATOM	6276	O3*	G	A	302	147.045	91.082	-8.835	1.00	47.25	O
ATOM	6227	C5*	A	A	300	137.305	101.585	-8.167	1.00	46.09	C	ATOM	6277	C2*	G	A	302	146.554	92.209	-6.732	1.00	47.25	C
ATOM	6228	O4*	A	A	300	138.416	101.581	-9.191	1.00	46.09	O	ATOM	6278	O2*	G	A	302	147.950	92.405	-6.592	1.00	47.25	O
ATOM	6229	C4*	A	A	300	139.540	102.357	-8.696	1.00	46.09	C	ATOM	6279	C1*	G	A	302	145.841	93.527	-6.462	1.00	47.25	C
ATOM	6230	C3*	A	A	300	139.018	100.226	-9.529	1.00	46.09	C	ATOM	6280	N9	G	A	302	144.493	93.350	-5.916	1.00	35.03	N
ATOM	6231	O3*	A	A	300	138.312	99.535	-10.539	1.00	46.09	O	ATOM	6281	C8	G	A	302	143.299	93.523	-6.581	1.00	35.03	C
ATOM	6232	C2*	A	A	300	140.394	100.607	-10.038	1.00	46.09	C	ATOM	6282	N7	G	A	302	142.253	93.349	-5.816	1.00	35.03	N
ATOM	6233	O2*	A	A	300	140.293	101.080	-11.367	1.00	46.09	O	ATOM	6283	C5	G	A	302	142.784	93.034	-4.575	1.00	35.03	C
ATOM	6234	C1*	A	A	300	140.755	101.758	-9.105	1.00	46.09	C	ATOM	6284	C6	G	A	302	142.135	92.770	-3.348	1.00	35.03	C
ATOM	6235	N9	A	A	300	141.434	101.271	-7.908	1.00	40.91	N	ATOM	6285	O6	G	A	302	140.930	92.785	-3.102	1.00	35.03	O
ATOM	6236	C8	A	A	300	140.853	100.787	-6.768	1.00	40.91	C	ATOM	6286	N1	G	A	302	143.043	92.483	-2.338	1.00	35.03	N
ATOM	6237	N7	A	A	300	141.706	100.451	-5.839	1.00	40.91	N	ATOM	6287	C2	G	A	302	144.405	92.475	-2.486	1.00	35.03	C
ATOM	6238	C5	A	A	300	142.938	100.727	-6.404	1.00	40.91	C	ATOM	6288	N2	G	A	302	145.106	92.192	-1.386	1.00	35.03	N
ATOM	6239	C6	A	A	300	144.250	100.612	-5.912	1.00	40.91	C	ATOM	6289	N3	G	A	302	145.032	92.734	-3.625	1.00	35.03	N
ATOM	6240	N6	A	A	300	144.551	100.181	-4.683	1.00	40.91	N	ATOM	6290	C4	G	A	302	144.164	93.006	-4.622	1.00	35.03	C
ATOM	6241	N1	A	A	300	145.258	100.969	-6.734	1.00	40.91	N	ATOM	6291	P	A	A	303	146.537	89.600	-9.136	1.00	51.77	P
ATOM	6242	C2	A	A	300	144.956	101.414	-7.963	1.00	40.91	C	ATOM	6292	O1P	A	A	303	147.598	89.049	-10.005	1.00	41.62	O
ATOM	6243	N3	A	A	300	143.763	101.577	-8.534	1.00	40.91	N	ATOM	6293	O2P	A	A	303	145.134	89.631	-9.615	1.00	41.62	O
ATOM	6244	C4	A	A	300	142.785	101.215	-7.689	1.00	40.91	C	ATOM	6294	O5*	A	A	303	146.543	88.886	-7.709	1.00	51.77	O
ATOM	6245	P	G	A	301	138.119	97.947	-10.417	1.00	44.13	P	ATOM	6295	C5*	A	A	303	147.775	88.668	-7.006	1.00	51.77	C
ATOM	6246	O1P	G	A	301	137.627	97.513	-11.754	1.00	46.13	O	ATOM	6296	C4*	A	A	303	147.515	88.291	-5.567	1.00	51.77	C
ATOM	6247	O2P	G	A	301	137.299	97.691	-9.205	1.00	46.13	O	ATOM	6297	O4*	A	A	303	146.893	89.404	-4.871	1.00	51.77	O



ATOM	6298	C3*	A A 303	146.587	87.119	-5.284	1.00	51.77	C	ATOM	6348	C5	G A 305	138.074	83.697	-4.257	1.00	48.16	C
ATOM	6299	O3*	A A 303	147.220	85.855	-5.398	1.00	51.77	O	ATOM	6349	C6	G A 305	137.180	84.520	-4.956	1.00	48.16	C
ATOM	6300	C2*	A A 303	146.175	87.385	-3.841	1.00	51.77	C	ATOM	6350	O6	G A 305	137.375	85.149	-6.003	1.00	48.16	O
ATOM	6301	O2*	A A 303	147.148	86.958	-2.901	1.00	51.77	O	ATOM	6351	N1	G A 305	135.940	84.571	-4.331	1.00	48.16	N
ATOM	6302	C1*	A A 303	146.064	88.911	-3.826	1.00	51.77	C	ATOM	6352	C2	G A 305	135.604	83.905	-3.182	1.00	48.16	C
ATOM	6303	N9	A A 303	144.675	89.289	-4.097	1.00	41.62	N	ATOM	6353	N2	G A 305	134.358	84.080	-2.730	1.00	48.16	N
ATOM	6304	C8	A A 303	144.110	89.662	-5.294	1.00	41.62	C	ATOM	6354	N3	G A 305	136.428	83.124	-2.525	1.00	48.16	N
ATOM	6305	N7	A A 303	142.809	89.814	-5.239	1.00	41.62	N	ATOM	6355	C4	G A 305	137.639	83.062	-3.118	1.00	48.16	C
ATOM	6306	C5	A A 303	142.501	89.551	-3.912	1.00	41.62	C	ATOM	6356	P	G A 306	138.358	77.286	0.442	1.00	74.75	P
ATOM	6307	C6	A A 303	141.286	89.523	-3.220	1.00	41.62	C	ATOM	6357	O1P	G A 306	139.119	76.430	-0.516	1.00	105.97	O
ATOM	6308	N6	A A 303	140.111	89.745	-3.798	1.00	41.62	N	ATOM	6358	O2P	G A 306	136.931	76.965	0.743	1.00	105.97	O
ATOM	6309	N1	A A 303	141.318	89.243	-1.900	1.00	41.62	N	ATOM	6359	O5*	G A 306	139.169	77.395	1.811	1.00	74.75	O
ATOM	6310	C2	A A 303	142.503	88.996	-1.328	1.00	41.62	C	ATOM	6360	C5*	G A 306	140.161	76.426	2.173	1.00	74.75	C
ATOM	6311	N3	A A 303	143.715	88.977	-1.877	1.00	41.62	N	ATOM	6361	C4*	G A 306	140.515	76.574	3.630	1.00	74.75	C
ATOM	6312	C4	A A 303	143.643	89.262	-3.190	1.00	41.62	C	ATOM	6362	O4*	G A 306	141.225	77.820	3.833	1.00	74.75	O
ATOM	6313	P	U A 304	146.355	84.572	-5.840	1.00	46.55	P	ATOM	6363	C3*	G A 306	139.330	76.647	4.575	1.00	74.75	C
ATOM	6314	O1P	U A 304	147.303	83.443	-6.002	1.00	49.13	O	ATOM	6364	O3*	G A 306	138.837	75.357	4.913	1.00	74.75	O
ATOM	6315	O2P	U A 304	145.476	84.970	-6.974	1.00	49.13	O	ATOM	6365	C2*	G A 306	139.894	77.406	5.769	1.00	74.75	C
ATOM	6316	O5*	U A 304	145.423	84.256	-4.592	1.00	46.55	O	ATOM	6366	O2*	G A 306	140.581	76.578	6.685	1.00	74.75	O
ATOM	6317	C5*	U A 304	145.981	83.923	-3.320	1.00	46.55	C	ATOM	6367	C1*	G A 306	140.878	78.365	5.092	1.00	74.75	C
ATOM	6318	C4*	U A 304	144.895	83.897	-2.275	1.00	46.55	C	ATOM	6368	N9	G A 306	140.326	79.702	4.888	1.00	105.97	N
ATOM	6319	O4*	U A 304	144.287	85.207	-2.195	1.00	46.55	O	ATOM	6369	C8	G A 306	140.045	80.327	3.692	1.00	105.97	C
ATOM	6320	C3*	U A 304	143.728	82.951	-2.533	1.00	46.55	C	ATOM	6370	N7	G A 306	139.542	81.523	3.842	1.00	105.97	N
ATOM	6321	O3*	U A 304	144.041	81.642	-2.074	1.00	46.55	O	ATOM	6371	C5	G A 306	139.492	81.702	5.221	1.00	105.97	C
ATOM	6322	C2*	U A 304	142.610	83.587	-1.717	1.00	46.55	C	ATOM	6372	O6	G A 306	139.034	82.810	5.996	1.00	105.97	O
ATOM	6323	O2*	U A 304	142.705	83.286	-0.340	1.00	46.55	O	ATOM	6373	O6	G A 306	138.572	83.890	5.602	1.00	105.97	O
ATOM	6324	C1*	U A 304	142.909	85.076	-1.895	1.00	46.55	C	ATOM	6374	N1	G A 306	139.156	82.562	7.364	1.00	105.97	N
ATOM	6325	N1	U A 304	142.118	85.702	-2.970	1.00	49.13	N	ATOM	6375	C2	G A 306	139.649	81.402	7.920	1.00	105.97	C
ATOM	6326	O2	U A 304	140.784	85.975	-2.710	1.00	49.13	O	ATOM	6376	N2	G A 306	139.674	81.345	9.263	1.00	105.97	N
ATOM	6327	C2	U A 304	140.254	85.749	-1.638	1.00	49.13	C	ATOM	6377	N3	G A 306	140.081	80.371	7.211	1.00	105.97	N
ATOM	6328	N3	U A 304	140.092	86.525	-3.755	1.00	49.13	N	ATOM	6378	C4	G A 306	139.974	80.587	5.879	1.00	105.97	C
ATOM	6329	C4	U A 304	140.580	86.829	-4.999	1.00	49.13	C	ATOM	6379	P	C A 307	137.249	75.129	5.062	1.00	64.45	P
ATOM	6330	O4	U A 304	139.821	87.305	-5.838	1.00	49.13	O	ATOM	6380	O1P	C A 307	137.026	73.680	5.315	1.00	80.53	O
ATOM	6331	C5	U A 304	141.962	86.536	-5.188	1.00	49.13	C	ATOM	6381	O2P	C A 307	136.572	75.781	3.907	1.00	80.53	O
ATOM	6332	C6	U A 304	142.667	85.999	-4.195	1.00	49.13	C	ATOM	6382	O5*	C A 307	136.883	75.935	6.390	1.00	64.45	O
ATOM	6333	P	G A 305	143.340	80.360	-2.741	1.00	59.26	P	ATOM	6383	C5*	C A 307	137.474	75.562	7.655	1.00	64.45	C
ATOM	6334	O1P	G A 305	144.072	79.188	-2.205	1.00	48.16	O	ATOM	6384	C4*	C A 307	136.995	76.461	8.775	1.00	64.45	C
ATOM	6335	O2P	G A 305	143.188	80.531	-4.220	1.00	48.16	O	ATOM	6385	O4*	C A 307	137.571	77.790	8.666	1.00	64.45	O
ATOM	6336	O5*	G A 305	141.900	80.353	-2.078	1.00	59.26	O	ATOM	6386	C3*	C A 307	135.501	76.706	8.867	1.00	64.45	C
ATOM	6337	C5*	G A 305	141.751	80.236	-0.664	1.00	59.26	C	ATOM	6387	O3*	C A 307	134.816	75.632	9.478	1.00	64.45	O
ATOM	6338	C4*	G A 305	140.295	80.283	-0.310	1.00	59.26	C	ATOM	6388	C2*	C A 307	135.420	77.992	9.680	1.00	64.45	C
ATOM	6339	O4*	G A 305	139.769	81.554	-0.771	1.00	59.26	O	ATOM	6389	O2*	C A 307	135.479	77.774	11.073	1.00	64.45	O
ATOM	6340	C3*	G A 305	139.443	79.199	-0.964	1.00	59.26	C	ATOM	6390	C1*	C A 307	136.671	78.740	9.212	1.00	64.45	C
ATOM	6341	O3*	G A 305	138.402	78.797	-0.093	1.00	59.26	O	ATOM	6391	N1	C A 307	136.338	79.738	8.185	1.00	80.53	N
ATOM	6342	C2*	G A 305	138.814	79.910	-2.151	1.00	59.26	C	ATOM	6392	C2	C A 307	135.737	80.924	8.592	1.00	80.53	C
ATOM	6343	O2*	G A 305	137.555	79.387	-2.529	1.00	59.26	O	ATOM	6393	O2	C A 307	135.572	81.124	9.805	1.00	80.53	O
ATOM	6344	C1*	G A 305	138.667	81.330	-1.617	1.00	59.26	C	ATOM	6394	N3	C A 307	135.354	81.827	7.663	1.00	80.53	N
ATOM	6345	N9	G A 305	138.694	82.295	-2.706	1.00	48.16	N	ATOM	6395	C4	C A 307	135.569	81.584	6.372	1.00	80.53	C
ATOM	6346	C8	G A 305	139.732	82.565	-3.563	1.00	48.16	C	ATOM	6396	N4	C A 307	135.147	82.489	5.489	1.00	80.53	N
ATOM	6347	N7	G A 305	139.400	83.386	-4.520	1.00	48.16	N	ATOM	6397	C5	C A 307	136.219	80.397	5.928	1.00	80.53	C



Table 1: Sheet 66/521

ATOM	6398	C6	C A 307	136.582	79.508	6.861	1.00	80.53	C	ATOM	6448	O4*	G A 310	124.993	78.231	-0.536	1.00	39.48	O
ATOM	6399	P	C A 308	133.565	74.979	8.721	1.00	57.31	P	ATOM	6449	C3*	G A 310	124.304	76.175	-1.372	1.00	39.48	C
ATOM	6400	O1P	C A 308	133.007	73.907	9.576	1.00	46.82	O	ATOM	6450	O3*	G A 310	123.258	75.368	-1.845	1.00	39.48	C
ATOM	6401	O2P	C A 308	134.002	74.665	7.333	1.00	46.82	O	ATOM	6451	C2*	G A 310	124.994	76.897	-2.506	1.00	39.48	C
ATOM	6402	O5*	C A 308	132.503	76.163	8.634	1.00	57.31	O	ATOM	6452	O2*	G A 310	124.037	77.390	-3.426	1.00	39.48	O
ATOM	6403	C5*	C A 308	131.778	76.602	9.798	1.00	57.31	C	ATOM	6453	C1*	G A 310	125.704	78.021	-1.748	1.00	39.48	C
ATOM	6404	O4*	C A 308	130.804	77.700	9.433	1.00	57.31	C	ATOM	6454	N9	G A 310	127.094	77.681	-1.436	1.00	45.96	N
ATOM	6405	C4*	C A 308	131.538	78.900	9.089	1.00	57.31	C	ATOM	6455	C8	G A 310	127.620	77.348	-0.213	1.00	45.96	C
ATOM	6406	C3*	C A 308	129.916	77.441	8.224	1.00	57.31	C	ATOM	6456	N7	G A 310	128.895	77.079	-0.263	1.00	45.96	N
ATOM	6407	O3*	C A 308	128.769	76.670	8.518	1.00	57.31	O	ATOM	6457	C5	G A 310	129.234	77.245	-1.599	1.00	45.96	C
ATOM	6408	C2*	C A 308	129.553	78.845	7.777	1.00	57.31	C	ATOM	6458	C6	G A 310	130.482	77.073	-2.266	1.00	45.96	C
ATOM	6409	O2*	C A 308	128.519	79.403	8.558	1.00	57.31	O	ATOM	6459	O6	G A 310	131.571	76.724	-1.788	1.00	45.96	O
ATOM	6410	C1*	C A 308	130.855	79.594	8.056	1.00	57.31	C	ATOM	6460	N1	G A 310	130.377	77.338	-3.630	1.00	45.96	N
ATOM	6411	N1	C A 308	131.717	79.620	6.861	1.00	46.82	N	ATOM	6461	C2	G A 310	129.223	77.709	-4.276	1.00	45.96	C
ATOM	6412	C2	C A 308	131.446	80.542	5.830	1.00	46.82	C	ATOM	6462	N2	G A 310	129.308	77.903	-5.608	1.00	45.96	N
ATOM	6413	O2	C A 308	130.488	81.327	5.944	1.00	46.82	O	ATOM	6463	N3	G A 310	128.060	77.871	-3.664	1.00	45.96	N
ATOM	6414	N3	C A 308	132.231	80.546	4.734	1.00	46.82	N	ATOM	6464	C4	G A 310	128.139	77.622	-2.336	1.00	45.96	C
ATOM	6415	C4	C A 308	133.240	79.679	4.634	1.00	46.82	C	ATOM	6465	P	C A 311	123.507	73.789	-1.980	1.00	41.25	P
ATOM	6416	N4	C A 308	133.979	79.705	3.528	1.00	46.82	N	ATOM	6466	O1P	C A 311	122.161	73.143	-2.189	1.00	34.15	O
ATOM	6417	C5	C A 308	133.535	78.742	5.663	1.00	46.82	C	ATOM	6467	O2P	C A 311	124.368	73.388	-0.825	1.00	34.15	O
ATOM	6418	P6	C A 308	132.763	78.750	6.747	1.00	46.82	C	ATOM	6468	O5*	C A 311	124.344	73.642	-3.327	1.00	41.25	O
ATOM	6419	P	G A 309	128.308	75.526	7.487	1.00	46.18	P	ATOM	6469	C5*	C A 311	123.728	73.983	-4.574	1.00	41.25	C
ATOM	6420	O1P	G A 309	127.362	74.636	8.226	1.00	49.37	O	ATOM	6470	C4*	C A 311	124.754	74.233	-5.652	1.00	41.25	C
ATOM	6421	O2P	G A 309	129.520	74.935	6.837	1.00	49.37	O	ATOM	6471	O4*	C A 311	125.713	75.244	-5.244	1.00	41.25	O
ATOM	6422	O5*	G A 309	127.505	76.322	6.364	1.00	46.18	O	ATOM	6472	C3*	C A 311	125.632	73.082	-6.077	1.00	41.25	C
ATOM	6423	C5*	G A 309	126.262	76.964	6.672	1.00	46.18	C	ATOM	6473	O3*	C A 311	124.971	72.194	-6.932	1.00	41.25	O
ATOM	6424	C4*	G A 309	125.838	77.859	5.537	1.00	46.18	C	ATOM	6474	C2*	C A 311	126.740	73.811	-6.803	1.00	41.25	C
ATOM	6425	O4*	G A 309	126.822	78.906	5.363	1.00	46.18	O	ATOM	6475	O2*	C A 311	126.275	74.283	-8.054	1.00	41.25	O
ATOM	6426	C3*	G A 309	125.758	77.208	4.173	1.00	46.18	C	ATOM	6476	C1*	C A 311	126.952	75.001	-5.881	1.00	41.25	C
ATOM	6427	O3*	G A 309	124.554	76.511	3.930	1.00	46.18	O	ATOM	6477	N1	C A 311	127.957	74.654	-4.860	1.00	34.15	N
ATOM	6428	C2*	G A 309	125.926	78.386	3.229	1.00	46.18	C	ATOM	6478	C2	C A 311	129.284	74.535	-5.262	1.00	34.15	C
ATOM	6429	O2*	G A 309	124.731	79.109	3.038	1.00	46.18	O	ATOM	6479	O2	C A 311	129.560	74.723	-6.459	1.00	34.15	O
ATOM	6430	C1*	G A 309	126.931	79.240	3.990	1.00	46.18	C	ATOM	6480	N3	C A 311	130.231	74.222	-4.347	1.00	34.15	N
ATOM	6431	N9	G A 309	128.303	78.983	3.562	1.00	49.37	N	ATOM	6481	C4	C A 311	129.888	74.038	-3.076	1.00	34.15	C
ATOM	6432	C8	G A 309	129.287	78.346	4.276	1.00	49.37	C	ATOM	6482	N4	C A 311	130.854	73.767	-2.204	1.00	34.15	N
ATOM	6433	N7	G A 309	130.423	78.279	3.637	1.00	49.37	N	ATOM	6483	C5	C A 311	128.537	74.136	-2.638	1.00	34.15	C
ATOM	6434	C5	G A 309	130.176	78.906	2.426	1.00	49.37	C	ATOM	6484	C6	C A 311	127.613	74.446	-3.553	1.00	34.15	C
ATOM	6435	C6	G A 309	131.037	79.152	1.337	1.00	49.37	C	ATOM	6485	P	C A 312	125.210	70.627	-6.744	1.00	42.54	P
ATOM	6436	O6	G A 309	132.226	78.841	1.214	1.00	49.37	O	ATOM	6486	O1P	C A 312	124.123	69.921	-7.487	1.00	29.43	O
ATOM	6437	N1	G A 309	130.387	79.838	0.317	1.00	49.37	N	ATOM	6487	O2P	C A 312	125.414	70.380	-5.286	1.00	29.43	O
ATOM	6438	C2	G A 309	129.074	80.229	0.347	1.00	49.37	C	ATOM	6488	O5*	C A 312	126.590	70.359	-7.475	1.00	42.54	O
ATOM	6439	N2	G A 309	128.624	80.882	-0.727	1.00	49.37	N	ATOM	6489	C5*	C A 312	126.714	70.592	-8.870	1.00	42.54	C
ATOM	6440	N3	G A 309	128.258	79.998	1.357	1.00	49.37	N	ATOM	6490	C4*	C A 312	128.161	70.610	-9.252	1.00	42.54	C
ATOM	6441	C4	G A 309	128.872	79.342	2.358	1.00	49.37	C	ATOM	6491	O4*	C A 312	128.855	71.588	-8.438	1.00	42.54	O
ATOM	6442	P	G A 310	124.547	75.359	2.815	1.00	39.48	P	ATOM	6492	C3*	C A 312	128.922	69.326	-9.016	1.00	42.54	C
ATOM	6443	O1P	G A 310	123.235	74.658	2.775	1.00	45.96	O	ATOM	6493	O3*	C A 312	128.720	68.416	-10.078	1.00	42.54	O
ATOM	6444	O2P	G A 310	125.796	74.575	3.010	1.00	45.96	O	ATOM	6494	C2*	C A 312	130.356	69.824	-8.930	1.00	42.54	C
ATOM	6445	O5*	G A 310	124.704	76.161	1.454	1.00	39.48	O	ATOM	6495	O2*	C A 312	130.920	70.118	-10.200	1.00	42.54	O
ATOM	6446	C5*	G A 310	123.633	76.951	0.960	1.00	39.48	C	ATOM	6496	C1*	C A 312	130.171	71.145	-8.186	1.00	42.54	C
ATOM	6447	C4*	G A 310	123.880	77.314	-0.469	1.00	39.48	C	ATOM	6497	N1	C A 312	130.338	70.969	-6.738	1.00	29.43	N



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ATOM	6498	C2	C A 312	131.620	70.687	-6.241	1.00 29.43	C	ATOM	6548	O1P	A A 315	135.632	56.955	-7.639	1.00 41.43	O
ATOM	6499	O2	C A 312	132.569	70.594	-7.039	1.00 29.43	O	ATOM	6549	O2P	A A 315	133.520	58.222	-6.863	1.00 41.43	O
ATOM	6500	N3	C A 312	131.788	70.510	-4.914	1.00 29.43	N	ATOM	6550	O5*	A A 315	135.382	57.807	-5.274	1.00 50.94	O
ATOM	6501	C4	C A 312	130.738	70.585	-4.097	1.00 29.43	C	ATOM	6551	C5*	A A 315	136.747	57.892	-4.853	1.00 50.94	C
ATOM	6502	N4	C A 312	130.946	70.371	-2.800	1.00 29.43	N	ATOM	6552	C4*	A A 315	136.838	57.642	-3.376	1.00 50.94	C
ATOM	6503	C5	C A 312	129.425	70.875	-4.575	1.00 29.43	C	ATOM	6553	O4*	A A 315	136.054	58.656	-2.696	1.00 50.94	O
ATOM	6504	C6	C A 312	129.273	71.061	-5.885	1.00 29.43	C	ATOM	6554	C3*	A A 315	136.279	56.291	-2.935	1.00 50.94	C
ATOM	6505	P	A A 313	128.670	66.845	-9.765	1.00 46.57	P	ATOM	6555	O3*	A A 315	137.035	55.812	-1.800	1.00 50.94	O
ATOM	6506	O1P	A A 313	128.095	66.124	-10.945	1.00 26.08	O	ATOM	6556	C2*	A A 315	134.857	56.648	-2.512	1.00 50.94	C
ATOM	6507	O2P	A A 313	128.039	66.692	-8.434	1.00 26.08	O	ATOM	6557	O2*	A A 315	134.314	55.731	-1.587	1.00 50.94	O
ATOM	6508	O5*	A A 313	130.192	66.436	-9.543	1.00 46.57	O	ATOM	6558	C1*	A A 315	135.071	58.036	-1.904	1.00 50.94	C
ATOM	6509	C5*	A A 313	131.179	66.668	-10.544	1.00 46.57	C	ATOM	6559	N9	A A 315	133.895	58.902	-1.846	1.00 41.43	N
ATOM	6510	C4*	A A 313	132.541	66.405	-9.972	1.00 46.57	C	ATOM	6560	C8	A A 315	132.922	59.109	-2.792	1.00 41.43	C
ATOM	6511	O4*	A A 313	132.857	67.416	-8.986	1.00 46.57	O	ATOM	6561	N7	A A 315	131.949	59.891	-2.388	1.00 41.43	N
ATOM	6512	C3*	A A 313	132.655	65.100	-9.215	1.00 46.57	C	ATOM	6562	C5	A A 315	132.317	60.237	-1.099	1.00 41.43	C
ATOM	6513	O3*	A A 313	132.884	64.019	-10.101	1.00 46.57	O	ATOM	6563	N6	A A 315	131.696	61.029	-0.127	1.00 41.43	N
ATOM	6514	C2*	A A 313	133.809	65.374	-8.261	1.00 46.57	C	ATOM	6564	C6	A A 315	130.518	61.618	-0.306	1.00 41.43	C
ATOM	6515	O2*	A A 313	135.063	65.283	-8.898	1.00 46.57	O	ATOM	6565	N1	A A 315	132.330	61.190	1.054	1.00 41.43	N
ATOM	6516	C1*	A A 313	133.570	66.838	-7.906	1.00 46.57	C	ATOM	6566	C2	A A 315	133.510	60.578	1.234	1.00 41.43	C
ATOM	6517	N9	A A 313	132.751	66.976	-6.705	1.00 26.08	N	ATOM	6567	N3	A A 315	134.190	59.795	0.398	1.00 41.43	N
ATOM	6518	C8	A A 313	131.396	67.210	-6.652	1.00 26.08	C	ATOM	6568	C4	A A 315	133.527	59.659	-0.762	1.00 41.43	C
ATOM	6519	N7	A A 313	130.915	67.250	-5.435	1.00 26.08	N	ATOM	6569	P	G A 316	137.443	54.254	-1.684	1.00 63.95	P
ATOM	6520	C5	A A 313	132.024	67.034	-4.630	1.00 26.08	C	ATOM	6570	O1P	G A 316	136.663	53.502	-2.702	1.00 53.18	O
ATOM	6521	C6	A A 313	132.176	66.963	-3.237	1.00 26.08	C	ATOM	6571	O2P	G A 316	137.362	53.854	-0.259	1.00 53.18	O
ATOM	6522	N6	A A 313	131.158	67.074	-2.382	1.00 26.08	N	ATOM	6572	O5*	G A 316	138.977	54.211	-2.114	1.00 63.95	O
ATOM	6523	N1	A A 313	133.420	66.763	-2.747	1.00 26.08	N	ATOM	6573	C5*	G A 316	139.953	55.093	-1.522	1.00 63.95	C
ATOM	6524	C2	A A 313	134.433	66.629	-3.613	1.00 26.08	C	ATOM	6574	C4*	G A 316	141.306	54.881	-2.172	1.00 63.95	C
ATOM	6525	N3	A A 313	134.414	66.662	-4.947	1.00 26.08	N	ATOM	6575	O4*	G A 316	141.830	53.585	-1.783	1.00 63.95	O
ATOM	6526	C4	A A 313	133.165	66.874	-5.398	1.00 26.08	C	ATOM	6576	C3*	G A 316	141.320	54.862	-3.697	1.00 63.95	C
ATOM	6527	P	C A 314	132.292	62.565	-9.744	1.00 40.51	P	ATOM	6577	O3*	G A 316	141.409	56.172	-4.240	1.00 63.95	O
ATOM	6528	O1P	C A 314	132.358	61.731	-10.976	1.00 34.26	O	ATOM	6578	C2*	G A 316	142.554	54.023	-4.012	1.00 63.95	C
ATOM	6529	O2P	C A 314	130.984	62.737	-9.044	1.00 34.26	O	ATOM	6579	O2*	G A 316	143.765	54.755	-3.960	1.00 63.95	O
ATOM	6530	O5*	C A 314	133.327	62.001	-8.674	1.00 40.51	O	ATOM	6580	C1*	G A 316	142.535	53.000	-2.872	1.00 63.95	C
ATOM	6531	C5*	C A 314	134.690	61.819	-9.020	1.00 40.51	C	ATOM	6581	N9	G A 316	141.848	51.765	-3.251	1.00 53.18	N
ATOM	6532	C4*	C A 314	135.524	61.727	-7.782	1.00 40.51	C	ATOM	6582	C8	G A 316	140.772	51.192	-2.618	1.00 53.18	C
ATOM	6533	O4*	C A 314	135.367	62.937	-7.010	1.00 40.51	O	ATOM	6583	N7	G A 316	140.323	50.130	-3.227	1.00 53.18	N
ATOM	6534	C3*	C A 314	135.177	60.628	-6.800	1.00 40.51	C	ATOM	6584	C5	G A 316	141.162	49.980	-4.319	1.00 53.18	C
ATOM	6535	O3*	C A 314	135.740	59.386	-7.187	1.00 40.51	O	ATOM	6585	C6	G A 316	141.158	49.007	-5.343	1.00 53.18	C
ATOM	6536	C2*	C A 314	135.789	61.152	-5.510	1.00 40.51	C	ATOM	6586	O6	G A 316	140.364	48.069	-5.508	1.00 53.18	O
ATOM	6537	O2*	C A 314	137.186	60.936	-5.434	1.00 40.51	O	ATOM	6587	N1	G A 316	142.204	49.204	-6.241	1.00 53.18	N
ATOM	6538	C1*	C A 314	135.529	62.650	-5.635	1.00 40.51	C	ATOM	6588	C2	G A 316	143.127	50.220	-6.164	1.00 53.18	C
ATOM	6539	N1	C A 314	134.306	63.037	-4.915	1.00 34.26	N	ATOM	6589	N2	G A 316	144.075	50.239	-7.112	1.00 53.18	N
ATOM	6540	C2	C A 314	134.374	63.211	-3.527	1.00 34.26	C	ATOM	6590	N3	G A 316	143.125	51.149	-5.223	1.00 53.18	N
ATOM	6541	O2	C A 314	135.468	63.102	-2.963	1.00 34.26	O	ATOM	6591	C4	G A 316	142.124	50.967	-4.338	1.00 53.18	C
ATOM	6542	N3	C A 314	133.253	63.499	-2.840	1.00 34.26	N	ATOM	6592	P	G A 317	140.502	56.579	-5.504	1.00 50.28	P
ATOM	6543	C4	C A 314	132.095	63.637	-3.486	1.00 34.26	C	ATOM	6593	O1P	G A 317	140.562	58.064	-5.600	1.00 51.88	O
ATOM	6544	N4	C A 314	131.011	63.913	-2.765	1.00 34.26	N	ATOM	6594	O2P	G A 317	139.183	55.902	-5.414	1.00 51.88	O
ATOM	6545	C5	C A 314	131.999	63.495	-4.904	1.00 34.26	C	ATOM	6595	O5*	G A 317	141.256	55.955	-6.760	1.00 50.28	O
ATOM	6546	C6	C A 314	133.118	63.199	-5.572	1.00 34.26	C	ATOM	6596	C5*	G A 317	142.447	56.560	-7.284	1.00 50.28	C
ATOM	6547	P	A A 315	134.992	58.021	-6.798	1.00 50.94	P	ATOM	6597	C4*	G A 317	142.860	55.868	-8.557	1.00 50.28	C



Table 1: Sheet 68/521

ATOM	6598	O4*	G A 317	143.306	54.513	-8.275	1.00	50.28	O	ATOM	6648	O2*	G A 319	133.921	50.127	-17.941	1.00	65.83	O
ATOM	6599	C3*	G A 317	141.741	55.692	-9.560	1.00	50.28	C	ATOM	6649	C1*	G A 319	135.200	50.641	-15.973	1.00	65.83	C
ATOM	6600	O3*	G A 317	141.575	56.835	-10.360	1.00	50.28	O	ATOM	6650	N9	G A 319	134.922	50.740	-14.544	1.00	61.23	N
ATOM	6601	C2*	G A 317	142.204	54.500	-10.381	1.00	50.28	C	ATOM	6651	C8	G A 319	135.231	51.776	-13.695	1.00	61.23	C
ATOM	6602	O2*	G A 317	143.117	54.879	-11.384	1.00	50.28	O	ATOM	6652	N7	G A 319	134.770	51.602	-12.486	1.00	61.23	N
ATOM	6603	C1*	G A 317	142.904	53.644	-9.324	1.00	50.28	C	ATOM	6653	C5	G A 319	134.132	50.370	-12.537	1.00	61.23	C
ATOM	6604	N9	G A 317	141.988	52.653	-8.770	1.00	51.88	N	ATOM	6654	C6	G A 319	133.425	49.658	-11.534	1.00	61.23	C
ATOM	6605	C8	G A 317	141.337	52.718	-7.562	1.00	51.88	C	ATOM	6655	O6	G A 319	133.193	49.994	-10.368	1.00	61.23	O
ATOM	6606	N7	G A 317	140.547	51.704	-7.350	1.00	51.88	N	ATOM	6656	N1	G A 319	132.953	48.440	-12.009	1.00	61.23	N
ATOM	6607	C5	G A 317	140.691	50.916	-8.480	1.00	51.88	C	ATOM	6657	C2	G A 319	133.127	47.971	-13.285	1.00	61.23	C
ATOM	6608	C6	G A 317	140.083	49.695	-8.813	1.00	51.88	C	ATOM	6658	N2	G A 319	132.612	46.762	-13.545	1.00	61.23	N
ATOM	6609	O6	G A 317	139.263	49.048	-8.160	1.00	51.88	O	ATOM	6659	N3	G A 319	133.762	48.633	-14.234	1.00	61.23	N
ATOM	6610	N1	G A 317	140.506	49.233	-10.051	1.00	51.88	N	ATOM	6660	C4	G A 319	134.238	49.815	-13.792	1.00	61.23	C
ATOM	6611	C2	G A 317	141.391	49.875	-10.868	1.00	51.88	C	ATOM	6661	P	C A 320	131.762	53.314	-17.896	1.00	55.49	P
ATOM	6612	N2	G A 317	141.644	49.276	-12.038	1.00	51.88	N	ATOM	6662	O1P	C A 320	131.178	53.636	-19.225	1.00	41.86	O
ATOM	6613	N3	G A 317	141.977	51.022	-10.566	1.00	51.88	N	ATOM	6663	O2P	C A 320	131.777	54.357	-16.810	1.00	41.86	O
ATOM	6614	C4	G A 317	141.582	51.482	-9.364	1.00	51.88	C	ATOM	6664	C5*	C A 320	130.993	52.034	-17.330	1.00	55.49	C
ATOM	6615	P	G A 318	140.174	57.071	-11.101	1.00	55.07	P	ATOM	6665	O5*	C A 320	130.927	50.816	-18.092	1.00	55.49	O
ATOM	6616	O1P	G A 318	140.340	58.313	-11.914	1.00	61.04	O	ATOM	6666	C4*	C A 320	130.164	49.759	-17.334	1.00	55.49	C
ATOM	6617	O2P	G A 318	139.077	56.991	-10.083	1.00	61.04	O	ATOM	6667	O4*	C A 320	130.852	49.426	-16.113	1.00	55.49	O
ATOM	6618	O5*	G A 318	140.041	55.824	-12.088	1.00	55.07	O	ATOM	6668	C3*	C A 320	128.771	50.128	-16.867	1.00	55.49	C
ATOM	6619	C5*	G A 318	140.820	55.763	-13.286	1.00	55.07	C	ATOM	6669	O3*	C A 320	127.828	49.939	-17.889	1.00	55.49	O
ATOM	6620	C4*	G A 318	140.400	54.598	-14.137	1.00	55.07	C	ATOM	6670	C2*	C A 320	128.513	49.145	-15.741	1.00	55.49	C
ATOM	6621	O4*	G A 318	140.740	53.358	-13.468	1.00	55.07	O	ATOM	6671	O2*	C A 320	127.991	47.913	-16.181	1.00	55.49	O
ATOM	6622	C3*	G A 318	138.922	54.439	-14.458	1.00	55.07	C	ATOM	6672	C1*	C A 320	129.914	48.952	-15.170	1.00	55.49	C
ATOM	6623	O3*	G A 318	138.467	55.267	-15.516	1.00	55.07	O	ATOM	6673	N1	C A 320	130.056	49.697	-13.921	1.00	41.86	N
ATOM	6624	C2*	G A 318	138.848	52.974	-14.853	1.00	55.07	C	ATOM	6674	C2	C A 320	129.725	49.055	-12.739	1.00	41.86	C
ATOM	6625	O2*	G A 318	139.302	52.773	-16.175	1.00	55.07	O	ATOM	6675	O2	C A 320	129.385	47.864	-12.785	1.00	41.86	O
ATOM	6626	C1*	G A 318	139.844	52.341	-13.882	1.00	55.07	C	ATOM	6676	N3	C A 320	129.778	49.738	-11.581	1.00	41.86	N
ATOM	6627	N9	G A 318	139.155	51.799	-12.716	1.00	61.04	N	ATOM	6677	C4	C A 320	130.148	51.013	-11.582	1.00	41.86	C
ATOM	6628	C8	G A 318	139.089	52.336	-11.457	1.00	61.04	C	ATOM	6678	N4	C A 320	130.152	51.661	-10.425	1.00	41.86	N
ATOM	6629	N7	G A 318	138.352	51.632	-10.641	1.00	61.04	N	ATOM	6679	C5	C A 320	130.523	51.686	-12.772	1.00	41.86	C
ATOM	6630	C5	G A 318	137.912	50.560	-11.407	1.00	61.04	C	ATOM	6680	C6	C A 320	130.469	50.996	-13.909	1.00	41.86	C
ATOM	6631	C6	G A 318	137.074	49.460	-11.067	1.00	61.04	C	ATOM	6681	P	A A 321	126.696	51.033	-18.106	1.00	50.77	P
ATOM	6632	O6	G A 318	136.534	49.206	-9.986	1.00	61.04	O	ATOM	6682	O1P	A A 321	126.159	50.851	-19.485	1.00	55.29	O
ATOM	6633	N1	G A 318	136.887	48.609	-12.147	1.00	61.04	N	ATOM	6683	O2P	A A 321	127.264	52.339	-17.701	1.00	55.29	O
ATOM	6634	C2	G A 318	137.433	48.785	-13.392	1.00	61.04	C	ATOM	6684	O5*	A A 321	125.592	50.655	-17.028	1.00	50.77	O
ATOM	6635	N2	G A 318	137.142	47.852	-14.306	1.00	61.04	N	ATOM	6685	C5*	A A 321	124.492	49.806	-17.372	1.00	50.77	C
ATOM	6636	N3	G A 318	138.209	49.799	-13.721	1.00	61.04	N	ATOM	6686	C4*	A A 321	124.296	48.760	-16.310	1.00	50.77	C
ATOM	6637	C4	G A 318	138.406	50.643	-12.686	1.00	61.04	C	ATOM	6687	O4*	A A 321	125.445	48.744	-15.426	1.00	50.77	O
ATOM	6638	P	G A 319	136.919	55.721	-15.555	1.00	65.83	P	ATOM	6688	C3*	A A 321	123.105	48.954	-15.393	1.00	50.77	C
ATOM	6639	O1P	G A 319	136.756	56.693	-16.671	1.00	61.23	O	ATOM	6689	O3*	A A 321	121.942	48.420	-16.019	1.00	50.77	O
ATOM	6640	O2P	G A 319	136.537	56.111	-14.173	1.00	61.23	O	ATOM	6690	C2*	A A 321	123.521	48.166	-14.156	1.00	50.77	C
ATOM	6641	O5*	G A 319	136.108	54.402	-15.929	1.00	65.83	O	ATOM	6691	O2*	A A 321	123.301	46.780	-14.307	1.00	50.77	O
ATOM	6642	C5*	G A 319	136.157	53.892	-17.259	1.00	65.83	C	ATOM	6692	C1*	A A 321	125.034	48.385	-14.129	1.00	50.77	C
ATOM	6643	C4*	G A 319	135.536	52.521	-17.334	1.00	65.83	C	ATOM	6693	N9	A A 321	125.480	49.409	-13.186	1.00	55.29	N
ATOM	6644	O4*	G A 319	136.131	51.646	-16.339	1.00	65.83	O	ATOM	6694	C8	A A 321	125.973	50.665	-13.434	1.00	55.29	C
ATOM	6645	C3*	G A 319	134.054	52.395	-17.060	1.00	65.83	C	ATOM	6695	N7	A A 321	126.294	51.329	-12.350	1.00	55.29	N
ATOM	6646	O3*	G A 319	133.255	52.773	-18.161	1.00	65.83	O	ATOM	6696	C5	A A 321	125.988	50.451	-11.318	1.00	55.29	C
ATOM	6647	C2*	G A 319	133.921	50.910	-16.763	1.00	65.83	C	ATOM	6697	C6	A A 321	126.092	50.552	-9.915	1.00	55.29	C



ATOM	6698	N6	A A 321	126.545	51.629	-9.275	1.00 55.29	N	ATOM	6748	C4*	G A 324	112.705	51.245	-6.400	1.00 40.32	C
ATOM	6699	N1	A A 321	125.701	49.491	-9.180	1.00 55.29	N	ATOM	6749	O4*	G A 324	114.140	51.113	-6.510	1.00 40.32	O
ATOM	6700	C2	A A 321	125.234	48.414	-9.809	1.00 55.29	C	ATOM	6750	C3*	G A 324	112.400	52.707	-6.640	1.00 40.32	C
ATOM	6701	N3	A A 321	125.085	48.199	-11.111	1.00 55.29	N	ATOM	6751	O3*	G A 324	111.235	53.041	-5.913	1.00 40.32	O
ATOM	6702	C4	A A 321	125.486	49.268	-11.820	1.00 55.29	C	ATOM	6752	C2*	G A 324	113.654	53.392	-6.125	1.00 40.32	C
ATOM	6703	P	A A 322	120.472	48.800	-15.468	1.00 44.10	P	ATOM	6753	O2*	G A 324	113.635	53.460	-4.717	1.00 40.32	O
ATOM	6704	O1P	C A 322	119.508	48.263	-16.475	1.00 46.93	O	ATOM	6754	C1*	G A 324	114.737	52.396	-6.549	1.00 40.32	C
ATOM	6705	O2P	C A 322	120.397	50.234	-15.098	1.00 46.93	O	ATOM	6755	N9	G A 324	115.207	52.605	-7.920	1.00 61.94	N
ATOM	6706	O5*	C A 322	120.347	47.963	-14.115	1.00 44.10	O	ATOM	6756	C8	G A 324	114.814	51.899	-9.036	1.00 61.94	C
ATOM	6707	C5*	C A 322	120.387	46.523	-14.134	1.00 44.10	C	ATOM	6757	N7	G A 324	115.373	52.320	-10.135	1.00 61.94	N
ATOM	6708	C4*	C A 322	120.278	45.983	-12.734	1.00 44.10	C	ATOM	6758	C5	G A 324	116.187	53.363	-9.724	1.00 61.94	C
ATOM	6709	O4*	C A 322	121.467	46.315	-11.989	1.00 44.10	O	ATOM	6759	C6	G A 324	117.015	54.197	-10.473	1.00 61.94	C
ATOM	6710	C3*	C A 322	119.130	46.552	-11.921	1.00 44.10	C	ATOM	6760	O6	G A 324	117.207	54.180	-11.695	1.00 61.94	O
ATOM	6711	O3*	C A 322	117.921	45.845	-12.195	1.00 44.10	O	ATOM	6761	N1	G A 324	117.664	55.132	-9.669	1.00 61.94	N
ATOM	6712	C2*	C A 322	119.616	46.395	-10.485	1.00 44.10	C	ATOM	6762	C2	G A 324	117.526	55.236	-8.312	1.00 61.94	C
ATOM	6713	O2*	C A 322	119.381	45.117	-9.951	1.00 44.10	O	ATOM	6763	N2	G A 324	118.233	56.200	-7.709	1.00 61.94	N
ATOM	6714	C1*	C A 322	121.125	46.576	-10.644	1.00 44.10	C	ATOM	6764	N3	G A 324	116.749	54.452	-7.595	1.00 61.94	N
ATOM	6715	N1	C A 322	121.590	47.928	-10.297	1.00 46.93	N	ATOM	6765	C4	G A 324	116.108	53.546	-8.360	1.00 61.94	C
ATOM	6716	C2	C A 322	121.881	48.227	-8.944	1.00 46.93	C	ATOM	6766	P	A A 325	109.927	53.555	-6.689	1.00 58.47	P
ATOM	6717	O2	C A 322	121.741	47.340	-8.077	1.00 46.93	O	ATOM	6767	O1P	A A 325	108.863	53.552	-5.655	1.00 41.44	O
ATOM	6718	N3	C A 322	122.301	49.472	-8.622	1.00 46.93	N	ATOM	6768	O2P	A A 325	109.728	52.796	-7.953	1.00 41.44	O
ATOM	6719	C4	C A 322	122.429	50.400	-9.573	1.00 46.93	C	ATOM	6769	O5*	A A 325	110.293	55.062	-7.061	1.00 58.47	O
ATOM	6720	N4	C A 322	122.820	51.625	-9.204	1.00 46.93	N	ATOM	6770	C5*	A A 325	109.575	55.787	-8.079	1.00 58.47	C
ATOM	6721	C5	C A 322	122.152	50.119	-10.949	1.00 46.93	C	ATOM	6771	C4*	A A 325	110.058	57.217	-8.129	1.00 58.47	C
ATOM	6722	C6	C A 322	121.739	48.885	-11.262	1.00 46.93	C	ATOM	6772	O4*	A A 325	109.763	57.870	-6.870	1.00 58.47	O
ATOM	6723	P	U A 323	116.522	46.634	-12.212	1.00 40.85	P	ATOM	6773	C3*	A A 325	111.558	57.371	-8.289	1.00 58.47	C
ATOM	6724	O1P	U A 323	115.470	45.664	-12.634	1.00 59.78	O	ATOM	6774	O3*	A A 325	111.943	57.343	-9.650	1.00 58.47	O
ATOM	6725	O2P	U A 323	116.705	47.893	-12.973	1.00 59.78	O	ATOM	6775	C2*	A A 325	111.837	58.728	-7.668	1.00 58.47	C
ATOM	6726	O5*	U A 323	116.326	47.013	-10.680	1.00 40.85	O	ATOM	6776	O2*	A A 325	111.594	59.770	-8.587	1.00 58.47	O
ATOM	6727	C5*	U A 323	116.329	45.978	-9.698	1.00 40.85	C	ATOM	6777	C1*	A A 325	110.800	58.777	-6.550	1.00 58.47	C
ATOM	6728	C4*	U A 323	116.264	46.554	-8.320	1.00 40.85	C	ATOM	6778	N9	A A 325	111.321	58.447	-5.223	1.00 41.44	N
ATOM	6729	O4*	U A 323	117.545	47.092	-7.937	1.00 40.85	O	ATOM	6779	C8	A A 325	111.240	57.256	-4.542	1.00 41.44	C
ATOM	6730	C3*	U A 323	115.302	47.699	-8.142	1.00 40.85	C	ATOM	6780	N7	A A 325	111.737	57.306	-3.327	1.00 41.44	N
ATOM	6731	O3*	U A 323	114.003	47.204	-7.987	1.00 40.85	O	ATOM	6781	C5	A A 325	112.189	58.615	-3.206	1.00 41.44	C
ATOM	6732	C2*	U A 323	115.847	48.382	-6.902	1.00 40.85	C	ATOM	6782	C6	A A 325	112.799	59.319	-2.142	1.00 41.44	C
ATOM	6733	O2*	U A 323	115.481	47.670	-5.743	1.00 40.85	O	ATOM	6783	N6	A A 325	113.043	58.795	-0.942	1.00 41.44	N
ATOM	6734	C1*	U A 323	117.356	48.223	-7.105	1.00 40.85	C	ATOM	6784	N1	A A 325	113.143	60.607	-2.358	1.00 41.44	N
ATOM	6735	N1	U A 323	117.986	49.379	-7.768	1.00 59.78	N	ATOM	6785	C2	A A 325	112.876	61.147	-3.554	1.00 41.44	C
ATOM	6736	C2	U A 323	118.466	50.405	-6.979	1.00 59.78	C	ATOM	6786	N3	A A 325	112.293	60.595	-4.622	1.00 41.44	N
ATOM	6737	O2	U A 323	118.398	50.390	-5.769	1.00 59.78	O	ATOM	6787	C4	A A 325	111.968	59.317	-4.378	1.00 41.44	C
ATOM	6738	N3	U A 323	119.033	51.449	-7.663	1.00 59.78	N	ATOM	6788	P	G A 326	113.322	56.623	-10.065	1.00 54.82	P
ATOM	6739	C4	U A 323	119.172	51.567	-9.026	1.00 59.78	C	ATOM	6789	O1P	G A 326	113.438	56.722	-11.560	1.00 52.47	O
ATOM	6740	O4	U A 323	119.738	52.553	-9.499	1.00 59.78	O	ATOM	6790	O2P	G A 326	113.345	55.278	-9.403	1.00 52.47	O
ATOM	6741	C5	U A 323	118.655	50.467	-9.772	1.00 59.78	C	ATOM	6791	O5*	G A 326	114.462	57.518	-9.395	1.00 54.82	O
ATOM	6742	C6	U A 323	118.095	49.438	-9.137	1.00 59.78	C	ATOM	6792	C5*	G A 326	114.643	58.887	-9.784	1.00 54.82	C
ATOM	6743	P	G A 324	112.773	48.080	-8.492	1.00 40.32	P	ATOM	6793	C4*	G A 326	115.441	59.619	-8.744	1.00 54.82	C
ATOM	6744	O1P	G A 324	111.580	47.197	-8.643	1.00 61.94	O	ATOM	6794	O4*	G A 326	114.752	59.541	-7.481	1.00 54.82	O
ATOM	6745	O2P	G A 324	113.221	48.906	-9.640	1.00 61.94	O	ATOM	6795	C3*	G A 326	116.829	59.072	-8.483	1.00 54.82	C
ATOM	6746	O5*	G A 324	112.549	49.022	-7.243	1.00 40.32	O	ATOM	6796	O3*	G A 326	117.720	59.724	-9.385	1.00 54.82	O
ATOM	6747	C5*	G A 324	112.048	50.336	-7.398	1.00 40.32	C	ATOM	6797	C2*	G A 326	117.096	59.502	-7.044	1.00 54.82	C



Table 1: Sheet 70/521

ATOM	6798	O2*	G A 326	117.625	60.812	-6.978	1.00	54.82	O	ATOM	6848	N3	C A 328	124.029	53.641	-14.258	1.00	44.38	N
ATOM	6799	Cl*	G A 326	115.689	59.498	-6.429	1.00	54.82	C	ATOM	6849	C4	C A 328	122.831	53.274	-13.818	1.00	44.38	C
ATOM	6800	N9	G A 326	115.345	58.373	-5.561	1.00	52.47	N	ATOM	6850	N4	C A 328	121.995	52.721	-14.698	1.00	44.38	N
ATOM	6801	C8	G A 326	114.664	57.237	-5.922	1.00	52.47	C	ATOM	6851	C5	C A 328	122.436	53.461	-12.460	1.00	44.38	C
ATOM	6802	N7	G A 326	114.496	56.404	-4.935	1.00	52.47	N	ATOM	6852	C6	C A 328	123.328	54.026	-11.635	1.00	44.38	C
ATOM	6803	C5	G A 326	115.097	57.027	-3.855	1.00	52.47	C	ATOM	6853	P	A A 329	128.599	55.392	-8.485	1.00	55.91	P
ATOM	6804	C6	G A 326	115.225	56.601	-2.512	1.00	52.47	C	ATOM	6854	O1P	A A 329	129.645	56.121	-7.716	1.00	49.72	O
ATOM	6805	O6	G A 326	114.814	55.547	-1.988	1.00	52.47	O	ATOM	6855	O2P	A A 329	128.575	53.911	-8.443	1.00	49.72	O
ATOM	6806	N1	G A 326	115.907	57.537	-1.744	1.00	52.47	N	ATOM	6856	O5*	A A 329	127.189	55.927	-7.955	1.00	55.91	O
ATOM	6807	C2	G A 326	116.394	58.726	-2.206	1.00	52.47	C	ATOM	6857	C5*	A A 329	127.111	57.035	-7.003	1.00	55.91	C
ATOM	6808	N2	G A 326	117.015	59.492	-1.304	1.00	52.47	N	ATOM	6858	O4*	A A 329	126.621	56.554	-5.644	1.00	55.91	C
ATOM	6809	N3	G A 326	116.279	59.137	-3.457	1.00	52.47	N	ATOM	6859	O4*	A A 329	125.358	55.897	-5.811	1.00	55.91	C
ATOM	6810	C4	G A 326	115.626	58.243	-4.222	1.00	52.47	C	ATOM	6860	C3*	A A 329	127.518	55.530	-4.959	1.00	55.91	O
ATOM	6811	P	A A 327	118.816	58.882	-10.210	1.00	50.12	P	ATOM	6861	O3*	A A 329	128.428	56.102	-3.997	1.00	55.91	O
ATOM	6812	O1P	A A 327	119.553	59.900	-10.981	1.00	43.66	O	ATOM	6862	C2*	A A 329	126.558	54.621	-4.192	1.00	55.91	C
ATOM	6813	O2P	A A 327	118.188	57.746	-10.937	1.00	43.66	O	ATOM	6863	O2*	A A 329	126.574	54.768	-2.789	1.00	55.91	O
ATOM	6814	O5*	A A 327	119.791	58.318	-9.079	1.00	50.12	O	ATOM	6864	Cl*	A A 329	125.189	54.981	-4.767	1.00	55.91	C
ATOM	6815	C5*	A A 327	120.484	59.218	-8.193	1.00	50.12	C	ATOM	6865	N9	A A 329	124.471	53.823	-5.272	1.00	49.72	N
ATOM	6816	C4*	A A 327	121.807	58.624	-7.742	1.00	50.12	C	ATOM	6866	C8	A A 329	124.219	53.457	-6.568	1.00	49.72	C
ATOM	6817	O4*	A A 327	121.600	57.653	-6.689	1.00	50.12	O	ATOM	6867	N7	A A 329	123.525	52.355	-6.678	1.00	49.72	N
ATOM	6818	C3*	A A 327	122.667	57.946	-8.801	1.00	50.12	C	ATOM	6868	C5	A A 329	123.310	51.968	-5.364	1.00	49.72	C
ATOM	6819	O3*	A A 327	124.042	58.279	-8.593	1.00	50.12	O	ATOM	6869	C6	A A 329	122.633	50.887	-4.806	1.00	49.72	C
ATOM	6820	C2*	A A 327	122.441	56.462	-8.528	1.00	50.12	C	ATOM	6870	N6	A A 329	122.037	49.942	-5.535	1.00	49.72	N
ATOM	6821	O2*	A A 327	123.538	55.660	-8.919	1.00	50.12	O	ATOM	6871	N1	A A 329	122.591	50.802	-3.456	1.00	49.72	N
ATOM	6822	Cl*	A A 327	122.260	56.455	-7.010	1.00	50.12	C	ATOM	6872	C2	A A 329	123.209	51.743	-2.733	1.00	49.72	C
ATOM	6823	N9	A A 327	121.470	55.351	-6.467	1.00	43.66	N	ATOM	6873	N3	A A 329	123.886	52.800	-3.145	1.00	49.72	N
ATOM	6824	C8	A A 327	120.661	54.464	-7.121	1.00	43.66	C	ATOM	6874	C4	A A 329	123.893	52.860	-4.489	1.00	49.72	C
ATOM	6825	N7	A A 327	120.108	53.576	-6.335	1.00	43.66	N	ATOM	6875	P	C A 330	128.202	57.601	-3.423	1.00	53.30	P
ATOM	6826	C5	A A 327	120.581	53.905	-5.078	1.00	43.66	C	ATOM	6876	O1P	C A 330	126.830	57.659	-2.847	1.00	54.06	O
ATOM	6827	C6	A A 327	120.376	53.335	-3.822	1.00	43.66	C	ATOM	6877	O2P	C A 330	128.618	58.605	-4.435	1.00	54.06	O
ATOM	6828	N6	A A 327	119.615	52.269	-3.620	1.00	43.66	N	ATOM	6878	O5*	C A 330	129.234	57.693	-2.221	1.00	53.30	O
ATOM	6829	N1	A A 327	120.992	53.898	-2.764	1.00	43.66	N	ATOM	6879	C5*	C A 330	129.160	56.752	-1.159	1.00	53.30	C
ATOM	6830	C2	A A 327	121.767	54.962	-2.972	1.00	43.66	C	ATOM	6880	C4*	C A 330	130.510	56.148	-0.894	1.00	53.30	C
ATOM	6831	N3	A A 327	122.048	55.587	-4.113	1.00	43.66	N	ATOM	6881	O4*	C A 330	131.405	57.186	-0.414	1.00	53.30	O
ATOM	6832	C4	A A 327	121.414	55.000	-5.142	1.00	43.66	C	ATOM	6882	C3*	C A 330	130.445	55.124	-0.222	1.00	53.30	C
ATOM	6833	P	C A 328	124.711	59.454	-9.461	1.00	48.26	P	ATOM	6883	O3*	C A 330	130.141	53.823	-0.260	1.00	53.30	O
ATOM	6834	O1P	C A 328	124.640	60.700	-8.669	1.00	44.38	O	ATOM	6884	C2*	C A 330	131.797	55.258	0.903	1.00	53.30	C
ATOM	6835	O2P	C A 328	124.138	59.414	-10.839	1.00	44.38	O	ATOM	6885	O2*	C A 330	132.816	54.499	0.269	1.00	53.30	O
ATOM	6836	O5*	C A 328	126.242	59.062	-9.546	1.00	48.26	O	ATOM	6886	Cl*	C A 330	132.031	56.770	0.787	1.00	53.30	C
ATOM	6837	C5*	C A 328	126.736	58.361	-10.693	1.00	48.26	C	ATOM	6887	N1	C A 330	131.383	57.504	1.893	1.00	54.06	N
ATOM	6838	C4*	C A 328	126.572	56.888	-10.481	1.00	48.26	C	ATOM	6888	C2	C A 330	131.965	57.480	3.158	1.00	54.06	C
ATOM	6839	O4*	C A 328	125.434	56.379	-11.188	1.00	48.26	O	ATOM	6889	O2	C A 330	133.037	56.873	3.315	1.00	54.06	O
ATOM	6840	C3*	C A 328	127.710	56.005	-10.954	1.00	48.26	C	ATOM	6890	N3	C A 330	131.342	58.114	4.183	1.00	54.06	N
ATOM	6841	O3*	C A 328	128.803	55.941	-10.005	1.00	48.26	O	ATOM	6891	C4	C A 330	130.182	58.744	3.974	1.00	54.06	C
ATOM	6842	C2*	C A 328	127.036	54.713	-11.422	1.00	48.26	C	ATOM	6892	N4	C A 330	129.579	59.312	5.016	1.00	54.06	N
ATOM	6843	O2*	C A 328	127.522	53.546	-10.813	1.00	48.26	O	ATOM	6893	C5	C A 330	129.584	58.807	2.690	1.00	54.06	C
ATOM	6844	Cl*	C A 328	125.548	54.985	-11.148	1.00	48.26	C	ATOM	6894	C6	C A 330	130.212	58.184	1.689	1.00	54.06	C
ATOM	6845	N1	C A 328	124.567	54.396	-12.082	1.00	44.38	N	ATOM	6895	P	G A 331	129.007	52.963	0.479	1.00	46.75	P
ATOM	6846	C2	C A 328	124.916	54.204	-13.415	1.00	44.38	C	ATOM	6896	O1P	G A 331	129.053	51.590	-0.079	1.00	59.44	O
ATOM	6847	O2	C A 328	126.042	54.552	-13.795	1.00	44.38	O	ATOM	6897	O2P	G A 331	127.704	53.719	0.505	1.00	59.44	O



ATOM	6898	O5*	G A 331	129.533	52.898	1.970	1.00	46.75	O	ATOM	6948	C3*	G A 333	128.154	43.591	-4.901	1.00	42.54	C
ATOM	6899	C5*	G A 331	130.757	52.246	2.285	1.00	46.75	C	ATOM	6949	O3*	G A 333	128.639	42.261	-4.816	1.00	42.54	O
ATOM	6900	C4*	G A 331	130.731	51.813	3.720	1.00	46.75	C	ATOM	6950	C2*	G A 333	127.502	43.922	-6.235	1.00	42.54	C
ATOM	6901	O4*	G A 331	131.049	52.921	4.601	1.00	46.75	O	ATOM	6951	O2*	G A 333	126.621	42.910	-6.689	1.00	42.54	O
ATOM	6902	C3*	G A 331	129.369	51.337	4.180	1.00	46.75	C	ATOM	6952	C1*	G A 333	126.699	45.167	-5.865	1.00	42.54	C
ATOM	6903	O3*	G A 331	129.169	50.003	3.801	1.00	46.75	O	ATOM	6953	N9	G A 333	127.463	46.401	-6.029	1.00	50.12	N
ATOM	6904	C2*	G A 331	129.448	51.531	5.693	1.00	46.75	C	ATOM	6954	C8	G A 333	127.911	47.225	-5.019	1.00	50.12	C
ATOM	6905	O2*	G A 331	130.163	50.483	6.298	1.00	46.75	O	ATOM	6955	N7	G A 333	128.538	48.281	-5.456	1.00	50.12	N
ATOM	6906	C1*	G A 331	130.268	52.822	5.783	1.00	46.75	C	ATOM	6956	C5	G A 333	128.510	48.145	-6.835	1.00	50.12	C
ATOM	6907	N9	G A 331	129.406	54.000	5.881	1.00	59.44	N	ATOM	6957	C6	G A 333	129.015	48.990	-7.834	1.00	50.12	C
ATOM	6908	C8	G A 331	129.044	54.853	4.868	1.00	59.44	C	ATOM	6958	O6	G A 333	129.583	50.085	-7.695	1.00	50.12	O
ATOM	6909	N7	G A 331	128.233	55.795	5.257	1.00	59.44	N	ATOM	6959	N1	G A 333	128.793	48.464	-9.106	1.00	50.12	N
ATOM	6910	C5	G A 331	128.052	55.554	6.610	1.00	59.44	C	ATOM	6960	C2	G A 333	128.147	47.282	-9.368	1.00	50.12	C
ATOM	6911	C6	G A 331	127.261	56.239	7.565	1.00	59.44	C	ATOM	6961	N2	G A 333	128.039	46.939	-10.647	1.00	50.12	N
ATOM	6912	O6	G A 331	126.546	57.234	7.398	1.00	59.44	O	ATOM	6962	N3	G A 333	127.646	46.496	-8.439	1.00	50.12	N
ATOM	6913	N1	G A 331	127.354	55.653	8.824	1.00	59.44	N	ATOM	6963	C4	G A 333	127.863	46.981	-7.204	1.00	50.12	C
ATOM	6914	C2	G A 331	128.109	54.552	9.124	1.00	59.44	C	ATOM	6964	P	C A 334	130.212	41.989	-5.041	1.00	45.88	P
ATOM	6915	N2	G A 331	128.061	54.137	10.393	1.00	59.44	N	ATOM	6965	O1P	C A 334	130.533	40.637	-4.543	1.00	56.11	O
ATOM	6916	N3	G A 331	128.854	53.905	8.243	1.00	59.44	N	ATOM	6966	O2P	C A 334	130.997	43.147	-4.543	1.00	56.11	O
ATOM	6917	C4	G A 331	128.775	54.456	7.013	1.00	59.44	C	ATOM	6967	O5*	C A 334	130.330	41.967	-6.624	1.00	45.88	O
ATOM	6918	P	G A 332	127.729	49.327	3.988	1.00	41.76	P	ATOM	6968	C5*	C A 334	129.497	41.100	-7.395	1.00	45.88	C
ATOM	6919	O1P	G A 332	126.640	50.341	4.014	1.00	52.91	O	ATOM	6969	C4*	C A 334	129.754	41.309	-8.857	1.00	45.88	C
ATOM	6920	O2P	G A 332	127.887	48.393	5.130	1.00	52.91	O	ATOM	6970	O4*	C A 334	129.214	42.590	-9.271	1.00	45.88	O
ATOM	6921	O5*	G A 332	127.562	48.479	2.656	1.00	41.76	O	ATOM	6971	C3*	C A 334	131.219	41.382	-9.253	1.00	45.88	C
ATOM	6922	C5*	G A 332	127.467	49.124	1.390	1.00	41.76	C	ATOM	6972	O3*	C A 334	131.842	40.116	-9.358	1.00	45.88	O
ATOM	6923	C4*	G A 332	126.644	48.281	0.477	1.00	41.76	C	ATOM	6973	C2*	C A 334	131.168	42.155	-10.567	1.00	45.88	C
ATOM	6924	O4*	G A 332	125.702	49.116	-0.219	1.00	41.76	O	ATOM	6974	O2*	C A 334	130.842	41.354	-11.697	1.00	45.88	O
ATOM	6925	C3*	G A 332	127.359	47.516	-0.615	1.00	41.76	C	ATOM	6975	C1*	C A 334	130.046	43.155	-10.278	1.00	45.88	C
ATOM	6926	O3*	G A 332	127.951	46.296	-0.195	1.00	41.76	O	ATOM	6976	N1	C A 334	130.581	44.445	-9.791	1.00	56.11	N
ATOM	6927	C2*	G A 332	126.231	47.270	-1.604	1.00	41.76	C	ATOM	6977	C2	C A 334	130.885	45.452	-10.727	1.00	56.11	C
ATOM	6928	O2*	G A 332	125.423	46.187	-1.200	1.00	41.76	O	ATOM	6978	O2	C A 334	130.661	45.247	-11.940	1.00	56.11	O
ATOM	6929	C1*	G A 332	125.445	48.576	-1.498	1.00	41.76	C	ATOM	6979	N3	C A 334	131.408	46.622	-10.288	1.00	56.11	N
ATOM	6930	N9	G A 332	125.897	49.545	-2.491	1.00	52.91	N	ATOM	6980	C4	C A 334	131.614	46.814	-8.986	1.00	56.11	C
ATOM	6931	C8	G A 332	126.634	50.683	-2.263	1.00	52.91	C	ATOM	6981	N4	C A 334	132.122	47.975	-8.606	1.00	56.11	N
ATOM	6932	N7	G A 332	126.916	51.337	-3.354	1.00	52.91	N	ATOM	6982	C5	C A 334	131.303	45.818	-8.017	1.00	56.11	C
ATOM	6933	C5	G A 332	126.331	50.588	-4.365	1.00	52.91	C	ATOM	6983	C6	C A 334	130.794	44.661	-8.457	1.00	56.11	C
ATOM	6934	C6	G A 332	126.316	50.794	-5.756	1.00	52.91	C	ATOM	6984	P	C A 335	133.415	39.989	-9.050	1.00	56.45	P
ATOM	6935	O6	G A 332	126.849	51.702	-6.407	1.00	52.91	O	ATOM	6985	O1P	C A 335	133.702	38.532	-8.990	1.00	43.18	O
ATOM	6936	N1	G A 332	125.596	49.803	-6.408	1.00	52.91	N	ATOM	6986	O2P	C A 335	133.754	40.854	-7.894	1.00	43.18	O
ATOM	6937	C2	G A 332	124.979	48.744	-5.801	1.00	52.91	C	ATOM	6987	O5*	C A 335	134.104	40.566	-10.365	1.00	56.45	O
ATOM	6938	N2	G A 332	124.325	47.904	-6.606	1.00	52.91	N	ATOM	6988	C5*	C A 335	133.881	39.920	-11.638	1.00	56.45	C
ATOM	6939	N3	G A 332	124.999	48.527	-4.504	1.00	52.91	N	ATOM	6989	C4*	C A 335	134.592	40.656	-12.740	1.00	56.45	C
ATOM	6940	C4	G A 332	125.687	49.486	-3.849	1.00	52.91	C	ATOM	6990	O4*	C A 335	133.955	41.936	-12.972	1.00	56.45	O
ATOM	6941	P	G A 333	129.145	45.646	-1.077	1.00	42.54	P	ATOM	6991	C3*	C A 335	136.039	40.993	-12.441	1.00	56.45	C
ATOM	6942	O1P	G A 333	129.537	44.380	-0.391	1.00	50.12	O	ATOM	6992	O3*	C A 335	136.902	39.917	-12.736	1.00	56.45	O
ATOM	6943	O2P	G A 333	130.182	46.689	-1.312	1.00	50.12	O	ATOM	6993	C2*	C A 335	136.287	42.192	-13.338	1.00	56.45	C
ATOM	6944	O5*	G A 333	128.435	45.277	-2.460	1.00	42.54	O	ATOM	6994	O2*	C A 335	136.549	41.795	-14.671	1.00	56.45	O
ATOM	6945	C5*	G A 333	127.443	44.242	-2.495	1.00	42.54	C	ATOM	6995	C1*	C A 335	134.940	42.914	-13.257	1.00	56.45	C
ATOM	6946	C4*	G A 333	127.047	43.915	-3.914	1.00	42.54	C	ATOM	6996	N1	C A 335	134.934	42.906	-12.164	1.00	43.18	N
ATOM	6947	O4*	G A 333	126.378	45.061	-4.488	1.00	42.54	O	ATOM	6997	C2	C A 335	135.384	45.208	-12.420	1.00	43.18	C



Table 1: Sheet 72/521

ATOM	6998	O2	C A 335	135.761	45.503	-13.556	1.00	43.18	O	ATOM	7048	C5*	A A 338	149.437	45.768	-9.481	1.00	68.23	C
ATOM	6999	N3	C A 335	135.405	46.107	-11.417	1.00	43.18	N	ATOM	7049	C4*	A A 338	149.416	46.807	-8.393	1.00	68.23	C
ATOM	7000	C4	C A 335	135.012	45.749	-10.196	1.00	43.18	C	ATOM	7050	O4*	A A 338	148.144	47.502	-8.409	1.00	68.23	O
ATOM	7001	N4	C A 335	135.082	46.659	-9.226	1.00	43.18	N	ATOM	7051	C3*	A A 338	149.526	46.257	-6.982	1.00	68.23	C
ATOM	7002	C5	C A 335	134.538	44.438	-9.910	1.00	43.18	C	ATOM	7052	O3*	A A 338	150.865	46.026	-6.599	1.00	68.23	O
ATOM	7003	C6	C A 335	134.513	43.559	-10.911	1.00	43.18	C	ATOM	7053	C2*	A A 338	148.865	47.339	-6.144	1.00	68.23	C
ATOM	7004	P	C A 336	138.345	39.860	-12.049	1.00	53.80	P	ATOM	7054	O2*	A A 338	149.736	48.413	-5.845	1.00	68.23	O
ATOM	7005	O1P	C A 336	138.971	38.598	-12.505	1.00	64.68	O	ATOM	7055	C1*	A A 338	147.755	47.809	-7.081	1.00	68.23	C
ATOM	7006	O2P	C A 336	138.207	40.128	-10.596	1.00	64.68	O	ATOM	7056	N9	A A 338	146.494	47.127	-6.802	1.00	66.33	N
ATOM	7007	O5*	C A 336	139.118	41.085	-12.710	1.00	53.80	O	ATOM	7057	C8	A A 338	145.880	46.133	-7.520	1.00	66.33	C
ATOM	7008	C5*	C A 336	139.477	41.057	-14.097	1.00	53.80	C	ATOM	7058	N7	A A 338	144.740	45.741	-7.009	1.00	66.33	N
ATOM	7009	C4*	C A 336	140.232	42.305	-14.463	1.00	53.80	C	ATOM	7059	C5	A A 338	144.598	46.529	-5.879	1.00	66.33	C
ATOM	7010	O4*	C A 336	139.346	43.449	-14.368	1.00	53.80	O	ATOM	7060	C6	A A 338	143.596	46.604	-4.904	1.00	66.33	C
ATOM	7011	C3*	C A 336	141.407	42.665	-13.569	1.00	53.80	C	ATOM	7061	N6	A A 338	142.486	45.865	-4.930	1.00	66.33	N
ATOM	7012	O3*	C A 336	142.595	41.944	-13.882	1.00	53.80	O	ATOM	7062	N1	A A 338	143.771	47.480	-3.889	1.00	66.33	N
ATOM	7013	C2*	C A 336	141.541	44.167	-13.801	1.00	53.80	C	ATOM	7063	C2	A A 338	144.872	48.237	-3.881	1.00	66.33	C
ATOM	7014	O2*	C A 336	142.227	44.504	-14.992	1.00	53.80	O	ATOM	7064	N3	A A 338	145.875	48.269	-4.751	1.00	66.33	N
ATOM	7015	C1*	C A 336	140.077	44.589	-13.932	1.00	53.80	C	ATOM	7065	C4	A A 338	145.675	47.378	-5.734	1.00	66.33	C
ATOM	7016	N1	C A 336	139.532	45.050	-12.632	1.00	64.68	N	ATOM	7066	P	C A 339	151.225	44.697	-5.780	1.00	65.32	P
ATOM	7017	C2	C A 336	139.867	46.344	-12.166	1.00	64.68	C	ATOM	7067	O1P	C A 339	152.687	44.504	-5.941	1.00	60.93	O
ATOM	7018	O2	C A 336	140.561	47.091	-12.884	1.00	64.68	O	ATOM	7068	O2P	C A 339	150.277	43.619	-6.185	1.00	60.93	O
ATOM	7019	N3	C A 336	139.418	46.742	-10.949	1.00	64.68	N	ATOM	7069	O5*	C A 339	150.914	45.064	-4.265	1.00	65.32	O
ATOM	7020	C4	C A 336	138.661	45.925	-10.215	1.00	64.68	C	ATOM	7070	C5*	C A 339	151.471	46.237	-3.671	1.00	65.32	C
ATOM	7021	N4	C A 336	138.262	46.349	-9.020	1.00	64.68	N	ATOM	7071	C4*	C A 339	150.609	46.708	-2.526	1.00	65.32	C
ATOM	7022	C5	C A 336	138.283	44.630	-10.674	1.00	64.68	C	ATOM	7072	O4*	C A 339	149.300	47.127	-3.003	1.00	65.32	O
ATOM	7023	C6	C A 336	138.734	44.236	-11.874	1.00	64.68	C	ATOM	7073	C3*	C A 339	150.289	45.687	-1.454	1.00	65.32	C
ATOM	7024	P	C A 337	143.686	41.663	-12.725	1.00	59.39	P	ATOM	7074	O3*	C A 339	151.351	45.525	-0.542	1.00	65.32	O
ATOM	7025	O1P	C A 337	144.779	40.892	-13.365	1.00	61.89	O	ATOM	7075	C2*	C A 339	149.053	46.282	-0.793	1.00	65.32	C
ATOM	7026	O2P	C A 337	142.986	41.092	-11.540	1.00	61.89	O	ATOM	7076	O2*	C A 339	149.362	47.306	0.135	1.00	65.32	O
ATOM	7027	O5*	C A 337	144.251	43.111	-12.361	1.00	59.39	O	ATOM	7077	C1*	C A 339	148.332	46.898	-1.990	1.00	65.32	C
ATOM	7028	C5*	C A 337	144.933	43.896	-13.353	1.00	59.39	C	ATOM	7078	N1	C A 339	147.275	46.011	-2.509	1.00	60.93	N
ATOM	7029	C4*	C A 337	145.421	45.199	-12.768	1.00	59.39	C	ATOM	7079	C2	C A 339	146.083	45.891	-1.776	1.00	60.93	C
ATOM	7030	O4*	C A 337	144.311	46.107	-12.552	1.00	59.39	O	ATOM	7080	O2	C A 339	145.950	46.549	-0.730	1.00	60.93	O
ATOM	7031	C3*	C A 337	146.103	45.119	-11.415	1.00	59.39	C	ATOM	7081	N3	C A 339	145.110	45.068	-2.223	1.00	60.93	N
ATOM	7032	O3*	C A 337	147.446	44.689	-11.489	1.00	59.39	O	ATOM	7082	C4	C A 339	145.286	44.384	-3.352	1.00	60.93	C
ATOM	7033	C2*	C A 337	145.953	46.541	-10.885	1.00	59.39	C	ATOM	7083	N4	C A 339	144.301	43.582	-3.753	1.00	60.93	N
ATOM	7034	O2*	C A 337	146.908	47.448	-11.398	1.00	59.39	O	ATOM	7084	C5	C A 339	146.482	44.494	-4.123	1.00	60.93	C
ATOM	7035	C1*	C A 337	144.566	46.913	-11.406	1.00	59.39	C	ATOM	7085	C6	C A 339	147.440	45.310	-3.669	1.00	60.93	C
ATOM	7036	N1	C A 337	143.537	46.638	-10.379	1.00	61.89	N	ATOM	7086	P	U A 340	151.536	44.117	0.200	1.00	76.08	P
ATOM	7037	C2	C A 337	143.387	47.545	-9.310	1.00	61.89	C	ATOM	7087	O1P	U A 340	152.896	44.180	0.812	1.00	50.99	O
ATOM	7038	O2	C A 337	144.071	48.579	-9.295	1.00	61.89	O	ATOM	7088	O2P	U A 340	151.205	43.033	-0.751	1.00	50.99	O
ATOM	7039	N3	C A 337	142.500	47.270	-8.327	1.00	61.89	N	ATOM	7089	O5*	U A 340	150.409	44.107	1.330	1.00	76.08	O
ATOM	7040	C4	C A 337	141.767	46.156	-8.386	1.00	61.89	C	ATOM	7090	C5*	U A 340	150.477	45.015	2.444	1.00	76.08	C
ATOM	7041	N4	C A 337	140.918	45.915	-7.385	1.00	61.89	N	ATOM	7091	C4*	U A 340	149.259	44.872	3.329	1.00	76.08	C
ATOM	7042	C5	C A 337	141.874	45.237	-9.473	1.00	61.89	C	ATOM	7092	O4*	U A 340	148.059	45.256	2.603	1.00	76.08	O
ATOM	7043	C6	C A 337	142.759	45.514	-10.438	1.00	61.89	C	ATOM	7093	C3*	U A 340	148.952	43.477	3.839	1.00	76.08	C
ATOM	7044	P	A A 338	148.021	43.731	-10.338	1.00	68.23	P	ATOM	7094	O3*	U A 340	149.730	43.147	4.975	1.00	76.08	O
ATOM	7045	O1P	A A 338	149.227	43.062	-10.877	1.00	66.33	O	ATOM	7095	C2*	U A 340	147.464	43.559	4.160	1.00	76.08	C
ATOM	7046	O2P	A A 338	146.907	42.910	-9.802	1.00	66.33	O	ATOM	7096	O2*	U A 340	147.194	44.166	5.406	1.00	76.08	O
ATOM	7047	O5*	A A 338	148.478	44.742	-9.200	1.00	68.23	O	ATOM	7097	C1*	U A 340	146.960	44.479	3.051	1.00	76.08	C



Table 1: Sheet 73/521

ATOM	7098	N1	U A 340	146.406	43.732	1.912	1.00	50.99	N	ATOM	7148	O2P	U A 343	147.482	32.302	7.612	1.00	86.54	O
ATOM	7099	C2	U A 340	145.158	43.142	2.074	1.00	50.99	C	ATOM	7149	O5*	U A 343	145.732	30.720	6.782	1.00	90.18	O
ATOM	7100	O2	U A 340	144.522	43.196	3.120	1.00	50.99	O	ATOM	7150	C5*	U A 343	144.506	29.961	6.880	1.00	90.18	C
ATOM	7101	N3	U A 340	144.683	42.481	0.966	1.00	50.99	N	ATOM	7151	C4*	U A 343	144.108	29.403	5.532	1.00	90.18	C
ATOM	7102	C4	U A 340	145.311	42.336	-0.255	1.00	50.99	C	ATOM	7152	O4*	U A 343	143.789	30.482	4.616	1.00	90.18	O
ATOM	7103	O4	U A 340	144.747	41.706	-1.155	1.00	50.99	O	ATOM	7153	C3*	U A 343	145.155	28.583	4.795	1.00	90.18	C
ATOM	7104	C5	U A 340	146.602	42.956	-0.340	1.00	50.99	C	ATOM	7154	O3*	U A 343	145.211	27.235	5.249	1.00	90.18	O
ATOM	7105	C6	U A 340	147.092	43.617	0.717	1.00	50.99	C	ATOM	7155	C2*	U A 343	144.683	28.674	3.346	1.00	90.18	C
ATOM	7106	P	C A 341	150.202	41.628	5.196	1.00	89.74	P	ATOM	7156	O2*	U A 343	143.667	27.745	3.017	1.00	90.18	O
ATOM	7107	O1P	C A 341	151.162	41.705	6.320	1.00	55.90	O	ATOM	7157	C1*	U A 343	144.124	30.097	3.289	1.00	90.18	C
ATOM	7108	O2P	C A 341	150.625	41.029	3.891	1.00	55.90	O	ATOM	7158	N1	U A 343	145.118	31.038	2.744	1.00	86.54	N
ATOM	7109	O5*	C A 341	148.895	40.865	5.698	1.00	89.74	O	ATOM	7159	C2	U A 343	145.274	31.078	1.366	1.00	86.54	C
ATOM	7110	C5*	C A 341	148.331	41.152	6.986	1.00	89.74	C	ATOM	7160	O2	U A 343	144.597	30.413	0.601	1.00	86.54	O
ATOM	7111	C4*	C A 341	146.960	40.537	7.113	1.00	89.74	C	ATOM	7161	N3	U A 343	146.253	31.929	0.916	1.00	86.54	N
ATOM	7112	O4*	C A 341	146.086	41.079	6.095	1.00	89.74	O	ATOM	7162	C4	U A 343	147.068	32.735	1.680	1.00	86.54	C
ATOM	7113	C3*	C A 341	146.864	39.035	6.919	1.00	89.74	C	ATOM	7163	O4	U A 343	147.943	33.410	1.129	1.00	86.54	O
ATOM	7114	O3*	C A 341	147.174	38.345	8.116	1.00	89.74	O	ATOM	7164	C5	U A 343	146.829	32.660	3.091	1.00	86.54	C
ATOM	7115	C2*	C A 341	145.404	38.840	6.524	1.00	89.74	C	ATOM	7165	C6	U A 343	145.886	31.836	3.563	1.00	86.54	C
ATOM	7116	O2*	C A 341	144.512	38.826	7.619	1.00	89.74	O	ATOM	7166	P	A A 344	146.627	26.463	5.315	1.00	107.22	P
ATOM	7117	C1*	C A 341	145.133	40.100	5.711	1.00	89.74	C	ATOM	7167	O1P	A A 344	146.978	26.365	6.762	1.00	93.29	O
ATOM	7118	N1	C A 341	145.245	39.845	4.265	1.00	55.90	N	ATOM	7168	O2P	A A 344	147.587	27.100	4.375	1.00	93.29	O
ATOM	7119	C2	C A 341	144.153	39.278	3.605	1.00	55.90	C	ATOM	7169	O5*	A A 344	146.261	25.007	4.771	1.00	107.22	O
ATOM	7120	O2	C A 341	143.123	39.037	4.254	1.00	55.90	O	ATOM	7170	C5*	A A 344	146.909	24.430	3.610	1.00	107.22	C
ATOM	7121	N3	C A 341	144.243	39.009	2.283	1.00	55.90	N	ATOM	7171	C4*	A A 344	145.956	23.485	2.912	1.00	107.22	C
ATOM	7122	C4	C A 341	145.367	39.293	1.623	1.00	55.90	C	ATOM	7172	O4*	A A 344	145.268	22.728	3.936	1.00	107.22	O
ATOM	7123	N4	C A 341	145.420	39.007	0.319	1.00	55.90	N	ATOM	7173	C3*	A A 344	144.865	24.174	2.105	1.00	107.22	C
ATOM	7124	C5	C A 341	146.493	39.884	2.269	1.00	55.90	C	ATOM	7174	O3*	A A 344	145.296	24.428	0.749	1.00	107.22	O
ATOM	7125	C6	C A 341	146.390	40.140	3.577	1.00	55.90	C	ATOM	7175	C2*	A A 344	143.624	23.300	2.296	1.00	107.22	C
ATOM	7126	P	C A 342	147.661	36.817	8.045	1.00	64.37	P	ATOM	7176	O2*	A A 344	143.417	22.281	1.344	1.00	107.22	O
ATOM	7127	O1P	C A 342	148.094	36.471	9.425	1.00	64.37	O	ATOM	7177	C1*	A A 344	143.883	22.678	3.670	1.00	107.22	C
ATOM	7128	O2P	C A 342	148.611	36.671	6.910	1.00	64.37	O	ATOM	7178	N9	A A 344	143.222	23.314	4.805	1.00	93.29	N
ATOM	7129	O5*	C A 342	146.342	35.997	7.689	1.00	91.35	O	ATOM	7179	C8	A A 344	143.181	24.646	5.120	1.00	93.29	C
ATOM	7130	C5*	C A 342	145.335	35.751	8.688	1.00	91.35	C	ATOM	7180	N7	A A 344	142.577	24.904	6.254	1.00	93.29	N
ATOM	7131	C4*	C A 342	144.269	34.829	8.147	1.00	91.35	C	ATOM	7181	C5	A A 344	142.177	23.657	6.710	1.00	93.29	C
ATOM	7132	O4*	C A 342	143.535	35.491	7.080	1.00	91.35	O	ATOM	7182	C6	A A 344	141.486	23.246	7.869	1.00	93.29	C
ATOM	7133	C3*	C A 342	144.764	33.549	7.499	1.00	91.35	C	ATOM	7183	N6	A A 344	141.056	24.085	8.817	1.00	93.29	N
ATOM	7134	O3*	C A 342	145.117	32.537	8.424	1.00	91.35	O	ATOM	7184	N1	A A 344	141.247	21.924	8.020	1.00	93.29	N
ATOM	7135	C2*	C A 342	143.599	33.171	6.594	1.00	91.35	C	ATOM	7185	C2	A A 344	141.671	21.084	7.063	1.00	93.29	C
ATOM	7136	O2*	C A 342	142.530	32.561	7.288	1.00	91.35	O	ATOM	7186	N3	A A 344	142.325	21.350	5.933	1.00	93.29	N
ATOM	7137	C1*	C A 342	143.155	34.542	6.094	1.00	91.35	C	ATOM	7187	C4	A A 344	142.552	22.669	5.816	1.00	93.29	C
ATOM	7138	N1	C A 342	143.833	34.879	4.826	1.00	64.37	N	ATOM	7188	P	C A 345	145.933	23.241	-0.161	1.00	109.60	P
ATOM	7139	C2	C A 342	143.245	34.871	3.615	1.00	64.37	C	ATOM	7189	O1P	C A 345	144.889	22.273	-0.586	1.00	92.23	O
ATOM	7140	O2	C A 342	142.169	33.881	2.452	1.00	64.37	O	ATOM	7190	C2P	C A 345	147.158	22.749	0.516	1.00	92.23	O
ATOM	7141	N3	C A 342	143.869	34.774	2.452	1.00	64.37	N	ATOM	7191	O5*	C A 345	146.417	23.988	-1.481	1.00	109.60	O
ATOM	7142	C4	C A 342	145.035	35.425	2.465	1.00	64.37	C	ATOM	7192	C5*	C A 345	145.466	24.411	-2.475	1.00	109.60	C
ATOM	7143	N4	C A 342	145.625	35.676	1.294	1.00	64.37	N	ATOM	7193	C4*	C A 345	145.929	25.686	-3.139	1.00	109.60	C
ATOM	7144	C5	C A 342	145.654	35.844	3.680	1.00	64.37	C	ATOM	7194	O4*	C A 345	145.982	26.756	-2.155	1.00	109.60	O
ATOM	7145	C6	C A 342	145.024	35.555	4.825	1.00	64.37	C	ATOM	7195	C3*	C A 345	147.299	25.634	-3.806	1.00	109.60	C
ATOM	7146	P	U A 343	146.299	31.513	8.047	1.00	90.18	P	ATOM	7196	O3*	C A 345	147.246	26.392	-5.011	1.00	109.60	O
ATOM	7147	O1P	U A 343	146.432	30.567	9.174	1.00	86.54	O	ATOM	7197	C2*	C A 345	148.208	26.326	-2.786	1.00	109.60	C



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ATOM	7198	O2*	C A 345	149.329	26.965	-3.363	1.00109.60	O	ATOM	7248	O6	G A 347	144.370	33.879	-0.969	1.00 76.50	O
ATOM	7199	C1*	C A 345	147.260	27.359	-2.178	1.00109.60	C	ATOM	7249	N1	G A 347	142.815	32.954	0.404	1.00 76.50	N
ATOM	7200	N1	C A 345	147.598	27.817	-0.813	1.00 92.23	N	ATOM	7250	C2	G A 347	141.714	32.176	0.664	1.00 76.50	C
ATOM	7201	C2	C A 345	147.995	29.162	-0.621	1.00 92.23	C	ATOM	7251	N2	G A 347	141.333	32.106	1.946	1.00 76.50	N
ATOM	7202	O2	C A 345	148.060	29.924	-1.601	1.00 92.23	O	ATOM	7252	N3	G A 347	141.037	31.515	-0.264	1.00 76.50	N
ATOM	7203	N3	C A 345	148.296	29.592	0.626	1.00 92.23	N	ATOM	7253	C4	G A 347	141.564	31.686	-1.497	1.00 76.50	C
ATOM	7204	C4	C A 345	148.219	28.750	1.658	1.00 92.23	C	ATOM	7254	P	G A 348	136.816	33.125	-4.870	1.00 71.52	P
ATOM	7205	N4	C A 345	148.528	29.222	2.870	1.00 92.23	N	ATOM	7255	O1P	G A 348	135.627	33.376	-5.738	1.00 65.96	O
ATOM	7206	C5	C A 345	147.823	27.386	1.494	1.00 92.23	C	ATOM	7256	O2P	G A 348	138.001	34.021	-4.978	1.00 65.96	O
ATOM	7207	C6	C A 345	147.526	26.966	0.255	1.00 92.23	C	ATOM	7257	O5*	G A 348	136.347	33.109	-3.350	1.00 71.52	O
ATOM	7208	P	G A 346	146.951	25.656	-6.413	1.00113.65	P	ATOM	7258	C5*	G A 348	136.300	34.306	-2.589	1.00 71.52	C
ATOM	7209	O1P	G A 346	147.512	24.277	-6.370	1.00 91.74	O	ATOM	7259	C4*	G A 348	136.529	33.999	-1.139	1.00 71.52	C
ATOM	7210	O2P	G A 346	147.369	26.589	-7.497	1.00 91.74	O	ATOM	7260	O4*	G A 348	137.850	33.438	-0.966	1.00 71.52	O
ATOM	7211	O5*	G A 346	145.363	25.545	-6.478	1.00113.65	O	ATOM	7261	C3*	G A 348	136.537	35.238	-0.275	1.00 71.52	C
ATOM	7212	C5*	G A 346	144.541	26.725	-6.581	1.00113.65	C	ATOM	7262	O3*	G A 348	135.221	35.628	0.047	1.00 71.52	O
ATOM	7213	C4*	G A 346	143.084	26.338	-6.580	1.00113.65	C	ATOM	7263	C2*	G A 348	137.407	34.837	0.905	1.00 71.52	C
ATOM	7214	O4*	G A 346	142.852	25.405	-5.502	1.00113.65	O	ATOM	7264	O2*	G A 348	136.720	34.105	1.897	1.00 71.52	O
ATOM	7215	C3*	G A 346	142.101	27.472	-6.338	1.00113.65	C	ATOM	7265	C1*	G A 348	138.443	33.952	0.216	1.00 71.52	C
ATOM	7216	O3*	G A 346	141.733	28.083	-7.571	1.00113.65	O	ATOM	7266	N9	G A 348	139.631	34.707	-0.174	1.00 65.96	N
ATOM	7217	C2*	G A 346	140.899	26.769	-5.714	1.00113.65	C	ATOM	7267	C8	G A 348	140.223	34.743	-1.419	1.00 65.96	C
ATOM	7218	O2*	G A 346	140.003	26.283	-6.693	1.00113.65	O	ATOM	7268	N7	G A 348	141.265	35.528	-1.470	1.00 65.96	N
ATOM	7219	C1*	G A 346	141.551	25.588	-4.990	1.00113.65	C	ATOM	7269	C5	G A 348	141.370	36.041	-0.183	1.00 65.96	C
ATOM	7220	N9	G A 346	141.627	25.632	-3.532	1.00 91.74	N	ATOM	7270	C6	G A 348	142.295	36.959	0.358	1.00 65.96	C
ATOM	7221	C8	G A 346	141.074	24.717	-2.672	1.00 91.74	C	ATOM	7271	O6	G A 348	143.228	37.531	-0.213	1.00 65.96	O
ATOM	7222	N7	G A 346	141.332	24.967	-1.419	1.00 91.74	N	ATOM	7272	N1	G A 348	142.044	37.205	1.707	1.00 65.96	N
ATOM	7223	C5	G A 346	142.094	26.125	-1.449	1.00 91.74	C	ATOM	7273	C2	G A 348	141.019	36.645	2.438	1.00 65.96	C
ATOM	7224	C6	G A 346	142.673	26.867	-0.388	1.00 91.74	C	ATOM	7274	N2	G A 348	140.933	37.010	3.733	1.00 65.96	N
ATOM	7225	O6	G A 346	142.631	26.638	0.828	1.00 91.74	O	ATOM	7275	N3	G A 348	140.141	35.789	1.936	1.00 65.96	N
ATOM	7226	N1	G A 346	143.362	27.975	-0.859	1.00 91.74	N	ATOM	7276	C4	G A 348	140.375	35.535	0.631	1.00 65.96	C
ATOM	7227	C2	G A 346	143.485	28.324	-2.179	1.00 91.74	C	ATOM	7277	P	A A 349	134.772	37.140	-0.232	1.00 87.63	P
ATOM	7228	N2	G A 346	144.195	29.436	-2.426	1.00 91.74	N	ATOM	7278	O1P	A A 349	133.295	37.212	-0.029	1.00 57.18	O
ATOM	7229	N3	G A 346	142.954	27.638	-3.181	1.00 91.74	N	ATOM	7279	O2P	A A 349	135.364	37.564	-1.531	1.00 57.18	O
ATOM	7230	C4	G A 346	142.278	26.557	-2.746	1.00 91.74	C	ATOM	7280	O5*	A A 349	135.497	37.929	0.939	1.00 87.63	O
ATOM	7231	P	G A 347	141.669	29.686	-7.685	1.00102.55	P	ATOM	7281	C5*	A A 349	135.282	37.536	2.299	1.00 87.63	C
ATOM	7232	O1P	G A 347	141.005	30.034	-8.969	1.00102.55	O	ATOM	7282	C4*	A A 349	136.056	38.427	3.217	1.00 87.63	C
ATOM	7233	O2P	G A 347	143.034	30.206	-7.391	1.00 76.50	O	ATOM	7283	O4*	A A 349	137.463	38.099	3.155	1.00 87.63	O
ATOM	7234	O5*	G A 347	140.710	30.144	-6.500	1.00102.55	O	ATOM	7284	C3*	A A 349	135.996	39.885	2.833	1.00 87.63	C
ATOM	7235	C5*	G A 347	139.454	29.496	-6.284	1.00102.55	C	ATOM	7285	O3*	A A 349	134.797	40.493	3.267	1.00 87.63	O
ATOM	7236	C4*	G A 347	138.945	29.790	-4.896	1.00102.55	C	ATOM	7286	C2*	A A 349	137.270	40.448	3.448	1.00 87.63	C
ATOM	7237	O4*	G A 347	139.973	29.480	-3.913	1.00102.55	O	ATOM	7287	O2*	A A 349	137.157	40.741	4.824	1.00 87.63	O
ATOM	7238	C3*	G A 347	138.601	31.236	-4.600	1.00102.55	C	ATOM	7288	C1*	A A 349	138.235	39.282	3.251	1.00 87.63	C
ATOM	7239	O3*	G A 347	137.325	31.614	-5.087	1.00102.55	O	ATOM	7289	N9	A A 349	138.994	39.422	2.012	1.00 57.18	N
ATOM	7240	C2*	G A 347	138.665	31.274	-3.080	1.00102.55	C	ATOM	7290	C8	A A 349	138.700	38.913	0.768	1.00 57.18	C
ATOM	7241	O2*	G A 347	137.497	30.743	-2.490	1.00102.55	O	ATOM	7291	N7	A A 349	139.581	39.226	-0.151	1.00 57.18	N
ATOM	7242	C1*	G A 347	139.852	30.356	-2.802	1.00102.55	C	ATOM	7292	C5	A A 349	140.517	39.987	0.533	1.00 57.18	C
ATOM	7243	N9	G A 347	141.072	31.153	-2.669	1.00 76.50	N	ATOM	7293	C6	A A 349	141.705	40.612	0.126	1.00 57.18	C
ATOM	7244	C8	G A 347	141.925	31.567	-3.669	1.00 76.50	C	ATOM	7294	N6	A A 349	142.185	40.555	-1.118	1.00 57.18	N
ATOM	7245	N7	G A 347	142.886	32.341	-3.236	1.00 76.50	N	ATOM	7295	N1	A A 349	142.400	41.303	1.055	1.00 57.18	N
ATOM	7246	C5	G A 347	142.666	32.431	-1.865	1.00 76.50	C	ATOM	7296	C2	A A 349	141.931	41.346	2.307	1.00 57.18	C
ATOM	7247	C6	G A 347	143.378	33.150	-0.851	1.00 76.50	C	ATOM	7297	N3	A A 349	140.835	40.789	2.814	1.00 57.18	N



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ATOM	7298	C4	A A 349	140.165	40.118	1.864	1.00	57.18	C	ATOM	7348	OS*	C A 352	138.100	54.980	4.334	1.00	49.49	O
ATOM	7299	P	G A 350	134.428	41.960	2.736	1.00	70.90	P	ATOM	7349	C5*	C A 352	139.297	55.528	4.890	1.00	49.49	C
ATOM	7300	O1P	G A 350	133.097	42.319	3.305	1.00	49.14	O	ATOM	7350	C4*	C A 352	138.959	56.441	6.036	1.00	49.49	C
ATOM	7301	O2P	G A 350	134.635	41.999	1.246	1.00	49.14	O	ATOM	7351	O4*	C A 352	138.519	55.666	7.186	1.00	49.49	O
ATOM	7302	O5*	G A 350	135.535	42.837	3.460	1.00	70.90	O	ATOM	7352	C3*	C A 352	140.115	57.272	6.555	1.00	49.49	C
ATOM	7303	C5*	G A 350	135.685	44.205	3.169	1.00	70.90	C	ATOM	7353	O3*	C A 352	140.243	58.428	5.749	1.00	49.49	O
ATOM	7304	C4*	G A 350	136.978	44.689	3.736	1.00	70.90	C	ATOM	7354	C2*	C A 352	139.661	57.598	7.972	1.00	49.49	C
ATOM	7305	O4*	G A 350	138.022	43.747	3.400	1.00	70.90	O	ATOM	7355	O2*	C A 352	138.712	58.643	8.005	1.00	49.49	O
ATOM	7306	C3*	G A 350	137.421	46.012	3.153	1.00	70.90	C	ATOM	7356	C1*	C A 352	138.959	56.300	8.378	1.00	49.49	C
ATOM	7307	O3*	G A 350	136.828	47.085	3.874	1.00	70.90	O	ATOM	7357	N1	C A 352	139.880	55.397	9.089	1.00	69.09	N
ATOM	7308	C2*	G A 350	138.938	45.936	3.291	1.00	70.90	C	ATOM	7358	C2	C A 352	140.212	55.688	10.418	1.00	69.09	C
ATOM	7309	O2*	G A 350	139.379	46.267	4.593	1.00	70.90	O	ATOM	7359	O2	C A 352	139.686	56.661	10.969	1.00	69.09	O
ATOM	7310	C1*	G A 350	139.198	44.447	3.043	1.00	70.90	C	ATOM	7360	N3	C A 352	141.097	54.905	11.067	1.00	69.09	N
ATOM	7311	N9	G A 350	139.498	44.125	1.649	1.00	49.14	N	ATOM	7361	C4	C A 352	141.642	53.862	10.443	1.00	69.09	C
ATOM	7312	C8	G A 350	138.654	43.519	0.746	1.00	49.14	C	ATOM	7362	N4	C A 352	142.527	53.132	11.116	1.00	69.09	N
ATOM	7313	N7	G A 350	139.198	43.519	-0.427	1.00	49.14	N	ATOM	7363	C5	C A 352	141.306	53.524	9.098	1.00	69.09	C
ATOM	7314	C5	G A 350	140.478	43.857	-0.295	1.00	49.14	C	ATOM	7364	C6	C A 352	140.427	54.309	8.466	1.00	69.09	C
ATOM	7315	C6	G A 350	141.541	43.926	-1.235	1.00	49.14	C	ATOM	7365	P	A A 353	141.691	59.075	5.474	1.00	46.63	P
ATOM	7316	O6	G A 350	141.559	43.525	-2.408	1.00	49.14	O	ATOM	7366	O1P	A A 353	142.134	58.601	4.135	1.00	43.09	O
ATOM	7317	N1	G A 350	142.667	44.535	-0.686	1.00	49.14	N	ATOM	7367	O2P	A A 353	142.599	58.910	6.634	1.00	43.09	O
ATOM	7318	C2	G A 350	142.756	45.014	0.599	1.00	49.14	C	ATOM	7368	O5*	A A 353	141.332	60.624	5.447	1.00	46.63	O
ATOM	7319	N2	G A 350	143.913	45.595	0.937	1.00	49.14	N	ATOM	7369	C5*	A A 353	141.109	61.301	4.221	1.00	46.63	C
ATOM	7320	N3	G A 350	141.780	44.939	1.488	1.00	49.14	N	ATOM	7370	C4*	A A 353	139.721	61.902	4.163	1.00	46.63	C
ATOM	7321	C4	G A 350	140.678	44.355	0.978	1.00	49.14	C	ATOM	7371	O4*	A A 353	139.786	62.731	2.982	1.00	46.63	O
ATOM	7322	P	G A 351	135.496	47.802	3.308	1.00	70.00	P	ATOM	7372	C3*	A A 353	138.553	60.928	3.939	1.00	46.63	C
ATOM	7323	O1P	G A 351	134.509	47.745	4.420	1.00	51.53	O	ATOM	7373	O3*	A A 353	137.696	60.851	5.088	1.00	46.63	O
ATOM	7324	O2P	G A 351	135.105	47.310	1.949	1.00	51.53	O	ATOM	7374	C2*	A A 353	137.758	61.578	2.812	1.00	46.63	C
ATOM	7325	O5*	G A 351	135.946	49.320	3.164	1.00	70.00	O	ATOM	7375	O2*	A A 353	136.850	62.549	3.282	1.00	46.63	O
ATOM	7326	C5*	G A 351	136.712	49.966	4.204	1.00	70.00	C	ATOM	7376	C1*	A A 353	138.852	62.293	2.033	1.00	46.63	C
ATOM	7327	C4*	G A 351	137.882	50.685	3.596	1.00	70.00	C	ATOM	7377	N9	A A 353	139.545	61.417	1.089	1.00	43.09	N
ATOM	7328	O4*	G A 351	138.714	49.697	2.976	1.00	70.00	O	ATOM	7378	C8	A A 353	140.754	60.775	1.221	1.00	43.09	C
ATOM	7329	C3*	G A 351	137.480	51.653	2.489	1.00	70.00	C	ATOM	7379	N7	A A 353	141.065	60.031	0.196	1.00	43.09	N
ATOM	7330	O3*	G A 351	137.368	53.016	2.941	1.00	70.00	O	ATOM	7380	C5	A A 353	139.997	60.200	-0.670	1.00	43.09	C
ATOM	7331	C2*	G A 351	138.645	51.595	1.507	1.00	70.00	C	ATOM	7381	C6	A A 353	139.714	59.668	-1.927	1.00	43.09	C
ATOM	7332	O2*	G A 351	139.574	52.647	1.681	1.00	70.00	O	ATOM	7382	N6	A A 353	140.510	58.798	-2.559	1.00	43.09	N
ATOM	7333	C1*	G A 351	139.285	50.239	1.819	1.00	70.00	C	ATOM	7383	N1	A A 353	138.564	60.054	-2.527	1.00	43.09	N
ATOM	7334	N9	G A 351	139.243	49.239	0.764	1.00	51.53	N	ATOM	7384	C2	A A 353	137.766	60.911	-1.889	1.00	43.09	C
ATOM	7335	C8	G A 351	138.181	48.462	0.360	1.00	51.53	C	ATOM	7385	N3	A A 353	137.918	61.467	-0.702	1.00	43.09	N
ATOM	7336	N7	G A 351	138.482	47.665	-0.627	1.00	51.53	N	ATOM	7386	C4	A A 353	139.065	61.062	-0.139	1.00	43.09	C
ATOM	7337	C5	G A 351	139.819	47.935	-0.885	1.00	51.53	C	ATOM	7387	P	G A 354	136.455	59.808	5.120	1.00	49.55	P
ATOM	7338	C6	G A 351	140.690	47.396	-1.853	1.00	51.53	C	ATOM	7388	O1P	G A 354	137.030	58.479	5.427	1.00	55.32	O
ATOM	7339	O6	G A 351	140.446	46.551	-2.724	1.00	51.53	O	ATOM	7389	O2P	G A 354	135.592	59.963	3.913	1.00	55.32	O
ATOM	7340	N1	G A 351	141.961	47.949	-1.753	1.00	51.53	N	ATOM	7390	O5*	G A 354	135.646	60.232	6.437	1.00	49.55	O
ATOM	7341	C2	G A 351	142.338	48.910	-0.843	1.00	51.53	C	ATOM	7391	C5*	G A 354	134.955	61.499	6.518	1.00	49.55	C
ATOM	7342	N2	G A 351	143.610	49.324	-0.890	1.00	51.53	N	ATOM	7392	C4*	G A 354	133.991	61.541	7.704	1.00	49.55	C
ATOM	7343	N3	G A 351	141.530	49.428	0.049	1.00	51.53	N	ATOM	7393	O4*	G A 354	133.212	60.318	7.774	1.00	49.55	O
ATOM	7344	C4	G A 351	140.298	48.898	-0.027	1.00	51.53	C	ATOM	7394	O3*	G A 354	134.590	61.713	9.093	1.00	49.55	C
ATOM	7345	P	C A 352	137.799	53.429	4.445	1.00	49.49	P	ATOM	7395	C3*	G A 354	134.786	63.100	9.380	1.00	49.55	O
ATOM	7346	O1P	C A 352	139.077	52.767	4.821	1.00	69.09	O	ATOM	7396	C2*	G A 354	133.509	61.125	9.994	1.00	49.55	C
ATOM	7347	O2P	C A 352	136.613	53.298	5.338	1.00	69.09	O	ATOM	7397	O2*	G A 354	132.469	62.043	10.264	1.00	49.55	O



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ATOM	7398	C1*	G A 354	132.953	59.992	9.128	1.00	49.55	C	ATOM	7448	N1	A A 356	140.240	55.394	15.808	1.00	56.98	N
ATOM	7399	N9	G A 354	133.563	58.692	9.402	1.00	55.32	N	ATOM	7449	C2	A A 356	139.992	55.743	17.075	1.00	56.98	C
ATOM	7400	C8	G A 354	134.209	57.896	8.488	1.00	55.32	C	ATOM	7450	N3	A A 356	139.563	56.901	17.557	1.00	56.98	N
ATOM	7401	N7	G A 354	134.660	56.786	9.002	1.00	55.32	N	ATOM	7451	C4	A A 356	139.366	57.786	16.563	1.00	56.98	C
ATOM	7402	C5	G A 354	134.288	56.845	10.340	1.00	55.32	C	ATOM	7452	P	G A 357	142.414	62.599	18.623	1.00	52.20	P
ATOM	7403	C6	G A 354	134.500	55.916	11.389	1.00	55.32	C	ATOM	7453	O1P	G A 357	143.151	63.220	19.760	1.00	59.97	O
ATOM	7404	O6	G A 354	135.077	54.825	11.346	1.00	55.32	O	ATOM	7454	O2P	G A 357	142.480	63.221	17.276	1.00	59.97	O
ATOM	7405	N1	G A 354	133.959	56.362	12.585	1.00	55.32	N	ATOM	7455	O5*	G A 357	142.926	61.099	18.462	1.00	52.20	O
ATOM	7406	C2	G A 354	133.303	57.546	12.757	1.00	55.32	C	ATOM	7456	C5*	G A 357	143.180	60.272	19.614	1.00	52.20	C
ATOM	7407	N2	G A 354	132.866	57.791	14.000	1.00	55.32	N	ATOM	7457	C4*	G A 357	143.663	58.908	19.185	1.00	52.20	C
ATOM	7408	N3	G A 354	133.095	58.426	11.786	1.00	55.32	N	ATOM	7458	O4*	G A 357	142.647	58.266	18.369	1.00	52.20	O
ATOM	7409	C4	G A 354	133.611	58.012	10.609	1.00	55.32	C	ATOM	7459	O3*	G A 357	144.902	58.893	18.316	1.00	52.20	C
ATOM	7410	P	C A 355	135.803	63.550	10.544	1.00	49.83	P	ATOM	7460	C3*	G A 357	146.080	58.962	19.083	1.00	52.20	O
ATOM	7411	O1P	C A 355	135.677	65.018	10.704	1.00	58.91	O	ATOM	7461	C2*	G A 357	144.777	57.567	17.583	1.00	52.20	C
ATOM	7412	O2P	C A 355	137.132	62.959	10.263	1.00	58.91	O	ATOM	7462	O2*	G A 357	145.213	56.459	18.337	1.00	52.20	O
ATOM	7413	O5*	C A 355	135.227	62.856	11.855	1.00	49.83	O	ATOM	7463	C1*	G A 357	143.267	57.468	17.375	1.00	52.20	C
ATOM	7414	C5*	C A 355	134.223	63.499	12.649	1.00	49.83	C	ATOM	7464	N9	G A 357	142.912	57.991	16.061	1.00	59.97	N
ATOM	7415	C4*	C A 355	134.257	62.966	14.058	1.00	49.83	C	ATOM	7465	C8	G A 357	142.257	59.162	15.780	1.00	59.97	C
ATOM	7416	O4*	C A 355	133.867	61.572	14.049	1.00	49.83	O	ATOM	7466	N7	G A 357	142.140	59.386	14.501	1.00	59.97	N
ATOM	7417	C3*	C A 355	135.613	62.988	14.738	1.00	49.83	C	ATOM	7467	C5	G A 357	142.747	58.291	13.901	1.00	59.97	C
ATOM	7418	O3*	C A 355	135.842	64.223	15.387	1.00	49.83	O	ATOM	7468	C6	G A 357	142.935	57.985	12.537	1.00	59.97	C
ATOM	7419	C2*	C A 355	135.497	61.865	15.758	1.00	49.83	C	ATOM	7469	O6	G A 357	142.603	58.646	11.559	1.00	59.97	O
ATOM	7420	O2*	C A 355	134.841	62.291	16.933	1.00	49.83	O	ATOM	7470	N1	G A 357	143.585	56.771	12.364	1.00	59.97	N
ATOM	7421	C1*	C A 355	134.608	60.862	15.024	1.00	49.83	C	ATOM	7471	C2	G A 357	144.007	55.954	13.381	1.00	59.97	C
ATOM	7422	N1	C A 355	135.369	59.793	14.347	1.00	58.91	N	ATOM	7472	N2	G A 357	144.608	54.809	13.019	1.00	59.97	N
ATOM	7423	C2	C A 355	135.834	58.722	15.101	1.00	58.91	C	ATOM	7473	N3	G A 357	143.849	56.235	14.664	1.00	59.97	N
ATOM	7424	O2	C A 355	135.633	58.713	16.316	1.00	58.91	O	ATOM	7474	C4	G A 357	143.214	57.413	14.848	1.00	59.97	C
ATOM	7425	N3	C A 355	136.499	57.724	14.488	1.00	58.91	N	ATOM	7475	P	U A 358	147.474	59.324	18.363	1.00	55.18	P
ATOM	7426	C4	C A 355	136.714	57.770	13.176	1.00	58.91	C	ATOM	7476	O1P	U A 358	148.482	59.512	19.439	1.00	53.34	O
ATOM	7427	N4	C A 355	137.358	56.748	12.616	1.00	58.91	N	ATOM	7477	O2P	U A 358	147.258	60.404	17.362	1.00	53.34	O
ATOM	7428	C5	C A 355	136.274	58.861	12.381	1.00	58.91	C	ATOM	7478	O5*	U A 358	147.845	58.002	17.556	1.00	55.18	O
ATOM	7429	C6	C A 355	135.611	59.842	13.000	1.00	58.91	C	ATOM	7479	C5*	U A 358	148.093	56.758	18.240	1.00	55.18	C
ATOM	7430	P	A A 356	137.346	64.701	15.665	1.00	52.47	P	ATOM	7480	C4*	U A 358	148.561	55.708	17.262	1.00	55.18	C
ATOM	7431	O1P	A A 356	137.290	65.856	16.597	1.00	56.98	O	ATOM	7481	O4*	U A 358	147.510	55.413	16.308	1.00	55.18	O
ATOM	7432	O2P	A A 356	137.999	64.850	14.338	1.00	56.98	O	ATOM	7482	C3*	U A 358	149.746	56.120	16.407	1.00	55.18	C
ATOM	7433	O5*	A A 356	138.023	63.475	16.431	1.00	52.47	O	ATOM	7483	O3*	U A 358	150.968	55.884	17.069	1.00	55.18	O
ATOM	7434	C5*	A A 356	137.880	63.340	17.851	1.00	52.47	C	ATOM	7484	C2*	U A 358	149.609	55.248	15.175	1.00	55.18	C
ATOM	7435	C4*	A A 356	138.512	62.054	18.358	1.00	52.47	C	ATOM	7485	O2*	U A 358	150.188	53.980	15.375	1.00	55.18	O
ATOM	7436	O4*	A A 356	137.872	60.889	17.770	1.00	52.47	O	ATOM	7486	C1*	U A 358	148.088	55.131	15.041	1.00	55.18	C
ATOM	7437	C3*	A A 356	139.987	61.756	18.142	1.00	52.47	C	ATOM	7487	N1	U A 358	147.531	56.054	14.036	1.00	53.34	N
ATOM	7438	O3*	A A 356	140.860	62.450	19.016	1.00	52.47	O	ATOM	7488	C2	U A 358	147.559	55.649	12.705	1.00	53.34	C
ATOM	7439	C2*	A A 356	140.041	60.277	18.500	1.00	52.47	C	ATOM	7489	O2	U A 358	147.980	54.560	12.346	1.00	53.34	O
ATOM	7440	O2*	A A 356	140.041	60.088	19.896	1.00	52.47	O	ATOM	7490	N3	U A 358	147.068	56.566	11.808	1.00	53.34	N
ATOM	7441	C1*	A A 356	138.711	59.763	17.955	1.00	52.47	C	ATOM	7491	C4	U A 358	146.548	57.811	12.090	1.00	53.34	C
ATOM	7442	N9	A A 356	138.947	59.089	16.681	1.00	56.98	N	ATOM	7492	O4	U A 358	146.178	58.535	11.162	1.00	53.34	O
ATOM	7443	C8	A A 356	138.874	59.575	15.404	1.00	56.98	C	ATOM	7493	C5	U A 358	146.528	58.149	13.485	1.00	53.34	C
ATOM	7444	N7	A A 356	139.247	58.714	14.491	1.00	56.98	N	ATOM	7494	C6	U A 358	147.009	57.284	14.387	1.00	53.34	C
ATOM	7445	C5	A A 356	139.568	57.576	15.215	1.00	56.98	C	ATOM	7495	P	U A 359	152.236	56.791	16.710	1.00	62.46	P
ATOM	7446	C6	A A 356	140.043	56.311	14.833	1.00	56.98	C	ATOM	7496	O1P	U A 359	153.343	56.381	17.619	1.00	66.96	O
ATOM	7447	N6	A A 356	140.322	55.973	13.567	1.00	56.98	N	ATOM	7497	O2P	U A 359	151.800	58.216	16.682	1.00	66.96	O



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ATOM	7498	O5*	U A 359	152.573	56.367	15.211	1.00	62.46	O	ATOM	7548	C1*	G A 361	155.974	62.587	5.530	1.00	55.68	C
ATOM	7499	C5*	U A 359	153.053	55.049	14.909	1.00	62.46	C	ATOM	7549	N9	G A 361	155.438	62.730	6.882	1.00	65.64	N
ATOM	7500	C4*	U A 359	153.201	54.870	13.418	1.00	62.46	C	ATOM	7550	C8	G A 361	155.919	62.135	8.023	1.00	65.64	C
ATOM	7501	O4*	U A 359	151.896	54.881	12.789	1.00	62.46	O	ATOM	7551	N7	G A 361	155.298	62.520	9.104	1.00	65.64	N
ATOM	7502	C3*	U A 359	153.991	55.935	12.679	1.00	62.46	C	ATOM	7552	C5	G A 361	154.333	63.405	8.650	1.00	65.64	C
ATOM	7503	O3*	U A 359	155.387	55.693	12.757	1.00	62.46	O	ATOM	7553	C6	G A 361	153.371	64.150	9.365	1.00	65.64	C
ATOM	7504	C2*	U A 359	153.456	55.816	11.255	1.00	62.46	C	ATOM	7554	O6	G A 361	153.178	64.189	10.584	1.00	65.64	O
ATOM	7505	O2*	U A 359	154.037	54.770	10.506	1.00	62.46	O	ATOM	7555	N1	G A 361	152.587	64.916	8.515	1.00	65.64	N
ATOM	7506	C1*	U A 359	151.991	55.466	11.503	1.00	62.46	C	ATOM	7556	C2	G A 361	152.716	64.969	7.154	1.00	65.64	C
ATOM	7507	N1	U A 359	151.134	56.658	11.466	1.00	66.96	N	ATOM	7557	N2	G A 361	151.863	65.775	6.515	1.00	65.64	N
ATOM	7508	C2	U A 359	150.736	57.122	10.234	1.00	66.96	C	ATOM	7558	N3	G A 361	153.615	64.285	6.472	1.00	65.64	N
ATOM	7509	O2	U A 359	151.039	56.573	9.192	1.00	66.96	O	ATOM	7559	C4	G A 361	154.388	63.529	7.278	1.00	65.64	C
ATOM	7510	N3	U A 359	149.966	58.256	10.267	1.00	66.96	N	ATOM	7560	P	G A 362	160.460	64.312	6.122	1.00	54.38	P
ATOM	7511	C4	U A 359	149.558	58.952	11.385	1.00	66.96	C	ATOM	7561	O1P	G A 362	161.624	64.753	5.311	1.00	62.68	O
ATOM	7512	O4	U A 359	148.870	59.965	11.255	1.00	66.96	O	ATOM	7562	O2P	G A 362	160.677	63.618	7.426	1.00	62.68	O
ATOM	7513	C5	U A 359	150.000	58.397	12.621	1.00	66.96	C	ATOM	7563	O5*	G A 362	159.596	65.605	6.430	1.00	54.38	O
ATOM	7514	C6	U A 359	150.752	57.299	12.621	1.00	66.96	C	ATOM	7564	C5*	G A 362	159.188	66.476	5.377	1.00	54.38	C
ATOM	7515	P	A A 360	156.417	56.898	12.498	1.00	48.84	P	ATOM	7565	C4*	G A 362	158.303	67.563	5.921	1.00	54.38	C
ATOM	7516	O1P	A A 360	157.792	56.389	12.740	1.00	73.06	O	ATOM	7566	O4*	G A 362	157.051	66.996	6.390	1.00	54.38	O
ATOM	7517	O2P	A A 360	155.934	58.080	13.252	1.00	73.06	O	ATOM	7567	C3*	G A 362	158.817	68.342	7.122	1.00	54.38	C
ATOM	7518	O5*	A A 360	156.260	57.189	10.938	1.00	48.84	C	ATOM	7568	O3*	G A 362	159.785	69.332	6.791	1.00	54.38	O
ATOM	7519	C5*	A A 360	156.604	56.187	9.967	1.00	48.84	C	ATOM	7569	C2*	G A 362	157.526	68.939	7.655	1.00	54.38	C
ATOM	7520	C4*	A A 360	156.353	56.695	8.569	1.00	48.84	C	ATOM	7570	O2*	G A 362	157.102	70.026	6.851	1.00	54.38	O
ATOM	7521	O4*	A A 360	154.931	56.781	8.316	1.00	48.84	O	ATOM	7571	C1*	G A 362	156.557	67.772	7.465	1.00	54.38	C
ATOM	7522	C3*	A A 360	156.883	58.080	8.258	1.00	48.84	C	ATOM	7572	N9	G A 362	156.553	66.953	8.673	1.00	62.68	N
ATOM	7523	O3*	A A 360	158.239	58.034	7.893	1.00	48.84	O	ATOM	7573	C8	G A 362	157.528	66.072	9.073	1.00	62.68	C
ATOM	7524	C2*	A A 360	156.003	58.510	7.096	1.00	48.84	C	ATOM	7574	N7	G A 362	157.309	65.564	10.255	1.00	62.68	N
ATOM	7525	O2*	A A 360	156.432	57.920	5.886	1.00	48.84	O	ATOM	7575	C5	G A 362	156.101	66.122	10.649	1.00	62.68	C
ATOM	7526	C1*	A A 360	154.659	57.904	7.496	1.00	48.84	C	ATOM	7576	C6	G A 362	155.360	65.956	11.849	1.00	62.68	C
ATOM	7527	N9	A A 360	153.855	58.836	8.284	1.00	73.06	N	ATOM	7577	O6	G A 362	155.634	65.254	12.839	1.00	62.68	O
ATOM	7528	C8	A A 360	153.803	58.944	9.653	1.00	73.06	C	ATOM	7578	N1	G A 362	154.192	66.711	11.834	1.00	62.68	N
ATOM	7529	N7	A A 360	152.979	59.864	10.081	1.00	73.06	N	ATOM	7579	C2	G A 362	153.788	67.516	10.807	1.00	62.68	C
ATOM	7530	C5	A A 360	152.454	60.403	8.917	1.00	73.06	C	ATOM	7580	N2	G A 362	152.632	68.160	10.991	1.00	62.68	N
ATOM	7531	C6	A A 360	151.516	61.416	8.692	1.00	73.06	C	ATOM	7581	N3	G A 362	154.465	67.680	9.684	1.00	62.68	N
ATOM	7532	N6	A A 360	150.913	62.088	9.668	1.00	73.06	N	ATOM	7582	C4	G A 362	155.606	66.961	9.673	1.00	62.68	C
ATOM	7533	N1	A A 360	151.211	61.718	7.414	1.00	73.06	N	ATOM	7583	P	A A 363	160.984	69.647	7.819	1.00	50.89	P
ATOM	7534	C2	A A 360	151.812	61.033	6.435	1.00	73.06	C	ATOM	7584	O1P	A A 363	162.165	70.100	7.051	1.00	53.77	O
ATOM	7535	N3	A A 360	152.706	60.054	6.519	1.00	73.06	N	ATOM	7585	O2P	A A 363	161.093	68.475	8.732	1.00	53.77	O
ATOM	7536	C4	A A 360	152.989	59.784	7.803	1.00	73.06	C	ATOM	7586	O5*	A A 363	160.471	70.881	8.681	1.00	50.89	O
ATOM	7537	P	G A 361	159.196	59.264	8.264	1.00	55.68	P	ATOM	7587	C5*	A A 363	161.165	71.293	9.874	1.00	50.89	C
ATOM	7538	O1P	G A 361	160.578	58.903	7.839	1.00	65.64	O	ATOM	7588	C4*	A A 363	160.264	72.156	10.730	1.00	50.89	C
ATOM	7539	O2P	G A 361	158.934	59.632	9.687	1.00	65.64	O	ATOM	7589	O4*	A A 363	159.952	73.375	10.013	1.00	50.89	O
ATOM	7540	O5*	G A 361	158.675	60.445	7.331	1.00	55.68	O	ATOM	7590	C3*	A A 363	158.908	71.562	11.084	1.00	50.89	C
ATOM	7541	C5*	G A 361	158.770	60.344	5.905	1.00	55.68	C	ATOM	7591	O3*	A A 363	158.980	70.773	12.258	1.00	50.89	O
ATOM	7542	C4*	G A 361	158.021	61.475	5.241	1.00	55.68	C	ATOM	7592	C2*	A A 363	158.049	72.794	11.317	1.00	50.89	C
ATOM	7543	O4*	G A 361	156.589	61.313	5.430	1.00	55.68	O	ATOM	7593	O2*	A A 363	158.250	73.324	12.609	1.00	50.89	O
ATOM	7544	C3*	G A 361	158.309	62.879	5.742	1.00	55.68	C	ATOM	7594	C1*	A A 363	158.619	73.767	10.289	1.00	50.89	C
ATOM	7545	O3*	G A 361	159.495	63.427	5.190	1.00	55.68	O	ATOM	7595	N9	A A 363	157.882	73.761	9.028	1.00	53.77	N
ATOM	7546	C2*	G A 361	157.067	63.631	5.293	1.00	55.68	C	ATOM	7596	C8	A A 363	158.199	73.071	7.886	1.00	53.77	C
ATOM	7547	O2*	G A 361	157.129	63.946	3.917	1.00	55.68	O	ATOM	7597	N7	A A 363	157.358	73.260	6.903	1.00	53.77	N



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ATOM	7598	C5	A A 363	156.421	74.134	7.433	1.00	53.77	C	ATOM	7648	O1P	C A 366	149.019	66.365	16.081	1.00	55.22	O
ATOM	7599	C6	A A 363	155.270	74.723	6.887	1.00	53.77	C	ATOM	7649	O2P	C A 366	146.672	66.301	15.006	1.00	55.22	O
ATOM	7600	N6	A A 363	154.860	74.512	5.641	1.00	53.77	N	ATOM	7650	O5*	C A 366	146.978	66.778	17.434	1.00	47.64	O
ATOM	7601	N1	A A 363	154.551	75.548	7.675	1.00	53.77	N	ATOM	7651	C5*	C A 366	147.555	67.481	18.543	1.00	47.64	C
ATOM	7602	C2	A A 363	154.979	75.767	8.925	1.00	53.77	C	ATOM	7652	C4*	C A 366	146.548	67.606	19.651	1.00	47.64	C
ATOM	7603	N3	A A 363	156.049	75.274	9.553	1.00	53.77	N	ATOM	7653	O4*	C A 366	145.603	68.668	19.380	1.00	47.64	O
ATOM	7604	C4	A A 363	156.732	74.451	8.742	1.00	53.77	C	ATOM	7654	C3*	C A 366	145.738	66.354	19.908	1.00	47.64	C
ATOM	7605	P	A A 364	157.958	69.554	12.456	1.00	55.10	P	ATOM	7655	O3*	C A 366	146.106	65.600	21.081	1.00	47.64	O
ATOM	7606	O1P	A A 364	158.277	68.938	13.769	1.00	68.20	O	ATOM	7656	C2*	C A 366	144.319	66.666	19.426	1.00	47.64	C
ATOM	7607	O2P	A A 364	157.972	68.724	11.223	1.00	68.20	O	ATOM	7657	O2*	C A 366	143.287	66.068	20.186	1.00	47.64	O
ATOM	7608	O5*	A A 364	156.545	70.266	12.571	1.00	55.10	O	ATOM	7658	C1*	C A 366	144.271	68.195	19.488	1.00	47.64	C
ATOM	7609	C5*	A A 364	156.282	71.177	13.651	1.00	55.10	C	ATOM	7659	N1	C A 366	143.509	68.798	18.368	1.00	55.22	N
ATOM	7610	C4*	A A 364	154.895	71.732	13.525	1.00	55.10	C	ATOM	7660	C2	C A 366	142.125	69.070	18.511	1.00	55.22	C
ATOM	7611	O4*	A A 364	154.827	72.509	12.315	1.00	55.10	O	ATOM	7661	O2	C A 366	141.550	68.780	19.564	1.00	55.22	O
ATOM	7612	C3*	A A 364	153.811	70.679	13.406	1.00	55.10	C	ATOM	7662	N3	C A 366	141.457	69.639	17.486	1.00	55.22	N
ATOM	7613	O3*	A A 364	153.349	70.394	14.718	1.00	55.10	O	ATOM	7663	C4	C A 366	142.098	69.926	16.354	1.00	55.22	C
ATOM	7614	C2*	A A 364	152.741	71.373	12.576	1.00	55.10	C	ATOM	7664	N4	C A 366	141.405	70.478	15.369	1.00	55.22	N
ATOM	7615	O2*	A A 364	151.876	72.140	13.392	1.00	55.10	O	ATOM	7665	C5	C A 366	143.486	69.656	16.179	1.00	55.22	C
ATOM	7616	C1*	A A 364	153.579	72.311	11.696	1.00	55.10	C	ATOM	7666	C6	C A 366	144.144	69.039	17.196	1.00	55.22	C
ATOM	7617	N9	A A 364	153.842	71.894	10.322	1.00	68.20	N	ATOM	7667	P	U A 367	145.889	66.202	22.554	1.00	48.35	P
ATOM	7618	C8	A A 364	154.784	71.006	9.886	1.00	68.20	C	ATOM	7668	O1P	U A 367	147.009	65.699	23.386	1.00	75.43	O
ATOM	7619	N7	A A 364	154.823	70.878	8.587	1.00	68.20	N	ATOM	7669	O2P	U A 367	145.655	67.670	22.453	1.00	75.43	O
ATOM	7620	C5	A A 364	153.832	71.731	8.136	1.00	68.20	C	ATOM	7670	O5*	U A 367	144.552	65.493	23.045	1.00	48.35	O
ATOM	7621	C6	A A 364	153.378	72.050	6.853	1.00	68.20	C	ATOM	7671	C5*	U A 367	144.284	64.127	22.718	1.00	48.35	C
ATOM	7622	N6	A A 364	153.894	71.537	5.738	1.00	68.20	N	ATOM	7672	C4*	U A 367	143.206	63.604	23.618	1.00	48.35	C
ATOM	7623	N1	A A 364	152.367	72.932	6.747	1.00	68.20	N	ATOM	7673	O4*	U A 367	142.111	64.543	23.599	1.00	48.35	O
ATOM	7624	C2	A A 364	151.861	73.460	7.863	1.00	68.20	C	ATOM	7674	C3*	U A 367	142.634	62.239	23.262	1.00	48.35	C
ATOM	7625	N3	A A 364	152.207	73.244	9.126	1.00	68.20	N	ATOM	7675	O3*	U A 367	142.343	61.550	24.485	1.00	48.35	O
ATOM	7626	C4	A A 364	153.212	72.356	9.194	1.00	68.20	C	ATOM	7676	C2*	U A 367	141.356	62.600	22.506	1.00	48.35	C
ATOM	7627	P	U A 365	152.779	68.939	15.074	1.00	50.08	P	ATOM	7677	O1*	U A 367	140.948	61.617	22.586	1.00	48.35	O
ATOM	7628	O1P	U A 365	153.134	68.721	16.497	1.00	61.85	O	ATOM	7678	C1*	U A 367	140.326	63.886	23.217	1.00	48.35	C
ATOM	7629	O2P	U A 365	153.205	67.950	14.052	1.00	61.85	O	ATOM	7679	N1	U A 367	140.122	64.833	22.429	1.00	75.43	N
ATOM	7630	O5*	U A 365	151.202	69.109	14.939	1.00	50.08	O	ATOM	7680	C2	U A 367	139.063	65.462	23.072	1.00	75.43	C
ATOM	7631	C5*	U A 365	150.476	70.041	15.764	1.00	50.08	C	ATOM	7681	O2	U A 367	138.775	65.258	24.239	1.00	75.43	O
ATOM	7632	C4*	U A 365	149.097	70.274	15.196	1.00	50.08	C	ATOM	7682	N3	U A 367	138.353	66.342	22.295	1.00	75.43	N
ATOM	7633	O4*	U A 365	149.149	71.172	14.075	1.00	50.08	O	ATOM	7683	C4	U A 367	138.581	66.653	20.975	1.00	75.43	C
ATOM	7634	C3*	U A 365	148.402	69.030	14.673	1.00	50.08	C	ATOM	7684	O4	U A 367	137.844	67.461	20.411	1.00	75.43	O
ATOM	7635	O3*	U A 365	147.688	68.477	15.770	1.00	50.08	O	ATOM	7685	C5	U A 367	139.687	65.968	20.380	1.00	75.43	C
ATOM	7636	C2*	U A 365	147.440	69.561	13.604	1.00	50.08	C	ATOM	7686	C6	U A 367	140.401	65.103	21.106	1.00	75.43	C
ATOM	7637	O2*	U A 365	146.101	69.664	14.038	1.00	50.08	O	ATOM	7687	P	U A 368	143.247	60.294	24.945	1.00	51.62	P
ATOM	7638	C1*	U A 365	148.019	70.943	13.270	1.00	50.08	C	ATOM	7688	O1P	U A 368	142.862	59.967	26.343	1.00	67.91	O
ATOM	7639	N1	U A 365	148.365	71.202	11.865	1.00	61.85	N	ATOM	7689	O2P	U A 368	144.671	60.540	24.617	1.00	67.91	O
ATOM	7640	C2	U A 365	149.467	70.570	11.304	1.00	61.85	C	ATOM	7690	O5*	U A 368	142.731	59.111	24.016	1.00	51.62	O
ATOM	7641	O2	U A 365	150.170	69.780	11.910	1.00	61.85	O	ATOM	7691	C5*	U A 368	141.376	58.638	24.113	1.00	51.62	C
ATOM	7642	N3	U A 365	149.711	70.902	9.996	1.00	61.85	N	ATOM	7692	O4*	U A 368	140.864	58.271	22.747	1.00	51.62	O
ATOM	7643	C4	U A 365	148.987	71.775	9.214	1.00	61.85	C	ATOM	7693	O4*	U A 368	141.735	57.302	22.129	1.00	51.62	O
ATOM	7644	O4	U A 365	149.367	72.019	8.073	1.00	61.85	O	ATOM	7694	C3*	U A 368	139.490	57.630	22.716	1.00	51.62	C
ATOM	7645	C5	U A 365	147.867	72.369	9.862	1.00	61.85	C	ATOM	7695	O3*	U A 368	138.535	58.668	22.643	1.00	51.62	O
ATOM	7646	C6	U A 365	147.602	72.071	11.131	1.00	61.85	C	ATOM	7696	O2*	U A 368	139.493	56.833	21.414	1.00	51.62	C
ATOM	7647	P	C A 366	147.628	66.888	15.991	1.00	47.64	P	ATOM	7697	O2*	U A 368	138.972	57.557	20.315	1.00	51.62	O



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ATOM	7698	C1*	U A 368	140.985	56.535	21.213	1.00	51.62	C	ATOM	7748	O1P	G A 371	128.001	58.478	29.689	1.00	60.76	O
ATOM	7699	N1	U A 368	141.361	55.123	21.349	1.00	67.91	N	ATOM	7749	O2P	G A 371	129.246	58.724	27.436	1.00	60.76	O
ATOM	7700	C2	U A 368	141.954	54.526	20.256	1.00	67.91	C	ATOM	7750	O5*	G A 371	127.432	60.279	28.118	1.00	55.90	O
ATOM	7701	O2	U A 368	142.216	55.136	19.227	1.00	67.91	O	ATOM	7751	C5*	G A 371	126.891	61.264	28.989	1.00	55.90	C
ATOM	7702	N3	U A 368	142.236	53.190	20.413	1.00	67.91	N	ATOM	7752	C4*	G A 371	125.918	62.119	28.250	1.00	55.90	C
ATOM	7703	C4	U A 368	142.002	52.413	21.531	1.00	67.91	C	ATOM	7753	O4*	G A 371	126.596	63.127	27.457	1.00	55.90	O
ATOM	7704	O4	U A 368	142.232	51.206	21.483	1.00	67.91	O	ATOM	7754	C3*	G A 371	125.079	61.359	27.251	1.00	55.90	C
ATOM	7705	C5	U A 368	141.417	53.112	22.631	1.00	67.91	C	ATOM	7755	O3*	G A 371	124.067	60.602	27.897	1.00	55.90	O
ATOM	7706	C6	U A 368	141.122	54.410	22.508	1.00	67.91	C	ATOM	7756	C2*	G A 371	124.599	62.480	26.343	1.00	55.90	C
ATOM	7707	P	C A 369	136.987	58.342	22.833	1.00	56.62	P	ATOM	7757	O2*	G A 371	123.567	63.210	26.958	1.00	55.90	O
ATOM	7708	O1P	C A 369	136.799	56.889	23.059	1.00	80.97	O	ATOM	7758	C1*	G A 371	125.839	63.376	26.284	1.00	55.90	C
ATOM	7709	O2P	C A 369	136.274	59.003	21.723	1.00	80.97	O	ATOM	7759	N9	G A 371	126.660	63.102	25.104	1.00	60.76	N
ATOM	7710	O5*	C A 369	136.639	59.122	24.172	1.00	56.62	O	ATOM	7760	C8	G A 371	127.725	62.237	24.992	1.00	60.76	C
ATOM	7711	C5*	C A 369	137.511	59.059	25.316	1.00	56.62	C	ATOM	7761	N7	G A 371	128.220	62.188	23.784	1.00	60.76	N
ATOM	7712	C4*	C A 369	137.154	60.151	26.293	1.00	56.62	C	ATOM	7762	C5	G A 371	127.440	63.077	23.057	1.00	60.76	C
ATOM	7713	O4*	C A 369	137.650	61.421	25.810	1.00	56.62	O	ATOM	7763	C6	G A 371	127.491	63.449	21.680	1.00	60.76	C
ATOM	7714	C3*	C A 369	135.662	60.357	26.474	1.00	56.62	C	ATOM	7764	O6	G A 371	128.234	63.030	20.793	1.00	60.76	O
ATOM	7715	O3*	C A 369	135.146	59.470	27.444	1.00	56.62	O	ATOM	7765	N1	G A 371	126.534	64.409	21.375	1.00	60.76	N
ATOM	7716	C2*	C A 369	135.560	61.820	26.880	1.00	56.62	C	ATOM	7766	C2	G A 371	125.632	64.934	22.264	1.00	60.76	C
ATOM	7717	O2*	C A 369	135.786	62.030	28.254	1.00	56.62	O	ATOM	7767	N2	G A 371	124.800	65.863	21.781	1.00	60.76	N
ATOM	7718	C1*	C A 369	136.707	62.445	26.083	1.00	56.62	C	ATOM	7768	N3	G A 371	125.555	64.580	23.534	1.00	60.76	N
ATOM	7719	N1	C A 369	136.295	63.049	24.799	1.00	80.97	N	ATOM	7769	C4	G A 371	126.484	63.659	23.861	1.00	60.76	C
ATOM	7720	C2	C A 369	135.352	64.080	24.804	1.00	80.97	C	ATOM	7770	P	C A 372	123.452	59.302	27.165	1.00	54.05	P
ATOM	7721	O2	C A 369	134.861	64.435	25.883	1.00	80.97	O	ATOM	7771	O1P	C A 372	122.854	58.464	28.228	1.00	73.33	O
ATOM	7722	N3	C A 369	134.997	64.658	23.634	1.00	80.97	N	ATOM	7772	O2P	C A 372	124.458	58.724	26.243	1.00	73.33	O
ATOM	7723	C4	C A 369	135.538	64.234	22.491	1.00	80.97	C	ATOM	7773	O5*	C A 372	122.276	59.926	26.313	1.00	54.05	O
ATOM	7724	N4	C A 369	135.166	64.832	21.360	1.00	80.97	N	ATOM	7774	C5*	C A 372	121.688	61.142	26.791	1.00	54.05	C
ATOM	7725	C5	C A 369	136.488	63.175	22.455	1.00	80.97	C	ATOM	7775	C4*	C A 372	121.071	61.910	25.672	1.00	54.05	C
ATOM	7726	O6	C A 369	136.834	62.617	23.618	1.00	80.97	O	ATOM	7776	O4*	C A 372	121.994	62.183	24.608	1.00	54.05	O
ATOM	7727	P	C A 370	133.675	58.861	27.259	1.00	56.22	P	ATOM	7777	C3*	C A 372	119.950	61.162	25.000	1.00	54.05	C
ATOM	7728	O1P	C A 370	133.529	57.770	28.261	1.00	70.77	O	ATOM	7778	O3*	C A 372	118.795	61.349	25.847	1.00	54.05	O
ATOM	7729	O2P	C A 370	133.435	58.580	25.824	1.00	70.77	O	ATOM	7779	C2*	C A 372	120.014	61.616	23.523	1.00	54.05	C
ATOM	7730	O5*	C A 370	132.722	60.061	27.674	1.00	56.22	O	ATOM	7780	O2*	C A 372	118.844	62.124	22.913	1.00	54.05	O
ATOM	7731	C5*	C A 370	132.795	60.620	28.990	1.00	56.22	C	ATOM	7781	C1*	C A 372	121.223	62.562	23.500	1.00	54.05	C
ATOM	7732	C4*	C A 370	131.709	61.644	29.179	1.00	56.22	C	ATOM	7782	N1	C A 372	122.069	62.491	22.297	1.00	73.33	N
ATOM	7733	O4*	C A 370	132.077	62.900	28.547	1.00	56.22	O	ATOM	7783	C2	C A 372	121.619	63.099	21.120	1.00	73.33	C
ATOM	7734	C3*	C A 370	130.366	61.282	28.562	1.00	56.22	C	ATOM	7784	O2	C A 372	120.529	63.704	21.129	1.00	73.33	O
ATOM	7735	O3*	C A 370	129.616	60.363	29.355	1.00	56.22	O	ATOM	7785	N3	C A 372	122.380	63.018	20.006	1.00	73.33	N
ATOM	7736	C2*	C A 370	129.716	62.652	28.401	1.00	56.22	C	ATOM	7786	C4	C A 372	123.543	62.370	20.038	1.00	73.33	C
ATOM	7737	O2*	C A 370	129.184	63.149	29.616	1.00	56.22	O	ATOM	7787	N4	C A 372	124.246	62.296	18.909	1.00	73.33	N
ATOM	7738	C1*	C A 370	130.916	63.512	28.004	1.00	56.22	C	ATOM	7788	C5	C A 372	124.035	61.764	21.226	1.00	73.33	C
ATOM	7739	N1	C A 370	131.046	63.575	26.534	1.00	70.77	N	ATOM	7789	C6	C A 372	123.274	61.845	22.321	1.00	73.33	C
ATOM	7740	C2	C A 370	130.152	64.380	25.814	1.00	70.77	C	ATOM	7790	P	C A 373	118.156	62.807	26.052	1.00	49.55	P
ATOM	7741	O2	C A 370	129.312	65.048	26.436	1.00	70.77	O	ATOM	7791	O1P	A A 373	116.683	62.568	26.153	1.00	77.57	O
ATOM	7742	N3	C A 370	130.228	64.409	24.460	1.00	70.77	N	ATOM	7792	O2P	A A 373	118.678	63.721	24.996	1.00	77.57	O
ATOM	7743	C4	C A 370	131.149	63.680	23.829	1.00	70.77	C	ATOM	7793	O5*	A A 373	118.715	63.363	27.443	1.00	49.55	O
ATOM	7744	N4	C A 370	131.174	63.722	22.495	1.00	70.77	N	ATOM	7794	C5*	A A 373	117.796	63.998	28.399	1.00	49.55	C
ATOM	7745	C5	C A 370	132.086	62.872	24.536	1.00	70.77	C	ATOM	7795	C4*	A A 373	117.792	65.530	28.285	1.00	49.55	C
ATOM	7746	C6	C A 370	132.001	62.850	25.873	1.00	70.77	C	ATOM	7796	O4*	A A 373	119.048	66.054	28.768	1.00	49.55	O
ATOM	7747	P	G A 371	128.595	59.340	28.635	1.00	55.90	P	ATOM	7797	C3*	A A 373	117.562	66.197	26.926	1.00	49.55	C



Table 1: Sheet 80/521

ATOM	7798	O3*	A A 373	116.174	66.418	26.646	1.00	49.55	O	ATOM	7848	O2	U A 375	120.082	70.264	16.578	1.00	52.65	O
ATOM	7799	C2*	A A 373	118.243	67.547	27.096	1.00	49.55	C	ATOM	7849	N3	U A 375	119.825	68.550	18.046	1.00	52.65	N
ATOM	7800	O2*	A A 373	117.413	68.467	27.760	1.00	49.55	O	ATOM	7850	C4	U A 375	119.308	67.946	19.169	1.00	52.65	C
ATOM	7801	C1*	A A 373	119.402	67.210	28.029	1.00	49.55	C	ATOM	7851	O4	U A 375	119.577	66.774	19.395	1.00	52.65	O
ATOM	7802	N9	A A 373	120.660	66.944	27.327	1.00	77.57	N	ATOM	7852	C5	U A 375	118.426	68.757	19.930	1.00	52.65	C
ATOM	7803	C8	A A 373	121.313	65.745	27.226	1.00	77.57	C	ATOM	7853	C6	U A 375	118.149	69.997	19.522	1.00	52.65	C
ATOM	7804	N7	A A 373	122.425	65.803	26.546	1.00	77.57	N	ATOM	7854	P	G A 376	113.919	71.509	16.163	1.00	44.45	P
ATOM	7805	C5	A A 373	122.515	67.130	26.169	1.00	77.57	C	ATOM	7855	O1P	G A 376	112.916	72.303	15.400	1.00	68.63	O
ATOM	7806	C6	A A 373	123.475	67.832	25.430	1.00	77.57	C	ATOM	7856	O2P	G A 376	113.464	70.555	17.213	1.00	68.63	O
ATOM	7807	N6	A A 373	124.580	67.268	24.933	1.00	77.57	N	ATOM	7857	O5*	G A 376	114.815	70.708	15.110	1.00	44.45	O
ATOM	7808	N1	A A 373	123.265	69.149	25.219	1.00	77.57	N	ATOM	7858	C5*	G A 376	115.444	71.390	14.003	1.00	44.45	C
ATOM	7809	C2	A A 373	122.164	69.711	25.732	1.00	77.57	C	ATOM	7859	C4*	G A 376	116.374	70.463	13.243	1.00	44.45	C
ATOM	7810	N3	A A 373	121.196	69.156	26.454	1.00	77.57	N	ATOM	7860	O4*	G A 376	117.569	70.144	14.013	1.00	44.45	O
ATOM	7811	C4	A A 373	121.433	67.846	26.638	1.00	77.57	C	ATOM	7861	C3*	G A 376	115.827	69.110	12.834	1.00	44.45	C
ATOM	7812	P	A A 374	115.723	66.950	25.188	1.00	48.08	P	ATOM	7862	O3*	G A 376	115.040	69.190	11.672	1.00	44.45	O
ATOM	7813	O1P	A A 374	114.258	67.217	25.188	1.00	63.30	O	ATOM	7863	O2*	G A 376	117.097	68.326	12.558	1.00	44.45	C
ATOM	7814	O2P	A A 374	116.281	65.999	24.198	1.00	63.30	O	ATOM	7864	C2*	G A 376	117.615	68.663	11.288	1.00	44.45	O
ATOM	7815	O5*	A A 374	116.518	68.321	25.002	1.00	48.08	O	ATOM	7865	C1*	G A 376	118.032	68.848	13.651	1.00	44.45	C
ATOM	7816	C5*	A A 374	116.025	69.575	25.527	1.00	48.08	C	ATOM	7866	N9	G A 376	117.987	67.981	14.828	1.00	68.63	N
ATOM	7817	C4*	A A 374	116.644	70.741	24.773	1.00	48.08	C	ATOM	7867	C8	G A 376	117.278	68.193	15.984	1.00	68.63	C
ATOM	7818	O4*	A A 374	118.085	70.728	24.943	1.00	48.08	O	ATOM	7868	N7	G A 376	117.394	67.220	16.845	1.00	68.63	N
ATOM	7819	C3*	A A 374	116.429	70.710	23.269	1.00	48.08	C	ATOM	7869	C5	G A 376	118.236	66.316	16.227	1.00	68.63	C
ATOM	7820	O3*	A A 374	115.244	71.380	22.913	1.00	48.08	O	ATOM	7870	C6	G A 376	118.720	65.076	16.683	1.00	68.63	C
ATOM	7821	C2*	A A 374	117.620	71.470	22.725	1.00	48.08	C	ATOM	7871	O6	G A 376	118.478	64.504	17.754	1.00	68.63	O
ATOM	7822	O1*	A A 374	117.378	72.857	22.763	1.00	48.08	O	ATOM	7872	N1	G A 376	119.568	64.487	15.750	1.00	68.63	N
ATOM	7823	C1*	A A 374	118.715	71.097	23.726	1.00	48.08	C	ATOM	7873	C2	G A 376	119.900	65.029	14.531	1.00	68.63	C
ATOM	7824	N9	A A 374	119.554	69.979	23.279	1.00	63.30	N	ATOM	7874	N2	G A 376	120.750	64.318	13.773	1.00	68.63	N
ATOM	7825	C8	A A 374	119.684	68.748	23.868	1.00	63.30	C	ATOM	7875	N3	G A 376	119.439	66.186	14.090	1.00	68.63	N
ATOM	7826	N7	A A 374	120.511	67.949	23.247	1.00	63.30	N	ATOM	7876	C4	G A 376	118.622	66.773	14.984	1.00	68.63	C
ATOM	7827	C5	A A 374	120.957	68.700	22.171	1.00	63.30	C	ATOM	7877	P	G A 377	113.942	68.055	11.389	1.00	36.66	P
ATOM	7828	C6	A A 374	121.850	68.415	21.130	1.00	63.30	C	ATOM	7878	O1P	G A 377	113.165	68.402	10.167	1.00	59.76	O
ATOM	7829	N6	A A 374	122.478	67.247	20.998	1.00	63.30	N	ATOM	7879	O2P	G A 377	113.237	67.805	12.677	1.00	59.76	O
ATOM	7830	N1	A A 374	122.081	69.378	20.215	1.00	63.30	N	ATOM	7880	O5*	G A 377	114.822	66.790	11.021	1.00	36.66	O
ATOM	7831	C2	A A 374	121.451	70.543	20.347	1.00	63.30	C	ATOM	7881	C5*	G A 377	115.563	66.779	9.806	1.00	36.66	C
ATOM	7832	N3	A A 374	120.588	70.933	21.280	1.00	63.30	N	ATOM	7882	O4*	G A 377	116.348	65.512	9.688	1.00	36.66	C
ATOM	7833	C4	A A 374	120.379	69.952	22.176	1.00	63.30	C	ATOM	7883	C4*	G A 377	117.267	65.405	10.798	1.00	36.66	C
ATOM	7834	P	U A 375	114.453	70.917	21.612	1.00	47.44	P	ATOM	7884	C3*	G A 377	115.546	64.232	9.735	1.00	36.66	C
ATOM	7835	O1P	U A 375	113.204	71.697	21.531	1.00	52.65	O	ATOM	7885	O3*	G A 377	115.040	63.924	8.459	1.00	36.66	O
ATOM	7836	O2P	U A 375	114.403	69.441	21.660	1.00	52.65	O	ATOM	7886	C2*	G A 377	116.593	63.223	10.157	1.00	36.66	C
ATOM	7837	O5*	U A 375	115.395	71.354	20.408	1.00	47.44	O	ATOM	7887	O2*	G A 377	117.364	62.820	9.043	1.00	36.66	O
ATOM	7838	C5*	U A 375	115.557	72.748	20.063	1.00	47.44	C	ATOM	7888	C1*	G A 377	117.453	64.047	11.121	1.00	36.66	C
ATOM	7839	C4*	U A 375	116.385	72.897	18.801	1.00	47.44	C	ATOM	7889	N9	G A 377	117.063	63.850	12.512	1.00	59.76	N
ATOM	7840	O4*	U A 375	117.779	72.586	19.073	1.00	47.44	O	ATOM	7890	C8	G A 377	116.412	64.741	13.329	1.00	59.76	C
ATOM	7841	C3*	U A 375	116.002	71.995	17.640	1.00	47.44	C	ATOM	7891	N7	G A 377	116.156	64.256	14.511	1.00	59.76	N
ATOM	7842	O3*	U A 375	114.940	72.520	16.872	1.00	47.44	O	ATOM	7892	C5	G A 377	116.672	62.967	14.474	1.00	59.76	C
ATOM	7843	C2*	U A 375	117.292	71.925	16.842	1.00	47.44	C	ATOM	7893	C6	G A 377	116.679	61.943	15.462	1.00	59.76	C
ATOM	7844	O2*	U A 375	117.452	73.087	16.053	1.00	47.44	O	ATOM	7894	O6	G A 377	116.178	61.955	16.595	1.00	59.76	O
ATOM	7845	C1*	U A 375	118.339	71.914	17.957	1.00	47.44	C	ATOM	7895	N1	G A 377	117.342	60.809	15.012	1.00	59.76	N
ATOM	7846	N1	U A 375	118.687	70.547	18.379	1.00	52.65	N	ATOM	7896	C2	G A 377	117.906	60.665	13.773	1.00	59.76	C
ATOM	7847	C2	U A 375	119.568	69.821	17.595	1.00	52.65	C	ATOM	7897	N2	G A 377	118.516	59.507	13.540	1.00	59.76	N



ATOM	7898	N3	G A 377	117.879	61.590	12.837	1.00	59.76	N	ATOM	7948	C4*	G A 380	106.895	52.885	12.628	1.00	51.19	C
ATOM	7899	C4	G A 377	117.255	62.711	13.254	1.00	59.76	C	ATOM	7949	O4*	G A 380	107.946	53.491	13.423	1.00	51.19	O
ATOM	7900	P	G A 378	113.680	63.097	8.330	1.00	41.21	P	ATOM	7950	C3*	G A 380	105.638	53.642	13.018	1.00	51.19	C
ATOM	7901	O1P	G A 378	113.216	63.239	6.920	1.00	51.25	O	ATOM	7951	O3*	G A 380	104.456	52.893	12.785	1.00	51.19	O
ATOM	7902	O2P	G A 378	112.780	63.489	9.445	1.00	51.25	O	ATOM	7952	C2*	G A 380	105.861	53.876	14.506	1.00	51.19	C
ATOM	7903	O5*	G A 378	114.134	61.593	8.471	1.00	41.21	O	ATOM	7953	O2*	G A 380	105.497	52.745	15.271	1.00	51.19	O
ATOM	7904	C5*	G A 378	114.908	60.887	7.575	1.00	41.21	C	ATOM	7954	C1*	G A 380	107.378	54.102	14.572	1.00	51.19	C
ATOM	7905	C4*	G A 378	115.110	59.443	7.984	1.00	41.21	C	ATOM	7955	N9	G A 380	107.665	55.536	14.544	1.00	58.58	N
ATOM	7906	O4*	G A 378	116.015	59.360	9.120	1.00	41.21	O	ATOM	7956	C8	G A 380	107.847	56.320	13.431	1.00	58.58	C
ATOM	7907	C3*	G A 378	113.855	58.729	8.443	1.00	41.21	C	ATOM	7957	N7	G A 380	107.927	57.592	13.709	1.00	58.58	N
ATOM	7908	O3*	G A 378	113.097	58.252	7.354	1.00	41.21	O	ATOM	7958	C5	G A 380	107.825	57.651	15.092	1.00	58.58	C
ATOM	7909	C2*	G A 378	114.404	57.627	9.337	1.00	41.21	C	ATOM	7959	C6	G A 380	107.802	58.776	15.973	1.00	58.58	C
ATOM	7910	O2*	G A 378	114.903	56.525	8.611	1.00	41.21	O	ATOM	7960	O6	G A 380	107.850	59.989	15.693	1.00	58.58	O
ATOM	7911	C1*	G A 378	115.588	58.330	9.994	1.00	41.21	C	ATOM	7961	N1	G A 380	107.691	58.380	17.300	1.00	58.58	N
ATOM	7912	N9	G A 378	115.221	58.932	11.271	1.00	51.25	N	ATOM	7962	C2	G A 380	107.604	57.084	17.728	1.00	58.58	C
ATOM	7913	C8	G A 378	114.892	60.244	11.509	1.00	51.25	C	ATOM	7963	N2	G A 380	107.509	56.921	19.047	1.00	58.58	N
ATOM	7914	N7	G A 378	114.602	60.479	12.755	1.00	51.25	N	ATOM	7964	N3	G A 380	107.607	56.030	16.923	1.00	58.58	N
ATOM	7915	C5	G A 378	114.746	59.250	13.377	1.00	51.25	C	ATOM	7965	C4	G A 380	107.713	56.386	15.627	1.00	58.58	C
ATOM	7916	C6	G A 378	114.562	58.885	14.723	1.00	51.25	C	ATOM	7966	P	G A 381	103.189	53.607	12.109	1.00	54.55	P
ATOM	7917	O6	G A 378	114.211	59.598	15.671	1.00	51.25	O	ATOM	7967	O1P	C A 381	102.030	52.680	12.174	1.00	82.77	O
ATOM	7918	N1	G A 378	114.827	57.536	14.929	1.00	51.25	N	ATOM	7968	O2P	C A 381	103.645	54.107	10.792	1.00	82.77	O
ATOM	7919	C2	G A 378	115.212	56.655	13.957	1.00	51.25	C	ATOM	7969	O5*	C A 381	102.892	54.842	13.076	1.00	54.55	O
ATOM	7920	N2	G A 378	115.435	55.404	14.350	1.00	51.25	N	ATOM	7970	C5*	C A 381	101.976	55.888	12.683	1.00	54.55	C
ATOM	7921	N3	G A 378	115.372	56.979	12.693	1.00	51.25	N	ATOM	7971	C4*	C A 381	101.200	56.417	13.879	1.00	54.55	C
ATOM	7922	C4	G A 378	115.129	58.287	12.476	1.00	51.25	C	ATOM	7972	O4*	C A 381	100.243	55.425	14.353	1.00	54.55	O
ATOM	7923	P	C A 379	111.497	58.195	7.487	1.00	47.92	P	ATOM	7973	C3*	C A 381	102.004	56.773	15.116	1.00	54.55	C
ATOM	7924	O1P	C A 379	110.898	57.924	6.144	1.00	52.60	O	ATOM	7974	O3*	C A 381	102.592	58.052	15.073	1.00	54.55	O
ATOM	7925	O2P	C A 379	111.056	59.390	8.259	1.00	52.60	O	ATOM	7975	C2*	C A 381	100.963	56.710	16.223	1.00	54.55	C
ATOM	7926	O5*	C A 379	111.261	56.926	8.412	1.00	47.92	O	ATOM	7976	O2*	C A 381	100.200	57.897	16.310	1.00	54.55	O
ATOM	7927	C5*	C A 379	111.603	55.608	7.957	1.00	47.92	C	ATOM	7977	C1*	C A 381	100.091	55.537	15.768	1.00	54.55	C
ATOM	7928	C4*	C A 379	111.404	54.620	9.071	1.00	47.92	C	ATOM	7978	N1	C A 381	100.506	54.264	16.415	1.00	82.77	N
ATOM	7929	O4*	C A 379	112.309	54.949	10.158	1.00	47.92	O	ATOM	7979	C2	C A 381	100.581	54.210	17.816	1.00	82.77	C
ATOM	7930	C3*	C A 379	110.031	54.625	9.724	1.00	47.92	C	ATOM	7980	N2	C A 381	100.257	55.203	18.471	1.00	82.77	N
ATOM	7931	O3*	C A 379	109.051	53.893	8.986	1.00	47.92	O	ATOM	7981	N3	C A 381	101.003	53.076	18.419	1.00	82.77	N
ATOM	7932	C2*	C A 379	110.323	54.044	11.101	1.00	47.92	C	ATOM	7982	C4	C A 381	101.336	52.017	17.686	1.00	82.77	C
ATOM	7933	O2*	C A 379	110.412	52.633	11.083	1.00	47.92	O	ATOM	7983	N4	C A 381	101.766	50.923	18.325	1.00	82.77	N
ATOM	7934	C1*	C A 379	111.706	54.629	11.396	1.00	47.92	C	ATOM	7984	C5	C A 381	101.248	52.030	16.262	1.00	82.77	C
ATOM	7935	N1	C A 379	111.648	55.845	12.233	1.00	52.60	N	ATOM	7985	C6	C A 381	100.830	53.163	15.673	1.00	82.77	C
ATOM	7936	C2	C A 379	111.968	55.749	13.601	1.00	52.60	C	ATOM	7986	P	A A 382	103.887	58.344	15.978	1.00	53.86	P
ATOM	7937	O2	C A 379	112.378	54.668	14.054	1.00	52.60	O	ATOM	7987	O1P	A A 382	104.114	59.817	16.013	1.00	79.02	O
ATOM	7938	N3	C A 379	111.833	56.843	14.391	1.00	52.60	N	ATOM	7988	O2P	A A 382	104.958	57.448	15.476	1.00	79.02	O
ATOM	7939	C4	C A 379	111.423	58.002	13.865	1.00	52.60	C	ATOM	7989	O5*	A A 382	103.483	57.873	17.450	1.00	53.86	O
ATOM	7940	N4	C A 379	111.281	59.042	14.683	1.00	52.60	N	ATOM	7990	C5*	A A 382	102.691	58.709	18.320	1.00	53.86	C
ATOM	7941	C5	C A 379	111.137	58.140	12.476	1.00	52.60	C	ATOM	7991	C4*	A A 382	102.591	58.082	19.691	1.00	53.86	C
ATOM	7942	C6	C A 379	111.261	57.047	11.702	1.00	52.60	C	ATOM	7992	O4*	A A 382	102.098	56.732	19.516	1.00	53.86	O
ATOM	7943	P	G A 380	107.516	54.377	9.028	1.00	51.19	P	ATOM	7993	C3*	A A 382	103.908	57.935	20.443	1.00	53.86	C
ATOM	7944	O1P	G A 380	106.702	53.487	8.146	1.00	58.58	O	ATOM	7994	O3*	A A 382	104.168	59.065	21.266	1.00	53.86	O
ATOM	7945	O2P	G A 380	107.488	55.838	8.805	1.00	58.58	O	ATOM	7995	C2*	A A 382	103.689	56.689	21.293	1.00	53.86	C
ATOM	7946	O5*	G A 380	107.124	54.149	10.557	1.00	51.19	O	ATOM	7996	O2*	A A 382	103.037	56.963	22.518	1.00	53.86	O
ATOM	7947	C5*	G A 380	107.272	52.852	11.163	1.00	51.19	C	ATOM	7997	C1*	A A 382	102.780	55.849	20.391	1.00	53.86	C



Table 1: Sheet 82/521

ATOM	7998	N9	A A 382	103.482	54.845	19.578	1.00	79.02	N	ATOM	8048	N1	G A 384	111.023	56.533	17.256	1.00	60.61	N
ATOM	7999	C8	A A 382	103.824	54.930	18.249	1.00	79.02	C	ATOM	8049	C2	G A 384	111.149	55.265	17.752	1.00	60.61	C
ATOM	8000	N7	A A 382	104.418	53.861	17.786	1.00	79.02	N	ATOM	8050	N2	G A 384	111.433	54.314	16.861	1.00	60.61	N
ATOM	8001	C5	A A 382	104.483	53.014	18.882	1.00	79.02	C	ATOM	8051	N3	G A 384	111.008	54.950	19.031	1.00	60.61	N
ATOM	8002	C6	A A 382	104.997	51.716	19.043	1.00	79.02	C	ATOM	8052	C4	G A 384	110.724	56.031	19.791	1.00	60.61	C
ATOM	8003	N6	A A 382	105.564	51.018	18.064	1.00	79.02	N	ATOM	8053	P	C A 385	114.590	54.611	24.461	1.00	54.38	P
ATOM	8004	N1	A A 382	104.908	51.152	20.262	1.00	79.02	N	ATOM	8054	O1P	C A 385	115.351	53.819	25.464	1.00	67.07	O
ATOM	8005	C2	A A 382	104.336	51.851	21.248	1.00	79.02	C	ATOM	8055	O2P	C A 385	114.735	56.090	24.434	1.00	67.07	O
ATOM	8006	N3	A A 382	103.816	53.077	21.223	1.00	79.02	N	ATOM	8056	O5*	C A 385	114.983	54.042	23.028	1.00	54.38	O
ATOM	8007	C4	A A 382	103.920	53.610	19.994	1.00	79.02	C	ATOM	8057	C5*	C A 385	115.011	52.626	22.792	1.00	54.38	C
ATOM	8008	P	A A 383	105.647	59.300	21.854	1.00	62.38	P	ATOM	8058	O4*	C A 385	115.441	52.332	21.378	1.00	54.38	C
ATOM	8009	O1P	A A 383	105.646	60.535	22.678	1.00	88.07	O	ATOM	8059	C4*	C A 385	114.418	52.769	20.447	1.00	54.38	C
ATOM	8010	O2P	A A 383	106.592	59.183	20.709	1.00	88.07	O	ATOM	8060	C3*	C A 385	116.700	53.032	20.915	1.00	54.38	C
ATOM	8011	O5*	A A 383	105.879	58.080	22.853	1.00	62.38	O	ATOM	8061	O3*	C A 385	117.869	52.364	21.332	1.00	54.38	O
ATOM	8012	C5*	A A 383	105.254	58.052	24.152	1.00	62.38	C	ATOM	8062	C2*	C A 385	116.532	53.028	19.406	1.00	54.38	C
ATOM	8013	C4*	A A 383	105.535	56.740	24.832	1.00	62.38	C	ATOM	8063	O2*	C A 385	116.858	51.783	18.839	1.00	54.38	O
ATOM	8014	O4*	A A 383	105.041	55.666	23.993	1.00	62.38	O	ATOM	8064	C1*	C A 385	115.026	53.243	19.261	1.00	54.38	C
ATOM	8015	C3*	A A 383	107.010	56.434	25.014	1.00	62.38	C	ATOM	8065	N1	C A 385	114.694	54.672	19.091	1.00	67.07	N
ATOM	8016	O3*	A A 383	107.518	56.974	26.220	1.00	62.38	O	ATOM	8066	C2	C A 385	114.644	55.197	17.798	1.00	67.07	C
ATOM	8017	C2*	A A 383	107.046	54.913	25.038	1.00	62.38	C	ATOM	8067	O2	C A 385	114.867	54.448	16.843	1.00	67.07	O
ATOM	8018	O2*	A A 383	106.786	54.362	26.315	1.00	62.38	O	ATOM	8068	N3	C A 385	114.361	56.507	17.621	1.00	67.07	N
ATOM	8019	C1*	A A 383	105.927	54.559	24.058	1.00	62.38	C	ATOM	8069	C4	C A 385	114.136	57.286	18.677	1.00	67.07	C
ATOM	8020	N9	A A 383	106.450	54.298	22.717	1.00	88.07	N	ATOM	8070	N4	C A 385	113.877	58.571	18.455	1.00	67.07	N
ATOM	8021	C8	A A 383	106.537	55.166	21.660	1.00	88.07	C	ATOM	8071	C5	C A 385	114.173	56.779	20.009	1.00	67.07	C
ATOM	8022	N7	A A 383	107.068	54.641	20.585	1.00	88.07	N	ATOM	8072	C6	C A 385	114.451	55.479	20.169	1.00	67.07	C
ATOM	8023	C5	A A 383	107.352	53.338	20.957	1.00	88.07	C	ATOM	8073	P	C A 386	119.215	53.210	21.554	1.00	50.57	P
ATOM	8024	C6	A A 383	107.924	52.264	20.261	1.00	88.07	C	ATOM	8074	O1P	C A 386	120.284	52.306	22.056	1.00	69.75	O
ATOM	8025	N6	A A 383	108.349	52.347	19.001	1.00	88.07	N	ATOM	8075	O2P	C A 386	118.854	54.420	22.337	1.00	69.75	O
ATOM	8026	N1	A A 383	108.052	51.091	20.912	1.00	88.07	N	ATOM	8076	O5*	C A 386	119.609	53.662	20.079	1.00	50.57	O
ATOM	8027	C2	A A 383	107.639	51.019	22.183	1.00	88.07	C	ATOM	8077	C5*	C A 386	119.910	52.677	19.073	1.00	50.57	C
ATOM	8028	N3	A A 383	107.094	51.961	22.949	1.00	88.07	N	ATOM	8078	C4*	C A 386	120.169	53.332	17.738	1.00	50.57	C
ATOM	8029	C4	A A 383	106.974	53.111	22.267	1.00	88.07	C	ATOM	8079	O4*	C A 386	118.930	53.805	17.155	1.00	50.57	O
ATOM	8030	P	G A 384	108.898	57.794	26.205	1.00	64.63	P	ATOM	8080	C3*	C A 386	121.073	54.550	17.739	1.00	50.57	C
ATOM	8031	O1P	G A 384	109.458	57.765	27.583	1.00	60.61	O	ATOM	8081	O3*	C A 386	122.444	54.221	17.776	1.00	50.57	O
ATOM	8032	O2P	G A 384	108.616	59.096	25.549	1.00	60.61	O	ATOM	8082	C2*	C A 386	120.691	55.244	16.443	1.00	50.57	C
ATOM	8033	O5*	G A 384	109.868	56.945	25.262	1.00	64.63	O	ATOM	8083	O2*	C A 386	121.356	54.716	15.315	1.00	50.57	O
ATOM	8034	C5*	G A 384	110.209	55.585	25.593	1.00	64.63	C	ATOM	8084	C1*	C A 386	119.189	54.959	16.375	1.00	50.57	C
ATOM	8035	C4*	G A 384	110.657	54.809	24.363	1.00	64.63	C	ATOM	8085	N1	C A 386	118.445	56.094	16.943	1.00	69.75	N
ATOM	8036	O4*	G A 384	109.818	55.109	23.213	1.00	64.63	O	ATOM	8086	C2	C A 386	117.872	57.013	16.073	1.00	69.75	C
ATOM	8037	C3*	G A 384	112.069	55.018	23.843	1.00	64.63	C	ATOM	8087	O2	C A 386	117.922	56.792	14.858	1.00	69.75	O
ATOM	8038	O3*	G A 384	113.019	54.269	24.592	1.00	64.63	O	ATOM	8088	N3	C A 386	117.276	58.116	16.576	1.00	69.75	N
ATOM	8039	C2*	G A 384	111.967	54.465	22.428	1.00	64.63	C	ATOM	8089	C4	C A 386	117.228	58.306	17.894	1.00	69.75	C
ATOM	8040	O2*	G A 384	112.037	53.057	22.416	1.00	64.63	O	ATOM	8090	N4	C A 386	116.662	59.423	18.346	1.00	69.75	N
ATOM	8041	C1*	G A 384	110.548	54.860	22.027	1.00	64.63	C	ATOM	8091	C5	C A 386	117.765	57.359	18.808	1.00	69.75	C
ATOM	8042	N9	G A 384	110.509	56.033	21.155	1.00	60.61	N	ATOM	8092	C6	C A 386	118.353	56.275	18.296	1.00	69.75	C
ATOM	8043	C8	G A 384	110.258	57.337	21.503	1.00	60.61	C	ATOM	8093	P	U A 387	123.457	55.206	18.525	1.00	45.50	P
ATOM	8044	N7	G A 384	110.289	58.154	20.483	1.00	60.61	N	ATOM	8094	O1P	U A 387	124.826	54.641	18.377	1.00	78.22	O
ATOM	8045	C5	G A 384	110.580	57.341	19.395	1.00	60.61	C	ATOM	8095	O2P	U A 387	122.922	55.484	19.879	1.00	78.22	O
ATOM	8046	C6	G A 384	110.733	57.659	18.011	1.00	60.61	C	ATOM	8096	O5*	U A 387	123.348	56.529	17.647	1.00	45.50	O
ATOM	8047	O6	G A 384	110.637	58.756	17.456	1.00	60.61	O	ATOM	8097	C5*	U A 387	123.574	56.471	16.226	1.00	45.50	C



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ATOM	8098	C4*	U A 387	123.485	57.841	15.593	1.00	45.50	C	ATOM	8148	N9	A A 389	124.327	65.182	14.245	1.00	57.61	N
ATOM	8099	O4*	U A 387	122.110	58.276	15.447	1.00	45.50	O	ATOM	8149	C8	A A 389	124.703	64.143	15.049	1.00	57.61	C
ATOM	8100	C3*	U A 387	124.169	59.000	16.283	1.00	45.50	C	ATOM	8150	N7	A A 389	124.065	64.103	16.190	1.00	57.61	N
ATOM	8101	O3*	U A 387	125.555	58.995	16.040	1.00	45.50	O	ATOM	8151	C5	A A 389	123.205	65.187	16.131	1.00	57.61	C
ATOM	8102	C2*	U A 387	123.498	60.190	15.613	1.00	45.50	C	ATOM	8152	C6	A A 389	122.250	65.689	17.031	1.00	57.61	C
ATOM	8103	O2*	U A 387	124.023	60.408	14.320	1.00	45.50	O	ATOM	8153	N6	A A 389	121.972	65.130	18.209	1.00	57.61	N
ATOM	8104	C1*	U A 387	122.065	59.692	15.451	1.00	45.50	C	ATOM	8154	N1	A A 389	121.575	66.799	16.672	1.00	57.61	N
ATOM	8105	N1	U A 387	121.218	60.146	16.563	1.00	78.22	N	ATOM	8155	C2	A A 389	121.841	67.354	15.486	1.00	57.61	C
ATOM	8106	C2	U A 387	120.450	61.272	16.359	1.00	78.22	C	ATOM	8156	N3	A A 389	122.701	66.968	14.552	1.00	57.61	N
ATOM	8107	O2	U A 387	120.404	61.856	15.294	1.00	78.22	O	ATOM	8157	C4	A A 389	123.359	65.864	14.942	1.00	57.61	C
ATOM	8108	N3	U A 387	119.732	61.689	17.452	1.00	78.22	N	ATOM	8158	P	C A 390	128.302	68.737	13.223	1.00	47.76	P
ATOM	8109	C4	U A 387	119.694	61.096	18.697	1.00	78.22	C	ATOM	8159	O1P	C A 390	128.352	69.939	12.359	1.00	46.45	O
ATOM	8110	O4	U A 387	119.040	61.621	19.601	1.00	78.22	O	ATOM	8160	O2P	C A 390	129.527	68.286	13.920	1.00	46.45	O
ATOM	8111	C5	U A 387	120.490	59.916	18.817	1.00	78.22	C	ATOM	8161	O5*	C A 390	127.206	68.971	14.355	1.00	47.76	O
ATOM	8112	C6	U A 387	121.206	59.492	17.774	1.00	78.22	C	ATOM	8162	C5*	C A 390	126.045	69.806	14.140	1.00	47.76	C
ATOM	8113	P	G A 388	126.574	59.251	17.255	1.00	54.92	P	ATOM	8163	C4*	C A 390	125.140	69.764	15.359	1.00	47.76	C
ATOM	8114	O1P	G A 388	127.145	57.935	17.626	1.00	51.07	O	ATOM	8164	O4*	C A 390	124.878	68.372	15.680	1.00	47.76	O
ATOM	8115	O2P	G A 388	125.912	60.082	18.294	1.00	51.07	O	ATOM	8165	C3*	C A 390	125.708	70.367	16.641	1.00	47.76	C
ATOM	8116	O5*	G A 388	127.748	60.092	16.585	1.00	54.92	O	ATOM	8166	O3*	C A 390	125.418	71.769	16.704	1.00	47.76	O
ATOM	8117	C5*	G A 388	127.718	61.527	16.549	1.00	54.92	C	ATOM	8167	C2*	C A 390	124.978	69.581	17.721	1.00	47.76	C
ATOM	8118	C4*	G A 388	129.092	62.047	16.235	1.00	54.92	C	ATOM	8168	O2*	C A 390	123.666	70.071	17.907	1.00	47.76	O
ATOM	8119	O4*	G A 388	130.021	61.484	17.198	1.00	54.92	O	ATOM	8169	C1*	C A 390	124.872	68.195	17.081	1.00	47.76	C
ATOM	8120	C3*	G A 388	129.609	61.643	14.865	1.00	54.92	C	ATOM	8170	N1	C A 390	125.979	67.284	17.440	1.00	46.45	N
ATOM	8121	O3*	G A 388	130.490	62.664	14.423	1.00	54.92	O	ATOM	8171	C2	C A 390	125.811	66.392	18.497	1.00	46.45	C
ATOM	8122	C2*	G A 388	130.424	60.392	15.157	1.00	54.92	C	ATOM	8172	O2	C A 390	124.718	66.344	19.076	1.00	46.45	O
ATOM	8123	O2*	G A 388	131.441	60.169	14.206	1.00	54.92	O	ATOM	8173	N3	C A 390	126.841	65.592	18.858	1.00	46.45	N
ATOM	8124	C1*	G A 388	131.002	60.715	16.536	1.00	54.92	C	ATOM	8174	C4	C A 390	127.990	65.640	18.185	1.00	46.45	C
ATOM	8125	N9	G A 388	131.263	59.532	17.350	1.00	51.07	N	ATOM	8175	N4	C A 390	128.977	64.826	18.566	1.00	46.45	N
ATOM	8126	C8	G A 388	130.456	58.426	17.485	1.00	51.07	C	ATOM	8176	C5	C A 390	128.180	66.521	17.091	1.00	46.45	C
ATOM	8127	N7	G A 388	130.967	57.510	18.260	1.00	51.07	N	ATOM	8177	C6	C A 390	127.161	67.318	16.757	1.00	46.45	C
ATOM	8128	C5	G A 388	132.180	58.044	18.667	1.00	51.07	C	ATOM	8178	P	G A 391	126.293	72.746	17.643	1.00	50.13	P
ATOM	8129	C6	G A 388	133.189	57.502	19.516	1.00	51.07	C	ATOM	8179	O1P	G A 391	125.757	74.105	17.412	1.00	58.39	O
ATOM	8130	O6	G A 388	133.222	56.392	20.077	1.00	51.07	O	ATOM	8180	O2P	G A 391	127.750	72.496	17.504	1.00	58.39	O
ATOM	8131	N1	G A 388	134.244	58.390	19.678	1.00	51.07	N	ATOM	8181	O5*	G A 391	125.885	72.333	19.117	1.00	50.13	O
ATOM	8132	C2	G A 388	134.331	59.623	19.092	1.00	51.07	C	ATOM	8182	C5*	G A 391	124.569	72.614	19.624	1.00	50.13	C
ATOM	8133	N2	G A 388	135.429	60.323	19.376	1.00	51.07	N	ATOM	8183	C4*	G A 391	124.469	72.168	21.062	1.00	50.13	C
ATOM	8134	N3	G A 388	133.411	60.133	18.287	1.00	51.07	N	ATOM	8184	O4*	G A 391	124.471	70.717	21.141	1.00	50.13	O
ATOM	8135	C4	G A 388	132.371	59.297	18.122	1.00	51.07	C	ATOM	8185	C3*	G A 391	125.648	72.609	21.904	1.00	50.13	C
ATOM	8136	P	A A 389	130.269	63.353	13.001	1.00	55.42	P	ATOM	8186	O3*	G A 391	125.453	73.921	22.387	1.00	50.13	O
ATOM	8137	O1P	A A 389	130.308	62.276	11.971	1.00	57.61	O	ATOM	8187	C2*	G A 391	125.705	71.558	23.005	1.00	50.13	C
ATOM	8138	O2P	A A 389	131.235	64.476	12.929	1.00	57.61	O	ATOM	8188	O2*	G A 391	124.811	71.850	24.067	1.00	50.13	O
ATOM	8139	O5*	A A 389	128.795	63.965	13.078	1.00	55.42	O	ATOM	8189	C1*	G A 391	125.239	70.303	22.257	1.00	50.13	C
ATOM	8140	C5*	A A 389	128.083	64.221	11.865	1.00	55.42	C	ATOM	8190	N9	G A 391	126.317	69.443	21.774	1.00	58.39	N
ATOM	8141	C4*	A A 389	126.945	65.210	12.049	1.00	55.42	C	ATOM	8191	C8	G A 391	126.820	69.380	20.497	1.00	58.39	C
ATOM	8142	O4*	A A 389	125.718	64.560	12.454	1.00	55.42	O	ATOM	8192	N7	G A 391	127.772	68.499	20.365	1.00	58.39	N
ATOM	8143	C3*	A A 389	127.022	66.456	12.918	1.00	55.42	C	ATOM	8193	C5	G A 391	127.909	67.950	21.630	1.00	58.39	C
ATOM	8144	O3*	A A 389	127.756	67.517	12.317	1.00	55.42	O	ATOM	8194	C6	G A 391	128.788	66.944	22.105	1.00	58.39	C
ATOM	8145	O2*	A A 389	125.558	66.884	12.919	1.00	55.42	O	ATOM	8195	O6	G A 391	129.650	66.319	21.485	1.00	58.39	O
ATOM	8146	O2*	A A 389	125.236	67.554	11.714	1.00	55.42	O	ATOM	8196	N1	G A 391	128.591	66.688	23.456	1.00	58.39	N
ATOM	8147	C1*	A A 389	124.818	65.546	12.917	1.00	55.42	C	ATOM	8197	C2	G A 391	127.667	67.317	24.249	1.00	58.39	C



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ATOM	8198	N2	G A 391	127.623	66.931	25.531	1.00	58.39	N	ATOM	8248	O2P	G A 394	137.212	73.599	28.525	1.00	65.47	O
ATOM	8199	N3	G A 391	126.845	68.257	23.819	1.00	58.39	N	ATOM	8249	O5*	G A 394	137.918	71.250	28.931	1.00	56.10	O
ATOM	8200	C4	G A 391	127.020	68.522	22.510	1.00	58.39	C	ATOM	8250	C5*	G A 394	138.228	70.103	29.738	1.00	56.10	C
ATOM	8201	P	G A 392	126.713	74.745	22.910	1.00	51.74	P	ATOM	8251	C4*	G A 394	139.279	69.257	29.069	1.00	56.10	C
ATOM	8202	O1P	G A 392	126.264	76.087	23.358	1.00	73.57	O	ATOM	8252	O4*	G A 394	138.730	68.577	27.911	1.00	56.10	O
ATOM	8203	O2P	G A 392	127.750	74.622	21.860	1.00	73.57	O	ATOM	8253	C3*	G A 394	140.471	70.017	28.524	1.00	56.10	C
ATOM	8204	O5*	G A 392	127.199	73.911	24.174	1.00	51.74	O	ATOM	8254	C3*	G A 394	141.409	70.360	29.516	1.00	56.10	O
ATOM	8205	C5*	G A 392	128.596	73.739	24.457	1.00	51.74	C	ATOM	8255	O2*	G A 394	141.023	69.069	27.472	1.00	56.10	C
ATOM	8206	C4*	G A 392	128.782	72.627	25.456	1.00	51.74	C	ATOM	8256	O2*	G A 394	141.869	68.073	28.004	1.00	56.10	O
ATOM	8207	O4*	G A 392	128.404	71.349	24.867	1.00	51.74	O	ATOM	8257	C1*	G A 394	139.738	68.447	26.922	1.00	56.10	C
ATOM	8208	C3*	G A 392	130.207	72.413	25.923	1.00	51.74	C	ATOM	8258	N9	G A 394	139.294	69.139	25.719	1.00	65.47	N
ATOM	8209	O3*	G A 392	130.547	73.329	26.944	1.00	51.74	O	ATOM	8259	C8	G A 394	138.268	70.040	25.605	1.00	65.47	C
ATOM	8210	C2*	G A 392	130.188	70.966	26.402	1.00	51.74	C	ATOM	8260	N7	G A 394	138.110	70.479	24.390	1.00	65.47	N
ATOM	8211	O2*	G A 392	129.686	70.793	27.710	1.00	51.74	O	ATOM	8261	C5	G A 394	139.097	69.836	23.662	1.00	65.47	C
ATOM	8212	C1*	G A 392	129.231	70.318	25.398	1.00	51.74	C	ATOM	8262	C6	G A 394	139.427	69.917	22.282	1.00	65.47	C
ATOM	8213	N9	G A 392	129.994	69.699	24.315	1.00	73.57	N	ATOM	8263	O6	G A 394	138.890	70.599	21.387	1.00	65.47	O
ATOM	8214	C8	G A 392	130.037	70.066	22.993	1.00	73.57	C	ATOM	8264	N1	G A 394	140.507	69.101	21.972	1.00	65.47	N
ATOM	8215	N7	G A 392	130.885	69.363	22.295	1.00	73.57	N	ATOM	8265	C2	G A 394	141.188	68.315	22.865	1.00	65.47	C
ATOM	8216	C5	G A 392	131.424	68.466	23.206	1.00	73.57	C	ATOM	8266	N2	G A 394	142.218	67.611	22.366	1.00	65.47	N
ATOM	8217	C6	G A 392	132.409	67.466	23.037	1.00	73.57	C	ATOM	8267	N3	G A 394	140.887	68.229	24.147	1.00	65.47	N
ATOM	8218	O6	G A 392	133.023	67.161	22.018	1.00	73.57	O	ATOM	8268	C4	G A 394	139.838	69.010	24.472	1.00	65.47	C
ATOM	8219	N1	G A 392	132.662	66.789	24.220	1.00	73.57	N	ATOM	8269	P	C A 395	142.211	71.736	29.374	1.00	50.95	P
ATOM	8220	C2	G A 392	132.043	67.035	25.414	1.00	73.57	C	ATOM	8270	O1P	C A 395	142.987	71.964	30.612	1.00	53.23	O
ATOM	8221	N2	G A 392	132.418	66.270	26.443	1.00	73.57	N	ATOM	8271	O2P	C A 395	141.275	72.778	28.895	1.00	53.23	O
ATOM	8222	N3	G A 392	131.121	67.964	25.589	1.00	73.57	N	ATOM	8272	O5*	C A 395	143.258	71.401	28.230	1.00	50.95	O
ATOM	8223	C4	G A 392	130.866	68.642	24.450	1.00	73.57	C	ATOM	8273	C5*	C A 395	144.214	70.354	28.431	1.00	50.95	C
ATOM	8224	P	A A 393	131.949	74.097	26.876	1.00	48.79	P	ATOM	8274	C4*	C A 395	145.005	70.117	27.178	1.00	50.95	C
ATOM	8225	O1P	A A 393	131.832	75.364	27.651	1.00	71.63	O	ATOM	8275	O4*	C A 395	144.138	69.602	26.137	1.00	50.95	O
ATOM	8226	O2P	A A 393	132.398	74.137	25.465	1.00	71.63	O	ATOM	8276	C3*	C A 395	145.655	71.339	26.561	1.00	50.95	C
ATOM	8227	O5*	A A 393	132.952	73.139	27.641	1.00	48.79	O	ATOM	8277	O2*	C A 395	146.887	71.639	27.178	1.00	50.95	O
ATOM	8228	C5*	A A 393	132.779	72.854	29.026	1.00	48.79	C	ATOM	8278	C3*	C A 395	145.851	70.902	25.122	1.00	50.95	C
ATOM	8229	C4*	A A 393	133.508	71.588	29.371	1.00	48.79	C	ATOM	8279	O2*	C A 395	146.988	70.072	24.994	1.00	50.95	O
ATOM	8230	O4*	A A 393	132.932	70.504	28.598	1.00	48.79	O	ATOM	8280	C1*	C A 395	144.594	70.067	24.881	1.00	50.95	C
ATOM	8231	C3*	A A 393	134.978	71.566	28.995	1.00	48.79	C	ATOM	8281	N1	C A 395	143.520	70.846	24.248	1.00	53.23	N
ATOM	8232	O3*	A A 393	135.812	72.131	29.984	1.00	48.79	O	ATOM	8282	C2	C A 395	143.576	71.066	22.867	1.00	53.23	C
ATOM	8233	C2*	A A 393	135.258	70.083	28.838	1.00	48.79	C	ATOM	8283	O2	C A 395	144.532	70.603	22.219	1.00	53.23	O
ATOM	8234	O2*	A A 393	135.486	69.450	30.080	1.00	48.79	O	ATOM	8284	N3	C A 395	142.593	71.775	22.271	1.00	53.23	N
ATOM	8235	C1*	A A 393	133.949	69.586	28.230	1.00	48.79	C	ATOM	8285	C4	C A 395	141.584	72.256	22.997	1.00	53.23	C
ATOM	8236	N9	A A 393	134.045	69.552	26.772	1.00	71.63	N	ATOM	8286	N4	C A 395	140.627	72.935	22.360	1.00	53.23	N
ATOM	8237	C8	A A 393	133.291	70.217	25.839	1.00	71.63	C	ATOM	8287	C5	C A 395	141.507	72.056	24.407	1.00	53.23	C
ATOM	8238	N7	A A 393	133.664	69.995	24.605	1.00	71.63	N	ATOM	8288	C6	C A 395	142.486	71.352	24.985	1.00	53.23	C
ATOM	8239	C5	A A 393	134.733	69.124	24.733	1.00	71.63	C	ATOM	8289	P	G A 396	147.327	73.172	27.348	1.00	55.37	P
ATOM	8240	C6	A A 393	135.572	68.529	23.796	1.00	71.63	C	ATOM	8290	O1P	G A 396	148.618	73.194	28.092	1.00	59.72	O
ATOM	8241	N6	A A 393	135.477	68.708	22.488	1.00	71.63	N	ATOM	8291	O2P	G A 396	146.172	73.967	27.843	1.00	59.72	O
ATOM	8242	N1	A A 393	136.535	67.307	24.250	1.00	71.63	N	ATOM	8292	O5*	G A 396	147.617	73.638	25.863	1.00	55.37	O
ATOM	8243	C2	A A 393	136.643	67.513	25.569	1.00	71.63	C	ATOM	8293	C5*	G A 396	148.759	73.150	25.173	1.00	55.37	C
ATOM	8244	N3	A A 393	135.921	68.028	26.553	1.00	71.63	N	ATOM	8294	C4*	G A 396	148.831	73.769	23.815	1.00	55.37	C
ATOM	8245	C4	A A 393	134.970	68.833	26.060	1.00	71.63	C	ATOM	8295	O4*	G A 396	147.768	73.254	22.986	1.00	55.37	O
ATOM	8246	P	G A 394	137.304	72.565	29.588	1.00	56.10	P	ATOM	8296	C3*	G A 396	148.630	75.269	23.763	1.00	55.37	C
ATOM	8247	O1P	G A 394	138.059	72.852	30.837	1.00	65.47	O	ATOM	8297	O3*	G A 396	149.815	75.961	24.108	1.00	55.37	O



ATOM	8298	C2*	G A 396	148.238	75.480	22.311	1.00	55.37	C	ATOM	8348	O2	C A 398	144.233	79.723	17.163	1.00	43.55	O
ATOM	8299	O2*	G A 396	149.358	75.452	21.455	1.00	55.37	O	ATOM	8349	N3	C A 398	143.998	79.169	19.350	1.00	43.55	N
ATOM	8300	C1*	G A 396	147.423	74.225	22.022	1.00	55.37	C	ATOM	8350	C4	C A 398	144.590	78.871	20.509	1.00	43.55	C
ATOM	8301	N9	G A 396	145.987	74.456	22.064	1.00	59.72	N	ATOM	8351	N4	C A 398	143.802	78.562	21.536	1.00	43.55	N
ATOM	8302	C8	G A 396	145.131	74.208	23.102	1.00	59.72	C	ATOM	8352	C5	C A 398	146.018	78.870	20.657	1.00	43.55	C
ATOM	8303	N7	G A 396	143.893	74.506	22.821	1.00	59.72	N	ATOM	8353	C6	C A 398	146.754	79.185	19.581	1.00	43.55	C
ATOM	8304	C5	G A 396	143.941	74.982	21.522	1.00	59.72	C	ATOM	8354	P	G A 399	148.801	84.074	18.310	1.00	47.45	P
ATOM	8305	C6	G A 396	142.911	75.445	20.688	1.00	59.72	C	ATOM	8355	O1P	G A 399	149.785	85.082	17.844	1.00	41.77	O
ATOM	8306	O6	G A 396	141.710	75.525	20.928	1.00	59.72	O	ATOM	8356	O2P	G A 399	148.717	83.752	19.757	1.00	41.77	O
ATOM	8307	N1	G A 396	143.394	75.843	19.453	1.00	59.72	N	ATOM	8357	O5*	G A 399	147.360	84.511	17.801	1.00	47.45	O
ATOM	8308	C2	G A 396	144.709	75.795	19.067	1.00	59.72	C	ATOM	8358	C5*	G A 399	147.187	84.934	16.449	1.00	47.45	C
ATOM	8309	N2	G A 396	144.981	76.235	17.818	1.00	59.72	N	ATOM	8359	C4*	G A 399	145.767	85.342	16.201	1.00	47.45	C
ATOM	8310	N3	G A 396	145.684	75.354	19.841	1.00	59.72	N	ATOM	8360	O4*	G A 399	144.911	84.188	16.349	1.00	47.45	O
ATOM	8311	C4	G A 396	145.227	74.966	21.046	1.00	59.72	C	ATOM	8361	C3*	G A 399	145.189	86.379	17.147	1.00	47.45	C
ATOM	8312	P	A A 397	149.811	76.948	25.376	1.00	55.81	P	ATOM	8362	O3*	G A 399	145.557	87.701	16.762	1.00	47.45	O
ATOM	8313	O1P	A A 397	151.243	77.196	25.720	1.00	52.44	O	ATOM	8363	C2*	G A 399	143.694	86.107	17.034	1.00	47.45	C
ATOM	8314	O2P	A A 397	148.865	76.418	26.411	1.00	52.44	O	ATOM	8364	O2*	G A 399	143.119	86.658	15.866	1.00	47.45	O
ATOM	8315	O5*	A A 397	149.173	78.295	24.831	1.00	55.81	O	ATOM	8365	C1*	G A 399	143.672	84.584	16.904	1.00	47.45	C
ATOM	8316	C5*	A A 397	149.843	79.031	23.829	1.00	55.81	C	ATOM	8366	N9	G A 399	143.527	83.923	18.197	1.00	41.77	N
ATOM	8317	C4*	A A 397	148.971	80.133	23.328	1.00	55.81	C	ATOM	8367	C8	G A 399	144.527	83.394	18.974	1.00	41.77	C
ATOM	8318	O4*	A A 397	148.742	81.073	24.400	1.00	55.81	O	ATOM	8368	N7	G A 399	144.087	82.867	20.081	1.00	41.77	N
ATOM	8319	C3*	A A 397	149.640	80.941	22.238	1.00	55.81	C	ATOM	8369	C5	G A 399	142.711	83.056	20.027	1.00	41.77	C
ATOM	8320	O3*	A A 397	149.440	80.313	20.984	1.00	55.81	O	ATOM	8370	C6	G A 399	141.686	82.671	20.943	1.00	41.77	C
ATOM	8321	O2*	A A 397	148.967	82.297	22.378	1.00	55.81	C	ATOM	8371	O6	G A 399	141.795	82.051	22.017	1.00	41.77	O
ATOM	8322	C2*	A A 397	147.681	82.302	21.789	1.00	55.81	C	ATOM	8372	N1	G A 399	140.429	83.069	20.495	1.00	41.77	N
ATOM	8323	C1*	A A 397	148.797	82.392	23.894	1.00	55.81	C	ATOM	8373	C2	G A 399	140.190	83.739	19.321	1.00	41.77	C
ATOM	8324	N9	A A 397	149.857	83.109	24.612	1.00	52.44	N	ATOM	8374	N2	G A 399	138.916	84.043	19.057	1.00	41.77	N
ATOM	8325	C8	A A 397	149.692	84.239	25.370	1.00	52.44	C	ATOM	8375	N3	G A 399	141.131	84.087	18.464	1.00	41.77	N
ATOM	8326	N7	A A 397	150.788	84.647	25.959	1.00	52.44	N	ATOM	8376	C4	G A 399	142.356	83.714	18.876	1.00	41.77	C
ATOM	8327	C5	A A 397	151.744	83.731	25.559	1.00	52.44	C	ATOM	8377	P	C A 400	145.631	88.871	17.868	1.00	42.92	P
ATOM	8328	C6	A A 397	153.108	83.602	25.862	1.00	52.44	C	ATOM	8378	O1P	C A 400	146.143	90.066	17.143	1.00	49.01	O
ATOM	8329	N6	A A 397	153.761	84.414	26.695	1.00	52.44	N	ATOM	8379	O2P	C A 400	146.343	88.406	19.082	1.00	49.01	O
ATOM	8330	N1	A A 397	153.786	82.591	25.282	1.00	52.44	N	ATOM	8380	O5*	C A 400	144.097	89.102	18.224	1.00	42.92	O
ATOM	8331	C2	A A 397	153.124	81.766	24.467	1.00	52.44	C	ATOM	8381	C5*	C A 400	143.208	89.613	17.224	1.00	42.92	C
ATOM	8332	N3	A A 397	151.838	81.774	24.119	1.00	52.44	N	ATOM	8382	C4*	C A 400	141.805	89.707	17.754	1.00	42.92	C
ATOM	8333	C4	A A 397	151.194	82.792	24.707	1.00	52.44	C	ATOM	8383	O4*	C A 400	141.285	88.373	17.963	1.00	42.92	O
ATOM	8334	P	C A 398	150.363	79.064	20.572	1.00	53.23	P	ATOM	8384	C3*	C A 400	141.614	90.408	19.086	1.00	42.92	C
ATOM	8335	O1P	C A 398	149.799	77.883	21.226	1.00	43.55	O	ATOM	8385	O3*	C A 400	141.555	91.826	18.957	1.00	42.92	O
ATOM	8336	O2P	C A 398	151.793	79.402	20.775	1.00	43.55	O	ATOM	8386	C2*	C A 400	140.294	89.815	19.560	1.00	42.92	C
ATOM	8337	O5*	C A 398	150.073	78.880	19.027	1.00	53.23	O	ATOM	8387	O2*	C A 400	139.185	90.407	18.920	1.00	42.92	O
ATOM	8338	C5*	C A 398	150.438	79.895	18.102	1.00	53.23	C	ATOM	8388	C1*	C A 400	140.409	88.370	19.076	1.00	42.92	C
ATOM	8339	C4*	C A 398	149.238	80.338	17.310	1.00	53.23	C	ATOM	8389	N1	C A 400	140.982	87.498	20.122	1.00	49.01	N
ATOM	8340	O4*	C A 398	148.235	79.287	17.293	1.00	53.23	O	ATOM	8390	C2	C A 400	140.119	86.856	21.034	1.00	49.01	C
ATOM	8341	C3*	C A 398	148.475	81.540	17.827	1.00	53.23	C	ATOM	8391	O2	C A 400	138.889	86.988	20.908	1.00	49.01	O
ATOM	8342	O3*	C A 398	149.106	82.747	17.467	1.00	53.23	O	ATOM	8392	N3	C A 400	140.651	86.107	22.023	1.00	49.01	N
ATOM	8343	C2*	C A 398	147.131	81.375	17.132	1.00	53.23	C	ATOM	8393	C4	C A 400	141.974	85.970	22.118	1.00	49.01	C
ATOM	8344	O2*	C A 398	147.163	81.753	15.763	1.00	53.23	O	ATOM	8394	N4	C A 400	142.457	85.228	23.115	1.00	49.01	N
ATOM	8345	C1*	C A 398	146.948	79.865	17.200	1.00	53.23	C	ATOM	8395	C5	C A 400	142.867	86.590	21.196	1.00	49.01	C
ATOM	8346	N1	C A 398	146.157	79.492	18.386	1.00	43.55	N	ATOM	8396	C6	C A 400	142.336	87.333	20.224	1.00	49.01	C
ATOM	8347	C2	C A 398	144.751	79.472	18.267	1.00	43.55	C	ATOM	8397	P	C A 401	142.037	92.759	20.183	1.00	46.98	P



Table 1: Sheet 86/521

ATOM	8398	O1P	C A 401	141.888	94.175	19.766	1.00	54.55	O	ATOM	8448	O3*	C A 403	141.826	94.252	35.164	1.00	52.45	O
ATOM	8399	O2P	C A 401	143.351	92.277	20.683	1.00	54.55	O	ATOM	8449	C2*	C A 403	142.304	91.951	34.596	1.00	52.45	C
ATOM	8400	O5*	C A 401	140.931	92.481	21.294	1.00	46.98	O	ATOM	8450	O1*	C A 403	141.971	91.646	35.932	1.00	52.45	C
ATOM	8401	C5*	C A 401	139.556	92.838	21.051	1.00	46.98	C	ATOM	8451	C1*	C A 403	141.619	90.972	33.638	1.00	52.45	C
ATOM	8402	C4*	C A 401	138.691	92.458	22.222	1.00	46.98	C	ATOM	8452	N1	C A 403	142.577	90.565	32.593	1.00	66.49	N
ATOM	8403	O4*	C A 401	138.524	91.021	22.265	1.00	46.98	O	ATOM	8453	C2	C A 403	143.383	89.448	32.835	1.00	66.49	C
ATOM	8404	C3*	C A 401	139.241	92.795	23.590	1.00	46.98	C	ATOM	8454	O2	C A 403	143.186	88.776	33.856	1.00	66.49	O
ATOM	8405	O3*	C A 401	139.046	94.128	23.984	1.00	46.98	O	ATOM	8455	N3	C A 403	144.350	89.125	31.953	1.00	66.49	N
ATOM	8406	C2*	C A 401	138.471	91.845	24.477	1.00	46.98	C	ATOM	8456	C4	C A 403	144.515	89.852	30.855	1.00	66.49	C
ATOM	8407	O2*	C A 401	137.163	92.323	24.691	1.00	46.98	O	ATOM	8457	N4	C A 403	145.503	89.514	30.032	1.00	66.49	N
ATOM	8408	C1*	C A 401	138.442	90.590	23.613	1.00	46.98	C	ATOM	8458	C5	C A 403	143.677	90.962	30.553	1.00	66.49	C
ATOM	8409	N1	C A 401	139.628	89.763	23.932	1.00	54.55	N	ATOM	8459	C6	C A 403	142.725	91.279	31.438	1.00	66.49	C
ATOM	8410	N2	C A 401	139.496	88.706	24.854	1.00	54.55	C	ATOM	8460	P	U A 404	143.250	94.909	35.511	1.00	62.64	P
ATOM	8411	O2	C A 401	138.370	88.436	25.305	1.00	54.55	O	ATOM	8461	O1P	U A 404	143.013	96.025	36.459	1.00	64.77	O
ATOM	8412	N3	C A 401	140.600	88.013	25.225	1.00	54.55	N	ATOM	8462	O2P	U A 404	143.989	95.170	34.250	1.00	64.77	O
ATOM	8413	C4	C A 401	141.790	88.332	24.712	1.00	54.55	C	ATOM	8463	O5*	U A 404	144.009	93.760	36.309	1.00	62.64	O
ATOM	8414	N4	C A 401	142.857	87.665	25.139	1.00	54.55	N	ATOM	8464	C5*	U A 404	143.466	93.254	37.543	1.00	62.64	C
ATOM	8415	C5	C A 401	141.943	89.362	23.745	1.00	54.55	C	ATOM	8465	C4*	U A 404	144.398	92.241	38.166	1.00	62.64	C
ATOM	8416	C6	C A 401	140.848	90.042	23.382	1.00	54.55	C	ATOM	8466	O4*	U A 404	144.512	91.071	37.321	1.00	62.64	O
ATOM	8417	P	G A 402	140.017	94.751	25.102	1.00	48.35	P	ATOM	8467	C3*	U A 404	145.824	92.705	38.378	1.00	62.64	C
ATOM	8418	O1P	G A 402	139.704	96.201	25.185	1.00	55.56	O	ATOM	8468	O3*	U A 404	145.935	93.456	39.575	1.00	62.64	O
ATOM	8419	O2P	G A 402	141.419	94.315	24.826	1.00	55.56	O	ATOM	8469	C2*	U A 404	146.598	91.393	38.423	1.00	62.64	C
ATOM	8420	O5*	G A 402	139.525	94.046	26.441	1.00	48.35	O	ATOM	8470	O2*	U A 404	146.557	90.765	39.685	1.00	62.64	O
ATOM	8421	C5*	G A 402	138.178	94.229	26.900	1.00	48.35	C	ATOM	8471	C1*	U A 404	145.822	90.536	37.420	1.00	62.64	C
ATOM	8422	C4*	G A 402	137.916	93.383	28.113	1.00	48.35	C	ATOM	8472	N1	U A 404	146.439	90.520	36.080	1.00	64.77	N
ATOM	8423	O4*	G A 402	137.965	91.978	27.757	1.00	48.35	O	ATOM	8473	C2	U A 404	147.710	89.984	35.963	1.00	64.77	C
ATOM	8424	C3*	G A 402	138.924	93.507	29.235	1.00	48.35	C	ATOM	8474	O2	U A 404	148.309	89.476	36.896	1.00	64.77	O
ATOM	8425	O3*	G A 402	138.703	94.641	30.039	1.00	48.35	O	ATOM	8475	N3	U A 404	148.257	90.060	34.708	1.00	64.77	N
ATOM	8426	C2*	G A 402	138.726	92.206	29.995	1.00	48.35	C	ATOM	8476	C4	U A 404	147.683	90.589	33.577	1.00	64.77	C
ATOM	8427	O2*	G A 402	137.613	92.235	30.862	1.00	48.35	O	ATOM	8477	O4	U A 404	148.363	90.707	32.559	1.00	64.77	O
ATOM	8428	C1*	G A 402	138.455	91.223	28.856	1.00	48.35	C	ATOM	8478	C5	U A 404	146.356	91.081	33.761	1.00	64.77	C
ATOM	8429	N9	G A 402	139.701	90.568	28.472	1.00	55.56	N	ATOM	8479	C6	U A 404	145.793	91.035	34.975	1.00	64.77	C
ATOM	8430	C8	G A 402	140.496	90.848	27.391	1.00	55.56	C	ATOM	8480	P	U A 405	147.055	94.600	39.693	1.00	61.68	P
ATOM	8431	N7	G A 402	141.603	90.160	27.378	1.00	55.56	N	ATOM	8481	O1P	U A 405	146.818	95.318	40.979	1.00	73.79	O
ATOM	8432	C5	G A 402	141.522	89.358	28.505	1.00	55.56	C	ATOM	8482	O2P	U A 405	147.081	95.359	38.417	1.00	73.79	O
ATOM	8433	C6	G A 402	142.437	88.405	29.023	1.00	55.56	C	ATOM	8483	O5*	U A 405	148.401	93.768	39.845	1.00	61.68	O
ATOM	8434	O6	G A 402	143.535	88.067	28.570	1.00	55.56	O	ATOM	8484	C5*	U A 405	148.551	92.855	40.931	1.00	61.68	C
ATOM	8435	N1	G A 402	141.962	87.824	30.194	1.00	55.56	N	ATOM	8485	C4*	U A 405	149.807	92.050	40.769	1.00	61.68	C
ATOM	8436	C2	G A 402	140.761	88.117	30.789	1.00	55.56	C	ATOM	8486	O4*	U A 405	149.697	91.187	39.617	1.00	61.68	O
ATOM	8437	N2	G A 402	140.487	87.461	31.920	1.00	55.56	N	ATOM	8487	C3*	U A 405	151.096	92.829	40.578	1.00	61.68	C
ATOM	8438	N3	G A 402	139.895	88.996	30.311	1.00	55.56	N	ATOM	8488	O3*	U A 405	151.600	93.174	41.869	1.00	61.68	O
ATOM	8439	C4	G A 402	140.342	89.579	29.177	1.00	55.56	C	ATOM	8489	C2*	U A 405	151.989	91.810	39.872	1.00	61.68	C
ATOM	8440	P	C A 403	139.962	95.390	30.698	1.00	52.45	P	ATOM	8490	O2*	U A 405	152.618	90.929	40.788	1.00	61.68	O
ATOM	8441	O1P	C A 403	139.415	96.589	31.386	1.00	66.49	O	ATOM	8491	C1*	U A 405	150.975	91.013	39.038	1.00	61.68	C
ATOM	8442	O2P	C A 403	141.047	95.549	29.694	1.00	66.49	O	ATOM	8492	N1	U A 405	150.900	91.372	37.609	1.00	73.79	N
ATOM	8443	O5*	C A 403	140.489	94.354	31.785	1.00	52.45	O	ATOM	8493	C2	U A 405	151.828	90.809	36.753	1.00	73.79	C
ATOM	8444	C5*	C A 403	139.619	93.891	32.819	1.00	52.45	C	ATOM	8494	O2	U A 405	152.710	90.063	37.132	1.00	73.79	O
ATOM	8445	C4*	C A 403	140.335	92.923	33.718	1.00	52.45	C	ATOM	8495	N3	U A 405	151.688	91.157	35.434	1.00	73.79	N
ATOM	8446	O4*	C A 403	140.500	91.636	33.065	1.00	52.45	O	ATOM	8496	C4	U A 405	150.742	91.997	34.888	1.00	73.79	C
ATOM	8447	C3*	C A 403	141.747	93.291	34.135	1.00	52.45	C	ATOM	8497	O4	U A 405	150.715	92.167	33.668	1.00	73.79	O



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ATOM	8498	C5	U A 405	149.828	92.556	35.833	1.00	73.79	C	ATOM	8548	O2P	A A 408	149.746	104.777	43.297	1.00	83.62	O
ATOM	8499	C6	U A 405	149.932	92.233	37.127	1.00	73.79	C	ATOM	8549	O5*	A A 408	148.245	105.907	44.906	1.00	73.19	O
ATOM	8500	P	G A 406	152.741	94.296	42.033	1.00	71.34	P	ATOM	8550	C5*	A A 408	147.133	106.726	45.307	1.00	73.19	C
ATOM	8501	O1P	G A 406	153.567	94.311	40.799	1.00	66.08	O	ATOM	8551	C4*	A A 408	147.283	107.121	46.753	1.00	73.19	C
ATOM	8502	O2P	G A 406	153.387	94.030	43.350	1.00	66.08	O	ATOM	8552	O4*	A A 408	147.147	105.936	47.584	1.00	73.19	O
ATOM	8503	C5*	G A 406	151.939	95.669	42.157	1.00	71.34	C	ATOM	8553	O3*	A A 408	148.647	107.682	47.132	1.00	73.19	C
ATOM	8504	C5*	G A 406	151.096	96.110	41.091	1.00	71.34	C	ATOM	8554	C3*	A A 408	148.811	109.063	46.849	1.00	73.19	O
ATOM	8505	C4*	G A 406	149.736	96.531	41.608	1.00	71.34	C	ATOM	8555	C2*	A A 408	148.724	107.388	48.621	1.00	73.19	C
ATOM	8506	O4*	G A 406	149.289	95.630	42.655	1.00	71.34	O	ATOM	8556	O2*	A A 408	148.046	108.357	49.396	1.00	73.19	O
ATOM	8507	C3*	G A 406	149.613	97.908	42.231	1.00	71.34	C	ATOM	8557	C1*	A A 408	148.019	106.032	48.701	1.00	73.19	C
ATOM	8508	O3*	G A 406	149.458	98.898	41.228	1.00	71.34	C	ATOM	8558	N9	A A 408	148.996	104.941	48.634	1.00	83.62	N
ATOM	8509	C2*	G A 406	148.347	97.771	43.063	1.00	71.34	O	ATOM	8559	C8	A A 408	149.327	104.159	47.559	1.00	83.62	C
ATOM	8510	O2*	G A 406	147.179	97.875	42.266	1.00	71.34	O	ATOM	8560	N7	A A 408	150.299	103.313	47.800	1.00	83.62	N
ATOM	8511	C1*	G A 406	148.464	96.334	43.570	1.00	71.34	C	ATOM	8561	C5	A A 408	150.619	103.541	49.130	1.00	83.62	C
ATOM	8512	N9	G A 406	149.059	96.255	44.906	1.00	66.08	N	ATOM	8562	C6	A A 408	151.578	102.967	49.987	1.00	83.62	C
ATOM	8513	C8	G A 406	150.291	95.745	45.242	1.00	66.08	N	ATOM	8563	N6	A A 408	152.440	102.023	49.613	1.00	83.62	N
ATOM	8514	N7	G A 406	150.548	95.823	46.518	1.00	66.08	N	ATOM	8564	N1	A A 408	151.626	103.410	51.260	1.00	83.62	N
ATOM	8515	C5	G A 406	149.417	96.416	47.062	1.00	66.08	C	ATOM	8565	C2	A A 408	150.776	104.371	51.635	1.00	83.62	C
ATOM	8516	C6	G A 406	149.115	96.753	48.401	1.00	66.08	C	ATOM	8566	N3	A A 408	149.841	104.994	50.923	1.00	83.62	N
ATOM	8517	O6	G A 406	149.812	96.595	49.413	1.00	66.08	O	ATOM	8567	C4	A A 408	149.812	104.527	49.662	1.00	83.62	C
ATOM	8518	N1	G A 406	147.859	97.333	48.510	1.00	66.08	N	ATOM	8568	P	G A 409	150.298	109.668	46.722	1.00	75.76	P
ATOM	8519	C2	G A 406	147.005	97.566	47.467	1.00	66.08	C	ATOM	8569	O1P	G A 409	150.116	111.086	46.352	1.00	81.52	O
ATOM	8520	N2	G A 406	145.835	98.144	47.774	1.00	66.08	N	ATOM	8570	O2P	G A 409	151.147	108.786	45.876	1.00	81.52	O
ATOM	8521	N3	G A 406	147.274	97.259	46.215	1.00	66.08	N	ATOM	8571	O5*	G A 409	150.899	109.583	48.199	1.00	75.76	O
ATOM	8522	C4	G A 406	148.488	96.688	46.085	1.00	66.08	C	ATOM	8572	C5*	G A 409	150.324	110.334	49.289	1.00	75.76	C
ATOM	8523	P	G A 407	149.980	100.390	41.498	1.00	67.37	P	ATOM	8573	C4*	G A 409	150.994	109.970	50.596	1.00	75.76	C
ATOM	8524	O1P	G A 407	149.842	101.116	40.213	1.00	69.06	O	ATOM	8574	O4*	G A 409	150.889	108.539	50.792	1.00	75.76	O
ATOM	8525	O2P	G A 407	151.309	100.330	42.172	1.00	69.06	O	ATOM	8575	C3*	G A 409	152.484	110.269	50.717	1.00	75.76	C
ATOM	8526	O5*	G A 407	148.913	100.980	42.522	1.00	67.37	O	ATOM	8576	O3*	G A 409	152.713	111.600	51.183	1.00	75.76	O
ATOM	8527	C5*	G A 407	147.554	101.235	42.110	1.00	67.37	C	ATOM	8577	C2*	G A 409	152.946	109.261	51.764	1.00	75.76	C
ATOM	8528	C4*	G A 407	146.771	101.863	43.240	1.00	67.37	C	ATOM	8578	O2*	G A 409	152.715	109.723	53.075	1.00	75.76	O
ATOM	8529	O4*	G A 407	146.557	100.883	44.288	1.00	67.37	O	ATOM	8579	C1*	G A 409	152.025	108.071	51.497	1.00	75.76	C
ATOM	8530	C3*	G A 407	147.457	103.025	43.938	1.00	67.37	C	ATOM	8580	N9	G A 409	152.660	107.005	50.728	1.00	81.52	N
ATOM	8531	O3*	G A 407	147.274	104.261	43.269	1.00	67.37	O	ATOM	8581	C8	G A 409	152.399	106.645	49.428	1.00	81.52	C
ATOM	8532	C2*	G A 407	146.812	103.010	45.315	1.00	69.06	C	ATOM	8582	N7	G A 409	153.133	105.648	49.016	1.00	81.52	N
ATOM	8533	O2*	G A 407	145.547	103.642	45.316	1.00	67.37	O	ATOM	8583	C5	G A 409	153.926	105.330	50.108	1.00	81.52	C
ATOM	8534	C1*	G A 407	146.637	101.512	45.552	1.00	67.37	C	ATOM	8584	C6	G A 409	154.916	104.331	50.260	1.00	81.52	C
ATOM	8535	N9	G A 407	147.757	100.922	46.277	1.00	69.06	N	ATOM	8585	O6	G A 409	155.313	103.509	49.434	1.00	81.52	O
ATOM	8536	C8	G A 407	148.723	100.085	45.771	1.00	69.06	C	ATOM	8586	N1	G A 409	155.464	104.346	51.533	1.00	81.52	N
ATOM	8537	N7	G A 407	149.575	99.680	46.673	1.00	69.06	N	ATOM	8587	C2	G A 409	155.111	105.213	52.533	1.00	81.52	C
ATOM	8538	C5	G A 407	149.152	100.294	47.844	1.00	69.06	C	ATOM	8588	N2	G A 409	155.756	105.056	53.697	1.00	81.52	N
ATOM	8539	C6	G A 407	149.677	100.220	49.157	1.00	69.06	C	ATOM	8589	N3	G A 409	154.195	106.159	52.403	1.00	81.52	N
ATOM	8540	O6	G A 407	150.644	99.565	49.563	1.00	69.06	O	ATOM	8590	C4	G A 409	153.645	106.157	51.173	1.00	81.52	C
ATOM	8541	N1	G A 407	148.951	101.009	50.043	1.00	69.06	N	ATOM	8591	P	G A 410	154.078	112.373	50.794	1.00	69.67	P
ATOM	8542	C2	G A 407	147.854	101.768	49.710	1.00	69.06	C	ATOM	8592	O1P	G A 410	154.188	113.527	51.729	1.00	100.9.23	O
ATOM	8543	N2	G A 407	147.285	102.463	50.710	1.00	69.06	N	ATOM	8593	O2P	G A 410	154.067	112.619	49.332	1.00	100.9.23	O
ATOM	8544	N3	G A 407	147.350	101.841	48.486	1.00	69.06	N	ATOM	8594	O5*	G A 410	155.253	111.344	51.128	1.00	69.67	O
ATOM	8545	C4	G A 407	148.043	101.080	47.612	1.00	69.06	C	ATOM	8595	C5*	G A 410	155.638	111.093	52.488	1.00	69.67	C
ATOM	8546	P	A A 408	148.398	105.398	43.408	1.00	73.19	P	ATOM	8596	C4*	G A 410	156.625	109.957	52.562	1.00	69.67	C
ATOM	8547	O1P	A A 408	148.022	106.505	42.499	1.00	83.62	O	ATOM	8597	O4*	G A 410	156.012	108.732	52.085	1.00	69.67	O



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ATOM	8598	C3*	G A 410	157.878	110.114	51.722	1.00	69.67	C	ATOM	8648	N9	A A 412	167.011	118.996	47.602	1.00178.80	N	
ATOM	8599	O3*	G A 410	158.853	110.898	52.393	1.00	69.67	O	ATOM	8649	C8	A A 412	167.668	120.053	48.185	1.00178.80	C	
ATOM	8600	C2*	G A 410	158.330	108.670	51.511	1.00	69.67	C	ATOM	8650	N7	A A 412	167.609	121.159	47.485	1.00178.80	N	
ATOM	8601	O2*	G A 410	159.128	108.155	52.558	1.00	69.67	O	ATOM	8651	C5	A A 412	166.857	120.808	46.371	1.00178.80	C	
ATOM	8602	C1*	G A 410	156.993	107.922	51.451	1.00	69.67	C	ATOM	8652	C6	A A 412	166.439	121.533	45.244	1.00178.80	C	
ATOM	8603	N9	G A 410	156.561	107.635	50.082	1.00109.23	N	ATOM	8653	N6	A A 412	166.734	122.821	45.041	1.00178.80	N		
ATOM	8604	C8	G A 410	155.670	108.357	49.322	1.00109.23	C	ATOM	8654	N1	A A 412	165.699	120.882	44.318	1.00178.80	N		
ATOM	8605	N7	G A 410	155.510	107.872	48.120	1.00109.23	N	ATOM	8655	C2	A A 412	165.408	119.590	44.521	1.00178.80	C		
ATOM	8606	C5	G A 410	156.339	106.759	48.084	1.00109.23	C	ATOM	8656	N3	A A 412	165.744	118.803	45.536	1.00178.80	N		
ATOM	8607	C6	G A 410	156.589	105.833	47.038	1.00109.23	C	ATOM	8657	C4	A A 412	166.477	119.481	46.436	1.00178.80	C		
ATOM	8608	O6	G A 410	156.114	105.812	45.893	1.00109.23	O	ATOM	8658	P	G A 413	169.554	115.291	51.065	1.00118.34	P		
ATOM	8609	N1	G A 410	157.495	104.854	47.431	1.00109.23	N	ATOM	8659	O1P	G A 413	169.677	115.793	52.461	1.00	84.92	O	
ATOM	8610	C2	G A 410	158.082	104.772	48.666	1.00109.23	C	ATOM	8660	O2P	G A 413	170.421	115.864	49.993	1.00	84.92	O	
ATOM	8611	N2	G A 410	158.923	103.746	48.850	1.00109.23	N	ATOM	8661	O5*	G A 413	169.756	113.711	51.099	1.00100.72	O		
ATOM	8612	N3	G A 410	157.862	105.629	49.646	1.00109.23	N	ATOM	8662	C5*	G A 413	170.027	112.975	49.894	1.00100.72	C		
ATOM	8613	C4	G A 410	156.987	106.591	49.289	1.00109.23	C	ATOM	8663	C4*	G A 413	168.920	111.984	49.627	1.00100.72	C		
ATOM	8614	P	A A 411	159.390	112.253	51.717	1.00	87.38	P	ATOM	8664	O4*	G A 413	167.703	112.667	49.249	1.00100.72	O	
ATOM	8615	O1P	A A 411	158.990	113.370	52.606	1.00	81.69	O	ATOM	8665	C3*	G A 413	169.184	111.001	48.498	1.00100.72	C	
ATOM	8616	O2P	A A 411	158.979	112.285	50.295	1.00	81.69	O	ATOM	8666	O3*	G A 413	169.883	109.932	49.136	1.00100.72	O	
ATOM	8617	O5*	A A 411	160.973	112.096	51.775	1.00	87.38	O	ATOM	8667	C2*	G A 413	167.778	110.590	48.060	1.00100.72	C	
ATOM	8618	C5*	A A 411	161.683	112.215	53.022	1.00	87.38	C	ATOM	8668	O2*	G A 413	167.303	109.518	48.836	1.00100.72	O	
ATOM	8619	C4*	A A 411	163.138	112.514	52.763	1.00	87.38	C	ATOM	8669	C1*	G A 413	166.933	111.809	48.438	1.00100.72	C	
ATOM	8620	O4*	A A 411	163.751	111.354	52.151	1.00	87.38	O	ATOM	8670	N9	G A 413	166.240	112.577	47.403	1.00	84.92	N
ATOM	8621	C3*	A A 411	163.386	113.662	51.795	1.00	87.38	C	ATOM	8671	C8	G A 413	166.066	113.939	47.373	1.00	84.92	C
ATOM	8622	O3*	A A 411	163.419	114.911	52.478	1.00	87.38	O	ATOM	8672	N7	G A 413	165.296	114.340	46.396	1.00	84.92	N
ATOM	8623	C2*	A A 411	164.725	113.300	51.163	1.00	87.38	C	ATOM	8673	C5	G A 413	164.962	113.175	45.720	1.00	84.92	C
ATOM	8624	O2*	A A 411	165.832	113.729	51.931	1.00	87.38	C	ATOM	8674	C6	G A 413	164.124	112.972	44.580	1.00	84.92	C
ATOM	8625	C1*	A A 411	164.653	111.766	51.138	1.00	87.38	C	ATOM	8675	O6	G A 413	163.482	113.801	43.930	1.00	84.92	O
ATOM	8626	N9	A A 411	164.189	111.181	49.874	1.00	81.69	N	ATOM	8676	N1	G A 413	164.066	111.637	44.226	1.00	84.92	N
ATOM	8627	C8	A A 411	163.445	111.763	48.871	1.00	81.69	C	ATOM	8677	C2	G A 413	164.712	110.626	44.876	1.00	84.92	C
ATOM	8628	N7	A A 411	163.174	110.951	47.878	1.00	81.69	N	ATOM	8678	N2	G A 413	164.526	109.412	44.381	1.00	84.92	N
ATOM	8629	C5	A A 411	163.784	109.758	48.246	1.00	81.69	C	ATOM	8679	N3	G A 413	165.485	110.791	45.937	1.00	84.92	N
ATOM	8630	C6	A A 411	163.858	108.496	47.620	1.00	81.69	C	ATOM	8680	C4	G A 413	165.562	112.081	46.307	1.00	84.92	C
ATOM	8631	N6	A A 411	163.281	108.210	46.452	1.00	81.69	N	ATOM	8681	P	A A 414	170.401	108.651	48.308	1.00	80.96	P
ATOM	8632	N1	A A 411	164.542	107.522	48.252	1.00	81.69	N	ATOM	8682	O1P	A A 414	171.824	108.909	47.966	1.00108.54	O	
ATOM	8633	C2	A A 411	165.096	107.797	49.436	1.00	81.69	C	ATOM	8683	O2P	A A 414	169.456	108.286	47.237	1.00108.54	O	
ATOM	8634	N3	A A 411	165.090	108.934	50.128	1.00	81.69	N	ATOM	8684	O5*	A A 414	170.364	107.499	49.414	1.00	80.96	O
ATOM	8635	C4	A A 411	164.412	109.886	49.470	1.00	81.69	C	ATOM	8685	C5*	A A 414	170.507	107.833	50.819	1.00	80.96	C
ATOM	8636	P	A A 412	162.716	116.199	51.821	1.00	88.61	P	ATOM	8686	C4*	A A 414	170.609	106.590	51.671	1.00	80.96	C
ATOM	8637	O1P	A A 412	162.601	117.233	52.881	1.00178.80	O	ATOM	8687	O4*	A A 414	169.329	105.918	51.744	1.00	80.96	O	
ATOM	8638	O2P	A A 412	161.500	115.761	51.086	1.00178.80	O	ATOM	8688	C3*	A A 414	171.585	105.534	51.190	1.00	80.96	C	
ATOM	8639	O5*	A A 412	163.788	116.700	50.760	1.00	88.61	O	ATOM	8689	O3*	A A 414	172.905	105.839	51.618	1.00	80.96	O
ATOM	8640	C5*	A A 412	165.169	116.811	51.121	1.00	88.61	C	ATOM	8690	C2*	A A 414	171.044	104.251	51.818	1.00	80.96	C
ATOM	8641	C4*	A A 412	166.038	116.548	49.923	1.00	88.61	C	ATOM	8691	O2*	A A 414	171.509	104.015	53.132	1.00	80.96	O
ATOM	8642	O4*	A A 412	165.748	117.505	48.883	1.00	88.61	O	ATOM	8692	C1*	A A 414	169.534	104.519	51.851	1.00	80.96	C
ATOM	8643	C3*	A A 412	167.529	116.699	50.162	1.00	88.61	C	ATOM	8693	N9	A A 414	168.772	103.849	50.795	1.00108.54	N	
ATOM	8644	O3*	A A 412	168.016	115.449	50.632	1.00	88.61	O	ATOM	8694	C8	A A 414	167.892	104.408	49.903	1.00108.54	C	
ATOM	8645	C2*	A A 412	168.086	117.014	48.775	1.00	88.61	C	ATOM	8695	N7	A A 414	167.343	103.542	49.088	1.00108.54	N	
ATOM	8646	O2*	A A 412	168.517	115.860	48.088	1.00	88.61	O	ATOM	8696	C5	A A 414	167.902	102.329	49.464	1.00108.54	C	
ATOM	8647	C1*	A A 412	166.877	117.616	48.052	1.00	88.61	C	ATOM	8697	C6	A A 414	167.722	101.014	48.988	1.00108.54	C	



ATOM	8698	N6	A A 414	166.891	100.690	47.993	1.00108.54	N	ATOM	8748	P	C A 417	178.896	98.056	44.346	1.00	95.26	P
ATOM	8699	N1	A A 414	168.432	100.031	49.582	1.00108.54	N	ATOM	8749	O1P	C A 417	179.961	97.028	44.220	1.00	77.96	O
ATOM	8700	C2	A A 414	169.259	100.355	50.585	1.00108.54	C	ATOM	8750	O2P	C A 417	179.238	99.414	44.837	1.00	77.96	O
ATOM	8701	N3	A A 414	169.509	101.550	51.121	1.00108.54	N	ATOM	8751	O5*	C A 417	178.164	98.221	42.942	1.00	95.26	O
ATOM	8702	C4	A A 414	168.788	102.504	50.509	1.00108.54	C	ATOM	8752	C5*	C A 417	177.793	97.068	42.157	1.00	95.26	C
ATOM	8703	P	A A 415	174.124	105.715	50.577	1.00 72.76	P	ATOM	8753	C4*	C A 417	177.041	97.498	40.924	1.00	95.26	C
ATOM	8704	O1P	A A 415	175.353	106.217	51.246	1.00103.36	O	ATOM	8754	O4*	C A 417	175.768	98.061	41.325	1.00	95.26	C
ATOM	8705	O2P	A A 415	173.689	106.317	49.290	1.00103.36	O	ATOM	8755	C3*	C A 417	177.713	98.596	40.114	1.00	95.26	C
ATOM	8706	O5*	A A 415	174.286	104.145	50.373	1.00 72.76	O	ATOM	8756	O3*	C A 417	178.651	98.098	39.179	1.00	95.26	O
ATOM	8707	C5*	A A 415	174.554	103.290	51.493	1.00 72.76	C	ATOM	8757	C2*	C A 417	176.541	99.267	39.424	1.00	95.26	C
ATOM	8708	C4*	A A 415	174.271	101.851	51.140	1.00 72.76	C	ATOM	8758	O2*	C A 417	176.143	98.572	38.262	1.00	95.26	O
ATOM	8709	O4*	A A 415	172.849	101.656	50.909	1.00 72.76	O	ATOM	8759	C1*	C A 417	175.458	99.168	40.499	1.00	95.26	C
ATOM	8710	C3*	A A 415	174.933	101.322	49.881	1.00 72.76	C	ATOM	8760	N1	C A 417	175.425	100.383	41.335	1.00	77.96	N
ATOM	8711	O3*	A A 415	176.287	100.955	50.103	1.00 72.76	O	ATOM	8761	C2	C A 417	174.710	101.497	40.875	1.00	77.96	C
ATOM	8712	C2*	A A 415	174.047	100.134	49.521	1.00 72.76	C	ATOM	8762	O2	C A 417	174.113	101.424	39.783	1.00	77.96	O
ATOM	8713	O2*	A A 415	174.343	98.970	50.263	1.00 72.76	O	ATOM	8763	N3	C A 417	174.691	102.625	41.625	1.00	77.96	N
ATOM	8714	C1*	A A 415	172.663	100.633	49.940	1.00 72.76	C	ATOM	8764	C4	C A 417	175.352	102.667	42.782	1.00	77.96	C
ATOM	8715	N9	A A 415	171.904	101.164	48.800	1.00103.36	N	ATOM	8765	N4	C A 417	175.309	103.797	43.480	1.00	77.96	N
ATOM	8716	C8	A A 415	171.711	102.473	48.417	1.00103.36	C	ATOM	8766	C5	C A 417	176.084	101.549	43.275	1.00	77.96	C
ATOM	8717	N7	A A 415	171.003	102.605	47.320	1.00103.36	N	ATOM	8767	C6	C A 417	176.090	100.437	42.530	1.00	77.96	C
ATOM	8718	C5	A A 415	170.702	101.299	46.958	1.00103.36	C	ATOM	8768	P	C A 418	179.802	99.069	38.620	1.00	77.03	P
ATOM	8719	C6	A A 415	169.978	100.756	45.877	1.00103.36	C	ATOM	8769	O1P	C A 418	180.651	98.276	37.700	1.00	90.96	O
ATOM	8720	N6	A A 415	169.410	101.491	44.919	1.00103.36	N	ATOM	8770	O2P	C A 418	180.424	99.768	39.769	1.00	90.96	O
ATOM	8721	N1	A A 415	169.862	99.413	45.811	1.00103.36	N	ATOM	8771	O5*	C A 418	179.014	100.168	37.780	1.00	77.03	O
ATOM	8722	C2	A A 415	170.441	98.672	46.764	1.00103.36	C	ATOM	8772	C5*	C A 418	178.417	99.835	36.514	1.00	77.03	C
ATOM	8723	N3	A A 415	171.149	99.061	47.821	1.00103.36	N	ATOM	8773	C4*	C A 418	177.884	101.074	35.835	1.00	77.03	C
ATOM	8724	C4	A A 415	171.243	100.402	47.862	1.00103.36	C	ATOM	8774	O4*	C A 418	176.768	101.605	36.590	1.00	77.03	O
ATOM	8725	P	G A 416	177.353	101.102	48.909	1.00 87.31	P	ATOM	8775	C3*	C A 418	178.845	102.243	35.699	1.00	77.03	C
ATOM	8726	O1P	G A 416	178.666	100.620	49.406	1.00 97.74	O	ATOM	8776	O3*	C A 418	179.698	102.094	34.571	1.00	77.03	O
ATOM	8727	O2P	G A 416	177.246	102.472	48.352	1.00 97.74	O	ATOM	8777	C2*	C A 418	177.900	103.431	35.561	1.00	77.03	C
ATOM	8728	O5*	G A 416	176.835	100.060	47.820	1.00 87.31	O	ATOM	8778	O2*	C A 418	177.402	103.598	34.246	1.00	77.03	C
ATOM	8729	C5*	G A 416	176.809	98.645	48.111	1.00 87.31	C	ATOM	8779	C1*	C A 418	176.745	103.014	36.470	1.00	77.03	C
ATOM	8730	C4*	G A 416	176.122	97.881	47.000	1.00 87.31	C	ATOM	8780	N1	C A 418	176.825	103.607	37.815	1.00	90.96	N
ATOM	8731	O4*	G A 416	174.707	98.194	46.971	1.00 87.31	O	ATOM	8781	C2	C A 418	176.442	104.944	37.984	1.00	90.96	C
ATOM	8732	C3*	G A 416	176.615	98.182	45.597	1.00 87.31	C	ATOM	8782	O2	C A 418	176.055	105.588	37.001	1.00	90.96	O
ATOM	8733	O3*	G A 416	177.763	97.421	45.285	1.00 87.31	O	ATOM	8783	N3	C A 418	176.505	105.500	39.212	1.00	90.96	N
ATOM	8734	C2*	G A 416	175.418	97.802	44.742	1.00 87.31	C	ATOM	8784	C4	C A 418	176.933	104.780	40.247	1.00	90.96	C
ATOM	8735	O2*	G A 416	175.336	96.404	44.545	1.00 87.31	O	ATOM	8785	N4	C A 418	176.976	105.374	41.439	1.00	90.96	N
ATOM	8736	C1*	G A 416	174.257	98.251	45.630	1.00 87.31	C	ATOM	8786	C5	C A 418	177.335	103.420	40.105	1.00	90.96	C
ATOM	8737	N9	G A 416	173.860	99.630	45.352	1.00 97.74	N	ATOM	8787	C6	C A 418	177.263	102.878	38.884	1.00	90.96	C
ATOM	8738	C8	G A 416	174.209	100.749	46.073	1.00 97.74	C	ATOM	8788	P	C A 419	181.179	102.723	34.602	1.00	71.34	P
ATOM	8739	N7	G A 416	173.709	101.851	45.585	1.00 97.74	N	ATOM	8789	O1P	C A 419	181.876	102.247	33.371	1.00	83.06	O
ATOM	8740	C5	G A 416	172.986	101.438	44.476	1.00 97.74	C	ATOM	8790	O2P	C A 419	181.771	102.437	35.937	1.00	83.06	O
ATOM	8741	C6	G A 416	172.232	102.189	43.553	1.00 97.74	C	ATOM	8791	O5*	C A 419	180.939	104.295	34.463	1.00	71.34	O
ATOM	8742	O6	G A 416	172.050	103.411	43.526	1.00 97.74	O	ATOM	8792	C5*	C A 419	180.464	104.836	33.222	1.00	71.34	C
ATOM	8743	N1	G A 416	171.659	101.377	42.582	1.00 97.74	N	ATOM	8793	C4*	C A 419	179.951	106.250	33.394	1.00	71.34	C
ATOM	8744	C2	G A 416	171.802	100.013	42.508	1.00 97.74	C	ATOM	8794	O4*	C A 419	178.879	106.289	34.371	1.00	71.34	O
ATOM	8745	N2	G A 416	171.171	99.402	41.492	1.00 97.74	N	ATOM	8795	C3*	C A 419	180.917	107.319	33.870	1.00	71.34	C
ATOM	8746	N3	G A 416	172.509	99.300	43.362	1.00 97.74	N	ATOM	8796	O3*	C A 419	181.752	107.807	32.838	1.00	71.34	O
ATOM	8747	C4	G A 416	173.069	100.071	44.316	1.00 97.74	C	ATOM	8797	C2*	C A 419	179.971	108.402	34.374	1.00	71.34	C



Table 1: Sheet 90/521

ATOM	8798	O2*	C A 419	179.440	109.224	33.351	1.00	71.34	O	ATOM	8848	P	C A 422	187.716	117.250	38.773	1.00116.66	P
ATOM	8799	C1*	C A 419	178.851	107.565	34.990	1.00	71.34	C	ATOM	8849	O1P	C A 422	188.454	118.366	39.418	1.00118.50	O
ATOM	8800	N1	C A 419	179.075	107.412	36.440	1.00	83.06	N	ATOM	8850	O2P	C A 422	188.473	116.242	37.983	1.00118.50	O
ATOM	8801	C2	C A 419	178.862	108.521	37.263	1.00	83.06	C	ATOM	8851	O5*	C A 422	186.925	116.485	39.927	1.00116.66	O
ATOM	8802	O2	C A 419	178.442	109.572	36.755	1.00	83.06	O	ATOM	8852	C5*	C A 422	186.096	117.199	40.863	1.00116.66	C
ATOM	8803	N3	C A 419	179.115	108.422	38.586	1.00	83.06	N	ATOM	8853	C4*	C A 422	185.613	116.266	41.951	1.00116.66	C
ATOM	8804	C4	C A 419	179.548	107.271	39.098	1.00	83.06	C	ATOM	8854	O4*	C A 422	185.037	115.091	41.326	1.00116.66	O
ATOM	8805	N4	C A 419	179.793	107.225	40.409	1.00	83.06	N	ATOM	8855	C3*	C A 422	186.656	115.757	42.944	1.00116.66	C
ATOM	8806	C5	C A 419	179.751	106.116	38.290	1.00	83.06	C	ATOM	8856	O3*	C A 422	186.025	115.615	44.217	1.00116.66	O
ATOM	8807	C6	C A 419	179.504	106.229	36.978	1.00	83.06	C	ATOM	8857	C2*	C A 422	186.991	114.362	42.423	1.00116.66	C
ATOM	8808	P	U A 420	183.255	108.240	33.187	1.00	90.83	P	ATOM	8858	O2*	C A 422	187.377	113.470	43.452	1.00116.66	O
ATOM	8809	O1P	U A 420	183.920	108.596	31.903	1.00	64.96	O	ATOM	8859	C1*	C A 422	185.653	113.927	41.830	1.00116.66	C
ATOM	8810	O2P	U A 420	183.835	107.172	34.048	1.00	64.96	O	ATOM	8860	N1	C A 422	185.764	112.953	40.733	1.00118.50	N
ATOM	8811	O5*	U A 420	183.090	109.569	34.056	1.00	90.83	O	ATOM	8861	C2	C A 422	185.318	111.639	40.947	1.00118.50	C
ATOM	8812	C5*	U A 420	182.668	110.813	33.447	1.00	90.83	C	ATOM	8862	O2	C A 422	184.842	111.333	42.054	1.00118.50	O
ATOM	8813	C4*	U A 420	182.608	111.922	34.481	1.00	90.83	C	ATOM	8863	N3	C A 422	185.413	110.740	39.940	1.00118.50	N
ATOM	8814	O4*	U A 420	181.656	111.554	35.514	1.00	90.83	O	ATOM	8864	C4	C A 422	185.919	111.109	38.759	1.00118.50	C
ATOM	8815	C3*	U A 420	183.899	112.219	35.237	1.00	90.83	C	ATOM	8865	N4	C A 422	185.986	110.191	37.792	1.00118.50	N
ATOM	8816	O3*	U A 420	184.758	113.132	34.553	1.00	90.83	O	ATOM	8866	C5	C A 422	186.379	112.438	38.517	1.00118.50	C
ATOM	8817	C2*	U A 420	183.391	112.817	36.542	1.00	90.83	C	ATOM	8867	C6	C A 422	186.286	113.317	39.521	1.00118.50	C
ATOM	8818	O2*	U A 420	183.069	114.187	36.413	1.00	90.83	O	ATOM	8868	P	G A 423	186.445	116.566	45.447	1.00 93.23	P
ATOM	8819	C1*	U A 420	182.113	112.012	36.775	1.00	90.83	C	ATOM	8869	O1P	G A 423	187.606	117.412	45.044	1.00 89.20	O
ATOM	8820	N1	U A 420	182.333	110.845	37.646	1.00	64.96	N	ATOM	8870	O2P	G A 423	186.557	115.681	46.643	1.00 89.20	O
ATOM	8821	C2	U A 420	182.295	111.039	39.016	1.00	64.96	C	ATOM	8871	O5*	G A 423	185.193	117.539	45.627	1.00 93.23	O
ATOM	8822	O2	U A 420	182.096	112.127	39.531	1.00	64.96	O	ATOM	8872	C5*	G A 423	183.838	117.034	45.633	1.00 93.23	C
ATOM	8823	N3	U A 420	182.504	109.908	39.766	1.00	64.96	N	ATOM	8873	C4*	G A 423	182.878	118.140	45.269	1.00 93.23	C
ATOM	8824	C4	U A 420	182.746	108.632	39.301	1.00	64.96	C	ATOM	8874	O4*	G A 423	183.307	118.735	44.021	1.00 93.23	O
ATOM	8825	O4	U A 420	182.912	107.712	40.105	1.00	64.96	O	ATOM	8875	C3*	G A 423	181.427	117.739	45.040	1.00 93.23	C
ATOM	8826	C5	U A 420	182.775	108.514	37.880	1.00	64.96	C	ATOM	8876	O3*	G A 423	180.688	117.753	46.261	1.00 93.23	O
ATOM	8827	C6	U A 420	182.572	109.595	37.121	1.00	64.96	C	ATOM	8877	C2*	G A 423	180.917	118.825	44.094	1.00 93.23	C
ATOM	8828	P	U A 421	186.343	112.860	34.528	1.00100.54	P	ATOM	8878	O2*	G A 423	180.439	119.971	44.773	1.00 93.23	O	
ATOM	8829	O1P	U A 421	186.712	112.629	33.114	1.00 75.21	O	ATOM	8879	C1*	G A 423	182.178	119.183	43.298	1.00 93.23	C	
ATOM	8830	O2P	U A 421	186.657	111.822	35.543	1.00 75.21	O	ATOM	8880	N9	G A 423	182.251	118.667	41.930	1.00 89.20	N	
ATOM	8831	O5*	U A 421	187.010	114.249	34.953	1.00100.54	O	ATOM	8881	C8	G A 423	182.323	119.429	40.789	1.00 89.20	C	
ATOM	8832	C5*	U A 421	186.625	114.944	36.159	1.00100.54	C	ATOM	8882	N7	G A 423	182.378	118.719	39.695	1.00 89.20	N	
ATOM	8833	C4*	U A 421	186.611	116.435	35.908	1.00100.54	C	ATOM	8883	C5	G A 423	182.341	117.402	40.135	1.00 89.20	C	
ATOM	8834	O4*	U A 421	186.016	116.621	34.613	1.00100.54	O	ATOM	8884	C6	G A 423	182.368	116.186	39.395	1.00 89.20	C	
ATOM	8835	C3*	U A 421	185.776	117.243	36.905	1.00100.54	C	ATOM	8885	O6	G A 423	182.440	116.031	38.172	1.00 89.20	O	
ATOM	8836	O3*	U A 421	186.578	117.978	37.873	1.00100.54	O	ATOM	8886	N1	G A 423	182.305	115.077	40.231	1.00 89.20	N	
ATOM	8837	C2*	U A 421	185.105	118.329	36.042	1.00100.54	C	ATOM	8887	C2	G A 423	182.230	115.124	41.601	1.00 89.20	C	
ATOM	8838	O2*	U A 421	185.725	119.600	36.139	1.00100.54	O	ATOM	8888	N2	G A 423	182.185	113.936	42.228	1.00 89.20	N	
ATOM	8839	C1*	U A 421	185.261	117.804	34.609	1.00100.54	C	ATOM	8889	N3	G A 423	182.205	116.251	42.305	1.00 89.20	N	
ATOM	8840	N1	U A 421	184.060	117.595	33.784	1.00 75.21	N	ATOM	8890	C4	G A 423	182.263	117.346	41.512	1.00 89.20	C	
ATOM	8841	C2	U A 421	183.521	118.697	33.104	1.00 75.21	C	ATOM	8891	P	G A 424	179.727	116.517	46.643	1.00105.00	P	
ATOM	8842	O2	U A 421	183.940	119.841	33.227	1.00 75.21	O	ATOM	8892	O1P	G A 424	178.841	116.978	47.748	1.00 85.64	O	
ATOM	8843	N3	U A 421	182.467	118.405	32.275	1.00 75.21	N	ATOM	8893	O2P	G A 424	180.567	115.304	46.835	1.00 85.64	O	
ATOM	8844	C4	U A 421	181.894	117.169	32.066	1.00 75.21	C	ATOM	8894	O5*	G A 424	178.807	116.306	45.357	1.00105.00	O	
ATOM	8845	O4	U A 421	181.001	117.054	31.223	1.00 75.21	O	ATOM	8895	C5*	G A 424	178.074	117.408	44.783	1.00105.00	C	
ATOM	8846	C5	U A 421	182.471	116.099	32.831	1.00 75.21	C	ATOM	8896	C4*	G A 424	177.841	117.175	43.305	1.00105.00	C	
ATOM	8847	C6	U A 421	183.503	116.343	33.646	1.00 75.21	C	ATOM	8897	O4*	G A 424	179.039	116.572	42.749	1.00105.00	O	



Table 1: Sheet 91/521

ATOM	8898	C3*	G A 424	176.728	116.211	42.912	1.00105.00	C	ATOM	8948	C1*	G A 426	171.829	108.649	37.383	1.00	67.33	C	
ATOM	8899	O3*	G A 424	175.449	116.833	42.847	1.00105.00	O	ATOM	8949	N9	G A 426	172.356	108.351	38.711	1.00	86.43	N	
ATOM	8900	C2*	G A 424	177.176	115.741	41.536	1.00105.00	C	ATOM	8950	C8	G A 426	172.524	109.215	39.766	1.00	86.43	C	
ATOM	8901	O2*	G A 424	176.869	116.660	40.507	1.00105.00	O	ATOM	8951	N7	G A 426	173.014	108.635	40.828	1.00	86.43	N	
ATOM	8902	C1*	G A 424	178.689	115.672	41.716	1.00105.00	C	ATOM	8952	C5	G A 426	173.181	107.311	40.450	1.00	86.43	C	
ATOM	8903	N9	G A 424	179.068	114.322	42.116	1.00	85.64	N	ATOM	8953	C6	G A 426	173.681	106.204	41.179	1.00	86.43	C
ATOM	8904	C8	G A 424	179.371	113.861	43.376	1.00	85.64	C	ATOM	8954	O6	G A 426	174.086	106.168	42.342	1.00	86.43	O
ATOM	8905	N7	G A 424	179.593	112.576	43.408	1.00	85.64	N	ATOM	8955	N1	G A 426	173.684	105.046	40.411	1.00	86.43	N
ATOM	8906	C5	G A 424	179.442	112.170	42.090	1.00	85.64	C	ATOM	8956	C2	G A 426	173.260	104.963	39.107	1.00	86.43	C
ATOM	8907	C6	G A 424	179.546	110.883	41.503	1.00	85.64	C	ATOM	8957	N2	G A 426	173.351	103.758	38.529	1.00	86.43	N
ATOM	8908	O6	G A 424	179.788	109.804	42.051	1.00	85.64	O	ATOM	8958	N3	G A 426	172.787	105.986	38.419	1.00	86.43	N
ATOM	8909	N1	G A 424	179.328	110.930	40.131	1.00	85.64	N	ATOM	8959	C4	G A 426	172.778	107.121	39.147	1.00	86.43	C
ATOM	8910	C2	G A 424	179.041	112.066	39.414	1.00	85.64	C	ATOM	8960	P	U A 427	167.056	109.137	37.494	1.00	63.73	P
ATOM	8911	N2	G A 424	178.878	111.916	38.096	1.00	85.64	N	ATOM	8961	O1P	U A 427	165.948	109.362	36.539	1.00	92.31	O
ATOM	8912	N3	G A 424	178.927	113.262	39.950	1.00	85.64	N	ATOM	8962	O2P	U A 427	167.019	109.791	38.829	1.00	92.31	O
ATOM	8913	C4	G A 424	179.139	113.241	41.281	1.00	85.64	C	ATOM	8963	O5*	U A 427	167.207	107.562	37.694	1.00	63.73	O
ATOM	8914	P	G A 425	174.130	115.921	42.705	1.00	80.93	P	ATOM	8964	C5*	U A 427	167.143	106.678	36.562	1.00	63.73	C
ATOM	8915	O1P	G A 425	172.929	116.801	42.726	1.00	82.64	O	ATOM	8965	C4*	U A 427	167.433	105.258	36.975	1.00	63.73	C
ATOM	8916	O2P	G A 425	174.232	114.792	43.660	1.00	82.64	O	ATOM	8966	O4*	U A 427	168.764	105.176	37.538	1.00	63.73	O
ATOM	8917	O5*	G A 425	174.256	115.293	41.250	1.00	80.93	C	ATOM	8967	C3*	U A 427	166.520	104.653	38.024	1.00	63.73	C
ATOM	8918	C5*	G A 425	173.949	116.063	40.079	1.00	80.93	C	ATOM	8968	O3*	U A 427	165.384	104.099	37.390	1.00	63.73	O
ATOM	8919	C4*	G A 425	173.847	115.153	38.885	1.00	80.93	C	ATOM	8969	C2*	U A 427	167.395	103.564	38.641	1.00	63.73	C
ATOM	8920	O4*	G A 425	175.124	114.489	38.690	1.00	80.93	O	ATOM	8970	O2*	U A 427	167.392	102.371	37.881	1.00	63.73	O
ATOM	8921	C3*	G A 425	172.859	114.008	39.025	1.00	80.93	C	ATOM	8971	C1*	U A 427	168.790	104.193	38.559	1.00	63.73	C
ATOM	8922	O3*	G A 425	171.521	114.381	38.728	1.00	80.93	O	ATOM	8972	N1	U A 427	169.263	104.828	39.803	1.00	92.31	N
ATOM	8923	C2*	G A 425	173.405	112.983	38.047	1.00	80.93	C	ATOM	8973	C2	U A 427	170.043	104.069	40.670	1.00	92.31	C
ATOM	8924	O2*	G A 425	173.046	113.269	36.713	1.00	80.93	O	ATOM	8974	O2	U A 427	170.321	102.895	40.475	1.00	92.31	O
ATOM	8925	C1*	G A 425	174.909	113.173	38.218	1.00	80.93	C	ATOM	8975	N3	U A 427	170.480	104.739	41.783	1.00	92.31	N
ATOM	8926	N9	G A 425	175.433	112.224	39.195	1.00	82.64	N	ATOM	8976	C4	U A 427	170.215	106.048	42.128	1.00	92.31	C
ATOM	8927	C8	G A 425	175.788	112.464	40.502	1.00	82.64	C	ATOM	8977	O4	U A 427	170.655	106.492	43.191	1.00	92.31	O
ATOM	8928	N7	G A 425	176.190	111.391	41.128	1.00	82.64	N	ATOM	8978	C5	U A 427	169.391	106.756	41.198	1.00	92.31	C
ATOM	8929	C5	G A 425	176.099	110.382	40.176	1.00	82.64	C	ATOM	8979	C6	U A 427	168.955	106.141	40.098	1.00	92.31	C
ATOM	8930	C6	G A 425	176.394	108.989	40.267	1.00	82.64	C	ATOM	8980	P	G A 428	163.989	104.031	38.170	1.00	64.10	P
ATOM	8931	O6	G A 425	176.796	108.345	41.246	1.00	82.64	O	ATOM	8981	O1P	G A 428	164.184	103.210	39.383	1.00	71.22	O
ATOM	8932	N1	G A 425	176.171	108.339	39.054	1.00	82.64	N	ATOM	8982	O2P	G A 428	162.938	103.660	37.185	1.00	71.22	O
ATOM	8933	C2	G A 425	175.721	108.940	37.905	1.00	82.64	C	ATOM	8983	O5*	G A 428	163.736	105.530	38.628	1.00	64.10	O
ATOM	8934	N2	G A 425	175.594	108.150	36.834	1.00	82.64	N	ATOM	8984	C5*	G A 428	162.534	105.909	39.331	1.00	64.10	C
ATOM	8935	N3	G A 425	175.428	110.226	37.812	1.00	82.64	N	ATOM	8985	C4*	G A 428	162.890	106.814	40.476	1.00	64.10	C
ATOM	8936	C4	G A 425	175.643	110.883	38.976	1.00	82.64	C	ATOM	8986	O4*	G A 428	163.555	106.041	41.491	1.00	64.10	O
ATOM	8937	P	G A 426	170.309	113.515	39.339	1.00	67.33	P	ATOM	8987	C3*	G A 428	163.879	107.892	40.069	1.00	64.10	C
ATOM	8938	O1P	G A 426	169.040	114.120	38.869	1.00	86.43	O	ATOM	8988	O3*	G A 428	163.210	109.063	39.569	1.00	64.10	O
ATOM	8939	O2P	G A 426	170.532	113.319	40.795	1.00	86.43	O	ATOM	8989	C2*	G A 428	164.840	108.057	41.244	1.00	64.10	C
ATOM	8940	O5*	G A 426	170.475	112.096	38.635	1.00	67.33	O	ATOM	8990	O2*	G A 428	164.737	109.294	41.907	1.00	64.10	O
ATOM	8941	C5*	G A 426	170.438	111.981	37.199	1.00	67.33	C	ATOM	8991	C1*	G A 428	164.515	106.847	42.132	1.00	64.10	C
ATOM	8942	C4*	G A 426	170.597	110.542	36.774	1.00	67.33	C	ATOM	8992	N9	G A 428	165.639	106.007	42.533	1.00	71.22	N
ATOM	8943	O4*	G A 426	171.908	110.046	37.146	1.00	67.33	O	ATOM	8993	C8	G A 428	166.112	104.870	41.926	1.00	71.22	C
ATOM	8944	C3*	G A 426	169.632	109.543	37.385	1.00	67.33	C	ATOM	8994	N7	G A 428	167.129	104.342	42.550	1.00	71.22	N
ATOM	8945	O3*	G A 426	168.391	109.558	36.710	1.00	67.33	O	ATOM	8995	C5	G A 428	167.342	105.189	43.627	1.00	71.22	C
ATOM	8946	O2*	G A 426	170.370	108.218	37.216	1.00	67.33	C	ATOM	8996	C6	G A 428	168.323	105.148	44.670	1.00	71.22	C
ATOM	8947	O2*	G A 426	170.205	107.621	35.943	1.00	67.33	O	ATOM	8997	O6	G A 428	169.246	104.335	44.846	1.00	71.22	O



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ATOM	8998	N1	G A 428	168.155	106.201	45.563	1.00	71.22	N	ATOM	9048	O5*	A A 431	159.464	100.817	45.921	1.00	75.07	O
ATOM	8999	C2	G A 428	167.180	107.165	45.468	1.00	71.22	C	ATOM	9049	C5*	A A 431	160.236	99.734	45.373	1.00	75.07	C
ATOM	9000	N2	G A 428	167.150	108.082	46.431	1.00	71.22	N	ATOM	9050	C4*	A A 431	161.482	99.464	46.200	1.00	75.07	C
ATOM	9001	N3	G A 428	166.289	107.222	44.503	1.00	71.22	N	ATOM	9051	O4*	A A 431	162.397	100.592	46.151	1.00	75.07	O
ATOM	9002	C4	G A 428	166.424	106.214	43.627	1.00	71.22	C	ATOM	9052	C3*	A A 431	161.322	99.181	47.685	1.00	75.07	C
ATOM	9003	P	U A 429	162.212	109.937	40.507	1.00	71.59	P	ATOM	9053	O3*	A A 431	160.906	97.843	47.930	1.00	75.07	O
ATOM	9004	O1P	U A 429	161.040	110.263	39.655	1.00	97.34	O	ATOM	9054	C2*	A A 431	162.725	99.464	48.227	1.00	75.07	C
ATOM	9005	O2P	U A 429	162.962	111.038	41.162	1.00	97.34	O	ATOM	9055	O2*	A A 431	163.630	98.393	48.060	1.00	75.07	C
ATOM	9006	O5*	U A 429	161.645	108.958	41.629	1.00	71.59	O	ATOM	9056	C1*	A A 431	163.182	100.618	47.335	1.00	75.07	C
ATOM	9007	C5*	U A 429	160.474	109.347	42.375	1.00	71.59	C	ATOM	9057	N9	A A 431	163.023	101.920	47.983	1.00	82.18	N
ATOM	9008	C4*	U A 429	159.687	108.140	42.822	1.00	71.59	C	ATOM	9058	C8	A A 431	162.210	102.969	47.616	1.00	82.18	C
ATOM	9009	O4*	U A 429	160.288	107.580	44.022	1.00	71.59	C	ATOM	9059	N7	A A 431	162.296	104.007	48.412	1.00	82.18	N
ATOM	9010	C3*	U A 429	158.240	108.471	43.186	1.00	71.59	C	ATOM	9060	C5	A A 431	163.226	103.617	49.365	1.00	82.18	C
ATOM	9011	O3*	U A 429	157.367	107.374	42.873	1.00	71.59	O	ATOM	9061	C6	A A 431	163.751	104.269	50.483	1.00	82.18	C
ATOM	9012	C2*	U A 429	158.300	108.595	44.706	1.00	71.59	C	ATOM	9062	N6	A A 431	163.401	105.507	50.842	1.00	82.18	N
ATOM	9013	O2*	U A 429	157.090	108.331	45.381	1.00	71.59	O	ATOM	9063	N1	A A 431	164.658	103.601	51.231	1.00	82.18	N
ATOM	9014	C1*	U A 429	159.317	107.514	45.041	1.00	71.59	C	ATOM	9064	C2	A A 431	165.001	102.359	50.867	1.00	82.18	C
ATOM	9015	N1	U A 429	159.969	107.624	46.353	1.00	97.34	N	ATOM	9065	N3	A A 431	164.577	101.640	49.835	1.00	82.18	N
ATOM	9016	C2	U A 429	160.418	106.450	46.932	1.00	97.34	C	ATOM	9066	C4	A A 431	163.681	102.335	49.114	1.00	82.18	C
ATOM	9017	O2	U A 429	160.300	105.361	46.403	1.00	97.34	O	ATOM	9067	P	A A 432	159.885	97.543	49.135	1.00	91.58	P
ATOM	9018	N3	U A 429	161.007	106.594	48.157	1.00	97.34	N	ATOM	9068	O1P	A A 432	159.626	96.079	49.128	1.00	83.91	O
ATOM	9019	C4	U A 429	161.189	107.762	48.954	1.00	97.34	C	ATOM	9069	O2P	A A 432	158.742	98.495	49.044	1.00	83.91	O
ATOM	9020	O4	U A 429	161.796	107.734	49.827	1.00	97.34	O	ATOM	9070	O5*	A A 432	160.731	97.897	50.439	1.00	91.58	O
ATOM	9021	C5	U A 429	160.698	108.937	48.192	1.00	97.34	C	ATOM	9071	C5*	A A 432	161.954	97.190	50.744	1.00	91.58	C
ATOM	9022	C6	U A 429	160.125	108.830	46.993	1.00	97.34	C	ATOM	9072	C4*	A A 432	162.644	97.824	51.929	1.00	91.58	C
ATOM	9023	P	A A 430	157.393	106.689	41.412	1.00	66.16	P	ATOM	9073	O4*	A A 432	163.126	99.140	51.562	1.00	91.58	O
ATOM	9024	O1P	A A 430	157.885	107.678	40.404	1.00	74.53	O	ATOM	9074	C3*	A A 432	161.752	98.054	53.139	1.00	91.58	C
ATOM	9025	O2P	A A 430	156.089	106.002	41.199	1.00	74.53	O	ATOM	9075	O3*	A A 432	161.674	96.895	53.960	1.00	91.58	O
ATOM	9026	O5*	A A 430	158.527	105.585	41.550	1.00	66.16	O	ATOM	9076	C2*	A A 432	162.424	99.227	53.840	1.00	91.58	C
ATOM	9027	C5*	A A 430	158.619	104.773	42.723	1.00	66.16	C	ATOM	9077	O2*	A A 432	163.489	98.832	54.677	1.00	91.58	O
ATOM	9028	C4*	A A 430	159.531	103.609	42.463	1.00	66.16	C	ATOM	9078	C1*	A A 432	162.966	100.028	52.654	1.00	91.58	C
ATOM	9029	O4*	A A 430	160.867	104.096	42.177	1.00	66.16	O	ATOM	9079	N9	A A 432	162.036	101.080	52.249	1.00	83.91	N
ATOM	9030	C3*	A A 430	159.721	102.677	43.638	1.00	66.16	C	ATOM	9080	C8	A A 432	161.033	101.003	51.314	1.00	83.91	C
ATOM	9031	O3*	A A 430	158.671	101.736	43.733	1.00	66.16	O	ATOM	9081	N7	A A 432	160.333	102.105	51.198	1.00	83.91	N
ATOM	9032	C2*	A A 430	161.069	102.035	43.346	1.00	66.16	C	ATOM	9082	C5	A A 432	160.916	102.968	52.115	1.00	83.91	C
ATOM	9033	O2*	A A 430	160.979	100.947	42.449	1.00	66.16	O	ATOM	9083	C6	A A 432	160.626	104.293	52.482	1.00	83.91	C
ATOM	9034	C1*	A A 430	161.829	103.192	42.695	1.00	66.16	C	ATOM	9084	N6	A A 432	159.619	105.002	51.972	1.00	83.91	N
ATOM	9035	N9	A A 430	162.654	103.894	43.676	1.00	74.53	N	ATOM	9085	N1	A A 432	161.413	104.871	53.413	1.00	83.91	N
ATOM	9036	C8	A A 430	162.480	105.150	44.206	1.00	74.53	C	ATOM	9086	C2	A A 432	162.410	104.153	53.944	1.00	83.91	C
ATOM	9037	N7	A A 430	163.365	105.465	45.119	1.00	74.53	N	ATOM	9087	N3	A A 432	162.772	102.896	53.694	1.00	83.91	N
ATOM	9038	C5	A A 430	164.186	104.348	45.184	1.00	74.53	C	ATOM	9088	C4	A A 432	161.976	102.354	52.758	1.00	83.91	C
ATOM	9039	C6	A A 430	165.309	104.045	45.974	1.00	74.53	C	ATOM	9089	P	C A 433	160.238	96.363	54.452	1.00	90.92	P
ATOM	9040	N6	A A 430	165.811	104.874	46.889	1.00	74.53	N	ATOM	9090	O1P	C A 433	160.526	95.251	55.391	1.00	94.58	O
ATOM	9041	N1	A A 430	165.900	102.844	45.792	1.00	74.53	N	ATOM	9091	O2P	C A 433	159.346	96.124	53.290	1.00	94.58	O
ATOM	9042	C2	A A 430	165.385	102.010	44.882	1.00	74.53	C	ATOM	9092	O5*	C A 433	159.634	97.595	55.260	1.00	90.92	O
ATOM	9043	N3	A A 430	164.331	102.177	44.085	1.00	74.53	N	ATOM	9093	C5*	C A 433	160.256	98.051	56.472	1.00	90.92	C
ATOM	9044	C4	A A 430	163.770	103.381	44.290	1.00	74.53	C	ATOM	9094	C4*	C A 433	159.667	99.370	56.900	1.00	90.92	C
ATOM	9045	P	A A 431	158.141	101.309	45.181	1.00	75.07	P	ATOM	9095	O4*	C A 433	160.010	100.388	55.929	1.00	90.92	O
ATOM	9046	O1P	A A 431	157.242	100.150	44.993	1.00	82.18	O	ATOM	9096	C3*	C A 433	158.154	99.412	57.002	1.00	90.92	C
ATOM	9047	O2P	A A 431	157.630	102.529	45.848	1.00	82.18	O	ATOM	9097	O3*	C A 433	157.721	98.942	58.272	1.00	90.92	O



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ATOM	9098	C2*	C A 433	157.845	100.890	56.792	1.00	90.92	C	ATOM	9148	C6	C A 435	150.363	101.127	55.646	1.00	103.89	C
ATOM	9099	O2*	C A 433	157.973	101.655	57.975	1.00	90.92	O	ATOM	9149	P	C A 436	145.104	99.612	57.837	1.00	88.86	P
ATOM	9100	C1*	C A 433	158.936	101.300	55.797	1.00	90.92	C	ATOM	9150	O1P	C A 436	143.918	99.583	58.735	1.00	73.68	O
ATOM	9101	N1	C A 433	158.481	101.274	54.393	1.00	94.58	N	ATOM	9151	O2P	C A 436	145.972	98.404	57.721	1.00	73.68	O
ATOM	9102	C2	C A 433	157.938	102.439	53.830	1.00	94.58	C	ATOM	9152	O5*	C A 436	144.580	99.982	56.378	1.00	88.86	O
ATOM	9103	O2	C A 433	157.870	103.470	54.518	1.00	94.58	O	ATOM	9153	C5*	C A 436	143.698	101.100	56.165	1.00	88.86	C
ATOM	9104	N3	C A 433	157.504	102.410	52.551	1.00	94.58	N	ATOM	9154	C4*	C A 436	143.341	101.223	54.695	1.00	88.86	C
ATOM	9105	C4	C A 433	157.602	101.286	51.836	1.00	94.58	C	ATOM	9155	O4*	C A 436	144.510	101.596	53.913	1.00	88.86	O
ATOM	9106	N4	C A 433	157.165	101.305	50.578	1.00	94.58	N	ATOM	9156	C3*	C A 436	142.818	99.971	54.011	1.00	88.86	C
ATOM	9107	C5	C A 433	158.155	100.092	52.379	1.00	94.58	C	ATOM	9157	O3*	C A 436	141.439	99.763	54.237	1.00	88.86	O
ATOM	9108	C6	C A 433	158.579	100.130	53.647	1.00	94.58	C	ATOM	9158	C2*	C A 436	143.100	100.251	52.543	1.00	88.86	C
ATOM	9109	P	U A 434	156.222	98.391	58.451	1.00	88.17	P	ATOM	9159	O2*	C A 436	142.110	101.077	51.963	1.00	88.86	O
ATOM	9110	O1P	U A 434	156.105	97.922	59.856	1.00	93.79	O	ATOM	9160	C1*	C A 436	144.428	101.008	52.621	1.00	88.86	C
ATOM	9111	O2P	U A 434	155.902	97.458	57.340	1.00	93.79	O	ATOM	9161	N1	C A 436	145.587	100.108	52.431	1.00	73.68	N
ATOM	9112	O5*	U A 434	155.324	99.694	58.285	1.00	88.17	O	ATOM	9162	C2	C A 436	145.787	99.506	51.172	1.00	73.68	C
ATOM	9113	C5*	U A 434	155.380	100.743	59.264	1.00	88.17	C	ATOM	9163	O2	C A 436	145.008	99.781	50.231	1.00	73.68	O
ATOM	9114	C4*	U A 434	154.347	101.797	58.960	1.00	88.17	C	ATOM	9164	N3	C A 436	146.825	98.645	51.013	1.00	73.68	N
ATOM	9115	O4*	U A 434	154.758	102.582	57.811	1.00	88.17	O	ATOM	9165	C4	C A 436	147.647	98.389	52.034	1.00	73.68	C
ATOM	9116	C3*	U A 434	152.969	101.269	58.600	1.00	88.17	C	ATOM	9166	N4	C A 436	148.645	97.527	51.832	1.00	73.68	N
ATOM	9117	O3*	U A 434	152.193	100.965	59.750	1.00	88.17	O	ATOM	9167	C5	C A 436	147.482	99.002	53.306	1.00	73.68	C
ATOM	9118	C2*	U A 434	152.374	102.406	57.779	1.00	88.17	C	ATOM	9168	C6	C A 436	146.451	99.845	53.460	1.00	73.68	C
ATOM	9119	O2*	U A 434	151.764	103.401	58.578	1.00	88.17	O	ATOM	9169	P	U A 437	140.864	98.271	54.203	1.00	77.55	P
ATOM	9120	C1*	U A 434	153.613	102.957	57.059	1.00	88.17	C	ATOM	9170	O1P	U A 437	139.450	98.290	54.638	1.00	70.13	O
ATOM	9121	N1	U A 434	153.759	102.431	55.690	1.00	93.79	N	ATOM	9171	O2P	U A 437	141.849	97.400	54.908	1.00	70.13	O
ATOM	9122	C2	U A 434	153.136	103.117	54.656	1.00	93.79	C	ATOM	9172	C5*	U A 437	140.848	97.903	52.655	1.00	77.55	C
ATOM	9123	O2	U A 434	152.500	104.147	54.821	1.00	93.79	O	ATOM	9173	O5*	U A 437	139.861	98.474	51.768	1.00	77.55	O
ATOM	9124	N3	U A 434	153.289	102.551	53.417	1.00	93.79	N	ATOM	9174	C4*	U A 437	140.128	98.047	50.343	1.00	77.55	C
ATOM	9125	C4	U A 434	153.988	101.405	53.106	1.00	93.79	C	ATOM	9175	O4*	U A 437	141.499	98.389	50.016	1.00	77.55	O
ATOM	9126	O4	U A 434	154.008	101.011	51.942	1.00	93.79	O	ATOM	9176	C3*	U A 437	140.011	96.558	50.036	1.00	77.55	C
ATOM	9127	C5	U A 434	154.613	100.764	54.216	1.00	93.79	C	ATOM	9177	O3*	U A 437	138.667	96.206	49.691	1.00	77.55	O
ATOM	9128	C6	U A 434	154.483	101.283	55.438	1.00	93.79	C	ATOM	9178	C2*	U A 437	140.939	96.401	48.839	1.00	77.55	C
ATOM	9129	P	C A 435	151.132	99.762	59.694	1.00	75.26	P	ATOM	9179	O2*	U A 437	140.317	96.825	47.646	1.00	77.55	O
ATOM	9130	O1P	C A 435	150.674	99.515	61.086	1.00	103.89	O	ATOM	9180	C1*	U A 437	142.047	97.403	49.164	1.00	77.55	C
ATOM	9131	O2P	C A 435	151.744	98.648	58.919	1.00	103.89	O	ATOM	9181	N1	U A 437	143.219	96.805	49.829	1.00	70.13	N
ATOM	9132	O5*	C A 435	149.911	100.368	58.859	1.00	75.26	O	ATOM	9182	C2	U A 437	144.047	95.976	49.071	1.00	70.13	C
ATOM	9133	C5*	C A 435	149.052	101.375	59.435	1.00	75.26	C	ATOM	9183	O2	U A 437	143.837	95.721	47.888	1.00	70.13	O
ATOM	9134	C4*	C A 435	148.178	102.010	58.375	1.00	75.26	C	ATOM	9184	N3	U A 437	145.129	95.460	49.751	1.00	70.13	N
ATOM	9135	O4*	C A 435	149.016	102.647	57.379	1.00	75.26	O	ATOM	9185	C4	U A 437	145.465	95.679	51.073	1.00	70.13	C
ATOM	9136	C3*	C A 435	147.263	101.089	57.582	1.00	75.26	C	ATOM	9186	O4	U A 437	146.494	95.179	51.528	1.00	70.13	O
ATOM	9137	O3*	C A 435	146.029	100.863	58.255	1.00	75.26	O	ATOM	9187	C5	U A 437	144.563	96.533	51.783	1.00	70.13	C
ATOM	9138	C2*	C A 435	147.045	101.873	56.292	1.00	75.26	C	ATOM	9188	C6	U A 437	143.500	97.053	51.157	1.00	70.13	C
ATOM	9139	O2*	C A 435	146.042	102.858	56.410	1.00	75.26	O	ATOM	9189	P	G A 438	138.156	94.687	49.873	1.00	87.18	P
ATOM	9140	C1*	C A 435	148.396	102.565	56.107	1.00	75.26	C	ATOM	9190	O1P	G A 438	136.878	94.529	49.132	1.00	78.99	O
ATOM	9141	N1	C A 435	149.288	101.833	55.181	1.00	103.89	N	ATOM	9191	O2P	G A 438	138.207	94.353	51.315	1.00	78.99	O
ATOM	9142	C2	C A 435	149.008	101.864	53.807	1.00	103.89	C	ATOM	9192	O5*	G A 438	139.270	93.800	49.160	1.00	87.18	O
ATOM	9143	O2	C A 435	148.033	102.515	53.405	1.00	103.89	O	ATOM	9193	C5*	G A 438	139.233	93.526	47.745	1.00	87.18	C
ATOM	9144	N3	C A 435	149.806	101.180	52.956	1.00	103.89	N	ATOM	9194	C4*	G A 438	140.301	92.517	47.401	1.00	87.18	C
ATOM	9145	C4	C A 435	150.843	100.486	53.425	1.00	103.89	C	ATOM	9195	O4*	G A 438	141.533	93.012	47.969	1.00	87.18	O
ATOM	9146	N4	C A 435	151.590	99.810	52.552	1.00	103.89	N	ATOM	9196	C3*	G A 438	140.087	91.145	48.037	1.00	87.18	C
ATOM	9147	C5	C A 435	151.158	100.448	54.811	1.00	103.89	C	ATOM	9197	O3*	G A 438	139.424	90.153	47.208	1.00	87.18	O



Table 1: Sheet 94/521

ATOM	9198	C2*	G A 438	141.506	90.640	48.278	1.00	87.18	C	ATOM	9248	N7	A A 440	142.211	84.750	46.668	1.00	92.98	N
ATOM	9199	O2*	G A 438	141.995	89.976	47.139	1.00	87.18	O	ATOM	9249	C5	A A 440	143.322	84.297	47.360	1.00	92.98	C
ATOM	9200	C1*	G A 438	142.298	91.934	48.454	1.00	87.18	C	ATOM	9250	C6	A A 440	143.629	84.271	48.723	1.00	92.98	C
ATOM	9201	N9	G A 438	142.775	92.260	49.792	1.00	78.99	N	ATOM	9251	N6	A A 440	142.820	84.745	49.666	1.00	92.98	N
ATOM	9202	C8	G A 438	142.126	92.997	50.752	1.00	78.99	C	ATOM	9252	N1	A A 440	144.814	83.740	49.091	1.00	92.98	N
ATOM	9203	N7	G A 438	142.841	93.172	51.829	1.00	78.99	N	ATOM	9253	C2	A A 440	145.633	83.279	48.137	1.00	92.98	C
ATOM	9204	C5	G A 438	144.027	92.497	51.572	1.00	78.99	C	ATOM	9254	N3	A A 440	145.460	83.258	46.818	1.00	92.98	N
ATOM	9205	C6	G A 438	145.187	92.336	52.373	1.00	78.99	C	ATOM	9255	C4	A A 440	144.268	83.789	46.491	1.00	92.98	C
ATOM	9206	O6	G A 438	145.410	92.775	53.504	1.00	78.99	O	ATOM	9256	P	C A 442	142.130	79.354	42.506	1.00	94.50	P
ATOM	9207	N1	G A 438	146.152	91.574	51.729	1.00	78.99	N	ATOM	9257	O1P	C A 442	142.548	78.159	41.735	1.00	82.74	O
ATOM	9208	C2	G A 438	146.026	91.039	50.478	1.00	78.99	C	ATOM	9258	O2P	C A 442	140.875	80.060	42.139	1.00	82.74	O
ATOM	9209	N2	G A 438	147.076	90.345	50.032	1.00	78.99	N	ATOM	9259	O5*	C A 442	142.036	78.970	44.046	1.00	94.50	O
ATOM	9210	N3	G A 438	144.952	91.178	49.720	1.00	78.99	N	ATOM	9260	C5*	C A 442	143.177	78.437	44.731	1.00	94.50	C
ATOM	9211	C4	G A 438	143.998	91.917	50.326	1.00	78.99	C	ATOM	9261	C4*	C A 442	143.038	78.634	46.218	1.00	94.50	C
ATOM	9212	P	A A 439	138.973	90.475	45.681	1.00	62.83	P	ATOM	9262	O4*	C A 442	143.130	80.045	46.545	1.00	94.50	O
ATOM	9213	O1P	A A 439	138.732	91.925	45.507	1.00	76.59	O	ATOM	9263	C3*	C A 442	141.721	78.192	46.830	1.00	94.50	C
ATOM	9214	O2P	A A 439	137.876	89.516	45.357	1.00	76.59	O	ATOM	9264	O3*	C A 442	141.670	76.793	47.058	1.00	94.50	O
ATOM	9215	O5*	A A 439	140.237	90.058	44.797	1.00	62.83	O	ATOM	9265	C2*	C A 442	141.671	79.009	48.115	1.00	94.50	C
ATOM	9216	C5*	A A 439	140.520	88.666	44.555	1.00	62.83	C	ATOM	9266	O2*	C A 442	142.436	78.440	49.159	1.00	94.50	O
ATOM	9217	C4*	A A 439	141.125	88.458	43.182	1.00	62.83	C	ATOM	9267	C1*	C A 442	142.310	80.327	47.669	1.00	94.50	C
ATOM	9218	O4*	A A 439	142.468	89.011	43.156	1.00	62.83	O	ATOM	9268	N1	C A 442	141.278	81.308	47.278	1.00	82.74	N
ATOM	9219	C3*	A A 439	141.310	86.988	42.829	1.00	62.83	C	ATOM	9269	C2	C A 442	140.767	82.179	48.253	1.00	82.74	C
ATOM	9220	O3*	A A 439	140.142	86.431	42.229	1.00	62.83	O	ATOM	9270	O2	C A 442	141.250	82.156	49.397	1.00	82.74	O
ATOM	9221	C2*	A A 439	142.499	86.995	41.882	1.00	62.83	C	ATOM	9271	N3	C A 442	139.762	83.021	47.921	1.00	82.74	N
ATOM	9222	O2*	A A 439	142.138	87.263	40.544	1.00	62.83	O	ATOM	9272	C4	C A 442	139.278	83.027	46.675	1.00	82.74	C
ATOM	9223	C1*	A A 439	143.341	88.135	42.454	1.00	62.83	C	ATOM	9273	N4	C A 442	138.262	83.848	46.401	1.00	82.74	N
ATOM	9224	N9	A A 439	144.352	87.655	43.398	1.00	76.59	N	ATOM	9274	C5	C A 442	139.808	82.184	45.657	1.00	82.74	C
ATOM	9225	C8	A A 439	144.345	87.790	44.767	1.00	76.59	C	ATOM	9275	C6	C A 442	140.798	81.352	45.996	1.00	82.74	C
ATOM	9226	N7	A A 439	145.386	87.263	45.358	1.00	76.59	N	ATOM	9276	P	C A 443	140.243	76.054	47.095	1.00	87.92	P
ATOM	9227	C5	A A 439	146.130	86.741	44.314	1.00	76.59	C	ATOM	9277	O1P	C A 443	140.503	74.593	47.187	1.00106.92	O	
ATOM	9228	C6	A A 439	147.350	86.064	44.285	1.00	76.59	C	ATOM	9278	O2P	C A 443	139.401	76.575	45.990	1.00106.92	O	
ATOM	9229	N6	A A 439	148.057	85.780	45.379	1.00	76.59	N	ATOM	9279	O5*	C A 443	139.618	76.546	48.476	1.00	87.92	O
ATOM	9230	N1	A A 439	147.829	85.684	43.083	1.00	76.59	N	ATOM	9280	C5*	C A 443	140.286	76.261	49.723	1.00	87.92	C
ATOM	9231	C2	A A 439	147.113	85.975	41.990	1.00	76.59	C	ATOM	9281	C4*	C A 443	139.490	76.790	50.895	1.00	87.92	C
ATOM	9232	N3	A A 439	145.948	86.610	41.888	1.00	76.59	N	ATOM	9282	O4*	C A 443	139.563	78.238	50.950	1.00	87.92	O
ATOM	9233	C4	A A 439	145.505	86.972	43.100	1.00	76.59	C	ATOM	9283	C3*	C A 443	138.002	76.484	50.910	1.00	87.92	C
ATOM	9234	P	A A 440	139.831	84.860	42.398	1.00	66.78	P	ATOM	9284	O3*	C A 443	137.723	75.187	51.401	1.00	87.92	O
ATOM	9235	O1P	A A 440	138.617	84.545	41.595	1.00	92.98	O	ATOM	9285	C2*	C A 443	137.452	77.565	51.832	1.00	87.92	C
ATOM	9236	O2P	A A 440	139.856	84.525	43.846	1.00	92.98	O	ATOM	9286	O2*	C A 443	137.587	77.236	53.201	1.00	87.92	O
ATOM	9237	O5*	A A 440	141.086	84.161	41.710	1.00	66.78	O	ATOM	9287	C1*	C A 443	138.359	78.751	51.498	1.00	87.92	C
ATOM	9238	C5*	A A 440	141.452	82.830	42.067	1.00	66.78	C	ATOM	9288	N1	C A 443	137.742	79.672	50.525	1.00106.92	N	
ATOM	9239	C4*	A A 440	142.941	82.726	42.272	1.00	66.78	C	ATOM	9289	C2	C A 443	136.986	80.754	51.002	1.00106.92	C	
ATOM	9240	O4*	A A 440	143.441	83.914	42.929	1.00	66.78	O	ATOM	9290	O2	C A 443	136.867	80.914	52.224	1.00106.92	O	
ATOM	9241	C3*	A A 440	143.295	81.579	43.195	1.00	66.78	C	ATOM	9291	N3	C A 443	136.409	81.598	50.120	1.00106.92	N	
ATOM	9242	O3*	A A 440	143.370	80.374	42.464	1.00	66.78	O	ATOM	9292	C4	C A 443	136.567	81.403	48.810	1.00106.92	C	
ATOM	9243	C2*	A A 440	144.589	82.043	43.853	1.00	66.78	C	ATOM	9293	N4	C A 443	135.990	82.271	47.974	1.00106.92	N	
ATOM	9244	O2*	A A 440	145.759	81.804	43.099	1.00	66.78	O	ATOM	9294	C5	C A 443	137.328	80.313	48.296	1.00106.92	C	
ATOM	9245	C1*	A A 440	144.347	83.551	43.958	1.00	66.78	C	ATOM	9295	C6	C A 443	137.892	79.481	49.180	1.00106.92	C	
ATOM	9246	N9	A A 440	143.735	83.938	45.232	1.00	92.98	N	ATOM	9296	P	C A 444	136.305	74.512	51.079	1.00	85.16	P
ATOM	9247	C8	A A 440	142.504	84.519	45.416	1.00	92.98	C	ATOM	9297	O1P	C A 444	136.328	73.175	51.714	1.00	98.82	O



ATOM	9298	O2P	C A 444	136.036	74.626	49.625	1.00 98.82	O	ATOM	9348	C2*	G A 446	122.453	78.289	47.735	1.00 79.65	C
ATOM	9299	O5*	C A 444	135.253	75.427	51.855	1.00 85.16	O	ATOM	9349	O2*	G A 446	121.339	79.146	47.887	1.00 79.65	O
ATOM	9300	C5*	C A 444	135.080	75.311	53.288	1.00 85.16	C	ATOM	9350	C1*	G A 446	123.680	78.913	48.397	1.00 79.65	C
ATOM	9301	C4*	C A 444	133.886	76.122	53.750	1.00 85.16	C	ATOM	9351	N9	G A 446	124.893	78.589	47.651	1.00 94.73	N
ATOM	9302	O4*	C A 444	134.160	77.534	53.565	1.00 85.16	O	ATOM	9352	C8	G A 446	125.874	77.689	47.996	1.00 94.73	C
ATOM	9303	C3*	C A 444	132.585	75.878	52.999	1.00 85.16	C	ATOM	9353	N7	G A 446	126.818	77.593	47.102	1.00 94.73	N
ATOM	9304	O3*	C A 444	131.858	74.758	53.483	1.00 85.16	O	ATOM	9354	C5	G A 446	126.443	78.487	46.111	1.00 94.73	C
ATOM	9305	C2*	C A 444	131.830	77.187	53.190	1.00 85.16	C	ATOM	9355	C6	G A 446	127.077	78.815	44.892	1.00 94.73	C
ATOM	9306	O2*	C A 444	131.121	77.263	54.410	1.00 85.16	O	ATOM	9356	O6	G A 446	128.127	78.357	44.425	1.00 94.73	O
ATOM	9307	C1*	C A 444	132.974	78.206	53.165	1.00 85.16	C	ATOM	9357	N1	G A 446	126.361	79.783	44.188	1.00 94.73	N
ATOM	9308	N1	C A 444	133.181	78.756	51.806	1.00 98.82	N	ATOM	9358	C2	G A 446	125.183	80.359	44.607	1.00 94.73	C
ATOM	9309	C2	C A 444	132.211	79.621	51.265	1.00 98.82	C	ATOM	9359	N2	G A 446	124.645	81.283	43.795	1.00 94.73	N
ATOM	9310	O2	C A 444	131.230	79.943	51.959	1.00 98.82	O	ATOM	9360	N3	G A 446	124.580	80.052	45.742	1.00 94.73	N
ATOM	9311	N3	C A 444	132.370	80.081	50.005	1.00 98.82	N	ATOM	9361	C4	G A 446	125.262	79.117	46.439	1.00 94.73	C
ATOM	9312	C4	C A 444	133.440	79.727	49.296	1.00 98.82	C	ATOM	9362	P	G A 447	120.587	75.419	47.347	1.00 84.65	P
ATOM	9313	N4	C A 444	133.541	80.190	48.055	1.00 98.82	N	ATOM	9363	O1P	G A 447	119.101	75.386	47.217	1.00 92.54	O
ATOM	9314	C5	C A 444	134.451	78.877	49.826	1.00 98.82	C	ATOM	9364	O2P	G A 447	121.339	74.163	47.622	1.00 92.54	O
ATOM	9315	C6	C A 444	134.285	78.419	51.070	1.00 98.82	C	ATOM	9365	O5*	G A 447	121.164	76.054	46.011	1.00 84.65	O
ATOM	9316	P	G A 445	130.816	74.012	52.511	1.00 90.97	P	ATOM	9366	C5*	G A 447	120.514	77.171	45.380	1.00 84.65	C
ATOM	9317	O1P	G A 445	130.342	72.801	53.235	1.00 83.83	O	ATOM	9367	C4*	G A 447	121.102	77.394	44.012	1.00 84.65	C
ATOM	9318	O2P	G A 445	131.431	73.864	51.168	1.00 83.83	O	ATOM	9368	O4*	G A 447	122.465	77.874	44.141	1.00 84.65	O
ATOM	9319	O5*	G A 445	129.607	75.043	52.384	1.00 90.97	O	ATOM	9369	C3*	G A 447	121.205	76.136	43.167	1.00 84.65	C
ATOM	9320	C5*	G A 445	128.765	75.311	53.514	1.00 90.97	C	ATOM	9370	O3*	G A 447	119.939	75.845	42.567	1.00 84.65	O
ATOM	9321	C4*	G A 445	127.726	76.347	53.171	1.00 90.97	C	ATOM	9371	C2*	G A 447	122.360	76.467	42.227	1.00 84.65	C
ATOM	9322	O4*	G A 445	128.377	77.607	52.863	1.00 90.97	O	ATOM	9372	O2*	G A 447	121.989	77.279	41.137	1.00 84.65	O
ATOM	9323	C3*	G A 445	126.844	76.077	51.963	1.00 90.97	C	ATOM	9373	C1*	G A 447	123.271	77.294	43.135	1.00 84.65	C
ATOM	9324	O3*	G A 445	125.753	75.208	52.240	1.00 90.97	O	ATOM	9374	N9	G A 447	124.301	76.493	43.788	1.00 92.54	N
ATOM	9325	C2*	G A 445	126.363	77.474	51.592	1.00 90.97	C	ATOM	9375	C8	G A 447	124.204	75.838	44.994	1.00 92.54	C
ATOM	9326	O2*	G A 445	125.250	77.901	52.351	1.00 90.97	O	ATOM	9376	N7	G A 447	125.291	75.191	45.316	1.00 92.54	N
ATOM	9327	C1*	G A 445	127.589	78.327	51.926	1.00 90.97	C	ATOM	9377	C5	G A 447	126.160	75.432	44.261	1.00 92.54	C
ATOM	9328	N9	G A 445	128.379	78.581	50.723	1.00 83.83	N	ATOM	9378	C6	G A 447	127.491	74.990	44.047	1.00 92.54	C
ATOM	9329	C8	G A 445	129.555	77.980	50.346	1.00 83.83	C	ATOM	9379	O6	G A 447	128.188	74.266	44.766	1.00 92.54	O
ATOM	9330	N7	G A 445	129.986	78.385	49.183	1.00 83.83	N	ATOM	9380	N1	G A 447	128.005	75.479	42.852	1.00 92.54	N
ATOM	9331	C5	G A 445	129.040	79.315	48.770	1.00 83.83	C	ATOM	9381	C2	G A 447	127.328	76.286	41.971	1.00 92.54	C
ATOM	9332	C6	G A 445	128.960	80.082	47.576	1.00 83.83	C	ATOM	9382	N2	G A 447	128.000	76.661	40.874	1.00 92.54	N
ATOM	9333	O6	G A 445	129.726	80.081	46.605	1.00 83.83	O	ATOM	9383	N3	G A 447	126.085	76.698	42.153	1.00 92.54	N
ATOM	9334	N1	G A 445	127.841	80.912	47.574	1.00 83.83	N	ATOM	9384	C4	G A 447	125.565	76.238	43.311	1.00 92.54	C
ATOM	9335	C2	G A 445	126.912	80.988	48.579	1.00 83.83	C	ATOM	9385	P	A A 448	119.834	74.807	41.341	1.00 81.85	P
ATOM	9336	N2	G A 445	125.903	81.850	48.391	1.00 83.83	N	ATOM	9386	O1P	A A 448	118.445	74.265	41.306	1.00 63.67	O
ATOM	9337	N3	G A 445	126.969	80.270	49.688	1.00 83.83	N	ATOM	9387	O2P	A A 448	120.976	73.881	41.413	1.00 63.67	O
ATOM	9338	C4	G A 445	128.052	79.461	49.716	1.00 83.83	C	ATOM	9388	O5*	A A 448	119.967	75.783	40.095	1.00 81.85	O
ATOM	9339	P	G A 446	125.040	74.416	51.029	1.00 79.65	P	ATOM	9389	C5*	A A 448	119.344	77.075	40.193	1.00 81.85	C
ATOM	9340	O1P	G A 446	124.007	73.520	51.618	1.00 94.73	O	ATOM	9390	C4*	A A 448	119.486	77.866	38.927	1.00 81.85	C
ATOM	9341	O2P	G A 446	126.101	73.840	50.158	1.00 94.73	O	ATOM	9391	O4*	A A 448	120.820	78.388	38.756	1.00 81.85	O
ATOM	9342	O5*	G A 446	124.271	75.548	50.213	1.00 79.65	O	ATOM	9392	C3*	A A 448	119.206	77.172	37.617	1.00 81.85	C
ATOM	9343	C5*	G A 446	123.207	76.289	50.825	1.00 79.65	C	ATOM	9393	O3*	A A 448	117.810	77.038	37.442	1.00 81.85	O
ATOM	9344	C4*	G A 446	122.731	77.395	49.912	1.00 79.65	C	ATOM	9394	O2*	A A 448	119.808	78.156	36.616	1.00 81.85	C
ATOM	9345	O4*	G A 446	123.790	78.364	49.701	1.00 79.65	O	ATOM	9395	O2*	A A 448	118.942	79.231	36.330	1.00 81.85	O
ATOM	9346	C3*	G A 446	122.311	76.986	48.512	1.00 79.65	C	ATOM	9396	C1*	A A 448	120.978	78.748	37.404	1.00 81.85	C
ATOM	9347	O3*	G A 446	120.985	76.492	48.469	1.00 79.65	O	ATOM	9397	N9	A A 448	122.288	78.325	36.923	1.00 63.67	N



ATOM	9398	C8	A	A	448	123.138	77.353	37.387	1.00	63.67	C	ATOM	9448	N3	G	A	450	121.699	75.494	29.243	1.00	70.79	N
ATOM	9399	N7	A	A	448	124.250	77.257	36.700	1.00	63.67	N	ATOM	9449	C4	G	A	450	120.624	75.444	30.056	1.00	70.79	C
ATOM	9400	C5	A	A	448	124.120	78.233	35.719	1.00	63.67	C	ATOM	9450	P	A	A	451	115.997	74.459	26.131	1.00	64.37	P
ATOM	9401	C6	A	A	448	124.964	78.651	34.677	1.00	63.67	C	ATOM	9451	O1P	A	A	451	117.136	73.628	26.577	1.00	72.14	O
ATOM	9402	N6	A	A	448	126.166	78.127	34.447	1.00	63.67	N	ATOM	9452	O2P	A	A	451	115.619	74.485	24.695	1.00	72.14	O
ATOM	9403	N1	A	A	448	124.528	79.646	33.874	1.00	63.67	N	ATOM	9453	O5*	A	A	451	114.716	74.010	26.956	1.00	64.37	O
ATOM	9404	C2	A	A	448	123.330	80.185	34.115	1.00	63.67	C	ATOM	9454	C5*	A	A	451	113.388	74.310	26.491	1.00	64.37	C
ATOM	9405	N3	A	A	448	122.453	79.887	35.064	1.00	63.67	N	ATOM	9455	C4*	A	A	451	112.395	74.083	27.609	1.00	64.37	C
ATOM	9406	C4	A	A	448	122.915	78.890	35.841	1.00	63.67	C	ATOM	9456	O4*	A	A	451	112.489	72.697	28.022	1.00	64.37	O
ATOM	9407	P	C	A	449	117.245	76.131	36.250	1.00	59.57	P	ATOM	9457	C3*	A	A	451	112.623	74.918	28.865	1.00	64.37	C
ATOM	9408	O1P	C	A	449	115.822	75.826	36.561	1.00	73.34	O	ATOM	9458	O3*	A	A	451	111.350	75.207	29.450	1.00	64.37	O
ATOM	9409	O2P	C	A	449	118.204	75.013	36.001	1.00	73.34	O	ATOM	9459	C2*	A	A	451	113.428	73.976	29.759	1.00	64.37	C
ATOM	9410	O5*	C	A	449	117.262	77.113	34.992	1.00	59.57	O	ATOM	9460	O2*	A	A	451	113.274	74.223	31.141	1.00	64.37	O
ATOM	9411	C5*	C	A	449	116.585	78.376	35.049	1.00	59.57	C	ATOM	9461	C1*	A	A	451	112.846	72.616	29.382	1.00	64.37	C
ATOM	9412	C4*	C	A	449	117.031	79.272	33.920	1.00	59.57	C	ATOM	9462	N9	A	A	451	113.797	71.521	29.519	1.00	72.14	N
ATOM	9413	O4*	C	A	449	118.437	79.601	34.046	1.00	59.57	O	ATOM	9463	C8	A	A	451	114.565	70.966	28.531	1.00	72.14	C
ATOM	9414	C3*	C	A	449	116.904	78.722	32.514	1.00	59.57	C	ATOM	9464	N7	A	A	451	115.336	69.997	28.943	1.00	72.14	N
ATOM	9415	O3*	C	A	449	115.568	78.840	32.044	1.00	59.57	O	ATOM	9465	C5	A	A	451	115.060	69.907	30.297	1.00	72.14	C
ATOM	9416	C2*	C	A	449	117.877	79.598	31.731	1.00	59.57	C	ATOM	9466	C6	A	A	451	115.561	69.073	31.305	1.00	72.14	C
ATOM	9417	O2*	C	A	449	117.304	80.843	31.384	1.00	59.57	O	ATOM	9467	N6	A	A	451	116.497	68.139	31.094	1.00	72.14	N
ATOM	9418	C1*	C	A	449	118.980	79.846	32.763	1.00	59.57	C	ATOM	9468	N1	A	A	451	115.068	69.232	32.553	1.00	72.14	N
ATOM	9419	N1	C	A	449	120.210	79.044	32.588	1.00	73.34	N	ATOM	9469	C2	A	A	451	114.139	70.172	32.757	1.00	72.14	C
ATOM	9420	C2	C	A	449	121.082	79.366	31.534	1.00	73.34	C	ATOM	9470	N3	A	A	451	113.595	71.020	31.892	1.00	72.14	N
ATOM	9421	O2	C	A	449	120.786	80.294	30.764	1.00	73.34	O	ATOM	9471	C4	A	A	451	114.107	70.834	30.664	1.00	72.14	C
ATOM	9422	N3	C	A	449	122.225	78.657	31.383	1.00	73.34	N	ATOM	9472	P	A	A	452	110.816	76.721	29.515	1.00	78.42	P
ATOM	9423	C4	C	A	449	122.513	77.665	32.227	1.00	73.34	C	ATOM	9473	O1P	A	A	452	111.693	77.567	28.665	1.00	75.34	O
ATOM	9424	N4	C	A	449	123.658	77.007	32.047	1.00	73.34	N	ATOM	9474	O2P	A	A	452	110.641	77.065	30.950	1.00	75.34	O
ATOM	9425	C5	C	A	449	121.641	77.307	33.295	1.00	73.34	C	ATOM	9475	O5*	A	A	452	109.396	76.653	28.790	1.00	78.42	O
ATOM	9426	C6	C	A	449	120.511	78.015	33.436	1.00	73.34	C	ATOM	9476	C5*	A	A	452	108.383	75.591	29.179	1.00	78.42	C
ATOM	9427	P	G	A	450	114.765	77.514	31.619	1.00	64.65	P	ATOM	9477	C4*	A	A	452	108.107	74.744	28.034	1.00	78.42	C
ATOM	9428	O1P	G	A	450	113.357	77.900	31.292	1.00	70.79	O	ATOM	9478	O4*	A	A	452	109.266	73.904	27.874	1.00	78.42	O
ATOM	9429	O2P	G	A	450	115.024	76.477	32.660	1.00	70.79	O	ATOM	9479	C3*	A	A	452	106.949	73.742	28.128	1.00	78.42	C
ATOM	9430	O5*	G	A	450	115.500	77.045	30.283	1.00	64.65	O	ATOM	9480	O3*	A	A	452	105.738	74.354	27.644	1.00	78.42	O
ATOM	9431	C5*	G	A	450	115.604	77.928	29.149	1.00	64.65	C	ATOM	9481	C2*	A	A	452	107.370	72.640	27.153	1.00	78.42	C
ATOM	9432	C4*	G	A	450	116.838	77.606	28.337	1.00	64.65	C	ATOM	9482	O2*	A	A	452	106.988	72.947	25.832	1.00	78.42	O
ATOM	9433	O4*	G	A	450	118.029	77.826	29.137	1.00	64.65	O	ATOM	9483	C1*	A	A	452	108.889	72.761	27.147	1.00	78.42	C
ATOM	9434	C3*	G	A	450	116.986	76.180	27.831	1.00	64.65	C	ATOM	9484	N9	A	A	452	109.682	71.615	27.565	1.00	75.34	N
ATOM	9435	O3*	G	A	450	116.286	75.960	26.618	1.00	64.65	O	ATOM	9485	C8	A	A	452	109.918	71.072	28.802	1.00	75.34	C
ATOM	9436	C2*	G	A	450	118.482	76.079	27.590	1.00	64.65	C	ATOM	9486	N7	A	A	452	110.794	70.095	28.787	1.00	75.34	N
ATOM	9437	O2*	G	A	450	118.826	76.637	26.338	1.00	64.65	O	ATOM	9487	C5	A	A	452	111.134	69.975	27.445	1.00	75.34	C
ATOM	9438	C1*	G	A	450	119.050	76.932	28.728	1.00	64.65	C	ATOM	9488	C6	A	A	452	112.034	69.142	26.765	1.00	75.34	C
ATOM	9439	N9	G	A	450	119.428	76.103	29.868	1.00	70.79	N	ATOM	9489	N6	A	A	452	112.819	68.255	27.367	1.00	75.34	N
ATOM	9440	C8	G	A	450	118.642	75.788	30.946	1.00	70.79	C	ATOM	9490	N1	A	A	452	112.115	69.267	25.423	1.00	75.34	N
ATOM	9441	N7	G	A	450	119.218	74.965	31.778	1.00	70.79	N	ATOM	9491	C2	A	A	452	111.355	70.188	24.816	1.00	75.34	C
ATOM	9442	C5	G	A	450	120.467	74.731	31.222	1.00	70.79	C	ATOM	9492	N3	A	A	452	110.491	71.045	25.347	1.00	75.34	N
ATOM	9443	C6	G	A	450	121.527	73.911	31.674	1.00	70.79	C	ATOM	9493	C4	A	A	452	110.429	70.882	26.681	1.00	75.34	C
ATOM	9444	O6	G	A	450	121.567	73.188	32.672	1.00	70.79	O	ATOM	9494	P	A	A	453	104.397	73.470	27.413	1.00	60.36	P
ATOM	9445	N1	G	A	450	122.623	73.980	30.826	1.00	70.79	N	ATOM	9495	O1P	A	A	453	103.257	74.429	27.366	1.00	73.20	O
ATOM	9446	C2	G	A	450	122.690	74.734	29.687	1.00	70.79	C	ATOM	9496	O2P	A	A	453	104.386	72.342	28.397	1.00	73.20	O
ATOM	9447	N2	G	A	450	123.848	74.674	29.012	1.00	70.79	N	ATOM	9497	O5*	A	A	453	104.514	72.882	25.933	1.00	60.36	O



ATOM	9498	C5*	A	A	453	104.011	71.565	25.595	1.00	60.36	C	ATOM	9548	N1	C	A	455	102.587	63.649	27.031	1.00	86.81	N
ATOM	9499	C4*	A	A	453	104.845	70.964	24.482	1.00	60.36	C	ATOM	9549	C2	C	A	455	102.800	64.385	28.207	1.00	86.81	C
ATOM	9500	O4*	A	A	453	106.232	70.951	24.881	1.00	60.36	O	ATOM	9550	O2	C	A	455	103.218	63.803	29.221	1.00	86.81	O
ATOM	9501	C3*	A	A	453	104.540	69.533	24.078	1.00	60.36	C	ATOM	9551	N3	C	A	455	102.538	65.714	28.209	1.00	86.81	N
ATOM	9502	O3*	A	A	453	103.511	69.534	23.091	1.00	60.36	O	ATOM	9552	C4	C	A	455	102.074	66.306	27.106	1.00	86.81	C
ATOM	9503	O2*	A	A	453	105.870	69.058	23.498	1.00	60.36	C	ATOM	9553	N4	C	A	455	101.847	67.619	27.150	1.00	86.81	N
ATOM	9504	C2*	A	A	453	106.044	69.472	22.159	1.00	60.36	O	ATOM	9554	C5	C	A	455	101.828	65.578	25.907	1.00	86.81	C
ATOM	9505	C1*	A	A	453	106.881	69.828	24.344	1.00	60.36	C	ATOM	9555	C6	C	A	455	102.095	64.268	25.913	1.00	86.81	C
ATOM	9506	N9	A	A	453	107.476	69.095	25.455	1.00	73.20	N	ATOM	9556	P	C	A	456	98.767	60.054	25.796	1.00	84.92	P
ATOM	9507	C8	A	A	453	107.235	69.265	26.797	1.00	73.20	C	ATOM	9557	O1P	C	A	456	98.201	58.727	25.452	1.00	111.27	O
ATOM	9508	N7	A	A	453	107.945	68.480	27.564	1.00	73.20	N	ATOM	9558	O2P	C	A	456	98.394	61.237	24.989	1.00	111.27	O
ATOM	9509	C5	A	A	453	108.701	67.735	26.668	1.00	73.20	C	ATOM	9559	O5*	C	A	456	98.430	60.387	27.313	1.00	84.92	O
ATOM	9510	C6	A	A	453	109.658	66.718	26.851	1.00	73.20	C	ATOM	9560	C5*	C	A	456	98.752	59.446	28.346	1.00	84.92	C
ATOM	9511	N6	A	A	453	110.015	66.242	28.044	1.00	73.20	N	ATOM	9561	C4*	C	A	456	98.373	59.996	29.696	1.00	84.92	C
ATOM	9512	N1	A	A	453	110.235	66.195	25.750	1.00	73.20	N	ATOM	9562	O4*	C	A	456	99.256	61.092	30.046	1.00	84.92	O
ATOM	9513	C2	A	A	453	109.857	66.657	24.550	1.00	73.20	C	ATOM	9563	C3*	C	A	456	96.977	60.580	29.803	1.00	84.92	C
ATOM	9514	N3	A	A	453	108.961	67.596	24.249	1.00	73.20	N	ATOM	9564	O3*	C	A	456	95.991	59.586	30.018	1.00	84.92	O
ATOM	9515	C4	A	A	453	108.417	68.103	25.366	1.00	73.20	C	ATOM	9565	C2*	C	A	456	97.112	61.550	30.971	1.00	84.92	C
ATOM	9516	P	C	A	454	102.292	68.497	23.209	1.00	67.50	P	ATOM	9566	O2*	C	A	456	97.023	60.917	32.235	1.00	84.92	O
ATOM	9517	O1P	C	A	454	101.341	68.781	22.101	1.00	56.88	O	ATOM	9567	C1*	C	A	456	98.533	62.078	30.766	1.00	84.92	C
ATOM	9518	O2P	C	A	454	101.807	68.533	24.618	1.00	56.88	O	ATOM	9568	N1	C	A	456	98.558	63.332	29.987	1.00	111.27	N
ATOM	9519	O5*	C	A	454	102.976	67.082	22.931	1.00	67.50	O	ATOM	9569	C2	C	A	456	98.279	64.542	30.639	1.00	111.27	C
ATOM	9520	C5*	C	A	454	103.543	66.795	21.645	1.00	67.50	C	ATOM	9570	O2	C	A	456	98.017	64.529	31.855	1.00	111.27	O
ATOM	9521	O4*	C	A	454	104.461	65.597	21.709	1.00	67.50	C	ATOM	9571	N3	C	A	456	98.302	65.692	29.929	1.00	111.27	N
ATOM	9522	C4*	C	A	454	105.663	65.889	22.464	1.00	67.50	C	ATOM	9572	C4	C	A	456	98.589	65.667	28.626	1.00	111.27	C
ATOM	9523	C3*	C	A	454	103.926	64.336	22.356	1.00	67.50	C	ATOM	9573	N4	C	A	456	98.607	66.825	27.970	1.00	111.27	N
ATOM	9524	O3*	C	A	454	103.067	63.617	21.476	1.00	67.50	O	ATOM	9574	C5	C	A	456	98.872	64.453	27.938	1.00	111.27	C
ATOM	9525	C2*	C	A	454	105.211	63.564	22.647	1.00	67.50	C	ATOM	9575	C6	C	A	456	98.846	63.321	28.648	1.00	111.27	C
ATOM	9526	O2*	C	A	454	105.701	62.891	21.506	1.00	67.50	O	ATOM	9576	P	C	A	457	94.508	59.817	29.448	1.00	93.60	P
ATOM	9527	C1*	C	A	454	106.192	64.685	22.984	1.00	67.50	C	ATOM	9577	O1P	C	A	457	93.719	58.606	29.793	1.00	120.39	O
ATOM	9528	N1	C	A	454	106.413	64.824	24.432	1.00	56.88	N	ATOM	9578	O2P	C	A	457	94.600	60.251	28.026	1.00	120.39	O
ATOM	9529	C2	C	A	454	107.546	64.211	25.012	1.00	56.88	C	ATOM	9579	O5*	C	A	457	93.978	61.049	30.310	1.00	93.60	O
ATOM	9530	O2	C	A	454	108.341	63.577	24.287	1.00	56.88	O	ATOM	9580	C5*	C	A	457	93.749	60.918	31.729	1.00	93.60	C
ATOM	9531	N3	C	A	454	107.744	64.322	26.346	1.00	56.88	N	ATOM	9581	C4*	C	A	457	93.136	62.184	32.281	1.00	93.60	C
ATOM	9532	C4	C	A	454	106.871	64.998	27.097	1.00	56.88	C	ATOM	9582	O4*	C	A	457	94.143	63.227	32.360	1.00	93.60	O
ATOM	9533	N4	C	A	454	107.108	65.077	28.411	1.00	56.88	N	ATOM	9583	C3*	C	A	457	92.024	62.782	31.433	1.00	93.60	C
ATOM	9534	C5	C	A	454	105.719	65.625	26.536	1.00	56.88	C	ATOM	9584	O3*	C	A	457	90.762	62.171	31.653	1.00	93.60	O
ATOM	9535	C6	C	A	454	105.534	65.519	25.214	1.00	56.88	C	ATOM	9585	C2*	C	A	457	92.062	64.257	31.814	1.00	93.60	C
ATOM	9536	P	C	A	455	101.591	63.203	21.967	1.00	71.07	P	ATOM	9586	O2*	C	A	457	91.339	64.567	32.990	1.00	93.60	O
ATOM	9537	O1P	C	A	455	101.137	62.113	21.066	1.00	86.81	O	ATOM	9587	C1*	C	A	457	93.563	64.480	32.027	1.00	93.60	C
ATOM	9538	O2P	C	A	455	100.777	64.434	22.096	1.00	86.81	O	ATOM	9588	N1	C	A	457	94.213	64.985	30.798	1.00	120.39	N
ATOM	9539	O5*	C	A	455	101.804	62.597	23.429	1.00	71.07	O	ATOM	9589	C2	C	A	457	94.335	66.371	30.612	1.00	120.39	C
ATOM	9540	C5*	C	A	455	102.357	61.277	23.612	1.00	71.07	C	ATOM	9590	O2	C	A	457	93.923	67.137	31.495	1.00	120.39	O
ATOM	9541	C4*	C	A	455	102.461	60.945	25.085	1.00	71.07	C	ATOM	9591	N3	C	A	457	94.898	66.835	29.471	1.00	120.39	N
ATOM	9542	O4*	C	A	455	103.374	61.877	25.716	1.00	71.07	O	ATOM	9592	C4	C	A	457	95.330	65.979	28.542	1.00	120.39	C
ATOM	9543	C3*	C	A	455	101.177	61.061	25.893	1.00	71.07	C	ATOM	9593	N4	C	A	457	95.859	66.480	27.427	1.00	120.39	N
ATOM	9544	O3*	C	A	455	100.366	59.899	25.803	1.00	71.07	O	ATOM	9594	C5	C	A	457	95.234	64.568	28.712	1.00	120.39	C
ATOM	9545	O2*	C	A	455	101.693	61.323	27.302	1.00	71.07	C	ATOM	9595	C6	C	A	457	94.677	64.119	29.842	1.00	120.39	C
ATOM	9546	C2*	C	A	455	102.111	60.148	27.974	1.00	71.07	O	ATOM	9596	P	C	A	458	89.627	62.277	30.520	1.00	88.35	P
ATOM	9547	C1*	C	A	455	102.909	62.205	27.016	1.00	71.07	C	ATOM	9597	O1P	C	A	458	88.486	61.441	30.973	1.00	133.17	O



ATOM	9598	O2P	C A 458	90.221	62.033	29.179	1.00133.17	O	ATOM	9648	C2*	A A 460	86.723	65.351	19.636	1.00100.39	C
ATOM	9599	O5*	C A 458	89.193	63.808	30.584	1.00 88.35	O	ATOM	9649	O2*	A A 460	86.441	64.152	18.936	1.00100.39	O
ATOM	9600	C5*	C A 458	88.511	64.337	31.737	1.00 88.35	C	ATOM	9650	C1*	A A 460	85.556	66.334	19.440	1.00100.39	C
ATOM	9601	C4*	C A 458	88.088	65.760	31.479	1.00 88.35	C	ATOM	9651	N9	A A 460	85.773	67.722	18.995	1.00 96.62	N
ATOM	9602	O4*	C A 458	89.258	66.616	31.474	1.00 88.35	O	ATOM	9652	C8	A A 460	85.346	68.859	19.643	1.00 96.62	C
ATOM	9603	C3*	C A 458	87.433	65.977	30.126	1.00 88.35	C	ATOM	9653	N7	A A 460	85.571	69.965	18.978	1.00 96.62	N
ATOM	9604	O3*	C A 458	86.040	65.715	30.163	1.00 88.35	O	ATOM	9654	C5	A A 460	86.214	69.538	17.825	1.00 96.62	C
ATOM	9605	O2*	C A 458	87.742	67.435	29.821	1.00 88.35	C	ATOM	9655	C6	A A 460	86.716	70.237	16.704	1.00 96.62	C
ATOM	9606	O6*	C A 458	86.811	68.329	30.388	1.00 88.35	O	ATOM	9656	N6	A A 460	86.635	71.562	16.553	1.00 96.62	N
ATOM	9607	C1*	C A 458	89.122	67.607	30.466	1.00 88.35	C	ATOM	9657	N1	A A 460	87.311	69.518	15.730	1.00 96.62	N
ATOM	9608	N1	C A 458	90.236	67.457	29.498	1.00133.17	N	ATOM	9658	C2	A A 460	87.392	68.192	15.875	1.00 96.62	C
ATOM	9609	C2	C A 458	90.570	68.541	28.662	1.00133.17	C	ATOM	9659	N3	A A 460	86.958	67.420	16.876	1.00 96.62	N
ATOM	9610	O2	C A 458	89.936	69.605	28.764	1.00133.17	O	ATOM	9660	C4	A A 460	86.369	68.162	17.831	1.00 96.62	C
ATOM	9611	N3	C A 458	91.572	68.394	27.763	1.00133.17	N	ATOM	9661	P	C A 461	88.439	63.285	22.021	1.00101.02	P
ATOM	9612	C4	C A 458	92.228	67.234	27.673	1.00133.17	C	ATOM	9662	O1P	C A 461	88.269	61.901	22.526	1.00109.18	O
ATOM	9613	N4	C A 458	93.191	67.131	26.756	1.00133.17	N	ATOM	9663	O2P	C A 461	88.978	64.331	22.930	1.00109.18	O
ATOM	9614	C5	C A 458	91.920	66.127	28.513	1.00133.17	C	ATOM	9664	O5*	C A 461	89.375	63.196	20.735	1.00101.02	O
ATOM	9615	C6	C A 458	90.929	66.279	29.403	1.00133.17	C	ATOM	9665	C5*	C A 461	90.092	64.354	20.235	1.00101.02	C
ATOM	9616	P	G A 459	85.332	65.026	28.898	1.00 78.19	P	ATOM	9666	C4*	C A 461	91.590	64.150	20.376	1.00101.02	C
ATOM	9617	O1P	G A 459	83.910	64.788	29.245	1.00 93.37	O	ATOM	9667	O4*	C A 461	91.882	62.734	20.316	1.00101.02	O
ATOM	9618	O2P	G A 459	86.188	63.882	28.470	1.00 93.37	O	ATOM	9668	C3*	C A 461	92.441	64.822	19.301	1.00101.02	C
ATOM	9619	O5*	G A 459	85.364	66.149	27.767	1.00 78.19	O	ATOM	9669	O3*	C A 461	93.702	65.208	19.861	1.00101.02	O
ATOM	9620	C5*	G A 459	84.868	67.480	28.020	1.00 78.19	C	ATOM	9670	C2*	C A 461	92.665	63.688	18.301	1.00101.02	C
ATOM	9621	C4*	G A 459	85.411	68.450	26.993	1.00 78.19	C	ATOM	9671	O2*	C A 461	93.854	63.830	17.549	1.00101.02	O
ATOM	9622	O4*	G A 459	86.824	68.694	27.221	1.00 78.19	O	ATOM	9672	C1*	C A 461	92.726	62.462	19.221	1.00101.02	C
ATOM	9623	C3*	G A 459	85.328	67.976	25.557	1.00 78.19	O	ATOM	9673	N1	C A 461	92.267	61.191	18.631	1.00109.18	N
ATOM	9624	O3*	G A 459	84.073	68.250	24.967	1.00 78.19	C	ATOM	9674	O2	C A 461	93.008	60.022	18.875	1.00109.18	C
ATOM	9625	C2*	G A 459	86.432	68.763	24.865	1.00 78.19	C	ATOM	9675	O2	C A 461	94.050	60.092	19.552	1.00109.18	O
ATOM	9626	O2*	G A 459	86.009	70.046	24.439	1.00 78.19	O	ATOM	9676	N3	C A 461	92.569	58.848	18.368	1.00109.18	N
ATOM	9627	C1*	G A 459	87.483	68.863	25.976	1.00 78.19	C	ATOM	9677	C4	C A 461	91.448	58.808	17.640	1.00109.18	C
ATOM	9628	N9	G A 459	88.512	67.834	25.842	1.00 93.37	N	ATOM	9678	N4	C A 461	91.048	57.625	17.170	1.00109.18	N
ATOM	9629	C8	G A 459	88.786	66.808	26.712	1.00 93.37	C	ATOM	9679	C5	C A 461	90.686	59.980	17.365	1.00109.18	C
ATOM	9630	N7	G A 459	89.778	66.056	26.322	1.00 93.37	N	ATOM	9680	C6	C A 461	91.127	61.137	17.873	1.00109.18	C
ATOM	9631	C5	G A 459	90.184	66.617	25.120	1.00 93.37	C	ATOM	9681	P	G A 462	94.098	66.765	19.988	1.00 79.23	P
ATOM	9632	C6	G A 459	91.225	66.240	24.234	1.00 93.37	C	ATOM	9682	O1P	G A 462	95.523	66.871	19.584	1.00 87.72	O
ATOM	9633	O6	G A 459	92.027	65.306	24.340	1.00 93.37	O	ATOM	9683	O2P	G A 462	93.696	67.227	21.345	1.00 87.72	O
ATOM	9634	N1	G A 459	91.284	67.084	23.131	1.00 93.37	N	ATOM	9684	O5*	G A 462	93.198	67.506	18.892	1.00 79.23	O
ATOM	9635	C2	G A 459	90.454	68.151	22.908	1.00 93.37	C	ATOM	9685	C5*	G A 462	93.630	67.613	17.519	1.00 79.23	C
ATOM	9636	N2	G A 459	90.674	68.846	21.792	1.00 93.37	N	ATOM	9686	C4*	G A 462	93.004	68.820	16.842	1.00 79.23	C
ATOM	9637	N3	G A 459	89.483	68.511	23.721	1.00 93.37	N	ATOM	9687	O4*	G A 462	91.569	68.634	16.742	1.00 79.23	O
ATOM	9638	C4	G A 459	89.408	67.709	24.803	1.00 93.37	C	ATOM	9688	C3*	G A 462	93.176	70.183	17.508	1.00 79.23	C
ATOM	9639	P	A A 460	83.184	67.044	24.419	1.00100.39	P	ATOM	9689	O3*	G A 462	94.409	70.818	17.174	1.00 79.23	O
ATOM	9640	O1P	A A 460	81.842	67.590	24.114	1.00 96.62	O	ATOM	9690	C2*	G A 462	91.995	70.974	16.954	1.00 79.23	C
ATOM	9641	O2P	A A 460	83.330	65.919	25.388	1.00 96.62	O	ATOM	9691	O2*	G A 462	92.266	71.534	15.680	1.00 79.23	C
ATOM	9642	O5*	A A 460	83.838	66.652	23.022	1.00100.39	O	ATOM	9692	C1*	G A 462	90.913	69.892	16.845	1.00 79.23	C
ATOM	9643	C5*	A A 460	85.116	65.993	22.942	1.00100.39	C	ATOM	9693	N9	G A 462	90.019	69.855	18.006	1.00 87.72	N
ATOM	9644	C4*	A A 460	85.300	65.415	21.563	1.00100.39	C	ATOM	9694	C8	G A 462	89.781	68.780	18.829	1.00 87.72	C
ATOM	9645	O4*	A A 460	84.773	66.356	20.610	1.00100.39	O	ATOM	9695	N7	G A 462	88.958	69.052	19.804	1.00 87.72	N
ATOM	9646	C3*	A A 460	86.738	65.129	21.154	1.00100.39	C	ATOM	9696	C5	G A 462	88.626	70.385	19.616	1.00 87.72	C
ATOM	9647	O3*	A A 460	87.005	63.747	21.448	1.00100.39	O	ATOM	9697	C6	G A 462	87.768	71.229	20.365	1.00 87.72	C



Table 1: Sheet 99/521

ATOM	9698	O6	G A 462	87.121	70.958	21.383	1.00	87.72	O	ATOM	9748	C4	G A 474	91.722	73.475	24.992	1.00110.92		
ATOM	9699	N1	G A 462	87.700	72.506	19.820	1.00	87.72	N	ATOM	9749	P	G A 475	95.246	77.992	26.543	1.00	80.80	P
ATOM	9700	C2	G A 462	88.371	72.920	18.698	1.00	87.72	C	ATOM	9750	O1P	G A 475	95.724	79.271	27.128	1.00136.83	O	
ATOM	9701	N2	G A 462	88.175	74.194	18.329	1.00	87.72	N	ATOM	9751	O2P	G A 475	96.217	77.070	25.903	1.00136.83	O	
ATOM	9702	N3	G A 462	89.177	72.144	17.991	1.00	87.72	N	ATOM	9752	O5*	G A 475	94.477	77.185	27.678	1.00	80.80	O
ATOM	9703	C4	G A 462	89.259	70.896	18.505	1.00	87.72	C	ATOM	9753	C5*	G A 475	93.550	77.843	28.552	1.00	80.80	C
ATOM	9704	P	A A 463	95.043	71.914	18.168	1.00	68.49	P	ATOM	9754	C4*	G A 475	93.124	76.907	29.653	1.00	80.80	C
ATOM	9705	O1P	A A 463	96.159	72.550	17.436	1.00	78.14	O	ATOM	9755	O4*	G A 475	92.368	75.803	29.091	1.00	80.80	O
ATOM	9706	O2P	A A 463	95.294	71.299	19.499	1.00	78.14	O	ATOM	9756	C3*	G A 475	94.261	76.238	30.413	1.00	80.80	C
ATOM	9707	O5*	A A 463	93.897	73.009	18.326	1.00	68.49	O	ATOM	9757	O3*	G A 475	94.787	77.056	31.442	1.00	80.80	O
ATOM	9708	C5*	A A 463	93.835	74.165	17.459	1.00	68.49	C	ATOM	9758	C2*	G A 475	93.615	74.969	30.954	1.00	80.80	C
ATOM	9709	C4*	A A 463	92.968	75.246	18.078	1.00	68.49	C	ATOM	9759	O2*	G A 475	92.932	75.162	32.177	1.00	80.80	O
ATOM	9710	O4*	A A 463	91.613	74.745	18.226	1.00	68.49	O	ATOM	9760	C1*	G A 475	92.638	74.616	29.829	1.00	80.80	C
ATOM	9711	C3*	A A 463	93.352	75.698	19.480	1.00	68.49	C	ATOM	9761	N9	G A 475	93.203	73.616	28.926	1.00136.83	N	
ATOM	9712	O3*	A A 463	94.345	76.702	19.495	1.00	68.49	O	ATOM	9762	C8	G A 475	93.721	73.816	27.669	1.00136.83	C	
ATOM	9713	C2*	A A 463	92.041	76.228	20.041	1.00	68.49	C	ATOM	9763	N7	G A 475	94.185	72.724	27.127	1.00136.83	N	
ATOM	9714	O2*	A A 463	91.757	77.558	19.671	1.00	68.49	O	ATOM	9764	C5	G A 475	93.956	71.744	28.080	1.00136.83	C	
ATOM	9715	C1*	A A 463	91.026	75.291	19.396	1.00	68.49	C	ATOM	9765	C6	G A 475	94.252	70.358	28.061	1.00136.83	C	
ATOM	9716	N9	A A 463	90.687	74.206	20.316	1.00	78.14	N	ATOM	9766	O6	G A 475	94.804	69.700	27.174	1.00136.83	O	
ATOM	9717	C8	A A 463	91.136	72.907	20.337	1.00	78.14	C	ATOM	9767	N1	G A 475	93.837	69.732	29.231	1.00136.83	N	
ATOM	9718	N7	A A 463	90.642	72.193	21.317	1.00	78.14	N	ATOM	9768	C2	G A 475	93.219	70.358	30.286	1.00136.83	C	
ATOM	9719	C5	A A 463	89.811	73.079	21.986	1.00	78.14	C	ATOM	9769	N2	G A 475	92.878	69.580	31.326	1.00136.83	N	
ATOM	9720	C6	A A 463	88.990	72.933	23.115	1.00	78.14	C	ATOM	9770	N3	G A 475	92.950	71.651	30.320	1.00136.83	N	
ATOM	9721	N6	A A 463	88.871	71.793	23.799	1.00	78.14	N	ATOM	9771	C4	G A 475	93.340	72.276	29.191	1.00136.83	C	
ATOM	9722	N1	A A 463	88.286	74.013	23.522	1.00	78.14	N	ATOM	9772	P	G A 476	96.328	76.898	31.866	1.00102.75	P	
ATOM	9723	C2	A A 463	88.409	75.156	22.831	1.00	78.14	C	ATOM	9773	O1P	G A 476	96.668	78.070	32.714	1.00118.77	O	
ATOM	9724	N3	A A 463	89.147	75.415	21.755	1.00	78.14	N	ATOM	9774	O2P	G A 476	97.120	76.627	30.634	1.00118.77	O	
ATOM	9725	C4	A A 463	89.829	74.321	21.379	1.00	78.14	C	ATOM	9775	O5*	G A 476	96.347	75.600	32.790	1.00102.75	O	
ATOM	9726	P	G A 474	95.370	76.776	20.729	1.00	71.78	P	ATOM	9776	C5*	G A 476	95.601	75.568	34.014	1.00102.75	C	
ATOM	9727	O1P	G A 474	96.148	78.038	20.603	1.00110.92	O	ATOM	9777	C4*	G A 476	95.489	74.155	34.525	1.00102.75	C		
ATOM	9728	O2P	G A 474	96.087	75.476	20.788	1.00110.92	O	ATOM	9778	O4*	G A 476	94.784	73.338	33.556	1.00102.75	O		
ATOM	9729	O5*	G A 474	94.443	76.865	22.025	1.00	71.78	O	ATOM	9779	C3*	G A 476	96.800	73.423	34.764	1.00102.75	C	
ATOM	9730	C5*	G A 474	93.603	78.011	22.279	1.00	71.78	C	ATOM	9780	O3*	G A 476	97.344	73.735	36.041	1.00102.75	O	
ATOM	9731	C4*	G A 474	92.752	77.771	23.504	1.00	71.78	C	ATOM	9781	C2*	G A 476	96.391	71.958	34.657	1.00102.75	C	
ATOM	9732	O4*	G A 474	91.791	76.710	23.240	1.00	71.78	O	ATOM	9782	O2*	G A 476	95.857	71.429	35.854	1.00102.75	O	
ATOM	9733	C3*	G A 474	93.511	77.290	24.730	1.00	71.78	C	ATOM	9783	C1*	G A 476	95.294	72.015	33.593	1.00102.75	C	
ATOM	9734	O3*	G A 474	94.104	78.338	25.468	1.00	71.78	O	ATOM	9784	N9	G A 476	95.789	71.660	32.265	1.00118.77	N	
ATOM	9735	C2*	G A 474	92.447	76.550	25.534	1.00	71.78	C	ATOM	9785	C8	G A 476	95.860	72.464	31.152	1.00118.77	C	
ATOM	9736	O2*	G A 474	91.670	77.368	26.383	1.00	71.78	O	ATOM	9786	N7	G A 476	96.350	71.853	30.109	1.00118.77	N	
ATOM	9737	C1*	G A 474	91.588	75.941	24.425	1.00	71.78	C	ATOM	9787	C5	G A 476	96.623	70.569	30.561	1.00118.77	C	
ATOM	9738	N9	G A 474	91.996	74.557	24.183	1.00110.92	N	ATOM	9788	C6	G A 476	97.165	69.451	29.879	1.00118.77	C		
ATOM	9739	C8	G A 474	92.758	74.078	23.144	1.00110.92	C	ATOM	9789	O6	G A 476	97.521	69.369	28.700	1.00118.77	O		
ATOM	9740	N7	G A 474	93.014	72.802	23.242	1.00110.92	N	ATOM	9790	N1	G A 476	97.274	68.344	30.715	1.00118.77	N		
ATOM	9741	C5	G A 474	92.371	72.409	24.407	1.00110.92	C	ATOM	9791	C2	G A 476	96.907	68.314	32.036	1.00118.77	C		
ATOM	9742	C6	G A 474	92.301	71.137	25.034	1.00110.92	C	ATOM	9792	N2	G A 476	97.094	67.153	32.675	1.00118.77	N		
ATOM	9743	O6	G A 474	92.825	70.070	24.680	1.00110.92	O	ATOM	9793	N3	G A 476	96.397	69.348	32.683	1.00118.77	N		
ATOM	9744	N1	G A 474	91.532	71.181	26.193	1.00110.92	N	ATOM	9794	C4	G A 476	96.283	70.434	31.889	1.00118.77	C		
ATOM	9745	C2	G A 474	90.916	72.302	26.689	1.00110.92	C	ATOM	9795	P	G A 477	98.901	73.461	36.334	1.00106.85	P		
ATOM	9746	N2	G A 474	90.210	72.136	27.812	1.00110.92	N	ATOM	9796	O1P	G A 477	99.153	73.800	37.758	1.00148.84	O		
ATOM	9747	N3	G A 474	90.985	73.495	26.124	1.00110.92	N	ATOM	9797	O2P	G A 477	99.706	74.120	35.269	1.00148.84	O		



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ATOM	9798	O5*	G A 477	99.042	71.884	36.181	1.00106.85	O	ATOM	9848	O3*	C A 479	111.089	63.260	35.983	1.00	94.81	O
ATOM	9799	C5*	G A 477	98.414	71.001	37.117	1.00106.85	C	ATOM	9849	C2*	C A 479	110.251	63.576	33.688	1.00	94.81	C
ATOM	9800	C4*	G A 477	98.846	69.586	36.858	1.00106.85	C	ATOM	9850	O2*	C A 479	110.724	62.278	33.397	1.00	94.81	O
ATOM	9801	O4*	G A 477	98.275	69.116	35.611	1.00106.85	O	ATOM	9851	C1*	C A 479	108.813	63.704	33.182	1.00	94.81	C
ATOM	9802	C3*	G A 477	100.344	69.397	36.690	1.00106.85	C	ATOM	9852	N1	C A 479	108.539	65.037	32.618	1.00	92.05	N
ATOM	9803	O3*	G A 477	101.007	69.297	37.945	1.00106.85	O	ATOM	9853	C2	C A 479	108.835	65.272	31.266	1.00	92.05	C
ATOM	9804	C2*	G A 477	100.427	68.122	35.861	1.00106.85	C	ATOM	9854	O2	C A 479	109.309	64.349	30.581	1.00	92.05	O
ATOM	9805	O2*	G A 477	100.324	66.953	36.647	1.00106.85	O	ATOM	9855	N3	C A 479	108.602	66.496	30.744	1.00	92.05	N
ATOM	9806	C1*	G A 477	99.193	68.251	34.962	1.00106.85	C	ATOM	9856	C4	C A 479	108.099	67.465	31.512	1.00	92.05	C
ATOM	9807	N9	G A 477	99.510	68.811	33.651	1.00148.84	N	ATOM	9857	N4	C A 479	107.896	68.661	30.956	1.00	92.05	N
ATOM	9808	C8	G A 477	99.311	70.106	33.232	1.00148.84	C	ATOM	9858	C5	C A 479	107.783	67.252	32.885	1.00	92.05	C
ATOM	9809	N7	G A 477	99.708	70.315	32.006	1.00148.84	N	ATOM	9859	C6	C A 479	108.015	66.036	33.391	1.00	92.05	C
ATOM	9810	C5	G A 477	100.201	69.087	31.589	1.00148.84	C	ATOM	9860	P	U A 480	112.306	64.164	36.505	1.00	81.39	P
ATOM	9811	C6	G A 477	100.775	68.702	30.352	1.00148.84	C	ATOM	9861	O1P	U A 480	113.108	63.334	37.449	1.00	82.74	O
ATOM	9812	O6	G A 477	100.970	69.393	29.344	1.00148.84	O	ATOM	9862	O2P	U A 480	111.760	65.481	36.954	1.00	82.74	O
ATOM	9813	N1	G A 477	101.140	67.360	30.354	1.00148.84	N	ATOM	9863	O5*	U A 480	113.171	64.390	35.184	1.00	81.39	O
ATOM	9814	C2	G A 477	100.977	66.499	31.410	1.00148.84	C	ATOM	9864	C5*	U A 480	113.717	63.260	34.465	1.00	81.39	C
ATOM	9815	N2	G A 477	101.401	65.242	31.218	1.00148.84	N	ATOM	9865	C4*	U A 480	114.183	63.666	33.082	1.00	81.39	C
ATOM	9816	N3	G A 477	100.443	66.845	32.569	1.00148.84	N	ATOM	9866	O4*	U A 480	113.056	64.052	32.260	1.00	81.39	O
ATOM	9817	C4	G A 477	100.082	68.145	32.590	1.00148.84	C	ATOM	9867	C3*	U A 480	115.128	64.847	32.995	1.00	81.39	C
ATOM	9818	P	A A 478	102.588	69.571	38.034	1.00110.68	P	ATOM	9868	O3*	U A 480	116.456	64.469	33.246	1.00	81.39	O
ATOM	9819	O1P	A A 478	102.932	69.662	39.475	1.00124.02	O	ATOM	9869	C2*	U A 480	114.953	65.297	31.559	1.00	81.39	C
ATOM	9820	O2P	A A 478	102.931	70.697	37.129	1.00124.02	O	ATOM	9870	O2*	U A 480	115.692	64.496	30.667	1.00	81.39	O
ATOM	9821	O5*	A A 478	103.229	68.228	37.459	1.00110.68	O	ATOM	9871	C1*	U A 480	113.463	65.048	31.344	1.00	81.39	C
ATOM	9822	C5*	A A 478	103.020	66.975	37.330	1.00110.68	C	ATOM	9872	N1	U A 480	112.690	66.270	31.599	1.00	82.74	N
ATOM	9823	O4*	A A 478	103.552	65.815	38.143	1.00110.68	O	ATOM	9873	C2	U A 480	112.330	67.021	30.503	1.00	82.74	C
ATOM	9824	O4*	A A 478	102.786	65.669	36.109	1.00110.68	O	ATOM	9874	O2	U A 480	112.601	66.690	29.366	1.00	82.74	O
ATOM	9825	C3*	A A 478	104.996	65.893	36.867	1.00110.68	C	ATOM	9875	N3	U A 480	111.644	68.175	30.787	1.00	82.74	N
ATOM	9826	C2*	A A 478	105.901	65.494	37.885	1.00110.68	O	ATOM	9876	C4	U A 480	111.290	68.644	32.033	1.00	82.74	C
ATOM	9827	O3*	A A 478	105.010	64.942	35.676	1.00110.68	O	ATOM	9877	O4	U A 480	110.706	69.724	32.128	1.00	82.74	O
ATOM	9828	O2*	A A 478	105.113	63.580	36.054	1.00110.68	C	ATOM	9878	C5	U A 480	111.687	67.801	33.123	1.00	82.74	C
ATOM	9829	C1*	A A 478	103.627	65.184	35.074	1.00110.68	C	ATOM	9879	C6	U A 480	112.353	66.670	32.875	1.00	82.74	C
ATOM	9830	N9	A A 478	103.644	66.173	33.993	1.00124.02	N	ATOM	9880	P	G A 481	117.243	65.155	34.456	1.00	97.93	P
ATOM	9831	C8	A A 478	103.086	67.428	33.995	1.00124.02	C	ATOM	9881	O1P	G A 481	116.788	64.507	35.705	1.00	103.69	O
ATOM	9832	N7	A A 478	103.260	68.086	32.876	1.00124.02	N	ATOM	9882	O2P	G A 481	117.130	66.626	34.314	1.00	103.69	O
ATOM	9833	C5	A A 478	103.986	67.209	32.082	1.00124.02	C	ATOM	9883	O5*	G A 481	118.747	64.712	34.214	1.00	97.93	O
ATOM	9834	C6	A A 478	104.490	67.316	30.776	1.00124.02	C	ATOM	9884	C5*	G A 481	119.804	65.672	34.232	1.00	97.93	C
ATOM	9835	N6	A A 478	104.328	68.396	30.006	1.00124.02	N	ATOM	9885	C4*	G A 481	120.039	66.190	32.843	1.00	97.93	C
ATOM	9836	N1	A A 478	105.174	66.263	30.280	1.00124.02	N	ATOM	9886	O4*	G A 481	118.961	67.066	32.444	1.00	97.93	O
ATOM	9837	C2	A A 478	105.333	65.183	31.053	1.00124.02	C	ATOM	9887	C3*	G A 481	121.287	67.024	32.677	1.00	97.93	C
ATOM	9838	N3	A A 478	104.907	64.962	32.293	1.00124.02	N	ATOM	9888	O3*	G A 481	122.341	66.143	32.350	1.00	97.93	O
ATOM	9839	C4	A A 478	104.231	66.027	32.757	1.00124.02	C	ATOM	9889	C2*	G A 481	120.967	67.852	31.440	1.00	97.93	C
ATOM	9840	P	C A 479	107.402	66.064	37.877	1.00	94.81	ATOM	9890	O2*	G A 481	121.151	67.096	30.263	1.00	97.93	O
ATOM	9841	O1P	C A 479	108.047	65.679	39.156	1.00	92.05	ATOM	9891	C1*	G A 481	119.463	68.042	31.556	1.00	97.93	C
ATOM	9842	O2P	C A 479	107.351	67.500	37.483	1.00	92.05	ATOM	9892	N9	G A 481	119.024	69.366	31.975	1.00	103.69	N
ATOM	9843	O5*	C A 479	108.104	65.232	36.717	1.00	94.81	ATOM	9893	C8	G A 481	118.877	69.834	33.253	1.00	103.69	C
ATOM	9844	C5*	C A 479	108.036	63.795	36.706	1.00	94.81	ATOM	9894	N7	G A 481	118.341	71.023	33.301	1.00	103.69	N
ATOM	9845	C4*	C A 479	108.728	63.245	35.480	1.00	94.81	ATOM	9895	C5	G A 481	118.148	71.368	31.973	1.00	103.69	C
ATOM	9846	O4*	C A 479	107.944	63.485	34.281	1.00	94.81	ATOM	9896	C6	G A 481	117.563	72.523	31.402	1.00	103.69	C
ATOM	9847	C3*	C A 479	110.083	63.850	35.179	1.00	94.81	ATOM	9897	O6	G A 481	117.038	73.490	31.980	1.00	103.69	O



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ATOM	9898	N1	G A 481	117.603	72.479	30.013	1.00103.69	N	ATOM	9948	O5*	G A 484	130.674	71.176	34.318	1.00 63.08	O
ATOM	9899	C2	G A 481	118.122	71.446	29.272	1.00103.69	C	ATOM	9949	C5*	G A 484	131.257	70.964	35.613	1.00 63.08	C
ATOM	9900	N2	G A 481	118.107	71.600	27.946	1.00103.69	N	ATOM	9950	C4*	G A 484	130.236	70.367	36.542	1.00 63.08	C
ATOM	9901	N3	G A 481	118.628	70.348	29.795	1.00103.69	N	ATOM	9951	O4*	G A 484	129.182	71.348	36.738	1.00 63.08	O
ATOM	9902	C4	G A 481	118.610	70.376	31.141	1.00103.69	C	ATOM	9952	C3*	G A 484	129.564	69.094	36.042	1.00 63.08	C
ATOM	9903	P	G A 482	123.333	65.622	33.485	1.00 62.48	P	ATOM	9953	O3*	G A 484	129.772	67.903	36.846	1.00 63.08	O
ATOM	9904	O1P	A A 482	122.880	64.245	33.787	1.00 71.59	O	ATOM	9954	C2*	G A 484	128.170	69.527	35.571	1.00 63.08	C
ATOM	9905	O2P	A A 482	123.437	66.629	34.582	1.00 71.59	O	ATOM	9955	O2*	G A 484	127.158	68.572	35.822	1.00 63.08	O
ATOM	9906	O5*	A A 482	124.731	65.548	32.721	1.00 62.48	O	ATOM	9956	C1*	G A 484	127.920	70.820	36.355	1.00 63.08	C
ATOM	9907	C5*	A A 482	125.076	64.422	31.870	1.00 62.48	C	ATOM	9957	N9	G A 484	127.233	71.848	35.562	1.00 70.65	N
ATOM	9908	C4*	A A 482	126.057	64.851	30.800	1.00 62.48	C	ATOM	9958	C8	G A 484	127.790	72.618	34.567	1.00 70.65	C
ATOM	9909	O4*	A A 482	125.348	65.224	29.600	1.00 62.48	O	ATOM	9959	N7	G A 484	126.942	73.449	34.022	1.00 70.65	N
ATOM	9910	C3*	A A 482	126.902	66.059	31.165	1.00 62.48	C	ATOM	9960	C5	G A 484	125.746	73.222	34.695	1.00 70.65	C
ATOM	9911	O3*	A A 482	128.074	65.683	31.860	1.00 62.48	O	ATOM	9961	C6	G A 484	124.459	73.824	34.531	1.00 70.65	C
ATOM	9912	C2*	A A 482	127.223	66.686	29.818	1.00 62.48	C	ATOM	9962	O6	G A 484	124.117	74.704	33.745	1.00 70.65	O
ATOM	9913	O2*	A A 482	128.373	66.149	29.202	1.00 62.48	O	ATOM	9963	N1	G A 484	123.530	73.298	35.408	1.00 70.65	N
ATOM	9914	C1*	A A 482	125.974	66.344	29.006	1.00 62.48	C	ATOM	9964	C2	G A 484	123.787	72.328	36.330	1.00 70.65	C
ATOM	9915	N9	A A 482	125.006	67.436	28.988	1.00 71.59	N	ATOM	9965	N2	G A 484	122.750	71.961	37.093	1.00 70.65	N
ATOM	9916	C8	A A 482	123.757	67.433	29.536	1.00 71.59	C	ATOM	9966	N3	G A 484	124.973	71.754	36.500	1.00 70.65	N
ATOM	9917	N7	A A 482	123.099	68.548	29.363	1.00 71.59	N	ATOM	9967	C4	G A 484	125.902	72.243	35.652	1.00 70.65	C
ATOM	9918	C5	A A 482	123.976	69.345	28.655	1.00 71.59	C	ATOM	9968	P	G A 485	129.378	67.867	38.413	1.00 92.00	P
ATOM	9919	C6	A A 482	123.867	70.652	28.163	1.00 71.59	C	ATOM	9969	O1P	G A 485	129.495	66.450	38.832	1.00 84.70	O
ATOM	9920	N6	A A 482	122.777	71.414	28.321	1.00 71.59	N	ATOM	9970	O2P	G A 485	128.094	68.588	38.637	1.00 84.70	O
ATOM	9921	N1	A A 482	124.927	71.158	27.493	1.00 71.59	N	ATOM	9971	O5*	G A 485	130.571	68.663	39.116	1.00 92.00	O
ATOM	9922	C2	A A 482	126.015	70.386	27.339	1.00 71.59	C	ATOM	9972	C5*	G A 485	130.472	69.125	40.484	1.00 92.00	C
ATOM	9923	N3	A A 482	126.232	69.143	27.757	1.00 71.59	N	ATOM	9973	C4*	G A 485	129.799	70.474	40.517	1.00 92.00	C
ATOM	9924	C4	A A 482	125.159	68.674	28.415	1.00 71.59	C	ATOM	9974	O4*	G A 485	128.453	70.334	41.019	1.00 92.00	O
ATOM	9925	P	C A 483	128.592	66.592	33.074	1.00 58.74	P	ATOM	9975	C3*	G A 485	130.398	71.569	41.390	1.00 92.00	C
ATOM	9926	O1P	C A 483	129.895	66.065	33.559	1.00 76.14	O	ATOM	9976	O3*	G A 485	131.450	72.199	40.646	1.00 92.00	O
ATOM	9927	O2P	C A 483	127.451	66.719	34.019	1.00 76.14	O	ATOM	9977	C2*	G A 485	129.216	72.520	41.606	1.00 92.00	C
ATOM	9928	O5*	C A 483	128.847	68.016	32.405	1.00 58.74	O	ATOM	9978	O2*	G A 485	129.146	73.523	40.614	1.00 92.00	O
ATOM	9929	C5*	C A 483	129.731	68.169	31.278	1.00 58.74	C	ATOM	9979	C1*	G A 485	128.008	71.602	41.428	1.00 92.00	C
ATOM	9930	C4*	C A 483	129.575	69.547	30.684	1.00 58.74	C	ATOM	9980	N9	G A 485	127.096	71.478	42.557	1.00 84.70	N
ATOM	9931	O4*	C A 483	128.253	69.693	30.108	1.00 58.74	O	ATOM	9981	C8	G A 485	127.309	70.901	43.784	1.00 84.70	C
ATOM	9932	C3*	C A 483	129.692	70.684	31.680	1.00 58.74	C	ATOM	9982	N7	G A 485	126.253	70.946	44.556	1.00 84.70	N
ATOM	9933	O3*	C A 483	131.045	71.038	31.835	1.00 58.74	O	ATOM	9983	C5	G A 485	125.294	71.597	43.788	1.00 84.70	C
ATOM	9934	C2*	C A 483	128.880	71.799	31.037	1.00 58.74	C	ATOM	9984	C6	G A 485	123.936	71.939	44.079	1.00 84.70	C
ATOM	9935	O2*	C A 483	129.618	72.537	30.092	1.00 58.74	O	ATOM	9985	O6	G A 485	123.283	71.717	45.108	1.00 84.70	O
ATOM	9936	C1*	C A 483	127.781	71.014	30.320	1.00 58.74	C	ATOM	9986	N1	G A 485	123.341	72.606	43.012	1.00 84.70	N
ATOM	9937	N1	C A 483	126.533	70.942	31.094	1.00 76.14	N	ATOM	9987	C2	G A 485	123.963	72.901	41.822	1.00 84.70	C
ATOM	9938	C2	C A 483	125.521	71.865	30.830	1.00 76.14	C	ATOM	9988	N2	G A 485	123.241	73.552	40.908	1.00 84.70	N
ATOM	9939	O2	C A 483	125.701	72.722	29.954	1.00 76.14	O	ATOM	9989	N3	G A 485	125.207	72.582	41.542	1.00 84.70	N
ATOM	9940	N3	C A 483	124.373	71.805	31.540	1.00 76.14	N	ATOM	9990	C4	G A 485	125.807	71.938	42.560	1.00 84.70	C
ATOM	9941	C4	C A 483	124.220	70.874	32.486	1.00 76.14	C	ATOM	9991	P	U A 486	131.960	73.690	41.020	1.00 97.48	P
ATOM	9942	N4	C A 483	123.075	70.859	33.172	1.00 76.14	N	ATOM	9992	O1P	U A 486	133.417	73.550	41.302	1.00 71.86	O
ATOM	9943	C5	C A 483	125.235	69.921	32.775	1.00 76.14	C	ATOM	9993	O2P	U A 486	131.087	74.352	42.030	1.00 71.86	O
ATOM	9944	C6	C A 483	126.362	69.988	32.062	1.00 76.14	C	ATOM	9994	O5*	U A 486	131.799	74.493	39.649	1.00 97.48	O
ATOM	9945	P	G A 484	131.511	71.841	33.139	1.00 63.08	P	ATOM	9995	C5*	U A 486	132.807	74.397	38.627	1.00 97.48	C
ATOM	9946	O1P	G A 484	131.065	73.250	32.959	1.00 70.65	O	ATOM	9996	C4*	U A 486	132.315	74.989	37.332	1.00 97.48	C
ATOM	9947	O2P	G A 484	132.953	71.546	33.359	1.00 70.65	O	ATOM	9997	O4*	U A 486	131.195	74.218	36.835	1.00 97.48	O



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ATOM	9998	C3*	U A 486	131.792	76.411	37.384	1.00	97.48	C	ATOM	10048	N3	C A 488	127.419	80.993	41.471	1.00	65.26	N
ATOM	9999	O3*	U A 486	132.839	77.371	37.336	1.00	97.48	O	ATOM	10049	C4	C A 488	128.665	80.733	41.063	1.00	65.26	C
ATOM	10000	C2*	U A 486	130.897	76.477	36.153	1.00	97.48	C	ATOM	10050	N4	C A 488	129.363	79.803	41.711	1.00	65.26	N
ATOM	10001	O2*	U A 486	131.598	76.720	34.951	1.00	97.48	O	ATOM	10051	C5	C A 488	129.254	81.414	39.968	1.00	65.26	C
ATOM	10002	C1*	U A 486	130.323	75.063	36.112	1.00	97.48	C	ATOM	10052	C6	C A 488	128.514	82.336	39.347	1.00	65.26	C
ATOM	10003	N1	U A 486	128.988	75.011	36.721	1.00	71.86	N	ATOM	10053	P	C A 489	128.317	87.603	40.816	1.00	77.41	P
ATOM	10004	C2	U A 486	127.969	75.664	36.058	1.00	71.86	C	ATOM	10054	O1P	C A 489	128.270	89.084	40.676	1.00	62.46	O
ATOM	10005	O2	U A 486	128.135	76.240	35.003	1.00	71.86	O	ATOM	10055	O2P	C A 489	129.605	86.938	41.169	1.00	62.46	O
ATOM	10006	N3	U A 486	126.749	75.622	36.677	1.00	71.86	N	ATOM	10056	O5*	C A 489	127.213	87.156	41.876	1.00	77.41	O
ATOM	10007	C4	U A 486	126.450	75.010	37.864	1.00	71.86	C	ATOM	10057	C5*	C A 489	125.902	87.763	41.877	1.00	77.41	C
ATOM	10008	O4	U A 486	125.320	75.126	38.328	1.00	71.86	O	ATOM	10058	C4*	C A 489	125.155	87.406	43.141	1.00	77.41	C
ATOM	10009	C5	U A 486	127.547	74.340	38.484	1.00	71.86	C	ATOM	10059	O4*	C A 489	124.826	85.992	43.117	1.00	77.41	O
ATOM	10010	C6	U A 486	128.751	74.362	37.904	1.00	71.86	C	ATOM	10060	C3*	C A 489	125.937	87.603	44.430	1.00	77.41	C
ATOM	10011	P	A A 487	132.633	78.800	38.047	1.00	73.73	P	ATOM	10061	O3*	C A 489	125.905	88.934	44.922	1.00	77.41	O
ATOM	10012	O1P	A A 487	133.878	79.598	37.852	1.00	73.83	O	ATOM	10062	C2*	C A 489	125.283	86.601	45.373	1.00	77.41	C
ATOM	10013	O2P	A A 487	132.131	78.546	39.425	1.00	73.83	O	ATOM	10063	O2*	C A 489	124.102	87.088	45.990	1.00	77.41	O
ATOM	10014	O5*	A A 487	131.461	79.476	37.207	1.00	73.73	O	ATOM	10064	C1*	C A 489	124.973	85.444	44.418	1.00	77.41	C
ATOM	10015	C5*	A A 487	131.667	79.826	35.834	1.00	73.73	C	ATOM	10065	N1	C A 489	126.085	84.471	44.381	1.00	62.46	N
ATOM	10016	C4*	A A 487	130.506	80.629	35.321	1.00	73.73	C	ATOM	10066	C2	C A 489	126.174	83.490	45.383	1.00	62.46	C
ATOM	10017	O4*	A A 487	129.320	79.802	35.310	1.00	73.73	O	ATOM	10067	O2	C A 489	127.219	82.628	45.366	1.00	62.46	O
ATOM	10018	C3*	A A 487	130.129	81.838	36.155	1.00	73.73	C	ATOM	10068	N3	C A 489	128.134	82.706	44.398	1.00	62.46	N
ATOM	10019	O3*	A A 487	130.889	82.967	35.787	1.00	73.73	O	ATOM	10069	C4	C A 489	129.143	81.842	44.422	1.00	62.46	N
ATOM	10020	C2*	A A 487	128.660	82.033	35.817	1.00	73.73	C	ATOM	10070	N4	C A 489	128.055	83.674	43.364	1.00	62.46	C
ATOM	10021	O2*	A A 487	128.486	82.751	34.610	1.00	73.73	O	ATOM	10071	C5	C A 489	127.028	84.528	43.392	1.00	62.46	C
ATOM	10022	C1*	A A 487	128.190	80.587	35.642	1.00	73.73	C	ATOM	10072	C6	C A 489	127.080	89.444	45.899	1.00	86.12	P
ATOM	10023	N9	A A 487	127.599	80.025	36.855	1.00	73.83	N	ATOM	10073	P	G A 490	126.789	90.870	46.171	1.00	90.36	O
ATOM	10024	C8	A A 487	128.170	79.143	37.745	1.00	73.83	C	ATOM	10074	O1P	G A 490	128.416	89.054	45.382	1.00	90.36	O
ATOM	10025	N7	A A 487	127.376	78.797	38.726	1.00	73.83	N	ATOM	10075	O2P	G A 490	126.851	88.618	47.237	1.00	86.12	O
ATOM	10026	C5	A A 487	126.205	79.499	39.131	1.00	73.83	C	ATOM	10076	O5*	G A 490	125.702	88.853	48.069	1.00	86.12	C
ATOM	10027	C6	A A 487	124.975	79.550	39.131	1.00	73.83	C	ATOM	10077	C5*	G A 490	125.779	87.986	49.298	1.00	86.12	C
ATOM	10028	N6	A A 487	124.699	78.843	40.225	1.00	73.83	N	ATOM	10078	C4*	G A 490	125.655	86.595	48.901	1.00	86.12	O
ATOM	10029	N1	A A 487	124.022	80.356	38.624	1.00	73.83	N	ATOM	10079	O4*	G A 490	127.110	88.059	50.034	1.00	86.12	C
ATOM	10030	C2	A A 487	124.296	81.053	37.518	1.00	73.83	C	ATOM	10080	C3*	G A 490	127.178	89.144	50.944	1.00	86.12	O
ATOM	10031	N3	A A 487	125.408	81.078	36.794	1.00	73.83	N	ATOM	10081	O3*	G A 490	127.199	86.704	50.724	1.00	86.12	C
ATOM	10032	C4	A A 487	126.335	80.269	37.329	1.00	73.83	C	ATOM	10082	C2*	G A 490	126.543	86.658	51.977	1.00	86.12	O
ATOM	10033	P	C A 488	131.279	84.050	36.899	1.00	68.98	P	ATOM	10083	O2*	G A 490	126.513	85.791	49.700	1.00	86.12	C
ATOM	10034	O1P	C A 488	131.707	85.273	36.155	1.00	65.26	O	ATOM	10084	C1*	G A 490	127.502	85.160	48.830	1.00	90.36	N
ATOM	10035	O2P	C A 488	132.218	83.402	37.863	1.00	65.26	O	ATOM	10085	N9	G A 490	127.829	85.516	47.542	1.00	90.36	C
ATOM	10036	O5*	C A 488	129.892	84.368	37.619	1.00	68.98	O	ATOM	10086	C8	G A 490	128.820	84.821	47.055	1.00	90.36	N
ATOM	10037	C5*	C A 488	128.898	85.175	36.963	1.00	68.98	C	ATOM	10087	N7	G A 490	129.159	83.943	48.077	1.00	90.36	C
ATOM	10038	C4*	C A 488	127.621	85.213	37.768	1.00	68.98	C	ATOM	10088	C5	G A 490	130.183	82.962	48.146	1.00	90.36	C
ATOM	10039	O4*	C A 488	127.033	83.888	37.803	1.00	68.98	O	ATOM	10089	C6	G A 490	131.043	82.680	47.297	1.00	90.36	O
ATOM	10040	C3*	C A 488	127.749	85.611	39.231	1.00	68.98	C	ATOM	10090	O6	G A 490	130.156	82.284	49.361	1.00	90.36	N
ATOM	10041	O3*	C A 488	127.758	87.012	39.432	1.00	68.98	O	ATOM	10091	N1	G A 490	129.273	82.526	50.382	1.00	90.36	C
ATOM	10042	C2*	C A 488	126.518	84.972	39.847	1.00	68.98	C	ATOM	10092	C2	G A 490	129.402	81.758	51.468	1.00	90.36	N
ATOM	10043	O2*	C A 488	125.357	85.746	39.612	1.00	68.98	O	ATOM	10093	N2	G A 490	128.333	83.451	50.339	1.00	90.36	N
ATOM	10044	C1*	C A 488	126.447	83.657	39.073	1.00	68.98	C	ATOM	10094	N3	G A 490	128.333	84.118	49.166	1.00	90.36	C
ATOM	10045	N1	C A 488	127.239	82.617	39.753	1.00	65.26	N	ATOM	10095	C4	G A 490	128.602	89.821	51.259	1.00	70.45	P
ATOM	10046	C2	C A 488	126.678	81.932	40.832	1.00	65.26	C	ATOM	10096	P	G A 491	128.320	91.071	52.015	1.00	114.15	O
ATOM	10047	O2	C A 488	125.513	82.204	41.179	1.00	65.26	O	ATOM	10097	O1P	G A 491						



ATOM	10098	O2P	G A 491	129.385	89.887	49.998	1.00114.15	O	ATOM	10148	O4*	G A 494	140.235	85.561	54.076	1.00	74.38	O
ATOM	10099	O5*	G A 491	129.317	88.789	52.245	1.00 70.45	O	ATOM	10149	C3*	G A 494	141.795	87.310	54.280	1.00	74.38	C
ATOM	10100	C5*	G A 491	128.778	88.533	53.561	1.00 70.45	C	ATOM	10150	O3*	G A 494	143.055	87.636	54.845	1.00	74.38	O
ATOM	10101	C4*	G A 491	129.551	87.434	54.252	1.00 70.45	C	ATOM	10151	C2*	G A 494	141.935	86.719	52.885	1.00	74.38	C
ATOM	10102	O4*	G A 491	129.319	86.166	53.589	1.00 70.45	O	ATOM	10152	O2*	G A 494	143.054	85.864	52.779	1.00	74.38	O
ATOM	10103	C3*	G A 491	131.060	87.592	54.268	1.00 70.45	C	ATOM	10153	C1*	G A 494	140.649	85.900	52.764	1.00	74.38	C
ATOM	10104	O3*	G A 491	131.483	88.433	55.326	1.00 70.45	O	ATOM	10154	N9	G A 494	139.575	86.668	52.146	1.00	89.62	N
ATOM	10105	C2*	G A 491	131.549	86.158	54.439	1.00 70.45	C	ATOM	10155	C8	G A 494	138.505	87.241	52.787	1.00	89.62	C
ATOM	10106	O2*	G A 491	131.570	85.708	55.775	1.00 70.45	O	ATOM	10156	N7	G A 494	137.717	87.898	51.984	1.00	89.62	N
ATOM	10107	C1*	G A 491	130.493	85.371	53.663	1.00 70.45	C	ATOM	10157	C5	G A 494	138.299	87.747	50.735	1.00	89.62	C
ATOM	10108	N9	G A 491	130.950	85.081	52.308	1.00114.15	N	ATOM	10158	C6	G A 494	137.895	88.243	49.471	1.00	89.62	C
ATOM	10109	C8	G A 491	130.493	85.635	51.138	1.00114.15	C	ATOM	10159	O6	G A 494	136.920	88.947	49.195	1.00	89.62	O
ATOM	10110	N7	G A 491	131.125	85.199	50.084	1.00114.15	N	ATOM	10160	N1	G A 494	138.764	87.844	48.468	1.00	89.62	N
ATOM	10111	C5	G A 491	132.051	84.298	50.586	1.00114.15	C	ATOM	10161	C2	G A 494	139.880	87.076	48.654	1.00	89.62	C
ATOM	10112	C6	G A 491	133.019	83.515	49.916	1.00114.15	C	ATOM	10162	N2	G A 494	140.588	86.806	47.557	1.00	89.62	N
ATOM	10113	O6	G A 491	133.262	83.460	48.703	1.00114.15	O	ATOM	10163	N3	G A 494	140.273	86.609	49.827	1.00	89.62	N
ATOM	10114	N1	G A 491	133.747	82.737	50.807	1.00114.15	N	ATOM	10164	C4	G A 494	139.441	86.981	50.817	1.00	89.62	C
ATOM	10115	C2	G A 491	133.567	82.715	52.165	1.00114.15	C	ATOM	10165	P	U A 495	143.697	89.086	54.573	1.00	82.75	P
ATOM	10116	N2	G A 491	134.367	81.895	52.848	1.00114.15	N	ATOM	10166	O1P	U A 495	143.985	89.727	55.887	1.00	88.12	O
ATOM	10117	N3	G A 491	132.669	83.443	52.803	1.00114.15	N	ATOM	10167	O2P	U A 495	142.828	89.786	53.591	1.00	88.12	O
ATOM	10118	C4	G A 491	131.950	84.206	51.957	1.00114.15	C	ATOM	10168	O5*	U A 495	145.099	88.764	53.886	1.00	82.75	O
ATOM	10119	P	G A 492	132.911	89.167	55.236	1.00 72.94	P	ATOM	10169	C5*	U A 495	146.042	87.892	54.527	1.00	82.75	C
ATOM	10120	O1P	G A 492	133.054	90.022	56.445	1.00118.45	O	ATOM	10170	C4*	U A 495	146.936	87.237	53.502	1.00	82.75	C
ATOM	10121	O2P	G A 492	133.043	89.777	53.886	1.00118.45	O	ATOM	10171	O4*	U A 495	146.149	86.439	52.586	1.00	82.75	O
ATOM	10122	O5*	G A 492	133.970	87.986	55.359	1.00 72.94	O	ATOM	10172	C3*	U A 495	147.731	88.170	52.607	1.00	82.75	C
ATOM	10123	C5*	G A 492	134.075	87.225	56.570	1.00 72.94	C	ATOM	10173	O3*	U A 495	148.926	88.546	53.250	1.00	82.75	O
ATOM	10124	C4*	G A 492	135.112	86.147	56.418	1.00 72.94	C	ATOM	10174	C2*	U A 495	148.025	87.305	51.389	1.00	82.75	C
ATOM	10125	O4*	G A 492	134.700	85.217	55.388	1.00 72.94	O	ATOM	10175	O2*	U A 495	149.153	86.473	51.556	1.00	82.75	O
ATOM	10126	C3*	G A 492	136.487	86.622	55.986	1.00 72.94	C	ATOM	10176	C1*	U A 495	146.767	86.442	51.311	1.00	82.75	C
ATOM	10127	O3*	G A 492	137.244	87.027	57.110	1.00 72.94	O	ATOM	10177	N1	U A 495	145.810	86.939	50.315	1.00	88.12	N
ATOM	10128	C2*	G A 492	137.081	85.380	55.334	1.00 72.94	C	ATOM	10178	C2	U A 495	146.049	86.616	48.999	1.00	88.12	C
ATOM	10129	O2*	G A 492	137.651	84.492	56.273	1.00 72.94	O	ATOM	10179	O2	U A 495	147.010	85.959	48.640	1.00	88.12	O
ATOM	10130	C1*	G A 492	135.843	84.730	54.707	1.00 72.94	C	ATOM	10180	N3	U A 495	145.127	87.092	48.113	1.00	88.12	N
ATOM	10131	N9	G A 492	135.698	85.007	53.280	1.00118.45	N	ATOM	10181	C4	U A 495	144.023	87.842	48.398	1.00	88.12	C
ATOM	10132	C8	G A 492	134.666	85.669	52.659	1.00118.45	C	ATOM	10182	O4	U A 495	143.266	88.141	47.493	1.00	88.12	O
ATOM	10133	N7	G A 492	134.816	85.753	51.365	1.00118.45	N	ATOM	10183	C5	U A 495	143.843	88.148	49.775	1.00	88.12	C
ATOM	10134	C5	G A 492	136.023	85.116	51.116	1.00118.45	C	ATOM	10184	C6	U A 495	144.720	87.695	50.667	1.00	88.12	C
ATOM	10135	C6	G A 492	136.715	84.904	49.897	1.00118.45	C	ATOM	10185	P	A A 496	149.415	90.066	53.189	1.00	83.08	P
ATOM	10136	O6	G A 492	136.391	85.250	48.754	1.00118.45	O	ATOM	10185	O1P	A A 496	150.563	90.133	54.129	1.00	72.03	O
ATOM	10137	N1	G A 492	137.903	84.213	50.100	1.00118.45	N	ATOM	10187	O2P	A A 496	148.251	90.976	53.368	1.00	72.03	O
ATOM	10138	C2	G A 492	138.369	83.784	51.318	1.00118.45	C	ATOM	10188	O5*	A A 496	149.968	90.240	51.709	1.00	83.08	O
ATOM	10139	N2	G A 492	139.533	83.127	51.307	1.00118.45	N	ATOM	10189	C5*	A A 496	150.982	91.209	51.420	1.00	83.08	C
ATOM	10140	N3	G A 492	137.739	83.981	52.460	1.00118.45	N	ATOM	10190	C4*	A A 496	151.405	91.108	49.980	1.00	83.08	C
ATOM	10141	C4	G A 492	136.579	84.647	52.286	1.00118.45	C	ATOM	10191	O4*	A A 496	150.243	91.255	49.122	1.00	83.08	O
ATOM	10142	P	G A 494	138.313	88.216	56.966	1.00 74.38	P	ATOM	10192	C3*	A A 496	152.412	92.174	49.555	1.00	83.08	C
ATOM	10143	O1P	G A 494	139.021	88.358	58.272	1.00 89.62	O	ATOM	10193	O3*	A A 496	153.360	91.686	48.594	1.00	83.08	O
ATOM	10144	O2P	G A 494	137.595	89.383	56.389	1.00 89.62	O	ATOM	10194	C2*	A A 496	151.525	93.200	48.850	1.00	83.08	C
ATOM	10145	O5*	G A 494	139.367	87.659	55.905	1.00 74.38	O	ATOM	10195	O2*	A A 496	152.206	93.969	47.875	1.00	83.08	O
ATOM	10146	C5*	G A 494	140.308	86.622	56.261	1.00 74.38	C	ATOM	10196	C1*	A A 496	150.474	92.296	48.207	1.00	83.08	C
ATOM	10147	C4*	G A 494	141.109	86.193	55.048	1.00 74.38	C	ATOM	10197	N9	A A 496	149.198	92.926	47.872	1.00	72.03	N



Table 1: Sheet 104/521

ATOM	10198	C8	A	A	496	148.282	93.556	48.676	1.00	72.03	C	ATOM	10248	C6	U	A	498	151.696	87.121	36.994	1.00	67.92	C
ATOM	10199	N7	A	A	496	147.239	94.017	48.025	1.00	72.03	N	ATOM	10249	P	A	A	499	157.140	89.334	38.747	1.00	56.36	P
ATOM	10200	C5	A	A	496	147.484	93.660	46.704	1.00	72.03	C	ATOM	10250	O1P	A	A	499	158.496	89.403	39.363	1.00	53.83	O
ATOM	10201	C6	A	A	496	146.754	93.850	45.505	1.00	72.03	C	ATOM	10251	O2P	A	A	499	156.159	90.428	39.007	1.00	53.83	O
ATOM	10202	N6	A	A	496	145.575	94.473	45.430	1.00	72.03	N	ATOM	10252	O5*	A	A	499	157.344	89.215	37.164	1.00	56.36	O
ATOM	10203	N1	A	A	496	147.287	93.366	44.365	1.00	72.03	N	ATOM	10253	C5*	A	A	499	158.424	88.433	36.593	1.00	56.36	C
ATOM	10204	C2	A	A	496	148.466	92.737	44.426	1.00	72.03	C	ATOM	10254	C4*	A	A	499	158.673	88.840	35.154	1.00	56.36	C
ATOM	10205	N3	A	A	496	149.240	92.496	45.479	1.00	72.03	N	ATOM	10255	O4*	A	A	499	157.447	88.692	34.393	1.00	56.36	C
ATOM	10206	C4	A	A	496	148.686	92.988	46.599	1.00	72.03	C	ATOM	10256	C3*	A	A	499	159.135	90.281	34.932	1.00	56.36	C
ATOM	10207	P	A	A	497	153.936	90.183	48.687	1.00102.49	P	ATOM	10257	O3*	A	A	499	159.967	90.344	33.774	1.00	56.36	O	
ATOM	10208	O1P	A	A	497	153.635	89.596	50.020	1.00	77.69	O	ATOM	10258	C2*	A	A	499	157.849	90.982	34.524	1.00	56.36	C
ATOM	10209	O2P	A	A	497	155.342	90.225	48.208	1.00	77.69	O	ATOM	10259	O2*	A	A	499	158.080	92.126	33.734	1.00	56.36	O
ATOM	10210	O5*	A	A	497	153.058	89.401	47.610	1.00102.49	O	ATOM	10260	C1*	A	A	499	157.196	89.887	33.696	1.00	56.36	C	
ATOM	10211	C5*	A	A	497	153.436	88.093	47.149	1.00102.49	C	ATOM	10261	N9	A	A	499	155.768	90.010	33.434	1.00	53.83	N	
ATOM	10212	C4*	A	A	497	152.580	87.683	45.972	1.00102.49	C	ATOM	10262	C8	A	A	499	154.716	89.836	34.286	1.00	53.83	C	
ATOM	10213	O4*	A	A	497	151.194	87.655	46.385	1.00102.49	O	ATOM	10263	N7	A	A	499	153.547	89.982	33.715	1.00	53.83	N	
ATOM	10214	C3*	A	A	497	152.596	88.616	44.769	1.00102.49	C	ATOM	10264	C5	A	A	499	153.855	90.280	32.399	1.00	53.83	C	
ATOM	10215	O3*	A	A	497	153.756	88.430	43.923	1.00102.49	O	ATOM	10265	C6	A	A	499	153.057	90.525	31.285	1.00	53.83	C	
ATOM	10216	C2*	A	A	497	151.227	88.421	44.109	1.00102.49	C	ATOM	10266	N6	A	A	499	151.724	90.518	31.321	1.00	53.83	N	
ATOM	10217	O2*	A	A	497	151.168	87.478	43.060	1.00102.49	O	ATOM	10267	N1	A	A	499	153.677	90.779	30.112	1.00	53.83	N	
ATOM	10218	C1*	A	A	497	150.366	87.930	45.275	1.00102.49	C	ATOM	10268	C2	A	A	499	155.012	90.785	30.080	1.00	53.83	C	
ATOM	10219	N9	A	A	497	149.249	88.776	45.701	1.00	77.69	N	ATOM	10269	N3	A	A	499	155.870	90.565	31.063	1.00	53.83	N
ATOM	10220	C8	A	A	497	148.972	89.233	46.963	1.00	77.69	C	ATOM	10270	C4	A	A	499	155.218	90.312	32.213	1.00	53.83	C
ATOM	10221	N7	A	A	497	147.851	89.908	47.048	1.00	77.69	N	ATOM	10271	P	G	A	500	161.498	89.878	33.842	1.00	55.16	P
ATOM	10222	C5	A	A	497	147.362	89.908	45.751	1.00	77.69	C	ATOM	10272	O1P	G	A	500	161.648	88.945	34.989	1.00	55.87	O
ATOM	10223	C6	A	A	497	146.198	90.451	45.176	1.00	77.69	C	ATOM	10273	O2P	G	A	500	162.366	91.074	33.743	1.00	55.87	O
ATOM	10224	N6	A	A	497	145.260	91.095	45.867	1.00	77.69	N	ATOM	10274	O5*	G	A	500	161.673	89.036	32.505	1.00	55.16	O
ATOM	10225	N1	A	A	497	146.023	90.300	43.848	1.00	77.69	N	ATOM	10275	C5*	G	A	500	160.923	87.830	32.306	1.00	55.16	C
ATOM	10226	C2	A	A	497	146.950	89.634	43.157	1.00	77.69	C	ATOM	10276	C4*	G	A	500	160.132	87.903	31.022	1.00	55.16	C
ATOM	10227	N3	A	A	497	148.075	89.060	43.584	1.00	77.69	N	ATOM	10277	O4*	G	A	500	159.082	88.900	31.132	1.00	55.16	O
ATOM	10228	C4	A	A	497	148.225	89.236	44.906	1.00	77.69	C	ATOM	10278	C3*	G	A	500	160.903	88.315	29.781	1.00	55.16	C
ATOM	10229	P	U	A	498	154.116	86.977	43.277	1.00	71.81	P	ATOM	10279	O3*	G	A	500	161.656	87.255	29.216	1.00	55.16	O
ATOM	10230	O1P	U	A	498	152.956	86.032	43.275	1.00	67.92	O	ATOM	10280	C2*	G	A	500	159.802	88.830	28.860	1.00	55.16	C
ATOM	10231	O2P	U	A	498	155.396	86.550	43.911	1.00	67.92	O	ATOM	10281	O2*	G	A	500	159.124	87.798	28.166	1.00	55.16	O
ATOM	10232	O5*	U	A	498	154.482	87.325	41.761	1.00	71.81	O	ATOM	10282	C1*	G	A	500	158.854	89.493	29.860	1.00	55.16	C
ATOM	10233	C5*	U	A	498	153.606	86.971	40.672	1.00	71.81	C	ATOM	10283	N9	G	A	500	159.069	90.936	29.966	1.00	55.87	N
ATOM	10234	C4*	U	A	498	154.415	86.558	39.465	1.00	71.81	C	ATOM	10284	C8	G	A	500	159.787	91.600	30.932	1.00	55.87	C
ATOM	10235	O4*	U	A	498	153.529	85.930	38.513	1.00	71.81	O	ATOM	10285	N7	G	A	500	159.786	92.894	30.773	1.00	55.87	N
ATOM	10236	C3*	U	A	498	155.121	87.654	38.677	1.00	71.81	C	ATOM	10286	C5	G	A	500	159.024	93.101	29.633	1.00	55.87	C
ATOM	10237	O3*	U	A	498	156.417	87.958	39.184	1.00	71.81	O	ATOM	10287	C6	G	A	500	158.662	94.304	28.978	1.00	55.87	C
ATOM	10238	C2*	U	A	498	155.250	87.038	37.292	1.00	71.81	C	ATOM	10288	O6	G	A	500	158.945	95.469	29.293	1.00	55.87	O
ATOM	10239	O2*	U	A	498	156.380	86.202	37.185	1.00	71.81	O	ATOM	10289	N1	G	A	500	157.885	94.060	27.852	1.00	55.87	N
ATOM	10240	C1*	U	A	498	153.989	86.179	37.201	1.00	71.81	C	ATOM	10290	C2	G	A	500	157.499	92.823	27.414	1.00	55.87	C
ATOM	10241	N1	U	A	498	152.895	86.769	36.413	1.00	67.92	N	ATOM	10291	N2	G	A	500	156.739	92.805	26.318	1.00	55.87	N
ATOM	10242	C2	U	A	498	153.100	86.945	35.051	1.00	67.92	C	ATOM	10292	N3	G	A	500	157.828	91.690	28.013	1.00	55.87	N
ATOM	10243	O2	U	A	498	154.152	86.681	34.490	1.00	67.92	O	ATOM	10293	C4	G	A	500	158.583	91.903	29.113	1.00	55.87	C
ATOM	10244	N3	U	A	498	152.025	87.452	34.369	1.00	67.92	N	ATOM	10294	P	C	A	501	163.094	87.571	28.580	1.00	48.26	P
ATOM	10245	C4	U	A	498	150.803	87.033	34.897	1.00	67.92	C	ATOM	10295	O1P	C	A	501	163.786	86.282	28.413	1.00	52.63	O
ATOM	10246	O4	U	A	498	149.927	88.203	34.129	1.00	67.92	O	ATOM	10296	O2P	C	A	501	163.746	88.647	29.352	1.00	52.63	O
ATOM	10247	C5	U	A	498	150.613	87.618	36.296	1.00	67.92	C	ATOM	10297	O5*	C	A	501	162.740	88.180	27.154	1.00	48.26	O



ATOM	10298	C5*	C A 501	162.059	87.394	26.155	1.00	48.26	C	ATOM	10348	C1*	C A 503	165.413	97.699	20.080	1.00	46.86	C
ATOM	10299	C4*	C A 501	161.676	88.263	24.976	1.00	48.26	C	ATOM	10349	N1	C A 503	165.776	97.317	21.459	1.00	54.42	N
ATOM	10300	O4*	C A 501	160.603	89.172	25.352	1.00	48.26	O	ATOM	10350	C2	C A 503	165.897	98.321	22.428	1.00	54.42	C
ATOM	10301	C3*	C A 501	162.765	89.188	24.452	1.00	48.26	C	ATOM	10351	O2	C A 503	165.655	99.491	22.111	1.00	54.42	O
ATOM	10302	O3*	C A 501	163.669	88.580	23.559	1.00	48.26	O	ATOM	10352	N3	C A 503	166.276	97.985	23.679	1.00	54.42	N
ATOM	10303	C2*	C A 501	161.970	90.263	23.743	1.00	48.26	C	ATOM	10353	C4	C A 503	166.524	96.709	23.982	1.00	54.42	C
ATOM	10304	O2*	C A 501	161.539	89.824	22.474	1.00	48.26	O	ATOM	10354	N4	C A 503	166.911	96.426	25.218	1.00	54.42	N
ATOM	10305	C1*	C A 501	160.763	90.407	24.664	1.00	48.26	C	ATOM	10355	C5	C A 503	166.390	95.669	23.026	1.00	54.42	C
ATOM	10306	N1	C A 501	161.004	91.497	25.635	1.00	52.63	N	ATOM	10356	C6	C A 503	166.016	96.012	21.788	1.00	54.42	C
ATOM	10307	C2	C A 501	160.505	92.780	25.347	1.00	52.63	C	ATOM	10357	P	C A 504	169.553	98.538	17.840	1.00	51.63	P
ATOM	10308	O2	C A 501	159.820	92.948	24.323	1.00	52.63	O	ATOM	10358	O1P	C A 504	170.028	98.883	16.477	1.00	42.97	O
ATOM	10309	N3	C A 501	160.779	93.802	26.192	1.00	52.63	N	ATOM	10359	O2P	C A 504	170.331	97.601	18.674	1.00	42.97	O
ATOM	10310	C4	C A 501	161.502	93.581	27.293	1.00	52.63	C	ATOM	10360	O5*	C A 504	169.369	99.878	18.670	1.00	51.63	O
ATOM	10311	N4	C A 501	161.769	94.625	28.089	1.00	52.63	N	ATOM	10361	C5*	C A 504	168.785	101.038	18.064	1.00	51.63	C
ATOM	10312	C5	C A 501	161.993	92.281	27.627	1.00	52.63	C	ATOM	10362	C4*	C A 504	169.001	102.238	18.940	1.00	51.63	C
ATOM	10313	C6	C A 501	161.723	91.280	26.778	1.00	52.63	C	ATOM	10363	O4*	C A 504	168.210	102.098	20.143	1.00	51.63	O
ATOM	10314	P	G A 502	165.040	89.331	23.227	1.00	41.19	P	ATOM	10364	C3*	C A 504	170.421	102.415	19.433	1.00	51.63	C
ATOM	10315	O1P	G A 502	165.914	88.396	22.499	1.00	52.99	O	ATOM	10365	O3*	C A 504	171.203	103.119	18.497	1.00	51.63	O
ATOM	10316	O2P	G A 502	165.525	89.949	24.475	1.00	52.99	O	ATOM	10366	C2*	C A 504	170.229	103.208	20.711	1.00	51.63	C
ATOM	10317	O5*	G A 502	164.605	90.515	22.254	1.00	41.19	O	ATOM	10367	O2*	C A 504	170.035	104.583	20.439	1.00	51.63	O
ATOM	10318	C5*	G A 502	164.143	90.245	20.918	1.00	41.19	C	ATOM	10368	C1*	C A 504	168.930	102.607	21.249	1.00	51.63	C
ATOM	10319	C4*	G A 502	163.730	91.528	20.236	1.00	41.19	C	ATOM	10369	N1	C A 504	169.144	101.501	22.199	1.00	42.97	N
ATOM	10320	O4*	G A 502	162.623	92.128	20.958	1.00	41.19	O	ATOM	10370	C2	C A 504	169.382	101.793	23.541	1.00	42.97	C
ATOM	10321	C3*	G A 502	164.780	92.621	20.195	1.00	41.19	C	ATOM	10371	O2	C A 504	169.421	102.975	23.903	1.00	42.97	O
ATOM	10322	O3*	G A 502	165.678	92.455	19.124	1.00	41.19	O	ATOM	10372	N3	C A 504	169.561	100.778	24.416	1.00	42.97	N
ATOM	10323	C2*	G A 502	163.943	93.880	20.050	1.00	41.19	C	ATOM	10373	C4	C A 504	169.501	99.516	23.995	1.00	42.97	C
ATOM	10324	O2*	G A 502	163.500	94.068	18.721	1.00	41.19	O	ATOM	10374	N4	C A 504	169.662	98.544	24.897	1.00	42.97	N
ATOM	10325	C1*	G A 502	162.739	93.548	20.932	1.00	41.19	C	ATOM	10375	C5	C A 504	169.270	99.192	22.633	1.00	42.97	C
ATOM	10326	N9	G A 502	162.933	94.027	22.303	1.00	52.99	N	ATOM	10376	C6	C A 504	169.102	100.204	21.777	1.00	42.97	C
ATOM	10327	C8	G A 502	163.231	93.267	23.410	1.00	52.99	C	ATOM	10377	P	G A 505	172.730	102.691	18.274	1.00	65.05	P
ATOM	10328	N7	G A 502	163.418	93.979	24.485	1.00	52.99	N	ATOM	10378	O1P	G A 505	172.749	101.234	17.962	1.00	45.74	O
ATOM	10329	C5	G A 502	163.219	95.286	24.073	1.00	52.99	C	ATOM	10379	O2P	G A 505	173.478	103.203	19.458	1.00	45.74	O
ATOM	10330	C6	G A 502	163.314	96.493	24.796	1.00	52.99	C	ATOM	10380	O5*	G A 505	173.168	103.480	16.959	1.00	65.05	O
ATOM	10331	O6	G A 502	163.610	96.660	25.986	1.00	52.99	O	ATOM	10381	C5*	G A 505	173.774	104.773	17.048	1.00	65.05	C
ATOM	10332	N1	G A 502	163.037	97.591	23.991	1.00	52.99	N	ATOM	10382	C4*	G A 505	173.990	105.356	15.675	1.00	65.05	C
ATOM	10333	C2	G A 502	162.722	97.535	22.665	1.00	52.99	C	ATOM	10383	O4*	G A 505	174.811	104.460	14.888	1.00	65.05	O
ATOM	10334	N2	G A 502	162.505	98.706	22.072	1.00	52.99	N	ATOM	10384	C3*	G A 505	172.768	105.606	14.804	1.00	65.05	C
ATOM	10335	N3	G A 502	162.633	96.415	21.973	1.00	52.99	N	ATOM	10385	O3*	G A 505	172.143	106.851	15.131	1.00	65.05	O
ATOM	10336	C4	G A 502	162.896	95.335	22.734	1.00	52.99	C	ATOM	10386	C2*	G A 505	173.379	105.658	13.407	1.00	65.05	C
ATOM	10337	P	C A 503	167.206	92.899	19.311	1.00	46.86	P	ATOM	10387	O2*	G A 505	173.936	106.923	13.117	1.00	65.05	O
ATOM	10338	O1P	C A 503	167.972	92.366	18.157	1.00	54.42	O	ATOM	10388	C1*	G A 505	174.520	104.645	13.514	1.00	65.05	C
ATOM	10339	O2P	C A 503	167.617	92.537	20.697	1.00	54.42	O	ATOM	10389	N9	G A 505	174.210	103.356	12.897	1.00	45.74	N
ATOM	10340	O5*	C A 503	167.165	94.486	19.196	1.00	46.86	O	ATOM	10390	C7	G A 505	174.041	102.142	13.521	1.00	45.74	C
ATOM	10341	C5*	C A 503	166.720	95.103	17.986	1.00	46.86	C	ATOM	10391	N8	G A 505	173.731	101.180	12.695	1.00	45.74	N
ATOM	10342	C4*	C A 503	166.271	96.514	18.249	1.00	46.86	C	ATOM	10392	C5	G A 505	173.697	101.791	11.449	1.00	45.74	C
ATOM	10343	O4*	C A 503	165.276	96.522	19.304	1.00	46.86	O	ATOM	10393	C6	G A 505	173.402	101.251	10.163	1.00	45.74	C
ATOM	10344	C3*	C A 503	167.343	97.472	18.731	1.00	46.86	C	ATOM	10394	O6	G A 505	173.094	100.089	9.868	1.00	45.74	O
ATOM	10345	O3*	C A 503	168.058	98.005	17.633	1.00	46.86	O	ATOM	10395	N1	G A 505	173.491	102.222	9.164	1.00	45.74	N
ATOM	10346	C2*	C A 503	166.520	98.537	19.440	1.00	46.86	C	ATOM	10396	C2	G A 505	173.816	103.542	9.373	1.00	45.74	C
ATOM	10347	O2*	C A 503	165.926	99.439	18.536	1.00	46.86	O	ATOM	10397	N2	G A 505	173.841	104.327	8.285	1.00	45.74	N



ATOM	10398	N3	G A 505	174.091	104.056	10.567	1.00	45.74	N	ATOM	10448	C4*	C A 508	162.426	107.175	13.450	1.00	52.75	C
ATOM	10399	C4	G A 505	174.008	103.130	11.551	1.00	45.74	C	ATOM	10449	O4*	C A 508	162.372	105.730	13.485	1.00	52.75	O
ATOM	10400	P	G A 506	170.565	107.064	14.862	1.00	48.86	P	ATOM	10450	C3*	C A 508	163.903	107.565	13.455	1.00	52.75	C
ATOM	10401	O1P	G A 506	170.194	108.354	15.509	1.00	48.73	O	ATOM	10451	O3*	C A 508	164.306	107.886	14.777	1.00	52.75	O
ATOM	10402	O2P	G A 506	169.835	105.821	15.231	1.00	48.73	O	ATOM	10452	C2*	C A 508	164.603	106.295	12.982	1.00	52.75	C
ATOM	10403	O5*	G A 506	170.454	107.278	13.293	1.00	48.86	O	ATOM	10453	O2*	C A 508	165.885	106.115	13.538	1.00	52.75	O
ATOM	10404	C5*	G A 506	170.830	108.526	12.709	1.00	48.86	C	ATOM	10454	C1*	C A 508	163.679	105.206	13.512	1.00	52.75	C
ATOM	10405	C4*	G A 506	170.607	108.482	11.228	1.00	48.86	C	ATOM	10455	N1	C A 508	163.709	103.967	12.715	1.00	54.92	N
ATOM	10406	O4*	G A 506	171.473	107.463	10.667	1.00	48.86	O	ATOM	10456	C2	C A 508	164.198	102.805	13.311	1.00	54.92	C
ATOM	10407	C3*	G A 506	169.207	108.070	10.820	1.00	48.86	C	ATOM	10457	O2	C A 508	164.597	102.855	14.484	1.00	54.92	O
ATOM	10408	O3*	G A 506	168.310	109.177	10.825	1.00	48.86	O	ATOM	10458	N3	C A 508	164.231	101.656	12.599	1.00	54.92	N
ATOM	10409	O2*	G A 506	169.432	107.435	9.450	1.00	48.86	O	ATOM	10459	C4	C A 508	163.813	101.644	11.336	1.00	54.92	C
ATOM	10410	C2*	G A 506	169.538	108.377	8.400	1.00	48.86	C	ATOM	10460	N4	C A 508	163.886	100.490	10.669	1.00	54.92	N
ATOM	10411	C1*	G A 506	170.793	106.760	9.642	1.00	48.86	C	ATOM	10461	C5	C A 508	163.308	102.814	10.700	1.00	54.92	C
ATOM	10412	N9	G A 506	170.719	105.349	10.027	1.00	48.73	N	ATOM	10462	C6	C A 508	163.271	103.943	11.419	1.00	54.92	C
ATOM	10413	C8	G A 506	170.959	104.804	11.271	1.00	48.73	C	ATOM	10463	P	A A 509	163.857	109.286	15.429	1.00	40.83	P
ATOM	10414	N7	G A 506	170.840	103.505	11.293	1.00	48.73	N	ATOM	10464	O1P	A A 509	163.388	110.202	14.362	1.00	51.38	O
ATOM	10415	C5	G A 506	170.497	103.171	9.992	1.00	48.73	C	ATOM	10465	O2P	A A 509	162.572	108.879	16.285	1.00	40.83	O
ATOM	10416	C6	G A 506	170.249	101.911	9.408	1.00	48.73	C	ATOM	10466	O5*	A A 509	162.043	109.752	17.296	1.00	40.83	C
ATOM	10417	O6	G A 506	170.315	100.792	9.931	1.00	48.73	O	ATOM	10467	C5*	A A 509	164.966	109.716	16.315	1.00	51.38	O
ATOM	10418	N1	G A 506	169.907	102.030	8.067	1.00	48.73	N	ATOM	10468	C4*	A A 509	162.178	109.120	18.668	1.00	40.83	C
ATOM	10419	C2	G A 506	169.832	103.212	7.375	1.00	48.73	C	ATOM	10469	O4*	A A 509	161.214	108.036	18.827	1.00	40.83	O
ATOM	10420	N2	G A 506	169.464	103.130	6.096	1.00	48.73	N	ATOM	10470	C3*	A A 509	163.508	108.465	18.982	1.00	40.83	O
ATOM	10421	N3	G A 506	170.090	104.390	7.899	1.00	48.73	N	ATOM	10471	O3*	A A 509	164.622	109.375	19.065	1.00	40.83	O
ATOM	10422	C4	G A 506	170.408	104.298	9.203	1.00	48.73	C	ATOM	10472	C2*	A A 509	163.134	107.480	20.087	1.00	40.83	C
ATOM	10423	P	C A 507	166.888	109.039	11.566	1.00	50.90	P	ATOM	10473	O2*	A A 509	162.948	108.038	21.366	1.00	40.83	O
ATOM	10424	O1P	C A 507	166.300	110.400	11.612	1.00	54.04	O	ATOM	10474	C1*	A A 509	161.788	106.972	19.575	1.00	40.83	O
ATOM	10425	O2P	C A 507	167.062	108.273	12.828	1.00	54.04	O	ATOM	10475	N9	A A 509	162.001	105.844	18.660	1.00	51.38	N
ATOM	10426	O5*	C A 507	166.023	108.173	10.553	1.00	50.90	O	ATOM	10476	C8	A A 509	162.280	105.936	17.322	1.00	51.38	C
ATOM	10427	C5*	C A 507	165.682	108.713	9.268	1.00	50.90	C	ATOM	10477	N7	A A 509	162.501	104.782	16.747	1.00	51.38	N
ATOM	10428	C4*	C A 507	165.232	107.625	8.335	1.00	50.90	C	ATOM	10478	C5	A A 509	162.342	103.862	17.769	1.00	51.38	C
ATOM	10429	O4*	C A 507	166.324	106.704	8.107	1.00	50.90	O	ATOM	10479	C6	A A 509	162.458	102.469	17.802	1.00	51.38	C
ATOM	10430	C3*	C A 507	164.085	106.750	8.804	1.00	50.90	C	ATOM	10480	N6	A A 509	162.797	101.734	16.750	1.00	51.38	N
ATOM	10431	O3*	C A 507	162.832	107.392	8.566	1.00	50.90	O	ATOM	10481	N1	A A 509	162.224	101.845	18.969	1.00	51.38	N
ATOM	10432	C2*	C A 507	164.286	105.491	7.963	1.00	50.90	C	ATOM	10482	C2	A A 509	161.911	102.583	20.028	1.00	51.38	C
ATOM	10433	O2*	C A 507	163.808	105.604	6.637	1.00	50.90	O	ATOM	10483	N3	A A 509	161.784	103.903	20.129	1.00	51.38	N
ATOM	10434	C1*	C A 507	165.809	105.407	7.877	1.00	50.90	C	ATOM	10484	C4	A A 509	162.015	104.496	18.948	1.00	51.38	C
ATOM	10435	N1	C A 507	166.392	104.463	8.853	1.00	54.04	N	ATOM	10485	P	A A 510	165.017	110.100	20.427	1.00	43.48	P
ATOM	10436	C2	C A 507	166.457	103.099	8.518	1.00	54.04	C	ATOM	10486	O1P	A A 510	163.743	110.552	21.033	1.00	67.23	O
ATOM	10437	O2	C A 507	166.087	102.738	7.395	1.00	54.04	O	ATOM	10487	O2P	A A 510	166.055	111.097	20.083	1.00	67.23	O
ATOM	10438	N3	C A 507	166.928	102.214	9.422	1.00	54.04	N	ATOM	10488	O5*	A A 510	165.695	108.981	21.328	1.00	43.48	O
ATOM	10439	C4	C A 507	167.348	102.639	10.610	1.00	54.04	C	ATOM	10489	C5*	A A 510	165.610	109.062	22.761	1.00	43.48	C
ATOM	10440	N4	C A 507	167.791	101.727	11.475	1.00	54.04	N	ATOM	10490	C4*	A A 510	166.086	107.780	23.373	1.00	43.48	C
ATOM	10441	C5	C A 507	167.329	104.020	10.967	1.00	54.04	C	ATOM	10491	O4*	A A 510	165.340	106.684	22.793	1.00	43.48	O
ATOM	10442	C6	C A 507	166.847	104.890	10.068	1.00	54.04	C	ATOM	10492	C3*	A A 510	167.542	107.469	23.078	1.00	43.48	O
ATOM	10443	P	C A 508	161.644	107.290	9.662	1.00	52.75	P	ATOM	10493	O3*	A A 510	168.362	108.029	24.088	1.00	43.48	O
ATOM	10444	O1P	C A 508	161.089	105.914	9.611	1.00	54.92	O	ATOM	10494	C2*	A A 510	167.585	105.950	23.125	1.00	43.48	C
ATOM	10445	O2P	C A 508	160.736	108.449	9.482	1.00	54.92	O	ATOM	10495	O2*	A A 510	167.725	105.463	24.443	1.00	43.48	O
ATOM	10446	O5*	C A 508	162.382	107.455	11.061	1.00	52.75	O	ATOM	10496	C1*	A A 510	166.199	105.583	22.590	1.00	43.48	C
ATOM	10447	C5*	C A 508	161.639	107.675	12.268	1.00	52.75	C	ATOM	10497	N9	A A 510	166.199	105.272	21.166	1.00	67.23	N



ATOM	10498	C8	A A 510	166.569	106.067	20.109	1.00	67.23	C	ATOM	10548	O1P	C A 513	183.053	108.869	27.395	1.00	86.23	O
ATOM	10499	N7	A A 510	166.476	105.474	18.946	1.00	67.23	N	ATOM	10549	O2P	C A 513	181.896	107.293	25.725	1.00	86.23	O
ATOM	10500	C5	A A 510	166.009	104.203	19.260	1.00	67.23	C	ATOM	10550	O5*	C A 513	182.400	106.535	28.060	1.00	63.92	O
ATOM	10501	C6	A A 510	165.713	103.077	18.473	1.00	67.23	C	ATOM	10551	C5*	C A 513	182.784	106.730	29.436	1.00	63.92	C
ATOM	10502	N6	A A 510	165.864	103.031	17.146	1.00	67.23	N	ATOM	10552	C4*	C A 513	182.969	105.401	30.138	1.00	63.92	C
ATOM	10503	N1	A A 510	165.258	101.977	19.106	1.00	67.23	N	ATOM	10553	O4*	C A 513	181.701	104.702	30.205	1.00	63.92	O
ATOM	10504	C2	A A 510	165.126	102.007	20.432	1.00	67.23	C	ATOM	10554	C3*	C A 513	183.924	104.400	29.507	1.00	63.92	C
ATOM	10505	N3	A A 510	165.379	102.992	21.277	1.00	67.23	N	ATOM	10555	O3*	C A 513	185.270	104.631	29.881	1.00	63.92	O
ATOM	10506	C4	A A 510	165.824	104.074	20.621	1.00	67.23	C	ATOM	10556	C2*	C A 513	183.435	103.067	30.059	1.00	63.92	C
ATOM	10507	P	C A 511	168.962	109.508	23.903	1.00	50.10	P	ATOM	10557	O2*	C A 513	183.951	102.788	31.343	1.00	63.92	O
ATOM	10508	O1P	C A 511	168.197	110.426	24.797	1.00	48.65	O	ATOM	10558	C1*	C A 513	181.928	103.302	30.157	1.00	63.92	C
ATOM	10509	O2P	C A 511	169.081	109.823	22.447	1.00	48.65	O	ATOM	10559	N1	C A 513	181.176	102.729	29.021	1.00	86.23	N
ATOM	10510	O5*	C A 511	170.417	109.365	24.522	1.00	50.10	O	ATOM	10560	C2	C A 513	180.845	101.361	29.052	1.00	86.23	C
ATOM	10511	C5*	C A 511	171.582	109.462	23.707	1.00	50.10	C	ATOM	10561	O2	C A 513	181.200	100.672	30.023	1.00	86.23	O
ATOM	10512	C4*	C A 511	172.775	109.138	24.539	1.00	50.10	C	ATOM	10562	N3	C A 513	180.151	100.829	28.028	1.00	86.23	N
ATOM	10513	O4*	C A 511	172.658	107.774	25.012	1.00	50.10	O	ATOM	10563	C4	C A 513	179.783	101.596	27.003	1.00	86.23	C
ATOM	10514	C3*	C A 511	174.143	109.256	23.886	1.00	50.10	C	ATOM	10564	N4	C A 513	179.086	101.025	26.023	1.00	86.23	N
ATOM	10515	O3*	C A 511	174.984	109.729	24.931	1.00	50.10	O	ATOM	10565	C5	C A 513	180.110	102.984	26.939	1.00	86.23	C
ATOM	10516	C2*	C A 511	174.494	107.800	23.575	1.00	50.10	C	ATOM	10566	C6	C A 513	180.801	103.503	27.957	1.00	86.23	C
ATOM	10517	O2*	C A 511	175.878	107.519	23.548	1.00	50.10	O	ATOM	10567	P	C A 514	186.452	103.933	29.047	1.00	74.22	P
ATOM	10518	C1*	C A 511	173.873	107.109	24.778	1.00	50.10	C	ATOM	10568	O1P	C A 514	187.725	104.287	29.728	1.00	73.63	O
ATOM	10519	N1	C A 511	173.630	105.667	24.727	1.00	48.65	N	ATOM	10569	O2P	C A 514	186.275	104.273	27.611	1.00	73.63	O
ATOM	10520	C2	C A 511	173.706	104.960	25.920	1.00	48.65	C	ATOM	10570	O5*	C A 514	186.188	102.370	29.236	1.00	74.22	O
ATOM	10521	O2	C A 511	174.003	105.575	26.961	1.00	48.65	O	ATOM	10571	C5*	C A 514	186.412	101.737	30.509	1.00	74.22	C
ATOM	10522	N3	C A 511	173.463	103.632	25.923	1.00	48.65	N	ATOM	10572	C4*	C A 514	186.042	100.271	30.458	1.00	74.22	C
ATOM	10523	C4	C A 511	173.159	103.012	24.790	1.00	48.65	C	ATOM	10573	O4*	C A 514	184.620	100.125	30.207	1.00	74.22	O
ATOM	10524	N4	C A 511	172.925	101.704	24.843	1.00	48.65	N	ATOM	10574	C3*	C A 514	186.703	99.436	29.375	1.00	74.22	C
ATOM	10525	C5	C A 511	173.083	103.707	23.551	1.00	48.65	C	ATOM	10575	O3*	C A 514	187.999	99.004	29.738	1.00	74.22	O
ATOM	10526	C6	C A 511	173.328	105.024	23.564	1.00	48.65	C	ATOM	10576	C2*	C A 514	185.741	98.268	29.223	1.00	74.22	C
ATOM	10527	P	U A 512	176.237	110.668	24.607	1.00	62.42	P	ATOM	10577	O2*	C A 514	185.928	97.267	30.199	1.00	74.22	O
ATOM	10528	O1P	U A 512	175.751	112.071	24.749	1.00	59.79	O	ATOM	10578	C1*	C A 514	184.390	98.953	29.439	1.00	74.22	C
ATOM	10529	O2P	U A 512	176.888	110.235	23.342	1.00	59.79	O	ATOM	10579	N1	C A 514	183.778	99.338	28.150	1.00	73.63	N
ATOM	10530	O5*	U A 512	177.231	110.342	25.808	1.00	62.42	O	ATOM	10580	C2	C A 514	183.122	98.359	27.395	1.00	73.63	C
ATOM	10531	C5*	U A 512	178.156	109.231	25.749	1.00	62.42	C	ATOM	10581	O2	C A 514	183.040	97.207	27.845	1.00	73.63	O
ATOM	10532	C4*	U A 512	178.276	108.581	27.111	1.00	62.42	C	ATOM	10582	N3	C A 514	182.598	98.693	26.195	1.00	73.63	N
ATOM	10533	O4*	U A 512	177.105	107.757	27.346	1.00	62.42	O	ATOM	10583	C4	C A 514	182.706	99.943	25.745	1.00	73.63	C
ATOM	10534	C3*	U A 512	179.449	107.625	27.286	1.00	62.42	C	ATOM	10584	N4	C A 514	182.198	100.225	24.542	1.00	73.63	N
ATOM	10535	O3*	U A 512	180.646	108.309	27.662	1.00	62.42	O	ATOM	10585	C5	C A 514	183.346	100.961	26.502	1.00	73.63	C
ATOM	10536	C2*	U A 512	178.966	106.694	28.388	1.00	62.42	C	ATOM	10586	C6	C A 514	183.861	100.621	27.686	1.00	73.63	C
ATOM	10537	O2*	U A 512	179.154	107.250	29.672	1.00	62.42	O	ATOM	10587	P	G A 515	189.107	98.786	28.593	1.00	69.08	P
ATOM	10538	C1*	U A 512	177.472	106.598	28.076	1.00	62.42	C	ATOM	10588	O1P	G A 515	190.419	98.621	29.274	1.00	81.39	O
ATOM	10539	N1	U A 512	177.146	105.406	27.275	1.00	59.79	N	ATOM	10589	O2P	G A 515	188.949	99.854	27.560	1.00	81.39	O
ATOM	10540	C2	U A 512	176.989	104.206	27.947	1.00	59.79	C	ATOM	10590	O5*	G A 515	188.701	97.385	27.947	1.00	69.08	O
ATOM	10541	O2	U A 512	177.103	104.102	29.157	1.00	59.79	O	ATOM	10591	C5*	G A 515	188.756	96.175	28.718	1.00	69.08	C
ATOM	10542	N3	U A 512	176.693	103.128	27.151	1.00	59.79	N	ATOM	10592	C4*	G A 515	188.079	95.050	27.974	1.00	69.08	C
ATOM	10543	C4	U A 512	176.531	103.122	25.784	1.00	59.79	C	ATOM	10593	O4*	G A 515	186.686	95.395	27.764	1.00	69.08	O
ATOM	10544	O4	U A 512	176.148	102.095	25.232	1.00	59.79	O	ATOM	10594	C3*	G A 515	188.607	94.737	26.581	1.00	69.08	C
ATOM	10545	C5	U A 512	176.715	104.394	25.156	1.00	59.79	C	ATOM	10595	O3*	G A 515	189.732	93.865	26.602	1.00	69.08	O
ATOM	10546	C6	U A 512	177.006	105.467	25.904	1.00	59.79	C	ATOM	10596	C2*	G A 515	187.405	94.081	25.915	1.00	69.08	C
ATOM	10547	P	C A 513	182.071	107.784	27.122	1.00	63.92	P	ATOM	10597	O2*	G A 515	187.266	92.710	26.218	1.00	69.08	O



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ATOM	10598	C1*	G A 515	186.243	94.863	26.527	1.00	69.08	C	ATOM	10648	N1	G A 517	189.924	99.748	19.640	1.00	74.93	N
ATOM	10599	N9	G A 515	185.863	95.964	25.648	1.00	81.39	N	ATOM	10649	C2	G A 517	189.825	99.372	18.322	1.00	74.93	C
ATOM	10600	C8	G A 515	186.137	97.303	25.804	1.00	81.39	N	ATOM	10650	N2	G A 517	189.246	100.251	17.495	1.00	74.93	N
ATOM	10601	N7	G A 515	185.714	98.032	24.808	1.00	81.39	N	ATOM	10651	N3	G A 517	190.266	98.222	17.847	1.00	74.93	N
ATOM	10602	C5	G A 515	185.112	97.122	23.952	1.00	81.39	C	ATOM	10652	C4	G A 517	190.841	97.470	18.805	1.00	74.93	C
ATOM	10603	C6	G A 515	184.485	97.321	22.706	1.00	81.39	C	ATOM	10653	P	C A 518	192.920	93.620	13.583	1.00	75.36	P
ATOM	10604	O6	G A 515	184.336	98.380	22.079	1.00	81.39	O	ATOM	10654	O1P	C A 518	193.981	92.691	14.048	1.00	97.86	O
ATOM	10605	N1	G A 515	184.008	96.124	22.181	1.00	81.39	N	ATOM	10655	O2P	C A 518	193.289	94.802	12.771	1.00	97.86	O
ATOM	10606	C2	G A 515	184.131	94.893	22.779	1.00	81.39	C	ATOM	10656	O5*	C A 518	191.827	92.782	12.779	1.00	75.36	O
ATOM	10607	N2	G A 515	183.613	93.852	22.120	1.00	81.39	N	ATOM	10657	C5*	C A 518	190.603	93.397	12.349	1.00	75.36	C
ATOM	10608	N3	G A 515	184.720	94.697	23.938	1.00	81.39	N	ATOM	10658	C4*	C A 518	190.250	92.963	10.947	1.00	75.36	C
ATOM	10609	C4	G A 515	185.184	95.845	24.465	1.00	81.39	C	ATOM	10659	O4*	C A 518	189.164	93.809	10.515	1.00	75.36	O
ATOM	10610	P	U A 516	190.958	94.120	25.587	1.00	76.39	P	ATOM	10660	C3*	C A 518	191.359	93.172	9.919	1.00	75.36	C
ATOM	10611	O1P	U A 516	192.059	93.203	25.969	1.00	75.59	O	ATOM	10661	O3*	C A 518	192.197	91.997	9.768	1.00	75.36	O
ATOM	10612	O2P	U A 516	191.212	95.584	25.510	1.00	75.59	O	ATOM	10662	C2*	C A 518	190.661	93.628	8.637	1.00	75.36	C
ATOM	10613	O5*	U A 516	190.414	93.660	24.163	1.00	76.39	O	ATOM	10663	O2*	C A 518	190.583	92.667	7.609	1.00	75.36	O
ATOM	10614	C5*	U A 516	189.838	92.356	23.957	1.00	76.39	C	ATOM	10664	C1*	C A 518	189.277	94.067	9.130	1.00	75.36	C
ATOM	10615	C4*	U A 516	189.069	92.334	22.654	1.00	76.39	C	ATOM	10665	N1	C A 518	188.889	95.468	8.865	1.00	97.86	N
ATOM	10616	O4*	U A 516	187.969	93.279	22.723	1.00	76.39	O	ATOM	10666	C2	C A 518	188.430	95.817	7.582	1.00	97.86	C
ATOM	10617	C3*	U A 516	189.850	92.749	21.415	1.00	76.39	C	ATOM	10667	O2	C A 518	188.375	94.946	6.697	1.00	97.86	O
ATOM	10618	O3*	U A 516	190.525	91.633	20.850	1.00	76.39	O	ATOM	10668	N3	C A 518	188.056	97.093	7.342	1.00	97.86	N
ATOM	10619	C2*	U A 516	188.759	93.240	20.469	1.00	76.39	C	ATOM	10669	N4	C A 518	187.126	98.004	8.315	1.00	97.86	C
ATOM	10620	O2*	U A 516	188.163	92.167	19.766	1.00	76.39	O	ATOM	10670	N4	C A 518	187.748	99.253	8.032	1.00	97.86	N
ATOM	10621	C1*	U A 516	187.727	93.821	21.438	1.00	76.39	C	ATOM	10671	C5	C A 518	188.588	97.680	9.621	1.00	97.86	C
ATOM	10622	N1	U A 516	187.670	95.292	21.520	1.00	75.59	N	ATOM	10672	C6	C A 518	188.960	96.415	9.850	1.00	97.86	C
ATOM	10623	C2	U A 516	187.128	95.979	20.438	1.00	75.59	C	ATOM	10673	P	C A 519	191.542	89.532	9.480	1.00	51.16	P
ATOM	10624	O2	U A 516	186.744	95.425	19.418	1.00	75.59	O	ATOM	10674	O1P	C A 519	192.575	89.697	8.819	1.00	69.38	O
ATOM	10625	N3	U A 516	187.058	97.343	20.591	1.00	75.59	N	ATOM	10675	O2P	C A 519	190.214	90.663	8.850	1.00	69.38	O
ATOM	10626	C4	U A 516	187.471	98.082	21.675	1.00	75.59	C	ATOM	10676	O5*	C A 519	191.304	89.928	10.941	1.00	51.16	O
ATOM	10627	O4	U A 516	187.295	99.300	21.678	1.00	75.59	O	ATOM	10677	C5*	C A 519	190.125	89.145	11.261	1.00	51.16	C
ATOM	10628	C5	U A 516	188.040	97.311	22.738	1.00	75.59	C	ATOM	10678	C4*	C A 519	190.110	88.820	12.737	1.00	51.16	C
ATOM	10629	C6	U A 516	188.117	95.977	22.628	1.00	75.59	C	ATOM	10679	O4*	C A 519	190.125	90.048	13.493	1.00	51.16	O
ATOM	10630	P	G A 517	192.056	91.772	20.389	1.00	76.86	P	ATOM	10680	C3*	C A 519	188.911	88.065	13.299	1.00	51.16	C
ATOM	10631	O1P	G A 517	192.506	90.395	20.048	1.00	74.93	O	ATOM	10681	O3*	C A 519	189.107	86.655	13.149	1.00	51.16	O
ATOM	10632	O2P	G A 517	192.784	92.564	21.412	1.00	74.93	O	ATOM	10682	C2*	C A 519	188.949	88.421	14.788	1.00	51.16	C
ATOM	10633	O5*	G A 517	192.029	92.629	19.048	1.00	76.86	O	ATOM	10683	O2*	C A 519	189.745	87.530	15.539	1.00	51.16	O
ATOM	10634	C5*	G A 517	191.455	92.096	17.844	1.00	76.86	C	ATOM	10684	C1*	C A 519	189.659	89.777	14.797	1.00	51.16	C
ATOM	10635	C4*	G A 517	191.241	93.201	16.848	1.00	76.86	C	ATOM	10685	N1	C A 519	188.911	90.935	15.335	1.00	69.38	N
ATOM	10636	O4*	G A 517	190.638	94.320	17.550	1.00	76.86	O	ATOM	10686	C2	C A 519	188.587	90.949	16.702	1.00	69.38	C
ATOM	10637	C3*	G A 517	192.492	93.746	16.171	1.00	76.86	C	ATOM	10687	O2	C A 519	188.900	89.973	17.408	1.00	69.38	O
ATOM	10638	O3*	G A 517	192.116	94.153	14.862	1.00	76.86	O	ATOM	10688	N3	C A 519	187.944	92.022	17.221	1.00	69.38	N
ATOM	10639	C2*	G A 517	192.822	94.990	16.987	1.00	76.86	C	ATOM	10689	C4	C A 519	187.619	93.049	16.437	1.00	69.38	C
ATOM	10640	O2*	G A 517	193.479	95.982	16.224	1.00	76.86	O	ATOM	10690	N4	C A 519	187.002	94.092	16.998	1.00	69.38	N
ATOM	10641	C1*	G A 517	191.431	95.473	17.384	1.00	76.86	C	ATOM	10691	C5	C A 519	187.915	93.055	15.043	1.00	69.38	C
ATOM	10642	N9	G A 517	191.387	96.224	18.630	1.00	74.93	N	ATOM	10692	C6	C A 519	188.554	91.987	14.537	1.00	69.38	C
ATOM	10643	C8	G A 517	191.861	95.831	19.857	1.00	74.93	C	ATOM	10693	P	A A 520	187.847	85.674	12.925	1.00	53.16	P
ATOM	10644	N7	G A 517	191.649	96.714	20.793	1.00	74.93	N	ATOM	10694	O1P	A A 520	188.324	84.257	12.940	1.00	65.03	O
ATOM	10645	C5	G A 517	191.000	97.754	20.144	1.00	74.93	C	ATOM	10695	O2P	A A 520	187.084	86.185	11.753	1.00	65.03	O
ATOM	10646	C6	G A 517	190.505	98.985	20.647	1.00	74.93	C	ATOM	10696	O5*	A A 520	186.942	85.889	14.215	1.00	53.16	O
ATOM	10647	O6	G A 517	190.531	99.411	21.811	1.00	74.93	O	ATOM	10697	C5*	A A 520	187.279	85.277	15.462	1.00	53.16	C



ATOM	10698	C4*	A	A	520	186.419	85.841	16.559	1.00	53.16	C	ATOM	10748	O2*	C	A	522	174.610	93.547	13.570	1.00	54.75	O
ATOM	10699	O4*	A	A	520	186.751	87.237	16.790	1.00	53.16	O	ATOM	10749	C1*	C	A	522	176.816	92.742	13.095	1.00	54.75	C
ATOM	10700	C3*	A	A	520	184.937	85.860	16.257	1.00	53.16	C	ATOM	10750	N1	C	A	522	177.611	92.539	11.875	1.00	61.63	N
ATOM	10701	O3*	A	A	520	184.333	84.592	16.477	1.00	53.16	O	ATOM	10751	C2	C	A	522	177.911	93.656	11.096	1.00	61.63	C
ATOM	10702	C2*	A	A	520	184.422	86.957	17.182	1.00	53.16	C	ATOM	10752	O2	C	A	522	177.516	94.774	11.476	1.00	61.63	O
ATOM	10703	O2*	A	A	520	184.240	86.484	18.501	1.00	53.16	O	ATOM	10753	N3	C	A	522	178.625	93.500	9.956	1.00	61.63	N
ATOM	10704	C1*	A	A	520	185.586	87.949	17.178	1.00	53.16	C	ATOM	10754	C4	C	A	522	179.043	92.290	9.595	1.00	61.63	C
ATOM	10705	N9	A	A	520	185.400	89.096	16.281	1.00	65.03	N	ATOM	10755	N4	C	A	522	179.749	92.189	8.471	1.00	61.63	N
ATOM	10706	C8	A	A	520	185.596	89.153	14.922	1.00	65.03	C	ATOM	10756	C5	C	A	522	178.756	91.130	10.373	1.00	61.63	C
ATOM	10707	N7	A	A	520	185.329	90.323	14.395	1.00	65.03	N	ATOM	10757	C6	C	A	522	178.043	91.299	11.496	1.00	61.63	C
ATOM	10708	C5	A	A	520	184.933	91.093	15.477	1.00	65.03	C	ATOM	10758	P	A	A	523	172.684	90.285	12.796	1.00	51.62	P
ATOM	10709	C6	A	A	520	184.515	92.435	15.583	1.00	65.03	C	ATOM	10759	O1P	A	A	523	171.342	90.422	13.405	1.00	59.74	O
ATOM	10710	N6	A	A	520	184.417	93.266	14.542	1.00	65.03	N	ATOM	10760	O2P	A	A	523	173.176	88.940	12.401	1.00	59.74	O
ATOM	10711	N1	A	A	520	184.197	92.900	16.811	1.00	65.03	N	ATOM	10761	O5*	A	A	523	172.724	91.240	11.530	1.00	51.62	O
ATOM	10712	C2	A	A	520	184.293	92.066	17.854	1.00	65.03	C	ATOM	10762	C5*	A	A	523	172.326	92.617	11.642	1.00	51.62	C
ATOM	10713	N3	A	A	520	184.669	90.786	17.881	1.00	65.03	N	ATOM	10763	C4*	A	A	523	172.448	93.301	10.304	1.00	51.62	C
ATOM	10714	C4	A	A	520	184.979	90.354	16.646	1.00	65.03	C	ATOM	10764	O4*	A	A	523	173.841	93.548	9.993	1.00	51.62	O
ATOM	10715	P	G	A	521	183.150	84.120	15.504	1.00	61.76	P	ATOM	10765	C3*	A	A	523	171.927	92.481	9.140	1.00	51.62	C
ATOM	10716	O1P	G	A	521	182.713	82.751	15.851	1.00	50.62	O	ATOM	10766	O3*	A	A	523	170.522	92.616	9.041	1.00	51.62	O
ATOM	10717	O2P	G	A	521	183.615	84.418	14.119	1.00	50.62	O	ATOM	10767	C2*	A	A	523	172.711	93.044	7.961	1.00	51.62	C
ATOM	10718	O5*	G	A	521	181.970	85.121	15.869	1.00	61.76	O	ATOM	10768	O2*	A	A	523	172.187	94.252	7.453	1.00	51.62	O
ATOM	10719	C5*	G	A	521	181.256	85.840	14.852	1.00	61.76	C	ATOM	10769	C1*	A	A	523	174.062	93.343	8.611	1.00	51.62	C
ATOM	10720	C4*	G	A	521	180.767	87.155	15.404	1.00	61.76	C	ATOM	10770	N9	A	A	523	175.001	92.232	8.466	1.00	59.74	N
ATOM	10721	O3*	G	A	521	181.844	88.131	15.372	1.00	61.76	O	ATOM	10771	C8	A	A	523	175.133	91.123	9.266	1.00	59.74	C
ATOM	10722	C4*	G	A	521	179.657	87.820	14.612	1.00	61.76	C	ATOM	10772	N7	A	A	523	176.057	90.287	8.863	1.00	59.74	N
ATOM	10723	O3*	G	A	521	178.387	87.267	14.924	1.00	61.76	O	ATOM	10773	C5	A	A	523	176.570	90.884	7.720	1.00	59.74	C
ATOM	10724	C2*	G	A	521	179.795	89.282	15.019	1.00	61.76	C	ATOM	10774	C6	A	A	523	177.577	90.494	6.815	1.00	59.74	C
ATOM	10725	O2*	G	A	521	179.219	89.577	16.274	1.00	61.76	O	ATOM	10775	N6	A	A	523	178.258	89.347	6.903	1.00	59.74	N
ATOM	10726	C1*	G	A	521	181.312	89.425	15.118	1.00	61.76	C	ATOM	10776	N1	A	A	523	177.855	91.331	5.792	1.00	59.74	N
ATOM	10727	N9	G	A	521	181.854	89.930	13.856	1.00	50.62	N	ATOM	10777	C2	A	A	523	177.153	92.469	5.682	1.00	59.74	C
ATOM	10728	C8	G	A	521	182.607	89.250	12.931	1.00	50.62	C	ATOM	10778	N3	A	A	523	176.179	92.936	6.456	1.00	59.74	N
ATOM	10729	N7	G	A	521	182.897	89.970	11.881	1.00	50.62	N	ATOM	10779	C4	A	A	523	175.934	92.088	7.470	1.00	59.74	C
ATOM	10730	C5	G	A	521	182.306	91.199	12.131	1.00	50.62	C	ATOM	10780	P	G	A	524	169.654	91.484	8.299	1.00	53.53	P
ATOM	10731	C6	G	A	521	182.264	92.383	11.343	1.00	50.62	C	ATOM	10781	O1P	G	A	524	168.422	91.246	9.110	1.00	41.54	O
ATOM	10732	O6	G	A	521	182.763	92.597	10.231	1.00	50.62	O	ATOM	10782	O2P	G	A	524	170.512	90.334	7.925	1.00	41.54	O
ATOM	10733	N1	G	A	521	181.551	93.388	11.976	1.00	50.62	N	ATOM	10783	O5*	G	A	524	169.273	92.229	6.952	1.00	53.53	O
ATOM	10734	C2	G	A	521	180.958	93.282	13.202	1.00	50.62	C	ATOM	10784	C5*	G	A	524	168.352	91.677	6.025	1.00	53.53	C
ATOM	10735	N2	G	A	521	180.321	94.377	13.641	1.00	50.62	N	ATOM	10785	C4*	G	A	524	167.752	92.791	5.231	1.00	53.53	C
ATOM	10736	N3	G	A	521	180.986	92.191	13.944	1.00	50.62	N	ATOM	10786	O4*	G	A	524	166.868	93.536	6.096	1.00	53.53	O
ATOM	10737	C4	G	A	521	181.670	91.195	13.350	1.00	50.62	C	ATOM	10787	C3*	G	A	524	168.775	93.806	4.744	1.00	53.53	C
ATOM	10738	P	C	A	522	177.206	87.344	13.840	1.00	54.75	P	ATOM	10788	O3*	G	A	524	169.334	93.396	3.500	1.00	53.53	O
ATOM	10739	O1P	C	A	522	176.002	86.659	14.403	1.00	61.63	O	ATOM	10789	C2*	G	A	524	167.956	95.088	4.648	1.00	53.53	C
ATOM	10740	O2P	C	A	522	177.742	86.918	12.526	1.00	61.63	O	ATOM	10790	O2*	G	A	524	167.199	95.174	3.456	1.00	53.53	O
ATOM	10741	O5*	C	A	522	176.919	88.909	13.747	1.00	54.75	O	ATOM	10791	C1*	G	A	524	166.980	94.920	5.814	1.00	53.53	C
ATOM	10742	C5*	C	A	522	176.489	89.651	14.908	1.00	54.75	C	ATOM	10792	N9	G	A	524	167.341	95.626	7.045	1.00	41.54	N
ATOM	10743	C4*	C	A	522	176.068	91.047	14.519	1.00	54.75	C	ATOM	10793	C8	G	A	524	167.795	95.071	8.215	1.00	41.54	C
ATOM	10744	O4*	C	A	522	177.219	91.810	14.080	1.00	54.75	O	ATOM	10794	N7	G	A	524	167.968	95.950	9.165	1.00	41.54	N
ATOM	10745	C3*	C	A	522	175.083	91.150	13.366	1.00	54.75	C	ATOM	10795	C5	G	A	524	167.615	97.160	8.586	1.00	41.54	C
ATOM	10746	O3*	C	A	522	173.744	90.959	13.795	1.00	54.75	O	ATOM	10796	C6	G	A	524	167.566	98.461	9.140	1.00	41.54	C
ATOM	10747	C2*	C	A	522	175.320	92.562	12.849	1.00	54.75	C	ATOM	10797	O6	G	A	524	167.805	98.814	10.304	1.00	41.54	O



Table 1: Sheet 110/521

ATOM	10798	N1	G A 524	167.170	99.401	8.197	1.00	41.54	N	ATOM	10848	C4*	G A 527	178.102	101.716	4.477	1.00	49.56	C
ATOM	10799	C2	G A 524	166.842	99.121	6.901	1.00	41.54	C	ATOM	10849	O4*	G A 527	177.214	100.575	4.503	1.00	49.56	O
ATOM	10800	N2	G A 524	166.487	100.157	6.142	1.00	41.54	N	ATOM	10850	C3*	G A 527	179.051	101.484	5.638	1.00	49.56	C
ATOM	10801	N3	G A 524	166.859	97.913	6.381	1.00	41.54	N	ATOM	10851	O3*	G A 527	179.643	102.676	6.136	1.00	49.56	O
ATOM	10802	C4	G A 524	167.252	96.985	7.272	1.00	41.54	C	ATOM	10852	C2*	G A 527	178.125	100.855	6.660	1.00	49.56	C
ATOM	10803	P	C A 525	170.821	93.861	3.088	1.00	52.13	P	ATOM	10853	O2*	G A 527	177.309	101.842	7.240	1.00	49.56	O
ATOM	10804	O1P	C A 525	171.181	93.076	1.878	1.00	45.84	O	ATOM	10854	C1*	G A 527	177.249	99.975	5.775	1.00	49.56	C
ATOM	10805	O2P	C A 525	171.730	93.852	4.271	1.00	45.84	O	ATOM	10855	N9	G A 527	177.805	98.630	5.639	1.00	49.91	N
ATOM	10806	O5*	C A 525	170.629	95.362	2.615	1.00	52.13	O	ATOM	10856	C8	G A 527	178.381	98.054	4.530	1.00	49.91	C
ATOM	10807	C5*	C A 525	169.918	95.664	1.413	1.00	52.13	C	ATOM	10857	N7	G A 527	178.790	96.833	4.743	1.00	49.91	N
ATOM	10808	C4*	C A 525	169.805	97.149	1.264	1.00	52.13	C	ATOM	10858	C5	G A 527	178.456	96.588	6.067	1.00	49.91	C
ATOM	10809	O4*	C A 525	169.009	97.648	2.361	1.00	52.13	O	ATOM	10859	C6	G A 527	178.645	95.437	6.866	1.00	49.91	C
ATOM	10810	C3*	C A 525	171.137	97.867	1.394	1.00	52.13	C	ATOM	10860	O6	G A 527	179.144	94.353	6.550	1.00	49.91	O
ATOM	10811	O3*	C A 525	171.824	97.944	0.152	1.00	52.13	O	ATOM	10861	N1	G A 527	178.182	95.633	8.165	1.00	49.91	N
ATOM	10812	C2*	C A 525	170.740	99.227	1.941	1.00	52.13	C	ATOM	10862	C2	G A 527	177.614	96.786	8.634	1.00	49.91	C
ATOM	10813	O2*	C A 525	170.302	100.112	0.931	1.00	52.13	O	ATOM	10863	N3	G A 527	177.262	96.799	9.921	1.00	49.91	N
ATOM	10814	C1*	C A 525	169.558	98.863	2.837	1.00	52.13	C	ATOM	10864	N2	G A 527	177.414	97.854	7.896	1.00	49.91	N
ATOM	10815	N1	C A 525	169.912	98.704	4.263	1.00	45.84	N	ATOM	10865	C4	G A 527	177.856	97.688	6.633	1.00	49.91	C
ATOM	10816	C2	C A 525	169.963	99.839	5.072	1.00	45.84	C	ATOM	10866	P	C A 528	181.147	102.627	6.722	1.00	60.61	P
ATOM	10817	O2	C A 525	169.731	100.946	4.566	1.00	45.84	O	ATOM	10867	O1P	C A 528	181.460	104.031	7.132	1.00	38.62	O
ATOM	10818	N3	C A 525	170.264	99.708	6.379	1.00	45.84	N	ATOM	10868	O2P	C A 528	182.041	101.921	5.751	1.00	38.62	O
ATOM	10819	C4	C A 525	170.517	98.505	6.885	1.00	45.84	C	ATOM	10869	O5*	C A 528	181.034	101.708	8.019	1.00	60.61	O
ATOM	10820	N4	C A 525	170.816	98.422	8.184	1.00	45.84	N	ATOM	10870	C5*	C A 528	180.312	102.174	9.147	1.00	60.61	C
ATOM	10821	C5	C A 525	170.479	97.332	6.086	1.00	45.84	C	ATOM	10871	C4*	C A 528	180.443	101.224	10.303	1.00	60.61	C
ATOM	10822	C6	C A 525	170.178	97.475	4.792	1.00	45.84	C	ATOM	10872	O4*	C A 528	179.758	99.981	10.021	1.00	60.61	O
ATOM	10823	P	C A 526	173.431	97.958	0.136	1.00	46.45	P	ATOM	10873	C3*	C A 528	181.813	100.740	10.737	1.00	60.61	C
ATOM	10824	O1P	C A 526	173.851	97.901	-1.281	1.00	45.04	O	ATOM	10874	O3*	C A 528	182.594	101.677	11.458	1.00	60.61	O
ATOM	10825	O2P	C A 526	173.912	96.921	1.079	1.00	45.04	O	ATOM	10875	C2*	C A 528	181.443	99.576	11.641	1.00	60.61	C
ATOM	10826	O5*	C A 526	173.809	99.383	0.750	1.00	46.45	O	ATOM	10876	O2*	C A 528	181.070	100.018	12.934	1.00	60.61	O
ATOM	10827	C5*	C A 526	173.512	100.607	0.043	1.00	46.45	C	ATOM	10877	C1*	C A 528	180.231	98.991	10.916	1.00	60.61	C
ATOM	10828	O4*	C A 526	173.758	101.810	0.930	1.00	46.45	O	ATOM	10878	N1	C A 528	180.635	97.787	10.176	1.00	38.62	N
ATOM	10829	C4*	C A 526	172.856	101.777	2.066	1.00	46.45	C	ATOM	10879	C2	C A 528	180.619	96.563	10.852	1.00	38.62	C
ATOM	10830	C3*	C A 526	175.134	101.894	1.560	1.00	46.45	C	ATOM	10880	O2	C A 528	180.150	96.521	12.006	1.00	38.62	O
ATOM	10831	O3*	C A 526	176.087	102.497	0.706	1.00	46.45	O	ATOM	10881	N3	C A 528	181.104	95.457	10.234	1.00	38.62	N
ATOM	10832	C2*	C A 526	174.898	102.751	2.791	1.00	46.45	C	ATOM	10882	C4	C A 528	181.563	95.537	8.984	1.00	38.62	C
ATOM	10833	O2*	C A 526	174.893	104.123	2.482	1.00	46.45	O	ATOM	10883	N4	C A 528	182.061	94.434	8.433	1.00	38.62	N
ATOM	10834	C1*	C A 526	173.496	102.322	3.203	1.00	46.45	C	ATOM	10884	C5	C A 528	181.537	96.757	8.249	1.00	38.62	C
ATOM	10835	N1	C A 526	173.532	101.309	4.261	1.00	45.04	N	ATOM	10885	C6	C A 528	181.064	97.850	8.878	1.00	38.62	C
ATOM	10836	C2	C A 526	173.511	101.729	5.595	1.00	45.04	C	ATOM	10886	P	G A 529	184.201	101.581	11.372	1.00	51.10	P
ATOM	10837	O2	C A 526	173.408	102.936	5.843	1.00	45.04	O	ATOM	10887	O1P	G A 529	184.757	102.673	12.219	1.00	61.69	O
ATOM	10838	N3	C A 526	173.593	100.812	6.582	1.00	45.04	N	ATOM	10888	O2P	G A 529	184.583	101.505	9.934	1.00	61.69	O
ATOM	10839	C4	C A 526	173.665	99.519	6.281	1.00	45.04	C	ATOM	10889	O3*	G A 529	184.536	100.167	12.032	1.00	51.10	O
ATOM	10840	N4	C A 526	173.737	98.652	7.288	1.00	45.04	N	ATOM	10890	C5*	G A 529	184.402	99.980	13.448	1.00	51.10	C
ATOM	10841	C5	C A 526	173.665	99.057	4.932	1.00	45.04	C	ATOM	10891	C4*	G A 529	185.090	98.711	13.897	1.00	51.10	C
ATOM	10842	C6	C A 526	173.599	99.979	3.962	1.00	45.04	C	ATOM	10892	O4*	G A 529	184.337	97.454	13.460	1.00	51.10	O
ATOM	10843	P	G A 527	177.599	101.961	0.723	1.00	49.56	P	ATOM	10893	C3*	G A 529	186.510	98.456	13.418	1.00	51.10	C
ATOM	10844	O1P	G A 527	178.507	103.136	0.617	1.00	49.91	O	ATOM	10894	O3*	G A 529	187.468	99.157	14.205	1.00	51.10	O
ATOM	10845	O2P	G A 527	177.688	100.859	-0.270	1.00	49.91	O	ATOM	10895	C2*	G A 529	186.631	96.944	13.588	1.00	51.10	C
ATOM	10846	O5*	G A 527	177.759	101.308	2.159	1.00	49.56	O	ATOM	10896	O2*	G A 529	186.924	96.574	14.922	1.00	51.10	O
ATOM	10847	C5*	G A 527	178.702	101.805	3.108	1.00	49.56	C	ATOM	10897	C1*	G A 529	185.218	96.468	13.231	1.00	51.10	C



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ATOM 10898	N9	G A 529	185.118	96.101	11.823	1.00	61.69	N	ATOM 10948	C4	U A 531	195.235	97.264	21.241	1.00	77.91	C
ATOM 10899	C8	G A 529	184.884	96.963	10.783	1.00	61.69	C	ATOM 10949	O4	U A 531	195.586	96.203	21.771	1.00	77.91	O
ATOM 10900	N7	G A 529	184.930	96.383	9.617	1.00	61.69	N	ATOM 10950	C5	U A 531	195.441	97.636	19.866	1.00	77.91	C
ATOM 10901	C5	G A 529	185.198	95.053	9.901	1.00	61.69	C	ATOM 10951	C6	U A 531	194.963	98.804	19.413	1.00	77.91	C
ATOM 10902	C6	G A 529	185.394	93.961	9.028	1.00	61.69	C	ATOM 10952	P	A A 532	192.877	105.103	17.963	1.00	89.31	P
ATOM 10903	O6	G A 529	185.408	93.964	7.790	1.00	61.69	O	ATOM 10953	O1P	A A 532	192.233	104.683	16.693	1.00154.02	O	
ATOM 10904	N1	G A 529	185.614	92.779	9.726	1.00	61.69	N	ATOM 10954	O2P	A A 532	193.986	106.089	17.931	1.00154.02	O	
ATOM 10905	C2	G A 529	185.659	92.668	11.093	1.00	61.69	C	ATOM 10955	O5*	A A 532	191.733	105.644	18.935	1.00	89.31	O
ATOM 10906	N2	G A 529	185.854	91.428	11.577	1.00	61.69	N	ATOM 10956	C5*	A A 532	191.687	105.188	20.310	1.00	89.31	C
ATOM 10907	N3	G A 529	185.515	93.694	11.922	1.00	61.69	N	ATOM 10957	C4*	A A 532	190.317	105.387	20.923	1.00	89.31	C
ATOM 10908	C4	G A 529	185.286	94.850	11.260	1.00	61.69	C	ATOM 10958	O4*	A A 532	190.119	106.763	21.312	1.00	89.31	O
ATOM 10909	P	G A 530	188.566	100.092	13.491	1.00	76.38	P	ATOM 10959	C3*	A A 532	189.075	105.020	20.123	1.00	89.31	C
ATOM 10910	O1P	G A 530	189.222	100.871	14.567	1.00	75.30	O	ATOM 10960	O3*	A A 532	188.907	103.602	20.197	1.00	89.31	O
ATOM 10911	O2P	G A 530	187.940	100.809	12.344	1.00	75.30	O	ATOM 10961	C2*	A A 532	187.973	105.803	20.846	1.00	89.31	C
ATOM 10912	O5*	G A 530	189.635	99.060	12.918	1.00	76.38	O	ATOM 10962	O2*	A A 532	187.429	105.104	21.949	1.00	89.31	O
ATOM 10913	C5*	G A 530	190.181	98.023	13.751	1.00	76.38	C	ATOM 10963	C1*	A A 532	188.731	107.017	21.402	1.00	89.31	C
ATOM 10914	C4*	G A 530	191.527	97.579	13.226	1.00	76.38	C	ATOM 10964	N9	A A 532	188.434	108.338	20.834	1.00154.02	N	
ATOM 10915	O4*	G A 530	191.378	96.973	11.924	1.00	76.38	O	ATOM 10965	C8	A A 532	189.325	109.336	20.511	1.00154.02	C	
ATOM 10916	C3*	G A 530	192.571	98.671	13.040	1.00	76.38	C	ATOM 10966	N7	A A 532	188.759	110.424	20.047	1.00154.02	N	
ATOM 10917	O3*	G A 530	193.244	98.840	14.290	1.00	76.38	O	ATOM 10967	C5	A A 532	187.401	110.125	20.055	1.00154.02	C	
ATOM 10918	C2*	G A 530	193.503	98.090	11.974	1.00	76.38	C	ATOM 10968	C6	A A 532	186.260	110.867	19.672	1.00154.02	C	
ATOM 10919	O2*	G A 530	194.551	97.321	12.540	1.00	76.38	O	ATOM 10969	N6	A A 532	186.308	112.112	19.185	1.00154.02	N	
ATOM 10920	C1*	G A 530	192.570	97.159	11.189	1.00	76.38	C	ATOM 10970	N1	A A 532	185.052	110.275	19.808	1.00154.02	N	
ATOM 10921	N9	G A 530	192.225	97.512	9.813	1.00	75.30	N	ATOM 10971	C2	A A 532	185.001	109.025	20.292	1.00154.02	C	
ATOM 10922	C8	G A 530	192.259	96.671	8.717	1.00	75.30	C	ATOM 10972	N3	A A 532	185.996	108.227	20.680	1.00154.02	N	
ATOM 10923	N7	G A 530	191.852	97.243	7.617	1.00	75.30	N	ATOM 10973	C4	A A 532	187.186	108.842	20.535	1.00154.02	C	
ATOM 10924	C5	G A 530	191.542	98.539	8.003	1.00	75.30	C	ATOM 10974	P	A A 533	187.515	102.908	19.784	1.00	70.97	P
ATOM 10925	C6	G A 530	191.042	99.617	7.244	1.00	75.30	C	ATOM 10975	O1P	A A 533	186.554	103.093	20.893	1.00	62.28	O
ATOM 10926	O6	G A 530	190.753	99.641	6.044	1.00	75.30	O	ATOM 10976	O2P	A A 533	187.874	101.540	19.375	1.00	62.28	O
ATOM 10927	N1	G A 530	190.874	100.756	8.026	1.00	75.30	N	ATOM 10977	O5*	A A 533	186.997	103.696	18.496	1.00	70.97	O
ATOM 10928	C2	G A 530	191.145	100.839	9.376	1.00	75.30	C	ATOM 10978	C5*	A A 533	185.931	104.675	18.590	1.00	70.97	C
ATOM 10929	N2	G A 530	190.915	102.029	9.960	1.00	75.30	N	ATOM 10979	C4*	A A 533	184.617	104.114	18.059	1.00	70.97	C
ATOM 10930	N3	G A 530	191.605	99.832	10.100	1.00	75.30	N	ATOM 10980	O4*	A A 533	184.832	102.813	17.462	1.00	70.97	O
ATOM 10931	C4	G A 530	191.780	98.723	9.355	1.00	75.30	C	ATOM 10981	C3*	A A 533	183.530	103.885	19.105	1.00	70.97	C
ATOM 10932	P	U A 531	194.157	100.134	14.559	1.00	85.59	P	ATOM 10982	O3*	A A 533	182.860	105.125	19.496	1.00	70.97	O
ATOM 10933	O1P	U A 531	193.703	101.245	13.677	1.00	77.91	O	ATOM 10983	C2*	A A 533	182.685	102.741	18.541	1.00	70.97	C
ATOM 10934	O2P	U A 531	195.571	99.685	14.515	1.00	77.91	O	ATOM 10984	O2*	A A 533	181.579	103.159	17.776	1.00	70.97	O
ATOM 10935	O5*	U A 531	193.836	100.512	16.073	1.00	85.59	O	ATOM 10985	C1*	A A 533	183.668	102.027	17.608	1.00	70.97	C
ATOM 10936	C5*	U A 531	192.546	101.034	16.445	1.00	85.59	C	ATOM 10986	N9	A A 533	184.045	100.641	17.903	1.00	62.28	N
ATOM 10937	C4*	U A 531	192.616	101.707	17.798	1.00	85.59	C	ATOM 10987	C8	A A 533	184.894	100.176	18.874	1.00	62.28	C
ATOM 10938	O4*	U A 531	192.657	100.710	18.851	1.00	85.59	O	ATOM 10988	N7	A A 533	185.070	98.872	18.843	1.00	62.28	N
ATOM 10939	C3*	U A 531	193.804	102.641	18.016	1.00	85.59	C	ATOM 10989	C5	A A 533	184.270	98.448	17.788	1.00	62.28	C
ATOM 10940	O3*	U A 531	193.384	103.786	18.743	1.00	85.59	O	ATOM 10990	C6	A A 533	184.010	97.169	17.239	1.00	62.28	C
ATOM 10941	C2*	U A 531	194.741	101.800	18.885	1.00	85.59	C	ATOM 10991	N6	A A 533	184.554	96.039	17.682	1.00	62.28	N
ATOM 10942	O2*	U A 531	195.569	102.567	19.738	1.00	85.59	O	ATOM 10992	N1	A A 533	183.159	97.094	16.206	1.00	62.28	N
ATOM 10943	C1*	U A 531	193.751	100.969	19.702	1.00	85.59	C	ATOM 10993	C2	A A 533	182.607	98.218	15.755	1.00	62.28	C
ATOM 10944	N1	U A 531	194.268	99.688	20.216	1.00	77.91	N	ATOM 10994	N3	A A 533	182.770	99.473	16.176	1.00	62.28	N
ATOM 10945	C2	U A 531	194.028	99.330	21.560	1.00	77.91	O	ATOM 10995	C4	A A 533	183.624	95.523	17.209	1.00	62.28	C
ATOM 10946	O2	U A 531	193.406	100.133	22.316	1.00	77.91	C	ATOM 10996	P	U A 534	181.665	105.789	18.604	1.00	71.53	P
ATOM 10947	N3	U A 531	194.537	98.188	21.989	1.00	77.91	N	ATOM 10997	O1P	U A 534	181.890	105.566	17.148	1.00	77.55	O



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ATOM	10998	O2P	U A 534	181.505	107.178	19.104	1.00	77.55	O	ATOM	11048	O2*	C A 536	180.565	91.518	17.883	1.00	62.56	O
ATOM	10999	O5*	U A 534	180.344	105.016	19.040	1.00	71.53	O	ATOM	11049	Cl*	C A 536	180.737	93.896	17.408	1.00	62.56	C
ATOM	11000	C5*	U A 534	180.103	104.704	20.420	1.00	71.53	C	ATOM	11050	N1	C A 536	181.052	95.129	18.164	1.00	65.45	N
ATOM	11001	C4*	U A 534	178.622	104.650	20.700	1.00	71.53	C	ATOM	11051	C2	C A 536	181.881	95.045	19.289	1.00	65.45	C
ATOM	11002	O4*	U A 534	178.048	105.976	20.627	1.00	71.53	O	ATOM	11052	O2	C A 536	182.327	93.936	19.627	1.00	65.45	O
ATOM	11003	C3*	U A 534	177.791	103.813	19.747	1.00	71.53	C	ATOM	11053	N3	C A 536	182.175	96.172	19.976	1.00	65.45	N
ATOM	11004	O3*	U A 534	177.812	102.449	20.148	1.00	71.53	O	ATOM	11054	C4	C A 536	181.682	97.346	19.577	1.00	65.45	C
ATOM	11005	C2*	U A 534	176.397	104.409	19.913	1.00	71.53	C	ATOM	11055	N4	C A 536	182.015	98.437	20.274	1.00	65.45	N
ATOM	11006	O2*	U A 534	175.713	103.860	21.025	1.00	71.53	O	ATOM	11056	C5	C A 536	180.831	97.458	18.442	1.00	65.45	C
ATOM	11007	Cl*	U A 534	176.707	105.882	20.192	1.00	71.53	C	ATOM	11057	C6	C A 536	180.545	96.338	17.772	1.00	65.45	C
ATOM	11008	N1	U A 534	176.515	106.775	19.040	1.00	77.55	N	ATOM	11058	P	G A 537	176.747	91.677	19.153	1.00	59.87	P
ATOM	11009	C2	U A 534	175.239	107.267	18.814	1.00	77.55	C	ATOM	11059	O1P	G A 537	175.990	90.450	18.838	1.00	63.52	O
ATOM	11010	O2	U A 534	174.281	106.989	19.520	1.00	77.55	O	ATOM	11060	O2P	G A 537	176.026	92.961	19.308	1.00	63.52	O
ATOM	11011	N3	U A 534	175.124	108.096	17.725	1.00	77.55	N	ATOM	11061	O5*	G A 537	177.613	91.424	20.461	1.00	59.87	O
ATOM	11012	C4	U A 534	176.126	108.475	16.859	1.00	77.55	C	ATOM	11062	C5*	G A 537	178.083	90.106	20.783	1.00	59.87	C
ATOM	11013	O4	U A 534	175.856	109.200	15.903	1.00	77.55	O	ATOM	11063	C4*	G A 537	178.793	90.108	22.117	1.00	59.87	C
ATOM	11014	C5	U A 534	177.412	107.928	17.159	1.00	77.55	C	ATOM	11064	O4*	G A 537	180.033	90.843	21.996	1.00	59.87	O
ATOM	11015	C6	U A 534	177.558	107.116	18.211	1.00	77.55	C	ATOM	11065	C3*	G A 537	178.073	90.772	23.283	1.00	59.87	C
ATOM	11016	P	A A 535	178.622	101.369	19.274	1.00	51.93	P	ATOM	11066	O3*	G A 537	177.130	89.929	23.931	1.00	59.87	O
ATOM	11017	O1P	A A 535	178.390	100.048	19.939	1.00	47.62	O	ATOM	11067	C2*	G A 537	179.222	91.128	24.210	1.00	59.87	C
ATOM	11018	O2P	A A 535	180.006	101.855	19.101	1.00	47.62	O	ATOM	11068	O2*	G A 537	179.651	90.018	24.978	1.00	59.87	O
ATOM	11019	O5*	A A 535	177.881	101.361	17.861	1.00	51.93	O	ATOM	11069	Cl*	G A 537	180.307	91.517	23.209	1.00	59.87	C
ATOM	11020	C5*	A A 535	176.535	100.864	17.767	1.00	51.93	C	ATOM	11070	N9	G A 537	180.287	92.948	22.939	1.00	63.52	N
ATOM	11021	C4*	A A 535	176.376	99.924	16.593	1.00	51.93	C	ATOM	11071	C8	G A 537	179.727	93.578	21.855	1.00	63.52	C
ATOM	11022	O4*	A A 535	176.180	100.658	15.365	1.00	51.93	O	ATOM	11072	N7	G A 537	179.868	94.874	21.884	1.00	63.52	N
ATOM	11023	C3*	A A 535	177.456	98.889	16.323	1.00	51.93	C	ATOM	11073	C5	G A 537	180.564	95.114	23.060	1.00	63.52	C
ATOM	11024	O3*	A A 535	176.781	97.682	16.004	1.00	51.93	O	ATOM	11074	C6	G A 537	181.015	96.334	23.628	1.00	63.52	C
ATOM	11025	C2*	A A 535	178.166	99.445	15.084	1.00	51.93	C	ATOM	11075	O6	G A 537	180.889	97.482	23.185	1.00	63.52	O
ATOM	11026	O2*	A A 535	178.705	98.454	14.227	1.00	51.93	O	ATOM	11076	N1	G A 537	181.676	96.121	24.834	1.00	63.52	N
ATOM	11027	Cl*	A A 535	177.015	100.133	14.364	1.00	51.93	C	ATOM	11077	C2	G A 537	181.884	94.891	25.415	1.00	63.52	C
ATOM	11028	N9	A A 535	177.361	101.214	13.445	1.00	47.62	N	ATOM	11078	N2	G A 537	182.555	94.886	26.578	1.00	63.52	N
ATOM	11029	C8	A A 535	177.915	102.440	13.712	1.00	47.62	C	ATOM	11079	N3	G A 537	181.470	93.747	24.894	1.00	63.52	N
ATOM	11030	N7	A A 535	178.010	103.218	12.659	1.00	47.62	N	ATOM	11080	C4	G A 537	180.824	93.933	23.724	1.00	63.52	C
ATOM	11031	C5	A A 535	177.502	102.442	11.630	1.00	47.62	C	ATOM	11081	P	G A 538	175.868	90.588	24.667	1.00	65.42	P
ATOM	11032	N6	A A 535	177.315	102.691	10.267	1.00	47.62	C	ATOM	11082	O1P	G A 538	174.874	89.524	24.954	1.00	66.19	O
ATOM	11033	C6	A A 535	177.594	103.852	9.676	1.00	47.62	N	ATOM	11083	O2P	G A 538	175.483	91.761	23.846	1.00	66.19	O
ATOM	11034	N1	A A 535	176.811	101.692	9.518	1.00	47.62	N	ATOM	11084	O5*	G A 538	176.455	91.128	26.043	1.00	65.42	O
ATOM	11035	C2	A A 535	176.501	100.535	10.106	1.00	47.62	C	ATOM	11085	C5*	G A 538	177.007	90.221	27.015	1.00	65.42	C
ATOM	11036	N3	A A 535	176.608	100.188	11.378	1.00	47.62	N	ATOM	11086	C4*	G A 538	177.637	90.986	28.162	1.00	65.42	C
ATOM	11037	C4	A A 535	177.123	101.198	12.096	1.00	47.62	C	ATOM	11087	O4*	G A 538	178.782	91.739	27.681	1.00	65.42	O
ATOM	11038	P	C A 536	176.373	96.665	17.180	1.00	62.56	P	ATOM	11088	C3*	G A 538	176.765	92.021	28.863	1.00	65.42	C
ATOM	11039	O1P	C A 536	175.093	96.015	16.795	1.00	65.45	O	ATOM	11089	O3*	G A 538	175.931	91.445	29.863	1.00	65.42	O
ATOM	11040	O2P	C A 536	176.469	97.390	18.482	1.00	65.45	O	ATOM	11090	C2*	G A 538	177.797	92.961	29.471	1.00	65.42	C
ATOM	11041	O5*	C A 536	177.514	95.556	17.144	1.00	62.56	O	ATOM	11091	O2*	G A 538	178.324	92.453	30.581	1.00	65.42	O
ATOM	11042	C5*	C A 536	177.483	94.469	16.194	1.00	62.56	C	ATOM	11092	Cl*	G A 538	178.895	92.949	28.407	1.00	65.42	C
ATOM	11043	C4*	C A 536	178.612	93.516	16.484	1.00	62.56	C	ATOM	11093	N9	G A 538	178.745	94.053	27.469	1.00	66.19	N
ATOM	11044	O4*	C A 536	179.858	94.242	16.352	1.00	62.56	O	ATOM	11094	C8	G A 538	178.202	94.001	26.207	1.00	66.19	C
ATOM	11045	C3*	C A 536	178.598	93.009	17.912	1.00	62.56	C	ATOM	11095	N7	G A 538	178.200	95.157	25.603	1.00	66.19	N
ATOM	11046	O3*	C A 536	177.839	91.826	17.999	1.00	62.56	O	ATOM	11096	C5	G A 538	178.774	96.025	26.523	1.00	66.19	C
ATOM	11047	C2*	C A 536	180.069	92.794	18.239	1.00	62.56	C	ATOM	11097	C6	G A 538	179.037	97.416	26.433	1.00	66.19	C



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ATOM	11098	O6	G A 538	178.807	98.187	25.495	1.00	66.19	O	ATOM	11148	C4	G A 540	174.117	101.425	30.808	1.00	70.31	C
ATOM	11099	N1	G A 538	179.630	97.896	27.592	1.00	66.19	N	ATOM	11149	P	G A 541	170.507	100.931	35.761	1.00	61.29	P
ATOM	11100	C2	G A 538	179.933	97.141	28.697	1.00	66.19	C	ATOM	11150	O1P	G A 541	169.937	101.414	37.047	1.00	56.29	O
ATOM	11101	N2	G A 538	180.513	97.796	29.710	1.00	66.19	N	ATOM	11151	O2P	G A 541	170.066	99.628	35.212	1.00	56.29	O
ATOM	11102	N3	G A 538	179.688	95.845	28.798	1.00	66.19	N	ATOM	11152	O5*	G A 541	170.282	102.071	34.672	1.00	61.29	O
ATOM	11103	C4	G A 538	179.114	95.356	27.681	1.00	66.19	C	ATOM	11153	C5*	G A 541	170.527	103.447	35.006	1.00	61.29	C
ATOM	11104	P	A A 539	174.614	92.230	30.336	1.00	75.02	P	ATOM	11154	C4*	G A 541	170.521	104.314	33.765	1.00	61.29	C
ATOM	11105	O1P	A A 539	173.818	91.352	31.230	1.00	68.69	O	ATOM	11155	O4*	G A 541	171.545	103.848	32.844	1.00	61.29	O
ATOM	11106	O2P	A A 539	173.984	92.795	29.123	1.00	68.69	O	ATOM	11156	C3*	G A 541	169.263	104.307	32.910	1.00	61.29	C
ATOM	11107	O5*	A A 539	175.181	93.461	31.175	1.00	75.02	O	ATOM	11157	O3*	G A 541	168.201	105.097	33.378	1.00	61.29	O
ATOM	11108	C5*	A A 539	176.028	93.264	32.322	1.00	75.02	C	ATOM	11158	O2*	G A 541	169.776	104.785	31.563	1.00	61.29	C
ATOM	11109	C4*	A A 539	176.590	94.589	32.788	1.00	75.02	C	ATOM	11159	C2*	G A 541	169.946	106.185	31.482	1.00	61.29	O
ATOM	11110	O4*	A A 539	177.478	95.139	31.778	1.00	75.02	O	ATOM	11160	C1*	G A 541	171.125	104.078	31.504	1.00	61.29	C
ATOM	11111	C3*	A A 539	175.558	95.678	33.022	1.00	75.02	C	ATOM	11161	N9	G A 541	170.946	102.795	30.827	1.00	56.29	N
ATOM	11112	O3*	A A 539	174.987	95.577	34.312	1.00	75.02	O	ATOM	11162	C8	G A 541	170.995	101.525	31.360	1.00	56.29	C
ATOM	11113	C2*	A A 539	176.355	96.964	32.832	1.00	75.02	C	ATOM	11163	N7	G A 541	170.763	100.591	30.475	1.00	56.29	N
ATOM	11114	O2*	A A 539	177.042	97.388	33.994	1.00	75.02	O	ATOM	11164	C5	G A 541	170.552	101.287	29.292	1.00	56.29	C
ATOM	11115	C1*	A A 539	177.357	96.554	31.749	1.00	75.02	C	ATOM	11165	C6	G A 541	170.266	100.820	27.998	1.00	56.29	C
ATOM	11116	N9	A A 539	176.928	96.959	30.408	1.00	68.69	N	ATOM	11166	O6	G A 541	170.141	99.659	27.617	1.00	56.29	O
ATOM	11117	C8	A A 539	176.375	96.181	29.419	1.00	68.69	C	ATOM	11167	N1	G A 541	170.127	101.869	27.093	1.00	56.29	N
ATOM	11118	N7	A A 539	176.078	96.844	28.330	1.00	68.69	N	ATOM	11168	C2	G A 541	170.254	103.204	27.397	1.00	56.29	C
ATOM	11119	C5	A A 539	176.464	98.147	28.615	1.00	68.69	C	ATOM	11169	N2	G A 541	170.089	104.081	26.391	1.00	56.29	N
ATOM	11120	C6	A A 539	176.416	99.337	27.864	1.00	68.69	C	ATOM	11170	N3	G A 541	170.526	103.650	28.603	1.00	56.29	N
ATOM	11121	N6	A A 539	175.937	99.412	26.624	1.00	68.69	N	ATOM	11171	C4	G A 541	170.663	102.645	29.495	1.00	56.29	C
ATOM	11122	N1	A A 539	176.885	100.464	28.439	1.00	68.69	N	ATOM	11172	P	G A 542	166.705	104.416	33.077	1.00	54.66	P
ATOM	11123	C2	A A 539	177.372	100.391	29.682	1.00	68.69	C	ATOM	11173	O1P	G A 542	165.784	105.535	33.783	1.00	47.28	O
ATOM	11124	N3	A A 539	177.473	99.334	30.489	1.00	68.69	N	ATOM	11174	O2P	G A 542	166.627	103.149	33.330	1.00	47.28	O
ATOM	11125	C4	A A 539	176.994	98.231	29.889	1.00	68.69	C	ATOM	11175	O5*	G A 542	166.526	104.875	31.517	1.00	54.66	O
ATOM	11126	P	G A 540	173.488	96.084	34.550	1.00	67.50	P	ATOM	11176	C5*	G A 542	166.671	106.199	30.986	1.00	54.66	C
ATOM	11127	O1P	G A 540	173.114	95.693	35.941	1.00	70.31	O	ATOM	11177	C4*	G A 542	166.540	106.186	29.482	1.00	54.66	C
ATOM	11128	O2P	G A 540	172.653	95.621	33.411	1.00	70.31	O	ATOM	11178	O4*	G A 542	167.554	105.318	28.912	1.00	54.66	O
ATOM	11129	O5*	G A 540	173.609	97.672	34.459	1.00	67.50	O	ATOM	11179	C3*	G A 542	165.232	105.585	28.893	1.00	54.66	C
ATOM	11130	C5*	G A 540	174.193	98.422	35.536	1.00	67.50	C	ATOM	11180	O3*	G A 542	164.239	106.708	28.879	1.00	54.66	O
ATOM	11131	C4*	G A 540	174.209	99.894	35.212	1.00	67.50	C	ATOM	11181	C2*	G A 542	165.654	105.280	27.485	1.00	54.66	C
ATOM	11132	O4*	G A 540	175.068	100.116	34.068	1.00	67.50	O	ATOM	11182	O2*	G A 542	165.735	106.387	26.610	1.00	54.66	O
ATOM	11133	C3*	G A 540	172.884	100.509	34.808	1.00	67.50	C	ATOM	11183	C1*	G A 542	167.067	104.740	27.718	1.00	54.66	C
ATOM	11134	O3*	G A 540	172.099	100.876	35.917	1.00	67.50	O	ATOM	11184	N9	G A 542	167.092	103.289	27.864	1.00	47.28	N
ATOM	11135	C2*	G A 540	173.310	101.716	33.985	1.00	67.50	C	ATOM	11185	C8	G A 542	167.318	102.567	29.010	1.00	47.28	C
ATOM	11136	O1*	G A 540	173.653	102.846	34.760	1.00	67.50	O	ATOM	11186	N7	G A 542	167.227	101.278	28.829	1.00	47.28	N
ATOM	11137	C1*	G A 540	174.556	101.181	33.282	1.00	67.50	C	ATOM	11187	C5	G A 542	166.929	101.138	27.483	1.00	47.28	C
ATOM	11138	N9	G A 540	174.246	100.671	31.947	1.00	70.31	N	ATOM	11188	C6	G A 542	166.690	99.972	26.707	1.00	47.28	C
ATOM	11139	C8	G A 540	174.002	99.366	31.578	1.00	70.31	C	ATOM	11189	O6	G A 542	166.691	98.796	27.067	1.00	47.28	O
ATOM	11140	N7	G A 540	173.712	99.237	30.312	1.00	70.31	N	ATOM	11190	N1	G A 542	166.422	100.285	25.382	1.00	47.28	N
ATOM	11141	C5	G A 540	173.777	100.532	29.813	1.00	70.31	C	ATOM	11191	C2	G A 542	166.382	101.556	24.864	1.00	47.28	C
ATOM	11142	C6	G A 540	173.542	101.026	28.506	1.00	70.31	C	ATOM	11192	N2	G A 542	166.102	101.656	23.561	1.00	47.28	N
ATOM	11143	O6	G A 540	173.214	100.397	27.487	1.00	70.31	O	ATOM	11193	N3	G A 542	166.599	102.652	25.574	1.00	47.28	N
ATOM	11144	N1	G A 540	173.712	102.407	28.447	1.00	70.31	N	ATOM	11194	C4	G A 542	166.861	102.370	26.869	1.00	47.28	C
ATOM	11145	C2	G A 540	174.058	103.208	29.506	1.00	70.31	C	ATOM	11195	P	C A 543	162.684	106.311	28.760	1.00	52.12	P
ATOM	11146	N2	G A 540	174.173	104.512	29.250	1.00	70.31	N	ATOM	11196	O1P	C A 543	161.885	107.551	28.896	1.00	52.32	O
ATOM	11147	N3	G A 540	174.275	102.761	30.726	1.00	70.31	N	ATOM	11197	O2P	C A 543	162.381	105.151	29.624	1.00	52.32	O



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ATOM	11198	O5*	C A 543	162.538	105.806	27.265	1.00	52.12	O	ATOM	11248	O2*	C A 545	153.741	95.493	22.890	1.00	56.30	O
ATOM	11199	C5*	C A 543	162.710	106.710	26.181	1.00	52.12	C	ATOM	11249	Cl*	C A 545	155.445	97.032	23.485	1.00	56.30	C
ATOM	11200	C4*	C A 543	162.458	106.002	24.881	1.00	52.12	C	ATOM	11250	N1	C A 545	156.109	97.411	24.739	1.00	62.57	N
ATOM	11201	O4*	C A 543	163.523	105.050	24.610	1.00	52.12	O	ATOM	11251	C2	C A 545	156.694	96.399	25.511	1.00	62.57	C
ATOM	11202	C3*	C A 543	161.197	105.160	24.818	1.00	52.12	C	ATOM	11252	O2	C A 545	156.690	95.239	25.084	1.00	62.57	O
ATOM	11203	O3*	C A 543	160.035	105.893	24.545	1.00	52.12	O	ATOM	11253	N3	C A 545	157.244	96.705	26.699	1.00	62.57	N
ATOM	11204	C2*	C A 543	161.507	104.214	23.679	1.00	52.12	C	ATOM	11254	C4	C A 545	157.243	97.962	27.125	1.00	62.57	C
ATOM	11205	O2*	C A 543	161.350	104.891	22.448	1.00	52.12	O	ATOM	11255	N4	C A 545	157.795	98.213	28.317	1.00	62.57	N
ATOM	11206	Cl*	C A 543	162.985	103.922	23.934	1.00	52.12	C	ATOM	11256	C5	C A 545	156.678	99.020	26.351	1.00	62.57	C
ATOM	11207	N1	C A 543	163.125	102.732	24.799	1.00	52.32	N	ATOM	11257	C6	C A 545	156.133	98.704	25.171	1.00	62.57	C
ATOM	11208	O2	C A 543	162.880	101.475	24.246	1.00	52.32	C	ATOM	11258	P	G A 546	150.810	97.306	24.464	1.00	47.53	P
ATOM	11209	C2	C A 543	162.531	101.403	23.057	1.00	52.32	C	ATOM	11259	O1P	G A 546	149.472	96.943	23.903	1.00	58.21	O
ATOM	11210	N3	C A 543	163.016	100.369	25.021	1.00	52.32	N	ATOM	11260	O2P	G A 546	150.949	98.534	25.299	1.00	58.21	O
ATOM	11211	C4	C A 543	163.369	100.490	26.302	1.00	52.32	C	ATOM	11261	O5*	G A 546	151.347	96.081	25.329	1.00	47.53	O
ATOM	11212	N4	C A 543	163.504	99.374	27.021	1.00	52.32	N	ATOM	11262	C5*	G A 546	151.318	94.748	24.800	1.00	47.53	C
ATOM	11213	C5	C A 543	163.605	101.760	26.899	1.00	52.32	C	ATOM	11263	O4*	G A 546	151.962	93.781	25.760	1.00	47.53	C
ATOM	11214	C6	C A 543	163.478	102.846	26.118	1.00	52.32	C	ATOM	11264	O4*	G A 546	153.317	94.211	26.055	1.00	47.53	O
ATOM	11215	P	G A 544	158.628	105.297	25.004	1.00	52.84	P	ATOM	11265	C3*	G A 546	151.309	93.623	27.122	1.00	47.53	C
ATOM	11216	O1P	G A 544	157.583	106.295	24.664	1.00	54.74	O	ATOM	11266	O3*	G A 546	150.208	92.718	27.052	1.00	47.53	O
ATOM	11217	O2P	G A 544	158.780	104.831	26.409	1.00	54.74	O	ATOM	11267	C2*	G A 546	152.459	93.095	27.975	1.00	47.53	C
ATOM	11218	O5*	G A 544	158.435	104.011	24.084	1.00	52.84	O	ATOM	11268	O2*	G A 546	152.643	91.701	27.827	1.00	47.53	O
ATOM	11219	C5*	G A 544	158.309	104.145	22.661	1.00	52.84	C	ATOM	11269	Cl*	G A 546	153.663	93.831	27.375	1.00	47.53	C
ATOM	11220	C4*	G A 544	158.138	102.792	22.015	1.00	52.84	C	ATOM	11270	N9	G A 546	154.046	95.029	28.122	1.00	58.21	N
ATOM	11221	O4*	G A 544	159.291	101.967	22.307	1.00	52.84	O	ATOM	11271	C8	G A 546	153.765	96.337	27.804	1.00	58.21	C
ATOM	11222	C3*	G A 544	156.952	101.967	22.479	1.00	52.84	C	ATOM	11272	N7	G A 546	154.208	97.188	28.690	1.00	58.21	N
ATOM	11223	O3*	G A 544	155.771	102.321	21.778	1.00	52.84	O	ATOM	11273	C5	G A 546	154.824	96.396	29.647	1.00	58.21	C
ATOM	11224	C2*	G A 544	157.382	100.542	22.156	1.00	52.84	C	ATOM	11274	C6	G A 546	155.476	96.755	30.853	1.00	58.21	C
ATOM	11225	O2*	G A 544	157.115	100.190	20.812	1.00	52.84	O	ATOM	11275	O6	G A 546	155.640	97.882	31.338	1.00	58.21	O
ATOM	11226	Cl*	G A 544	158.895	100.612	22.374	1.00	52.84	C	ATOM	11276	N1	G A 546	155.964	95.639	31.522	1.00	58.21	N
ATOM	11227	N9	G A 544	159.339	100.056	23.647	1.00	54.74	N	ATOM	11277	C2	G A 546	155.837	94.346	31.093	1.00	58.21	C
ATOM	11228	C8	G A 544	159.659	100.737	24.797	1.00	54.74	C	ATOM	11278	N2	G A 546	156.366	93.408	31.888	1.00	58.21	N
ATOM	11229	N7	G A 544	160.045	99.950	25.767	1.00	54.74	N	ATOM	11279	N3	G A 546	155.233	93.997	29.972	1.00	58.21	N
ATOM	11230	C5	G A 544	159.967	98.674	25.224	1.00	54.74	C	ATOM	11280	C4	G A 546	154.749	95.065	29.305	1.00	58.21	C
ATOM	11231	C6	G A 544	160.261	97.418	25.796	1.00	54.74	C	ATOM	11281	P	A A 547	149.208	92.563	28.310	1.00	52.82	P
ATOM	11232	O6	G A 544	160.663	97.167	26.930	1.00	54.74	O	ATOM	11282	O1P	A A 547	147.828	92.245	27.788	1.00	57.05	O
ATOM	11233	N1	G A 544	160.049	96.385	24.896	1.00	54.74	N	ATOM	11283	O2P	A A 547	149.395	93.733	29.211	1.00	57.05	O
ATOM	11234	C2	G A 544	159.611	96.541	23.609	1.00	54.74	C	ATOM	11284	O5*	A A 547	149.796	91.285	29.065	1.00	52.82	O
ATOM	11235	N2	G A 544	159.482	95.423	22.887	1.00	54.74	N	ATOM	11285	C5*	A A 547	149.159	90.003	28.963	1.00	52.82	C
ATOM	11236	N3	G A 544	159.326	97.705	23.063	1.00	54.74	N	ATOM	11286	C4*	A A 547	149.934	89.119	28.029	1.00	52.82	C
ATOM	11237	C4	G A 544	159.529	98.723	23.921	1.00	54.74	C	ATOM	11287	O4*	A A 547	151.280	88.949	28.541	1.00	52.82	O
ATOM	11238	P	C A 545	154.355	102.240	22.527	1.00	56.30	P	ATOM	11288	C3*	A A 547	149.359	87.723	27.825	1.00	52.82	C
ATOM	11239	O1P	C A 545	153.345	102.665	21.522	1.00	62.57	O	ATOM	11289	O3*	A A 547	149.536	87.337	26.457	1.00	52.82	O
ATOM	11240	O2P	C A 545	154.440	102.952	23.834	1.00	62.57	O	ATOM	11290	C2*	A A 547	150.223	86.870	28.753	1.00	52.82	C
ATOM	11241	O5*	C A 545	154.178	100.691	22.859	1.00	56.30	O	ATOM	11291	O2*	A A 547	150.325	85.509	28.391	1.00	52.82	O
ATOM	11242	C4*	C A 545	153.697	99.784	21.865	1.00	56.30	C	ATOM	11292	Cl*	A A 547	151.573	87.575	28.643	1.00	52.82	C
ATOM	11243	C4*	C A 545	153.931	98.348	22.282	1.00	56.30	C	ATOM	11293	N9	A A 547	152.474	87.392	29.774	1.00	57.05	N
ATOM	11244	O4*	C A 545	155.328	98.159	22.635	1.00	56.30	O	ATOM	11294	C8	A A 547	152.183	87.392	31.108	1.00	57.05	C
ATOM	11245	C3*	C A 545	153.201	97.777	23.490	1.00	56.30	C	ATOM	11295	N7	A A 547	153.234	87.251	31.875	1.00	57.05	N
ATOM	11246	O3*	C A 545	151.854	97.399	23.236	1.00	56.30	O	ATOM	11296	C5	A A 547	154.285	87.141	30.981	1.00	57.05	C
ATOM	11247	C2*	C A 545	154.034	96.540	23.784	1.00	56.30	C	ATOM	11297	C6	A A 547	155.667	86.985	31.163	1.00	57.05	C



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ATOM	11298	N6	A	A	547	156.254	86.941	32.360	1.00	57.05	N	ATOM	11348	O2P	G	A	550	156.895	93.700	18.613	1.00	40.42	O
ATOM	11299	N1	A	A	547	156.439	86.888	30.062	1.00	57.05	N	ATOM	11349	O5*	G	A	550	159.095	92.505	18.668	1.00	55.37	O
ATOM	11300	C2	A	A	547	155.854	86.962	28.868	1.00	57.05	C	ATOM	11350	C5*	G	A	550	160.520	92.637	18.529	1.00	55.37	C
ATOM	11301	N3	A	A	547	154.567	87.125	28.570	1.00	57.05	N	ATOM	11351	C4*	G	A	550	161.160	91.335	18.094	1.00	55.37	C
ATOM	11302	C4	A	A	547	153.829	87.208	29.685	1.00	57.05	C	ATOM	11352	O4*	G	A	550	160.589	90.234	18.846	1.00	55.37	O
ATOM	11303	P	G	A	548	148.645	88.032	25.304	1.00	46.11	P	ATOM	11353	C3*	G	A	550	161.018	90.850	16.659	1.00	55.37	C
ATOM	11304	O1P	G	A	548	147.291	88.340	25.861	1.00	56.93	O	ATOM	11354	O3*	G	A	550	161.898	91.489	15.741	1.00	55.37	O
ATOM	11305	O2P	G	A	548	148.756	87.251	24.042	1.00	56.93	O	ATOM	11355	C2*	G	A	550	161.414	89.386	16.796	1.00	55.37	C
ATOM	11306	O5*	G	A	548	149.355	89.432	25.071	1.00	46.11	O	ATOM	11356	O2*	G	A	550	162.810	89.207	16.877	1.00	55.37	O
ATOM	11307	C5*	G	A	548	150.378	89.585	24.087	1.00	46.11	C	ATOM	11357	C1*	G	A	550	160.840	89.024	18.157	1.00	55.37	C
ATOM	11308	C4*	G	A	548	151.679	89.870	24.763	1.00	46.11	C	ATOM	11358	N9	G	A	550	159.608	88.263	17.984	1.00	40.42	N
ATOM	11309	O4*	G	A	548	152.134	88.668	25.428	1.00	46.11	O	ATOM	11359	C8	G	A	550	158.308	88.675	18.152	1.00	40.42	C
ATOM	11310	C3*	G	A	548	152.815	90.252	23.843	1.00	46.11	C	ATOM	11360	N7	G	A	550	157.436	87.743	17.865	1.00	40.42	N
ATOM	11311	O3*	G	A	548	152.768	91.642	23.568	1.00	46.11	O	ATOM	11361	C5	G	A	550	158.210	86.650	17.498	1.00	40.42	C
ATOM	11312	C2*	G	A	548	154.039	89.854	24.655	1.00	46.11	C	ATOM	11362	C6	G	A	550	157.830	85.337	17.077	1.00	40.42	C
ATOM	11313	O2*	G	A	548	154.375	90.812	25.639	1.00	46.11	O	ATOM	11363	O6	G	A	550	156.692	84.861	16.943	1.00	40.42	O
ATOM	11314	C1*	G	A	548	153.545	88.592	25.360	1.00	46.11	C	ATOM	11364	N1	G	A	550	158.945	84.550	16.794	1.00	40.42	N
ATOM	11315	N9	G	A	548	153.909	87.371	24.647	1.00	56.93	N	ATOM	11365	C2	G	A	550	160.254	84.965	16.897	1.00	40.42	C
ATOM	11316	C8	G	A	548	153.072	86.520	23.969	1.00	56.93	C	ATOM	11366	N2	G	A	550	161.194	84.071	16.571	1.00	40.42	N
ATOM	11317	N7	G	A	548	153.698	85.515	23.424	1.00	56.93	N	ATOM	11367	N3	G	A	550	160.616	86.174	17.290	1.00	40.42	N
ATOM	11318	C5	G	A	548	155.028	85.713	23.766	1.00	56.93	C	ATOM	11368	C4	G	A	550	159.551	86.957	17.573	1.00	40.42	C
ATOM	11319	C6	G	A	548	156.180	84.943	23.462	1.00	56.93	C	ATOM	11369	P	U	A	551	161.637	91.336	14.154	1.00	49.10	P
ATOM	11320	O6	G	A	548	156.255	83.895	22.803	1.00	56.93	O	ATOM	11370	O1P	U	A	551	162.615	92.202	13.450	1.00	40.60	O
ATOM	11321	N1	G	A	548	157.327	85.506	24.008	1.00	56.93	N	ATOM	11371	O2P	U	A	551	160.182	91.495	13.866	1.00	40.60	O
ATOM	11322	C2	G	A	548	157.361	86.662	24.748	1.00	56.93	C	ATOM	11372	O5*	U	A	551	162.013	89.819	13.837	1.00	49.10	O
ATOM	11323	N2	G	A	548	158.566	87.062	25.181	1.00	56.93	N	ATOM	11373	C5*	U	A	551	163.374	89.366	13.951	1.00	49.10	C
ATOM	11324	N3	G	A	548	156.296	87.381	25.040	1.00	56.93	N	ATOM	11374	C4*	U	A	551	163.495	87.918	13.538	1.00	49.10	C
ATOM	11325	C4	G	A	548	155.173	86.854	24.521	1.00	56.93	C	ATOM	11375	O4*	U	A	551	162.694	87.089	14.408	1.00	49.10	O
ATOM	11326	P	C	A	549	152.999	92.158	22.067	1.00	46.22	P	ATOM	11376	C3*	U	A	551	163.023	87.557	12.145	1.00	49.10	C
ATOM	11327	O1P	C	A	549	152.643	93.593	22.016	1.00	45.52	O	ATOM	11377	O3*	U	A	551	164.028	87.835	11.192	1.00	49.10	O
ATOM	11328	O2P	C	A	549	152.327	91.203	21.125	1.00	45.52	O	ATOM	11378	C2*	U	A	551	162.738	86.065	12.265	1.00	49.10	C
ATOM	11329	O5*	C	A	549	154.576	92.023	21.887	1.00	46.22	O	ATOM	11379	O2*	U	A	551	163.887	85.251	12.166	1.00	49.10	O
ATOM	11330	C5*	C	A	549	155.484	92.701	22.766	1.00	46.22	C	ATOM	11380	C1*	U	A	551	162.219	85.970	13.694	1.00	49.10	C
ATOM	11331	C4*	C	A	549	156.880	92.150	22.598	1.00	46.22	C	ATOM	11381	N1	U	A	551	160.755	85.966	13.753	1.00	40.60	N
ATOM	11332	O4*	C	A	549	156.926	90.784	23.060	1.00	46.22	O	ATOM	11382	C2	U	A	551	160.122	84.781	13.467	1.00	40.60	C
ATOM	11333	C3*	C	A	549	157.423	92.085	21.182	1.00	46.22	C	ATOM	11383	O2	U	A	551	160.723	83.765	13.171	1.00	40.60	O
ATOM	11334	O3*	C	A	549	158.030	93.311	20.833	1.00	46.22	O	ATOM	11384	N3	U	A	551	158.758	84.825	13.530	1.00	40.60	N
ATOM	11335	C2*	C	A	549	158.486	91.005	21.280	1.00	46.22	C	ATOM	11385	C4	U	A	551	157.984	85.909	13.836	1.00	40.60	C
ATOM	11336	O2*	C	A	549	159.699	91.517	21.788	1.00	46.22	O	ATOM	11386	O4	U	A	551	156.766	85.797	13.802	1.00	40.60	O
ATOM	11337	C1*	C	A	549	157.873	90.057	22.304	1.00	46.22	C	ATOM	11387	C5	U	A	551	158.711	87.102	14.125	1.00	40.60	C
ATOM	11338	N1	C	A	549	157.201	88.915	21.674	1.00	45.52	N	ATOM	11388	C6	U	A	551	160.039	87.090	14.075	1.00	40.60	C
ATOM	11339	C2	C	A	549	157.973	87.824	21.285	1.00	45.52	C	ATOM	11389	P	U	A	552	163.616	88.079	9.666	1.00	39.88	P
ATOM	11340	O2	C	A	549	159.195	87.865	21.468	1.00	45.52	O	ATOM	11390	O1P	U	A	552	164.851	88.465	8.924	1.00	46.67	O
ATOM	11341	N3	C	A	549	157.375	86.756	20.716	1.00	45.52	N	ATOM	11391	O2P	U	A	552	162.447	88.989	9.670	1.00	46.67	O
ATOM	11342	C4	C	A	549	156.057	86.757	20.523	1.00	45.52	C	ATOM	11392	O5*	U	A	552	163.106	86.646	9.183	1.00	39.88	O
ATOM	11343	N4	C	A	549	155.511	85.684	19.961	1.00	45.52	N	ATOM	11393	C5*	U	A	552	164.017	85.540	9.054	1.00	39.88	C
ATOM	11344	C5	C	A	549	155.240	87.860	20.901	1.00	45.52	C	ATOM	11394	C4*	U	A	552	163.271	84.290	8.657	1.00	39.88	C
ATOM	11345	C6	C	A	549	155.849	88.910	21.469	1.00	45.52	C	ATOM	11395	O4*	U	A	552	162.413	83.845	9.742	1.00	39.88	O
ATOM	11346	P	G	A	550	158.226	93.694	19.290	1.00	55.37	P	ATOM	11396	C3*	U	A	552	162.332	84.429	7.473	1.00	39.88	C
ATOM	11347	O1P	G	A	550	159.034	94.944	19.361	1.00	40.42	O	ATOM	11397	O3*	U	A	552	163.005	84.318	6.241	1.00	39.88	O



ATOM	11398	C2*	U A 552	161.356	83.286	7.684	1.00	39.88	C	ATOM	11448	N4	C A 554	155.437	88.192	5.722	1.00	38.99	N
ATOM	11399	O2*	U A 552	161.880	82.060	7.222	1.00	39.88	O	ATOM	11449	C5	C A 554	156.008	86.772	3.890	1.00	38.99	C
ATOM	11400	C1*	U A 552	161.233	83.257	9.210	1.00	39.88	C	ATOM	11450	C6	C A 554	155.585	85.846	3.026	1.00	38.99	C
ATOM	11401	N1	U A 552	160.063	84.021	9.681	1.00	46.67	N	ATOM	11451	P	C A 555	154.255	86.442	-2.173	1.00	39.17	P
ATOM	11402	C2	U A 552	158.811	83.446	9.526	1.00	46.67	C	ATOM	11452	O1P	C A 555	154.222	86.181	-3.642	1.00	38.20	O
ATOM	11403	O2	U A 552	158.655	82.332	9.066	1.00	46.67	O	ATOM	11453	O2P	C A 555	155.287	87.354	-1.598	1.00	38.20	O
ATOM	11404	N3	U A 552	157.751	84.223	9.929	1.00	46.67	N	ATOM	11454	O5*	C A 555	152.842	87.035	-1.751	1.00	39.17	O
ATOM	11405	C4	U A 552	157.812	85.489	10.471	1.00	46.67	C	ATOM	11455	C5*	C A 555	151.630	86.513	-2.296	1.00	39.17	C
ATOM	11406	O4	U A 552	156.765	86.106	10.716	1.00	46.67	O	ATOM	11456	C4*	C A 555	150.471	87.329	-1.813	1.00	39.17	C
ATOM	11407	C5	U A 552	159.144	86.001	10.627	1.00	46.67	C	ATOM	11457	O4*	C A 555	150.332	87.181	-0.376	1.00	39.17	O
ATOM	11408	C6	U A 552	160.193	85.270	10.237	1.00	46.67	C	ATOM	11458	C3*	C A 555	150.609	88.822	-2.011	1.00	39.17	C
ATOM	11409	P	A A 553	162.459	85.143	4.983	1.00	47.40	P	ATOM	11459	O3*	C A 555	150.240	89.208	-3.320	1.00	39.17	O
ATOM	11410	O1P	A A 553	163.420	85.009	3.850	1.00	37.36	O	ATOM	11460	C2*	C A 555	149.659	89.375	-0.960	1.00	39.17	C
ATOM	11411	O2P	A A 553	162.133	86.499	5.500	1.00	37.36	O	ATOM	11461	O2*	C A 555	148.312	89.308	-1.405	1.00	39.17	O
ATOM	11412	O5*	A A 553	161.130	84.353	4.612	1.00	47.40	O	ATOM	11462	C1*	C A 555	149.863	88.392	0.193	1.00	39.17	C
ATOM	11413	C5*	A A 553	161.213	82.978	4.228	1.00	47.40	C	ATOM	11463	N1	C A 555	150.844	88.856	1.198	1.00	38.20	N
ATOM	11414	C4*	A A 553	159.842	82.392	4.053	1.00	47.40	C	ATOM	11464	C2	C A 555	150.432	89.744	2.216	1.00	38.20	C
ATOM	11415	O4*	A A 553	159.169	82.274	5.331	1.00	47.40	O	ATOM	11465	O2	C A 555	149.247	90.072	2.290	1.00	38.20	O
ATOM	11416	C3*	A A 553	158.895	83.198	3.193	1.00	47.40	C	ATOM	11466	N3	C A 555	151.341	90.212	3.098	1.00	38.20	N
ATOM	11417	O3*	A A 553	159.129	82.972	1.813	1.00	47.40	O	ATOM	11467	C4	C A 555	152.608	89.813	3.015	1.00	38.20	C
ATOM	11418	C2*	A A 553	157.537	82.697	3.657	1.00	47.40	C	ATOM	11468	N4	C A 555	153.471	90.297	3.897	1.00	38.20	N
ATOM	11419	O2*	A A 553	157.236	81.459	3.061	1.00	47.40	O	ATOM	11469	C5	C A 555	153.048	88.894	2.019	1.00	38.20	C
ATOM	11420	C1*	A A 553	157.780	82.488	5.154	1.00	47.40	C	ATOM	11470	C6	C A 555	152.143	88.446	1.140	1.00	38.20	C
ATOM	11421	N9	A A 553	157.396	83.663	5.940	1.00	37.36	N	ATOM	11471	P	C A 556	150.841	90.561	-3.944	1.00	37.13	P
ATOM	11422	C8	A A 553	158.183	84.743	6.252	1.00	37.36	C	ATOM	11472	O1P	C A 556	150.411	90.604	-5.374	1.00	33.18	O
ATOM	11423	N7	A A 553	157.560	85.671	6.933	1.00	37.36	N	ATOM	11473	O2P	C A 556	152.292	90.632	-3.599	1.00	33.18	O
ATOM	11424	C5	A A 553	156.280	85.165	7.095	1.00	37.36	C	ATOM	11474	O5*	C A 556	150.079	91.723	-3.168	1.00	37.13	O
ATOM	11425	C6	A A 553	155.136	85.681	7.731	1.00	37.36	C	ATOM	11475	C5*	C A 556	148.688	91.966	-3.425	1.00	37.13	C
ATOM	11426	N6	A A 553	155.110	86.856	8.360	1.00	37.36	N	ATOM	11476	C4*	C A 556	148.183	93.106	-2.588	1.00	37.13	C
ATOM	11427	N1	A A 553	154.013	84.940	7.703	1.00	37.36	N	ATOM	11477	O4*	C A 556	148.132	92.690	-1.210	1.00	37.13	O
ATOM	11428	C2	A A 553	154.051	83.756	7.088	1.00	37.36	C	ATOM	11478	C3*	C A 556	149.046	94.352	-2.571	1.00	37.13	C
ATOM	11429	N3	A A 553	155.067	83.156	6.462	1.00	37.36	N	ATOM	11479	O3*	C A 556	148.827	95.186	-3.696	1.00	37.13	O
ATOM	11430	C4	A A 553	156.165	83.926	6.498	1.00	37.36	C	ATOM	11480	C2*	C A 556	148.630	95.005	-1.266	1.00	37.13	C
ATOM	11431	P	C A 554	158.978	84.195	0.778	1.00	44.19	P	ATOM	11481	O2*	C A 556	147.387	95.656	-1.390	1.00	37.13	O
ATOM	11432	O1P	C A 554	159.529	83.773	-0.553	1.00	38.99	O	ATOM	11482	C1*	C A 556	148.448	93.786	-0.368	1.00	37.13	C
ATOM	11433	O2P	C A 554	159.499	85.442	1.431	1.00	38.99	O	ATOM	11483	N1	C A 556	149.701	93.485	0.349	1.00	33.18	N
ATOM	11434	O5*	C A 554	157.402	84.352	0.644	1.00	44.19	O	ATOM	11484	C2	C A 556	149.978	94.157	1.548	1.00	33.18	C
ATOM	11435	C5*	C A 554	156.614	83.298	0.106	1.00	44.19	C	ATOM	11485	O2	C A 556	149.115	94.903	2.041	1.00	33.18	O
ATOM	11436	C4*	C A 554	155.156	83.567	0.351	1.00	44.19	C	ATOM	11486	N3	C A 556	151.182	93.963	2.141	1.00	33.18	N
ATOM	11437	O4*	C A 554	154.883	83.510	1.774	1.00	44.19	O	ATOM	11487	C4	C A 556	152.068	93.119	1.599	1.00	33.18	C
ATOM	11438	C3*	C A 554	154.630	84.928	-0.070	1.00	44.19	C	ATOM	11488	N4	C A 556	153.256	92.988	2.184	1.00	33.18	N
ATOM	11439	O3*	C A 554	154.319	85.002	-1.452	1.00	44.19	O	ATOM	11489	C5	C A 556	151.779	92.381	0.425	1.00	33.18	C
ATOM	11440	C2*	C A 554	153.382	85.064	0.786	1.00	44.19	C	ATOM	11490	C6	C A 556	150.600	92.592	-0.163	1.00	33.18	C
ATOM	11441	O2*	C A 554	152.299	84.342	0.238	1.00	44.19	O	ATOM	11491	P	G A 557	149.996	96.185	-4.177	1.00	38.08	P
ATOM	11442	C1*	C A 554	153.825	84.396	2.086	1.00	44.19	C	ATOM	11492	O1P	G A 557	149.431	96.920	-5.335	1.00	51.15	O
ATOM	11443	N1	C A 554	154.302	85.386	3.060	1.00	38.99	N	ATOM	11493	O2P	G A 557	151.271	95.428	-4.334	1.00	51.15	O
ATOM	11444	C2	C A 554	153.415	85.863	4.011	1.00	38.99	C	ATOM	11494	O5*	G A 557	150.165	97.196	-2.960	1.00	38.08	O
ATOM	11445	O2	C A 554	152.272	85.406	4.040	1.00	38.99	O	ATOM	11495	C5*	G A 557	149.009	97.863	-2.424	1.00	38.08	C
ATOM	11446	N3	C A 554	153.823	86.806	4.885	1.00	38.99	N	ATOM	11496	C4*	G A 557	149.391	98.747	-1.275	1.00	38.08	C
ATOM	11447	C4	C A 554	155.073	87.257	4.839	1.00	38.99	C	ATOM	11497	O4*	G A 557	149.814	97.964	-0.145	1.00	38.08	O



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ATOM	11498	C3*	G A 557	150.538	99.679	-1.576	1.00	38.08	C	ATOM	11548	C1*	A A 559	155.371	100.947	-6.359	1.00	41.81	C
ATOM	11499	O3*	G A 557	149.976	100.835	-2.119	1.00	38.08	O	ATOM	11549	N9	A A 559	156.416	100.143	-5.712	1.00	43.93	N
ATOM	11500	C2*	G A 557	151.129	99.957	-0.207	1.00	38.08	C	ATOM	11550	C8	A A 559	156.911	98.950	-6.167	1.00	43.93	C
ATOM	11501	O2*	G A 557	150.441	101.015	0.432	1.00	38.08	O	ATOM	11551	N7	A A 559	157.819	98.417	-5.387	1.00	43.93	N
ATOM	11502	C1*	G A 557	150.863	98.634	0.519	1.00	38.08	C	ATOM	11552	C5	A A 559	157.941	99.323	-4.352	1.00	43.93	C
ATOM	11503	N9	G A 557	151.997	97.723	0.570	1.00	51.15	N	ATOM	11553	C6	A A 559	158.741	99.328	-3.201	1.00	43.93	C
ATOM	11504	C8	G A 557	152.203	96.610	-0.205	1.00	51.15	C	ATOM	11554	N6	A A 559	159.616	98.368	-2.909	1.00	43.93	N
ATOM	11505	N7	G A 557	153.287	95.965	0.113	1.00	51.15	N	ATOM	11555	N1	A A 559	158.617	100.369	-2.354	1.00	43.93	N
ATOM	11506	C5	G A 557	153.833	96.706	1.149	1.00	51.15	C	ATOM	11556	C2	A A 559	157.756	101.345	-2.667	1.00	43.93	C
ATOM	11507	O6	G A 557	155.012	96.503	1.897	1.00	51.15	O	ATOM	11557	N3	A A 559	156.954	101.463	-3.734	1.00	43.93	N
ATOM	11508	C6	G A 557	155.838	95.592	1.797	1.00	51.15	C	ATOM	11558	C4	A A 559	157.092	100.401	-4.542	1.00	43.93	C
ATOM	11509	N1	G A 557	155.194	97.498	2.845	1.00	51.15	N	ATOM	11559	P	U A 560	151.609	102.593	-7.572	1.00	41.07	P
ATOM	11510	C2	G A 557	154.349	98.552	3.049	1.00	51.15	C	ATOM	11560	O1P	U A 560	150.168	102.679	-7.246	1.00	57.03	O
ATOM	11511	N2	G A 557	154.707	99.419	4.010	1.00	51.15	N	ATOM	11561	O2P	U A 560	152.178	101.300	-8.002	1.00	57.03	O
ATOM	11512	N3	G A 557	153.239	98.748	2.364	1.00	51.15	N	ATOM	11562	O5*	U A 560	151.951	103.681	-8.672	1.00	41.07	O
ATOM	11513	C4	G A 557	153.050	97.796	1.434	1.00	51.15	C	ATOM	11563	C5*	U A 560	152.891	103.388	-9.703	1.00	41.07	C
ATOM	11514	P	G A 558	150.656	101.513	-3.376	1.00	30.25	P	ATOM	11564	C4*	U A 560	153.291	104.645	-10.415	1.00	41.07	C
ATOM	11515	O1P	G A 558	149.731	102.592	-3.835	1.00	46.82	O	ATOM	11565	O4*	U A 560	152.103	105.228	-11.010	1.00	41.07	O
ATOM	11516	O2P	G A 558	151.025	100.406	-4.298	1.00	46.82	O	ATOM	11566	C3*	U A 560	153.839	105.734	-9.514	1.00	41.07	C
ATOM	11517	O5*	G A 558	151.942	102.204	-2.743	1.00	30.25	O	ATOM	11567	O3*	U A 560	155.191	105.528	-9.037	1.00	41.07	O
ATOM	11518	C5*	G A 558	151.787	103.292	-1.832	1.00	30.25	C	ATOM	11568	C2*	U A 560	153.481	107.012	-10.267	1.00	41.07	C
ATOM	11519	C4*	G A 558	153.043	103.489	-1.029	1.00	30.25	C	ATOM	11569	O2*	U A 560	154.370	107.364	-11.311	1.00	41.07	O
ATOM	11520	O4*	G A 558	153.300	102.331	-0.195	1.00	30.25	O	ATOM	11570	C1*	U A 560	152.126	106.637	-10.871	1.00	41.07	C
ATOM	11521	C3*	G A 558	154.322	103.714	-1.815	1.00	30.25	C	ATOM	11571	N1	U A 560	150.996	107.034	-10.013	1.00	57.03	N
ATOM	11522	O3*	G A 558	154.430	105.098	-2.114	1.00	30.25	O	ATOM	11572	C2	U A 560	150.333	108.219	-10.297	1.00	57.03	C
ATOM	11523	C2*	G A 558	155.392	103.273	-0.820	1.00	30.25	C	ATOM	11573	O2	U A 560	150.640	108.947	-11.222	1.00	57.03	O
ATOM	11524	O2*	G A 558	155.693	104.277	0.115	1.00	30.25	O	ATOM	11574	N3	U A 560	149.297	108.520	-9.447	1.00	57.03	N
ATOM	11525	C1*	G A 558	154.692	102.125	-0.084	1.00	30.25	C	ATOM	11575	C4	U A 560	148.868	107.778	-8.363	1.00	57.03	C
ATOM	11526	N9	G A 558	154.965	100.820	-0.668	1.00	46.82	N	ATOM	11576	O4	U A 560	147.927	108.181	-7.676	1.00	57.03	O
ATOM	11527	C8	G A 558	154.358	100.298	-1.782	1.00	46.82	C	ATOM	11577	C5	U A 560	149.602	106.581	-8.141	1.00	57.03	C
ATOM	11528	N7	G A 558	154.758	99.093	-2.064	1.00	46.82	N	ATOM	11578	C6	U A 560	150.612	106.257	-8.950	1.00	57.03	C
ATOM	11529	C5	G A 558	155.691	98.799	-1.077	1.00	46.82	C	ATOM	11579	P	U A 561	156.424	105.319	-10.054	1.00	33.60	P
ATOM	11530	O6	G A 558	156.444	97.614	-0.849	1.00	46.82	O	ATOM	11580	O1P	U A 561	157.617	105.462	-9.179	1.00	51.44	O
ATOM	11531	C6	G A 558	156.417	96.535	-1.488	1.00	46.82	C	ATOM	11581	O2P	U A 561	156.310	106.147	-11.282	1.00	51.44	O
ATOM	11532	N1	G A 558	157.276	97.750	0.259	1.00	46.82	N	ATOM	11582	O5*	U A 561	156.329	103.786	-10.479	1.00	33.60	O
ATOM	11533	C2	G A 558	157.359	98.863	1.049	1.00	46.82	C	ATOM	11583	C5*	U A 561	156.166	103.416	-11.857	1.00	33.60	C
ATOM	11534	N2	G A 558	158.214	98.786	2.067	1.00	46.82	N	ATOM	11584	C4*	U A 561	156.442	101.947	-12.042	1.00	33.60	C
ATOM	11535	N3	G A 558	156.655	99.967	0.855	1.00	46.82	N	ATOM	11585	O4*	U A 561	157.804	101.693	-11.630	1.00	33.60	O
ATOM	11536	C4	G A 558	155.845	99.864	-0.218	1.00	46.82	C	ATOM	11586	C3*	U A 561	155.566	100.965	-11.264	1.00	33.60	C
ATOM	11537	P	A A 559	155.039	105.584	-3.512	1.00	41.81	P	ATOM	11587	O3*	U A 561	155.309	99.823	-12.066	1.00	33.60	O
ATOM	11538	O1P	A A 559	156.411	106.059	-3.209	1.00	43.93	O	ATOM	11588	C2*	U A 561	156.455	100.547	-10.094	1.00	33.60	C
ATOM	11539	O2P	A A 559	154.081	106.490	-4.181	1.00	43.93	O	ATOM	11589	O2*	U A 561	156.228	99.234	-9.611	1.00	33.60	O
ATOM	11540	C5*	A A 559	155.153	104.273	-4.401	1.00	41.81	C	ATOM	11590	C1*	U A 561	157.832	100.604	-10.733	1.00	33.60	C
ATOM	11541	C5*	A A 559	155.489	104.397	-5.794	1.00	41.81	C	ATOM	11591	N1	U A 561	158.904	100.801	-9.751	1.00	51.44	N
ATOM	11542	C4*	A A 559	154.941	103.237	-6.579	1.00	41.81	C	ATOM	11592	C2	U A 561	159.659	99.694	-9.389	1.00	51.44	C
ATOM	11543	O4*	A A 559	155.934	102.194	-6.696	1.00	41.81	O	ATOM	11593	O2	U A 561	159.502	98.582	-9.876	1.00	51.44	O
ATOM	11544	C3*	A A 559	153.709	102.590	-5.998	1.00	41.81	C	ATOM	11594	N3	U A 561	160.603	99.936	-8.430	1.00	51.44	N
ATOM	11545	O3*	A A 559	152.408	103.103	-6.290	1.00	41.81	O	ATOM	11595	C4	U A 561	160.860	101.142	-7.810	1.00	51.44	C
ATOM	11546	C2*	A A 559	154.121	101.203	-5.515	1.00	41.81	C	ATOM	11596	O4	U A 561	161.647	101.182	-6.863	1.00	51.44	O
ATOM	11547	O2*	A A 559	153.194	100.204	-5.862	1.00	41.81	O	ATOM	11597	C5	U A 561	160.059	102.231	-8.268	1.00	51.44	C



Table 1: Sheet 118/521

ATOM	11598	C6	U A 561	159.136	102.028	-9.199	1.00	51.44	C	ATOM	11648	C3*	C A 564	143.394	104.489	-17.284	1.00	31.94	C
ATOM	11599	P	C A 562	153.998	98.942	-11.799	1.00	34.69	P	ATOM	11649	O3*	C A 564	143.331	105.804	-17.799	1.00	31.94	O
ATOM	11600	O1P	C A 562	153.600	99.117	-10.382	1.00	39.77	O	ATOM	11650	C2*	C A 564	142.193	104.252	-16.393	1.00	31.94	C
ATOM	11601	O2P	C A 562	154.196	97.573	-12.340	1.00	39.77	O	ATOM	11651	O2*	C A 564	141.074	104.987	-16.831	1.00	31.94	O
ATOM	11602	O5*	C A 562	152.889	99.645	-12.689	1.00	34.69	O	ATOM	11652	C1*	C A 564	141.963	102.747	-16.557	1.00	31.94	C
ATOM	11603	C5*	C A 562	153.108	99.863	-14.075	1.00	34.69	C	ATOM	11653	N1	C A 564	142.544	102.007	-15.428	1.00	56.56	N
ATOM	11604	C4*	C A 562	151.986	99.275	-14.882	1.00	34.69	C	ATOM	11654	C2	C A 564	141.860	102.009	-14.214	1.00	56.56	C
ATOM	11605	O4*	C A 562	152.614	98.798	-16.087	1.00	34.69	O	ATOM	11655	O2	C A 564	140.785	102.626	-14.130	1.00	56.56	O
ATOM	11606	C3*	C A 562	151.259	98.078	-14.265	1.00	34.69	C	ATOM	11656	N3	C A 564	142.384	101.354	-13.158	1.00	56.56	N
ATOM	11607	O3*	C A 562	149.904	97.985	-14.768	1.00	34.69	O	ATOM	11657	C4	C A 564	143.543	100.718	-13.277	1.00	56.56	C
ATOM	11608	C2*	C A 562	152.037	96.896	-14.833	1.00	34.69	C	ATOM	11658	N4	C A 564	144.017	100.083	-12.204	1.00	56.56	N
ATOM	11609	O2*	C A 562	151.280	95.713	-14.980	1.00	34.69	O	ATOM	11659	C5	C A 564	144.267	100.700	-14.501	1.00	56.56	C
ATOM	11610	C1*	C A 562	152.426	97.413	-16.213	1.00	34.69	C	ATOM	11660	C6	C A 564	143.732	101.346	-15.545	1.00	56.56	C
ATOM	11611	N1	C A 562	153.670	96.839	-16.740	1.00	39.77	N	ATOM	11661	P	U A 565	144.308	106.926	-17.230	1.00	35.43	P
ATOM	11612	C2	C A 562	153.639	96.239	-17.986	1.00	39.77	C	ATOM	11662	O1P	U A 565	143.979	108.133	-18.023	1.00	55.61	O
ATOM	11613	O2	C A 562	152.573	96.212	-18.603	1.00	39.77	O	ATOM	11663	O2P	U A 565	145.710	106.421	-17.198	1.00	55.61	O
ATOM	11614	N3	C A 562	154.774	95.707	-18.493	1.00	39.77	N	ATOM	11664	O5*	U A 565	143.796	107.170	-15.751	1.00	35.43	O
ATOM	11615	C4	C A 562	155.913	95.771	-17.796	1.00	39.77	C	ATOM	11665	C5*	U A 565	142.548	107.831	-15.551	1.00	35.43	C
ATOM	11616	N4	C A 562	157.016	95.253	-18.347	1.00	39.77	N	ATOM	11666	C4*	U A 565	142.138	107.765	-14.115	1.00	35.43	C
ATOM	11617	C5	C A 562	155.973	96.377	-16.509	1.00	39.77	C	ATOM	11667	O4*	U A 565	141.893	106.389	-13.742	1.00	35.43	O
ATOM	11618	C6	C A 562	154.839	96.894	-16.025	1.00	39.77	C	ATOM	11668	C3*	U A 565	143.134	108.270	-13.095	1.00	35.43	C
ATOM	11619	P	A A 563	148.696	98.820	-14.085	1.00	34.18	P	ATOM	11669	O3*	U A 565	143.071	109.687	-12.986	1.00	35.43	O
ATOM	11620	O1P	A A 563	148.696	98.629	-12.612	1.00	35.99	O	ATOM	11670	C2*	U A 565	142.650	107.577	-11.827	1.00	35.43	C
ATOM	11621	O2P	A A 563	147.465	98.534	-14.861	1.00	35.99	O	ATOM	11671	O2*	U A 565	141.550	108.252	-11.238	1.00	35.43	O
ATOM	11622	O5*	A A 563	149.098	100.332	-14.361	1.00	34.18	O	ATOM	11672	C1*	U A 565	142.171	106.225	-12.368	1.00	35.43	C
ATOM	11623	C5*	A A 563	148.241	101.399	-13.965	1.00	34.18	C	ATOM	11673	N1	U A 565	143.159	105.147	-12.201	1.00	55.61	N
ATOM	11624	C4*	A A 563	148.654	102.673	-14.650	1.00	34.18	C	ATOM	11674	O2	U A 565	143.015	104.302	-11.108	1.00	55.61	O
ATOM	11625	O4*	A A 563	149.981	103.050	-14.240	1.00	34.18	O	ATOM	11675	C2	U A 565	142.065	104.352	-10.341	1.00	55.61	O
ATOM	11626	C3*	A A 563	148.739	102.628	-16.164	1.00	34.18	C	ATOM	11676	N3	U A 565	144.022	103.388	-10.948	1.00	55.61	N
ATOM	11627	O3*	A A 563	147.441	102.929	-16.619	1.00	34.18	O	ATOM	11677	C4	U A 565	145.122	103.219	-11.750	1.00	55.61	C
ATOM	11628	C2*	A A 563	149.701	103.771	-16.500	1.00	34.18	C	ATOM	11678	O4	U A 565	146.010	102.449	-11.391	1.00	55.61	O
ATOM	11629	O2*	A A 563	149.039	104.974	-16.854	1.00	34.18	O	ATOM	11679	C5	U A 565	145.171	104.085	-12.885	1.00	55.61	C
ATOM	11630	C1*	A A 563	150.493	103.945	-15.195	1.00	34.18	C	ATOM	11680	C6	U A 565	144.212	104.996	-13.068	1.00	55.61	C
ATOM	11631	N9	A A 563	151.939	103.786	-15.239	1.00	35.99	N	ATOM	11681	P	G A 566	144.397	110.518	-12.609	1.00	38.24	P
ATOM	11632	C8	A A 563	152.830	104.469	-14.459	1.00	35.99	C	ATOM	11682	O1P	G A 566	144.917	109.986	-11.330	1.00	42.28	O
ATOM	11633	N7	A A 563	154.077	104.143	-14.674	1.00	35.99	N	ATOM	11683	O2P	G A 566	144.131	111.982	-12.735	1.00	42.28	O
ATOM	11634	C5	A A 563	154.000	103.177	-15.563	1.00	35.99	C	ATOM	11684	O5*	G A 566	145.420	110.105	-13.755	1.00	38.24	O
ATOM	11635	C6	A A 563	154.976	102.441	-16.319	1.00	35.99	C	ATOM	11685	C5*	G A 566	146.753	110.622	-13.768	1.00	38.24	C
ATOM	11636	N6	A A 563	156.273	102.558	-16.051	1.00	35.99	N	ATOM	11686	C4*	G A 566	147.734	109.509	-14.023	1.00	38.24	C
ATOM	11637	N1	A A 563	154.579	101.567	-17.266	1.00	35.99	N	ATOM	11687	O4*	G A 566	147.981	108.747	-12.806	1.00	38.24	O
ATOM	11638	C2	A A 563	153.276	101.448	-17.512	1.00	35.99	C	ATOM	11688	O3*	G A 566	147.315	108.506	-15.086	1.00	38.24	O
ATOM	11639	N3	A A 563	152.255	102.081	-16.952	1.00	35.99	N	ATOM	11689	O3*	G A 566	148.488	108.104	-15.764	1.00	38.24	O
ATOM	11640	C4	A A 563	152.691	102.949	-16.025	1.00	35.99	C	ATOM	11690	C2*	G A 566	146.846	107.317	-14.254	1.00	38.24	C
ATOM	11641	P	C A 564	146.983	102.523	-18.090	1.00	31.94	P	ATOM	11691	O2*	G A 566	146.999	106.090	-14.908	1.00	38.24	O
ATOM	11642	O1P	C A 564	147.420	101.126	-18.290	1.00	56.56	O	ATOM	11692	C1*	G A 566	147.820	107.375	-13.080	1.00	38.24	C
ATOM	11643	O2P	C A 564	147.400	103.593	-19.047	1.00	56.56	O	ATOM	11693	N9	G A 566	147.388	106.700	-11.864	1.00	42.28	N
ATOM	11644	O5*	C A 564	145.398	102.533	-17.950	1.00	31.94	O	ATOM	11694	C8	G A 566	146.381	107.084	-11.016	1.00	42.28	C
ATOM	11645	C5*	C A 564	144.533	103.020	-18.998	1.00	31.94	C	ATOM	11695	N7	G A 566	146.234	106.282	-9.999	1.00	42.28	N
ATOM	11646	C4*	C A 564	143.220	103.464	-18.398	1.00	31.94	C	ATOM	11696	C5	G A 566	147.204	105.307	-10.184	1.00	42.28	C
ATOM	11647	O4*	C A 564	142.576	102.330	-17.763	1.00	31.94	O	ATOM	11697	C6	G A 566	147.541	104.178	-9.389	1.00	42.28	C



ATOM	11698	O6	G A 566	147.059	103.820	-8.311	1.00	42.28	O	ATOM	11748	N3	G A 568	157.210	104.669	-23.136	1.00	37.69	N
ATOM	11699	N1	G A 566	148.575	103.445	-9.953	1.00	42.28	N	ATOM	11749	C4	G A 568	156.013	105.164	-22.771	1.00	37.69	C
ATOM	11700	C2	G A 566	149.224	103.765	-11.108	1.00	42.28	C	ATOM	11750	P	C A 569	158.922	110.568	-23.333	1.00	38.33	P
ATOM	11701	N2	G A 566	150.191	102.930	-11.474	1.00	42.28	N	ATOM	11751	O1P	C A 569	159.917	111.635	-23.100	1.00	31.74	O
ATOM	11702	N3	G A 566	148.943	104.826	-11.848	1.00	42.28	N	ATOM	11752	O2P	C A 569	157.603	110.910	-23.936	1.00	31.74	O
ATOM	11703	C4	G A 566	147.923	105.546	-11.332	1.00	42.28	C	ATOM	11753	O5*	C A 569	159.583	109.469	-24.273	1.00	38.33	O
ATOM	11704	P	G A 567	149.000	108.905	-17.057	1.00	49.67	P	ATOM	11754	C5*	C A 569	160.930	109.022	-24.075	1.00	38.33	C
ATOM	11705	O1P	G A 567	148.856	110.367	-16.855	1.00	66.75	O	ATOM	11755	C4*	C A 569	161.283	108.017	-25.130	1.00	38.33	C
ATOM	11706	O2P	G A 567	148.399	108.247	-18.261	1.00	66.75	O	ATOM	11756	O4*	C A 569	160.420	106.863	-24.998	1.00	38.33	O
ATOM	11707	O5*	G A 567	150.547	108.567	-17.026	1.00	36.29	O	ATOM	11757	C3*	C A 569	161.066	108.495	-26.552	1.00	38.33	C
ATOM	11708	C5*	G A 567	151.315	108.786	-15.836	1.00	36.29	C	ATOM	11758	O3*	C A 569	162.228	109.161	-27.005	1.00	38.33	O
ATOM	11709	C4*	G A 567	152.763	108.457	-16.086	1.00	36.29	C	ATOM	11759	C2*	C A 569	160.840	107.196	-27.321	1.00	38.33	C
ATOM	11710	O4*	G A 567	152.972	107.022	-16.081	1.00	36.29	O	ATOM	11760	O2*	C A 569	162.030	106.551	-27.727	1.00	38.33	O
ATOM	11711	C3*	G A 567	153.309	108.917	-17.423	1.00	36.29	C	ATOM	11761	C1*	C A 569	160.160	106.314	-26.274	1.00	38.33	C
ATOM	11712	O3*	G A 567	153.685	110.283	-17.370	1.00	36.29	O	ATOM	11762	N1	C A 569	158.707	106.169	-26.458	1.00	31.74	N
ATOM	11713	C2*	G A 567	154.504	108.001	-17.622	1.00	36.29	C	ATOM	11763	C2	C A 569	158.232	105.217	-27.380	1.00	31.74	C
ATOM	11714	O2*	G A 567	155.627	108.496	-16.929	1.00	36.29	O	ATOM	11764	O2	C A 569	159.047	104.542	-28.034	1.00	31.74	O
ATOM	11715	C1*	G A 567	154.019	106.695	-16.979	1.00	36.29	C	ATOM	11765	N3	C A 569	156.902	105.059	-27.541	1.00	31.74	N
ATOM	11716	N9	G A 567	153.533	105.716	-17.956	1.00	28.49	N	ATOM	11766	C4	C A 569	156.057	105.803	-26.839	1.00	31.74	C
ATOM	11717	C8	G A 567	152.238	105.504	-18.349	1.00	28.49	C	ATOM	11767	N4	C A 569	154.766	105.601	-27.024	1.00	31.74	N
ATOM	11718	N7	G A 567	152.126	104.595	-19.285	1.00	28.49	N	ATOM	11768	C5	C A 569	156.504	106.785	-25.910	1.00	31.74	C
ATOM	11719	C5	G A 567	153.426	104.168	-19.517	1.00	28.49	C	ATOM	11769	C6	C A 569	157.826	106.935	-25.752	1.00	31.74	C
ATOM	11720	C6	G A 567	153.932	103.196	-20.428	1.00	28.49	C	ATOM	11770	P	G A 570	162.144	110.690	-27.472	1.00	36.35	P
ATOM	11721	O6	G A 567	153.316	102.513	-21.247	1.00	28.49	O	ATOM	11771	O1P	G A 570	162.029	111.497	-26.231	1.00	42.07	O
ATOM	11722	N1	G A 567	155.311	103.058	-20.320	1.00	28.49	N	ATOM	11772	O2P	G A 570	161.117	110.823	-28.549	1.00	42.07	O
ATOM	11723	C2	G A 567	156.110	103.761	-19.457	1.00	28.49	C	ATOM	11773	O5*	G A 570	163.573	110.984	-28.128	1.00	36.35	O
ATOM	11724	N2	G A 567	157.412	103.457	-19.481	1.00	28.49	N	ATOM	11774	C5*	G A 570	163.918	110.485	-29.451	1.00	36.35	C
ATOM	11725	N3	G A 567	155.660	104.689	-18.620	1.00	28.49	N	ATOM	11775	O4*	G A 570	165.184	111.148	-29.949	1.00	36.35	C
ATOM	11726	C4	G A 567	154.311	104.835	-18.698	1.00	28.49	C	ATOM	11776	C4*	G A 570	164.924	112.560	-30.078	1.00	36.35	C
ATOM	11727	P	G A 568	154.044	111.063	-18.726	1.00	39.95	P	ATOM	11777	C3*	G A 570	166.386	111.029	-29.023	1.00	36.35	C
ATOM	11728	O1P	G A 568	154.263	112.480	-18.347	1.00	37.69	O	ATOM	11778	O3*	G A 570	167.168	109.884	-29.370	1.00	36.35	O
ATOM	11729	O2P	G A 568	153.077	110.735	-19.807	1.00	37.69	O	ATOM	11779	C2*	G A 570	167.154	112.317	-29.288	1.00	36.35	C
ATOM	11730	O5*	G A 568	155.458	110.439	-19.093	1.00	39.95	O	ATOM	11780	O2*	G A 570	167.999	112.230	-30.417	1.00	36.35	C
ATOM	11731	C5*	G A 568	155.857	110.226	-20.451	1.00	39.95	C	ATOM	11781	C1*	G A 570	166.030	113.302	-29.611	1.00	36.35	C
ATOM	11732	C4*	G A 568	156.853	109.103	-20.508	1.00	39.95	C	ATOM	11782	N9	G A 570	165.563	114.165	-28.524	1.00	42.07	N
ATOM	11733	O4*	G A 568	156.178	107.843	-20.256	1.00	39.95	O	ATOM	11783	C8	G A 570	164.250	114.450	-28.226	1.00	42.07	C
ATOM	11734	C3*	G A 568	157.541	108.910	-21.840	1.00	39.95	C	ATOM	11784	N7	G A 570	164.116	115.296	-27.243	1.00	42.07	N
ATOM	11735	O3*	G A 568	158.661	109.786	-21.950	1.00	39.95	O	ATOM	11785	C5	G A 570	165.417	115.576	-26.853	1.00	42.07	C
ATOM	11736	C2*	G A 568	157.961	107.451	-21.775	1.00	39.95	C	ATOM	11786	C6	G A 570	165.898	116.437	-25.849	1.00	42.07	C
ATOM	11737	O2*	G A 568	159.136	107.352	-21.009	1.00	39.95	O	ATOM	11787	O6	G A 570	165.256	117.148	-25.080	1.00	42.07	O
ATOM	11738	C1*	G A 568	156.803	106.813	-20.997	1.00	39.95	C	ATOM	11788	N1	G A 570	167.281	116.437	-25.792	1.00	42.07	N
ATOM	11739	N9	G A 568	155.792	106.132	-21.811	1.00	37.69	N	ATOM	11789	C2	G A 570	168.098	115.711	-26.604	1.00	42.07	C
ATOM	11740	C8	G A 568	154.433	106.324	-21.773	1.00	37.69	C	ATOM	11790	N2	G A 570	169.410	115.866	-26.403	1.00	42.07	N
ATOM	11741	N7	G A 568	153.780	105.571	-22.619	1.00	37.69	N	ATOM	11791	N3	G A 570	167.665	114.897	-27.549	1.00	42.07	N
ATOM	11742	C5	G A 568	154.764	104.839	-23.260	1.00	37.69	C	ATOM	11792	C4	G A 570	166.322	114.879	-27.622	1.00	42.07	C
ATOM	11743	C6	G A 568	154.662	103.862	-24.291	1.00	37.69	C	ATOM	11793	P	U A 571	167.378	108.700	-28.304	1.00	29.10	P
ATOM	11744	O6	G A 568	153.651	103.448	-24.870	1.00	37.69	O	ATOM	11794	O1P	U A 571	167.795	107.478	-29.023	1.00	42.55	O
ATOM	11745	N1	G A 568	155.909	103.365	-24.643	1.00	37.69	N	ATOM	11795	O2P	U A 571	166.192	108.654	-27.409	1.00	42.55	O
ATOM	11746	C2	G A 568	157.101	103.761	-24.091	1.00	37.69	C	ATOM	11796	O5*	U A 571	168.629	109.172	-27.442	1.00	29.10	O
ATOM	11747	N2	G A 568	158.199	103.177	-24.580	1.00	37.69	N	ATOM	11797	C5*	U A 571	169.933	109.258	-28.028	1.00	29.10	C



ATOM	11798	C4*	U A 571	170.827	110.133	-27.194	1.00	29.10	C	ATOM	11848	C8	A A 573	165.687	103.871	-20.603	1.00	40.36	C
ATOM	11799	O4*	U A 571	170.335	111.496	-27.236	1.00	29.10	O	ATOM	11849	N7	A A 573	165.116	104.851	-19.951	1.00	40.36	N
ATOM	11800	C3*	U A 571	170.910	109.807	-25.711	1.00	29.10	C	ATOM	11850	C5	A A 573	163.811	104.425	-19.785	1.00	40.36	C
ATOM	11801	O3*	U A 571	171.811	108.762	-25.431	1.00	29.10	O	ATOM	11851	C6	A A 573	162.709	105.006	-19.142	1.00	40.36	C
ATOM	11802	C2*	U A 571	171.349	111.131	-25.110	1.00	29.10	C	ATOM	11852	N6	A A 573	162.765	106.168	-18.489	1.00	40.36	N
ATOM	11803	O2*	U A 571	172.743	111.335	-25.230	1.00	29.10	O	ATOM	11853	N1	A A 573	161.540	104.341	-19.176	1.00	40.36	N
ATOM	11804	C1*	U A 571	170.600	112.131	-25.992	1.00	29.10	C	ATOM	11854	C2	A A 573	161.499	103.165	-19.798	1.00	40.36	C
ATOM	11805	N1	U A 571	169.320	112.552	-25.399	1.00	42.55	N	ATOM	11855	N3	A A 573	162.471	102.502	-20.418	1.00	40.36	N
ATOM	11806	C2	U A 571	169.358	113.495	-24.389	1.00	42.55	C	ATOM	11856	C4	A A 573	163.620	103.191	-20.374	1.00	40.36	C
ATOM	11807	O2	U A 571	170.399	113.962	-23.955	1.00	42.55	O	ATOM	11857	P	A A 574	167.140	101.829	-25.934	1.00	32.76	P
ATOM	11808	N3	U A 571	168.130	113.872	-23.906	1.00	42.55	N	ATOM	11858	O1P	A A 574	167.900	101.027	-26.923	1.00	40.98	O
ATOM	11809	C4	U A 571	166.899	113.414	-24.320	1.00	42.55	C	ATOM	11859	O2P	A A 574	167.548	103.231	-25.657	1.00	40.98	O
ATOM	11810	O4	U A 571	165.882	113.918	-23.854	1.00	42.55	O	ATOM	11860	O5*	A A 574	165.629	101.849	-26.414	1.00	32.76	O
ATOM	11811	C5	U A 571	166.946	112.426	-25.349	1.00	42.55	C	ATOM	11861	C5*	A A 574	164.881	100.632	-26.510	1.00	32.76	C
ATOM	11812	C6	U A 571	168.121	112.038	-25.840	1.00	42.55	C	ATOM	11862	C4*	A A 574	163.427	100.947	-26.622	1.00	32.76	C
ATOM	11813	P	A A 572	171.232	107.291	-25.160	1.00	41.81	P	ATOM	11863	O4*	A A 574	162.961	101.498	-25.373	1.00	32.76	O
ATOM	11814	O1P	A A 572	172.347	106.338	-25.409	1.00	53.45	O	ATOM	11864	C3*	A A 574	163.143	102.009	-27.661	1.00	32.76	C
ATOM	11815	O2P	A A 572	169.944	107.136	-25.897	1.00	53.45	O	ATOM	11865	O3*	A A 574	162.965	101.386	-28.924	1.00	32.76	O
ATOM	11816	O5*	A A 572	170.935	107.228	-23.600	1.00	41.81	O	ATOM	11866	C2*	A A 574	161.868	102.662	-27.148	1.00	32.76	C
ATOM	11817	C5*	A A 572	169.919	108.027	-22.990	1.00	41.81	C	ATOM	11867	O2*	A A 574	160.723	101.933	-27.539	1.00	32.76	O
ATOM	11818	C4*	A A 572	169.737	107.592	-21.562	1.00	41.81	C	ATOM	11868	C1*	A A 574	162.033	102.532	-25.632	1.00	32.76	C
ATOM	11819	O4*	A A 572	168.034	108.592	-20.819	1.00	41.81	O	ATOM	11869	N9	A A 574	162.485	103.725	-24.922	1.00	40.98	N
ATOM	11820	C3*	A A 572	168.949	106.322	-21.325	1.00	41.81	C	ATOM	11870	C8	A A 574	163.633	104.454	-25.092	1.00	40.98	C
ATOM	11821	O3*	A A 572	169.828	105.214	-21.440	1.00	41.81	O	ATOM	11871	N7	A A 574	163.786	105.413	-24.212	1.00	40.98	N
ATOM	11822	C2*	A A 572	168.478	106.472	-19.876	1.00	41.81	C	ATOM	11872	C5	A A 574	162.650	105.322	-23.427	1.00	40.98	C
ATOM	11823	O2*	A A 572	169.369	105.900	-18.941	1.00	41.81	O	ATOM	11873	C6	A A 574	162.220	106.040	-22.322	1.00	40.98	C
ATOM	11824	C1*	A A 572	168.457	107.994	-19.684	1.00	41.81	C	ATOM	11874	N6	A A 574	162.913	107.027	-21.780	1.00	40.98	N
ATOM	11825	N9	A A 572	167.173	108.647	-19.439	1.00	53.45	N	ATOM	11875	N1	A A 574	161.038	105.707	-21.776	1.00	40.98	N
ATOM	11826	C8	A A 572	165.933	108.312	-19.901	1.00	53.45	C	ATOM	11876	C2	A A 574	160.341	104.710	-22.315	1.00	40.98	C
ATOM	11827	N7	A A 572	164.997	109.160	-19.553	1.00	53.45	N	ATOM	11877	N3	A A 574	160.642	103.948	-23.353	1.00	40.98	N
ATOM	11828	C5	A A 572	165.668	110.108	-18.797	1.00	53.45	C	ATOM	11878	C4	A A 574	161.827	104.308	-23.870	1.00	40.98	C
ATOM	11829	C6	A A 572	165.241	111.269	-18.156	1.00	53.45	C	ATOM	11879	P	G A 575	163.823	101.888	-30.176	1.00	40.28	P
ATOM	11830	N6	A A 572	163.983	111.695	-18.169	1.00	53.45	N	ATOM	11880	O1P	G A 575	163.433	101.083	-31.365	1.00	35.45	O
ATOM	11831	N1	A A 572	166.155	111.990	-17.493	1.00	53.45	N	ATOM	11881	O2P	G A 575	165.253	101.956	-29.763	1.00	35.45	O
ATOM	11832	C2	A A 572	167.410	111.563	-17.478	1.00	53.45	C	ATOM	11882	O5*	G A 575	163.305	103.374	-30.415	1.00	40.28	O
ATOM	11833	N3	A A 572	167.938	110.491	-18.042	1.00	53.45	N	ATOM	11883	C5*	G A 575	161.930	103.620	-30.759	1.00	40.28	C
ATOM	11834	C4	A A 572	167.001	109.795	-18.701	1.00	53.45	C	ATOM	11884	C4*	G A 575	161.727	103.405	-32.233	1.00	40.28	C
ATOM	11835	P	A A 573	169.608	104.127	-22.596	1.00	37.91	P	ATOM	11885	O4*	G A 575	160.323	103.461	-32.548	1.00	40.28	O
ATOM	11836	O1P	A A 573	170.904	103.414	-22.715	1.00	40.36	O	ATOM	11886	C3*	G A 575	162.405	104.408	-33.129	1.00	40.28	C
ATOM	11837	O2P	A A 573	169.032	104.790	-23.789	1.00	40.36	O	ATOM	11887	O3*	G A 575	163.430	103.829	-33.982	1.00	40.28	O
ATOM	11838	O5*	A A 573	168.543	103.141	-21.948	1.00	37.91	O	ATOM	11888	C2*	G A 575	161.308	105.385	-33.555	1.00	40.28	C
ATOM	11839	C5*	A A 573	168.737	101.722	-21.953	1.00	37.91	C	ATOM	11889	O2*	G A 575	161.445	105.854	-34.878	1.00	40.28	O
ATOM	11840	C4*	A A 573	167.421	101.040	-22.190	1.00	37.91	C	ATOM	11890	C1*	G A 575	160.033	104.560	-33.390	1.00	40.28	C
ATOM	11841	O4*	A A 573	166.564	101.223	-21.034	1.00	37.91	O	ATOM	11891	N9	G A 575	158.898	105.235	-32.763	1.00	35.45	N
ATOM	11842	C3*	A A 573	166.663	101.638	-23.359	1.00	37.91	C	ATOM	11892	C8	G A 575	158.930	106.106	-31.708	1.00	35.45	C
ATOM	11843	O3*	A A 573	167.071	100.994	-24.560	1.00	37.91	O	ATOM	11893	N7	G A 575	157.745	106.410	-31.256	1.00	35.45	N
ATOM	11844	C2*	A A 573	165.203	101.398	-22.986	1.00	37.91	C	ATOM	11894	C5	G A 575	156.875	105.726	-32.089	1.00	35.45	C
ATOM	11845	O2*	A A 573	164.796	100.083	-23.309	1.00	37.91	O	ATOM	11895	C6	G A 575	155.445	105.648	-32.082	1.00	35.45	C
ATOM	11846	C1*	A A 573	165.239	101.521	-21.457	1.00	37.91	C	ATOM	11896	O6	G A 575	154.631	106.163	-31.294	1.00	35.45	O
ATOM	11847	N9	A A 573	164.853	102.812	-20.860	1.00	40.36	N	ATOM	11897	N1	G A 575	154.980	104.867	-33.124	1.00	35.45	N



Table 1: Sheet 121/521

ATOM	11898	C2	G A 575	155.764	104.234	-34.046	1.00	35.45	C	ATOM	11948	P	C A 578	161.843	103.018	-40.630	1.00	37.72	P
ATOM	11899	N2	G A 575	155.115	103.556	-34.994	1.00	35.45	N	ATOM	11949	O1P	C A 578	161.747	104.404	-40.107	1.00	22.31	O
ATOM	11900	N3	G A 575	157.084	104.269	-34.048	1.00	35.45	N	ATOM	11950	O2P	C A 578	161.055	101.919	-40.006	1.00	22.31	O
ATOM	11901	C4	G A 575	157.569	105.032	-33.051	1.00	35.45	C	ATOM	11951	O5*	C A 578	161.497	103.063	-42.184	1.00	37.72	O
ATOM	11902	P	G A 576	163.087	102.885	-35.255	1.00	39.21	P	ATOM	11952	C5*	C A 578	161.918	104.177	-42.976	1.00	37.72	C
ATOM	11903	O1P	G A 576	164.284	102.024	-35.274	1.00	39.14	O	ATOM	11953	O4*	C A 578	161.535	103.979	-44.416	1.00	37.72	C
ATOM	11904	O2P	G A 576	162.724	103.682	-36.467	1.00	39.14	O	ATOM	11954	C4*	C A 578	162.124	102.756	-44.928	1.00	37.72	C
ATOM	11905	O5*	G A 576	161.866	101.944	-34.854	1.00	39.21	O	ATOM	11955	C3*	C A 578	160.060	103.816	-44.712	1.00	37.72	C
ATOM	11906	C5*	G A 576	162.088	100.617	-34.351	1.00	39.21	C	ATOM	11956	O3*	C A 578	159.386	105.055	-44.773	1.00	37.72	O
ATOM	11907	C4*	G A 576	161.621	99.574	-35.348	1.00	39.21	C	ATOM	11957	C2*	C A 578	160.087	103.136	-46.070	1.00	37.72	C
ATOM	11908	O4*	G A 576	160.191	99.352	-35.288	1.00	39.21	C	ATOM	11958	O2*	C A 578	160.389	104.036	-47.115	1.00	37.72	O
ATOM	11909	C3*	G A 576	161.978	99.754	-36.815	1.00	39.21	C	ATOM	11959	C1*	C A 578	161.271	102.197	-45.909	1.00	37.72	C
ATOM	11910	O3*	G A 576	162.371	98.497	-37.322	1.00	39.21	O	ATOM	11960	N1	C A 578	160.831	100.863	-45.471	1.00	22.31	N
ATOM	11911	C2*	G A 576	160.639	100.069	-37.469	1.00	39.21	C	ATOM	11961	C2	C A 578	160.309	99.974	-46.429	1.00	22.31	C
ATOM	11912	O2*	G A 576	160.583	99.584	-38.796	1.00	39.21	O	ATOM	11962	O2	C A 578	159.929	98.739	-46.052	1.00	22.31	O
ATOM	11913	C1*	G A 576	159.667	99.275	-36.597	1.00	39.21	C	ATOM	11963	N3	C A 578	160.200	100.352	-47.605	1.00	22.31	N
ATOM	11914	N9	G A 576	158.324	99.848	-36.589	1.00	39.14	N	ATOM	11964	C4	C A 578	160.038	98.378	-44.779	1.00	22.31	C
ATOM	11915	C8	G A 576	157.990	101.108	-36.168	1.00	39.14	C	ATOM	11965	N4	C A 578	159.653	97.147	-44.444	1.00	22.31	N
ATOM	11916	N7	G A 576	156.725	101.376	-36.311	1.00	39.14	N	ATOM	11966	C5	C A 578	160.548	99.261	-43.783	1.00	22.31	C
ATOM	11917	C5	G A 576	156.182	100.220	-36.848	1.00	39.14	C	ATOM	11967	C6	C A 578	160.927	100.482	-44.167	1.00	22.31	C
ATOM	11918	C6	G A 576	154.848	99.932	-37.223	1.00	39.14	C	ATOM	11968	P	G A 579	157.798	105.098	-44.549	1.00	39.69	P
ATOM	11919	O6	G A 576	153.861	100.670	-37.172	1.00	39.14	O	ATOM	11969	O1P	G A 579	157.415	106.532	-44.629	1.00	36.36	O
ATOM	11920	N1	G A 576	154.720	98.642	-37.709	1.00	39.14	N	ATOM	11970	O2P	G A 579	157.472	104.305	-43.320	1.00	36.36	O
ATOM	11921	C2	G A 576	155.744	97.749	-37.828	1.00	39.14	C	ATOM	11971	O5*	G A 579	157.176	104.341	-45.811	1.00	39.69	O
ATOM	11922	N2	G A 576	155.404	96.558	-38.307	1.00	39.14	N	ATOM	11972	C5*	G A 579	157.020	105.014	-47.064	1.00	39.69	C
ATOM	11923	N3	G A 576	157.004	98.007	-37.498	1.00	39.14	N	ATOM	11973	C4*	G A 579	156.838	104.016	-48.185	1.00	39.69	C
ATOM	11924	C4	G A 576	157.148	99.258	-37.015	1.00	39.14	C	ATOM	11974	O4*	G A 579	157.567	102.806	-47.862	1.00	39.69	O
ATOM	11925	P	G A 577	163.891	98.242	-37.731	1.00	41.78	P	ATOM	11975	C3*	G A 579	155.438	103.511	-48.490	1.00	39.69	C
ATOM	11926	O1P	G A 577	163.905	96.844	-38.239	1.00	28.47	O	ATOM	11976	C2*	G A 579	154.730	104.407	-49.340	1.00	39.69	O
ATOM	11927	O2P	G A 577	164.737	98.619	-36.579	1.00	28.47	O	ATOM	11977	O3*	G A 579	155.718	102.209	-49.227	1.00	39.69	O
ATOM	11928	O5*	G A 577	164.145	99.226	-38.949	1.00	41.78	O	ATOM	11978	O2*	G A 579	156.044	102.438	-50.587	1.00	39.69	O
ATOM	11929	C5*	G A 577	164.915	100.421	-38.788	1.00	41.78	C	ATOM	11979	C1*	G A 579	156.968	101.707	-48.512	1.00	39.69	C
ATOM	11930	C4*	G A 577	165.160	101.044	-40.136	1.00	41.78	C	ATOM	11980	N9	G A 579	156.719	100.653	-47.538	1.00	36.36	N
ATOM	11931	O4*	G A 577	165.783	100.042	-40.975	1.00	41.78	O	ATOM	11981	C8	G A 579	156.897	100.710	-46.181	1.00	36.36	C
ATOM	11932	C3*	G A 577	163.895	101.417	-40.889	1.00	41.78	C	ATOM	11982	N7	G A 579	156.613	99.588	-45.580	1.00	36.36	N
ATOM	11933	O3*	G A 577	163.422	102.709	-40.551	1.00	41.78	O	ATOM	11983	C5	G A 579	156.218	98.744	-46.604	1.00	36.36	C
ATOM	11934	C2*	G A 577	164.315	101.314	-42.342	1.00	41.78	C	ATOM	11984	C6	G A 579	155.790	97.392	-46.566	1.00	36.36	C
ATOM	11935	O2*	G A 577	164.990	102.457	-42.803	1.00	41.78	O	ATOM	11985	O6	G A 579	155.690	96.644	-45.591	1.00	36.36	O
ATOM	11936	C1*	G A 577	165.290	100.146	-42.291	1.00	41.78	C	ATOM	11986	N1	G A 579	155.465	96.923	-47.830	1.00	36.36	N
ATOM	11937	N9	G A 577	164.660	98.885	-42.666	1.00	28.47	N	ATOM	11987	C2	G A 579	155.551	97.657	-48.983	1.00	36.36	C
ATOM	11938	C8	G A 577	164.490	97.754	-41.905	1.00	28.47	C	ATOM	11988	N2	G A 579	155.189	97.025	-50.109	1.00	36.36	N
ATOM	11939	N7	G A 577	163.913	96.785	-42.562	1.00	28.47	N	ATOM	11989	N3	G A 579	155.959	98.914	-49.034	1.00	36.36	N
ATOM	11940	C5	G A 577	163.685	97.317	-43.826	1.00	28.47	C	ATOM	11990	C4	G A 579	156.272	99.389	-47.816	1.00	37.76	C
ATOM	11941	C6	G A 577	163.106	96.742	-44.977	1.00	28.47	C	ATOM	11991	P	U A 580	153.119	104.499	-49.244	1.00	37.76	P
ATOM	11942	O6	G A 577	162.670	95.593	-45.132	1.00	28.47	O	ATOM	11992	O1P	U A 580	152.719	105.580	-50.195	1.00	44.36	O
ATOM	11943	N1	G A 577	163.072	97.642	-46.032	1.00	28.47	N	ATOM	11993	O2P	U A 580	152.719	104.592	-47.810	1.00	44.36	O
ATOM	11944	C2	G A 577	163.544	98.920	-45.992	1.00	28.47	C	ATOM	11994	O5*	U A 580	152.582	103.102	-49.800	1.00	37.76	O
ATOM	11945	N2	G A 577	163.427	99.644	-47.111	1.00	28.47	N	ATOM	11995	C5*	U A 580	152.337	102.902	-51.200	1.00	37.76	C
ATOM	11946	N3	G A 577	164.093	99.459	-44.937	1.00	28.47	N	ATOM	11996	C4*	U A 580	151.896	101.485	-51.442	1.00	37.76	C
ATOM	11947	C4	G A 577	164.131	98.609	-43.897	1.00	28.47	C	ATOM	11997	O4*	U A 580	152.856	100.602	-50.815	1.00	37.76	O



Table 1: Sheet 122/521

ATOM	11998	C3*	U A 580	150.572	101.068	-50.827	1.00	37.76	C	ATOM	12048	O2	U A 582	144.886	92.654	-42.823	1.00	44.34	O
ATOM	11999	O3*	U A 580	149.465	101.378	-51.650	1.00	37.76	C	ATOM	12049	N3	U A 582	146.027	94.538	-42.373	1.00	44.34	N
ATOM	12000	C2*	U A 580	150.731	99.565	-50.683	1.00	37.76	C	ATOM	12050	C4	U A 582	146.540	95.771	-42.672	1.00	44.34	C
ATOM	12001	O2*	U A 580	150.502	98.874	-51.895	1.00	37.76	O	ATOM	12051	O4	U A 582	147.174	96.386	-41.806	1.00	44.34	O
ATOM	12002	C1*	U A 580	152.204	99.452	-50.314	1.00	37.76	C	ATOM	12052	C5	U A 582	146.288	96.213	-44.021	1.00	44.34	C
ATOM	12003	N1	U A 580	152.407	99.389	-48.858	1.00	44.36	N	ATOM	12053	C6	U A 582	145.616	95.428	-44.865	1.00	44.34	C
ATOM	12004	C2	U A 580	152.155	98.180	-48.227	1.00	44.36	C	ATOM	12054	P	U A 583	140.020	95.163	-45.269	1.00	46.48	P
ATOM	12005	O2	U A 580	151.757	97.191	-48.825	1.00	44.36	O	ATOM	12055	O1P	A A 583	138.636	94.974	-45.773	1.00	35.28	O
ATOM	12006	N3	U A 580	152.385	98.173	-46.873	1.00	44.36	N	ATOM	12056	O2P	A A 583	140.562	96.548	-45.114	1.00	35.28	O
ATOM	12007	C4	U A 580	152.829	99.221	-46.099	1.00	44.36	C	ATOM	12057	O5*	A A 583	140.141	94.386	-43.885	1.00	46.48	O
ATOM	12008	O4	U A 580	153.077	99.029	-44.912	1.00	44.36	O	ATOM	12058	C5*	A A 583	139.715	93.019	-43.788	1.00	46.48	C
ATOM	12009	C5	U A 580	153.048	100.441	-46.814	1.00	44.36	C	ATOM	12059	C4*	A A 583	140.026	92.481	-42.426	1.00	46.48	C
ATOM	12010	C6	U A 580	152.838	100.485	-48.134	1.00	44.36	C	ATOM	12060	O4*	A A 583	141.456	92.483	-42.236	1.00	46.48	O
ATOM	12011	P	G A 581	148.190	102.084	-51.000	1.00	44.29	P	ATOM	12061	C3*	A A 583	139.494	93.322	-41.285	1.00	46.48	C
ATOM	12012	O1P	G A 581	147.290	102.498	-52.108	1.00	35.18	O	ATOM	12062	O3*	A A 583	138.152	93.005	-40.993	1.00	46.48	O
ATOM	12013	O2P	G A 581	148.703	103.106	-50.040	1.00	35.18	O	ATOM	12063	C2*	A A 583	140.444	92.982	-40.148	1.00	46.48	C
ATOM	12014	O5*	G A 581	147.490	100.929	-50.164	1.00	44.29	O	ATOM	12064	O2*	A A 583	140.134	91.770	-39.491	1.00	46.48	O
ATOM	12015	C5*	G A 581	146.675	99.958	-50.824	1.00	44.29	C	ATOM	12065	C1*	A A 583	141.762	92.824	-40.899	1.00	46.48	C
ATOM	12016	C4*	G A 581	146.736	98.648	-50.091	1.00	44.29	C	ATOM	12066	N9	A A 583	142.506	94.077	-40.915	1.00	35.28	N
ATOM	12017	O4*	G A 581	148.097	98.487	-49.620	1.00	44.29	O	ATOM	12067	C8	A A 583	142.546	95.018	-41.916	1.00	35.28	C
ATOM	12018	C3*	G A 581	145.889	98.500	-48.836	1.00	44.29	C	ATOM	12068	N7	A A 583	143.297	96.057	-41.634	1.00	35.28	N
ATOM	12019	O3*	G A 581	144.557	98.068	-49.131	1.00	44.29	O	ATOM	12069	C5	A A 583	143.785	95.779	-40.368	1.00	35.28	C
ATOM	12020	C2*	G A 581	146.655	97.434	-48.074	1.00	44.29	C	ATOM	12070	C6	A A 583	144.629	96.488	-39.524	1.00	35.28	C
ATOM	12021	O2*	G A 581	146.401	96.170	-48.647	1.00	44.29	O	ATOM	12071	N6	A A 583	145.157	97.663	-39.853	1.00	35.28	N
ATOM	12022	C1*	G A 581	148.103	97.812	-48.380	1.00	44.29	C	ATOM	12072	N1	A A 583	144.921	95.944	-38.317	1.00	35.28	N
ATOM	12023	N9	G A 581	148.684	98.702	-47.374	1.00	35.18	N	ATOM	12073	C2	A A 583	144.386	94.755	-38.005	1.00	35.28	C
ATOM	12024	C8	G A 581	148.853	100.067	-47.464	1.00	35.18	C	ATOM	12074	N3	A A 583	143.575	93.984	-38.724	1.00	35.28	N
ATOM	12025	N7	G A 581	149.342	100.595	-46.374	1.00	35.18	N	ATOM	12075	C4	A A 583	143.309	94.562	-39.911	1.00	35.28	C
ATOM	12026	C5	G A 581	149.526	99.513	-45.523	1.00	35.18	C	ATOM	12076	P	G A 584	137.147	94.170	-40.537	1.00	44.48	P
ATOM	12027	O6	G A 581	150.007	99.462	-44.192	1.00	35.18	O	ATOM	12077	O1P	G A 584	135.948	93.451	-40.018	1.00	37.54	O
ATOM	12028	C6	G A 581	150.406	100.378	-43.485	1.00	35.18	C	ATOM	12078	O2P	G A 584	136.996	95.185	-41.639	1.00	37.54	O
ATOM	12029	N1	G A 581	149.997	98.174	-43.695	1.00	35.18	N	ATOM	12079	O5*	G A 584	137.864	94.846	-39.285	1.00	44.48	O
ATOM	12030	C2	G A 581	149.591	97.073	-44.386	1.00	35.18	C	ATOM	12080	C5*	G A 584	137.996	94.125	-38.057	1.00	44.48	C
ATOM	12031	N2	G A 581	149.645	95.913	-43.717	1.00	35.18	N	ATOM	12081	C4*	G A 584	138.933	94.841	-37.118	1.00	44.48	C
ATOM	12032	N3	G A 581	149.157	97.098	-45.633	1.00	35.18	N	ATOM	12082	O4*	G A 584	140.221	95.014	-37.762	1.00	44.48	O
ATOM	12033	C4	G A 581	149.140	98.340	-46.132	1.00	35.18	C	ATOM	12083	C3*	G A 584	138.554	96.246	-36.689	1.00	44.48	C
ATOM	12034	P	U A 582	143.434	98.073	-47.969	1.00	44.50	P	ATOM	12084	O3*	G A 584	137.614	96.286	-35.630	1.00	44.48	O
ATOM	12035	O1P	U A 582	142.099	98.161	-48.602	1.00	44.34	O	ATOM	12085	C2*	G A 584	139.894	96.817	-36.260	1.00	44.48	C
ATOM	12036	O2P	U A 582	143.815	99.072	-46.943	1.00	44.34	O	ATOM	12086	O2*	G A 584	140.275	96.378	-34.979	1.00	44.48	O
ATOM	12037	O5*	U A 582	143.544	96.619	-47.332	1.00	44.50	C	ATOM	12087	C1*	G A 584	140.835	96.194	-37.284	1.00	44.48	C
ATOM	12038	C5*	U A 582	143.311	95.455	-48.133	1.00	44.50	C	ATOM	12088	N9	G A 584	141.050	97.107	-38.402	1.00	37.54	N
ATOM	12039	C4*	U A 582	143.205	94.234	-47.261	1.00	44.50	C	ATOM	12089	C8	G A 584	140.473	97.066	-39.647	1.00	37.54	C
ATOM	12040	O4*	U A 582	144.511	93.857	-46.760	1.00	44.50	O	ATOM	12090	N7	G A 584	140.856	98.046	-40.419	1.00	37.54	N
ATOM	12041	C3*	U A 582	142.381	94.409	-46.008	1.00	44.50	C	ATOM	12091	C5	G A 584	141.740	98.774	-39.637	1.00	37.54	C
ATOM	12042	O3*	U A 582	141.002	94.340	-46.234	1.00	44.50	O	ATOM	12092	C6	G A 584	142.461	99.949	-39.928	1.00	37.54	O
ATOM	12043	C2*	U A 582	142.901	93.296	-45.117	1.00	44.50	C	ATOM	12093	O6	G A 584	142.448	100.621	-40.972	1.00	37.54	O
ATOM	12044	O2*	U A 582	142.392	92.022	-45.454	1.00	44.50	O	ATOM	12094	N1	G A 584	143.246	100.346	-38.846	1.00	37.54	N
ATOM	12045	C1*	U A 582	144.389	93.334	-45.444	1.00	44.50	C	ATOM	12095	C2	G A 584	143.310	99.696	-37.637	1.00	37.54	C
ATOM	12046	N1	U A 582	145.130	94.197	-44.501	1.00	44.34	N	ATOM	12096	N2	G A 584	144.107	100.222	-36.704	1.00	37.54	N
ATOM	12047	C2	U A 582	145.321	93.719	-43.205	1.00	44.34	C	ATOM	12097	N3	G A 584	142.636	98.609	-37.359	1.00	37.54	N



ATOM	12098	C4	G A 584	141.876	98.205	-38.394	1.00	37.54	C	ATOM	12148	O4*	G A 587	136.528	109.605	-37.847	1.00	49.23	O
ATOM	12099	P	G A 585	136.673	97.580	-35.468	1.00	38.66	P	ATOM	12149	C3*	G A 587	134.751	111.119	-37.443	1.00	49.23	C
ATOM	12100	O1P	G A 585	135.678	97.289	-34.414	1.00	33.78	O	ATOM	12150	O3*	G A 587	134.672	112.547	-37.293	1.00	49.23	O
ATOM	12101	O2P	G A 585	136.203	97.982	-36.815	1.00	33.78	O	ATOM	12151	C2*	G A 587	134.678	110.698	-38.918	1.00	49.23	C
ATOM	12102	O5*	G A 585	137.661	98.707	-34.923	1.00	38.66	O	ATOM	12152	O2*	G A 587	134.729	111.751	-39.863	1.00	49.23	O
ATOM	12103	C5*	G A 585	138.201	98.626	-33.591	1.00	38.66	C	ATOM	12153	C1*	G A 587	135.865	109.742	-39.075	1.00	49.23	C
ATOM	12104	C4*	G A 585	139.104	99.803	-33.315	1.00	38.66	C	ATOM	12154	N9	G A 587	135.537	108.414	-39.566	1.00	34.98	N
ATOM	12105	O4*	G A 585	140.247	99.726	-34.193	1.00	38.66	O	ATOM	12155	C8	G A 587	135.374	107.267	-38.832	1.00	34.98	C
ATOM	12106	C3*	G A 585	138.513	101.176	-33.590	1.00	38.66	C	ATOM	12156	N7	G A 587	135.120	106.221	-39.573	1.00	34.98	N
ATOM	12107	O3*	G A 585	137.766	101.687	-32.506	1.00	38.66	O	ATOM	12157	C5	G A 587	135.105	106.719	-40.868	1.00	34.98	C
ATOM	12108	C2*	G A 585	139.744	102.018	-33.855	1.00	38.66	C	ATOM	12158	C6	G A 587	134.885	106.066	-42.088	1.00	34.98	C
ATOM	12109	O2*	G A 585	140.367	102.420	-32.652	1.00	38.66	O	ATOM	12159	O6	G A 587	134.656	104.870	-42.288	1.00	34.98	O
ATOM	12110	C1*	G A 585	140.621	101.026	-34.616	1.00	38.66	C	ATOM	12160	N1	G A 587	134.954	106.946	-43.157	1.00	34.98	N
ATOM	12111	N9	G A 585	140.380	101.103	-36.053	1.00	33.78	N	ATOM	12161	C2	G A 587	135.199	108.286	-43.057	1.00	34.98	C
ATOM	12112	C8	G A 585	139.622	100.238	-36.804	1.00	33.78	C	ATOM	12162	N2	G A 587	135.199	108.981	-44.204	1.00	34.98	N
ATOM	12113	N7	G A 585	139.564	100.568	-38.064	1.00	33.78	N	ATOM	12163	N3	G A 587	135.420	108.905	-41.921	1.00	34.98	N
ATOM	12114	C5	G A 585	140.339	101.719	-38.156	1.00	33.78	C	ATOM	12164	C4	G A 587	135.356	108.069	-40.875	1.00	34.98	C
ATOM	12115	C6	G A 585	140.660	102.524	-39.281	1.00	33.78	C	ATOM	12165	P	G A 588	133.305	113.323	-37.629	1.00	47.99	P
ATOM	12116	O6	G A 585	140.324	102.369	-40.452	1.00	33.78	O	ATOM	12166	O1P	G A 588	133.028	114.187	-36.458	1.00	53.88	O
ATOM	12117	N1	G A 585	141.470	103.593	-38.933	1.00	33.78	N	ATOM	12167	O2P	G A 588	132.285	112.324	-38.078	1.00	53.88	O
ATOM	12118	C2	G A 585	141.930	103.854	-37.665	1.00	33.78	C	ATOM	12168	O5*	G A 588	133.653	114.281	-38.857	1.00	47.99	O
ATOM	12119	N2	G A 585	142.716	104.941	-37.530	1.00	33.78	N	ATOM	12169	C5*	G A 588	134.671	115.285	-38.725	1.00	47.99	C
ATOM	12120	N3	G A 585	141.647	103.107	-36.607	1.00	33.78	N	ATOM	12170	C4*	G A 588	134.451	116.441	-39.690	1.00	47.99	C
ATOM	12121	C4	G A 585	140.851	102.063	-36.924	1.00	33.78	C	ATOM	12171	O4*	G A 588	134.618	116.002	-41.058	1.00	47.99	O
ATOM	12122	P	C A 586	136.373	102.434	-32.795	1.00	37.03	P	ATOM	12172	C3*	G A 588	133.124	117.184	-39.720	1.00	47.99	C
ATOM	12123	O1P	C A 586	135.752	102.707	-31.449	1.00	32.51	O	ATOM	12173	O3*	G A 588	132.980	118.126	-38.664	1.00	47.99	O
ATOM	12124	O2P	C A 586	135.641	101.615	-33.809	1.00	32.51	O	ATOM	12174	C2*	G A 588	133.201	117.907	-41.058	1.00	47.99	C
ATOM	12125	O5*	C A 586	136.808	103.802	-33.486	1.00	37.03	O	ATOM	12175	O2*	G A 588	133.984	119.085	-40.971	1.00	47.99	O
ATOM	12126	C5*	C A 586	137.587	104.737	-32.749	1.00	37.03	C	ATOM	12176	C1*	G A 588	133.941	116.892	-41.924	1.00	47.99	C
ATOM	12127	C4*	C A 586	138.165	105.795	-33.642	1.00	37.03	C	ATOM	12177	N9	G A 588	133.079	116.121	-42.813	1.00	53.88	N
ATOM	12128	O4*	C A 586	139.072	105.208	-34.605	1.00	37.03	O	ATOM	12178	C8	G A 588	132.938	114.756	-42.850	1.00	53.88	C
ATOM	12129	C3*	C A 586	137.221	106.611	-34.500	1.00	37.03	C	ATOM	12179	N7	G A 588	132.122	114.350	-43.785	1.00	53.88	N
ATOM	12130	O3*	C A 586	136.530	107.613	-33.779	1.00	37.03	O	ATOM	12180	C5	G A 588	131.690	115.518	-44.397	1.00	53.88	C
ATOM	12131	C2*	C A 586	138.177	107.209	-35.526	1.00	37.03	C	ATOM	12181	C6	G A 588	130.794	115.706	-45.478	1.00	53.88	C
ATOM	12132	O2*	C A 586	138.872	108.357	-35.079	1.00	37.03	O	ATOM	12182	O6	G A 588	130.197	114.847	-46.142	1.00	53.88	O
ATOM	12133	C1*	C A 586	139.167	106.063	-35.731	1.00	37.03	C	ATOM	12183	N1	G A 588	130.616	117.058	-45.764	1.00	53.88	N
ATOM	12134	N1	C A 586	138.777	105.335	-36.934	1.00	32.51	N	ATOM	12184	C2	G A 588	131.222	118.093	-45.094	1.00	53.88	C
ATOM	12135	C2	C A 586	138.973	105.962	-38.169	1.00	32.51	C	ATOM	12185	N2	G A 588	130.902	119.330	-45.495	1.00	53.88	N
ATOM	12136	O2	C A 586	139.550	107.059	-38.195	1.00	32.51	O	ATOM	12186	N3	G A 588	132.074	117.928	-44.095	1.00	53.88	N
ATOM	12137	N3	C A 586	138.529	105.366	-39.295	1.00	32.51	N	ATOM	12187	C4	G A 588	132.259	116.622	-43.801	1.00	53.88	C
ATOM	12138	C4	C A 586	137.912	104.184	-39.218	1.00	32.51	C	ATOM	12188	P	C A 589	131.560	118.265	-37.926	1.00	52.50	P
ATOM	12139	N4	C A 586	137.436	103.652	-40.348	1.00	32.51	N	ATOM	12189	O1P	C A 589	131.796	119.124	-36.727	1.00	38.72	O
ATOM	12140	C5	C A 586	137.745	103.499	-37.975	1.00	32.51	C	ATOM	12190	O2P	C A 589	130.984	116.900	-37.760	1.00	38.72	O
ATOM	12141	C6	C A 586	138.194	104.104	-36.870	1.00	32.51	C	ATOM	12191	O5*	C A 589	130.637	119.015	-38.989	1.00	52.50	O
ATOM	12142	P	G A 587	135.070	108.058	-34.267	1.00	49.23	P	ATOM	12192	C5*	C A 589	130.786	120.428	-39.238	1.00	52.50	C
ATOM	12143	O1P	G A 587	134.536	108.988	-33.257	1.00	34.98	O	ATOM	12193	C4*	C A 589	129.828	120.886	-40.318	1.00	52.50	C
ATOM	12144	O2P	G A 587	134.286	106.869	-34.645	1.00	34.98	O	ATOM	12194	O4*	C A 589	130.171	120.275	-41.588	1.00	52.50	O
ATOM	12145	O5*	G A 587	135.356	108.867	-35.602	1.00	49.23	O	ATOM	12195	C3*	C A 589	128.361	120.539	-40.132	1.00	52.50	C
ATOM	12146	C5*	G A 587	136.132	110.082	-35.590	1.00	49.23	C	ATOM	12196	O3*	C A 589	127.704	121.434	-39.250	1.00	52.50	O
ATOM	12147	C4*	G A 587	136.133	110.673	-36.968	1.00	49.23	C	ATOM	12197	C2*	C A 589	127.815	120.615	-41.552	1.00	52.50	C



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ATOM	12198	O2*	C A 589	127.484	121.914	-41.994	1.00	52.50	O	ATOM	12248	P	G A 592	115.636	117.770	-38.446	1.00	63.73	P
ATOM	12199	C1*	C A 589	129.002	120.110	-42.365	1.00	52.50	C	ATOM	12249	O1P	G A 592	114.547	118.558	-37.794	1.00	53.43	O
ATOM	12200	N1	C A 589	128.825	118.693	-42.671	1.00	38.72	N	ATOM	12250	O2P	G A 592	116.841	117.363	-37.648	1.00	53.43	O
ATOM	12201	C2	C A 589	128.028	118.348	-43.764	1.00	38.72	C	ATOM	12251	O5*	G A 592	115.002	116.464	-39.109	1.00	63.73	O
ATOM	12202	O2	C A 589	127.570	119.256	-44.479	1.00	38.72	O	ATOM	12252	C5*	G A 592	113.763	116.539	-39.821	1.00	63.73	C
ATOM	12203	N3	C A 589	127.781	117.045	-44.022	1.00	38.72	N	ATOM	12253	C4*	G A 592	113.470	115.234	-40.512	1.00	63.73	C
ATOM	12204	C4	C A 589	128.315	116.107	-43.250	1.00	38.72	C	ATOM	12254	O4*	G A 592	114.526	114.950	-41.467	1.00	63.73	O
ATOM	12205	N4	C A 589	128.027	114.834	-43.523	1.00	38.72	N	ATOM	12255	C3*	G A 592	113.447	113.999	-39.635	1.00	63.73	C
ATOM	12206	C5	C A 589	129.168	116.429	-42.153	1.00	38.72	C	ATOM	12256	O3*	G A 592	112.245	113.802	-38.935	1.00	63.73	O
ATOM	12207	C6	C A 589	129.394	117.723	-41.900	1.00	38.72	C	ATOM	12257	O2*	G A 592	113.708	112.883	-40.633	1.00	63.73	O
ATOM	12208	P	C A 590	126.413	120.933	-38.438	1.00	44.66	P	ATOM	12258	O2*	G A 592	112.556	112.486	-41.347	1.00	63.73	O
ATOM	12209	O1P	C A 590	126.070	122.019	-37.477	1.00	54.19	O	ATOM	12259	C1*	G A 592	114.725	113.545	-41.561	1.00	63.73	C
ATOM	12210	O2P	C A 590	126.674	119.562	-37.927	1.00	54.19	O	ATOM	12260	N9	G A 592	116.070	113.215	-41.090	1.00	53.43	N
ATOM	12211	O5*	C A 590	125.295	120.827	-39.568	1.00	44.66	O	ATOM	12261	C8	G A 592	116.929	114.000	-40.356	1.00	53.43	C
ATOM	12212	C5*	C A 590	124.789	122.005	-40.203	1.00	44.66	C	ATOM	12262	N7	G A 592	118.017	113.374	-40.005	1.00	53.43	N
ATOM	12213	C4*	C A 590	123.630	121.666	-41.110	1.00	44.66	C	ATOM	12263	C5	G A 592	117.875	112.107	-40.557	1.00	53.43	C
ATOM	12214	O4*	C A 590	124.100	120.981	-42.297	1.00	44.66	O	ATOM	12264	C6	G A 592	118.732	110.966	-40.501	1.00	53.43	C
ATOM	12215	C3*	C A 590	122.560	120.753	-40.535	1.00	44.66	C	ATOM	12265	O6	G A 592	119.815	110.833	-39.903	1.00	53.43	O
ATOM	12216	O3*	C A 590	121.634	121.454	-39.720	1.00	44.66	O	ATOM	12266	N1	G A 592	118.205	109.901	-41.225	1.00	53.43	N
ATOM	12217	C2*	C A 590	121.913	120.170	-41.788	1.00	44.66	C	ATOM	12267	C2	G A 592	117.011	109.918	-41.897	1.00	53.43	C
ATOM	12218	O2*	C A 590	120.928	120.999	-42.372	1.00	44.66	O	ATOM	12268	N2	G A 592	116.678	108.800	-42.548	1.00	53.43	N
ATOM	12219	C1*	C A 590	123.107	120.071	-42.738	1.00	44.66	C	ATOM	12269	N3	G A 592	116.202	110.956	-41.935	1.00	53.43	N
ATOM	12220	N1	C A 590	123.659	118.705	-42.747	1.00	54.19	N	ATOM	12270	C4	G A 592	116.693	112.007	-41.252	1.00	53.43	C
ATOM	12221	C2	C A 590	123.080	117.761	-43.603	1.00	54.19	C	ATOM	12271	P	G A 593	112.275	112.968	-37.561	1.00	52.81	P
ATOM	12222	O2	C A 590	122.179	118.124	-44.369	1.00	54.19	O	ATOM	12272	O1P	G A 593	110.984	113.221	-36.875	1.00	52.77	O
ATOM	12223	N3	C A 590	123.521	116.483	-43.578	1.00	54.19	N	ATOM	12273	O2P	G A 593	113.553	113.278	-36.869	1.00	52.77	O
ATOM	12224	C4	C A 590	124.511	116.136	-42.752	1.00	54.19	C	ATOM	12274	O5*	G A 593	112.307	111.440	-38.011	1.00	52.81	O
ATOM	12225	N4	C A 590	124.896	114.854	-42.738	1.00	54.19	N	ATOM	12275	C5*	G A 593	111.257	110.900	-38.824	1.00	52.81	C
ATOM	12226	C5	C A 590	125.148	117.087	-41.896	1.00	54.19	C	ATOM	12276	C4*	G A 593	111.560	109.476	-39.210	1.00	52.81	C
ATOM	12227	C6	C A 590	124.694	118.348	-41.926	1.00	54.19	C	ATOM	12277	O4*	G A 593	112.721	109.425	-40.081	1.00	52.81	O
ATOM	12228	P	U A 591	120.779	120.651	-38.627	1.00	51.09	P	ATOM	12278	C3*	G A 593	111.897	108.530	-38.074	1.00	52.81	C
ATOM	12229	O1P	U A 591	120.031	121.673	-37.849	1.00	64.09	O	ATOM	12279	O3*	G A 593	110.730	108.049	-37.427	1.00	52.81	O
ATOM	12230	O2P	U A 591	121.673	119.711	-37.919	1.00	64.09	O	ATOM	12280	C2*	G A 593	112.667	107.428	-38.794	1.00	52.81	C
ATOM	12231	O5*	U A 591	119.745	119.799	-39.494	1.00	51.09	O	ATOM	12281	O2*	G A 593	111.830	106.498	-39.443	1.00	52.81	O
ATOM	12232	C5*	U A 591	118.767	120.465	-40.313	1.00	51.09	C	ATOM	12282	C1*	G A 593	113.435	108.219	-39.854	1.00	52.81	C
ATOM	12233	C4*	U A 591	117.938	119.475	-41.110	1.00	51.09	C	ATOM	12283	N9	G A 593	114.783	108.535	-39.381	1.00	52.77	N
ATOM	12234	O4*	U A 591	118.725	118.848	-42.154	1.00	51.09	O	ATOM	12284	C8	G A 593	115.272	109.755	-38.963	1.00	52.77	C
ATOM	12235	C3*	U A 591	117.303	118.306	-40.380	1.00	51.09	C	ATOM	12285	N7	G A 593	116.495	109.689	-38.513	1.00	52.77	N
ATOM	12236	O3*	U A 591	116.117	118.658	-39.697	1.00	51.09	O	ATOM	12286	C5	G A 593	116.843	108.352	-38.659	1.00	52.77	C
ATOM	12237	C2*	U A 591	116.992	117.348	-41.519	1.00	51.09	C	ATOM	12287	C6	G A 593	118.039	107.675	-38.326	1.00	52.77	C
ATOM	12238	O2*	U A 591	115.809	117.702	-42.188	1.00	51.09	O	ATOM	12288	O6	G A 593	119.061	108.129	-37.805	1.00	52.77	O
ATOM	12239	C1*	U A 591	118.180	117.570	-42.451	1.00	51.09	C	ATOM	12289	N1	G A 593	117.970	106.328	-38.654	1.00	52.77	N
ATOM	12240	N1	U A 591	119.201	116.534	-42.228	1.00	64.09	N	ATOM	12290	C2	G A 593	116.891	105.708	-39.228	1.00	52.77	C
ATOM	12241	C2	U A 591	119.050	115.336	-42.914	1.00	64.09	C	ATOM	12291	N2	G A 593	117.028	104.402	-39.498	1.00	52.77	N
ATOM	12242	O2	U A 591	118.154	115.134	-43.720	1.00	64.09	O	ATOM	12292	N3	G A 593	115.764	106.321	-39.525	1.00	52.77	N
ATOM	12243	N3	U A 591	119.989	114.382	-42.626	1.00	64.09	N	ATOM	12293	C4	G A 593	115.808	107.634	-39.217	1.00	52.77	C
ATOM	12244	C4	U A 591	121.045	114.497	-41.755	1.00	64.09	C	ATOM	12294	P	G A 594	110.771	107.729	-35.851	1.00	58.31	P
ATOM	12245	O4	U A 591	121.813	113.547	-41.621	1.00	64.09	O	ATOM	12295	O1P	G A 594	109.413	107.259	-35.482	1.00	62.79	O
ATOM	12246	C5	U A 591	121.151	115.767	-41.098	1.00	64.09	C	ATOM	12296	O2P	G A 594	111.386	108.861	-35.103	1.00	62.79	O
ATOM	12247	C6	U A 591	120.253	116.719	-41.353	1.00	64.09	C	ATOM	12297	O5*	G A 594	111.762	106.490	-35.749	1.00	58.31	O



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ATOM	12298	C5*	G A 594	111.490	105.268	-36.458	1.00	58.31	C	ATOM	12348	O3*	C A 596	120.844	98.559	-27.492	1.00	54.24	O
ATOM	12299	C4*	G A 594	112.634	104.288	-36.290	1.00	58.31	C	ATOM	12349	C2*	C A 596	121.915	99.545	-29.444	1.00	54.24	C
ATOM	12300	O4*	G A 594	113.819	104.769	-36.981	1.00	58.31	C	ATOM	12350	O2*	C A 596	122.921	98.578	-29.249	1.00	54.24	O
ATOM	12301	C3*	G A 594	113.105	104.006	-34.871	1.00	58.31	C	ATOM	12351	C1*	C A 596	121.468	99.584	-30.912	1.00	54.24	C
ATOM	12302	O3*	G A 594	112.304	103.029	-34.232	1.00	58.31	O	ATOM	12352	N1	C A 596	121.088	100.955	-31.331	1.00	58.71	N
ATOM	12303	C2*	G A 594	114.518	103.491	-35.094	1.00	58.31	C	ATOM	12353	C2	C A 596	122.038	101.980	-31.224	1.00	58.71	C
ATOM	12304	O2*	G A 594	114.503	102.125	-35.450	1.00	58.31	C	ATOM	12354	O2	C A 596	123.197	101.691	-30.897	1.00	58.71	O
ATOM	12305	CI*	G A 594	114.977	104.328	-36.292	1.00	58.31	C	ATOM	12355	N3	C A 596	121.666	103.255	-31.484	1.00	58.71	N
ATOM	12306	N9	G A 594	115.750	105.498	-35.879	1.00	62.79	N	ATOM	12356	C4	C A 596	120.413	103.522	-31.859	1.00	58.71	C
ATOM	12307	C8	G A 594	115.290	106.783	-35.697	1.00	62.79	C	ATOM	12357	N4	C A 596	120.077	104.798	-32.049	1.00	58.71	N
ATOM	12308	N7	G A 594	116.207	107.598	-35.248	1.00	62.79	N	ATOM	12358	C5	C A 596	119.447	102.493	-32.042	1.00	58.71	C
ATOM	12309	C5	G A 594	117.344	106.807	-35.138	1.00	62.79	C	ATOM	12359	C6	C A 596	119.823	101.236	-31.773	1.00	58.71	C
ATOM	12310	C6	G A 594	118.649	107.129	-34.681	1.00	62.79	C	ATOM	12360	P	G A 597	120.786	99.435	-26.147	1.00	46.60	P
ATOM	12311	O6	G A 594	119.068	108.200	-34.235	1.00	62.79	O	ATOM	12361	O1P	G A 597	120.625	98.525	-24.982	1.00	53.99	O
ATOM	12312	N1	G A 594	119.500	106.038	-34.766	1.00	62.79	N	ATOM	12362	O2P	G A 597	119.782	100.508	-26.375	1.00	53.99	O
ATOM	12313	C2	G A 594	119.144	104.791	-35.215	1.00	62.79	C	ATOM	12363	O5*	G A 597	122.240	100.092	-26.058	1.00	46.60	O
ATOM	12314	N2	G A 594	120.118	103.875	-35.245	1.00	62.79	N	ATOM	12364	C5*	G A 597	123.427	99.278	-26.168	1.00	46.60	C
ATOM	12315	N3	G A 594	117.928	104.467	-35.612	1.00	62.79	N	ATOM	12365	C4*	G A 597	124.641	100.140	-26.399	1.00	46.60	C
ATOM	12316	C4	G A 594	117.085	105.516	-35.551	1.00	62.79	C	ATOM	12366	O4*	G A 597	124.469	100.891	-27.627	1.00	46.60	O
ATOM	12317	P	G A 595	112.042	103.132	-32.651	1.00	54.21	P	ATOM	12367	C3*	G A 597	124.880	101.190	-25.340	1.00	46.60	C
ATOM	12318	O1P	G A 595	111.347	101.898	-32.209	1.00	60.64	O	ATOM	12368	O3*	G A 597	125.638	100.685	-24.273	1.00	46.60	O
ATOM	12319	O2P	G A 595	111.446	104.456	-32.359	1.00	60.64	O	ATOM	12369	C2*	G A 597	125.652	102.260	-26.087	1.00	46.60	C
ATOM	12320	O5*	G A 595	113.495	103.088	-31.998	1.00	54.21	O	ATOM	12370	O2*	G A 597	127.023	101.946	-26.166	1.00	46.60	O
ATOM	12321	C5*	G A 595	114.342	101.924	-32.125	1.00	54.21	C	ATOM	12371	CI*	G A 597	125.023	102.192	-27.480	1.00	46.60	C
ATOM	12322	C4*	G A 595	115.616	102.138	-31.352	1.00	54.21	C	ATOM	12372	N9	G A 597	123.961	103.188	-27.665	1.00	53.99	N
ATOM	12323	O4*	G A 595	116.151	103.417	-31.770	1.00	54.21	O	ATOM	12373	C8	G A 597	122.623	102.950	-27.873	1.00	53.99	C
ATOM	12324	C3*	G A 595	115.466	102.209	-29.837	1.00	54.21	C	ATOM	12374	N7	G A 597	121.909	104.042	-27.916	1.00	53.99	N
ATOM	12325	O3*	G A 595	116.634	101.687	-29.223	1.00	54.21	O	ATOM	12375	C5	G A 597	122.830	105.069	-27.742	1.00	53.99	C
ATOM	12326	C2*	G A 595	115.401	103.705	-29.556	1.00	54.21	C	ATOM	12376	C6	G A 597	122.644	106.478	-27.672	1.00	53.99	C
ATOM	12327	O2*	G A 595	115.931	104.042	-28.292	1.00	54.21	O	ATOM	12377	O6	G A 597	121.594	107.119	-27.718	1.00	53.99	O
ATOM	12328	CI*	G A 595	116.279	104.277	-30.664	1.00	54.21	C	ATOM	12378	N1	G A 597	123.848	107.146	-27.515	1.00	53.99	N
ATOM	12329	N9	G A 595	115.864	105.605	-31.094	1.00	60.64	N	ATOM	12379	C2	G A 597	125.074	106.551	-27.424	1.00	53.99	C
ATOM	12330	C8	G A 595	114.621	105.969	-31.535	1.00	60.64	C	ATOM	12380	N2	G A 597	126.121	107.372	-27.290	1.00	53.99	N
ATOM	12331	N7	G A 595	114.541	107.229	-31.856	1.00	60.64	N	ATOM	12381	N3	G A 597	125.264	105.243	-27.464	1.00	53.99	N
ATOM	12332	C5	G A 595	115.808	107.725	-31.612	1.00	60.64	C	ATOM	12382	C4	G A 597	124.105	104.565	-27.620	1.00	53.99	C
ATOM	12333	C6	G A 595	116.315	109.020	-31.778	1.00	60.64	C	ATOM	12383	P	U A 598	125.305	101.172	-22.786	1.00	45.84	P
ATOM	12334	O6	G A 595	115.728	110.026	-32.184	1.00	60.64	O	ATOM	12384	O1P	U A 598	126.454	100.879	-21.875	1.00	47.87	O
ATOM	12335	N1	G A 595	117.654	109.093	-31.422	1.00	60.64	N	ATOM	12385	O2P	U A 598	123.948	100.648	-22.464	1.00	47.87	O
ATOM	12336	C2	G A 595	118.406	108.041	-30.964	1.00	60.64	C	ATOM	12386	O5*	U A 598	125.115	102.745	-22.925	1.00	45.84	O
ATOM	12337	N2	G A 595	119.682	108.312	-30.673	1.00	60.64	N	ATOM	12387	C5*	U A 598	126.237	103.626	-23.013	1.00	45.84	C
ATOM	12338	N3	G A 595	117.939	106.819	-30.804	1.00	60.64	N	ATOM	12388	C4*	U A 598	125.773	105.054	-22.929	1.00	45.84	C
ATOM	12339	C4	G A 595	116.638	106.734	-31.144	1.00	60.64	C	ATOM	12389	O4*	U A 598	125.069	105.425	-24.141	1.00	45.84	O
ATOM	12340	P	C A 596	116.716	100.130	-28.842	1.00	54.24	P	ATOM	12390	C3*	U A 598	124.780	105.326	-21.825	1.00	45.84	C
ATOM	12341	O1P	C A 596	115.488	99.448	-29.331	1.00	58.71	O	ATOM	12391	O3*	U A 598	125.421	105.532	-20.586	1.00	45.84	O
ATOM	12342	O2P	C A 596	117.098	100.016	-27.411	1.00	58.71	O	ATOM	12392	C2*	U A 598	124.070	106.567	-22.327	1.00	45.84	C
ATOM	12343	O5*	C A 596	117.935	99.611	-29.726	1.00	54.24	O	ATOM	12393	O2*	U A 598	124.838	107.723	-22.087	1.00	45.84	O
ATOM	12344	C5*	C A 596	118.429	98.263	-29.612	1.00	54.24	C	ATOM	12394	CI*	U A 598	124.013	106.307	-23.832	1.00	45.84	C
ATOM	12345	C4*	C A 596	119.936	98.258	-29.719	1.00	54.24	C	ATOM	12395	N1	U A 598	122.746	105.681	-24.246	1.00	47.87	N
ATOM	12346	O4*	C A 596	120.327	98.746	-31.030	1.00	54.24	O	ATOM	12396	C2	U A 598	121.610	106.477	-24.307	1.00	47.87	C
ATOM	12347	C3*	C A 596	120.621	99.188	-28.736	1.00	54.24	C	ATOM	12397	O2	U A 598	121.619	107.676	-24.072	1.00	47.87	O



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ATOM	12398	N3	U A 598	120.460	105.815	-24.653	1.00	47.87	N	ATOM	12448	C4*	C A 601	112.541	107.606	-12.609	1.00	51.10	C
ATOM	12399	C4	U A 598	120.328	104.478	-24.942	1.00	47.87	C	ATOM	12449	O4*	C A 601	112.479	107.255	-14.016	1.00	51.10	O
ATOM	12400	O4	U A 598	119.215	104.017	-25.183	1.00	47.87	O	ATOM	12450	C3*	C A 601	112.196	106.324	-11.880	1.00	51.10	C
ATOM	12401	C5	U A 598	121.542	103.735	-24.879	1.00	47.87	C	ATOM	12451	O3*	C A 601	111.698	106.559	-10.579	1.00	51.10	O
ATOM	12402	C6	U A 598	122.680	104.345	-24.544	1.00	47.87	C	ATOM	12452	C2*	C A 601	111.157	105.688	-12.793	1.00	51.10	C
ATOM	12403	P	C A 599	124.638	105.173	-19.230	1.00	59.04	P	ATOM	12453	O2*	C A 601	109.854	106.190	-12.575	1.00	51.10	O
ATOM	12404	O1P	C A 599	125.563	105.281	-18.058	1.00	47.03	O	ATOM	12454	Cl*	C A 601	111.664	106.105	-14.177	1.00	51.10	C
ATOM	12405	O2P	C A 599	123.896	103.898	-19.470	1.00	47.03	O	ATOM	12455	N1	C A 601	112.466	105.053	-14.821	1.00	56.44	N
ATOM	12406	OS*	C A 599	123.556	106.335	-19.126	1.00	59.04	O	ATOM	12456	C2	C A 601	111.812	104.081	-15.590	1.00	56.44	C
ATOM	12407	CS*	C A 599	123.942	107.690	-18.858	1.00	59.04	C	ATOM	12457	O2	C A 601	110.577	104.122	-15.690	1.00	56.44	O
ATOM	12408	C4*	C A 599	122.717	108.562	-18.789	1.00	59.04	C	ATOM	12458	N3	C A 601	112.542	103.118	-16.198	1.00	56.44	N
ATOM	12409	O4*	C A 599	122.073	108.593	-20.089	1.00	59.04	O	ATOM	12459	C4	C A 601	113.869	103.097	-16.053	1.00	56.44	C
ATOM	12410	C3*	C A 599	121.624	108.073	-17.861	1.00	59.04	C	ATOM	12460	N4	C A 601	114.550	102.126	-16.668	1.00	56.44	N
ATOM	12411	O3*	C A 599	121.843	108.440	-16.523	1.00	59.04	O	ATOM	12461	C5	C A 601	114.558	104.069	-15.268	1.00	56.44	C
ATOM	12412	C2*	C A 599	120.379	108.725	-18.432	1.00	59.04	C	ATOM	12462	C6	C A 601	113.826	105.019	-14.677	1.00	56.44	C
ATOM	12413	O2*	C A 599	120.247	110.077	-18.042	1.00	59.04	O	ATOM	12463	P	A A 602	111.938	105.450	-9.441	1.00	57.56	P
ATOM	12414	Cl*	C A 599	120.666	108.669	-19.928	1.00	59.04	C	ATOM	12464	O1P	A A 602	111.532	106.056	-8.147	1.00	59.43	O
ATOM	12415	N1	C A 599	120.053	107.484	-20.546	1.00	47.03	N	ATOM	12465	O2P	A A 602	113.310	104.902	-9.587	1.00	59.43	O
ATOM	12416	C2	C A 599	118.693	107.514	-20.855	1.00	47.03	C	ATOM	12466	O5*	A A 602	110.924	104.290	-9.847	1.00	57.56	O
ATOM	12417	O2	C A 599	118.052	108.553	-20.638	1.00	47.03	O	ATOM	12467	C9*	A A 602	109.518	104.551	-9.925	1.00	57.56	C
ATOM	12418	N3	C A 599	118.113	106.415	-21.391	1.00	47.03	N	ATOM	12468	C4*	A A 602	108.785	103.369	-10.507	1.00	57.56	C
ATOM	12419	C4	C A 599	118.847	105.326	-21.640	1.00	47.03	C	ATOM	12469	O4*	A A 602	109.104	103.226	-11.914	1.00	57.56	O
ATOM	12420	N4	C A 599	118.244	104.268	-22.182	1.00	47.03	N	ATOM	12470	C3*	A A 602	109.074	102.001	-9.918	1.00	57.56	C
ATOM	12421	C5	C A 599	120.236	105.276	-21.348	1.00	47.03	C	ATOM	12471	O3*	A A 602	108.384	101.767	-8.697	1.00	57.56	O
ATOM	12422	C6	C A 599	120.793	106.365	-20.805	1.00	47.03	C	ATOM	12472	C2*	A A 602	108.628	101.070	-11.037	1.00	57.56	O
ATOM	12423	P	C A 600	121.149	107.582	-15.367	1.00	48.79	P	ATOM	12473	O2*	A A 602	107.234	100.870	-11.061	1.00	57.56	O
ATOM	12424	O1P	C A 600	121.642	108.053	-14.039	1.00	43.63	O	ATOM	12474	Cl*	A A 602	109.027	101.861	-12.283	1.00	57.56	C
ATOM	12425	O2P	C A 600	121.296	106.150	-15.742	1.00	43.63	O	ATOM	12475	N9	A A 602	110.333	101.439	-12.792	1.00	59.43	N
ATOM	12426	O5*	C A 600	119.607	107.936	-15.533	1.00	48.79	O	ATOM	12476	C8	A A 602	111.562	101.991	-12.534	1.00	59.43	C
ATOM	12427	CS*	C A 600	119.142	109.271	-15.299	1.00	48.79	C	ATOM	12477	N7	A A 602	112.557	101.349	-13.092	1.00	59.43	N
ATOM	12428	C4*	C A 600	117.637	109.338	-15.401	1.00	48.79	C	ATOM	12478	C5	A A 602	111.943	100.310	-13.774	1.00	59.43	C
ATOM	12429	O4*	C A 600	117.227	109.052	-16.756	1.00	48.79	O	ATOM	12479	C6	A A 602	112.454	99.260	-14.554	1.00	59.43	C
ATOM	12430	C3*	C A 600	116.844	108.361	-14.555	1.00	48.79	C	ATOM	12480	N6	A A 602	113.754	99.068	-14.774	1.00	59.43	N
ATOM	12431	O3*	C A 600	116.687	108.823	-13.221	1.00	48.79	O	ATOM	12481	N1	A A 602	111.574	98.395	-15.098	1.00	59.43	N
ATOM	12432	C2*	C A 600	115.514	108.291	-15.291	1.00	48.79	C	ATOM	12482	C2	A A 602	110.271	98.575	-14.857	1.00	59.43	C
ATOM	12433	O2*	C A 600	114.648	109.352	-14.948	1.00	48.79	O	ATOM	12483	N3	A A 602	109.669	99.516	-14.135	1.00	59.43	N
ATOM	12434	Cl*	C A 600	115.949	108.465	-16.746	1.00	48.79	C	ATOM	12484	C4	A A 602	110.573	100.362	-13.613	1.00	59.43	C
ATOM	12435	N1	C A 600	116.002	107.206	-17.494	1.00	43.63	N	ATOM	12485	P	U A 603	109.051	100.810	-7.588	1.00	52.11	P
ATOM	12436	C2	C A 600	114.855	106.781	-18.167	1.00	43.63	C	ATOM	12486	O1P	U A 603	108.175	100.768	-6.390	1.00	61.94	O
ATOM	12437	O2	C A 600	113.835	107.483	-18.115	1.00	43.63	O	ATOM	12487	O2P	U A 603	110.471	101.210	-7.433	1.00	61.94	O
ATOM	12438	N3	C A 600	114.880	105.623	-18.857	1.00	43.63	N	ATOM	12488	OS*	U A 603	109.001	99.378	-8.284	1.00	52.11	O
ATOM	12439	C4	C A 600	115.996	104.900	-18.896	1.00	43.63	C	ATOM	12489	C5*	U A 603	107.746	98.810	-8.683	1.00	52.11	C
ATOM	12440	N4	C A 600	115.978	103.767	-19.596	1.00	43.63	N	ATOM	12490	C4*	U A 603	107.958	97.594	-9.553	1.00	52.11	C
ATOM	12441	C5	C A 600	117.182	105.308	-17.536	1.00	43.63	C	ATOM	12491	O4*	U A 603	108.564	97.981	-10.812	1.00	52.11	O
ATOM	12442	C6	C A 600	117.141	106.457	-17.536	1.00	43.63	C	ATOM	12492	C3*	U A 603	108.894	96.524	-9.024	1.00	52.11	C
ATOM	12443	P	C A 601	116.436	107.760	-12.041	1.00	51.10	P	ATOM	12493	O3*	U A 603	108.310	95.673	-8.067	1.00	52.11	O
ATOM	12444	O1P	C A 601	116.511	108.519	-10.764	1.00	56.44	O	ATOM	12494	C2*	U A 603	109.295	95.781	-10.286	1.00	52.11	C
ATOM	12445	O2P	C A 601	117.322	106.585	-12.240	1.00	56.44	O	ATOM	12495	O2*	U A 603	108.327	94.846	-10.703	1.00	52.11	O
ATOM	12446	OS*	C A 601	114.934	107.286	-12.294	1.00	51.10	O	ATOM	12496	Cl*	U A 603	109.380	96.921	-11.295	1.00	52.11	C
ATOM	12447	C5*	C A 601	113.865	108.248	-12.271	1.00	51.10	C	ATOM	12497	N1	U A 603	110.776	97.374	-11.409	1.00	61.94	N



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ATOM	12498	C2	U A 603	111.585	96.664	-12.261	1.00	61.94	C	ATOM	12548	P	G A 606	117.087	87.661	-4.657	1.00	59.71	P
ATOM	12499	O2	U A 603	111.161	95.760	-12.955	1.00	61.94	O	ATOM	12549	O1P	G A 606	117.481	86.304	-4.195	1.00	72.88	O
ATOM	12500	N3	U A 603	112.907	97.043	-12.270	1.00	61.94	N	ATOM	12550	O2P	G A 606	116.247	88.523	-3.788	1.00	72.88	O
ATOM	12501	C4	U A 603	113.490	98.046	-11.527	1.00	61.94	C	ATOM	12551	O5*	G A 606	118.417	88.451	-5.022	1.00	59.71	O
ATOM	12502	O4	U A 603	114.725	98.146	-11.501	1.00	61.94	O	ATOM	12552	C5*	G A 606	119.460	87.809	-5.776	1.00	59.71	C
ATOM	12503	C5	U A 603	112.571	98.774	-10.706	1.00	61.94	C	ATOM	12553	C4*	G A 606	120.667	88.706	-5.876	1.00	59.71	C
ATOM	12504	C6	U A 603	111.279	98.425	-10.678	1.00	61.94	C	ATOM	12554	C4*	G A 606	120.352	89.849	-6.708	1.00	59.71	O
ATOM	12505	P	G A 604	109.227	95.081	-6.892	1.00	52.85	P	ATOM	12554	C3*	G A 606	121.151	89.282	-4.558	1.00	59.71	C
ATOM	12506	O1P	G A 604	108.336	94.528	-5.847	1.00	58.84	O	ATOM	12555	O3*	G A 606	122.025	88.366	-3.898	1.00	59.71	O
ATOM	12507	O2P	G A 604	110.242	96.105	-6.517	1.00	58.84	O	ATOM	12557	C2*	G A 606	121.848	90.564	-5.001	1.00	59.71	C
ATOM	12508	O5*	G A 604	109.945	93.853	-7.601	1.00	52.85	O	ATOM	12558	O2*	G A 606	123.160	90.342	-5.477	1.00	59.71	O
ATOM	12509	C5*	G A 604	109.158	92.826	-8.218	1.00	52.85	C	ATOM	12559	C1*	G A 606	120.976	91.005	-6.181	1.00	59.71	C
ATOM	12510	C4*	G A 604	110.038	91.855	-8.959	1.00	52.85	C	ATOM	12560	N9	G A 606	119.926	91.938	-5.785	1.00	72.88	N
ATOM	12511	O4*	G A 604	110.552	92.452	-10.178	1.00	52.85	O	ATOM	12561	C8	G A 606	118.679	91.613	-5.310	1.00	72.88	C
ATOM	12512	C3*	G A 604	111.274	91.362	-8.231	1.00	52.85	C	ATOM	12562	N7	G A 606	117.956	92.654	-5.012	1.00	72.88	N
ATOM	12513	O3*	G A 604	110.982	90.318	-7.330	1.00	52.85	O	ATOM	12563	C5	G A 606	118.769	93.736	-5.312	1.00	72.88	C
ATOM	12514	C2*	G A 604	112.153	90.877	-9.376	1.00	52.85	C	ATOM	12564	C6	G A 606	118.523	95.126	-5.193	1.00	72.88	C
ATOM	12515	O2*	G A 604	111.844	89.569	-9.826	1.00	52.85	O	ATOM	12565	O6	G A 606	117.499	95.695	-4.787	1.00	72.88	O
ATOM	12516	C1*	G A 604	111.819	91.885	-10.476	1.00	52.85	C	ATOM	12566	N1	G A 606	119.620	95.875	-5.607	1.00	72.88	N
ATOM	12517	N9	G A 604	112.833	92.933	-10.497	1.00	58.84	N	ATOM	12567	C2	G A 606	120.798	95.353	-6.425	1.00	72.88	C
ATOM	12518	C8	G A 604	112.790	94.158	-9.884	1.00	58.84	C	ATOM	12568	N2	G A 606	121.734	96.239	-6.076	1.00	72.88	N
ATOM	12519	N7	G A 604	113.895	94.835	-10.023	1.00	58.84	N	ATOM	12569	N3	G A 606	121.040	94.058	-6.193	1.00	72.88	N
ATOM	12520	C5	G A 604	114.708	94.012	-10.787	1.00	58.84	C	ATOM	12570	C4	G A 606	119.989	93.312	-5.796	1.00	72.88	C
ATOM	12521	C6	G A 604	116.033	94.199	-11.243	1.00	58.84	C	ATOM	12571	P	A A 607	122.222	88.446	-2.300	1.00	70.91	P
ATOM	12522	O6	G A 604	116.785	95.166	-11.056	1.00	58.84	O	ATOM	12572	O1P	A A 607	121.735	89.763	-1.794	1.00	75.37	O
ATOM	12523	N1	G A 604	116.471	93.111	-11.988	1.00	58.84	N	ATOM	12573	O2P	A A 607	123.617	88.021	-2.005	1.00	70.91	O
ATOM	12524	C2	G A 604	115.726	91.994	-12.264	1.00	58.84	C	ATOM	12574	O5*	A A 607	121.241	87.329	-1.736	1.00	70.91	O
ATOM	12525	N2	G A 604	116.302	91.064	-13.027	1.00	58.84	N	ATOM	12575	C5*	A A 607	119.816	87.517	-1.737	1.00	70.91	C
ATOM	12526	N3	G A 604	114.501	91.806	-11.834	1.00	58.84	N	ATOM	12576	C4*	A A 607	119.153	86.443	-0.906	1.00	70.91	C
ATOM	12527	C4	G A 604	114.057	92.846	-11.106	1.00	58.84	C	ATOM	12577	O4*	A A 607	119.513	85.144	-1.442	1.00	70.91	O
ATOM	12528	P	U A 605	111.881	90.141	-6.019	1.00	56.71	P	ATOM	12578	C3*	A A 607	119.588	86.384	0.549	1.00	70.91	C
ATOM	12529	O1P	U A 605	111.324	88.978	-5.285	1.00	66.52	O	ATOM	12579	O3*	A A 607	118.823	87.239	1.366	1.00	70.91	O
ATOM	12530	O2P	U A 605	112.010	91.461	-5.333	1.00	66.52	O	ATOM	12580	C2*	A A 607	119.348	84.934	0.931	1.00	70.91	C
ATOM	12531	O5*	U A 605	113.313	89.730	-6.586	1.00	56.71	O	ATOM	12581	O2*	A A 607	118.017	84.703	1.338	1.00	70.91	O
ATOM	12532	C5*	U A 605	113.495	88.488	-7.298	1.00	56.71	C	ATOM	12582	C1*	A A 607	119.649	84.211	-0.383	1.00	70.91	C
ATOM	12533	C4*	U A 605	114.905	88.372	-7.832	1.00	56.71	C	ATOM	12583	N9	A A 607	120.996	83.635	-0.432	1.00	75.37	N
ATOM	12534	O4*	U A 605	115.126	89.344	-8.887	1.00	56.71	O	ATOM	12584	C8	A A 607	122.017	83.888	-1.321	1.00	75.37	C
ATOM	12535	C3*	U A 605	116.030	88.621	-6.843	1.00	56.71	C	ATOM	12585	N7	A A 607	123.102	83.186	-1.091	1.00	75.37	N
ATOM	12536	O3*	U A 605	116.337	87.479	-6.065	1.00	56.71	O	ATOM	12586	C5	A A 607	122.774	82.447	0.022	1.00	75.37	C
ATOM	12537	C2*	U A 605	117.190	88.991	-7.755	1.00	56.71	C	ATOM	12587	C6	A A 607	123.492	81.467	0.760	1.00	75.37	C
ATOM	12538	O2*	U A 605	117.830	87.861	-8.299	1.00	56.71	O	ATOM	12588	N6	A A 607	124.739	81.087	0.473	1.00	75.37	N
ATOM	12539	C1*	U A 605	116.479	89.765	-8.864	1.00	56.71	C	ATOM	12589	N1	A A 607	122.875	80.902	1.815	1.00	75.37	N
ATOM	12540	N1	U A 605	116.530	91.206	-8.581	1.00	66.52	N	ATOM	12590	C2	A A 607	121.622	81.271	2.100	1.00	75.37	C
ATOM	12541	C2	U A 605	117.679	91.878	-8.936	1.00	66.52	C	ATOM	12591	N3	A A 607	120.843	82.147	1.484	1.00	75.37	N
ATOM	12542	O2	U A 605	118.610	91.333	-9.497	1.00	66.52	O	ATOM	12592	C4	A A 607	121.485	82.693	0.441	1.00	75.37	C
ATOM	12543	N3	U A 605	117.699	93.209	-8.609	1.00	66.52	N	ATOM	12593	P	A A 608	119.561	88.121	2.474	1.00	47.82	P
ATOM	12544	C4	U A 605	116.704	93.921	-7.984	1.00	66.52	C	ATOM	12594	O1P	A A 608	118.554	89.032	3.072	1.00	45.77	O
ATOM	12545	O4	U A 605	116.859	95.123	-7.772	1.00	66.52	O	ATOM	12595	O2P	A A 608	120.769	88.694	1.812	1.00	45.77	O
ATOM	12546	C5	U A 605	115.543	93.158	-7.663	1.00	66.52	C	ATOM	12596	O5*	A A 608	120.031	87.077	3.588	1.00	47.82	O
ATOM	12547	C6	U A 605	115.495	91.863	-7.966	1.00	66.52	C	ATOM	12597	C5*	A A 608	119.080	86.324	4.351	1.00	47.82	C



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ATOM	12598	C4*	A A 608	119.766	85.215	5.112	1.00	47.82	C	ATOM	12648	Cl*	G A 610	129.670	89.246	6.383	1.00	62.17	C
ATOM	12599	O4*	A A 608	120.280	84.225	4.186	1.00	47.82	O	ATOM	12649	N9	G A 610	128.446	89.763	5.780	1.00	66.97	N
ATOM	12600	C3*	A A 608	120.974	85.607	5.943	1.00	47.82	C	ATOM	12650	C8	G A 610	127.154	89.452	6.131	1.00	66.97	C
ATOM	12601	O3*	A A 608	120.647	86.115	7.214	1.00	47.82	O	ATOM	12651	N7	G A 610	126.263	90.041	5.381	1.00	66.97	N
ATOM	12602	C2*	A A 608	121.730	84.297	6.078	1.00	47.82	C	ATOM	12652	C5	G A 610	127.011	90.794	4.483	1.00	66.97	C
ATOM	12603	O2*	A A 608	121.242	83.481	7.127	1.00	47.82	O	ATOM	12653	C6	G A 610	126.596	91.640	3.407	1.00	66.97	C
ATOM	12604	Cl*	A A 608	121.472	83.653	4.715	1.00	47.82	C	ATOM	12654	O6	G A 610	125.444	91.872	3.002	1.00	66.97	O
ATOM	12605	N9	A A 608	122.589	83.931	3.808	1.00	45.77	N	ATOM	12655	N1	G A 610	127.685	92.231	2.772	1.00	66.97	N
ATOM	12606	C8	A A 608	122.616	84.716	2.687	1.00	45.77	C	ATOM	12656	C2	G A 610	128.998	92.023	3.106	1.00	66.97	C
ATOM	12607	N7	A A 608	123.799	84.804	2.131	1.00	45.77	N	ATOM	12657	N2	G A 610	129.897	92.690	2.379	1.00	66.97	N
ATOM	12608	C5	A A 608	124.605	84.012	2.933	1.00	45.77	C	ATOM	12658	N3	G A 610	129.399	91.221	4.083	1.00	66.97	N
ATOM	12609	C6	A A 608	125.977	83.706	2.890	1.00	45.77	C	ATOM	12659	C4	G A 610	128.359	90.646	4.727	1.00	66.97	C
ATOM	12610	N6	A A 608	126.820	84.191	1.980	1.00	45.77	N	ATOM	12660	P	A A 611	130.720	91.967	10.168	1.00	55.91	P
ATOM	12611	N1	A A 608	126.463	82.881	3.837	1.00	45.77	N	ATOM	12661	O1P	A A 611	131.871	92.175	11.078	1.00	64.79	O
ATOM	12612	C2	A A 608	125.626	82.414	4.769	1.00	45.77	C	ATOM	12662	O2P	A A 611	129.338	92.078	10.697	1.00	64.79	O
ATOM	12613	N3	A A 608	124.323	82.641	4.925	1.00	45.77	N	ATOM	12663	O5*	A A 611	130.851	92.937	8.910	1.00	55.91	O
ATOM	12614	C4	A A 608	123.870	83.457	3.961	1.00	45.77	C	ATOM	12664	C5*	A A 611	132.131	93.178	8.294	1.00	55.91	C
ATOM	12615	P	A A 609	121.482	87.356	7.800	1.00	46.43	P	ATOM	12665	C4*	A A 611	132.009	94.224	7.207	1.00	55.91	C
ATOM	12616	O1P	A A 609	121.013	87.623	9.182	1.00	50.94	O	ATOM	12666	O4*	A A 611	131.193	93.706	6.127	1.00	55.91	O
ATOM	12617	O2P	A A 609	121.389	88.428	6.768	1.00	50.94	O	ATOM	12667	C3*	A A 611	131.325	95.510	7.629	1.00	55.91	C
ATOM	12618	O5*	A A 609	122.976	86.819	7.927	1.00	46.43	O	ATOM	12668	O3*	A A 611	132.232	96.407	8.258	1.00	55.91	O
ATOM	12619	C5*	A A 609	123.283	85.773	8.850	1.00	46.43	C	ATOM	12669	C2*	A A 611	130.743	96.031	6.322	1.00	55.91	C
ATOM	12620	C4*	A A 609	124.701	85.305	8.671	1.00	46.43	C	ATOM	12670	O2*	A A 611	131.679	96.733	5.535	1.00	55.91	O
ATOM	12621	O4*	A A 609	124.869	84.705	7.362	1.00	46.43	O	ATOM	12671	Cl*	A A 611	130.353	94.727	5.624	1.00	55.91	C
ATOM	12622	C3*	A A 609	125.767	86.381	8.730	1.00	46.43	C	ATOM	12672	N9	A A 611	128.977	94.347	5.931	1.00	64.79	N
ATOM	12623	O3*	A A 609	126.108	86.720	10.058	1.00	46.43	O	ATOM	12673	C8	A A 611	128.553	93.427	6.860	1.00	64.79	C
ATOM	12624	C2*	A A 609	126.923	85.737	7.982	1.00	46.43	C	ATOM	12674	N7	A A 611	127.254	93.329	6.948	1.00	64.79	N
ATOM	12625	O2*	A A 609	127.689	84.865	8.788	1.00	46.43	O	ATOM	12675	C5	A A 611	126.789	94.239	6.010	1.00	64.79	C
ATOM	12626	Cl*	A A 609	126.186	84.954	6.892	1.00	46.43	C	ATOM	12676	C6	A A 611	125.496	94.622	5.632	1.00	64.79	C
ATOM	12627	N9	A A 609	126.097	85.753	5.669	1.00	50.94	N	ATOM	12677	N6	A A 611	124.387	94.112	6.176	1.00	64.79	N
ATOM	12628	C8	A A 609	124.988	86.340	5.118	1.00	50.94	C	ATOM	12678	N1	A A 611	125.375	95.560	4.666	1.00	64.79	N
ATOM	12629	N7	A A 609	125.247	87.073	4.066	1.00	50.94	N	ATOM	12679	C2	A A 611	126.487	96.066	4.127	1.00	64.79	C
ATOM	12630	C5	A A 609	126.619	86.944	3.900	1.00	50.94	C	ATOM	12680	N3	A A 611	127.756	95.788	4.403	1.00	64.79	N
ATOM	12631	C6	A A 609	127.516	86.495	2.967	1.00	50.94	C	ATOM	12681	C4	A A 611	127.839	94.859	5.367	1.00	64.79	C
ATOM	12632	N6	A A 609	127.152	88.347	2.003	1.00	50.94	N	ATOM	12682	P	C A 612	131.816	97.099	9.651	1.00	63.24	P
ATOM	12633	N1	A A 609	128.815	87.148	3.067	1.00	50.94	N	ATOM	12683	O1P	C A 612	133.009	97.820	10.179	1.00	71.14	O
ATOM	12634	C2	A A 609	129.183	86.324	4.053	1.00	50.94	C	ATOM	12684	O2P	C A 612	131.140	96.077	10.498	1.00	71.14	O
ATOM	12635	N3	A A 609	128.441	85.757	4.998	1.00	50.94	N	ATOM	12685	O5*	C A 612	130.723	98.165	9.205	1.00	63.24	O
ATOM	12636	C4	A A 609	127.151	86.112	4.864	1.00	50.94	C	ATOM	12686	C5*	C A 612	131.067	99.186	8.267	1.00	63.24	C
ATOM	12637	P	G A 610	126.310	88.262	10.448	1.00	62.17	P	ATOM	12687	C4*	C A 612	129.867	100.034	7.934	1.00	63.24	C
ATOM	12638	O1P	G A 610	126.685	88.310	11.886	1.00	66.97	O	ATOM	12688	O4*	C A 612	128.957	99.317	7.068	1.00	63.24	O
ATOM	12639	O2P	G A 610	125.132	89.031	9.963	1.00	66.97	O	ATOM	12689	C3*	C A 612	129.007	100.501	9.091	1.00	63.24	C
ATOM	12640	O5*	G A 610	127.561	88.703	9.569	1.00	62.17	O	ATOM	12690	C3*	C A 612	129.575	101.628	9.736	1.00	63.24	O
ATOM	12641	C5*	G A 610	128.815	88.000	9.648	1.00	62.17	C	ATOM	12691	O2*	C A 612	127.696	100.838	8.395	1.00	63.24	C
ATOM	12642	C4*	G A 610	129.782	88.535	8.615	1.00	62.17	C	ATOM	12692	O2*	C A 612	127.746	102.112	7.792	1.00	63.24	O
ATOM	12643	O4*	G A 610	129.315	88.209	7.279	1.00	62.17	O	ATOM	12693	Cl*	C A 612	127.636	99.766	7.302	1.00	63.24	C
ATOM	12644	C3*	G A 610	129.962	90.045	8.588	1.00	62.17	C	ATOM	12694	N1	C A 612	126.806	98.610	7.680	1.00	71.14	N
ATOM	12645	O3*	G A 610	130.897	90.503	9.545	1.00	62.17	O	ATOM	12695	C2	C A 612	125.443	98.620	7.359	1.00	71.14	C
ATOM	12646	C2*	G A 610	130.449	90.301	7.172	1.00	62.17	C	ATOM	12696	O2	C A 612	124.973	99.586	6.743	1.00	71.14	O
ATOM	12647	O2*	G A 610	131.837	90.064	7.071	1.00	62.17	O	ATOM	12697	N3	C A 612	124.672	97.580	7.732	1.00	71.14	N



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ATOM	12698	C4	C A 612	125.210	96.556	8.398	1.00	71.14	C	ATOM	12748	C5*	C A 615	119.687	103.017	20.204	1.00	64.89	C
ATOM	12699	N5	C A 612	124.408	95.558	8.762	1.00	71.14	N	ATOM	12749	C4*	C A 615	118.886	101.754	20.444	1.00	64.89	C
ATOM	12700	C5	C A 612	126.595	96.512	8.724	1.00	71.14	C	ATOM	12750	O4*	C A 615	118.841	100.975	19.216	1.00	64.89	O
ATOM	12701	C6	C A 612	127.349	97.547	8.347	1.00	71.14	C	ATOM	12751	C3*	C A 615	119.426	100.788	21.488	1.00	64.89	C
ATOM	12702	P	C A 613	129.441	101.778	11.329	1.00	58.40	P	ATOM	12752	O3*	C A 615	119.045	101.102	22.815	1.00	64.89	O
ATOM	12703	O1P	C A 613	130.373	102.866	11.748	1.00	63.44	O	ATOM	12753	C2*	C A 615	118.811	99.473	21.048	1.00	64.89	C
ATOM	12704	O2P	C A 613	129.575	100.429	11.942	1.00	63.44	O	ATOM	12754	O2*	C A 615	117.457	99.391	21.442	1.00	64.89	O
ATOM	12705	OS*	C A 613	127.934	102.265	11.516	1.00	58.40	O	ATOM	12755	C1*	C A 615	118.899	99.592	19.526	1.00	64.89	C
ATOM	12706	C5*	C A 613	127.504	103.533	10.991	1.00	58.40	C	ATOM	12756	N1	C A 615	120.187	99.050	19.036	1.00	82.27	N
ATOM	12707	C4*	C A 613	126.023	103.736	11.227	1.00	58.40	C	ATOM	12757	C2	C A 615	120.288	97.680	18.749	1.00	82.27	C
ATOM	12708	O4*	C A 613	125.249	102.915	10.315	1.00	58.40	O	ATOM	12758	O2	C A 615	119.283	96.957	18.871	1.00	82.27	O
ATOM	12709	C3*	C A 613	125.491	103.385	12.609	1.00	58.40	C	ATOM	12759	N3	C A 615	121.482	97.177	18.344	1.00	82.27	N
ATOM	12710	O3*	C A 613	125.677	104.424	13.554	1.00	58.40	O	ATOM	12760	C4	C A 615	122.538	97.982	18.213	1.00	82.27	C
ATOM	12711	C2*	C A 613	124.014	103.155	12.335	1.00	58.40	C	ATOM	12761	N4	C A 615	123.692	97.442	17.820	1.00	82.27	N
ATOM	12712	O2*	C A 613	123.317	104.378	12.259	1.00	58.40	O	ATOM	12762	C5	C A 615	122.458	99.374	18.478	1.00	82.27	C
ATOM	12713	C1*	C A 613	124.051	102.494	10.954	1.00	58.40	C	ATOM	12763	C6	C A 615	121.277	99.862	18.882	1.00	82.27	C
ATOM	12714	N1	C A 613	124.062	101.017	11.076	1.00	63.44	N	ATOM	12764	P	G A 616	119.937	100.554	24.040	1.00	74.15	P
ATOM	12715	C2	C A 613	122.845	100.314	11.038	1.00	63.44	C	ATOM	12765	O1P	G A 616	119.349	101.115	25.286	1.00	94.58	O
ATOM	12716	O2	C A 613	121.788	100.938	10.844	1.00	63.44	O	ATOM	12766	O2P	G A 616	121.372	100.798	23.734	1.00	94.58	O
ATOM	12717	N3	C A 613	122.855	98.974	11.212	1.00	63.44	N	ATOM	12767	O5*	G A 616	119.707	98.970	24.028	1.00	74.15	O
ATOM	12718	C4	C A 613	124.009	98.334	11.409	1.00	63.44	C	ATOM	12768	C5*	G A 616	118.388	98.407	24.228	1.00	74.15	C
ATOM	12719	N4	C A 613	123.973	97.013	11.598	1.00	63.44	N	ATOM	12769	C2*	G A 616	118.391	96.901	24.027	1.00	74.15	C
ATOM	12720	C5	C A 613	125.256	99.017	11.425	1.00	63.44	C	ATOM	12770	O4*	G A 616	118.782	96.577	22.666	1.00	74.15	O
ATOM	12721	C6	C A 613	125.239	100.340	11.253	1.00	63.44	C	ATOM	12771	C3*	G A 616	119.325	96.069	24.890	1.00	74.15	C
ATOM	12722	P	A A 614	125.682	104.078	15.124	1.00	73.73	P	ATOM	12772	O3*	G A 616	118.794	95.789	26.170	1.00	74.15	O
ATOM	12723	O1P	A A 614	126.004	105.346	15.829	1.00	71.37	O	ATOM	12773	C2*	G A 616	119.481	94.792	24.075	1.00	74.15	C
ATOM	12724	O2P	A A 614	126.516	102.869	15.370	1.00	71.37	O	ATOM	12774	O2*	G A 616	118.418	93.878	24.241	1.00	74.15	O
ATOM	12725	O5*	A A 614	124.163	103.710	15.424	1.00	73.73	O	ATOM	12775	C1*	G A 616	119.473	95.333	22.647	1.00	74.15	C
ATOM	12726	C5*	A A 614	123.131	104.675	15.201	1.00	73.73	C	ATOM	12776	N9	G A 616	120.842	95.553	22.175	1.00	94.58	N
ATOM	12727	C4*	A A 614	121.773	104.060	15.422	1.00	73.73	C	ATOM	12777	C8	G A 616	121.496	96.755	22.036	1.00	94.58	C
ATOM	12728	O4*	A A 614	121.486	103.085	14.387	1.00	73.73	C	ATOM	12778	N7	G A 616	122.732	96.623	21.639	1.00	94.58	N
ATOM	12729	C3*	A A 614	121.589	103.297	16.718	1.00	73.73	C	ATOM	12779	C5	G A 616	122.904	95.254	21.495	1.00	94.58	C
ATOM	12730	O3*	A A 614	121.326	104.146	17.818	1.00	73.73	O	ATOM	12780	C6	G A 616	124.039	94.513	21.094	1.00	94.58	C
ATOM	12731	C2*	A A 614	120.416	102.387	16.391	1.00	73.73	C	ATOM	12781	O6	G A 616	125.157	94.932	20.769	1.00	94.58	O
ATOM	12732	O2*	A A 614	119.167	103.042	16.504	1.00	73.73	O	ATOM	12782	N1	G A 616	123.782	93.148	21.093	1.00	94.58	N
ATOM	12733	C1*	A A 614	120.702	102.036	14.928	1.00	73.73	C	ATOM	12783	C2	G A 616	122.588	92.571	21.434	1.00	94.58	C
ATOM	12734	N9	A A 614	121.465	100.787	14.840	1.00	71.37	N	ATOM	12784	N2	G A 616	122.546	91.238	21.388	1.00	94.58	N
ATOM	12735	C8	A A 614	122.810	100.611	14.620	1.00	71.37	C	ATOM	12785	N3	G A 616	121.518	93.249	21.799	1.00	94.58	N
ATOM	12736	N7	A A 614	123.190	99.356	14.654	1.00	71.37	N	ATOM	12786	C4	G A 616	121.746	94.578	21.811	1.00	94.58	C
ATOM	12737	C5	A A 614	122.014	98.661	14.900	1.00	71.37	C	ATOM	12787	P	G A 617	119.793	95.426	27.374	1.00	60.96	P
ATOM	12738	C6	A A 614	121.740	97.299	15.060	1.00	71.37	C	ATOM	12788	O1P	G A 617	118.984	95.415	28.619	1.00	69.99	O
ATOM	12739	N6	A A 614	122.666	96.347	15.000	1.00	71.37	N	ATOM	12789	O2P	G A 617	120.983	96.319	27.274	1.00	69.99	O
ATOM	12740	N1	A A 614	120.464	96.938	15.294	1.00	71.37	N	ATOM	12790	O5*	G A 617	120.253	93.927	27.071	1.00	60.96	O
ATOM	12741	C2	A A 614	119.536	97.887	15.370	1.00	71.37	C	ATOM	12791	C5*	G A 617	119.307	92.834	27.111	1.00	60.96	C
ATOM	12742	N3	A A 614	119.667	99.197	15.243	1.00	71.37	N	ATOM	12792	C4*	G A 617	119.999	91.505	26.881	1.00	60.96	C
ATOM	12743	C4	A A 614	120.946	99.526	15.006	1.00	71.37	C	ATOM	12793	O4*	G A 617	120.504	91.418	25.523	1.00	60.96	O
ATOM	12744	P	C A 615	122.002	103.822	19.235	1.00	64.89	P	ATOM	12794	C3*	G A 617	121.204	91.207	27.747	1.00	60.96	C
ATOM	12745	O1P	C A 615	121.866	105.043	20.064	1.00	82.27	O	ATOM	12795	O3*	G A 617	120.818	90.705	29.009	1.00	60.96	O
ATOM	12746	O2P	C A 615	123.354	103.241	19.004	1.00	82.27	O	ATOM	12796	C2*	G A 617	121.954	90.165	26.927	1.00	60.96	C
ATOM	12747	O5*	C A 615	121.051	102.703	19.852	1.00	64.89	O	ATOM	12797	O2*	G A 617	121.431	88.856	27.065	1.00	60.96	O



ATOM	12798	C1*	G A 617	121.693	90.642	25.500	1.00	60.96	C	ATOM	12848	C5	U A 619	131.694	90.573	34.299	1.00	53.42	C
ATOM	12799	N9	G A 617	122.791	91.458	24.980	1.00	69.99	N	ATOM	12849	C6	U A 619	130.547	91.252	34.242	1.00	53.42	C
ATOM	12800	C8	G A 617	122.820	92.827	24.847	1.00	69.99	C	ATOM	12850	P	C A 620	127.502	93.329	30.125	1.00	52.00	P
ATOM	12801	N7	G A 617	123.950	93.275	24.370	1.00	69.99	N	ATOM	12851	O1P	C A 620	126.349	93.843	29.300	1.00	47.78	O
ATOM	12802	C5	G A 617	124.716	92.134	24.174	1.00	69.99	C	ATOM	12852	O2P	C A 620	127.873	91.891	30.063	1.00	47.78	O
ATOM	12803	C6	G A 617	126.036	91.993	23.684	1.00	69.99	C	ATOM	12853	O5*	C A 620	128.807	94.153	29.757	1.00	52.00	O
ATOM	12804	O6	G A 617	126.823	92.876	23.326	1.00	69.99	O	ATOM	12854	C5*	C A 620	128.794	95.564	29.805	1.00	52.00	C
ATOM	12805	N1	G A 617	126.424	90.660	23.637	1.00	69.99	N	ATOM	12855	C4*	C A 620	130.102	96.093	29.324	1.00	52.00	C
ATOM	12806	C2	G A 617	125.648	89.599	24.019	1.00	69.99	C	ATOM	12856	O4*	C A 620	131.150	95.578	30.171	1.00	52.00	O
ATOM	12807	N2	G A 617	126.207	88.390	23.890	1.00	69.99	N	ATOM	12857	C3*	C A 620	130.523	95.669	27.930	1.00	52.00	C
ATOM	12808	N3	G A 617	124.417	89.714	24.489	1.00	69.99	N	ATOM	12858	O3*	C A 620	129.926	96.497	26.955	1.00	52.00	O
ATOM	12809	C4	G A 617	124.016	91.003	24.537	1.00	69.99	C	ATOM	12859	C2*	C A 620	132.033	95.858	27.974	1.00	52.00	C
ATOM	12810	P	C A 618	121.697	91.065	30.308	1.00	68.38	P	ATOM	12860	O2*	C A 620	132.412	97.205	27.766	1.00	52.00	O
ATOM	12811	O1P	C A 618	121.032	90.392	31.465	1.00	69.95	O	ATOM	12861	C1*	C A 620	132.349	95.512	29.428	1.00	52.00	C
ATOM	12812	O2P	C A 618	121.902	92.538	30.328	1.00	69.95	O	ATOM	12862	N1	C A 620	133.002	94.213	29.663	1.00	47.78	N
ATOM	12813	O5*	C A 618	123.119	90.369	30.069	1.00	68.38	O	ATOM	12863	C2	C A 620	134.401	94.173	29.699	1.00	47.78	C
ATOM	12814	C5*	C A 618	123.283	88.972	30.348	1.00	68.38	C	ATOM	12864	O2	C A 620	135.040	95.211	29.469	1.00	47.78	O
ATOM	12815	C4*	C A 618	124.685	88.484	30.033	1.00	68.38	C	ATOM	12865	N3	C A 620	135.021	93.011	29.982	1.00	47.78	N
ATOM	12816	O4*	C A 618	125.035	88.708	28.647	1.00	68.38	O	ATOM	12866	C4	C A 620	134.306	91.913	30.215	1.00	47.78	C
ATOM	12817	C3*	C A 618	125.912	88.999	30.775	1.00	68.38	C	ATOM	12867	N4	C A 620	134.969	90.800	30.520	1.00	47.78	N
ATOM	12818	O3*	C A 618	126.025	88.423	32.081	1.00	68.38	O	ATOM	12868	C5	C A 620	132.880	91.912	30.150	1.00	47.78	C
ATOM	12819	C2*	C A 618	127.040	88.455	29.896	1.00	68.38	C	ATOM	12869	C6	C A 620	132.274	93.073	29.868	1.00	47.78	C
ATOM	12820	O2*	C A 618	127.383	87.121	30.203	1.00	68.38	O	ATOM	12870	P	A A 621	129.482	95.870	25.553	1.00	52.02	P
ATOM	12821	C1*	C A 618	126.407	88.425	28.506	1.00	68.38	C	ATOM	12871	O1P	A A 621	128.939	96.973	24.729	1.00	73.08	O
ATOM	12822	N1	C A 618	127.068	89.359	27.587	1.00	69.95	N	ATOM	12872	O2P	A A 621	128.634	94.690	25.820	1.00	73.08	O
ATOM	12823	C2	C A 618	127.908	88.824	26.610	1.00	69.95	C	ATOM	12873	O5*	A A 621	130.869	95.406	24.921	1.00	52.02	O
ATOM	12824	O2	C A 618	127.966	87.591	26.478	1.00	69.95	O	ATOM	12874	C5*	A A 621	131.893	96.382	24.641	1.00	52.02	C
ATOM	12825	N3	C A 618	128.630	89.654	25.833	1.00	69.95	N	ATOM	12875	C4*	A A 621	133.225	95.714	24.400	1.00	52.02	C
ATOM	12826	C4	C A 618	128.519	90.968	25.982	1.00	69.95	C	ATOM	12876	O4*	A A 621	133.673	95.067	25.613	1.00	52.02	O
ATOM	12827	N4	C A 618	129.276	91.740	25.210	1.00	69.95	N	ATOM	12877	C3*	A A 621	133.228	94.629	23.342	1.00	52.02	C
ATOM	12828	C5	C A 618	127.629	91.546	26.932	1.00	69.95	C	ATOM	12878	O3*	A A 621	133.416	95.174	22.046	1.00	52.02	O
ATOM	12829	C6	C A 618	126.922	90.712	27.702	1.00	69.95	C	ATOM	12879	C2*	A A 621	134.393	93.751	23.767	1.00	52.02	C
ATOM	12830	P	U A 619	127.360	88.658	32.975	1.00	59.90	P	ATOM	12880	O2*	A A 621	135.627	94.261	23.301	1.00	52.02	O
ATOM	12831	O1P	U A 619	128.555	88.105	32.283	1.00	53.42	O	ATOM	12881	C1*	A A 621	134.326	93.853	25.296	1.00	52.02	C
ATOM	12832	O2P	U A 619	127.075	88.235	34.378	1.00	53.42	O	ATOM	12882	N9	A A 621	133.589	92.759	25.940	1.00	73.08	N
ATOM	12833	O5*	U A 619	127.572	90.234	32.975	1.00	59.90	O	ATOM	12883	C8	A A 621	132.274	92.758	26.342	1.00	73.08	C
ATOM	12834	C5*	U A 619	126.550	91.125	33.424	1.00	59.90	C	ATOM	12884	N7	A A 621	131.891	91.635	26.897	1.00	73.08	N
ATOM	12835	C4*	U A 619	127.157	92.459	33.744	1.00	59.90	C	ATOM	12885	C5	A A 621	133.027	90.840	26.858	1.00	73.08	C
ATOM	12836	O4*	U A 619	128.029	92.333	34.891	1.00	59.90	O	ATOM	12886	C6	A A 621	133.279	89.530	27.300	1.00	73.08	C
ATOM	12837	C3*	U A 619	128.047	93.012	32.651	1.00	59.90	C	ATOM	12887	N6	A A 621	132.369	88.757	27.889	1.00	73.08	N
ATOM	12838	O3*	U A 619	127.274	93.676	31.672	1.00	59.90	O	ATOM	12888	N1	A A 621	134.517	89.033	27.115	1.00	73.08	N
ATOM	12839	C2*	U A 619	128.993	93.934	33.406	1.00	59.90	C	ATOM	12889	C2	A A 621	135.435	89.810	26.530	1.00	73.08	C
ATOM	12840	O2*	U A 619	128.482	95.237	33.600	1.00	59.90	O	ATOM	12890	N3	A A 621	135.322	91.054	26.076	1.00	73.08	N
ATOM	12841	C1*	U A 619	129.121	93.217	34.753	1.00	59.90	C	ATOM	12891	C4	A A 621	134.079	91.518	26.272	1.00	73.08	C
ATOM	12842	N1	U A 619	130.367	92.453	34.884	1.00	53.42	N	ATOM	12892	P	A A 622	132.649	94.520	20.806	1.00	52.12	P
ATOM	12843	C2	U A 619	131.372	93.000	35.661	1.00	53.42	C	ATOM	12893	O1P	A A 622	132.875	95.375	19.621	1.00	59.75	O
ATOM	12844	O2	U A 619	131.250	94.051	36.269	1.00	53.42	O	ATOM	12894	O2P	A A 622	131.259	94.235	21.240	1.00	59.75	O
ATOM	12845	N3	U A 619	132.533	92.275	35.699	1.00	53.42	N	ATOM	12895	O5*	A A 622	133.429	93.143	20.598	1.00	52.12	O
ATOM	12846	C4	U A 619	132.790	91.093	35.058	1.00	53.42	C	ATOM	12896	C5*	A A 622	134.829	93.143	20.230	1.00	52.12	C
ATOM	12847	O4	U A 619	133.925	90.626	35.103	1.00	53.42	O	ATOM	12897	C4*	A A 622	135.468	91.779	20.454	1.00	52.12	C



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ATOM	12898	O4*	A A 622	135.581	91.491	21.871	1.00	52.12	O	ATOM	12948	O2	C A 624	124.421	89.209	21.113	1.00	65.61	O
ATOM	12899	C3*	A A 622	134.775	90.559	19.869	1.00	52.12	C	ATOM	12949	N3	C A 624	125.840	90.806	20.365	1.00	65.61	N
ATOM	12900	O3*	A A 622	135.071	90.366	18.504	1.00	52.12	O	ATOM	12950	C4	C A 624	126.909	91.110	19.626	1.00	65.61	C
ATOM	12901	C2*	A A 622	135.347	89.436	20.714	1.00	52.12	C	ATOM	12951	N4	C A 624	127.294	92.388	19.574	1.00	65.61	N
ATOM	12902	O2*	A A 622	136.651	89.084	20.303	1.00	52.12	O	ATOM	12952	C5	C A 624	127.630	90.122	18.906	1.00	65.61	C
ATOM	12903	C1*	A A 622	135.419	90.099	22.088	1.00	52.12	C	ATOM	12953	C6	C A 624	127.195	88.868	18.982	1.00	65.61	C
ATOM	12904	N9	A A 622	134.155	89.890	22.798	1.00	59.75	N	ATOM	12954	P	G A 625	123.474	86.066	15.784	1.00	46.44	P
ATOM	12905	C8	A A 622	133.121	90.778	22.954	1.00	59.75	C	ATOM	12955	O1P	G A 625	122.756	84.994	15.044	1.00	70.04	O
ATOM	12906	N7	A A 622	132.087	90.282	23.581	1.00	59.75	N	ATOM	12956	O2P	G A 625	124.213	87.109	15.026	1.00	70.04	O
ATOM	12907	C5	A A 622	132.468	88.985	23.872	1.00	59.75	C	ATOM	12957	O5*	G A 625	122.382	86.765	16.705	1.00	46.44	O
ATOM	12908	C6	A A 622	131.810	87.944	24.521	1.00	59.75	C	ATOM	12958	C5*	G A 625	121.415	85.987	17.432	1.00	46.44	C
ATOM	12909	N6	A A 622	130.569	88.042	24.989	1.00	59.75	N	ATOM	12959	C4*	G A 625	120.347	86.888	18.008	1.00	46.44	C
ATOM	12910	N1	A A 622	132.470	86.777	24.670	1.00	59.75	N	ATOM	12960	O4*	G A 625	120.947	87.819	18.947	1.00	46.44	O
ATOM	12911	C2	A A 622	133.710	86.678	24.178	1.00	59.75	C	ATOM	12961	C3*	G A 625	119.611	87.762	17.001	1.00	46.44	C
ATOM	12912	N3	A A 622	134.432	87.586	23.533	1.00	59.75	N	ATOM	12962	O3*	G A 625	118.523	87.065	16.386	1.00	46.44	O
ATOM	12913	C4	A A 622	133.745	88.734	23.413	1.00	59.75	C	ATOM	12963	C2*	G A 625	119.143	88.939	17.853	1.00	46.44	C
ATOM	12914	P	C A 623	133.868	90.226	17.462	1.00	53.75	P	ATOM	12964	O2*	G A 625	117.924	88.702	18.530	1.00	46.44	O
ATOM	12915	O1P	C A 623	134.432	89.715	16.202	1.00	53.76	O	ATOM	12965	C1*	G A 625	120.281	89.067	18.871	1.00	46.44	C
ATOM	12916	O2P	C A 623	133.126	91.505	17.463	1.00	53.76	O	ATOM	12966	N9	G A 625	121.261	90.093	18.522	1.00	70.04	N
ATOM	12917	O5*	C A 623	132.928	89.107	18.100	1.00	53.75	O	ATOM	12967	C8	G A 625	122.555	89.895	18.102	1.00	70.04	C
ATOM	12918	C5*	C A 623	133.342	87.721	18.146	1.00	53.75	C	ATOM	12968	N7	G A 625	123.197	91.009	17.877	1.00	70.04	N
ATOM	12919	C4*	C A 623	132.282	86.865	18.813	1.00	53.75	C	ATOM	12969	C5	G A 625	122.274	92.006	18.165	1.00	70.04	C
ATOM	12920	O4*	C A 623	132.188	87.219	20.218	1.00	53.75	O	ATOM	12970	C6	G A 625	122.402	93.413	18.118	1.00	70.04	C
ATOM	12921	C3*	C A 623	130.871	87.023	18.268	1.00	53.75	C	ATOM	12971	O6	G A 625	123.387	94.087	17.809	1.00	70.04	O
ATOM	12922	O3*	C A 623	130.629	86.182	17.147	1.00	53.75	O	ATOM	12972	N1	G A 625	121.221	94.044	18.483	1.00	70.04	N
ATOM	12923	C2*	C A 623	130.005	86.653	19.464	1.00	53.75	C	ATOM	12973	C2	G A 625	120.067	93.408	18.847	1.00	70.04	C
ATOM	12924	O2*	C A 623	129.841	85.263	19.622	1.00	53.75	O	ATOM	12974	N2	G A 625	119.030	94.196	19.148	1.00	70.04	N
ATOM	12925	C1*	C A 623	130.834	87.195	20.628	1.00	53.75	C	ATOM	12975	N3	G A 625	119.935	92.098	18.908	1.00	70.04	N
ATOM	12926	N1	C A 623	130.438	88.569	20.969	1.00	53.76	N	ATOM	12976	C4	G A 625	121.072	91.460	18.557	1.00	70.04	C
ATOM	12927	C2	C A 623	129.271	88.776	21.706	1.00	53.76	C	ATOM	12977	P	U A 626	117.990	87.537	14.947	1.00	63.36	P
ATOM	12928	O2	C A 623	128.596	87.797	22.056	1.00	53.76	O	ATOM	12978	O1P	U A 626	116.952	86.590	14.491	1.00	68.67	O
ATOM	12929	N3	C A 623	128.904	90.036	22.013	1.00	53.76	N	ATOM	12979	O2P	U A 626	119.170	87.792	14.087	1.00	68.67	O
ATOM	12930	C4	C A 623	129.648	91.065	21.607	1.00	53.76	C	ATOM	12980	O5*	U A 626	117.288	88.928	15.267	1.00	63.36	O
ATOM	12931	N4	C A 623	129.246	92.292	21.931	1.00	53.76	N	ATOM	12981	C5*	U A 626	116.127	88.994	16.117	1.00	63.36	C
ATOM	12932	C5	C A 623	130.837	90.883	20.853	1.00	53.76	C	ATOM	12982	C4*	U A 626	115.622	90.416	16.206	1.00	63.36	C
ATOM	12933	C6	C A 623	131.195	89.634	20.564	1.00	53.76	C	ATOM	12983	O4*	U A 626	116.538	91.211	17.002	1.00	63.36	O
ATOM	12934	P	C A 624	129.452	86.557	16.111	1.00	45.96	P	ATOM	12984	C3*	U A 626	115.525	91.146	14.878	1.00	63.36	C
ATOM	12935	O1P	C A 624	129.364	85.492	15.066	1.00	65.61	O	ATOM	12985	O3*	U A 626	114.302	90.884	14.215	1.00	63.36	O
ATOM	12936	O2P	C A 624	129.647	87.972	15.692	1.00	65.61	O	ATOM	12986	C2*	U A 626	115.661	92.606	15.279	1.00	63.36	C
ATOM	12937	O5*	C A 624	128.140	86.509	17.012	1.00	45.96	O	ATOM	12987	O2*	U A 626	114.434	93.146	15.717	1.00	63.36	O
ATOM	12938	C5*	C A 624	127.682	85.277	17.591	1.00	45.96	C	ATOM	12988	C1*	U A 626	116.636	92.516	16.457	1.00	63.36	C
ATOM	12939	C4*	C A 624	126.404	85.505	18.355	1.00	45.96	C	ATOM	12989	N1	U A 626	118.040	92.761	16.074	1.00	68.67	N
ATOM	12940	O4*	C A 624	126.692	86.289	19.533	1.00	45.96	O	ATOM	12990	C2	U A 626	118.457	94.078	15.939	1.00	68.67	C
ATOM	12941	C3*	C A 624	125.325	86.282	17.614	1.00	45.96	C	ATOM	12991	O2	U A 626	117.718	95.034	16.117	1.00	68.67	O
ATOM	12942	O3*	C A 624	124.513	85.428	16.824	1.00	45.96	O	ATOM	12992	N3	U A 626	119.773	94.236	15.578	1.00	68.67	N
ATOM	12943	C2*	C A 624	124.526	86.909	18.744	1.00	45.96	C	ATOM	12993	C4	U A 626	120.691	93.246	15.332	1.00	68.67	C
ATOM	12944	O2*	C A 624	123.568	86.032	19.292	1.00	45.96	O	ATOM	12994	O4	U A 626	121.820	93.553	14.956	1.00	68.67	O
ATOM	12945	C1*	C A 624	125.610	87.165	19.789	1.00	45.96	C	ATOM	12995	C5	U A 626	120.192	91.917	15.492	1.00	68.67	C
ATOM	12946	N1	C A 624	126.098	88.546	19.727	1.00	65.61	N	ATOM	12996	C6	U A 626	118.918	91.723	15.850	1.00	68.67	C
ATOM	12947	C2	C A 624	125.412	89.531	20.435	1.00	65.61	C	ATOM	12997	P	G A 627	114.226	91.051	12.621	1.00	66.26	P



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ATOM	12998	G A 627	112.872	90.618	12.168	1.00	75.74	O	ATOM	13048	C4*	G A 629	117.670	102.370	4.504	1.00	79.97	C
ATOM	12999	G A 627	115.429	90.411	12.044	1.00	75.74	O	ATOM	13049	O4*	G A 629	118.565	101.802	5.496	1.00	79.97	O
ATOM	13000	G A 627	114.358	92.622	12.408	1.00	66.26	O	ATOM	13050	C3*	G A 629	118.226	101.903	3.171	1.00	79.97	C
ATOM	13001	G A 627	113.345	93.503	12.906	1.00	66.26	C	ATOM	13051	O3*	G A 629	117.852	102.759	2.100	1.00	79.97	O
ATOM	13002	G A 627	113.763	94.941	12.756	1.00	66.26	C	ATOM	13052	C2*	G A 629	119.727	101.909	3.427	1.00	79.97	C
ATOM	13003	G A 627	114.891	95.230	13.615	1.00	66.26	O	ATOM	13053	O2*	G A 629	120.278	103.208	3.326	1.00	79.97	O
ATOM	13004	G A 627	114.223	95.384	11.383	1.00	66.26	C	ATOM	13054	C1*	G A 629	119.795	101.448	4.884	1.00	79.97	C
ATOM	13005	G A 627	113.145	95.689	10.523	1.00	66.26	O	ATOM	13055	N9	G A 629	119.967	99.998	4.990	1.00	98.05	N
ATOM	13006	G A 627	115.021	96.636	11.698	1.00	66.26	C	ATOM	13056	C8	G A 629	119.013	99.070	5.341	1.00	98.05	C
ATOM	13007	G A 627	114.183	97.765	11.849	1.00	66.26	O	ATOM	13057	N7	G A 629	119.459	97.844	5.329	1.00	98.05	N
ATOM	13008	G A 627	115.663	96.266	12.036	1.00	66.26	C	ATOM	13058	C5	G A 629	120.790	97.965	4.951	1.00	98.05	C
ATOM	13009	G A 627	117.032	95.799	13.842	1.00	75.74	N	ATOM	13059	C6	G A 629	121.788	96.967	4.759	1.00	98.05	C
ATOM	13010	G A 627	117.491	94.507	12.858	1.00	75.74	C	ATOM	13060	O6	G A 629	121.694	95.740	4.900	1.00	98.05	O
ATOM	13011	G A 627	118.764	94.414	12.589	1.00	75.74	N	ATOM	13061	N1	G A 629	122.997	97.528	4.363	1.00	98.05	N
ATOM	13012	G A 627	119.172	95.726	12.395	1.00	75.74	C	ATOM	13062	C2	G A 629	123.222	98.871	4.180	1.00	98.05	C
ATOM	13013	G A 627	120.441	96.251	12.067	1.00	75.74	C	ATOM	13063	N2	G A 629	124.456	99.213	3.790	1.00	98.05	N
ATOM	13014	G A 627	121.490	95.644	11.864	1.00	75.74	O	ATOM	13064	N3	G A 629	122.307	99.808	4.363	1.00	98.05	N
ATOM	13015	G A 627	120.416	97.638	11.974	1.00	75.74	N	ATOM	13065	C4	G A 629	121.121	99.288	4.742	1.00	98.05	C
ATOM	13016	G A 627	119.312	98.420	12.163	1.00	75.74	C	ATOM	13066	P	G A 630	117.807	102.178	0.599	1.00	102.21	P
ATOM	13017	G A 627	119.491	99.740	12.024	1.00	75.74	N	ATOM	13067	O1P	G A 630	117.214	103.235	-0.264	1.00	98.79	O
ATOM	13018	G A 627	118.118	97.943	12.466	1.00	75.74	N	ATOM	13068	O2P	G A 630	117.193	100.823	0.624	1.00	98.79	O
ATOM	13019	G A 627	118.121	96.594	12.565	1.00	75.74	C	ATOM	13069	O5*	G A 630	119.344	102.009	0.209	1.00	102.21	O
ATOM	13020	G A 628	113.373	95.644	8.933	1.00	79.10	P	ATOM	13070	C5*	G A 630	120.240	103.140	0.252	1.00	102.21	C
ATOM	13021	G A 628	112.035	95.682	8.270	1.00	80.67	O	ATOM	13071	C4*	G A 630	121.674	102.707	0.024	1.00	102.21	C
ATOM	13022	G A 628	114.302	94.515	8.655	1.00	80.67	O	ATOM	13072	O4*	G A 630	122.118	101.857	1.115	1.00	102.21	O
ATOM	13023	G A 628	114.148	96.998	8.612	1.00	79.10	O	ATOM	13073	C3*	G A 630	121.947	101.891	-1.228	1.00	102.21	C
ATOM	13024	G A 628	113.603	98.271	8.990	1.00	79.10	C	ATOM	13074	O3*	G A 630	122.076	102.690	-2.397	1.00	102.21	O
ATOM	13025	G A 628	114.634	99.352	8.797	1.00	79.10	C	ATOM	13075	C2*	G A 630	123.235	101.162	-0.867	1.00	102.21	C
ATOM	13026	G A 628	115.754	99.128	9.698	1.00	79.10	O	ATOM	13076	O2*	G A 630	124.383	101.964	-1.058	1.00	102.21	O
ATOM	13027	G A 628	115.272	99.417	7.420	1.00	79.10	C	ATOM	13077	C1*	G A 630	123.029	100.886	0.624	1.00	102.21	C
ATOM	13028	G A 628	114.469	100.120	6.487	1.00	79.10	O	ATOM	13078	N9	G A 630	122.466	99.556	0.858	1.00	98.79	N
ATOM	13029	G A 628	116.597	100.117	7.700	1.00	79.10	C	ATOM	13079	C8	G A 630	121.140	99.230	1.027	1.00	98.79	C
ATOM	13030	G A 628	116.470	101.522	7.777	1.00	79.10	C	ATOM	13080	N7	G A 630	120.942	97.949	1.176	1.00	98.79	N
ATOM	13031	G A 628	116.960	99.561	9.080	1.00	79.10	C	ATOM	13081	C5	G A 630	122.212	97.394	1.109	1.00	98.79	C
ATOM	13032	G A 628	117.893	98.434	8.999	1.00	80.67	N	ATOM	13082	C6	G A 630	122.626	96.044	1.197	1.00	98.79	C
ATOM	13033	G A 628	117.600	97.096	9.131	1.00	80.67	C	ATOM	13083	O6	G A 630	121.935	95.039	1.351	1.00	98.79	O
ATOM	13034	G A 628	118.638	96.323	8.953	1.00	80.67	N	ATOM	13084	N1	G A 630	124.006	95.922	1.083	1.00	98.79	N
ATOM	13035	G A 628	119.685	97.200	8.696	1.00	80.67	C	ATOM	13085	C2	G A 630	124.878	96.966	0.905	1.00	98.79	C
ATOM	13036	G A 628	121.060	96.943	8.403	1.00	80.67	C	ATOM	13086	N2	G A 630	126.181	96.646	0.829	1.00	98.79	N
ATOM	13037	G A 628	121.638	95.858	8.303	1.00	80.67	O	ATOM	13087	N3	G A 630	124.504	98.231	0.813	1.00	98.79	N
ATOM	13038	G A 628	121.770	98.120	8.207	1.00	80.67	N	ATOM	13088	C4	G A 630	123.165	98.371	0.923	1.00	98.79	C
ATOM	13039	G A 628	121.239	99.382	8.277	1.00	80.67	C	ATOM	13089	P	G A 631	121.542	102.120	-3.802	1.00	102.15	P
ATOM	13040	G A 628	122.088	100.389	8.049	1.00	80.67	N	ATOM	13090	O1P	G A 631	121.751	103.157	-4.843	1.00	125.92	O
ATOM	13041	G A 628	119.966	99.639	8.547	1.00	80.67	N	ATOM	13091	O2P	G A 631	120.176	101.583	-3.570	1.00	125.92	O
ATOM	13042	G A 628	119.250	98.508	8.740	1.00	80.67	C	ATOM	13092	O5*	G A 631	122.509	100.885	-4.103	1.00	102.15	O
ATOM	13043	G A 629	114.673	99.858	4.914	1.00	79.97	P	ATOM	13093	C5*	G A 631	123.951	101.043	-4.080	1.00	102.15	C
ATOM	13044	G A 629	113.624	100.617	4.193	1.00	98.05	O	ATOM	13094	C4*	G A 631	124.651	99.705	-4.257	1.00	102.15	C
ATOM	13045	G A 629	114.808	98.399	4.677	1.00	98.05	O	ATOM	13095	O4*	G A 631	124.486	98.876	-3.076	1.00	102.15	O
ATOM	13046	G A 629	116.074	100.547	4.602	1.00	79.97	O	ATOM	13096	C3*	G A 631	124.170	98.849	-5.417	1.00	102.15	C
ATOM	13047	G A 629	116.248	101.952	4.802	1.00	79.97	C	ATOM	13097	O3*	G A 631	124.810	99.239	-6.627	1.00	102.15	O



ATOM	13098	C2*	G A 631	124.549	97.433	-4.978	1.00102.15	C	ATOM	13148	N7	G A 633	122.665	95.544	-10.932	1.00	70.79	N	
ATOM	13099	O2*	G A 631	125.888	97.079	-5.282	1.00102.15	O	ATOM	13149	C5	G A 633	122.154	94.270	-10.732	1.00	70.79	C	
ATOM	13100	C1*	G A 631	124.374	97.513	-3.457	1.00102.15	C	ATOM	13150	C6	G A 633	120.963	93.852	-10.103	1.00	70.79	C	
ATOM	13101	N9	G A 631	123.090	97.009	-2.968	1.00125.92	N	ATOM	13151	O6	G A 633	120.076	94.546	-9.601	1.00	70.79	O	
ATOM	13102	C8	G A 631	122.001	97.760	-2.583	1.00125.92	C	ATOM	13152	N1	G A 633	120.842	92.467	-10.103	1.00	70.79	N	
ATOM	13103	N7	G A 631	120.996	97.036	-2.171	1.00125.92	N	ATOM	13153	C2	G A 633	121.743	91.593	-10.651	1.00	70.79	C	
ATOM	13104	C5	G A 631	121.439	95.725	-2.295	1.00125.92	C	ATOM	13154	N2	G A 633	121.452	90.293	-10.534	1.00	70.79	N	
ATOM	13105	C6	G A 631	120.781	94.499	-1.999	1.00125.92	C	ATOM	13155	N3	G A 633	122.850	91.969	-11.262	1.00	70.79	N	
ATOM	13106	O6	G A 631	119.640	94.323	-1.549	1.00125.92	O	ATOM	13156	C4	G A 633	122.994	93.315	-11.263	1.00	70.79	C	
ATOM	13107	N1	G A 631	121.592	93.404	-2.279	1.00125.92	N	ATOM	13157	P	C A 634	124.427	94.884	-17.087	1.00	42.69	P	
ATOM	13108	C2	G A 631	122.869	93.475	-2.777	1.00125.92	C	ATOM	13158	O1P	C A 634	125.025	94.891	-18.456	1.00	53.29	O	
ATOM	13109	N2	G A 631	123.483	92.304	-2.981	1.00125.92	N	ATOM	13159	O2P	C A 634	123.912	96.152	-16.483	1.00	53.29	O	
ATOM	13110	N3	G A 631	123.497	94.608	-3.054	1.00125.92	N	ATOM	13160	O5*	C A 634	123.276	93.789	-17.091	1.00	42.69	O	
ATOM	13111	C4	G A 631	122.728	95.688	-2.791	1.00125.92	C	ATOM	13161	C5*	C A 634	123.527	92.489	-17.635	1.00	42.69	C	
ATOM	13112	P	A A 632	123.942	99.883	-7.821	1.00	67.26	P	ATOM	13162	C4*	C A 634	122.477	91.512	-17.177	1.00	42.69	C
ATOM	13113	O1P	A A 632	123.959	101.363	-7.667	1.00	89.93	O	ATOM	13163	O4*	C A 634	122.478	91.453	-15.726	1.00	42.69	O
ATOM	13114	O2P	A A 632	122.632	99.181	-7.909	1.00	89.93	O	ATOM	13164	C3*	C A 634	121.041	91.833	-17.558	1.00	42.69	C
ATOM	13115	O5*	A A 632	124.787	99.518	-9.124	1.00	67.26	O	ATOM	13165	O3*	C A 634	120.732	91.398	-18.884	1.00	42.69	O
ATOM	13116	C5*	A A 632	126.089	100.081	-9.346	1.00	67.26	C	ATOM	13166	C2*	C A 634	120.261	91.072	-16.493	1.00	42.69	C
ATOM	13117	C4*	A A 632	127.048	99.014	-9.816	1.00	67.26	C	ATOM	13167	O2*	C A 634	120.158	89.692	-16.786	1.00	42.69	O
ATOM	13118	O4*	A A 632	127.276	98.062	-8.743	1.00	67.26	O	ATOM	13168	C1*	C A 634	121.157	91.258	-15.263	1.00	42.69	C
ATOM	13119	C3*	A A 632	126.573	98.170	-10.986	1.00	67.26	C	ATOM	13169	N1	C A 634	120.749	92.437	-14.468	1.00	53.29	N
ATOM	13120	O3*	A A 632	126.834	98.777	-12.241	1.00	67.26	O	ATOM	13170	C2	C A 634	119.614	92.341	-13.663	1.00	53.29	C
ATOM	13121	C2*	A A 632	127.356	96.879	-10.805	1.00	67.26	C	ATOM	13171	O2	C A 634	119.037	91.252	-13.575	1.00	53.29	O
ATOM	13122	O2*	A A 632	128.663	96.968	-11.326	1.00	67.26	O	ATOM	13172	N3	C A 634	119.174	93.432	-12.996	1.00	53.29	N
ATOM	13123	C1*	A A 632	127.410	96.756	-9.281	1.00	67.26	C	ATOM	13173	C4	C A 634	119.834	94.580	-13.093	1.00	53.29	C
ATOM	13124	N9	A A 632	126.317	95.923	-8.762	1.00	89.93	N	ATOM	13174	N4	C A 634	119.346	95.633	-12.440	1.00	53.29	N
ATOM	13125	C8	A A 632	125.126	96.333	-8.210	1.00	89.93	C	ATOM	13175	C5	C A 634	121.022	94.701	-13.868	1.00	53.29	C
ATOM	13126	N7	A A 632	124.333	95.348	-7.871	1.00	89.93	N	ATOM	13176	C6	C A 634	121.442	93.614	-14.533	1.00	53.29	C
ATOM	13127	C5	A A 632	125.050	94.210	-8.212	1.00	89.93	C	ATOM	13177	P	G A 635	119.483	92.047	-19.674	1.00	49.10	P
ATOM	13128	C6	A A 632	124.756	92.838	-8.105	1.00	89.93	C	ATOM	13178	O1P	G A 635	119.481	91.535	-21.079	1.00	49.74	O
ATOM	13129	N6	A A 632	123.618	92.363	-7.600	1.00	89.93	N	ATOM	13179	O2P	G A 635	119.487	93.508	-19.419	1.00	49.74	O
ATOM	13130	N1	A A 632	125.684	91.960	-8.538	1.00	89.93	N	ATOM	13180	O5*	G A 635	118.201	91.449	-18.945	1.00	49.10	O
ATOM	13131	C2	A A 632	126.828	92.435	-9.041	1.00	89.93	C	ATOM	13181	C5*	G A 635	117.872	90.055	-19.056	1.00	49.10	C
ATOM	13132	N3	A A 632	127.221	93.697	-9.194	1.00	89.93	N	ATOM	13182	C4*	G A 635	116.504	89.786	-18.473	1.00	49.10	C
ATOM	13133	C4	A A 632	126.275	94.547	-8.756	1.00	89.93	C	ATOM	13183	O4*	G A 635	116.523	89.987	-17.040	1.00	49.10	O
ATOM	13134	P	G A 633	125.745	98.650	-13.422	1.00	56.26	P	ATOM	13184	C3*	G A 635	115.379	90.678	-18.963	1.00	49.10	C
ATOM	13135	O1P	G A 633	126.268	99.304	-14.658	1.00	70.79	O	ATOM	13185	O3*	G A 635	114.859	90.208	-20.193	1.00	49.10	O
ATOM	13136	O2P	G A 633	124.439	99.076	-12.862	1.00	70.79	O	ATOM	13186	C2*	G A 635	114.363	90.570	-17.838	1.00	49.10	C
ATOM	13137	O5*	G A 633	125.651	97.087	-13.717	1.00	56.26	O	ATOM	13187	O2*	G A 635	113.605	89.388	-17.920	1.00	49.10	O
ATOM	13138	C5*	G A 633	126.832	96.300	-13.959	1.00	56.26	C	ATOM	13188	C1*	G A 635	115.266	90.471	-16.611	1.00	49.10	C
ATOM	13139	C4*	G A 633	126.493	94.829	-13.914	1.00	56.26	C	ATOM	13189	N9	G A 635	115.458	91.773	-15.987	1.00	49.74	N
ATOM	13140	O4*	G A 633	126.215	94.407	-12.555	1.00	56.26	O	ATOM	13190	C8	G A 635	116.575	92.564	-16.036	1.00	49.74	C
ATOM	13141	C3*	G A 633	125.241	94.470	-14.681	1.00	56.26	C	ATOM	13191	N7	G A 635	116.424	93.701	-15.415	1.00	49.74	N
ATOM	13142	O3*	G A 633	125.486	94.306	-16.049	1.00	56.26	O	ATOM	13192	C5	G A 635	115.131	93.651	-14.923	1.00	49.74	C
ATOM	13143	C2*	G A 633	124.781	93.190	-14.014	1.00	56.26	C	ATOM	13193	C6	G A 635	114.396	94.601	-14.175	1.00	49.74	C
ATOM	13144	O2*	G A 633	125.438	92.051	-14.528	1.00	56.26	O	ATOM	13194	O6	G A 635	114.738	95.736	-13.813	1.00	49.74	O
ATOM	13145	C1*	G A 633	125.166	93.455	-12.557	1.00	56.26	C	ATOM	13195	N1	G A 635	113.131	94.127	-13.860	1.00	49.74	N
ATOM	13146	N9	G A 633	124.036	94.019	-11.824	1.00	70.79	N	ATOM	13196	C2	G A 635	112.630	92.913	-14.233	1.00	49.74	C
ATOM	13147	C8	G A 633	123.781	95.347	-11.579	1.00	70.79	C	ATOM	13197	N2	G A 635	111.389	92.639	-13.819	1.00	49.74	N



Table 1: Sheet 134/521

ATOM	13198	N3	G A 635	113.291	92.031	-14.950	1.00	49.74	N	ATOM	13248	C4*	G A 638	105.870	102.049	-21.394	1.00	54.69	C
ATOM	13199	C4	G A 635	114.529	92.460	-15.254	1.00	49.74	C	ATOM	13249	O4*	G A 638	106.691	101.776	-20.232	1.00	54.69	O
ATOM	13200	P	U A 636	114.276	91.257	-21.253	1.00	48.42	P	ATOM	13250	C3*	G A 638	106.656	103.104	-22.149	1.00	54.69	C
ATOM	13201	O1P	U A 636	113.853	90.496	-22.459	1.00	50.22	O	ATOM	13251	O3*	G A 638	105.885	103.877	-23.034	1.00	54.69	O
ATOM	13202	O2P	U A 636	115.238	92.365	-21.383	1.00	50.22	O	ATOM	13252	C2*	G A 638	107.204	103.959	-21.022	1.00	54.69	C
ATOM	13203	O5*	U A 636	112.993	91.839	-20.518	1.00	48.42	O	ATOM	13253	O1*	G A 638	106.247	104.874	-20.538	1.00	54.69	O
ATOM	13204	C5*	U A 636	111.889	90.977	-20.193	1.00	48.42	C	ATOM	13254	C1*	G A 638	107.525	102.901	-19.966	1.00	54.69	C
ATOM	13205	C4*	U A 636	110.808	91.744	-19.482	1.00	48.42	C	ATOM	13255	N9	G A 638	108.930	102.507	-20.092	1.00	60.88	N
ATOM	13206	C3*	U A 636	111.218	92.071	-18.133	1.00	48.42	O	ATOM	13256	C8	G A 638	109.435	101.388	-20.714	1.00	60.88	C
ATOM	13207	O4*	U A 636	110.430	93.078	-20.089	1.00	48.42	C	ATOM	13257	N7	G A 638	110.739	101.364	-20.744	1.00	60.88	N
ATOM	13208	O3*	U A 636	109.557	92.915	-21.193	1.00	48.42	C	ATOM	13258	C5	G A 638	111.122	102.524	-20.086	1.00	60.88	C
ATOM	13209	C2*	U A 636	109.776	93.781	-18.914	1.00	48.42	C	ATOM	13259	C6	G A 638	112.411	103.045	-19.823	1.00	60.88	C
ATOM	13210	O2*	U A 636	108.462	93.294	-18.713	1.00	48.42	O	ATOM	13260	O6	G A 638	113.509	102.577	-20.137	1.00	60.88	O
ATOM	13211	C1*	U A 636	110.646	93.304	-17.750	1.00	48.42	C	ATOM	13261	N1	G A 638	112.345	104.244	-19.126	1.00	60.88	N
ATOM	13212	N1	U A 636	111.729	94.244	-17.429	1.00	50.22	N	ATOM	13262	C2	G A 638	111.192	104.866	-18.741	1.00	60.88	C
ATOM	13213	C2	U A 636	111.461	95.266	-16.535	1.00	50.22	C	ATOM	13263	N2	G A 638	111.343	106.016	-18.087	1.00	60.88	N
ATOM	13214	O2	U A 636	110.395	95.392	-15.974	1.00	50.22	O	ATOM	13264	N3	G A 638	109.983	104.396	-18.981	1.00	60.88	N
ATOM	13215	N3	U A 636	112.491	96.141	-16.321	1.00	50.22	N	ATOM	13265	C4	G A 638	110.021	103.229	-19.655	1.00	60.88	C
ATOM	13216	C4	U A 636	113.736	96.102	-16.893	1.00	50.22	C	ATOM	13266	P	G A 639	106.557	104.398	-24.393	1.00	59.91	P
ATOM	13217	O4	U A 636	114.536	97.006	-16.658	1.00	50.22	O	ATOM	13267	O1P	G A 639	105.453	104.976	-25.195	1.00	57.21	O
ATOM	13218	C5	U A 636	113.950	95.002	-17.782	1.00	50.22	C	ATOM	13268	O2P	G A 639	107.371	103.292	-24.965	1.00	57.21	O
ATOM	13219	C6	U A 636	112.965	94.131	-18.011	1.00	50.22	C	ATOM	13269	O5*	G A 639	107.539	105.559	-23.904	1.00	59.91	O
ATOM	13220	P	G A 637	109.517	94.043	-22.336	1.00	55.03	P	ATOM	13270	C5*	G A 639	107.022	106.661	-23.135	1.00	59.91	C
ATOM	13221	O1P	G A 637	108.744	93.504	-23.487	1.00	58.73	O	ATOM	13271	C4*	G A 639	108.133	107.529	-22.577	1.00	59.91	C
ATOM	13222	O2P	G A 637	110.907	94.529	-22.551	1.00	58.73	O	ATOM	13272	O4*	G A 639	108.942	106.801	-21.620	1.00	59.91	O
ATOM	13223	O5*	G A 637	108.670	95.206	-21.649	1.00	55.03	O	ATOM	13273	C3*	G A 639	109.153	108.139	-23.522	1.00	59.91	C
ATOM	13224	C5*	G A 637	107.291	94.994	-21.294	1.00	55.03	C	ATOM	13274	O3*	G A 639	108.663	109.291	-24.171	1.00	59.91	O
ATOM	13225	C4*	G A 637	106.733	96.199	-20.578	1.00	55.03	C	ATOM	13275	C2*	G A 639	110.269	108.528	-22.566	1.00	59.91	C
ATOM	13226	O4*	G A 637	107.351	96.325	-19.277	1.00	55.03	O	ATOM	13276	O2*	G A 639	109.980	109.725	-21.876	1.00	59.91	O
ATOM	13227	C3*	G A 637	106.985	97.535	-21.248	1.00	55.03	C	ATOM	13277	C1*	G A 639	110.241	107.372	-21.572	1.00	59.91	C
ATOM	13228	O3*	G A 637	106.049	97.798	-22.281	1.00	55.03	O	ATOM	13278	N9	G A 639	111.236	106.365	-21.941	1.00	57.21	N
ATOM	13229	C2*	G A 637	106.899	98.513	-20.083	1.00	55.03	C	ATOM	13279	C8	G A 639	111.024	105.120	-22.485	1.00	57.21	C
ATOM	13230	O2*	G A 637	105.581	98.859	-19.720	1.00	55.03	O	ATOM	13280	N7	G A 639	112.130	104.472	-22.726	1.00	57.21	N
ATOM	13231	C1*	G A 637	107.523	97.695	-18.956	1.00	55.03	C	ATOM	13281	C5	G A 639	113.133	105.338	-22.315	1.00	57.21	C
ATOM	13232	N9	G A 637	108.954	97.962	-18.856	1.00	58.73	N	ATOM	13282	C6	G A 639	114.536	105.187	-22.333	1.00	57.21	C
ATOM	13233	C8	G A 637	109.973	97.247	-19.437	1.00	58.73	C	ATOM	13283	O6	G A 639	115.200	104.227	-22.734	1.00	57.21	O
ATOM	13234	N7	G A 637	111.151	97.753	-19.201	1.00	58.73	N	ATOM	13284	N1	G A 639	115.177	106.305	-21.817	1.00	57.21	N
ATOM	13235	C5	G A 637	110.895	98.863	-18.412	1.00	58.73	C	ATOM	13285	C2	G A 639	114.552	107.425	-21.344	1.00	57.21	C
ATOM	13236	C6	G A 637	111.782	99.806	-17.854	1.00	58.73	C	ATOM	13286	N2	G A 639	115.347	108.388	-20.874	1.00	57.21	N
ATOM	13237	O6	G A 637	113.013	99.864	-17.962	1.00	58.73	O	ATOM	13287	N3	G A 639	113.246	107.586	-21.328	1.00	57.21	N
ATOM	13238	N1	G A 637	111.103	100.762	-17.108	1.00	58.73	N	ATOM	13288	C4	G A 639	112.601	106.507	-21.823	1.00	57.21	C
ATOM	13239	C2	G A 637	109.741	100.809	-16.934	1.00	58.73	C	ATOM	13289	P	A A 640	109.417	109.844	-25.474	1.00	52.60	P
ATOM	13240	N2	G A 637	109.276	101.806	-16.172	1.00	58.73	N	ATOM	13290	O1P	A A 640	108.605	110.996	-25.948	1.00	52.53	O
ATOM	13241	N3	G A 637	108.902	99.940	-17.463	1.00	58.73	N	ATOM	13291	O2P	A A 640	109.677	108.700	-26.393	1.00	52.53	O
ATOM	13242	C4	G A 637	109.544	98.999	-18.182	1.00	58.73	C	ATOM	13292	O5*	A A 640	110.803	110.390	-24.908	1.00	52.60	O
ATOM	13243	P	G A 638	106.468	98.761	-23.495	1.00	54.69	P	ATOM	13293	C5*	A A 640	110.845	111.518	-24.012	1.00	52.60	C
ATOM	13244	O1P	G A 638	105.322	98.805	-24.450	1.00	60.88	O	ATOM	13294	C4*	A A 640	112.272	111.995	-23.825	1.00	52.60	C
ATOM	13245	O2P	G A 638	107.795	98.301	-23.976	1.00	60.88	O	ATOM	13295	C4*	A A 640	113.038	111.020	-23.073	1.00	52.60	O
ATOM	13246	O5*	G A 638	106.629	100.181	-22.778	1.00	54.69	O	ATOM	13296	C3*	A A 640	113.072	112.218	-25.097	1.00	52.60	C
ATOM	13247	C5*	G A 638	105.497	100.770	-22.112	1.00	54.69	C	ATOM	13297	O3*	A A 640	112.821	113.511	-25.631	1.00	52.60	O



ATOM	13298	C2*	A A 640	114.507	112.068	-24.611	1.00	52.60	C	ATOM	13348	N6	A A 642	121.158	110.063	-25.868	1.00	46.18	N
ATOM	13299	O2*	A A 640	114.969	113.233	-23.955	1.00	52.60	O	ATOM	13349	N1	A A 642	123.009	111.196	-25.074	1.00	46.18	N
ATOM	13300	C1*	A A 640	114.367	110.969	-23.561	1.00	52.60	C	ATOM	13350	C2	A A 642	123.725	112.336	-25.019	1.00	46.18	C
ATOM	13301	N9	A A 640	114.612	109.620	-24.085	1.00	52.53	N	ATOM	13351	N3	A A 642	123.471	113.518	-25.569	1.00	46.18	N
ATOM	13302	C8	A A 640	113.674	108.725	-24.544	1.00	52.53	C	ATOM	13352	C4	A A 642	122.316	113.475	-26.251	1.00	46.18	C
ATOM	13303	N7	A A 640	114.173	107.568	-24.904	1.00	52.53	N	ATOM	13353	P	C A 643	123.860	116.006	-31.579	1.00	50.01	P
ATOM	13304	C5	A A 640	115.530	107.711	-24.681	1.00	52.53	C	ATOM	13354	O1P	C A 643	124.590	116.882	-32.513	1.00	49.59	O
ATOM	13305	C6	A A 640	116.586	106.833	-24.842	1.00	52.53	C	ATOM	13355	O2P	C A 643	122.718	115.182	-32.079	1.00	49.59	O
ATOM	13306	N6	A A 640	116.426	105.580	-25.265	1.00	52.53	N	ATOM	13356	O5*	C A 643	124.927	115.049	-30.892	1.00	50.01	O
ATOM	13307	N1	A A 640	117.827	107.274	-24.541	1.00	52.53	N	ATOM	13357	C5*	C A 643	126.114	115.586	-30.270	1.00	50.01	C
ATOM	13308	C2	A A 640	117.969	108.520	-24.087	1.00	52.53	C	ATOM	13358	C4*	C A 643	126.912	114.475	-29.626	1.00	50.01	C
ATOM	13309	N3	A A 640	117.044	109.443	-23.874	1.00	52.53	N	ATOM	13359	O4*	C A 643	126.198	113.960	-28.472	1.00	50.01	O
ATOM	13310	C4	A A 640	115.824	108.971	-24.195	1.00	52.53	C	ATOM	13360	C3*	C A 643	127.130	113.253	-30.498	1.00	50.01	C
ATOM	13311	P	U A 641	112.808	113.726	-27.221	1.00	51.07	P	ATOM	13361	O3*	C A 643	128.223	113.394	-31.365	1.00	50.01	O
ATOM	13312	O1P	U A 641	112.498	115.165	-27.432	1.00	61.33	O	ATOM	13362	C2*	C A 643	127.354	112.144	-29.486	1.00	50.01	C
ATOM	13313	O2P	U A 641	111.980	112.675	-27.888	1.00	61.33	O	ATOM	13363	O2*	C A 643	128.671	112.138	-28.993	1.00	50.01	O
ATOM	13314	O5*	U A 641	114.324	113.496	-27.628	1.00	51.07	O	ATOM	13364	C1*	C A 643	126.397	112.556	-28.370	1.00	50.01	C
ATOM	13315	C5*	U A 641	115.367	114.185	-26.924	1.00	51.07	C	ATOM	13365	N1	C A 643	125.090	111.883	-28.503	1.00	49.59	N
ATOM	13316	C4*	U A 641	116.699	113.807	-27.490	1.00	51.07	C	ATOM	13366	C2	C A 643	124.879	110.671	-27.836	1.00	49.59	C
ATOM	13317	O4*	U A 641	116.967	112.423	-27.159	1.00	51.07	O	ATOM	13367	O2	C A 643	125.791	110.199	-27.127	1.00	49.59	O
ATOM	13318	C3*	U A 641	116.790	113.935	-29.004	1.00	51.07	C	ATOM	13368	N3	C A 643	123.687	110.045	-27.978	1.00	49.59	N
ATOM	13319	O3*	U A 641	118.069	114.410	-29.369	1.00	51.07	O	ATOM	13369	C4	C A 643	122.732	110.587	-28.737	1.00	49.59	C
ATOM	13320	C2*	U A 641	116.633	112.505	-29.490	1.00	51.07	C	ATOM	13370	N4	C A 643	121.571	109.945	-28.837	1.00	49.59	N
ATOM	13321	O2*	U A 641	117.377	112.288	-30.665	1.00	51.07	O	ATOM	13371	C5	C A 643	122.922	111.814	-29.419	1.00	49.59	C
ATOM	13322	C1*	U A 641	117.236	111.704	-28.337	1.00	51.07	C	ATOM	13372	C6	C A 643	124.099	112.424	-29.275	1.00	49.59	C
ATOM	13323	N1	U A 641	116.700	110.341	-28.190	1.00	61.33	N	ATOM	13373	P	G A 644	128.197	112.629	-32.762	1.00	42.48	P
ATOM	13324	C2	U A 641	117.576	109.347	-27.798	1.00	61.33	C	ATOM	13374	O1P	G A 644	129.396	113.067	-33.524	1.00	63.58	O
ATOM	13325	O2	U A 641	118.741	109.563	-27.519	1.00	61.33	O	ATOM	13375	O2P	G A 644	126.846	112.791	-33.358	1.00	63.58	O
ATOM	13326	N3	U A 641	117.035	108.085	-27.743	1.00	61.33	N	ATOM	13376	O5*	G A 644	128.355	111.102	-32.343	1.00	42.48	O
ATOM	13327	C4	U A 641	115.732	107.727	-28.027	1.00	61.33	C	ATOM	13377	C5*	G A 644	129.625	110.597	-31.908	1.00	42.48	C
ATOM	13328	O4	U A 641	115.417	106.537	-28.034	1.00	61.33	O	ATOM	13378	C4*	G A 644	129.544	109.119	-31.636	1.00	42.48	C
ATOM	13329	C5	U A 641	114.885	108.815	-28.387	1.00	61.33	C	ATOM	13379	O4*	G A 644	128.687	108.881	-30.487	1.00	42.48	O
ATOM	13330	C6	U A 641	115.382	110.052	-28.452	1.00	61.33	C	ATOM	13380	C3*	G A 644	128.928	108.278	-32.741	1.00	42.48	C
ATOM	13331	P	A A 642	118.209	115.807	-30.145	1.00	47.03	P	ATOM	13381	O3*	G A 644	129.825	107.962	-33.791	1.00	42.48	O
ATOM	13332	O1P	A A 642	117.483	116.843	-29.354	1.00	46.18	O	ATOM	13382	C2*	G A 644	128.454	107.043	-31.991	1.00	42.48	C
ATOM	13333	O2P	A A 642	117.869	115.585	-31.574	1.00	46.18	O	ATOM	13383	O2*	G A 644	129.455	106.076	-31.785	1.00	42.48	O
ATOM	13334	O5*	A A 642	119.764	116.121	-30.052	1.00	47.03	O	ATOM	13384	C1*	G A 644	128.015	107.642	-30.653	1.00	42.48	C
ATOM	13335	C5*	A A 642	120.229	117.402	-29.626	1.00	47.03	C	ATOM	13385	N9	G A 644	126.569	107.850	-30.696	1.00	63.58	N
ATOM	13336	C4*	A A 642	121.481	117.248	-28.811	1.00	47.03	C	ATOM	13386	C8	G A 644	125.857	109.024	-30.793	1.00	63.58	C
ATOM	13337	O4*	A A 642	121.159	116.681	-27.520	1.00	47.03	C	ATOM	13387	N7	G A 644	124.570	108.828	-30.918	1.00	63.58	N
ATOM	13338	C3*	A A 642	122.538	116.312	-29.370	1.00	47.03	C	ATOM	13388	C5	G A 644	124.430	107.444	-30.879	1.00	63.58	C
ATOM	13339	O3*	A A 642	123.345	116.905	-30.360	1.00	47.03	O	ATOM	13389	C6	G A 644	123.271	106.615	-30.997	1.00	63.58	C
ATOM	13340	C2*	A A 642	123.337	115.951	-28.132	1.00	47.03	C	ATOM	13390	O6	G A 644	122.101	106.944	-31.190	1.00	63.58	O
ATOM	13341	O2*	A A 642	124.256	116.976	-27.804	1.00	47.03	O	ATOM	13391	N1	G A 644	123.594	105.269	-30.885	1.00	63.58	N
ATOM	13342	C1*	A A 642	122.230	115.864	-27.080	1.00	47.03	C	ATOM	13392	C2	G A 644	124.862	104.775	-30.700	1.00	63.58	C
ATOM	13343	N9	A A 642	121.723	114.500	-26.941	1.00	46.18	N	ATOM	13393	N2	G A 644	124.981	103.448	-30.595	1.00	63.58	N
ATOM	13344	C8	A A 642	120.569	113.973	-27.471	1.00	46.18	C	ATOM	13394	N3	G A 644	125.938	105.526	-30.616	1.00	63.58	N
ATOM	13345	N7	A A 642	120.377	112.712	-27.177	1.00	46.18	N	ATOM	13395	C4	G A 644	125.651	106.837	-30.711	1.00	63.58	C
ATOM	13346	C5	A A 642	121.476	112.384	-26.402	1.00	46.18	C	ATOM	13396	P	C A 645	129.263	107.823	-35.290	1.00	42.53	P
ATOM	13347	C6	A A 642	121.859	111.192	-25.783	1.00	46.18	C	ATOM	13397	O1P	C A 645	130.413	107.536	-36.185	1.00	66.18	O



Table 1: Sheet 136/521

ATOM	13398	O2P	C A 645	128.382	108.992	-35.566	1.00	66.18	O	ATOM	13448	N1	C A 647	119.800	105.467	-42.146	1.00	48.98	N
ATOM	13399	O5*	C A 645	128.349	106.521	-35.227	1.00	42.53	O	ATOM	13449	C2	C A 647	119.137	106.644	-41.788	1.00	48.98	C
ATOM	13400	C5*	C A 645	128.878	105.272	-34.739	1.00	42.53	C	ATOM	13450	O2	C A 647	117.896	106.693	-41.896	1.00	48.98	O
ATOM	13401	C4*	C A 645	127.828	104.181	-34.807	1.00	42.53	C	ATOM	13451	N3	C A 647	119.858	107.696	-41.340	1.00	48.98	N
ATOM	13402	O4*	C A 645	126.826	104.360	-33.771	1.00	42.53	O	ATOM	13452	C4	C A 647	121.184	107.602	-41.251	1.00	48.98	C
ATOM	13403	C3*	C A 645	127.036	104.093	-36.098	1.00	42.53	C	ATOM	13453	N4	C A 647	121.858	108.663	-40.812	1.00	48.98	N
ATOM	13404	O3*	C A 645	127.732	103.367	-37.083	1.00	42.53	O	ATOM	13454	C5	C A 647	121.881	106.416	-41.608	1.00	48.98	C
ATOM	13405	C2*	C A 645	125.772	103.368	-35.662	1.00	42.53	C	ATOM	13455	C6	C A 647	121.159	105.383	-42.041	1.00	48.98	C
ATOM	13406	O2*	C A 645	125.945	101.969	-35.596	1.00	42.53	O	ATOM	13456	P	A A 648	120.642	103.679	-47.002	1.00	72.60	P
ATOM	13407	C1*	C A 645	125.563	103.922	-34.250	1.00	42.53	C	ATOM	13457	O1P	A A 648	120.565	102.791	-48.198	1.00	59.96	O
ATOM	13408	N1	C A 645	124.633	105.069	-34.258	1.00	66.18	N	ATOM	13458	O2P	A A 648	121.964	104.192	-46.543	1.00	59.96	O
ATOM	13409	C2	C A 645	123.291	104.846	-34.588	1.00	66.18	C	ATOM	13459	O5*	A A 648	119.684	104.949	-47.170	1.00	72.60	O
ATOM	13410	O2	C A 645	122.914	103.686	-34.837	1.00	66.18	O	ATOM	13460	C5*	A A 648	118.308	104.806	-47.585	1.00	72.60	C
ATOM	13411	N3	C A 645	122.440	105.895	-34.632	1.00	66.18	N	ATOM	13461	C4*	A A 648	117.593	106.137	-47.525	1.00	72.60	C
ATOM	13412	C4	C A 645	122.882	107.124	-34.366	1.00	66.18	C	ATOM	13462	O3*	A A 648	117.524	106.603	-46.151	1.00	72.60	O
ATOM	13413	N4	C A 645	124.235	107.377	-34.015	1.00	66.18	N	ATOM	13463	C3*	A A 648	118.268	107.274	-48.261	1.00	72.60	C
ATOM	13414	C5	C A 645	124.011	108.131	-34.441	1.00	66.18	C	ATOM	13464	O4*	A A 648	117.982	107.260	-49.644	1.00	72.60	O
ATOM	13415	C6	C A 645	125.068	106.332	-33.969	1.00	66.18	C	ATOM	13465	C2*	A A 648	117.730	108.516	-47.557	1.00	72.60	C
ATOM	13416	P	U A 646	127.455	103.672	-38.629	1.00	59.19	P	ATOM	13466	O2*	A A 648	116.472	108.937	-48.035	1.00	72.60	O
ATOM	13417	O1P	U A 646	128.352	102.789	-39.419	1.00	66.59	O	ATOM	13467	C1*	A A 648	117.594	108.023	-46.117	1.00	72.60	C
ATOM	13418	O2P	U A 646	127.480	105.137	-38.860	1.00	66.59	O	ATOM	13468	N9	A A 648	118.719	108.429	-45.266	1.00	59.96	N
ATOM	13419	O5*	U A 646	125.964	103.166	-38.833	1.00	59.19	O	ATOM	13469	C8	A A 648	119.774	107.665	-44.830	1.00	59.96	C
ATOM	13420	C5*	U A 646	125.612	101.795	-38.590	1.00	59.19	C	ATOM	13470	N7	A A 648	120.642	108.326	-44.103	1.00	59.96	N
ATOM	13421	C4*	U A 646	124.137	101.597	-38.822	1.00	59.19	C	ATOM	13471	C5	A A 648	120.124	109.613	-44.051	1.00	59.96	C
ATOM	13422	O4*	U A 646	123.389	102.273	-37.779	1.00	59.19	O	ATOM	13472	C6	A A 648	120.581	110.798	-43.438	1.00	59.96	C
ATOM	13423	C3*	U A 646	123.616	102.185	-40.127	1.00	59.19	O	ATOM	13473	N6	A A 648	121.715	110.885	-42.743	1.00	59.96	N
ATOM	13424	O3*	U A 646	123.789	101.304	-41.234	1.00	59.19	O	ATOM	13474	N1	A A 648	119.825	111.905	-43.570	1.00	59.96	N
ATOM	13425	C2*	U A 646	122.151	102.452	-39.809	1.00	59.19	C	ATOM	13475	C2	A A 648	118.696	111.823	-44.275	1.00	59.96	C
ATOM	13426	O2*	U A 646	121.344	101.298	-39.947	1.00	59.19	O	ATOM	13476	N3	A A 648	118.164	110.775	-44.905	1.00	59.96	N
ATOM	13427	C1*	U A 646	122.227	102.863	-38.336	1.00	59.19	C	ATOM	13477	C4	A A 648	118.936	109.688	-44.753	1.00	59.96	C
ATOM	13428	N1	U A 646	122.326	104.322	-38.179	1.00	66.59	N	ATOM	13478	P	G A 649	119.063	107.861	-50.671	1.00	72.24	P
ATOM	13429	C2	U A 646	121.159	105.046	-38.180	1.00	66.59	C	ATOM	13479	O1P	G A 649	118.522	107.627	-52.037	1.00	61.16	O
ATOM	13430	O2	U A 646	120.063	104.533	-38.293	1.00	66.59	O	ATOM	13480	O2P	G A 649	120.417	107.343	-50.317	1.00	61.16	O
ATOM	13431	N3	U A 646	121.316	106.396	-38.043	1.00	66.59	N	ATOM	13481	O5*	G A 649	119.037	109.424	-50.363	1.00	72.24	O
ATOM	13432	C4	U A 646	122.495	107.082	-37.906	1.00	66.59	C	ATOM	13482	C5*	G A 649	117.837	110.162	-50.583	1.00	72.24	C
ATOM	13433	O4	U A 646	122.468	108.301	-37.766	1.00	66.59	O	ATOM	13483	C4*	G A 649	117.950	111.563	-50.049	1.00	72.24	C
ATOM	13434	C5	U A 646	123.660	106.267	-37.913	1.00	66.59	C	ATOM	13484	O4*	G A 649	118.130	111.550	-48.612	1.00	72.24	O
ATOM	13435	C6	U A 646	123.540	104.949	-38.045	1.00	66.59	C	ATOM	13485	C3*	G A 649	119.097	112.432	-50.518	1.00	72.24	C
ATOM	13436	P	C A 647	123.854	101.907	-42.723	1.00	64.60	P	ATOM	13486	O3*	G A 649	118.910	112.969	-51.810	1.00	72.24	O
ATOM	13437	O1P	C A 647	124.075	100.774	-43.664	1.00	48.98	O	ATOM	13487	C2*	G A 649	119.081	113.542	-49.481	1.00	72.24	C
ATOM	13438	O2P	C A 647	124.790	103.053	-42.726	1.00	48.98	O	ATOM	13488	O2*	G A 649	118.084	114.501	-49.759	1.00	72.24	O
ATOM	13439	O5*	C A 647	122.385	102.468	-42.972	1.00	64.60	O	ATOM	13489	C1*	G A 649	118.697	112.783	-48.214	1.00	72.24	C
ATOM	13440	C5*	C A 647	121.265	101.574	-43.082	1.00	64.60	C	ATOM	13490	N9	G A 649	119.878	112.555	-47.388	1.00	61.16	N
ATOM	13441	C4*	C A 647	120.008	102.346	-43.387	1.00	64.60	C	ATOM	13491	C8	G A 649	120.645	111.420	-47.269	1.00	61.16	C
ATOM	13442	O4*	C A 647	119.601	103.120	-42.229	1.00	64.60	O	ATOM	13492	N7	G A 649	121.671	111.580	-46.476	1.00	61.16	N
ATOM	13443	C3*	C A 647	120.137	103.383	-44.485	1.00	64.60	C	ATOM	13493	C5	G A 649	121.561	112.892	-46.038	1.00	61.16	C
ATOM	13444	O3*	C A 647	120.015	102.859	-45.779	1.00	64.60	O	ATOM	13494	C6	G A 649	122.377	113.641	-45.165	1.00	61.16	C
ATOM	13445	C2*	C A 647	119.004	104.343	-44.181	1.00	64.60	C	ATOM	13495	O6	G A 649	123.402	113.291	-44.579	1.00	61.16	O
ATOM	13446	O2*	C A 647	117.767	103.886	-44.690	1.00	64.60	O	ATOM	13496	N1	G A 649	121.896	114.930	-44.998	1.00	61.16	N
ATOM	13447	C1*	C A 647	119.005	104.337	-42.655	1.00	64.60	C	ATOM	13497	C2	G A 649	120.774	115.434	-45.595	1.00	61.16	C



Table 1: Sheet 137/521

ATOM	13498	N2	G A 649	120.460	116.699	-45.306	1.00	61.16	N	ATOM	13548	C5*	U A 652	129.866	123.608	-52.024	1.00	49.61	C
ATOM	13499	N3	G A 649	120.010	114.751	-46.411	1.00	61.16	N	ATOM	13549	C4*	U A 652	130.888	123.369	-50.964	1.00	49.61	C
ATOM	13500	C4	G A 649	120.457	113.498	-46.586	1.00	61.16	C	ATOM	13550	O4*	U A 652	130.624	122.125	-50.258	1.00	49.61	O
ATOM	13501	P	G A 649	120.202	113.322	-52.705	1.00	69.04	P	ATOM	13551	C3*	U A 652	132.280	123.258	-51.551	1.00	49.61	C
ATOM	13502	OLP	G A 650	119.688	113.648	-54.061	1.00	60.28	O	ATOM	13552	O3*	U A 652	133.160	123.859	-50.645	1.00	49.61	O
ATOM	13503	O2P	G A 650	121.213	112.242	-52.543	1.00	60.28	O	ATOM	13553	C2*	U A 652	132.511	121.754	-51.589	1.00	49.61	C
ATOM	13504	O5*	G A 650	120.816	114.628	-52.027	1.00	69.04	O	ATOM	13554	O2*	U A 652	133.866	121.378	-51.538	1.00	49.61	O
ATOM	13505	C5*	G A 650	120.038	115.819	-51.944	1.00	69.04	C	ATOM	13555	C1*	U A 652	131.771	121.312	-50.329	1.00	49.61	C
ATOM	13506	C4*	G A 650	120.655	116.818	-50.993	1.00	69.04	C	ATOM	13556	N1	U A 652	131.386	119.894	-50.314	1.00	47.44	N
ATOM	13507	O4*	G A 650	120.751	116.284	-49.644	1.00	69.04	O	ATOM	13557	C2	U A 652	132.086	119.067	-49.453	1.00	47.44	C
ATOM	13508	C3*	G A 650	122.055	117.325	-51.255	1.00	69.04	C	ATOM	13558	O2	U A 652	132.939	119.482	-48.684	1.00	47.44	O
ATOM	13509	O3*	G A 650	122.107	118.274	-52.301	1.00	69.04	O	ATOM	13559	N3	U A 652	131.753	117.738	-49.525	1.00	47.44	N
ATOM	13510	C2*	G A 650	122.394	117.966	-49.914	1.00	69.04	C	ATOM	13560	C4	U A 652	130.807	117.162	-50.342	1.00	47.44	C
ATOM	13511	O2*	G A 650	121.773	119.219	-49.747	1.00	69.04	O	ATOM	13561	O4	U A 652	130.685	115.942	-50.350	1.00	47.44	O
ATOM	13512	C1*	G A 650	121.740	117.004	-48.931	1.00	69.04	C	ATOM	13562	C5	U A 652	130.097	118.082	-51.174	1.00	47.44	C
ATOM	13513	N9	G A 650	122.741	116.090	-48.396	1.00	60.28	N	ATOM	13563	C6	U A 652	130.400	119.387	-51.132	1.00	47.44	C
ATOM	13514	C8	G A 650	122.914	114.748	-48.655	1.00	60.28	C	ATOM	13564	P	A A 653	134.300	124.824	-51.184	1.00	47.44	P
ATOM	13515	N7	G A 650	123.938	114.234	-48.023	1.00	60.28	N	ATOM	13565	OLP	A A 653	133.737	126.190	-51.114	1.00	53.22	O
ATOM	13516	C5	G A 650	124.466	115.303	-47.303	1.00	60.28	C	ATOM	13566	O2P	A A 653	134.790	124.291	-52.488	1.00	53.22	O
ATOM	13517	C6	G A 650	125.589	115.371	-46.429	1.00	60.28	C	ATOM	13567	O5*	A A 653	135.415	124.697	-50.053	1.00	55.39	O
ATOM	13518	O6	G A 650	126.370	114.469	-46.102	1.00	60.28	O	ATOM	13568	C5*	A A 653	135.748	123.412	-49.492	1.00	55.39	C
ATOM	13519	N1	G A 650	125.759	116.555	-45.918	1.00	60.28	N	ATOM	13569	C4*	A A 653	136.517	123.580	-48.206	1.00	55.39	C
ATOM	13520	C2	G A 650	124.953	117.729	-46.200	1.00	60.28	C	ATOM	13570	O4*	A A 653	135.695	124.253	-47.210	1.00	55.39	O
ATOM	13521	N2	G A 650	125.258	118.885	-45.601	1.00	60.28	N	ATOM	13571	C3*	A A 653	136.981	122.269	-47.577	1.00	55.39	C
ATOM	13522	N3	G A 650	123.917	117.678	-47.007	1.00	60.28	N	ATOM	13572	O3*	A A 653	138.281	122.469	-47.027	1.00	55.39	O
ATOM	13523	C4	G A 650	123.732	116.447	-47.519	1.00	60.28	C	ATOM	13573	O2*	A A 653	135.960	122.034	-46.467	1.00	55.39	C
ATOM	13524	P	C A 651	123.492	118.494	-53.091	1.00	54.17	P	ATOM	13574	C2*	A A 653	136.459	121.282	-45.381	1.00	55.39	O
ATOM	13525	OLP	C A 651	123.266	119.508	-54.157	1.00	60.41	O	ATOM	13575	C1*	A A 653	135.642	123.465	-46.034	1.00	55.39	C
ATOM	13526	O2P	C A 651	124.041	117.152	-53.447	1.00	60.41	O	ATOM	13576	N9	A A 653	134.332	123.625	-45.391	1.00	53.22	N
ATOM	13527	O5*	C A 651	124.441	119.161	-52.003	1.00	54.17	O	ATOM	13577	C8	A A 653	134.083	124.243	-44.190	1.00	53.22	C
ATOM	13528	C5*	C A 651	123.978	120.291	-51.262	1.00	54.17	C	ATOM	13578	N7	A A 653	132.822	124.219	-43.830	1.00	53.22	N
ATOM	13529	C4*	C A 651	125.068	120.835	-50.392	1.00	54.17	C	ATOM	13579	C5	A A 653	132.196	123.541	-44.863	1.00	53.22	C
ATOM	13530	O4*	C A 651	125.290	120.008	-49.232	1.00	54.17	O	ATOM	13580	C6	A A 653	130.856	123.176	-45.073	1.00	53.22	C
ATOM	13531	C3*	C A 651	126.413	120.937	-51.053	1.00	54.17	C	ATOM	13581	N6	A A 653	129.875	123.440	-44.206	1.00	53.22	N
ATOM	13532	O3*	C A 651	126.407	122.090	-51.876	1.00	54.17	O	ATOM	13582	N1	A A 653	130.555	122.514	-46.214	1.00	53.22	N
ATOM	13533	C2*	C A 651	127.355	120.989	-49.853	1.00	54.17	C	ATOM	13583	C2	A A 653	131.552	122.233	-47.073	1.00	53.22	C
ATOM	13534	O2*	C A 651	127.424	122.266	-49.271	1.00	54.17	O	ATOM	13584	N3	A A 653	132.851	122.514	-46.980	1.00	53.22	N
ATOM	13535	C1*	C A 651	126.643	120.080	-48.853	1.00	54.17	C	ATOM	13585	C4	A A 653	133.110	123.177	-45.838	1.00	53.22	C
ATOM	13536	N1	C A 651	127.181	118.715	-48.787	1.00	60.41	N	ATOM	13586	P	G A 654	139.578	121.966	-47.837	1.00	53.35	P
ATOM	13537	O2	C A 651	128.244	118.452	-47.917	1.00	60.41	O	ATOM	13587	OLP	G A 654	140.716	122.747	-47.300	1.00	39.54	O
ATOM	13538	C2	C A 651	128.709	119.384	-47.236	1.00	60.41	C	ATOM	13588	O2P	G A 654	139.316	121.962	-49.321	1.00	39.54	O
ATOM	13539	N3	C A 651	128.743	117.196	-47.842	1.00	60.41	N	ATOM	13589	O5*	G A 654	139.750	120.451	-47.379	1.00	53.35	O
ATOM	13540	C4	C A 651	128.229	116.228	-48.604	1.00	60.41	C	ATOM	13590	C5*	G A 654	140.294	120.130	-46.095	1.00	53.35	C
ATOM	13541	N4	C A 651	128.760	115.009	-48.510	1.00	60.41	N	ATOM	13591	C4*	G A 654	140.275	118.643	-45.881	1.00	53.35	C
ATOM	13542	C5	C A 651	127.150	116.469	-49.501	1.00	60.41	C	ATOM	13592	O4*	G A 654	138.908	118.185	-45.760	1.00	53.35	O
ATOM	13543	C6	C A 651	126.659	117.714	-49.558	1.00	60.41	C	ATOM	13593	C3*	G A 654	140.849	117.815	-47.010	1.00	53.35	O
ATOM	13544	P	U A 652	127.690	122.436	-52.765	1.00	49.61	P	ATOM	13594	O3*	G A 654	142.256	117.715	-46.927	1.00	53.35	O
ATOM	13545	OLP	U A 652	127.384	123.558	-53.701	1.00	47.44	O	ATOM	13595	C2*	G A 654	140.172	116.473	-46.804	1.00	53.35	C
ATOM	13546	O2P	U A 652	128.235	121.164	-53.304	1.00	47.44	O	ATOM	13596	O2*	G A 654	140.800	115.728	-45.779	1.00	53.35	O
ATOM	13547	O5*	U A 652	128.658	123.013	-51.656	1.00	49.61	O	ATOM	13597	C1*	G A 654	138.781	116.900	-46.337	1.00	53.35	C



ATOM	13598	N9	G A 654	137.840	116.989	-47.449	1.00	39.54	N	ATOM	13648	N4	C A 656	139.907	118.191	-55.216	1.00	48.90	N
ATOM	13599	C8	G A 654	137.391	118.128	-48.064	1.00	39.54	C	ATOM	13649	C5	C A 656	141.013	116.225	-54.459	1.00	48.90	C
ATOM	13600	N7	G A 654	136.591	117.885	-49.062	1.00	39.54	N	ATOM	13650	C6	C A 656	141.087	114.893	-54.528	1.00	48.90	C
ATOM	13601	C5	G A 654	136.500	116.503	-49.100	1.00	39.54	C	ATOM	13651	P	G A 657	144.407	112.736	-58.081	1.00	57.07	P
ATOM	13602	C6	G A 654	135.789	115.661	-49.974	1.00	39.54	C	ATOM	13652	O1P	G A 657	145.454	111.833	-58.626	1.00	49.28	O
ATOM	13603	O6	G A 654	135.079	115.972	-50.934	1.00	39.54	O	ATOM	13653	O2P	G A 657	144.788	114.022	-57.440	1.00	49.28	O
ATOM	13604	N1	G A 654	135.968	114.326	-49.655	1.00	39.54	N	ATOM	13654	O5*	G A 657	143.371	113.094	-59.234	1.00	57.07	O
ATOM	13605	C2	G A 654	136.737	113.864	-48.636	1.00	39.54	C	ATOM	13655	C5*	G A 657	142.693	112.056	-59.959	1.00	57.07	O
ATOM	13606	N2	G A 654	136.792	112.548	-48.498	1.00	39.54	N	ATOM	13656	C4*	G A 657	141.595	112.642	-60.812	1.00	57.07	C
ATOM	13607	N3	G A 654	137.409	114.636	-47.812	1.00	39.54	N	ATOM	13657	O4*	G A 657	140.617	113.301	-59.961	1.00	57.07	O
ATOM	13608	C4	G A 654	137.248	115.938	-48.103	1.00	39.54	C	ATOM	13658	C3*	G A 657	142.001	113.721	-61.805	1.00	57.07	C
ATOM	13609	P	A A 655	143.123	117.696	-48.279	1.00	40.36	P	ATOM	13659	O3*	G A 657	142.559	113.219	-63.013	1.00	57.07	O
ATOM	13610	O1P	A A 655	144.547	117.549	-47.866	1.00	42.30	O	ATOM	13660	C2*	G A 657	140.683	114.443	-62.045	1.00	57.07	C
ATOM	13611	O2P	A A 655	142.723	118.862	-49.116	1.00	42.30	O	ATOM	13661	O2*	G A 657	139.842	113.789	-62.969	1.00	57.07	O
ATOM	13612	O5*	A A 655	142.665	116.355	-49.017	1.00	40.36	O	ATOM	13662	C1*	G A 657	140.050	114.398	-60.657	1.00	57.07	C
ATOM	13613	C5*	A A 655	142.953	115.064	-48.451	1.00	40.36	C	ATOM	13663	N9	G A 657	140.367	115.636	-59.955	1.00	49.28	N
ATOM	13614	C4*	A A 655	142.241	113.986	-49.224	1.00	40.36	C	ATOM	13664	C8	G A 657	141.146	115.806	-58.839	1.00	49.28	C
ATOM	13615	O4*	A A 655	140.810	114.159	-49.071	1.00	40.36	O	ATOM	13665	N7	G A 657	141.279	117.060	-58.498	1.00	49.28	N
ATOM	13616	C3*	A A 655	142.459	113.998	-50.727	1.00	40.36	C	ATOM	13666	C5	G A 657	140.536	117.755	-59.444	1.00	49.28	C
ATOM	13617	O3*	A A 655	143.659	113.356	-51.116	1.00	40.36	O	ATOM	13667	C6	G A 657	140.314	119.158	-59.609	1.00	49.28	C
ATOM	13618	C2*	A A 655	141.208	113.296	-51.247	1.00	40.36	C	ATOM	13668	O6	G A 657	140.773	120.106	-58.938	1.00	49.28	O
ATOM	13619	O2*	A A 655	141.259	111.878	-51.215	1.00	40.36	O	ATOM	13669	N1	G A 657	139.472	119.414	-60.689	1.00	49.28	N
ATOM	13620	C1*	A A 655	140.148	113.819	-50.278	1.00	40.36	C	ATOM	13670	C2	G A 657	138.929	118.454	-61.511	1.00	49.28	C
ATOM	13621	N9	A A 655	139.519	115.029	-50.820	1.00	42.30	N	ATOM	13671	N2	G A 657	138.123	118.881	-62.492	1.00	49.28	N
ATOM	13622	C8	A A 655	139.779	116.343	-50.508	1.00	42.30	C	ATOM	13672	N3	G A 657	139.151	117.162	-61.380	1.00	49.28	N
ATOM	13623	N7	A A 655	139.094	117.199	-51.227	1.00	42.30	N	ATOM	13673	C4	G A 657	139.952	116.887	-60.334	1.00	49.28	C
ATOM	13624	C5	A A 655	138.319	116.397	-52.057	1.00	42.30	C	ATOM	13674	P	G A 658	143.543	114.157	-63.879	1.00	56.37	P
ATOM	13625	C6	A A 655	137.389	116.694	-53.067	1.00	42.30	C	ATOM	13675	O1P	G A 658	144.123	113.332	-64.973	1.00	52.54	O
ATOM	13626	N6	A A 655	137.088	117.931	-53.457	1.00	42.30	N	ATOM	13676	O2P	G A 658	144.451	114.875	-62.952	1.00	52.54	O
ATOM	13627	N1	A A 655	136.782	115.660	-53.686	1.00	42.30	N	ATOM	13677	O5*	G A 658	141.432	114.896	-65.300	1.00	56.37	O
ATOM	13628	C2	A A 655	137.109	114.421	-53.332	1.00	42.30	C	ATOM	13678	C4*	G A 658	141.321	116.138	-65.860	1.00	56.37	C
ATOM	13629	N3	A A 655	138.556	115.061	-51.805	1.00	42.30	N	ATOM	13680	O4*	G A 658	140.205	116.913	-64.780	1.00	56.37	O
ATOM	13630	C4	A A 655	137.977	114.012	-52.420	1.00	42.30	C	ATOM	13681	C3*	G A 658	141.751	117.085	-66.539	1.00	56.37	C
ATOM	13631	P	C A 656	144.499	113.929	-52.361	1.00	56.87	P	ATOM	13682	O3*	G A 658	141.975	116.725	-67.888	1.00	56.37	O
ATOM	13632	O1P	C A 656	145.811	113.250	-52.298	1.00	48.90	O	ATOM	13683	C2*	G A 658	141.090	118.446	-66.377	1.00	56.37	C
ATOM	13633	O2P	C A 656	144.447	115.412	-52.368	1.00	48.90	O	ATOM	13684	O2*	G A 658	140.101	118.710	-67.348	1.00	56.37	O
ATOM	13634	O5*	C A 656	143.705	113.390	-53.633	1.00	56.87	O	ATOM	13685	C1*	G A 658	140.417	118.295	-65.017	1.00	56.37	C
ATOM	13635	C5*	C A 656	143.472	111.981	-53.800	1.00	56.87	C	ATOM	13686	N9	G A 658	141.203	118.840	-63.912	1.00	52.54	N
ATOM	13636	C4*	C A 656	142.425	111.738	-54.859	1.00	56.87	C	ATOM	13687	C8	G A 658	141.893	118.134	-62.954	1.00	52.54	C
ATOM	13637	O4*	C A 656	141.132	112.211	-54.393	1.00	56.87	O	ATOM	13688	N7	G A 658	142.451	118.897	-62.057	1.00	52.54	N
ATOM	13638	C3*	C A 656	142.632	112.468	-56.177	1.00	56.87	C	ATOM	13689	C5	G A 658	142.129	120.187	-62.456	1.00	52.54	C
ATOM	13639	O3*	C A 656	143.562	111.838	-57.047	1.00	56.87	O	ATOM	13690	C6	G A 658	142.456	121.439	-61.870	1.00	52.54	C
ATOM	13640	C2*	C A 656	141.222	112.512	-56.753	1.00	56.87	C	ATOM	13691	O6	G A 658	143.105	121.661	-60.837	1.00	52.54	O
ATOM	13641	O2*	C A 656	140.840	111.316	-57.396	1.00	56.87	O	ATOM	13692	N1	G A 658	141.933	122.499	-62.606	1.00	52.54	N
ATOM	13642	C1*	C A 656	140.391	112.732	-55.491	1.00	56.87	C	ATOM	13693	C2	G A 658	141.184	122.371	-63.748	1.00	52.54	C
ATOM	13643	N1	C A 656	140.225	114.181	-55.310	1.00	48.90	N	ATOM	13694	N2	G A 658	140.763	123.511	-64.303	1.00	52.54	N
ATOM	13644	C2	C A 656	139.195	114.836	-56.003	1.00	48.90	C	ATOM	13695	N3	G A 658	140.763	123.511	-64.303	1.00	52.54	N
ATOM	13645	O2	C A 656	138.380	114.160	-56.650	1.00	48.90	O	ATOM	13696	C4	G A 658	140.869	121.213	-64.302	1.00	52.54	C
ATOM	13646	N3	C A 656	139.113	116.187	-55.946	1.00	48.90	N	ATOM	13697	P	U A 659	141.371	120.170	-63.607	1.00	52.54	P
ATOM	13647	C4	C A 656	139.994	116.871	-55.217	1.00	48.90	C					143.382	117.077	-68.564	1.00	57.99	P



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ATOM	13698	O1P	U A 659	143.344	116.531	-69.947	1.00	70.43	O	ATOM	13748	O3*	G A 661	155.367	126.903	-68.166	1.00	72.84	O
ATOM	13699	O2P	U A 659	144.488	116.697	-67.653	1.00	70.43	O	ATOM	13749	C2*	G A 661	154.048	126.805	-66.009	1.00	72.84	C
ATOM	13700	O5*	U A 659	143.375	118.662	-68.625	1.00	57.99	O	ATOM	13750	O2*	G A 661	154.293	126.170	-65.732	1.00	72.84	O
ATOM	13701	C5*	U A 659	142.465	119.339	-69.488	1.00	57.99	C	ATOM	13751	C1*	G A 661	152.569	126.449	-65.838	1.00	72.84	C
ATOM	13702	C4*	U A 659	142.719	120.814	-69.448	1.00	57.99	C	ATOM	13752	N9	G A 661	152.381	125.042	-65.471	1.00	54.04	N
ATOM	13703	O4*	U A 659	142.315	121.335	-68.160	1.00	57.99	O	ATOM	13753	C8	G A 661	151.835	124.060	-66.268	1.00	54.04	C
ATOM	13704	C3*	U A 659	144.174	121.213	-69.577	1.00	57.99	C	ATOM	13754	N7	G A 661	151.792	122.892	-65.690	1.00	54.04	N
ATOM	13705	O3*	U A 659	144.628	121.235	-70.917	1.00	57.99	O	ATOM	13755	C5	G A 661	152.341	123.107	-64.433	1.00	54.04	C
ATOM	13706	C2*	U A 659	144.199	122.579	-68.911	1.00	57.99	C	ATOM	13756	C6	G A 661	152.550	122.204	-63.363	1.00	54.04	C
ATOM	13707	O2*	U A 659	143.788	123.621	-69.780	1.00	57.99	O	ATOM	13757	O6	G A 661	152.287	120.998	-63.312	1.00	54.04	O
ATOM	13708	C1*	U A 659	143.188	122.383	-67.777	1.00	57.99	C	ATOM	13758	N1	G A 661	153.128	122.833	-62.270	1.00	54.04	N
ATOM	13709	N1	U A 659	143.831	122.009	-66.507	1.00	70.43	N	ATOM	13759	C2	G A 661	153.467	124.161	-62.214	1.00	54.04	C
ATOM	13710	C2	U A 659	144.106	123.017	-65.593	1.00	70.43	C	ATOM	13760	N2	G A 661	154.021	124.574	-61.068	1.00	54.04	N
ATOM	13711	O2	U A 659	143.830	124.194	-65.786	1.00	70.43	O	ATOM	13761	N3	G A 661	153.280	125.020	-63.208	1.00	54.04	N
ATOM	13712	N3	U A 659	144.717	122.595	-64.441	1.00	70.43	N	ATOM	13762	C4	G A 661	152.713	124.428	-64.279	1.00	54.04	C
ATOM	13713	C4	U A 659	145.074	121.306	-64.112	1.00	70.43	C	ATOM	13763	P	G A 662	156.464	125.869	-68.709	1.00	82.37	P
ATOM	13714	O4	U A 659	145.648	121.093	-63.044	1.00	70.43	O	ATOM	13764	O1P	G A 662	157.455	126.700	-69.451	1.00	44.58	O
ATOM	13715	C5	U A 659	144.753	120.326	-65.101	1.00	70.43	C	ATOM	13765	O2P	G A 662	155.781	124.724	-69.397	1.00	44.58	O
ATOM	13716	C6	U A 659	144.159	120.699	-66.234	1.00	70.43	C	ATOM	13766	O5*	G A 662	157.123	125.366	-67.349	1.00	82.37	O
ATOM	13717	P	G A 660	146.184	120.979	-71.220	1.00	61.34	P	ATOM	13767	C5*	G A 662	157.405	126.346	-66.345	1.00	82.37	C
ATOM	13718	O1P	G A 660	146.324	121.027	-72.700	1.00	57.18	O	ATOM	13768	C4*	G A 662	157.846	125.731	-65.047	1.00	82.37	C
ATOM	13719	O2P	G A 660	146.630	119.769	-70.484	1.00	57.18	O	ATOM	13769	O4*	G A 662	156.774	125.051	-64.358	1.00	82.37	O
ATOM	13720	O5*	G A 660	146.890	122.254	-70.578	1.00	61.34	O	ATOM	13770	C3*	G A 662	158.961	124.715	-65.024	1.00	82.37	C
ATOM	13721	C5*	G A 660	146.492	123.562	-70.983	1.00	61.34	C	ATOM	13771	O3*	G A 662	160.215	125.329	-65.258	1.00	82.37	O
ATOM	13722	C4*	G A 660	147.047	124.607	-70.053	1.00	61.34	C	ATOM	13772	C2*	G A 662	158.853	124.218	-63.584	1.00	82.37	C
ATOM	13723	O4*	G A 660	146.445	124.496	-68.740	1.00	61.34	O	ATOM	13773	O2*	G A 662	159.442	125.118	-62.667	1.00	82.37	O
ATOM	13724	C3*	G A 660	148.536	124.575	-69.768	1.00	61.34	C	ATOM	13774	C1*	G A 662	157.345	124.262	-63.337	1.00	82.37	C
ATOM	13725	O3*	G A 660	149.311	125.121	-70.824	1.00	61.34	O	ATOM	13775	N9	G A 662	156.752	122.930	-63.340	1.00	44.58	N
ATOM	13726	C2*	G A 660	148.637	125.392	-68.481	1.00	61.34	C	ATOM	13776	C8	G A 662	156.093	122.290	-64.362	1.00	44.58	C
ATOM	13727	O2*	G A 660	148.642	126.795	-68.658	1.00	61.34	O	ATOM	13777	N7	G A 662	155.720	121.077	-64.049	1.00	44.58	N
ATOM	13728	C1*	G A 660	147.351	124.993	-67.761	1.00	61.34	C	ATOM	13778	C5	G A 662	156.149	120.913	-62.737	1.00	44.58	C
ATOM	13729	N9	G A 660	147.639	123.964	-66.762	1.00	57.18	N	ATOM	13779	C6	G A 662	156.023	119.803	-61.851	1.00	44.58	C
ATOM	13730	C8	G A 660	147.393	122.612	-66.828	1.00	57.18	C	ATOM	13780	O6	G A 662	155.486	118.702	-62.052	1.00	44.58	O
ATOM	13731	N7	G A 660	147.843	121.960	-65.790	1.00	57.18	N	ATOM	13781	N1	G A 662	156.600	120.071	-60.616	1.00	44.58	N
ATOM	13732	C5	G A 660	148.404	122.943	-64.985	1.00	57.18	C	ATOM	13782	C2	G A 662	157.211	121.246	-60.265	1.00	44.58	C
ATOM	13733	O6	G A 660	149.062	122.844	-63.728	1.00	57.18	O	ATOM	13783	N2	G A 662	157.703	121.301	-59.025	1.00	44.58	N
ATOM	13734	O6	G A 660	149.305	121.830	-63.060	1.00	57.18	O	ATOM	13784	N3	G A 662	157.331	122.286	-61.070	1.00	44.58	N
ATOM	13735	N1	G A 660	149.464	124.093	-63.264	1.00	57.18	N	ATOM	13785	C4	G A 662	156.781	122.050	-62.285	1.00	44.58	C
ATOM	13736	C2	G A 660	149.269	125.280	-63.923	1.00	57.18	C	ATOM	13786	P	A A 663	161.438	124.453	-65.829	1.00	55.14	P
ATOM	13737	N2	G A 660	149.717	126.385	-63.309	1.00	57.18	N	ATOM	13787	O1P	A A 663	162.373	125.423	-66.449	1.00	46.85	O
ATOM	13738	N3	G A 660	148.675	125.381	-65.096	1.00	57.18	N	ATOM	13788	O2P	A A 663	160.942	123.303	-66.619	1.00	46.85	O
ATOM	13739	C4	G A 660	148.269	124.184	-65.563	1.00	57.18	C	ATOM	13789	O5*	A A 663	162.138	123.888	-64.520	1.00	55.14	O
ATOM	13740	P	G A 661	150.901	124.882	-70.841	1.00	72.84	P	ATOM	13790	C5*	A A 663	162.646	124.799	-63.529	1.00	55.14	C
ATOM	13741	O1P	G A 661	151.429	125.315	-72.158	1.00	54.04	O	ATOM	13791	C4*	A A 663	162.929	124.077	-62.237	1.00	55.14	C
ATOM	13742	O2P	G A 661	151.199	123.513	-70.350	1.00	54.04	O	ATOM	13792	O4*	A A 663	161.697	123.658	-61.602	1.00	55.14	O
ATOM	13743	O5*	G A 661	151.422	125.909	-69.749	1.00	72.84	O	ATOM	13793	C3*	A A 663	163.729	122.804	-62.387	1.00	55.14	C
ATOM	13744	C5*	G A 661	152.726	125.780	-69.242	1.00	72.84	C	ATOM	13794	O3*	A A 663	165.106	123.091	-62.508	1.00	55.14	O
ATOM	13745	C4*	G A 661	152.968	126.762	-68.137	1.00	72.84	C	ATOM	13795	C2*	A A 663	163.360	122.041	-61.124	1.00	55.14	C
ATOM	13746	O4*	G A 661	151.954	126.639	-67.109	1.00	72.84	O	ATOM	13796	O2*	A A 663	164.050	122.519	-59.983	1.00	55.14	O
ATOM	13747	C3*	G A 661	154.262	126.395	-67.457	1.00	72.84	C	ATOM	13797	C1*	A A 663	161.885	122.404	-60.975	1.00	55.14	C



Table 1: Sheet 140/521

ATOM 13798	A A 663	161.015	121.428	-61.631	1.00	46.85	N	ATOM 13848	N6	A A 665	174.304	114.971	-53.690	1.00	38.61	N	
ATOM 13799	A A 663	160.490	121.489	-62.897	1.00	46.85	C	ATOM 13849	N1	A A 665	174.327	112.849	-54.604	1.00	38.61	N	
ATOM 13800	A A 663	159.762	120.448	-63.220	1.00	46.85	N	ATOM 13850	C2	A A 665	174.021	112.037	-55.620	1.00	38.61	C	
ATOM 13801	A A 663	159.814	119.644	-62.090	1.00	46.85	C	ATOM 13851	N3	A A 665	173.430	112.322	-56.779	1.00	38.61	N	
ATOM 13802	A A 663	159.258	118.392	-61.802	1.00	46.85	C	ATOM 13852	C4	A A 665	173.143	113.633	-56.858	1.00	38.61	C	
ATOM 13803	A A 663	158.526	117.695	-62.665	1.00	46.85	N	ATOM 13853	P	G A 666	167.265	113.859	-59.971	1.00	43.20	P	
ATOM 13804	N1	A A 663	159.486	117.869	-60.583	1.00	46.85	N	ATOM 13854	O1P	G A 666	166.471	114.337	-61.129	1.00	49.00	O
ATOM 13805	C2	A A 663	160.232	118.564	-59.720	1.00	46.85	N	ATOM 13855	O2P	G A 666	167.367	114.698	-58.757	1.00	49.00	O
ATOM 13806	N3	A A 663	160.820	119.748	-59.876	1.00	46.85	N	ATOM 13856	O5*	G A 666	166.695	112.434	-59.548	1.00	43.20	O
ATOM 13807	C4	A A 663	160.570	120.241	-61.100	1.00	46.85	C	ATOM 13857	C5*	G A 666	166.956	111.894	-58.250	1.00	43.20	C
ATOM 13808	P	G A 664	166.033	122.116	-63.372	1.00	51.12	P	ATOM 13858	C4*	G A 666	166.008	110.755	-57.958	1.00	43.20	C
ATOM 13809	O1P	G A 664	167.345	122.790	-63.491	1.00	48.01	O	ATOM 13859	O4*	G A 666	164.649	111.206	-58.197	1.00	43.20	O
ATOM 13810	O2P	G A 664	165.310	121.686	-64.589	1.00	48.01	O	ATOM 13860	C3*	G A 666	166.121	109.517	-58.827	1.00	43.20	C
ATOM 13811	O5*	G A 664	166.180	120.846	-62.434	1.00	51.12	O	ATOM 13861	O3*	G A 666	167.160	108.651	-58.417	1.00	43.20	O
ATOM 13812	C5*	G A 664	166.612	121.009	-61.084	1.00	51.12	C	ATOM 13862	C2*	G A 666	164.739	108.897	-58.682	1.00	43.20	C
ATOM 13813	C4*	G A 664	166.408	119.739	-60.317	1.00	51.12	C	ATOM 13863	O2*	G A 666	164.542	108.241	-57.446	1.00	43.20	O
ATOM 13814	O4*	G A 664	165.004	119.483	-60.101	1.00	51.12	O	ATOM 13864	C1*	G A 666	163.857	110.138	-58.694	1.00	43.20	C
ATOM 13815	C3*	G A 664	166.911	118.493	-61.004	1.00	51.12	C	ATOM 13865	N9	G A 666	163.456	110.462	-60.060	1.00	49.00	N
ATOM 13816	O3*	G A 664	168.312	118.388	-60.808	1.00	51.12	O	ATOM 13866	C8	G A 666	163.699	111.629	-60.738	1.00	49.00	C
ATOM 13817	C2*	G A 664	166.129	117.399	-60.292	1.00	51.12	C	ATOM 13867	N7	G A 666	163.285	111.599	-61.972	1.00	49.00	N
ATOM 13818	O2*	G A 664	166.701	117.063	-59.048	1.00	51.12	O	ATOM 13868	C5	G A 666	162.721	110.342	-62.114	1.00	49.00	C
ATOM 13819	C1*	G A 664	164.791	118.090	-60.032	1.00	51.12	C	ATOM 13869	C6	G A 666	162.129	109.738	-63.234	1.00	49.00	C
ATOM 13820	N9	G A 664	163.780	117.714	-61.011	1.00	48.01	N	ATOM 13870	O6	G A 666	162.013	110.197	-64.379	1.00	49.00	O
ATOM 13821	C8	G A 664	163.500	118.331	-62.200	1.00	48.01	C	ATOM 13871	N1	G A 666	161.660	108.461	-62.939	1.00	49.00	N
ATOM 13822	N7	G A 664	162.587	117.708	-62.896	1.00	48.01	N	ATOM 13872	C2	G A 666	161.775	107.840	-61.722	1.00	49.00	C
ATOM 13823	C5	G A 664	162.236	116.622	-62.110	1.00	48.01	C	ATOM 13873	N2	G A 666	161.262	106.604	-61.627	1.00	49.00	N
ATOM 13824	C6	G A 664	161.316	115.580	-62.351	1.00	48.01	C	ATOM 13874	N3	G A 666	162.352	108.390	-60.673	1.00	49.00	N
ATOM 13825	O6	G A 664	160.611	115.394	-63.345	1.00	48.01	O	ATOM 13875	C4	G A 666	162.796	109.636	-60.938	1.00	49.00	C
ATOM 13826	N1	G A 664	161.263	114.687	-61.289	1.00	48.01	N	ATOM 13876	P	G A 667	168.065	107.929	-59.534	1.00	47.59	P
ATOM 13827	C2	G A 664	162.001	114.782	-60.143	1.00	48.01	C	ATOM 13877	O1P	G A 667	169.244	107.372	-58.821	1.00	40.75	O
ATOM 13828	N2	G A 664	161.810	113.816	-59.232	1.00	48.01	N	ATOM 13878	O2P	G A 667	168.277	108.866	-60.667	1.00	40.75	O
ATOM 13829	N3	G A 664	162.868	115.749	-59.906	1.00	48.01	N	ATOM 13879	O5*	G A 667	167.154	106.724	-60.028	1.00	47.59	O
ATOM 13830	C4	G A 664	162.939	116.626	-60.931	1.00	48.01	C	ATOM 13880	C5*	G A 667	166.674	105.759	-59.089	1.00	47.59	C
ATOM 13831	P	A A 665	169.251	117.812	-61.981	1.00	54.01	P	ATOM 13881	C4*	G A 667	165.714	104.815	-59.755	1.00	47.59	C
ATOM 13832	O1P	A A 665	170.098	118.940	-62.454	1.00	38.61	O	ATOM 13882	O4*	G A 667	164.565	105.563	-60.219	1.00	47.59	O
ATOM 13833	O2P	A A 665	168.412	117.067	-62.968	1.00	38.61	O	ATOM 13883	C3*	G A 667	166.223	104.111	-61.000	1.00	47.59	C
ATOM 13834	O5*	A A 665	170.166	116.765	-61.196	1.00	54.01	O	ATOM 13884	O3*	G A 667	166.982	102.957	-60.706	1.00	47.59	O
ATOM 13835	C5*	A A 665	170.753	115.666	-61.887	1.00	54.01	C	ATOM 13885	C2*	G A 667	164.933	103.772	-61.722	1.00	47.59	C
ATOM 13836	C4*	A A 665	170.944	114.478	-60.974	1.00	54.01	C	ATOM 13886	O2*	G A 667	164.307	102.645	-61.137	1.00	47.59	O
ATOM 13837	O4*	A A 665	172.154	114.582	-60.192	1.00	54.01	O	ATOM 13887	C1*	G A 667	164.111	105.028	-61.445	1.00	47.59	C
ATOM 13838	C3*	A A 665	169.885	114.154	-59.941	1.00	54.01	C	ATOM 13888	N9	G A 667	164.324	106.039	-62.474	1.00	40.75	N
ATOM 13839	O3*	A A 665	168.743	113.538	-60.537	1.00	54.01	O	ATOM 13889	C8	G A 667	164.957	107.251	-62.341	1.00	40.75	C
ATOM 13840	C2*	A A 665	170.632	113.168	-59.040	1.00	54.01	C	ATOM 13890	N7	G A 667	164.976	107.942	-63.447	1.00	40.75	N
ATOM 13841	O2*	A A 665	170.619	111.851	-59.542	1.00	54.01	O	ATOM 13891	C5	G A 667	164.322	107.134	-64.365	1.00	40.75	C
ATOM 13842	C1*	A A 665	172.076	113.660	-59.130	1.00	54.01	C	ATOM 13892	C6	G A 667	164.031	107.347	-65.735	1.00	40.75	C
ATOM 13843	N9	A A 665	172.539	114.291	-57.901	1.00	38.61	N	ATOM 13893	O6	G A 667	164.309	108.324	-66.439	1.00	40.75	O
ATOM 13844	C8	A A 665	172.468	115.609	-57.523	1.00	38.61	C	ATOM 13894	N1	G A 667	163.349	106.269	-66.285	1.00	40.75	N
ATOM 13845	N7	A A 665	172.967	115.844	-56.333	1.00	38.61	N	ATOM 13895	C2	G A 667	162.994	105.129	-65.607	1.00	40.75	C
ATOM 13846	C5	A A 665	173.395	114.595	-55.899	1.00	38.61	C	ATOM 13896	N2	G A 667	162.331	104.191	-66.305	1.00	40.75	N
ATOM 13847	C6	A A 665	174.015	114.162	-54.710	1.00	38.61	C	ATOM 13897	N3	G A 667	163.263	104.919	-64.335	1.00	40.75	N



ATOM	13898	C4	G A 667	163.920	105.956	-63.780	1.00	40.75	C	ATOM	13948	O4*	G A 670	170.200	100.567	-74.441	1.00	59.91	O
ATOM	13899	P	G A 668	168.182	102.542	-61.684	1.00	46.10	P	ATOM	13949	C3*	G A 670	172.351	100.270	-75.298	1.00	59.91	C
ATOM	13900	O1P	G A 668	168.895	101.427	-60.998	1.00	44.35	O	ATOM	13950	O3*	G A 670	173.210	99.631	-76.231	1.00	59.91	O
ATOM	13901	O2P	G A 668	168.916	103.784	-62.044	1.00	44.35	O	ATOM	13951	C2*	G A 670	171.823	101.581	-75.861	1.00	59.91	C
ATOM	13902	O5*	G A 668	167.433	101.974	-62.973	1.00	46.10	O	ATOM	13952	O2*	G A 670	171.453	101.499	-77.227	1.00	59.91	O
ATOM	13903	C5*	G A 668	166.672	100.758	-62.880	1.00	46.10	C	ATOM	13953	C1*	G A 670	170.603	101.822	-74.972	1.00	59.91	C
ATOM	13904	C4*	G A 668	165.988	100.450	-64.187	1.00	46.10	C	ATOM	13954	N9	G A 670	170.973	102.726	-73.886	1.00	52.27	N
ATOM	13905	O4*	G A 668	165.049	101.507	-64.505	1.00	46.10	O	ATOM	13955	C8	G A 670	171.225	102.430	-72.566	1.00	52.27	C
ATOM	13906	C3*	G A 668	166.868	100.351	-65.422	1.00	46.10	C	ATOM	13956	N7	G A 670	171.600	103.473	-71.872	1.00	52.27	N
ATOM	13907	O3*	G A 668	167.502	99.078	-65.556	1.00	46.10	O	ATOM	13957	C5	G A 670	171.580	104.520	-72.786	1.00	52.27	C
ATOM	13908	C2*	G A 668	165.866	100.613	-66.536	1.00	46.10	C	ATOM	13958	C6	G A 670	171.906	105.903	-72.627	1.00	52.27	C
ATOM	13909	O2*	G A 668	165.062	99.479	-66.782	1.00	46.10	O	ATOM	13959	O6	G A 670	172.306	106.493	-71.617	1.00	52.27	O
ATOM	13910	C1*	G A 668	164.993	101.692	-65.909	1.00	46.10	C	ATOM	13960	N1	G A 670	171.737	106.610	-73.815	1.00	52.27	N
ATOM	13911	N9	G A 668	165.532	103.011	-66.207	1.00	44.35	N	ATOM	13961	C2	G A 670	171.323	106.064	-75.009	1.00	52.27	C
ATOM	13912	C8	G A 668	166.201	103.838	-65.339	1.00	44.35	C	ATOM	13962	N2	G A 670	171.214	106.917	-76.054	1.00	52.27	N
ATOM	13913	N7	G A 668	166.583	104.957	-65.891	1.00	44.35	N	ATOM	13963	N3	G A 670	171.033	104.780	-75.172	1.00	52.27	N
ATOM	13914	C5	G A 668	166.137	104.864	-67.200	1.00	44.35	C	ATOM	13964	C4	G A 670	171.180	104.076	-74.027	1.00	52.27	C
ATOM	13915	C6	G A 668	166.250	105.780	-68.266	1.00	44.35	C	ATOM	13965	P	G A 671	174.804	99.810	-76.075	1.00	69.03	P
ATOM	13916	O6	G A 668	166.791	106.893	-68.267	1.00	44.35	O	ATOM	13966	O1P	G A 671	175.422	98.915	-77.084	1.00	60.55	O
ATOM	13917	N1	G A 668	165.656	105.296	-69.422	1.00	44.35	N	ATOM	13967	O2P	G A 671	175.151	99.641	-74.639	1.00	60.55	O
ATOM	13918	C2	G A 668	165.036	104.085	-69.535	1.00	44.35	C	ATOM	13968	O5*	G A 671	175.089	101.329	-76.479	1.00	69.03	O
ATOM	13919	N2	G A 668	164.524	103.792	-70.732	1.00	44.35	N	ATOM	13969	C5*	G A 671	174.964	101.738	-77.848	1.00	69.03	C
ATOM	13920	N3	G A 668	164.923	103.218	-68.545	1.00	44.35	N	ATOM	13970	C4*	G A 671	174.796	103.234	-77.962	1.00	69.03	C
ATOM	13921	C4	G A 668	165.489	103.671	-67.413	1.00	44.35	C	ATOM	13971	O4*	G A 671	173.965	103.719	-76.879	1.00	69.03	O
ATOM	13922	P	U A 669	168.980	98.993	-66.201	1.00	67.26	P	ATOM	13972	C3*	G A 671	176.035	104.111	-77.879	1.00	69.03	C
ATOM	13923	O1P	U A 669	169.511	97.631	-65.891	1.00	46.64	O	ATOM	13973	O3*	G A 671	176.736	104.182	-79.110	1.00	69.03	O
ATOM	13924	O2P	U A 669	169.736	100.199	-65.762	1.00	46.64	O	ATOM	13974	C2*	G A 671	175.443	105.468	-77.524	1.00	69.03	C
ATOM	13925	O5*	U A 669	168.744	99.152	-67.774	1.00	67.26	O	ATOM	13975	O2*	G A 671	174.913	106.144	-78.649	1.00	69.03	O
ATOM	13926	C5*	U A 669	167.915	98.226	-68.511	1.00	67.26	C	ATOM	13976	C1*	G A 671	174.299	105.068	-76.598	1.00	69.03	C
ATOM	13927	C4*	U A 669	167.791	98.649	-69.966	1.00	67.26	C	ATOM	13977	N9	G A 671	174.675	105.193	-75.194	1.00	60.55	N
ATOM	13928	O4*	U A 669	166.974	99.844	-70.087	1.00	67.26	O	ATOM	13978	C8	G A 671	174.779	104.198	-74.253	1.00	60.55	C
ATOM	13929	C3*	U A 669	169.079	99.001	-70.697	1.00	67.26	C	ATOM	13979	N7	G A 671	175.124	104.645	-73.074	1.00	60.55	N
ATOM	13930	O3*	U A 669	169.782	97.860	-71.172	1.00	67.26	O	ATOM	13980	C5	G A 671	175.254	106.018	-73.247	1.00	60.55	C
ATOM	13931	C2*	U A 669	168.586	99.875	-71.843	1.00	67.26	C	ATOM	13981	C6	G A 671	175.593	107.046	-72.315	1.00	60.55	C
ATOM	13932	O2*	U A 669	168.122	99.138	-72.956	1.00	67.26	O	ATOM	13982	O6	G A 671	175.838	106.945	-71.105	1.00	60.55	O
ATOM	13933	C1*	U A 669	167.420	100.615	-71.191	1.00	67.26	C	ATOM	13983	N1	G A 671	175.625	108.297	-72.922	1.00	60.55	N
ATOM	13934	N1	U A 669	167.859	101.929	-70.707	1.00	46.64	N	ATOM	13984	C2	G A 671	175.357	108.538	-74.248	1.00	60.55	C
ATOM	13935	C2	U A 669	167.842	102.996	-71.606	1.00	46.64	C	ATOM	13985	N2	G A 671	175.452	109.808	-74.645	1.00	60.55	N
ATOM	13936	O2	U A 669	167.455	102.897	-72.760	1.00	46.64	O	ATOM	13986	N3	G A 671	175.024	107.598	-75.121	1.00	60.55	N
ATOM	13937	N3	U A 669	168.303	104.189	-71.100	1.00	46.64	N	ATOM	13987	C4	G A 671	174.993	106.370	-74.554	1.00	60.55	C
ATOM	13938	C4	U A 669	168.767	104.422	-69.818	1.00	46.64	C	ATOM	13988	P	U A 672	178.336	104.022	-79.120	1.00	58.69	P
ATOM	13939	O4	U A 669	169.149	105.550	-69.512	1.00	46.64	O	ATOM	13989	O1P	U A 672	178.727	103.882	-80.544	1.00	50.51	O
ATOM	13940	C5	U A 669	168.741	103.277	-68.951	1.00	46.64	C	ATOM	13990	O2P	U A 672	178.700	102.956	-78.144	1.00	50.51	O
ATOM	13941	C6	U A 669	168.295	102.103	-69.413	1.00	46.64	C	ATOM	13991	O5*	U A 672	178.884	105.415	-78.584	1.00	58.69	O
ATOM	13942	P	G A 670	171.373	97.939	-71.374	1.00	59.91	P	ATOM	13992	C5*	U A 672	178.637	106.606	-79.318	1.00	58.69	C
ATOM	13943	O1P	G A 670	171.804	96.556	-71.677	1.00	52.27	O	ATOM	13993	C4*	U A 672	178.634	107.790	-78.398	1.00	58.69	C
ATOM	13944	O2P	G A 670	171.961	98.652	-70.221	1.00	52.27	O	ATOM	13994	O4*	U A 672	177.810	107.495	-77.247	1.00	58.69	O
ATOM	13945	O5*	G A 670	171.558	98.857	-72.666	1.00	59.91	O	ATOM	13995	C3*	U A 672	179.967	108.177	-77.798	1.00	58.69	C
ATOM	13946	C5*	G A 670	171.137	98.387	-73.960	1.00	59.91	C	ATOM	13996	O3*	U A 672	180.680	109.005	-78.694	1.00	58.69	O
ATOM	13947	C4*	G A 670	171.068	99.521	-74.959	1.00	59.91	C	ATOM	13997	C2*	U A 672	179.568	108.939	-76.535	1.00	58.69	C



Table 1: Sheet 142/521

ATOM	13998	O2*	U A 672	179.286	110.310	-76.740	1.00	58.69	O	ATOM	14048	O6	G A 674	185.843	108.374	-70.291	1.00	39.64	O
ATOM	13999	C1*	U A 672	178.278	108.227	-76.130	1.00	58.69	C	ATOM	14049	N1	G A 674	186.054	110.218	-68.993	1.00	39.64	N
ATOM	14000	N1	U A 672	178.443	107.319	-74.988	1.00	50.51	N	ATOM	14050	C2	G A 674	186.257	111.550	-68.791	1.00	39.64	C
ATOM	14001	C2	U A 672	178.713	107.892	-73.760	1.00	50.51	C	ATOM	14051	N2	G A 674	186.259	111.943	-67.513	1.00	39.64	N
ATOM	14002	O2	U A 672	178.799	109.097	-73.598	1.00	50.51	O	ATOM	14052	N3	G A 674	186.444	112.428	-69.761	1.00	39.64	N
ATOM	14003	N3	U A 672	178.868	108.999	-72.731	1.00	50.51	N	ATOM	14053	C4	G A 674	186.401	111.844	-70.975	1.00	39.64	C
ATOM	14004	C4	U A 672	178.768	105.620	-72.800	1.00	50.51	C	ATOM	14054	P	A A 675	191.497	114.033	-73.645	1.00	58.01	P
ATOM	14005	O4	U A 672	178.910	104.946	-71.775	1.00	50.51	O	ATOM	14055	O1P	A A 675	192.553	114.913	-74.232	1.00	45.80	O
ATOM	14006	C5	U A 672	178.478	105.108	-74.104	1.00	50.51	C	ATOM	14056	O2P	A A 675	191.424	112.585	-74.037	1.00	45.80	O
ATOM	14007	C6	U A 672	178.334	105.952	-75.127	1.00	50.51	C	ATOM	14057	O5*	A A 675	191.616	114.077	-72.055	1.00	58.01	O
ATOM	14008	P	G A 673	182.272	109.110	-78.570	1.00	78.00	P	ATOM	14058	C5*	A A 675	191.680	115.327	-71.358	1.00	58.01	C
ATOM	14009	O1P	G A 673	182.759	109.650	-79.871	1.00	48.83	O	ATOM	14059	C4*	A A 675	191.745	115.094	-69.872	1.00	58.01	C
ATOM	14010	O2P	G A 673	182.789	107.797	-78.055	1.00	48.83	O	ATOM	14060	O4*	A A 675	190.477	114.585	-69.381	1.00	58.01	C
ATOM	14011	O5*	G A 673	182.497	110.244	-77.479	1.00	78.00	O	ATOM	14061	C3*	A A 675	192.755	114.069	-69.392	1.00	58.01	C
ATOM	14012	C5*	G A 673	182.263	111.615	-77.814	1.00	78.00	C	ATOM	14062	O3*	A A 675	194.075	114.560	-69.305	1.00	58.01	O
ATOM	14013	C4*	G A 673	182.730	112.506	-76.702	1.00	78.00	C	ATOM	14063	O2*	A A 675	192.222	113.712	-68.018	1.00	58.01	C
ATOM	14014	O4*	G A 673	181.897	112.304	-75.540	1.00	78.00	O	ATOM	14064	C2*	A A 675	192.612	114.687	-67.072	1.00	58.01	O
ATOM	14015	C3*	G A 673	184.149	112.267	-76.222	1.00	78.00	C	ATOM	14065	C1*	A A 675	190.709	113.755	-68.252	1.00	58.01	C
ATOM	14016	O3*	G A 673	185.046	113.007	-77.040	1.00	78.00	O	ATOM	14066	N9	A A 675	190.166	112.420	-68.516	1.00	45.80	N
ATOM	14017	C2*	G A 673	184.101	112.793	-74.792	1.00	78.00	C	ATOM	14067	C8	A A 675	189.869	111.853	-69.727	1.00	45.80	C
ATOM	14018	O2*	G A 673	184.238	114.192	-74.730	1.00	78.00	O	ATOM	14068	N7	A A 675	189.432	110.618	-69.641	1.00	45.80	N
ATOM	14019	C1*	G A 673	182.673	112.444	-74.371	1.00	78.00	C	ATOM	14069	C5	A A 675	189.434	110.355	-68.281	1.00	45.80	C
ATOM	14020	N9	G A 673	182.568	111.206	-73.611	1.00	48.83	N	ATOM	14070	C6	A A 675	189.078	109.212	-67.536	1.00	45.80	C
ATOM	14021	C8	G A 673	182.352	109.945	-74.105	1.00	48.83	C	ATOM	14071	N6	A A 675	188.669	108.064	-68.085	1.00	45.80	N
ATOM	14022	N7	G A 673	182.290	109.034	-73.175	1.00	48.83	N	ATOM	14072	N1	A A 675	189.168	109.288	-66.190	1.00	45.80	N
ATOM	14023	C5	G A 673	182.478	109.736	-71.998	1.00	48.83	C	ATOM	14073	C2	A A 675	189.606	110.429	-65.640	1.00	45.80	C
ATOM	14024	C6	G A 673	182.500	109.283	-70.663	1.00	48.83	C	ATOM	14074	N3	A A 675	189.985	111.560	-66.232	1.00	45.80	N
ATOM	14025	O6	G A 673	182.363	108.132	-70.244	1.00	48.83	O	ATOM	14075	C4	A A 675	189.871	111.459	-67.571	1.00	45.80	C
ATOM	14026	N1	G A 673	182.706	110.331	-69.769	1.00	48.83	N	ATOM	14076	P	A A 676	195.301	113.535	-69.490	1.00	46.82	P
ATOM	14027	C2	G A 673	182.875	111.650	-70.123	1.00	48.83	C	ATOM	14077	O1P	A A 676	196.577	114.308	-69.444	1.00	47.52	O
ATOM	14028	N2	G A 673	183.057	112.524	-69.118	1.00	48.83	N	ATOM	14078	O2P	A A 676	194.997	112.685	-70.669	1.00	47.52	O
ATOM	14029	N3	G A 673	182.862	112.083	-71.374	1.00	48.83	N	ATOM	14079	O5*	A A 676	195.220	112.591	-68.208	1.00	46.82	O
ATOM	14030	C4	G A 673	182.656	111.078	-72.251	1.00	48.83	C	ATOM	14080	C5*	A A 676	195.494	113.111	-66.896	1.00	46.82	C
ATOM	14031	P	G A 674	186.529	112.451	-77.332	1.00	57.81	P	ATOM	14081	C4*	A A 676	195.226	112.059	-65.849	1.00	46.82	C
ATOM	14032	O1P	G A 674	186.996	113.218	-78.520	1.00	39.64	O	ATOM	14082	O4*	A A 676	193.835	111.662	-65.911	1.00	46.82	O
ATOM	14033	O2P	G A 674	186.541	110.958	-77.368	1.00	39.64	O	ATOM	14083	C3*	A A 676	195.986	110.756	-66.004	1.00	46.82	C
ATOM	14034	O5*	G A 674	187.369	112.962	-76.082	1.00	57.81	O	ATOM	14084	O3*	A A 676	197.295	110.827	-65.469	1.00	46.82	O
ATOM	14035	C5*	G A 674	187.584	114.368	-75.899	1.00	57.81	C	ATOM	14085	C2*	A A 676	195.109	109.772	-65.253	1.00	46.82	C
ATOM	14036	C4*	G A 674	187.731	114.701	-74.439	1.00	57.81	C	ATOM	14086	O2*	A A 676	195.311	109.846	-63.859	1.00	46.82	O
ATOM	14037	O4*	G A 674	186.567	114.247	-73.704	1.00	57.81	O	ATOM	14087	C1*	A A 676	193.716	110.291	-65.593	1.00	46.82	C
ATOM	14038	C3*	G A 674	188.889	114.044	-73.726	1.00	57.81	C	ATOM	14088	N9	A A 676	193.157	109.605	-66.754	1.00	47.52	N
ATOM	14039	O3*	G A 674	190.091	114.751	-73.953	1.00	57.81	O	ATOM	14089	C8	A A 676	193.165	110.007	-68.067	1.00	47.52	C
ATOM	14040	C2*	G A 674	188.449	114.101	-72.270	1.00	57.81	C	ATOM	14090	N7	A A 676	192.611	109.146	-68.883	1.00	47.52	N
ATOM	14041	O2*	G A 674	188.667	115.375	-71.698	1.00	57.81	O	ATOM	14091	C5	A A 676	192.211	108.111	-68.053	1.00	47.52	C
ATOM	14042	C1*	G A 674	186.946	113.871	-72.393	1.00	57.81	C	ATOM	14092	C6	A A 676	191.575	106.892	-68.309	1.00	47.52	C
ATOM	14043	N9	G A 674	186.600	112.470	-72.185	1.00	39.64	N	ATOM	14093	N6	A A 676	191.235	106.477	-69.534	1.00	47.52	N
ATOM	14044	C8	G A 674	186.446	111.503	-73.148	1.00	39.64	C	ATOM	14094	N1	A A 676	191.301	106.093	-67.255	1.00	47.52	N
ATOM	14045	N7	G A 674	186.202	110.320	-72.653	1.00	39.64	N	ATOM	14095	C2	A A 676	191.657	106.499	-66.037	1.00	47.52	C
ATOM	14046	C5	G A 674	186.188	110.518	-71.280	1.00	39.64	C	ATOM	14096	N3	A A 676	192.271	107.616	-65.672	1.00	47.52	N
ATOM	14047	C6	G A 674	186.009	109.595	-70.227	1.00	39.64	C	ATOM	14097	C4	A A 676	192.524	108.387	-66.740	1.00	47.52	C



ATOM	14098	P	U A 677	198.406	109.794	-65.988	1.00	54.10	P	ATOM	14148	O2*	C A 679	200.162	95.745	-71.185	1.00	58.70	O
ATOM	14099	O1P	U A 677	199.695	110.190	-65.390	1.00	46.26	O	ATOM	14149	C1*	C A 679	199.588	97.812	-70.136	1.00	58.70	C
ATOM	14100	O2P	U A 677	198.289	109.683	-67.460	1.00	46.26	O	ATOM	14150	N1	C A 679	199.561	99.222	-70.548	1.00	29.59	N
ATOM	14101	O5*	U A 677	197.954	108.416	-65.333	1.00	54.10	O	ATOM	14151	C2	C A 679	198.800	99.565	-71.658	1.00	29.59	C
ATOM	14102	C5*	U A 677	197.972	108.262	-63.911	1.00	54.10	C	ATOM	14152	O2	C A 679	198.185	98.665	-72.258	1.00	29.59	O
ATOM	14103	C4*	U A 677	197.544	106.874	-63.516	1.00	54.10	C	ATOM	14153	N3	C A 679	198.750	100.854	-72.061	1.00	29.59	N
ATOM	14104	O4*	U A 677	196.156	106.676	-63.866	1.00	54.10	C	ATOM	14154	C4	C A 679	199.425	101.781	-71.394	1.00	29.59	C
ATOM	14105	C3*	U A 677	198.261	105.713	-64.180	1.00	54.10	C	ATOM	14155	N4	C A 679	199.331	103.048	-71.814	1.00	29.59	N
ATOM	14106	O3*	U A 677	199.521	105.424	-63.588	1.00	54.10	O	ATOM	14156	C5	C A 679	200.225	101.457	-70.258	1.00	29.59	C
ATOM	14107	C2*	U A 677	197.260	104.579	-64.005	1.00	54.10	C	ATOM	14157	C6	C A 679	200.263	100.175	-69.872	1.00	29.59	C
ATOM	14108	O2*	U A 677	197.274	104.029	-62.701	1.00	54.10	O	ATOM	14158	P	C A 680	204.137	96.332	-70.825	1.00	69.12	P
ATOM	14109	C1*	U A 677	195.940	105.315	-64.191	1.00	54.10	C	ATOM	14159	O1P	C A 680	205.001	95.150	-70.582	1.00	51.82	O
ATOM	14110	N1	U A 677	195.436	105.219	-65.569	1.00	46.26	N	ATOM	14160	O2P	C A 680	204.631	97.695	-70.476	1.00	51.82	O
ATOM	14111	C2	U A 677	194.796	104.055	-65.921	1.00	46.26	C	ATOM	14161	O5*	C A 680	203.692	96.379	-72.354	1.00	69.12	O
ATOM	14112	O2	U A 677	194.668	103.127	-65.166	1.00	46.26	O	ATOM	14162	C5*	C A 680	203.070	95.242	-72.972	1.00	69.12	C
ATOM	14113	N3	U A 677	194.316	104.014	-67.198	1.00	46.26	N	ATOM	14163	O4*	C A 680	202.533	95.609	-74.332	1.00	69.12	C
ATOM	14114	C4	U A 677	194.419	104.999	-68.151	1.00	46.26	C	ATOM	14164	C4*	C A 680	201.426	96.531	-74.190	1.00	69.12	C
ATOM	14115	O4	U A 677	193.926	104.809	-69.269	1.00	46.26	O	ATOM	14165	C3*	C A 680	203.483	96.333	-75.268	1.00	69.12	C
ATOM	14116	C5	U A 677	195.114	106.177	-67.720	1.00	46.26	C	ATOM	14166	O3*	C A 680	204.393	95.476	-75.932	1.00	69.12	O
ATOM	14117	C6	U A 677	195.586	106.243	-66.475	1.00	46.26	C	ATOM	14167	C2*	C A 680	202.532	97.021	-76.236	1.00	69.12	C
ATOM	14118	P	U A 678	200.713	104.858	-64.509	1.00	54.27	P	ATOM	14168	O2*	C A 680	202.044	96.165	-77.249	1.00	69.12	O
ATOM	14119	O1P	U A 678	201.900	104.755	-63.635	1.00	35.18	O	ATOM	14169	C1*	C A 680	201.386	97.404	-75.307	1.00	69.12	C
ATOM	14120	O2P	U A 678	200.777	105.711	-65.735	1.00	35.18	O	ATOM	14170	N1	C A 680	201.527	98.794	-74.842	1.00	51.82	N
ATOM	14121	O5*	U A 678	200.229	103.387	-64.903	1.00	54.27	O	ATOM	14171	C2	C A 680	201.145	99.834	-75.707	1.00	51.82	C
ATOM	14122	C5*	U A 678	200.055	102.385	-63.888	1.00	54.27	C	ATOM	14172	O2	C A 680	200.711	99.549	-76.834	1.00	51.82	O
ATOM	14123	O4*	U A 678	199.480	101.113	-64.470	1.00	54.27	C	ATOM	14173	N3	C A 680	201.266	101.118	-75.296	1.00	51.82	N
ATOM	14124	C4*	U A 678	198.122	101.335	-64.924	1.00	54.27	O	ATOM	14174	C4	C A 680	201.759	101.384	-74.088	1.00	51.82	C
ATOM	14125	C3*	U A 678	200.179	100.533	-65.686	1.00	54.27	C	ATOM	14175	N4	C A 680	201.882	102.661	-73.735	1.00	51.82	N
ATOM	14126	O3*	U A 678	201.338	99.779	-65.388	1.00	54.27	O	ATOM	14176	C5	C A 680	202.156	100.351	-73.188	1.00	51.82	C
ATOM	14127	C2*	U A 678	199.093	99.675	-66.314	1.00	54.27	C	ATOM	14177	C6	C A 680	202.024	99.082	-73.601	1.00	51.82	C
ATOM	14128	O2*	U A 678	198.930	98.421	-65.677	1.00	54.27	O	ATOM	14178	P	C A 681	205.803	96.066	-76.426	1.00	67.70	P
ATOM	14129	C1*	U A 678	197.864	100.541	-66.075	1.00	54.27	C	ATOM	14179	O1P	C A 681	206.584	94.911	-76.928	1.00	63.78	O
ATOM	14130	N1	U A 678	197.642	101.439	-67.218	1.00	35.18	N	ATOM	14180	O2P	C A 681	206.366	96.913	-75.348	1.00	63.78	O
ATOM	14131	C2	U A 678	196.995	100.929	-68.341	1.00	35.18	C	ATOM	14181	O5*	C A 681	205.415	97.015	-77.647	1.00	67.70	O
ATOM	14132	O2	U A 678	196.672	99.748	-68.458	1.00	35.18	O	ATOM	14182	C5*	C A 681	204.827	96.471	-78.839	1.00	67.70	C
ATOM	14133	N3	U A 678	196.756	101.852	-69.333	1.00	35.18	N	ATOM	14183	C4*	C A 681	204.627	97.551	-79.871	1.00	67.70	C
ATOM	14134	C4	U A 678	197.110	103.189	-69.326	1.00	35.18	C	ATOM	14184	O4*	C A 681	203.548	98.441	-79.468	1.00	67.70	O
ATOM	14135	O4	U A 678	196.710	103.925	-70.228	1.00	35.18	O	ATOM	14185	C3*	C A 681	205.802	98.483	-80.093	1.00	67.70	C
ATOM	14136	C5	U A 678	197.821	103.615	-68.158	1.00	35.18	C	ATOM	14186	O3*	C A 681	206.820	97.941	-80.912	1.00	67.70	O
ATOM	14137	C6	U A 678	198.052	102.752	-67.172	1.00	35.18	C	ATOM	14187	O2*	C A 681	205.128	99.710	-80.695	1.00	67.70	O
ATOM	14138	P	C A 679	202.589	99.860	-66.388	1.00	58.70	P	ATOM	14188	C2*	C A 681	204.822	99.552	-82.066	1.00	67.70	O
ATOM	14139	O1P	C A 679	203.757	99.284	-65.683	1.00	29.59	O	ATOM	14189	C1*	C A 681	203.833	99.771	-79.886	1.00	67.70	C
ATOM	14140	O2P	C A 679	202.645	101.265	-66.889	1.00	29.59	O	ATOM	14190	N1	C A 681	203.993	100.636	-78.687	1.00	63.78	N
ATOM	14141	O5*	C A 679	202.176	98.906	-67.591	1.00	58.70	O	ATOM	14191	C2	C A 681	203.796	102.025	-78.813	1.00	63.78	C
ATOM	14142	C5*	C A 679	201.807	97.544	-67.345	1.00	58.70	C	ATOM	14192	O2	C A 681	203.450	102.484	-79.906	1.00	63.78	O
ATOM	14143	C4*	C A 679	201.080	96.978	-68.538	1.00	58.70	C	ATOM	14193	N3	C A 681	203.991	102.827	-77.738	1.00	63.78	N
ATOM	14144	O4*	C A 679	199.868	97.740	-68.751	1.00	58.70	O	ATOM	14194	C4	C A 681	204.358	102.299	-76.569	1.00	63.78	C
ATOM	14145	C3*	C A 679	201.808	97.063	-69.871	1.00	58.70	C	ATOM	14195	N4	C A 681	204.561	103.128	-75.538	1.00	63.78	N
ATOM	14146	O3*	C A 679	202.762	96.022	-70.047	1.00	58.70	O	ATOM	14196	C5	C A 681	204.541	100.892	-76.403	1.00	63.78	C
ATOM	14147	C2*	C A 679	200.665	97.030	-70.880	1.00	58.70	C	ATOM	14197	C6	C A 681	204.349	100.106	-77.475	1.00	63.78	C



ATOM	14198	P	G A 682	208.345	98.423	-80.697	1.00	82.45	P	ATOM	14248	C5*	A A 684	215.587	109.599	-81.928	1.00	61.21	C
ATOM	14199	O1P	G A 682	209.184	97.581	-81.593	1.00	57.95	O	ATOM	14249	C4*	A A 684	215.387	110.521	-80.749	1.00	61.21	C
ATOM	14200	O2P	G A 682	208.654	98.466	-79.247	1.00	57.95	O	ATOM	14250	O4*	A A 684	214.069	110.293	-80.190	1.00	61.21	O
ATOM	14201	O5*	G A 682	208.348	99.920	-81.245	1.00	82.45	O	ATOM	14251	C3*	A A 684	216.331	110.335	-79.574	1.00	61.21	C
ATOM	14202	C5*	G A 682	207.971	100.176	-82.601	1.00	82.45	C	ATOM	14252	O3*	A A 684	217.573	111.006	-79.755	1.00	61.21	O
ATOM	14203	C4*	G A 682	207.966	101.652	-82.899	1.00	82.45	C	ATOM	14253	O2*	A A 684	215.516	110.901	-78.418	1.00	61.21	C
ATOM	14204	O4*	G A 682	206.808	102.294	-82.310	1.00	82.45	O	ATOM	14254	C2*	A A 684	215.515	112.315	-78.372	1.00	61.21	O
ATOM	14205	C3*	G A 682	209.133	102.490	-82.413	1.00	82.45	C	ATOM	14255	C1*	A A 684	214.113	110.432	-78.782	1.00	61.21	C
ATOM	14206	O3*	G A 682	210.301	102.364	-83.200	1.00	82.45	O	ATOM	14256	N9	A A 684	213.836	109.127	-78.188	1.00	58.10	N
ATOM	14207	C2*	G A 682	208.554	103.895	-82.493	1.00	82.45	C	ATOM	14257	C8	A A 684	213.827	107.899	-78.804	1.00	58.10	C
ATOM	14208	O2*	G A 682	208.574	104.426	-83.805	1.00	82.45	O	ATOM	14258	N7	A A 684	213.586	106.900	-77.992	1.00	58.10	N
ATOM	14209	C1*	G A 682	207.112	103.654	-82.046	1.00	82.45	C	ATOM	14259	C5	A A 684	213.415	107.512	-76.757	1.00	58.10	C
ATOM	14210	N9	G A 682	207.020	103.907	-80.609	1.00	57.95	N	ATOM	14260	C6	A A 684	213.136	107.003	-75.482	1.00	58.10	C
ATOM	14211	C8	G A 682	207.059	102.997	-79.578	1.00	57.95	C	ATOM	14261	N6	A A 684	212.974	105.705	-75.221	1.00	58.10	N
ATOM	14212	N7	G A 682	207.037	103.560	-78.401	1.00	57.95	N	ATOM	14262	N1	A A 684	213.025	107.881	-74.468	1.00	58.10	N
ATOM	14213	C5	G A 682	206.962	104.919	-78.674	1.00	57.95	C	ATOM	14263	C2	A A 684	213.178	109.179	-74.726	1.00	58.10	C
ATOM	14214	C6	G A 682	206.924	106.035	-77.798	1.00	57.95	C	ATOM	14264	N3	A A 684	213.442	109.782	-75.877	1.00	58.10	N
ATOM	14215	O6	G A 682	206.959	106.046	-76.562	1.00	57.95	O	ATOM	14265	C4	A A 684	213.554	108.882	-76.866	1.00	58.10	C
ATOM	14216	N1	G A 682	206.847	107.235	-78.502	1.00	57.95	N	ATOM	14266	P	G A 685	218.895	110.433	-79.031	1.00	72.46	P
ATOM	14217	C2	G A 682	206.822	107.347	-79.870	1.00	57.95	C	ATOM	14267	O1P	G A 685	219.985	111.431	-79.202	1.00	58.36	O
ATOM	14218	N2	G A 682	206.760	108.583	-80.368	1.00	57.95	N	ATOM	14268	O2P	G A 685	219.110	109.013	-79.445	1.00	58.36	O
ATOM	14219	N3	G A 682	206.861	106.319	-80.692	1.00	57.95	N	ATOM	14269	O5*	G A 685	218.514	110.430	-77.489	1.00	72.46	O
ATOM	14220	C4	G A 682	206.931	105.145	-80.031	1.00	57.95	C	ATOM	14270	C5*	G A 685	218.264	111.662	-76.796	1.00	72.46	C
ATOM	14221	P	G A 683	211.741	102.603	-82.518	1.00	65.83	P	ATOM	14271	C4*	G A 685	218.047	111.389	-75.338	1.00	72.46	C
ATOM	14222	O1P	G A 683	212.742	102.120	-83.507	1.00	60.50	O	ATOM	14272	O4*	G A 685	216.817	110.652	-75.157	1.00	72.46	O
ATOM	14223	O2P	G A 683	211.739	102.031	-81.141	1.00	60.50	O	ATOM	14273	C3*	G A 685	219.109	110.507	-74.718	1.00	72.46	C
ATOM	14224	O5*	G A 683	211.856	104.191	-82.405	1.00	65.83	O	ATOM	14274	O3*	G A 685	220.241	111.267	-74.340	1.00	72.46	O
ATOM	14225	C5*	G A 683	211.587	105.021	-83.538	1.00	65.83	C	ATOM	14275	C2*	G A 685	218.385	109.865	-73.544	1.00	72.46	C
ATOM	14226	C4*	G A 683	211.369	106.451	-83.112	1.00	65.83	C	ATOM	14276	O2*	G A 685	218.368	110.656	-72.374	1.00	72.46	O
ATOM	14227	O4*	G A 683	210.175	106.562	-82.291	1.00	65.83	O	ATOM	14277	C1*	G A 685	216.970	109.729	-74.099	1.00	72.46	C
ATOM	14228	C3*	G A 683	212.452	107.091	-82.265	1.00	65.83	C	ATOM	14278	N9	G A 685	216.699	108.394	-74.613	1.00	58.36	N
ATOM	14229	O3*	G A 683	213.560	107.522	-83.029	1.00	65.83	O	ATOM	14279	C8	G A 685	216.831	107.950	-75.904	1.00	58.36	C
ATOM	14230	C2*	G A 683	211.706	108.245	-81.606	1.00	65.83	C	ATOM	14280	N7	G A 685	216.509	106.695	-76.045	1.00	58.36	N
ATOM	14231	O2*	G A 683	211.548	109.370	-82.451	1.00	65.83	O	ATOM	14281	C5	G A 685	216.145	106.288	-74.769	1.00	58.36	C
ATOM	14232	C1*	G A 683	210.339	107.614	-81.351	1.00	65.83	C	ATOM	14282	C6	G A 685	215.699	105.028	-74.297	1.00	58.36	C
ATOM	14233	N9	G A 683	210.257	107.066	-79.996	1.00	60.50	N	ATOM	14283	O6	G A 685	215.533	103.981	-74.928	1.00	58.36	O
ATOM	14234	C8	G A 683	210.266	105.743	-79.617	1.00	60.50	C	ATOM	14284	N1	G A 685	215.436	105.056	-72.937	1.00	58.36	N
ATOM	14235	N7	G A 683	210.185	105.581	-78.324	1.00	60.50	N	ATOM	14285	C2	G A 685	215.583	106.148	-72.129	1.00	58.36	C
ATOM	14236	C5	G A 683	210.117	106.875	-77.817	1.00	60.50	C	ATOM	14286	N2	G A 685	215.285	105.963	-70.837	1.00	58.36	N
ATOM	14237	C6	G A 683	210.005	107.341	-76.474	1.00	60.50	C	ATOM	14287	N3	G A 685	215.995	107.330	-72.553	1.00	58.36	N
ATOM	14238	O6	G A 683	209.938	106.679	-75.427	1.00	60.50	O	ATOM	14288	C4	G A 685	216.256	107.325	-73.876	1.00	58.36	C
ATOM	14239	N1	G A 683	209.965	108.731	-76.418	1.00	60.50	N	ATOM	14289	P	U A 686	221.666	110.546	-74.227	1.00	58.80	P
ATOM	14240	C2	G A 683	210.019	109.567	-77.502	1.00	60.50	C	ATOM	14290	O1P	U A 686	222.668	111.552	-73.754	1.00	66.98	O
ATOM	14241	N2	G A 683	209.965	110.880	-77.247	1.00	60.50	N	ATOM	14291	O2P	U A 686	221.929	109.758	-75.458	1.00	66.98	O
ATOM	14242	N3	G A 683	210.119	109.150	-78.750	1.00	60.50	N	ATOM	14292	O5*	U A 686	221.420	109.491	-73.083	1.00	58.80	O
ATOM	14243	C4	G A 683	210.162	107.802	-78.834	1.00	60.50	C	ATOM	14293	C5*	U A 686	222.415	109.261	-72.141	1.00	58.80	C
ATOM	14244	P	A A 684	215.039	107.099	-82.569	1.00	61.21	P	ATOM	14294	C4*	U A 686	221.886	109.516	-70.766	1.00	58.80	C
ATOM	14245	O1P	A A 684	215.919	107.204	-83.773	1.00	58.10	O	ATOM	14295	O4*	U A 686	220.592	108.876	-70.612	1.00	58.80	O
ATOM	14246	O2P	A A 684	214.945	105.805	-81.840	1.00	58.10	O	ATOM	14296	C3*	U A 686	222.815	108.852	-69.761	1.00	58.80	C
ATOM	14247	O5*	A A 684	215.467	108.224	-81.521	1.00	61.21	O	ATOM	14297	O3*	U A 686	222.830	109.580	-68.574	1.00	58.80	O



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ATOM	14298	C2*	U A 686	222.184	107.485	-69.600	1.00	58.80	C	ATOM	14348	O6	G A 688	217.784	101.115	-58.351	1.00	36.95	O
ATOM	14299	O2*	U A 686	222.595	106.903	-68.391	1.00	58.80	O	ATOM	14349	N1	G A 688	216.408	101.793	-60.030	1.00	36.95	N
ATOM	14300	C1*	U A 686	220.695	107.832	-69.672	1.00	58.80	C	ATOM	14350	C2	G A 688	216.060	102.625	-61.056	1.00	36.95	C
ATOM	14301	N1	U A 686	219.802	106.736	-70.083	1.00	66.98	N	ATOM	14351	N2	G A 688	214.965	102.286	-61.736	1.00	36.95	N
ATOM	14302	C2	U A 686	219.001	106.168	-69.103	1.00	66.98	C	ATOM	14352	N3	G A 688	216.747	103.704	-61.401	1.00	36.95	N
ATOM	14303	O2	U A 686	219.013	106.530	-67.940	1.00	66.98	O	ATOM	14353	C4	G A 688	217.842	103.868	-60.634	1.00	49.26	C
ATOM	14304	N3	U A 686	218.188	105.152	-69.533	1.00	66.98	N	ATOM	14354	P	C A 689	217.051	109.569	-59.168	1.00	49.26	P
ATOM	14305	C4	U A 686	218.095	104.646	-70.808	1.00	66.98	C	ATOM	14355	O1P	C A 689	216.911	111.048	-59.166	1.00	27.42	O
ATOM	14306	O4	U A 686	217.313	103.714	-71.032	1.00	66.98	O	ATOM	14356	O2P	C A 689	217.646	108.882	-57.988	1.00	27.42	O
ATOM	14307	C5	U A 686	218.952	105.283	-71.766	1.00	66.98	C	ATOM	14357	O5*	C A 689	215.647	108.884	-59.457	1.00	49.26	O
ATOM	14308	C6	U A 686	219.754	106.281	-71.380	1.00	66.98	C	ATOM	14358	C5*	C A 689	214.948	109.148	-60.674	1.00	49.26	C
ATOM	14309	P	A A 687	224.106	109.478	-67.613	1.00	48.12	P	ATOM	14359	C4*	C A 689	213.905	108.090	-60.908	1.00	49.26	C
ATOM	14310	O1P	A A 687	224.449	110.887	-67.219	1.00	53.25	O	ATOM	14360	O4*	C A 689	214.561	106.800	-60.963	1.00	49.26	O
ATOM	14311	O2P	A A 687	225.135	108.605	-68.261	1.00	53.25	O	ATOM	14361	C3*	C A 689	212.862	107.906	-59.817	1.00	49.26	C
ATOM	14312	O5*	A A 687	223.601	108.653	-66.350	1.00	48.12	O	ATOM	14362	O3*	C A 689	211.798	108.841	-59.872	1.00	49.26	O
ATOM	14313	C5*	A A 687	222.786	109.247	-65.335	1.00	48.12	C	ATOM	14363	O2*	C A 689	212.395	106.478	-60.047	1.00	49.26	C
ATOM	14314	C4*	A A 687	222.273	108.169	-64.431	1.00	48.12	C	ATOM	14364	O2*	C A 689	211.454	106.348	-61.099	1.00	49.26	O
ATOM	14315	O4*	A A 687	221.388	107.321	-65.187	1.00	48.12	O	ATOM	14365	C1*	C A 689	213.699	105.803	-60.450	1.00	49.26	C
ATOM	14316	C3*	A A 687	223.359	107.241	-63.919	1.00	48.12	C	ATOM	14366	N1	C A 689	214.351	105.146	-59.308	1.00	27.42	N
ATOM	14317	O3*	A A 687	224.055	107.678	-62.734	1.00	48.12	O	ATOM	14367	C2	C A 689	213.762	103.977	-58.784	1.00	27.42	C
ATOM	14318	C2*	A A 687	222.891	105.804	-64.197	1.00	48.12	C	ATOM	14368	O2	C A 689	212.694	103.562	-59.279	1.00	27.42	O
ATOM	14319	O2*	A A 687	222.912	104.946	-63.070	1.00	48.12	O	ATOM	14369	N3	C A 689	214.365	103.335	-57.756	1.00	27.42	N
ATOM	14320	C1*	A A 687	221.450	106.017	-64.671	1.00	48.12	C	ATOM	14370	C4	C A 689	215.498	103.815	-57.248	1.00	27.42	C
ATOM	14321	N9	A A 687	220.955	105.115	-65.712	1.00	53.25	N	ATOM	14371	N4	C A 689	216.053	103.147	-56.241	1.00	27.42	N
ATOM	14322	C8	A A 687	221.401	105.007	-66.999	1.00	53.25	C	ATOM	14372	C5	C A 689	216.109	103.007	-57.750	1.00	27.42	C
ATOM	14323	N7	A A 687	220.732	104.149	-67.726	1.00	53.25	N	ATOM	14373	C6	C A 689	215.505	105.637	-58.766	1.00	27.42	C
ATOM	14324	C5	A A 687	219.784	103.644	-66.855	1.00	53.25	C	ATOM	14374	P	G A 690	211.245	109.471	-58.504	1.00	48.14	P
ATOM	14325	C6	A A 687	218.770	102.685	-67.018	1.00	53.25	C	ATOM	14375	O1P	G A 690	210.183	110.432	-58.890	1.00	43.41	O
ATOM	14326	N6	A A 687	218.530	102.050	-68.167	1.00	53.25	N	ATOM	14376	O2P	G A 690	212.402	109.935	-57.688	1.00	43.41	O
ATOM	14327	N1	A A 687	218.001	102.397	-65.947	1.00	53.25	N	ATOM	14377	O5*	G A 690	210.579	108.245	-57.739	1.00	48.14	O
ATOM	14328	C2	A A 687	218.245	103.034	-64.795	1.00	53.25	C	ATOM	14378	C5*	G A 690	209.521	107.484	-58.338	1.00	48.14	C
ATOM	14329	N3	A A 687	219.168	103.956	-64.518	1.00	53.25	N	ATOM	14379	C4*	G A 690	209.226	106.260	-57.502	1.00	48.14	C
ATOM	14330	C4	A A 687	219.914	104.221	-65.605	1.00	53.25	C	ATOM	14380	O4*	G A 690	210.394	105.406	-57.465	1.00	48.14	O
ATOM	14331	P	G A 688	223.368	107.599	-61.272	1.00	51.53	P	ATOM	14381	C3*	G A 690	208.904	106.562	-56.050	1.00	48.14	C
ATOM	14332	O1P	G A 688	224.334	108.281	-60.383	1.00	36.95	O	ATOM	14382	O3*	G A 690	207.507	106.818	-55.930	1.00	48.14	O
ATOM	14333	O2P	G A 688	222.897	106.224	-60.931	1.00	36.95	O	ATOM	14383	C2*	G A 690	209.363	105.302	-55.317	1.00	48.14	C
ATOM	14334	O5*	G A 688	222.122	108.575	-61.365	1.00	51.53	O	ATOM	14384	O2*	G A 690	208.394	104.274	-55.312	1.00	48.14	O
ATOM	14335	C5*	G A 688	221.011	108.422	-60.484	1.00	51.53	C	ATOM	14385	C1*	G A 690	210.558	104.862	-56.167	1.00	48.14	C
ATOM	14336	C4*	G A 688	219.822	107.966	-61.273	1.00	51.53	C	ATOM	14386	N9	G A 690	211.861	105.302	-55.676	1.00	43.41	N
ATOM	14337	O4*	G A 688	220.020	106.592	-61.685	1.00	51.53	O	ATOM	14387	C8	G A 690	212.534	106.440	-56.046	1.00	43.41	C
ATOM	14338	C3*	G A 688	218.496	107.923	-60.556	1.00	51.53	C	ATOM	14388	N7	G A 690	213.695	106.555	-55.474	1.00	43.41	N
ATOM	14339	O3*	G A 688	217.907	109.201	-60.470	1.00	51.53	O	ATOM	14389	C5	G A 690	213.791	105.434	-54.673	1.00	43.41	C
ATOM	14340	C2*	G A 688	217.710	106.964	-61.431	1.00	51.53	C	ATOM	14390	C6	G A 690	214.830	105.021	-53.827	1.00	43.41	C
ATOM	14341	O2*	G A 688	217.334	107.588	-62.644	1.00	51.53	O	ATOM	14391	O6	G A 690	215.906	105.574	-53.618	1.00	43.41	O
ATOM	14342	C1*	G A 688	218.774	105.928	-61.754	1.00	51.53	C	ATOM	14392	N1	G A 690	214.531	103.826	-53.188	1.00	43.41	N
ATOM	14343	N9	G A 688	218.778	104.858	-60.767	1.00	36.95	N	ATOM	14393	C2	G A 690	213.370	103.115	-53.357	1.00	43.41	C
ATOM	14344	C8	G A 688	219.717	104.637	-59.789	1.00	36.95	C	ATOM	14394	N2	G A 690	213.271	101.967	-52.656	1.00	43.41	N
ATOM	14345	N7	G A 688	219.461	103.586	-59.061	1.00	36.95	N	ATOM	14395	N3	G A 690	212.381	103.496	-54.159	1.00	43.41	N
ATOM	14346	C5	G A 688	218.280	103.088	-59.589	1.00	36.95	C	ATOM	14396	C4	G A 690	212.663	104.656	-54.779	1.00	43.41	C
ATOM	14347	C6	G A 688	217.535	101.945	-59.230	1.00	36.95	C	ATOM	14397	P	G A 691	206.991	108.007	-54.985	1.00	46.59	P



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ATOM	14398	O1P	G A 691	205.530	108.006	-55.217	1.00	40.47	O	ATOM	14448	O3*	G A 693	211.473	112.066	-42.846	1.00	57.81	O
ATOM	14399	O2P	G A 691	207.768	109.256	-55.215	1.00	40.47	O	ATOM	14449	C2*	G A 693	212.004	110.582	-40.991	1.00	57.81	C
ATOM	14400	O5*	G A 691	207.310	107.449	-53.533	1.00	46.59	O	ATOM	14450	O2*	G A 693	212.801	111.653	-40.552	1.00	57.81	O
ATOM	14401	C5*	G A 691	206.653	106.270	-53.076	1.00	46.59	C	ATOM	14451	C1*	G A 693	211.116	110.124	-39.838	1.00	57.81	C
ATOM	14402	C4*	G A 691	207.405	105.658	-51.938	1.00	46.59	C	ATOM	14452	N9	G A 693	210.933	108.683	-39.753	1.00	42.34	N
ATOM	14403	O4*	G A 691	208.682	105.168	-52.410	1.00	46.59	O	ATOM	14453	C8	G A 693	209.817	107.975	-40.119	1.00	42.34	C
ATOM	14404	C3*	G A 691	207.759	106.594	-50.798	1.00	46.59	C	ATOM	14454	N7	G A 693	209.922	106.698	-39.882	1.00	42.34	N
ATOM	14405	O3*	G A 691	206.666	106.775	-49.912	1.00	46.59	O	ATOM	14455	C5	G A 693	211.187	106.554	-39.339	1.00	42.34	C
ATOM	14406	C2*	G A 691	208.947	105.887	-50.152	1.00	46.59	C	ATOM	14456	C6	G A 693	211.849	105.402	-38.883	1.00	42.34	C
ATOM	14407	O2*	G A 691	208.575	104.846	-49.273	1.00	46.59	O	ATOM	14457	O6	G A 693	211.436	104.237	-38.862	1.00	42.34	O
ATOM	14408	C1*	G A 691	209.646	105.289	-51.374	1.00	46.59	C	ATOM	14458	N1	G A 693	213.119	105.695	-38.412	1.00	42.34	N
ATOM	14409	N8	G A 691	210.695	106.193	-51.822	1.00	40.47	N	ATOM	14459	C2	G A 693	213.679	106.939	-38.390	1.00	42.34	C
ATOM	14410	C8	G A 691	210.544	107.303	-52.618	1.00	40.47	C	ATOM	14460	N2	G A 693	214.928	107.004	-37.914	1.00	42.34	N
ATOM	14411	N7	G A 691	211.650	107.977	-52.767	1.00	40.47	N	ATOM	14461	N3	G A 693	213.065	108.035	-38.807	1.00	42.34	N
ATOM	14412	C5	G A 691	212.587	107.258	-52.039	1.00	40.47	C	ATOM	14462	C4	G A 693	211.829	107.767	-39.264	1.00	42.34	C
ATOM	14413	O6	G A 691	213.941	107.525	-51.809	1.00	40.47	O	ATOM	14463	P	A A 694	212.474	111.707	-44.043	1.00	47.60	P
ATOM	14414	O6	G A 691	214.602	108.508	-52.192	1.00	40.47	O	ATOM	14464	O1P	A A 694	212.637	112.930	-44.884	1.00	39.73	O
ATOM	14415	N1	G A 691	214.533	106.524	-51.037	1.00	40.47	N	ATOM	14465	O2P	A A 694	212.047	110.431	-44.683	1.00	39.73	O
ATOM	14416	C2	G A 691	213.880	105.413	-50.545	1.00	40.47	C	ATOM	14466	O5*	A A 694	213.828	111.431	-43.270	1.00	47.60	O
ATOM	14417	N2	G A 691	214.617	104.530	-49.847	1.00	40.47	N	ATOM	14467	C5*	A A 694	214.871	110.813	-43.956	1.00	47.60	C
ATOM	14418	N3	G A 691	212.600	105.179	-50.732	1.00	40.47	N	ATOM	14468	C4*	A A 694	215.623	109.880	-43.068	1.00	47.60	C
ATOM	14419	C4	G A 691	212.019	106.135	-51.481	1.00	40.47	C	ATOM	14469	O4*	A A 694	214.808	109.268	-42.042	1.00	47.60	O
ATOM	14420	P	U A 692	206.483	108.176	-49.148	1.00	53.94	P	ATOM	14470	C3*	A A 694	216.111	108.720	-43.881	1.00	47.60	C
ATOM	14421	O1P	U A 692	205.082	108.197	-48.665	1.00	57.95	O	ATOM	14471	O3*	A A 694	217.199	109.131	-44.665	1.00	47.60	O
ATOM	14422	O2P	U A 692	206.987	109.298	-49.985	1.00	57.95	O	ATOM	14472	C2*	A A 694	216.354	107.644	-42.836	1.00	47.60	C
ATOM	14423	O5*	U A 692	207.425	108.001	-47.890	1.00	53.94	O	ATOM	14473	O2*	A A 694	217.595	107.765	-42.181	1.00	47.60	O
ATOM	14424	C5*	U A 692	207.143	106.976	-46.950	1.00	53.94	C	ATOM	14474	C1*	A A 694	215.218	107.921	-41.852	1.00	47.60	C
ATOM	14425	C4*	U A 692	208.171	106.982	-45.864	1.00	53.94	C	ATOM	14475	N9	A A 694	214.065	107.049	-42.085	1.00	39.73	N
ATOM	14426	O4*	U A 692	209.432	106.504	-46.392	1.00	53.94	O	ATOM	14476	C8	A A 694	212.843	107.387	-42.613	1.00	39.73	C
ATOM	14427	C3*	U A 692	208.479	108.339	-45.257	1.00	53.94	C	ATOM	14477	N7	A A 694	211.995	106.386	-42.672	1.00	39.73	N
ATOM	14428	O3*	U A 692	207.525	108.656	-44.243	1.00	53.94	O	ATOM	14478	C5	A A 694	212.707	105.317	-42.153	1.00	39.73	C
ATOM	14429	C2*	U A 692	209.881	108.117	-44.706	1.00	53.94	C	ATOM	14479	C6	A A 694	212.362	103.980	-41.934	1.00	39.73	C
ATOM	14430	O2*	U A 692	209.806	107.399	-43.485	1.00	53.94	O	ATOM	14480	N6	A A 694	211.156	103.477	-42.190	1.00	39.73	N
ATOM	14431	C1*	U A 692	210.497	107.197	-45.771	1.00	53.94	C	ATOM	14481	N1	A A 694	213.305	103.165	-41.424	1.00	39.73	N
ATOM	14432	N1	U A 692	211.277	107.873	-46.827	1.00	57.95	N	ATOM	14482	C2	A A 694	214.505	103.676	-41.144	1.00	39.73	C
ATOM	14433	C2	U A 692	212.650	108.031	-46.639	1.00	57.95	C	ATOM	14483	N3	A A 694	214.947	104.922	-41.290	1.00	39.73	N
ATOM	14434	O2	U A 692	213.241	107.644	-45.646	1.00	57.95	O	ATOM	14484	C4	A A 694	213.987	105.705	-41.803	1.00	39.73	C
ATOM	14435	N3	U A 692	213.306	108.665	-47.665	1.00	57.95	N	ATOM	14485	P	A A 695	217.249	108.694	-46.204	1.00	49.98	P
ATOM	14436	C4	U A 692	212.755	109.154	-48.835	1.00	57.95	C	ATOM	14486	O1P	A A 695	218.321	109.521	-46.826	1.00	42.61	O
ATOM	14437	O4	U A 692	213.480	109.743	-49.652	1.00	57.95	O	ATOM	14487	O2P	A A 695	215.887	108.728	-46.794	1.00	42.61	O
ATOM	14438	C5	U A 692	211.337	108.952	-48.957	1.00	57.95	C	ATOM	14488	O5*	A A 695	217.721	107.181	-46.039	1.00	49.98	O
ATOM	14439	C6	U A 692	210.665	108.338	-47.976	1.00	57.95	C	ATOM	14489	C5*	A A 695	217.036	106.099	-46.659	1.00	49.98	C
ATOM	14440	P	G A 693	207.331	110.182	-43.765	1.00	57.81	P	ATOM	14490	C4*	A A 695	217.118	104.876	-45.788	1.00	49.98	C
ATOM	14441	O1P	G A 693	205.924	110.335	-43.334	1.00	42.34	O	ATOM	14491	O4*	A A 695	216.066	104.945	-44.804	1.00	49.98	O
ATOM	14442	O2P	G A 693	207.880	111.112	-44.777	1.00	42.34	O	ATOM	14492	C3*	A A 695	216.858	103.590	-46.551	1.00	49.98	C
ATOM	14443	O5*	G A 693	208.254	110.280	-42.471	1.00	57.81	O	ATOM	14493	O3*	A A 695	218.080	103.082	-47.071	1.00	49.98	O
ATOM	14444	C5*	G A 693	208.492	111.545	-41.840	1.00	57.81	C	ATOM	14494	C2*	A A 695	216.227	102.678	-45.511	1.00	49.98	C
ATOM	14445	C4*	G A 693	209.845	111.565	-41.176	1.00	57.81	C	ATOM	14495	O2*	A A 695	217.159	101.998	-44.703	1.00	49.98	O
ATOM	14446	O4*	G A 693	209.843	110.714	-40.004	1.00	57.81	O	ATOM	14496	C1*	A A 695	215.437	103.680	-44.676	1.00	49.98	C
ATOM	14447	C3*	G A 693	210.980	111.031	-42.022	1.00	57.81	C	ATOM	14497	N9	A A 695	214.073	103.819	-45.176	1.00	42.61	N



ATOM	14498	C8	A A 695	213.537	104.920	-45.796	1.00	42.61	C	ATOM	14548	C6	U A 697	212.965	97.779	-50.986	1.00	37.99	C
ATOM	14499	N7	A A 695	212.293	104.768	-46.166	1.00	42.61	N	ATOM	14549	P	G A 698	214.268	92.946	-53.544	1.00	48.91	P
ATOM	14500	C5	A A 695	211.982	103.480	-45.758	1.00	42.61	C	ATOM	14550	O1P	G A 698	214.017	91.530	-53.910	1.00	35.67	O
ATOM	14501	C6	A A 695	210.817	102.731	-45.860	1.00	42.61	C	ATOM	14551	O2P	G A 698	215.610	93.547	-53.772	1.00	35.67	O
ATOM	14502	N6	A A 695	209.701	103.199	-46.412	1.00	42.61	N	ATOM	14552	O5*	G A 698	213.194	93.851	-54.305	1.00	48.91	O
ATOM	14503	N1	A A 695	210.829	101.473	-45.365	1.00	42.61	N	ATOM	14553	C5*	G A 698	211.811	93.471	-54.355	1.00	48.91	C
ATOM	14504	C2	A A 695	211.955	101.021	-44.794	1.00	42.61	C	ATOM	14554	C4*	G A 698	210.995	94.553	-55.015	1.00	48.91	C
ATOM	14505	N3	A A 695	213.119	101.639	-44.631	1.00	42.61	N	ATOM	14555	O4*	G A 698	211.150	95.805	-54.295	1.00	48.91	O
ATOM	14506	C4	A A 695	213.068	102.882	-45.143	1.00	42.61	C	ATOM	14556	C3*	G A 698	211.418	94.891	-56.428	1.00	48.91	C
ATOM	14507	P	A A 696	218.175	102.663	-48.619	1.00	42.73	P	ATOM	14557	O3*	G A 698	210.895	93.964	-57.365	1.00	48.91	O
ATOM	14508	O1P	A A 696	219.627	102.702	-48.939	1.00	38.08	O	ATOM	14558	C2*	G A 698	210.917	96.322	-56.602	1.00	48.91	C
ATOM	14509	O2P	A A 696	217.225	103.504	-49.416	1.00	38.08	O	ATOM	14559	O2*	G A 698	209.540	96.431	-56.913	1.00	48.91	O
ATOM	14510	O5*	A A 696	217.643	101.159	-48.615	1.00	42.73	O	ATOM	14560	C1*	G A 698	211.154	96.894	-55.208	1.00	48.91	C
ATOM	14511	C5*	A A 696	218.221	100.187	-47.733	1.00	42.73	C	ATOM	14561	N9	G A 698	212.442	97.576	-55.106	1.00	35.67	N
ATOM	14512	C4*	A A 696	217.221	99.116	-47.396	1.00	42.73	C	ATOM	14562	C8	G A 698	213.555	97.143	-54.423	1.00	35.67	C
ATOM	14513	O4*	A A 696	216.103	99.719	-46.703	1.00	42.73	O	ATOM	14563	N7	G A 698	214.550	97.985	-54.482	1.00	35.67	N
ATOM	14514	C3*	A A 696	217.396	97.299	-49.015	1.00	42.73	O	ATOM	14564	C5	G A 698	214.069	99.031	-55.256	1.00	35.67	C
ATOM	14515	O3*	A A 696	215.277	97.895	-47.962	1.00	42.73	C	ATOM	14565	C6	G A 698	214.692	100.233	-55.647	1.00	35.67	C
ATOM	14516	C2*	A A 696	215.479	96.766	-47.130	1.00	42.73	C	ATOM	14566	O6	G A 698	215.828	100.626	-55.388	1.00	35.67	O
ATOM	14517	O2*	A A 696	214.892	99.088	-47.092	1.00	42.73	C	ATOM	14567	N1	G A 698	213.851	101.021	-56.416	1.00	35.67	N
ATOM	14518	C1*	A A 696	214.091	100.084	-47.809	1.00	38.08	N	ATOM	14568	C2	G A 698	212.573	100.695	-56.763	1.00	35.67	C
ATOM	14519	N9	A A 696	213.608	101.976	-48.934	1.00	38.08	N	ATOM	14569	N2	G A 698	211.915	101.612	-57.484	1.00	35.67	N
ATOM	14520	C8	A A 696	212.462	101.225	-48.740	1.00	38.08	C	ATOM	14570	N3	G A 698	211.980	99.563	-56.419	1.00	35.67	N
ATOM	14521	N7	A A 696	210.732	102.528	-49.770	1.00	38.08	C	ATOM	14571	C4	G A 698	212.778	98.789	-55.662	1.00	35.67	C
ATOM	14522	C5	A A 696	210.226	100.502	-48.771	1.00	38.08	N	ATOM	14572	P	C A 699	211.855	93.385	-58.519	1.00	38.77	P
ATOM	14523	C6	A A 696	210.642	99.418	-48.101	1.00	38.08	C	ATOM	14573	O1P	C A 699	211.152	92.183	-59.074	1.00	38.46	O
ATOM	14524	N6	A A 696	211.136	101.443	-49.107	1.00	38.08	C	ATOM	14574	O2P	C A 699	213.219	93.233	-57.935	1.00	38.46	O
ATOM	14525	N1	A A 696	210.732	102.528	-49.770	1.00	38.08	N	ATOM	14575	O5*	C A 699	211.890	94.566	-59.591	1.00	38.77	O
ATOM	14526	C2	A A 696	210.642	99.418	-48.101	1.00	38.08	C	ATOM	14576	C5*	C A 699	210.685	94.980	-60.221	1.00	38.77	C
ATOM	14527	N3	A A 696	211.868	99.100	-47.698	1.00	38.08	N	ATOM	14577	C4*	C A 699	210.829	96.352	-60.817	1.00	38.77	C
ATOM	14528	C4	A A 696	212.743	100.055	-48.053	1.00	38.08	C	ATOM	14578	O4*	C A 699	211.065	97.337	-59.786	1.00	38.77	O
ATOM	14529	P	U A 697	217.377	96.893	-50.573	1.00	54.77	P	ATOM	14579	C3*	C A 699	211.977	96.579	-61.764	1.00	38.77	C
ATOM	14530	O1P	U A 697	218.526	95.970	-50.762	1.00	37.99	O	ATOM	14580	O3*	C A 699	211.774	95.993	-63.030	1.00	38.77	O
ATOM	14531	O2P	U A 697	217.287	98.134	-51.399	1.00	37.99	O	ATOM	14581	C2*	C A 699	212.085	98.097	-61.776	1.00	38.77	C
ATOM	14532	O5*	U A 697	216.015	96.075	-50.754	1.00	54.77	O	ATOM	14582	O2*	C A 699	211.124	98.758	-62.585	1.00	38.77	O
ATOM	14533	C5*	U A 697	215.765	94.884	-49.995	1.00	54.77	C	ATOM	14583	C1*	C A 699	211.834	98.412	-60.309	1.00	38.77	C
ATOM	14534	C4*	U A 697	214.297	94.519	-50.036	1.00	54.77	C	ATOM	14584	N1	C A 699	213.118	98.463	-59.590	1.00	38.46	N
ATOM	14535	O4*	U A 697	213.504	95.579	-49.442	1.00	54.77	O	ATOM	14585	C2	C A 699	213.938	99.606	-59.719	1.00	38.46	C
ATOM	14536	C3*	U A 697	213.652	94.321	-51.396	1.00	54.77	C	ATOM	14586	O2	C A 699	213.523	100.580	-60.368	1.00	38.46	O
ATOM	14537	O3*	U A 697	213.917	93.049	-51.971	1.00	54.77	O	ATOM	14587	N3	C A 699	215.157	99.613	-59.130	1.00	38.46	N
ATOM	14538	C2*	U A 697	212.169	94.503	-51.080	1.00	54.77	C	ATOM	14588	C4	C A 699	215.563	98.551	-58.426	1.00	38.46	C
ATOM	14539	O2*	U A 697	211.556	93.365	-50.504	1.00	54.77	O	ATOM	14589	N4	C A 699	216.783	98.573	-57.900	1.00	38.46	N
ATOM	14540	C1*	U A 697	212.212	95.603	-50.031	1.00	54.77	C	ATOM	14590	C5	C A 699	214.733	97.406	-58.240	1.00	38.46	C
ATOM	14541	N1	U A 697	211.954	96.924	-50.629	1.00	37.99	N	ATOM	14591	C6	C A 699	213.532	97.404	-58.832	1.00	38.46	C
ATOM	14542	C2	U A 697	210.632	97.276	-50.832	1.00	37.99	C	ATOM	14592	P	G A 700	212.996	95.210	-63.727	1.00	51.39	P
ATOM	14543	O2	U A 697	209.704	96.545	-50.544	1.00	37.99	O	ATOM	14593	O1P	G A 700	212.365	94.457	-64.845	1.00	37.47	O
ATOM	14544	N3	U A 697	210.433	98.510	-51.395	1.00	37.99	N	ATOM	14594	O2P	G A 700	213.791	94.468	-62.709	1.00	37.47	O
ATOM	14545	C4	U A 697	211.396	99.404	-51.784	1.00	37.99	C	ATOM	14595	O5*	G A 700	213.890	96.408	-64.265	1.00	51.39	O
ATOM	14546	O4	U A 697	211.059	100.450	-52.346	1.00	37.99	O	ATOM	14596	C5*	G A 700	213.292	97.450	-65.029	1.00	51.39	C
ATOM	14547	C5	U A 697	212.738	98.973	-51.543	1.00	37.99	C	ATOM	14597	C4*	G A 700	214.291	98.530	-65.296	1.00	51.39	C



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ATOM	14598	O4*	G A 700	214.491	99.329	-64.107	1.00	51.39	O	ATOM	14648	C8	A A 702	218.212	90.894	-70.608	1.00	73.91	C
ATOM	14599	C3*	G A 700	215.687	98.049	-65.628	1.00	51.39	C	ATOM	14649	N7	A A 702	218.156	89.651	-70.195	1.00	73.91	N
ATOM	14600	O3*	G A 700	215.841	97.593	-66.942	1.00	51.39	O	ATOM	14650	C5	A A 702	216.951	89.190	-70.696	1.00	73.91	C
ATOM	14601	C2*	G A 700	216.533	99.267	-65.314	1.00	51.39	C	ATOM	14651	C6	A A 702	216.299	87.950	-70.599	1.00	73.91	C
ATOM	14602	O2*	G A 700	216.461	100.233	-66.346	1.00	51.39	O	ATOM	14652	N6	A A 702	216.784	86.909	-69.924	1.00	73.91	N
ATOM	14603	C1*	G A 700	215.839	99.776	-64.054	1.00	51.39	C	ATOM	14653	N1	A A 702	215.112	87.813	-71.228	1.00	73.91	N
ATOM	14604	N8	G A 700	216.486	99.201	-62.877	1.00	37.47	N	ATOM	14654	C2	A A 702	214.623	88.859	-71.908	1.00	73.91	C
ATOM	14605	C8	G A 700	216.126	98.068	-62.179	1.00	37.47	C	ATOM	14655	N3	A A 702	215.139	90.076	-72.067	1.00	73.91	N
ATOM	14606	N7	G A 700	216.938	97.799	-61.189	1.00	37.47	N	ATOM	14656	C4	A A 702	216.315	90.177	-71.424	1.00	73.91	C
ATOM	14607	C5	G A 700	217.883	98.824	-61.230	1.00	37.47	C	ATOM	14657	P	G A 703	215.370	96.831	-72.473	1.00	57.23	P
ATOM	14608	C6	G A 700	219.017	99.082	-60.398	1.00	37.47	C	ATOM	14658	O1P	G A 703	213.913	96.693	-72.219	1.00	63.54	O
ATOM	14609	O6	G A 700	219.416	98.442	-59.418	1.00	37.47	O	ATOM	14659	O2P	G A 703	215.838	97.560	-73.677	1.00	63.54	O
ATOM	14610	N1	G A 700	219.705	100.222	-60.804	1.00	37.47	N	ATOM	14660	O5*	G A 703	216.101	97.494	-71.216	1.00	57.23	O
ATOM	14611	C2	G A 700	219.354	101.020	-61.863	1.00	37.47	C	ATOM	14661	C5*	G A 703	215.358	98.131	-70.152	1.00	57.23	C
ATOM	14612	N2	G A 700	220.140	102.088	-62.103	1.00	37.47	N	ATOM	14662	C4*	G A 703	215.656	99.619	-70.097	1.00	57.23	C
ATOM	14613	N3	G A 700	218.304	100.797	-62.636	1.00	37.47	N	ATOM	14663	O4*	G A 703	217.093	99.826	-70.079	1.00	57.23	O
ATOM	14614	C4	G A 700	217.618	99.693	-62.264	1.00	37.47	C	ATOM	14664	C3*	G A 703	215.113	100.481	-71.233	1.00	57.23	C
ATOM	14615	P	C A 701	216.822	96.364	-67.216	1.00	57.10	P	ATOM	14665	O3*	G A 703	214.749	101.758	-70.714	1.00	57.23	O
ATOM	14616	O1P	C A 701	216.223	95.643	-68.363	1.00	58.59	O	ATOM	14666	C2*	G A 703	216.321	100.688	-72.133	1.00	57.23	C
ATOM	14617	O2P	C A 701	217.076	95.631	-65.942	1.00	58.59	O	ATOM	14667	O2*	G A 703	216.236	101.932	-72.792	1.00	57.23	O
ATOM	14618	O5*	C A 701	218.169	97.096	-67.659	1.00	57.10	O	ATOM	14668	C1*	G A 703	217.475	100.691	-71.128	1.00	57.23	C
ATOM	14619	C5*	C A 701	218.376	97.500	-69.030	1.00	57.10	C	ATOM	14669	N9	G A 703	218.724	100.182	-71.688	1.00	63.54	N
ATOM	14620	C4*	C A 701	219.853	97.556	-69.359	1.00	57.10	C	ATOM	14670	C8	G A 703	218.895	98.997	-72.364	1.00	63.54	C
ATOM	14621	O4*	C A 701	220.401	98.856	-69.073	1.00	57.10	O	ATOM	14671	N7	G A 703	220.127	98.795	-72.742	1.00	63.54	N
ATOM	14622	C3*	C A 701	220.762	96.606	-68.594	1.00	57.10	C	ATOM	14672	C5	G A 703	220.815	99.915	-72.294	1.00	63.54	C
ATOM	14623	O3*	C A 701	220.696	95.231	-69.054	1.00	57.10	O	ATOM	14673	C6	G A 703	222.193	100.261	-72.416	1.00	63.54	C
ATOM	14624	C2*	C A 701	222.130	97.304	-68.556	1.00	57.10	C	ATOM	14674	O6	G A 703	223.108	99.626	-72.966	1.00	63.54	O
ATOM	14625	O2*	C A 701	223.126	96.722	-69.369	1.00	57.10	O	ATOM	14675	N1	G A 703	222.466	101.486	-71.814	1.00	63.54	N
ATOM	14626	C1*	C A 701	221.799	98.724	-69.038	1.00	57.10	C	ATOM	14676	C2	G A 703	221.543	102.280	-71.182	1.00	63.54	C
ATOM	14627	N1	C A 701	222.390	99.844	-68.824	1.00	58.59	N	ATOM	14677	N2	G A 703	222.015	103.432	-70.664	1.00	63.54	N
ATOM	14628	C2	C A 701	223.515	100.488	-68.824	1.00	58.59	C	ATOM	14678	N3	G A 703	220.255	101.972	-71.067	1.00	63.54	N
ATOM	14629	O2	C A 701	223.967	100.103	-69.913	1.00	58.59	O	ATOM	14679	C4	G A 703	219.964	100.783	-71.640	1.00	63.54	C
ATOM	14630	N3	C A 701	224.082	101.512	-68.152	1.00	58.59	N	ATOM	14680	P	A A 704	213.368	102.449	-71.161	1.00	58.54	P
ATOM	14631	C4	C A 701	223.575	101.905	-66.988	1.00	58.59	C	ATOM	14681	O1P	A A 704	212.706	101.561	-72.139	1.00	51.76	O
ATOM	14632	N4	C A 701	224.182	102.916	-66.361	1.00	58.59	N	ATOM	14682	O2P	A A 704	212.615	103.869	-71.514	1.00	51.76	O
ATOM	14633	C5	C A 701	222.426	101.276	-66.414	1.00	58.59	C	ATOM	14683	O5*	A A 704	212.505	102.418	-69.830	1.00	58.54	O
ATOM	14634	C6	C A 701	221.871	100.258	-67.090	1.00	58.59	C	ATOM	14684	C5*	A A 704	212.037	101.177	-69.299	1.00	58.54	C
ATOM	14635	P	A A 702	221.217	94.798	-70.529	1.00	60.65	P	ATOM	14685	C4*	A A 704	212.090	101.206	-67.797	1.00	58.54	C
ATOM	14636	O1P	A A 702	222.124	93.638	-70.329	1.00	73.91	O	ATOM	14686	O4*	A A 704	213.474	101.150	-67.358	1.00	58.54	O
ATOM	14637	O2P	A A 702	221.679	95.974	-71.319	1.00	73.91	O	ATOM	14687	C3*	A A 704	211.540	102.463	-67.140	1.00	58.54	C
ATOM	14638	O5*	A A 702	219.911	94.228	-71.236	1.00	60.65	O	ATOM	14688	O3*	A A 704	210.124	102.476	-67.045	1.00	58.54	O
ATOM	14639	C5*	A A 702	219.525	94.687	-72.538	1.00	60.65	C	ATOM	14689	C2*	A A 704	212.244	102.447	-65.787	1.00	58.54	C
ATOM	14640	C4*	A A 702	218.071	94.370	-72.797	1.00	60.65	C	ATOM	14690	O2*	A A 704	211.660	101.587	-64.819	1.00	58.54	O
ATOM	14641	O4*	A A 702	217.885	92.930	-72.808	1.00	60.65	O	ATOM	14691	C1*	A A 704	213.626	101.914	-66.173	1.00	58.54	C
ATOM	14642	C3*	A A 702	217.053	94.932	-71.812	1.00	60.65	C	ATOM	14692	N9	A A 704	214.534	103.029	-66.444	1.00	51.76	N
ATOM	14643	O3*	A A 702	215.902	95.317	-72.542	1.00	60.65	O	ATOM	14693	C8	A A 704	215.128	103.410	-67.618	1.00	51.76	C
ATOM	14644	C2*	A A 702	216.697	93.725	-70.947	1.00	60.65	C	ATOM	14694	N7	A A 704	215.858	104.493	-67.513	1.00	51.76	N
ATOM	14645	O2*	A A 702	215.370	93.781	-70.475	1.00	60.65	O	ATOM	14695	C5	A A 704	215.742	104.843	-66.176	1.00	51.76	C
ATOM	14646	C1*	A A 702	216.830	92.581	-71.945	1.00	60.65	C	ATOM	14696	C6	A A 704	216.275	105.901	-65.422	1.00	51.76	C
ATOM	14647	N9	A A 702	217.125	91.281	-71.347	1.00	73.91	N	ATOM	14697	N6	A A 704	217.062	106.849	-65.918	1.00	51.76	N



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ATOM	14698	N1	A A 704	215.962	105.953	-64.115	1.00	51.76	N	ATOM	14748	C5*	C A 707	208.044	114.899	-69.568	1.00	48.31	C
ATOM	14699	C2	A A 704	215.168	105.007	-63.607	1.00	51.76	C	ATOM	14749	C4*	C A 707	208.428	114.891	-71.028	1.00	48.31	C
ATOM	14700	N3	A A 704	214.607	103.971	-64.209	1.00	51.76	N	ATOM	14750	O4*	C A 707	209.558	114.009	-71.264	1.00	48.31	O
ATOM	14701	C4	A A 704	214.938	103.946	-65.508	1.00	51.76	C	ATOM	14751	C3*	C A 707	207.369	114.366	-71.975	1.00	48.31	C
ATOM	14702	P	U A 705	209.310	103.796	-67.490	1.00	50.04	P	ATOM	14752	O3*	C A 707	206.373	115.310	-72.261	1.00	48.31	O
ATOM	14703	O1P	U A 705	207.884	103.525	-67.145	1.00	59.89	O	ATOM	14753	C2*	C A 707	208.174	113.986	-73.206	1.00	48.31	C
ATOM	14704	O2P	U A 705	209.666	104.175	-68.877	1.00	59.89	O	ATOM	14754	C1*	C A 707	208.435	115.090	-74.048	1.00	48.31	O
ATOM	14705	O5*	U A 705	209.859	104.939	-66.523	1.00	50.04	O	ATOM	14755	O2*	C A 707	209.466	113.466	-72.574	1.00	48.31	C
ATOM	14706	C5*	U A 705	209.595	104.872	-65.112	1.00	50.04	C	ATOM	14756	N1	C A 707	209.456	111.995	-72.492	1.00	51.01	N
ATOM	14707	C4*	U A 705	210.286	105.989	-64.371	1.00	50.04	C	ATOM	14757	C2	C A 707	209.569	111.261	-73.679	1.00	51.01	C
ATOM	14708	O4*	U A 705	211.719	105.835	-64.483	1.00	50.04	O	ATOM	14758	O2	C A 707	209.751	111.868	-74.746	1.00	51.01	O
ATOM	14709	C3*	U A 705	210.018	107.421	-64.809	1.00	50.04	C	ATOM	14759	N3	C A 707	209.491	109.911	-73.634	1.00	51.01	N
ATOM	14710	O3*	U A 705	208.813	107.935	-64.246	1.00	50.04	O	ATOM	14760	C4	C A 707	209.348	109.290	-72.464	1.00	51.01	C
ATOM	14711	C2*	U A 705	211.224	108.145	-64.229	1.00	50.04	C	ATOM	14761	N4	C A 707	209.287	107.963	-72.467	1.00	51.01	N
ATOM	14712	O2*	U A 705	211.080	108.408	-62.844	1.00	50.04	O	ATOM	14762	C5	C A 707	209.265	110.008	-71.236	1.00	51.01	C
ATOM	14713	C1*	U A 705	212.333	107.108	-64.417	1.00	50.04	C	ATOM	14763	C6	C A 707	209.320	111.349	-71.294	1.00	51.01	C
ATOM	14714	N1	U A 705	213.085	107.353	-65.659	1.00	59.89	N	ATOM	14764	P	C A 708	204.947	114.799	-72.760	1.00	60.40	P
ATOM	14715	C2	U A 705	213.947	108.428	-65.667	1.00	59.89	C	ATOM	14765	O1P	C A 708	204.040	115.963	-72.619	1.00	47.28	O
ATOM	14716	O2	U A 705	214.160	109.102	-64.685	1.00	59.89	O	ATOM	14766	O2P	C A 708	204.631	113.522	-72.076	1.00	47.28	O
ATOM	14717	N3	U A 705	214.557	108.681	-66.867	1.00	59.89	N	ATOM	14767	O5*	C A 708	205.183	114.466	-74.298	1.00	60.40	O
ATOM	14718	C4	U A 705	214.419	107.970	-68.032	1.00	59.89	C	ATOM	14768	C5*	C A 708	205.561	115.501	-75.229	1.00	60.40	C
ATOM	14719	O4	U A 705	214.972	108.380	-69.056	1.00	59.89	O	ATOM	14769	C4*	C A 708	205.744	114.924	-76.612	1.00	60.40	C
ATOM	14720	C5	U A 705	213.549	106.837	-67.938	1.00	59.89	C	ATOM	14770	O4*	C A 708	206.869	114.011	-76.601	1.00	60.40	O
ATOM	14721	C6	U A 705	212.925	106.573	-66.784	1.00	59.89	C	ATOM	14771	C3*	C A 708	204.598	114.075	-77.138	1.00	60.40	C
ATOM	14722	P	A A 706	207.721	108.658	-65.187	1.00	44.55	P	ATOM	14772	O3*	C A 708	203.549	114.825	-77.708	1.00	60.40	O
ATOM	14723	O1P	A A 706	206.632	109.108	-64.287	1.00	63.74	O	ATOM	14773	C2*	C A 708	205.277	113.189	-78.163	1.00	60.40	C
ATOM	14724	O2P	A A 706	207.401	107.778	-66.343	1.00	63.74	O	ATOM	14774	O2*	C A 708	205.487	113.866	-79.381	1.00	60.40	O
ATOM	14725	O5*	A A 706	208.450	109.963	-65.725	1.00	44.55	O	ATOM	14775	C1*	C A 708	206.622	112.938	-77.494	1.00	60.40	C
ATOM	14726	C5*	A A 706	208.599	111.104	-64.883	1.00	44.55	C	ATOM	14776	N1	C A 708	206.622	111.677	-76.737	1.00	47.28	N
ATOM	14727	C4*	A A 706	209.524	112.107	-65.519	1.00	44.55	C	ATOM	14777	C2	C A 708	206.745	110.475	-77.445	1.00	47.28	C
ATOM	14728	O4*	A A 706	210.820	111.495	-65.728	1.00	44.55	O	ATOM	14778	O2	C A 708	206.836	110.515	-78.688	1.00	47.28	O
ATOM	14729	C3*	A A 706	209.139	112.592	-66.901	1.00	44.55	C	ATOM	14779	N3	C A 708	206.756	109.305	-76.764	1.00	47.28	N
ATOM	14730	O3*	A A 706	208.165	113.595	-66.860	1.00	44.55	O	ATOM	14780	C4	C A 708	206.635	109.307	-75.438	1.00	47.28	C
ATOM	14731	C2*	A A 706	210.467	113.064	-67.467	1.00	44.55	C	ATOM	14781	N4	C A 708	206.628	108.133	-74.811	1.00	47.28	N
ATOM	14732	O2*	A A 706	210.854	114.323	-66.960	1.00	44.55	O	ATOM	14782	C5	C A 708	206.507	110.516	-74.694	1.00	47.28	C
ATOM	14733	C1*	A A 706	211.411	111.997	-66.922	1.00	44.55	C	ATOM	14783	C6	C A 708	206.504	111.665	-75.376	1.00	47.28	C
ATOM	14734	N9	A A 706	211.548	110.889	-67.871	1.00	63.74	N	ATOM	14784	P	G A 709	202.046	114.287	-77.556	1.00	62.91	P
ATOM	14735	C8	A A 706	210.906	109.673	-67.862	1.00	63.74	C	ATOM	14785	O1P	G A 709	201.139	115.411	-77.925	1.00	52.81	O
ATOM	14736	N7	A A 706	211.184	108.921	-68.895	1.00	63.74	N	ATOM	14786	O2P	G A 709	201.927	113.656	-76.213	1.00	52.81	O
ATOM	14737	C5	A A 706	212.082	109.683	-69.623	1.00	63.74	C	ATOM	14787	O5*	G A 709	201.945	113.119	-78.633	1.00	62.91	O
ATOM	14738	C6	A A 706	212.739	109.449	-70.828	1.00	63.74	C	ATOM	14788	C5*	G A 709	202.166	113.396	-80.017	1.00	62.91	C
ATOM	14739	N6	A A 706	212.580	108.337	-71.544	1.00	63.74	N	ATOM	14789	C4*	G A 709	202.300	112.118	-80.806	1.00	62.91	C
ATOM	14740	N1	A A 706	213.574	110.406	-71.285	1.00	63.74	N	ATOM	14790	O4*	G A 709	203.465	111.366	-80.375	1.00	62.91	O
ATOM	14741	C2	A A 706	213.721	111.524	-70.564	1.00	63.74	C	ATOM	14791	C3*	G A 709	201.174	111.112	-80.699	1.00	62.91	C
ATOM	14742	N3	A A 706	213.152	111.863	-69.415	1.00	63.74	N	ATOM	14792	O3*	G A 709	200.059	111.458	-81.497	1.00	62.91	O
ATOM	14743	C4	A A 706	212.332	110.887	-68.995	1.00	63.74	C	ATOM	14793	C2*	G A 709	201.842	109.837	-81.193	1.00	62.91	C
ATOM	14744	P	C A 707	206.858	113.420	-67.750	1.00	48.31	P	ATOM	14794	O2*	G A 709	201.909	109.777	-82.599	1.00	62.91	O
ATOM	14745	O1P	C A 707	205.923	114.495	-67.365	1.00	51.01	O	ATOM	14795	C1*	G A 709	203.259	109.993	-80.648	1.00	62.91	C
ATOM	14746	O2P	C A 707	206.442	111.998	-67.657	1.00	51.01	O	ATOM	14796	N9	G A 709	203.427	109.209	-79.428	1.00	52.81	N
ATOM	14747	O5*	C A 707	207.373	113.677	-69.227	1.00	48.31	O	ATOM	14797	C8	G A 709	203.492	109.648	-78.127	1.00	52.81	C



Table 1: Sheet 150/521

ATOM	14798	N7	G A 709	203.583	108.670	-77.262	1.00	52.81	N	ATOM	14848	N1	G A 711	197.885	101.437	-74.606	1.00	49.50	N
ATOM	14799	C5	G A 709	203.591	107.522	-78.044	1.00	52.81	C	ATOM	14849	C2	G A 711	197.724	100.431	-75.522	1.00	49.50	C
ATOM	14800	C6	G A 709	203.663	106.147	-77.676	1.00	52.81	C	ATOM	14850	N2	G A 711	197.845	99.177	-75.065	1.00	49.50	N
ATOM	14801	O6	G A 709	203.720	105.649	-76.548	1.00	52.81	O	ATOM	14851	N3	G A 711	197.466	100.640	-76.796	1.00	49.50	N
ATOM	14802	N1	G A 709	203.658	105.320	-78.792	1.00	52.81	N	ATOM	14852	C4	G A 711	197.395	101.957	-77.090	1.00	49.50	C
ATOM	14803	C2	G A 709	203.589	105.751	-80.090	1.00	52.81	C	ATOM	14853	P	A A 712	192.212	101.383	-80.109	1.00	54.65	P
ATOM	14804	N2	G A 709	203.615	104.802	-81.034	1.00	52.81	N	ATOM	14854	O1P	A A 712	191.140	100.966	-81.060	1.00	50.48	O
ATOM	14805	N3	G A 709	203.506	107.018	-80.444	1.00	52.81	N	ATOM	14855	O2P	A A 712	192.137	102.731	-79.476	1.00	50.48	O
ATOM	14806	C4	G A 709	203.514	107.841	-79.380	1.00	52.81	C	ATOM	14856	O5*	A A 712	192.322	100.272	-78.973	1.00	54.65	O
ATOM	14807	P	G A 710	198.606	110.873	-81.119	1.00	81.60	P	ATOM	14857	C5*	A A 712	192.532	98.908	-79.334	1.00	54.65	C
ATOM	14808	O1P	G A 710	197.667	111.445	-82.138	1.00	58.05	O	ATOM	14858	C4*	A A 712	192.911	98.101	-78.129	1.00	54.65	C
ATOM	14809	O2P	G A 710	198.340	111.100	-79.667	1.00	58.05	O	ATOM	14859	O4*	A A 712	194.163	98.578	-77.590	1.00	54.65	O
ATOM	14810	O5*	G A 710	198.748	109.300	-81.356	1.00	81.60	O	ATOM	14860	C3*	A A 712	191.955	98.188	-76.963	1.00	54.65	C
ATOM	14811	C5*	G A 710	198.841	108.783	-82.691	1.00	81.60	C	ATOM	14861	O3*	A A 712	190.846	97.333	-77.129	1.00	54.65	O
ATOM	14812	C4*	G A 710	198.926	107.276	-82.691	1.00	81.60	C	ATOM	14862	C2*	A A 712	192.834	97.795	-75.788	1.00	54.65	C
ATOM	14813	O4*	G A 710	200.168	106.846	-82.084	1.00	81.60	O	ATOM	14863	O2*	A A 712	193.020	96.398	-75.705	1.00	54.65	O
ATOM	14814	C3*	G A 710	197.864	106.492	-81.941	1.00	81.60	C	ATOM	14864	C1*	A A 712	194.155	98.451	-76.176	1.00	54.65	C
ATOM	14815	O3*	G A 710	196.640	106.367	-82.649	1.00	81.60	O	ATOM	14865	N9	A A 712	194.292	99.787	-75.592	1.00	50.48	N
ATOM	14816	C2*	G A 710	198.544	105.144	-81.752	1.00	81.60	C	ATOM	14866	C8	A A 712	194.097	100.999	-76.211	1.00	50.48	C
ATOM	14817	O2*	G A 710	198.493	104.324	-82.899	1.00	81.60	O	ATOM	14867	N7	A A 712	194.312	102.028	-75.434	1.00	50.48	N
ATOM	14818	C1*	G A 710	199.991	105.562	-81.510	1.00	81.60	C	ATOM	14868	C5	A A 712	194.669	101.461	-74.223	1.00	50.48	C
ATOM	14819	N9	G A 710	200.250	105.629	-80.075	1.00	58.05	N	ATOM	14869	C6	A A 712	195.029	102.026	-73.006	1.00	50.48	C
ATOM	14820	C8	G A 710	200.402	106.746	-79.286	1.00	58.05	C	ATOM	14870	N6	A A 712	195.089	103.339	-72.805	1.00	50.48	N
ATOM	14821	N7	G A 710	200.578	106.458	-78.025	1.00	58.05	N	ATOM	14871	C1	A A 712	195.331	101.196	-71.988	1.00	50.48	C
ATOM	14822	C5	G A 710	200.550	105.071	-77.984	1.00	58.05	C	ATOM	14872	N2	A A 712	195.267	99.880	-72.203	1.00	50.48	N
ATOM	14823	C6	G A 710	200.689	104.182	-76.892	1.00	58.05	C	ATOM	14873	N3	A A 712	194.940	99.222	-73.314	1.00	50.48	N
ATOM	14824	O6	G A 710	200.873	104.451	-75.700	1.00	58.05	O	ATOM	14874	C4	A A 712	194.652	100.084	-74.300	1.00	50.48	C
ATOM	14825	N1	G A 710	200.597	102.855	-77.298	1.00	58.05	N	ATOM	14875	P	G A 713	189.408	97.822	-76.622	1.00	65.86	P
ATOM	14826	C2	G A 710	200.399	102.437	-78.590	1.00	58.05	C	ATOM	14876	O1P	G A 713	188.379	96.882	-77.151	1.00	43.69	O
ATOM	14827	N2	G A 710	200.341	101.113	-78.788	1.00	58.05	N	ATOM	14877	O2P	G A 713	189.293	97.289	-76.904	1.00	43.69	O
ATOM	14828	N3	G A 710	200.269	103.256	-79.614	1.00	58.05	N	ATOM	14878	O5*	G A 713	189.499	97.599	-75.052	1.00	65.86	O
ATOM	14829	C4	G A 710	200.356	104.548	-79.240	1.00	58.05	C	ATOM	14879	C5*	G A 713	189.746	96.295	-74.516	1.00	65.86	C
ATOM	14830	P	G A 711	195.258	106.243	-81.822	1.00	65.85	P	ATOM	14880	C4*	G A 713	190.088	96.395	-73.054	1.00	65.86	C
ATOM	14831	O1P	G A 711	194.141	106.354	-82.816	1.00	49.50	O	ATOM	14881	O4*	G A 713	191.309	97.164	-72.895	1.00	65.86	O
ATOM	14832	O2P	G A 711	195.321	107.201	-80.677	1.00	49.50	O	ATOM	14882	C3*	G A 713	189.091	97.120	-72.170	1.00	65.86	C
ATOM	14833	O5*	G A 711	195.289	104.756	-81.244	1.00	65.85	O	ATOM	14883	O3*	G A 713	188.001	96.286	-71.805	1.00	65.86	O
ATOM	14834	C5*	G A 711	195.369	103.650	-82.141	1.00	65.85	C	ATOM	14884	C2*	G A 713	189.955	97.516	-70.983	1.00	65.86	C
ATOM	14835	C4*	G A 711	195.719	102.388	-81.406	1.00	65.85	C	ATOM	14885	O2*	G A 713	190.184	96.411	-70.133	1.00	65.86	O
ATOM	14836	O4*	G A 711	196.953	102.573	-80.672	1.00	65.85	O	ATOM	14886	C1*	G A 713	191.275	97.868	-71.668	1.00	65.86	C
ATOM	14837	C3*	G A 711	194.756	101.905	-80.343	1.00	65.85	C	ATOM	14887	N9	G A 713	191.407	99.296	-71.945	1.00	43.69	N
ATOM	14838	O3*	G A 711	193.620	101.256	-80.877	1.00	65.85	O	ATOM	14888	C8	G A 713	191.007	99.960	-73.080	1.00	43.69	C
ATOM	14839	C2*	G A 711	195.633	100.978	-79.508	1.00	65.85	C	ATOM	14889	N7	G A 713	191.228	101.249	-73.028	1.00	43.69	N
ATOM	14840	O2*	G A 711	195.813	99.681	-80.038	1.00	65.85	O	ATOM	14890	C5	G A 713	191.810	101.453	-71.784	1.00	43.69	C
ATOM	14841	C1*	G A 711	196.968	101.709	-79.550	1.00	65.85	C	ATOM	14891	O6	G A 713	192.256	102.648	-71.165	1.00	43.69	O
ATOM	14842	N9	G A 711	197.169	102.486	-78.332	1.00	49.50	N	ATOM	14892	C6	G A 713	192.184	103.801	-71.591	1.00	43.69	C
ATOM	14843	C8	G A 711	197.176	103.852	-78.180	1.00	49.50	C	ATOM	14893	N1	G A 713	192.818	102.406	-69.919	1.00	43.69	N
ATOM	14844	N7	G A 711	197.397	104.227	-76.950	1.00	49.50	N	ATOM	14894	C2	G A 713	192.918	101.175	-69.325	1.00	43.69	C
ATOM	14845	C5	G A 711	197.538	103.036	-76.252	1.00	49.50	C	ATOM	14895	N2	G A 713	193.504	101.154	-68.114	1.00	43.69	N
ATOM	14846	C6	G A 711	197.801	102.800	-74.886	1.00	49.50	C	ATOM	14896	N3	G A 713	192.478	100.046	-69.875	1.00	43.69	N
ATOM	14847	O6	G A 711	197.951	103.627	-73.982	1.00	49.50	O	ATOM	14897	C4	G A 713	191.944	100.259	-71.103	1.00	43.69	C



ATOM	14898	P	G A 714	186.557	96.946	-71.516	1.00	56.39	P	ATOM	14948	C4*	A A 716	183.973	105.569	-60.502	1.00	39.25	C
ATOM	14899	OLP	G A 714	185.537	95.877	-71.655	1.00	39.22	O	ATOM	14949	O4*	A A 716	185.028	105.464	-61.487	1.00	39.25	O
ATOM	14900	O2P	G A 714	186.403	98.212	-72.286	1.00	39.22	O	ATOM	14950	C3*	A A 716	183.122	106.724	-60.998	1.00	39.25	C
ATOM	14901	O5*	G A 714	186.622	97.326	-69.972	1.00	56.39	O	ATOM	14951	O3*	A A 716	182.361	107.341	-59.971	1.00	39.25	O
ATOM	14902	C5*	G A 714	186.778	96.298	-68.980	1.00	56.39	C	ATOM	14952	C2*	A A 716	184.183	107.675	-61.524	1.00	39.25	C
ATOM	14903	C4*	G A 714	187.321	96.882	-67.705	1.00	56.39	C	ATOM	14953	O2*	A A 716	184.811	108.347	-60.450	1.00	39.25	O
ATOM	14904	O4*	G A 714	188.571	97.557	-67.981	1.00	56.39	C	ATOM	14954	C1*	A A 716	185.179	106.703	-62.155	1.00	39.25	C
ATOM	14905	C3*	G A 714	186.469	97.939	-67.030	1.00	56.39	O	ATOM	14955	N9	A A 716	184.921	106.502	-63.585	1.00	39.50	N
ATOM	14906	O3*	G A 714	185.487	97.327	-66.219	1.00	56.39	O	ATOM	14956	C8	A A 716	184.314	105.431	-64.197	1.00	39.50	C
ATOM	14907	C2*	G A 714	187.498	98.683	-66.199	1.00	56.39	C	ATOM	14957	N7	A A 716	184.203	105.558	-65.498	1.00	39.50	N
ATOM	14908	O2*	G A 714	187.833	97.948	-65.043	1.00	56.39	O	ATOM	14958	C5	A A 716	184.781	106.791	-65.764	1.00	39.50	C
ATOM	14909	C1*	G A 714	188.706	98.677	-67.133	1.00	56.39	C	ATOM	14959	C6	A A 716	184.971	107.509	-66.957	1.00	39.50	C
ATOM	14910	N9	G A 714	188.752	99.873	-67.966	1.00	39.22	N	ATOM	14960	N6	A A 716	184.584	107.066	-68.150	1.00	39.50	N
ATOM	14911	C8	G A 714	188.090	100.081	-69.154	1.00	39.22	C	ATOM	14961	N1	A A 716	185.580	108.716	-66.878	1.00	39.50	N
ATOM	14912	N7	G A 714	188.290	101.275	-69.647	1.00	39.22	N	ATOM	14962	C2	A A 716	185.973	109.159	-65.678	1.00	39.50	C
ATOM	14913	C5	G A 714	189.133	101.892	-68.733	1.00	39.22	C	ATOM	14963	N3	A A 716	185.853	108.575	-64.488	1.00	39.50	N
ATOM	14914	C6	G A 714	189.663	103.183	-68.728	1.00	39.22	C	ATOM	14964	C4	A A 716	185.237	107.381	-64.598	1.00	39.50	C
ATOM	14915	O6	G A 714	189.471	104.084	-69.542	1.00	39.22	O	ATOM	14965	P	C A 717	180.966	108.065	-60.340	1.00	47.15	P
ATOM	14916	N1	G A 714	190.487	103.403	-67.630	1.00	39.22	N	ATOM	14966	OLP	C A 717	180.355	108.444	-59.031	1.00	45.32	O
ATOM	14917	C2	G A 714	190.749	102.493	-66.651	1.00	39.22	C	ATOM	14967	O2P	C A 717	180.196	107.215	-61.292	1.00	45.32	O
ATOM	14918	N2	G A 714	191.562	102.903	-65.673	1.00	39.22	N	ATOM	14968	O5*	C A 717	181.381	109.390	-61.128	1.00	47.15	O
ATOM	14919	N3	G A 714	190.249	101.273	-66.631	1.00	39.22	N	ATOM	14969	C5*	C A 717	182.198	110.373	-60.491	1.00	47.15	C
ATOM	14920	C4	G A 714	189.449	101.040	-67.700	1.00	39.22	C	ATOM	14970	C4*	C A 717	182.833	111.291	-61.508	1.00	47.15	C
ATOM	14921	P	A A 715	184.081	98.061	-65.971	1.00	51.72	P	ATOM	14971	O4*	C A 717	183.297	110.514	-62.635	1.00	47.15	O
ATOM	14922	OLP	A A 715	183.258	97.014	-65.325	1.00	42.39	O	ATOM	14972	C3*	C A 717	181.996	112.431	-62.075	1.00	47.15	C
ATOM	14923	O2P	A A 715	183.604	98.711	-67.210	1.00	42.39	O	ATOM	14973	O3*	C A 717	182.797	113.590	-62.179	1.00	47.15	O
ATOM	14924	O5*	A A 715	184.411	99.224	-64.926	1.00	51.72	O	ATOM	14974	C2*	C A 717	181.670	111.982	-63.489	1.00	47.15	C
ATOM	14925	C5*	A A 715	184.805	98.921	-63.566	1.00	51.72	C	ATOM	14975	O2*	C A 717	181.625	113.088	-64.369	1.00	47.15	O
ATOM	14926	C4*	A A 715	185.430	100.133	-62.906	1.00	51.72	C	ATOM	14976	C1*	C A 717	182.877	111.120	-63.835	1.00	47.15	C
ATOM	14927	O4*	A A 715	186.591	100.555	-63.662	1.00	51.72	O	ATOM	14977	N1	C A 717	182.533	110.071	-64.807	1.00	45.32	N
ATOM	14928	C3*	A A 715	184.572	101.383	-62.836	1.00	51.72	C	ATOM	14978	C2	C A 717	182.784	110.309	-66.160	1.00	45.32	C
ATOM	14929	O3*	A A 715	183.730	101.382	-61.711	1.00	51.72	O	ATOM	14979	O2	C A 717	183.353	111.361	-66.488	1.00	45.32	O
ATOM	14930	C2*	A A 715	185.595	102.497	-62.719	1.00	51.72	C	ATOM	14980	N3	C A 717	182.413	109.385	-67.073	1.00	45.32	N
ATOM	14931	O2*	A A 715	186.047	102.654	-61.392	1.00	51.72	O	ATOM	14981	C4	C A 717	181.842	108.248	-66.674	1.00	45.32	C
ATOM	14932	C1*	A A 715	186.720	101.967	-63.601	1.00	51.72	C	ATOM	14982	N4	C A 717	181.495	107.366	-67.606	1.00	45.32	N
ATOM	14933	N9	A A 715	186.590	102.490	-64.955	1.00	42.39	N	ATOM	14983	C5	C A 717	181.604	107.965	-65.300	1.00	45.32	C
ATOM	14934	C8	A A 715	185.908	101.926	-66.003	1.00	42.39	C	ATOM	14984	C6	C A 717	181.959	108.895	-64.407	1.00	45.32	C
ATOM	14935	N7	A A 715	185.948	102.636	-67.102	1.00	42.39	N	ATOM	14985	P	G A 718	182.522	114.843	-61.215	1.00	50.34	P
ATOM	14936	C5	A A 715	186.712	103.739	-66.757	1.00	42.39	C	ATOM	14986	OLP	G A 718	181.754	114.431	-60.017	1.00	53.69	O
ATOM	14937	C6	A A 715	187.116	104.862	-67.485	1.00	42.39	C	ATOM	14987	O2P	G A 718	182.011	115.958	-62.052	1.00	53.69	O
ATOM	14938	N6	A A 715	186.804	105.053	-68.769	1.00	42.39	N	ATOM	14988	O5*	G A 718	183.987	115.162	-60.696	1.00	50.34	O
ATOM	14939	N1	A A 715	187.861	105.793	-66.846	1.00	42.39	N	ATOM	14989	C5*	G A 718	184.313	116.456	-60.242	1.00	50.34	C
ATOM	14940	C2	A A 715	188.173	105.587	-65.560	1.00	42.39	C	ATOM	14990	C4*	G A 718	185.760	116.775	-60.523	1.00	50.34	C
ATOM	14941	N3	A A 715	187.853	104.563	-64.766	1.00	42.39	N	ATOM	14991	O4*	G A 718	186.223	116.189	-61.763	1.00	50.34	O
ATOM	14942	C4	A A 715	187.113	103.664	-65.436	1.00	42.39	C	ATOM	14992	C3*	G A 718	185.936	118.265	-60.693	1.00	50.34	C
ATOM	14943	P	A A 716	182.377	102.236	-61.747	1.00	39.25	P	ATOM	14993	O3*	G A 718	186.053	118.834	-59.402	1.00	50.34	O
ATOM	14944	OLP	A A 716	181.664	101.817	-60.508	1.00	39.50	O	ATOM	14994	C2*	G A 718	187.168	118.374	-61.583	1.00	50.34	C
ATOM	14945	O2P	A A 716	181.715	102.091	-63.081	1.00	39.50	O	ATOM	14995	O2*	G A 718	188.365	118.308	-60.832	1.00	50.34	O
ATOM	14946	O5*	A A 716	182.854	103.748	-61.606	1.00	39.25	O	ATOM	14996	C1*	G A 718	187.027	117.125	-62.465	1.00	50.34	C
ATOM	14947	C5*	A A 716	183.313	104.231	-60.349	1.00	39.25	C	ATOM	14997	N9	G A 718	186.408	117.340	-63.774	1.00	53.69	N



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ATOM	14998	C8	G A 718	185.357	116.622	-64.303	1.00	53.69	C	ATOM	15048	P	G A 721	177.689	126.313	-58.939	1.00	54.87	P
ATOM	14999	N7	G A 718	185.005	117.021	-65.496	1.00	53.69	N	ATOM	15049	O1P	G A 721	176.447	125.546	-59.264	1.00	55.21	O
ATOM	15000	C5	G A 718	185.871	118.067	-65.778	1.00	53.69	C	ATOM	15050	O2P	G A 721	177.592	127.689	-58.382	1.00	55.21	O
ATOM	15001	C6	G A 718	185.959	118.884	-66.922	1.00	53.69	C	ATOM	15051	O5*	G A 721	178.542	125.449	-57.914	1.00	54.87	O
ATOM	15002	O6	G A 718	185.266	118.847	-67.943	1.00	53.69	O	ATOM	15052	C5*	G A 721	178.167	125.402	-56.538	1.00	54.87	C
ATOM	15003	N1	G A 718	186.978	119.823	-66.804	1.00	53.69	N	ATOM	15053	C4*	G A 721	178.665	124.138	-55.904	1.00	54.87	C
ATOM	15004	C2	G A 718	187.812	119.953	-65.719	1.00	53.69	C	ATOM	15054	O4*	G A 721	177.954	123.003	-56.461	1.00	54.87	C
ATOM	15005	N2	G A 718	188.748	120.914	-65.805	1.00	53.69	N	ATOM	15055	C3*	G A 721	180.152	123.856	-56.061	1.00	54.87	C
ATOM	15006	N3	G A 718	187.737	119.196	-64.633	1.00	53.69	N	ATOM	15056	O3*	G A 721	180.662	123.327	-54.852	1.00	54.87	O
ATOM	15007	C4	G A 718	186.749	118.278	-64.729	1.00	53.69	C	ATOM	15057	C2*	G A 721	180.197	122.783	-57.147	1.00	54.87	C
ATOM	15008	P	C A 719	184.778	119.549	-58.740	1.00	50.22	P	ATOM	15058	O2*	G A 721	181.297	121.904	-56.999	1.00	54.87	O
ATOM	15009	O1P	C A 719	185.167	119.882	-57.342	1.00	49.44	O	ATOM	15059	C1*	G A 721	178.341	121.477	-58.163	1.00	55.21	N
ATOM	15010	O2P	C A 719	183.538	118.768	-58.992	1.00	49.44	O	ATOM	15060	N9	G A 721	177.701	122.173	-59.160	1.00	55.21	C
ATOM	15011	O5*	C A 719	184.691	120.906	-59.555	1.00	50.22	O	ATOM	15061	C8	G A 721	177.327	121.418	-60.156	1.00	55.21	N
ATOM	15012	C5*	C A 719	185.819	121.775	-59.610	1.00	50.22	C	ATOM	15062	N7	G A 721	177.739	120.144	-59.798	1.00	55.21	C
ATOM	15013	C4*	C A 719	185.684	122.710	-60.769	1.00	50.22	C	ATOM	15063	C5	G A 721	177.601	118.920	-60.489	1.00	55.21	C
ATOM	15014	O4*	C A 719	185.768	121.967	-61.998	1.00	50.22	O	ATOM	15064	C6	G A 721	177.063	118.711	-61.593	1.00	55.21	O
ATOM	15015	C3*	C A 719	184.350	123.422	-60.850	1.00	50.22	C	ATOM	15065	O6	G A 721	178.161	117.868	-59.773	1.00	55.21	N
ATOM	15016	O3*	C A 719	184.410	124.586	-60.053	1.00	50.22	O	ATOM	15066	N1	G A 721	178.774	117.981	-58.549	1.00	55.21	N
ATOM	15017	C2*	C A 719	184.228	123.769	-62.328	1.00	50.22	C	ATOM	15067	C2	G A 721	179.252	116.846	-58.031	1.00	55.21	N
ATOM	15018	O2*	C A 719	184.852	124.997	-62.632	1.00	50.22	O	ATOM	15068	N2	G A 721	178.907	119.122	-57.888	1.00	55.21	N
ATOM	15019	C1*	C A 719	185.019	122.638	-62.988	1.00	50.22	C	ATOM	15069	N3	G A 721	178.369	120.158	-58.569	1.00	55.21	C
ATOM	15020	N1	C A 719	184.252	121.654	-63.763	1.00	49.44	N	ATOM	15070	C4	G A 721	181.431	124.286	-53.835	1.00	77.32	P
ATOM	15021	C2	C A 719	183.963	121.947	-65.095	1.00	49.44	C	ATOM	15071	P	A A 722	181.997	125.418	-54.583	1.00	42.04	O
ATOM	15022	O2	C A 719	184.308	123.046	-65.556	1.00	49.44	O	ATOM	15072	O1P	A A 722	182.302	123.443	-52.996	1.00	42.04	O
ATOM	15023	N3	C A 719	183.321	121.037	-65.850	1.00	49.44	N	ATOM	15073	O2P	A A 722	180.282	124.903	-52.936	1.00	77.32	O
ATOM	15024	C4	C A 719	182.965	119.870	-65.323	1.00	49.44	C	ATOM	15074	O5*	A A 722	179.462	124.067	-52.117	1.00	77.32	C
ATOM	15025	N4	C A 719	182.365	118.986	-66.128	1.00	49.44	N	ATOM	15075	C5*	A A 722	178.164	124.764	-51.821	1.00	77.32	C
ATOM	15026	C5	C A 719	183.215	119.553	-63.952	1.00	49.44	C	ATOM	15076	C4*	A A 722	177.495	125.105	-53.056	1.00	77.32	O
ATOM	15027	C6	C A 719	183.852	120.468	-63.215	1.00	49.44	C	ATOM	15077	O4*	A A 722	177.185	123.926	-51.032	1.00	77.32	C
ATOM	15028	P	C A 720	183.330	124.804	-58.898	1.00	50.77	P	ATOM	15078	C3*	A A 722	177.453	124.202	-49.658	1.00	77.32	O
ATOM	15029	O1P	C A 720	183.661	126.098	-58.237	1.00	33.51	O	ATOM	15079	O3*	A A 722	175.822	124.479	-51.467	1.00	77.32	C
ATOM	15030	O2P	C A 720	183.304	123.553	-58.092	1.00	33.51	O	ATOM	15080	C2*	A A 722	175.381	125.597	-50.721	1.00	77.32	O
ATOM	15031	O5*	C A 720	181.961	124.931	-59.704	1.00	50.77	O	ATOM	15081	O2*	A A 722	176.100	124.970	-52.892	1.00	42.04	N
ATOM	15032	C5*	C A 720	181.740	126.011	-60.624	1.00	50.77	C	ATOM	15082	C1*	A A 722	175.590	124.158	-53.997	1.00	42.04	N
ATOM	15033	C4*	C A 720	180.538	125.718	-61.486	1.00	50.77	C	ATOM	15083	N9	A A 722	174.738	124.569	-55.000	1.00	42.04	C
ATOM	15034	O4*	C A 720	180.839	124.624	-62.384	1.00	50.77	O	ATOM	15084	C8	A A 722	174.494	123.645	-55.900	1.00	42.04	N
ATOM	15035	C3*	C A 720	179.305	125.272	-60.724	1.00	50.77	C	ATOM	15085	N7	A A 722	175.222	122.554	-55.455	1.00	42.04	C
ATOM	15036	O3*	C A 720	178.571	126.403	-60.280	1.00	50.77	O	ATOM	15086	C5	A A 722	175.384	121.280	-55.973	1.00	42.04	C
ATOM	15037	C2*	C A 720	178.556	124.416	-61.742	1.00	50.77	C	ATOM	15087	C6	A A 722	174.814	120.874	-57.115	1.00	42.04	N
ATOM	15038	O2*	C A 720	177.731	125.167	-62.612	1.00	50.77	C	ATOM	15088	N6	A A 722	176.163	120.420	-55.282	1.00	42.04	N
ATOM	15039	C1*	C A 720	179.709	123.785	-62.528	1.00	50.77	C	ATOM	15089	N1	A A 722	176.741	120.842	-54.151	1.00	42.04	C
ATOM	15040	N1	C A 720	180.101	122.455	-62.043	1.00	33.51	N	ATOM	15090	C2	A A 722	176.675	122.027	-53.566	1.00	42.04	N
ATOM	15041	C2	C A 720	179.581	121.306	-62.662	1.00	33.51	C	ATOM	15091	N3	A A 722	175.888	122.848	-54.276	1.00	42.04	C
ATOM	15042	O2	C A 720	178.788	121.431	-63.598	1.00	33.51	O	ATOM	15092	C4	A A 722	178.235	123.131	-48.746	1.00	123.28	P
ATOM	15043	N3	C A 720	179.966	120.086	-62.220	1.00	33.51	N	ATOM	15093	P	U A 723	179.513	123.763	-48.339	1.00	147.48	O
ATOM	15044	C4	C A 720	180.834	119.989	-61.205	1.00	33.51	C	ATOM	15094	O1P	U A 723	178.252	121.820	-49.446	1.00	147.48	O
ATOM	15045	N4	C A 720	181.198	118.771	-60.803	1.00	33.51	N	ATOM	15095	O2P	U A 723	177.317	123.024	-47.446	1.00	123.28	O
ATOM	15046	C5	C A 720	181.370	121.138	-60.557	1.00	33.51	C	ATOM	15096	O5*	U A 723	175.879	123.086	-47.566	1.00	123.28	C
ATOM	15047	C6	C A 720	180.979	122.336	-61.000	1.00	33.51	C	ATOM	15097	C5*	U A 723						



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ATOM	15098	C4*	U A 723	175.334	124.323	-46.885	1.00123.28	C	ATOM	15148	N9	G A 725	169.053	118.718	-54.622	1.00	36.61	N
ATOM	15099	O4*	U A 723	176.317	125.395	-46.895	1.00123.28	O	ATOM	15149	C8	G A 725	169.582	119.131	-53.424	1.00	36.61	C
ATOM	15100	C3*	U A 723	174.110	124.923	-47.560	1.00123.28	C	ATOM	15150	N7	G A 725	170.148	118.165	-52.757	1.00	36.61	N
ATOM	15101	O3*	U A 723	172.901	124.291	-47.180	1.00123.28	O	ATOM	15151	C5	G A 725	169.983	117.046	-53.562	1.00	36.61	C
ATOM	15102	C2*	U A 723	174.158	126.372	-47.095	1.00123.28	C	ATOM	15152	C6	G A 725	170.382	115.700	-53.363	1.00	36.61	C
ATOM	15103	O2*	U A 723	173.628	126.543	-45.791	1.00123.28	O	ATOM	15153	O6	G A 725	170.963	115.211	-52.404	1.00	36.61	O
ATOM	15104	C1*	U A 723	175.667	126.649	-47.077	1.00123.28	C	ATOM	15154	N1	G A 725	170.034	114.891	-54.435	1.00	36.61	N
ATOM	15105	N1	U A 723	176.210	127.291	-48.297	1.00147.48	N	ATOM	15155	C2	G A 725	169.386	115.315	-55.560	1.00	36.61	C
ATOM	15106	C2	U A 723	175.414	128.209	-49.006	1.00147.48	C	ATOM	15156	N2	G A 725	169.163	114.381	-56.491	1.00	36.61	N
ATOM	15107	O2	U A 723	174.290	128.543	-48.661	1.00147.48	O	ATOM	15157	N3	G A 725	168.990	116.566	-55.759	1.00	36.61	N
ATOM	15108	N3	U A 723	175.994	128.726	-50.139	1.00147.48	N	ATOM	15158	C4	G A 725	169.322	117.372	-54.721	1.00	36.61	C
ATOM	15109	C4	U A 723	177.248	128.450	-50.636	1.00147.48	C	ATOM	15159	P	C A 726	163.855	119.356	-54.020	1.00	45.17	P
ATOM	15110	O4	U A 723	177.595	128.956	-51.706	1.00147.48	O	ATOM	15160	O1P	C A 726	162.463	119.749	-54.381	1.00	45.14	O
ATOM	15111	C5	U A 723	178.013	127.526	-49.854	1.00147.48	C	ATOM	15161	O2P	C A 726	164.264	119.326	-52.591	1.00	45.14	O
ATOM	15112	C6	U A 723	177.485	126.992	-48.744	1.00147.48	C	ATOM	15162	O5*	C A 726	164.095	117.924	-54.667	1.00	45.17	O
ATOM	15113	P	G A 724	172.211	123.221	-48.165	1.00	51.51	ATOM	15163	C5*	C A 726	163.755	117.705	-56.032	1.00	45.17	C
ATOM	15114	O1P	G A 724	170.745	123.294	-47.932	1.00	53.74	ATOM	15164	C4*	C A 726	163.917	116.262	-56.390	1.00	45.17	C
ATOM	15115	O2P	G A 724	172.917	121.920	-47.974	1.00	53.74	ATOM	15165	O4*	C A 726	165.315	115.905	-56.375	1.00	45.17	O
ATOM	15116	O5*	G A 724	172.470	123.750	-49.649	1.00	51.51	ATOM	15166	C3*	C A 726	163.281	115.253	-55.461	1.00	45.17	C
ATOM	15117	C5*	G A 724	171.734	124.865	-50.182	1.00	51.51	ATOM	15167	O3*	C A 726	161.891	115.124	-55.672	1.00	45.17	O
ATOM	15118	C4*	G A 724	171.243	124.580	-51.594	1.00	51.51	ATOM	15168	C2*	C A 726	164.048	113.994	-55.817	1.00	45.17	C
ATOM	15119	O4*	G A 724	172.372	124.224	-52.436	1.00	51.51	ATOM	15169	O2*	C A 726	163.628	113.500	-57.067	1.00	45.17	O
ATOM	15120	C3*	G A 724	170.254	123.442	-51.821	1.00	51.51	ATOM	15170	C1*	C A 726	165.456	114.549	-55.994	1.00	45.17	C
ATOM	15121	O3*	G A 724	168.883	123.747	-51.527	1.00	51.51	ATOM	15171	N1	C A 726	166.214	114.483	-54.729	1.00	45.14	N
ATOM	15122	C2*	G A 724	170.451	123.148	-53.305	1.00	51.51	ATOM	15172	C2	C A 726	166.656	113.239	-54.285	1.00	45.14	C
ATOM	15123	O2*	G A 724	169.794	124.068	-54.154	1.00	51.51	ATOM	15173	O2	C A 726	166.453	112.250	-54.990	1.00	45.14	O
ATOM	15124	C1*	G A 724	171.957	123.328	-53.459	1.00	51.51	ATOM	15174	N3	C A 726	167.295	113.145	-53.103	1.00	45.14	N
ATOM	15125	N9	G A 724	172.645	122.047	-53.285	1.00	53.74	ATOM	15175	C4	C A 726	167.513	114.237	-52.378	1.00	45.14	C
ATOM	15126	C8	G A 724	173.470	121.683	-52.248	1.00	53.74	ATOM	15176	N4	C A 726	168.133	114.090	-51.208	1.00	45.14	N
ATOM	15127	N7	G A 724	173.878	120.447	-52.326	1.00	53.74	ATOM	15177	C5	C A 726	167.104	115.525	-52.817	1.00	45.14	C
ATOM	15128	C5	G A 724	173.300	119.964	-53.491	1.00	53.74	ATOM	15178	C6	C A 726	166.464	115.603	-53.987	1.00	45.14	C
ATOM	15129	C6	G A 724	173.374	118.682	-54.080	1.00	53.74	ATOM	15179	P	G A 727	160.943	114.809	-54.421	1.00	42.06	P
ATOM	15130	O6	G A 724	173.965	117.689	-53.667	1.00	53.74	ATOM	15180	O1P	G A 727	159.536	114.921	-54.872	1.00	32.55	O
ATOM	15131	N1	G A 724	172.657	118.616	-55.269	1.00	53.74	ATOM	15181	O2P	G A 727	161.422	115.656	-53.303	1.00	32.55	O
ATOM	15132	C2	G A 724	171.955	119.651	-55.821	1.00	53.74	ATOM	15182	O5*	G A 727	161.267	113.284	-54.100	1.00	42.06	O
ATOM	15133	N2	G A 724	171.348	119.388	-56.994	1.00	53.74	ATOM	15183	C5*	G A 727	160.952	112.273	-55.061	1.00	42.06	C
ATOM	15134	N3	G A 724	171.858	120.858	-55.270	1.00	53.74	ATOM	15184	C4*	G A 727	161.485	110.934	-54.630	1.00	42.06	C
ATOM	15135	C4	G A 724	172.555	120.941	-54.111	1.00	53.74	ATOM	15185	O4*	G A 727	162.937	110.970	-54.591	1.00	42.06	O
ATOM	15136	P	G A 725	167.847	122.535	-51.234	1.00	47.77	ATOM	15186	C3*	G A 727	161.084	110.434	-53.256	1.00	42.06	C
ATOM	15137	O1P	G A 725	166.491	123.092	-51.016	1.00	36.61	ATOM	15187	O3*	G A 727	159.774	109.867	-53.245	1.00	42.06	O
ATOM	15138	O2P	G A 725	168.440	121.639	-50.205	1.00	36.61	ATOM	15188	C2*	G A 727	162.177	109.411	-52.969	1.00	42.06	C
ATOM	15139	O5*	G A 725	167.759	121.744	-52.613	1.00	47.77	ATOM	15189	O2*	G A 727	161.929	108.183	-53.617	1.00	42.06	O
ATOM	15140	C5*	G A 725	167.158	122.358	-53.768	1.00	47.77	ATOM	15190	C1*	G A 727	163.409	110.069	-53.605	1.00	42.06	C
ATOM	15141	C4*	G A 725	167.073	121.371	-54.907	1.00	47.77	ATOM	15191	N9	G A 727	164.164	110.824	-52.611	1.00	32.55	N
ATOM	15142	O4*	G A 725	168.404	120.879	-55.213	1.00	47.77	ATOM	15192	C8	G A 727	164.084	112.171	-52.374	1.00	32.55	C
ATOM	15143	C3*	G A 725	166.268	120.110	-54.647	1.00	47.77	ATOM	15193	N7	G A 727	164.759	112.546	-51.323	1.00	32.55	N
ATOM	15144	O3*	G A 725	164.879	120.297	-54.824	1.00	47.77	ATOM	15194	C5	G A 727	165.340	111.378	-50.853	1.00	32.55	C
ATOM	15145	C2*	G A 725	166.860	119.132	-55.650	1.00	47.77	ATOM	15195	C6	G A 727	166.149	111.149	-49.702	1.00	32.55	C
ATOM	15146	O2*	G A 725	166.377	119.323	-56.965	1.00	47.77	ATOM	15196	O6	G A 727	166.483	111.949	-48.817	1.00	32.55	O
ATOM	15147	C1*	G A 725	168.332	119.520	-55.605	1.00	47.77	ATOM	15197	N1	G A 727	166.556	109.828	-49.623	1.00	32.55	N



ATOM	15198	C2	G A 727	166.216	108.850	-50.517	1.00	32.55	C	ATOM	15248	O2P	G A 730	167.529	108.006	-47.772	1.00	39.12	O
ATOM	15199	N2	G A 727	166.732	107.641	-50.274	1.00	32.55	N	ATOM	15249	O5*	G A 730	168.531	105.809	-47.089	1.00	37.44	O
ATOM	15200	N3	G A 727	165.433	109.039	-51.571	1.00	32.55	N	ATOM	15250	C5*	G A 730	168.907	104.801	-46.131	1.00	37.44	C
ATOM	15201	C4	G A 727	165.031	110.317	-51.671	1.00	32.55	C	ATOM	15251	C4*	G A 730	169.139	103.475	-46.815	1.00	37.44	C
ATOM	15202	P	A A 728	158.723	110.279	-52.076	1.00	45.67	P	ATOM	15252	O4*	G A 730	167.922	103.100	-47.495	1.00	37.44	O
ATOM	15203	O1P	A A 728	157.429	109.550	-52.302	1.00	32.56	O	ATOM	15253	C3*	G A 730	170.212	103.423	-47.896	1.00	37.44	C
ATOM	15204	O2P	A A 728	158.710	111.765	-51.894	1.00	32.56	O	ATOM	15254	O3*	G A 730	171.499	103.192	-47.356	1.00	37.44	O
ATOM	15205	O5*	A A 728	159.338	109.647	-50.759	1.00	45.67	O	ATOM	15255	C2*	G A 730	169.751	102.253	-48.748	1.00	37.44	C
ATOM	15206	C5*	A A 728	158.670	109.808	-49.513	1.00	45.67	C	ATOM	15256	O2*	G A 730	170.050	101.005	-48.164	1.00	37.44	O
ATOM	15207	C4*	A A 728	159.078	108.715	-48.581	1.00	45.67	C	ATOM	15257	C1*	G A 730	168.236	102.425	-48.701	1.00	37.44	C
ATOM	15208	O4*	A A 728	158.507	107.470	-49.025	1.00	45.67	O	ATOM	15258	N9	G A 730	167.787	103.252	-49.813	1.00	39.12	N
ATOM	15209	C3*	A A 728	160.563	108.469	-48.580	1.00	45.67	C	ATOM	15259	C8	G A 730	167.223	104.501	-49.755	1.00	39.12	C
ATOM	15210	O3*	A A 728	161.233	109.355	-47.719	1.00	45.67	O	ATOM	15260	N7	G A 730	166.986	105.003	-50.932	1.00	39.12	N
ATOM	15211	C2*	A A 728	160.668	107.017	-48.168	1.00	45.67	C	ATOM	15261	C5	G A 730	167.406	104.019	-51.817	1.00	39.12	C
ATOM	15212	O2*	A A 728	160.557	106.865	-46.772	1.00	45.67	O	ATOM	15262	C6	G A 730	167.409	103.991	-53.238	1.00	39.12	C
ATOM	15213	C1*	A A 728	159.438	106.425	-48.846	1.00	45.67	C	ATOM	15263	O6	G A 730	167.015	104.857	-54.031	1.00	39.12	O
ATOM	15214	N9	A A 728	159.722	105.866	-50.166	1.00	32.56	N	ATOM	15264	N1	G A 730	167.936	102.802	-53.721	1.00	39.12	N
ATOM	15215	C8	A A 728	159.690	106.528	-51.375	1.00	32.56	C	ATOM	15265	C2	G A 730	168.394	101.771	-52.942	1.00	39.12	C
ATOM	15216	N7	A A 728	159.969	105.764	-52.402	1.00	32.56	N	ATOM	15266	N2	G A 730	168.873	100.701	-53.584	1.00	39.12	N
ATOM	15217	C5	A A 728	160.208	104.521	-51.834	1.00	32.56	C	ATOM	15267	N3	G A 730	168.387	101.784	-51.627	1.00	39.12	N
ATOM	15218	C6	A A 728	160.541	103.293	-52.395	1.00	32.56	C	ATOM	15268	C4	G A 730	167.888	102.931	-51.137	1.00	39.12	C
ATOM	15219	N6	A A 728	160.711	103.122	-53.703	1.00	32.56	N	ATOM	15269	P	G A 731	172.674	104.251	-47.632	1.00	41.20	P
ATOM	15220	N1	A A 728	160.696	102.234	-51.561	1.00	32.56	N	ATOM	15270	O1P	G A 731	173.928	103.469	-47.749	1.00	40.60	O
ATOM	15221	C2	A A 728	160.529	102.426	-50.247	1.00	32.56	C	ATOM	15271	O2P	G A 731	172.593	105.328	-46.627	1.00	40.60	O
ATOM	15222	N3	A A 728	160.218	103.543	-49.597	1.00	32.56	N	ATOM	15272	C5*	G A 731	172.318	104.913	-49.035	1.00	41.20	C
ATOM	15223	C4	A A 728	160.064	104.567	-50.459	1.00	32.56	C	ATOM	15273	O5*	G A 731	172.871	104.411	-50.251	1.00	41.20	O
ATOM	15224	P	A A 729	162.728	109.794	-48.086	1.00	36.43	P	ATOM	15274	C4*	G A 731	171.886	104.589	-51.372	1.00	41.20	C
ATOM	15225	O1P	A A 729	163.101	110.922	-47.184	1.00	36.77	O	ATOM	15275	O4*	G A 731	170.656	105.141	-50.836	1.00	41.20	O
ATOM	15226	O2P	A A 729	162.783	109.992	-49.565	1.00	36.77	O	ATOM	15276	C3*	G A 731	172.289	105.570	-52.458	1.00	41.20	C
ATOM	15227	C5*	A A 729	163.579	108.502	-47.690	1.00	36.43	C	ATOM	15277	O3*	G A 731	173.150	104.999	-53.428	1.00	41.20	O
ATOM	15228	O5*	A A 729	163.797	108.215	-46.313	1.00	36.43	C	ATOM	15278	C2*	G A 731	170.943	105.997	-53.029	1.00	41.20	C
ATOM	15229	C4*	A A 729	164.168	106.780	-46.101	1.00	36.43	C	ATOM	15279	O2*	G A 731	170.383	105.036	-53.900	1.00	41.20	O
ATOM	15230	O4*	A A 729	163.202	105.920	-46.740	1.00	36.43	O	ATOM	15280	C1*	G A 731	170.093	106.059	-51.763	1.00	41.20	C
ATOM	15231	C3*	A A 729	165.484	106.299	-46.655	1.00	36.43	C	ATOM	15281	N9	G A 731	170.092	107.394	-51.158	1.00	40.60	N
ATOM	15232	O3*	A A 729	166.573	106.708	-45.862	1.00	36.43	O	ATOM	15282	C8	G A 731	170.658	107.768	-49.963	1.00	40.60	C
ATOM	15233	C2*	A A 729	165.278	104.794	-46.672	1.00	36.43	C	ATOM	15283	N7	G A 731	170.488	109.029	-49.689	1.00	40.60	N
ATOM	15234	O2*	A A 729	165.366	104.234	-45.385	1.00	36.43	O	ATOM	15284	C5	G A 731	169.764	109.518	-50.763	1.00	40.60	C
ATOM	15235	C1*	A A 729	163.824	104.702	-47.115	1.00	36.43	C	ATOM	15285	C6	G A 731	169.273	110.827	-51.021	1.00	40.60	C
ATOM	15236	N9	A A 729	163.727	104.555	-48.568	1.00	36.77	N	ATOM	15286	O6	G A 731	169.368	111.850	-50.309	1.00	40.60	O
ATOM	15237	C8	A A 729	163.551	105.529	-49.515	1.00	36.77	C	ATOM	15287	N1	G A 731	168.610	110.886	-52.244	1.00	40.60	N
ATOM	15238	N7	A A 729	163.563	105.077	-50.743	1.00	36.77	N	ATOM	15288	C2	G A 731	168.442	109.828	-53.098	1.00	40.60	C
ATOM	15239	C5	A A 729	163.759	103.711	-50.595	1.00	36.77	C	ATOM	15289	N2	G A 731	167.812	110.093	-54.241	1.00	40.60	N
ATOM	15240	C6	A A 729	163.899	102.660	-51.527	1.00	36.77	C	ATOM	15290	N3	G A 731	168.870	108.605	-52.856	1.00	40.60	N
ATOM	15241	N6	A A 729	163.907	102.828	-52.847	1.00	36.77	N	ATOM	15291	C4	G A 731	169.520	108.524	-51.683	1.00	40.60	C
ATOM	15242	N1	A A 729	164.053	101.412	-51.043	1.00	36.77	N	ATOM	15292	P	C A 732	174.263	105.919	-54.130	1.00	49.03	P
ATOM	15243	C2	A A 729	164.086	101.238	-49.716	1.00	36.77	C	ATOM	15293	O1P	C A 732	175.165	105.029	-54.881	1.00	38.01	O
ATOM	15244	N3	A A 729	163.995	102.144	-48.745	1.00	36.77	N	ATOM	15294	O2P	C A 732	174.817	106.845	-53.124	1.00	38.01	O
ATOM	15245	C4	A A 729	163.833	103.374	-49.259	1.00	36.77	C	ATOM	15295	O5*	C A 732	173.455	106.793	-55.175	1.00	49.03	O
ATOM	15246	P	G A 730	167.917	107.191	-46.593	1.00	37.44	P	ATOM	15296	C5*	C A 732	172.643	106.163	-56.165	1.00	49.03	C
ATOM	15247	O1P	G A 730	168.846	107.768	-45.592	1.00	39.12	O	ATOM	15297	C4*	C A 732	171.909	107.204	-56.953	1.00	49.03	C



Table 1: Sheet 155/521

ATOM	15298	O4*	C A 732	170.955	107.875	-56.098	1.00	49.03	O	ATOM	15348	N7	G A 734	179.119	110.111	-67.641	1.00	47.32	N
ATOM	15299	C3*	C A 732	172.801	108.316	-57.473	1.00	49.03	C	ATOM	15349	C5	G A 734	179.182	110.387	-68.999	1.00	47.32	C
ATOM	15300	C2*	C A 732	173.431	107.920	-58.676	1.00	49.03	C	ATOM	15350	C6	G A 734	179.023	109.529	-70.121	1.00	47.32	C
ATOM	15301	O3*	C A 732	171.833	109.480	-57.632	1.00	49.03	O	ATOM	15351	O6	G A 734	178.780	108.301	-70.136	1.00	47.32	O
ATOM	15302	O2*	C A 732	171.100	109.420	-58.837	1.00	49.03	O	ATOM	15352	N1	G A 734	179.169	110.230	-71.316	1.00	47.32	N
ATOM	15303	Cl*	C A 732	170.877	109.244	-56.462	1.00	49.03	C	ATOM	15353	C2	G A 734	179.424	111.572	-71.418	1.00	47.32	C
ATOM	15304	N1	C A 732	171.175	110.076	-55.284	1.00	38.01	N	ATOM	15354	N2	G A 734	179.528	112.060	-72.649	1.00	47.32	N
ATOM	15305	O2	C A 732	170.785	111.415	-55.300	1.00	38.01	O	ATOM	15355	N3	G A 734	179.568	112.376	-70.390	1.00	47.32	N
ATOM	15306	O2	C A 732	170.155	111.845	-56.272	1.00	38.01	O	ATOM	15356	C4	G A 734	179.439	111.723	-69.217	1.00	47.32	C
ATOM	15307	N3	C A 732	171.091	112.207	-54.258	1.00	38.01	N	ATOM	15357	P	C A 735	175.550	115.957	-67.170	1.00	48.01	P
ATOM	15308	C4	C A 732	171.744	111.706	-53.220	1.00	38.01	C	ATOM	15358	O1P	C A 735	175.010	117.281	-66.732	1.00	44.37	O
ATOM	15309	N4	C A 732	172.048	112.531	-52.230	1.00	38.01	N	ATOM	15359	O2P	C A 735	174.961	114.694	-66.637	1.00	44.37	O
ATOM	15310	C5	C A 732	172.122	110.336	-53.157	1.00	38.01	C	ATOM	15360	O5*	C A 735	175.485	115.861	-68.757	1.00	48.01	O
ATOM	15311	C6	C A 732	171.824	109.564	-54.203	1.00	38.01	C	ATOM	15361	C5*	C A 735	176.072	116.867	-69.592	1.00	48.01	C
ATOM	15312	P	A A 733	174.939	108.365	-58.969	1.00	61.69	P	ATOM	15362	C4*	C A 735	176.136	116.365	-71.003	1.00	48.01	C
ATOM	15313	O1P	A A 733	175.565	107.209	-59.628	1.00	41.68	O	ATOM	15363	O4*	C A 735	177.026	115.222	-71.037	1.00	48.01	O
ATOM	15314	O2P	A A 733	175.583	108.960	-57.787	1.00	41.68	O	ATOM	15364	C3*	C A 735	174.823	115.821	-71.539	1.00	48.01	C
ATOM	15315	O5*	A A 733	174.753	109.522	-60.033	1.00	61.69	O	ATOM	15365	O3*	C A 735	173.941	116.821	-72.024	1.00	48.01	O
ATOM	15316	C5*	A A 733	175.879	110.164	-60.617	1.00	61.69	C	ATOM	15366	C2*	C A 735	175.274	114.816	-72.593	1.00	48.01	C
ATOM	15317	C4*	A A 733	175.589	111.617	-60.749	1.00	61.69	C	ATOM	15367	O2*	C A 735	175.614	115.366	-73.851	1.00	48.01	O
ATOM	15318	O4*	A A 733	175.442	112.191	-59.443	1.00	61.69	O	ATOM	15368	C1*	C A 735	176.532	114.251	-71.945	1.00	48.01	C
ATOM	15319	C3*	A A 733	176.642	112.489	-61.400	1.00	61.69	C	ATOM	15369	N1	C A 735	176.259	113.000	-71.211	1.00	44.37	N
ATOM	15320	O3*	A A 733	176.391	112.467	-62.804	1.00	61.69	O	ATOM	15370	C2	C A 735	176.163	111.800	-71.939	1.00	44.37	C
ATOM	15321	C2*	A A 733	176.291	113.890	-60.863	1.00	61.69	C	ATOM	15371	O2	C A 735	176.323	111.825	-73.179	1.00	44.37	O
ATOM	15322	O2*	A A 733	175.379	114.649	-61.648	1.00	61.69	O	ATOM	15372	N3	C A 735	175.906	110.646	-71.281	1.00	44.37	N
ATOM	15323	Cl*	A A 733	175.507	113.576	-59.594	1.00	61.69	C	ATOM	15373	C4	C A 735	175.757	110.657	-69.962	1.00	44.37	C
ATOM	15324	N9	A A 733	175.990	114.221	-58.385	1.00	41.68	N	ATOM	15374	N4	C A 735	175.511	109.498	-69.361	1.00	44.37	N
ATOM	15325	C8	A A 733	176.616	113.737	-57.265	1.00	41.68	C	ATOM	15375	C5	C A 735	175.855	111.857	-69.200	1.00	44.37	C
ATOM	15326	N7	A A 733	176.845	114.657	-56.355	1.00	41.68	N	ATOM	15376	C6	C A 735	176.099	112.994	-69.856	1.00	44.37	C
ATOM	15327	C5	A A 733	176.346	115.821	-56.927	1.00	41.68	C	ATOM	15377	P	C A 736	172.375	116.492	-72.138	1.00	52.82	P
ATOM	15328	C6	A A 733	176.265	117.146	-56.470	1.00	41.68	C	ATOM	15378	O1P	C A 736	171.715	117.714	-72.651	1.00	45.11	O
ATOM	15329	N6	A A 733	176.720	117.551	-55.277	1.00	41.68	N	ATOM	15379	O2P	C A 736	171.892	115.869	-70.884	1.00	45.11	O
ATOM	15330	N1	A A 733	175.690	118.056	-57.291	1.00	41.68	N	ATOM	15380	O5*	C A 736	172.313	115.360	-73.250	1.00	52.82	O
ATOM	15331	C2	A A 733	175.239	117.653	-58.487	1.00	41.68	C	ATOM	15381	C5*	C A 736	172.690	115.637	-74.602	1.00	52.82	C
ATOM	15332	N3	A A 733	175.262	116.446	-59.024	1.00	41.68	N	ATOM	15382	C4*	C A 736	172.316	114.478	-75.482	1.00	52.82	C
ATOM	15333	C4	A A 733	175.831	115.566	-58.180	1.00	41.68	C	ATOM	15383	O4*	C A 736	173.169	113.345	-75.184	1.00	52.82	O
ATOM	15334	P	G A 734	177.318	111.615	-63.793	1.00	48.44	P	ATOM	15384	C3*	C A 736	170.918	113.940	-75.259	1.00	52.82	C
ATOM	15335	O1P	G A 734	176.437	110.624	-64.463	1.00	47.32	O	ATOM	15385	O3*	C A 736	169.929	114.720	-75.904	1.00	52.82	O
ATOM	15336	O2P	G A 734	178.521	111.157	-63.055	1.00	47.32	O	ATOM	15386	C2*	C A 736	171.017	112.503	-75.761	1.00	52.82	C
ATOM	15337	O5*	G A 734	177.734	112.672	-64.903	1.00	48.44	O	ATOM	15387	O2*	C A 736	170.887	112.357	-77.159	1.00	52.82	O
ATOM	15338	C5*	G A 734	178.254	113.959	-64.541	1.00	48.44	C	ATOM	15388	C1*	C A 736	172.445	112.138	-75.363	1.00	52.82	C
ATOM	15339	C4*	G A 734	178.840	114.621	-65.756	1.00	48.44	C	ATOM	15389	N1	C A 736	172.492	111.352	-74.122	1.00	45.11	N
ATOM	15340	O4*	G A 734	179.918	113.792	-66.246	1.00	48.44	O	ATOM	15390	C2	C A 736	172.194	109.979	-74.186	1.00	45.11	C
ATOM	15341	C3*	G A 734	177.860	114.731	-66.913	1.00	48.44	C	ATOM	15391	O2	C A 736	171.938	109.466	-75.291	1.00	45.11	O
ATOM	15342	O3*	G A 734	177.125	115.953	-66.841	1.00	48.44	O	ATOM	15392	N3	C A 736	172.192	109.248	-73.047	1.00	45.11	N
ATOM	15343	C2*	G A 734	178.767	114.659	-68.129	1.00	48.44	C	ATOM	15393	C4	C A 736	172.484	109.831	-71.886	1.00	45.11	C
ATOM	15344	O2*	G A 734	179.372	115.904	-68.405	1.00	48.44	O	ATOM	15394	N4	C A 736	172.471	109.073	-70.792	1.00	45.11	N
ATOM	15345	Cl*	G A 734	179.838	113.679	-67.650	1.00	48.44	C	ATOM	15395	C5	C A 736	172.806	111.221	-71.796	1.00	45.11	C
ATOM	15346	N9	G A 734	179.548	112.281	-67.965	1.00	47.32	N	ATOM	15396	C6	C A 736	172.799	111.934	-72.927	1.00	45.11	C
ATOM	15347	C8	G A 734	179.339	111.261	-67.068	1.00	47.32	C	ATOM	15397	P	A A 737	168.471	114.836	-75.241	1.00	51.89	P



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ATOM	15398	O1P	A	A	737	167.818	116.055	-75.807	1.00	49.76	O	ATOM	15448	C2*	C	A	739	159.312	104.228	-70.808	1.00	66.39	C
ATOM	15399	O2P	A	A	737	168.626	114.709	-73.761	1.00	49.76	O	ATOM	15449	O2*	C	A	739	158.960	102.864	-70.716	1.00	66.39	O
ATOM	15400	O5*	A	A	737	167.731	113.528	-75.765	1.00	51.89	O	ATOM	15450	C1*	C	A	739	160.722	104.331	-71.377	1.00	66.39	C
ATOM	15401	C5*	A	A	737	167.488	113.348	-77.158	1.00	51.89	C	ATOM	15451	N1	C	A	739	161.399	105.529	-70.854	1.00	48.53	N
ATOM	15402	C4*	A	A	737	167.213	111.902	-77.453	1.00	51.89	C	ATOM	15452	O2	C	A	739	161.910	105.495	-69.549	1.00	48.53	C
ATOM	15403	O4*	A	A	737	168.344	111.115	-77.013	1.00	51.89	O	ATOM	15453	O2	C	A	739	161.772	104.461	-68.877	1.00	48.53	O
ATOM	15404	C3*	A	A	737	166.033	111.268	-76.735	1.00	51.89	C	ATOM	15454	N3	C	A	739	162.531	106.588	-69.054	1.00	48.53	N
ATOM	15405	O3*	A	A	737	164.776	111.529	-77.340	1.00	51.89	O	ATOM	15455	C4	C	A	739	162.642	107.684	-69.802	1.00	48.53	C
ATOM	15406	C2*	A	A	737	166.381	109.791	-76.786	1.00	51.89	C	ATOM	15456	N4	C	A	739	163.259	108.737	-69.278	1.00	48.53	N
ATOM	15407	O2*	A	A	737	166.055	109.208	-78.034	1.00	51.89	O	ATOM	15457	C5	C	A	739	162.125	107.750	-71.127	1.00	48.53	C
ATOM	15408	C1*	A	A	737	167.898	109.833	-76.602	1.00	51.89	C	ATOM	15458	C6	C	A	739	161.522	106.659	-71.611	1.00	48.53	C
ATOM	15409	N9	A	A	737	168.282	109.624	-75.204	1.00	49.76	N	ATOM	15459	P	U	A	740	156.115	105.618	-71.141	1.00	60.84	P
ATOM	15410	C8	A	A	737	168.706	110.558	-74.293	1.00	49.76	C	ATOM	15460	O1P	U	A	740	154.776	104.975	-71.221	1.00	46.90	O
ATOM	15411	N7	A	A	737	168.986	110.054	-73.114	1.00	49.76	N	ATOM	15461	O2P	U	A	740	156.314	106.983	-71.695	1.00	46.90	O
ATOM	15412	C5	A	A	737	168.726	108.697	-73.261	1.00	49.76	C	ATOM	15462	O5*	U	A	740	156.599	105.671	-69.622	1.00	60.84	O
ATOM	15413	C6	A	A	737	168.826	107.613	-72.370	1.00	49.76	C	ATOM	15463	C5*	U	A	740	156.416	104.534	-68.764	1.00	60.84	C
ATOM	15414	N6	A	A	737	169.237	107.737	-71.109	1.00	49.76	N	ATOM	15464	C4*	U	A	740	157.010	104.778	-67.396	1.00	60.84	C
ATOM	15415	N1	A	A	737	168.482	106.386	-72.824	1.00	49.76	N	ATOM	15465	O4*	U	A	740	158.444	104.978	-67.502	1.00	60.84	O
ATOM	15416	C2	A	A	737	168.069	106.272	-74.087	1.00	49.76	C	ATOM	15466	C3*	U	A	740	156.544	105.982	-66.597	1.00	60.84	C
ATOM	15417	N3	A	A	737	167.936	107.215	-75.021	1.00	49.76	N	ATOM	15467	O3*	U	A	740	155.294	105.800	-65.952	1.00	60.84	O
ATOM	15418	C4	A	A	737	168.286	108.419	-74.538	1.00	49.76	C	ATOM	15468	C2*	U	A	740	157.662	106.121	-65.577	1.00	60.84	C
ATOM	15419	P	C	A	738	163.459	111.598	-76.417	1.00	48.99	P	ATOM	15469	O2*	U	A	740	157.553	105.195	-64.522	1.00	60.84	O
ATOM	15420	O1P	C	A	738	162.399	112.272	-77.203	1.00	48.99	O	ATOM	15470	C1*	U	A	740	158.888	105.760	-66.408	1.00	60.84	C
ATOM	15421	O5*	C	A	738	163.824	112.130	-75.086	1.00	48.46	O	ATOM	15471	N1	U	A	740	159.513	106.998	-66.894	1.00	46.90	N
ATOM	15422	O2P	C	A	738	163.056	110.075	-76.201	1.00	48.99	O	ATOM	15472	C2	U	A	740	160.343	107.671	-66.004	1.00	46.90	C
ATOM	15423	C5*	C	A	738	162.786	109.229	-77.313	1.00	48.99	C	ATOM	15473	O2	U	A	740	160.646	107.230	-64.902	1.00	46.90	O
ATOM	15424	C4*	C	A	738	162.713	107.798	-76.860	1.00	48.99	C	ATOM	15474	N3	U	A	740	160.811	108.871	-66.449	1.00	46.90	N
ATOM	15425	O4*	C	A	738	164.008	107.396	-76.356	1.00	48.99	O	ATOM	15475	C4	U	A	740	160.570	109.449	-67.661	1.00	46.90	C
ATOM	15426	C3*	C	A	738	161.757	107.519	-75.715	1.00	48.99	C	ATOM	15476	O4	U	A	740	161.021	110.574	-67.882	1.00	46.90	O
ATOM	15427	O3*	C	A	738	160.424	107.327	-76.168	1.00	48.99	O	ATOM	15477	C5	U	A	740	159.749	108.672	-68.548	1.00	46.90	C
ATOM	15428	C2*	C	A	738	162.343	106.260	-75.093	1.00	48.99	C	ATOM	15478	C6	U	A	740	159.264	107.502	-68.144	1.00	46.90	C
ATOM	15429	O2*	C	A	738	161.996	105.087	-75.794	1.00	48.99	O	ATOM	15479	P	G	A	741	154.587	107.058	-65.229	1.00	45.00	P
ATOM	15430	C1*	C	A	738	163.840	106.502	-75.266	1.00	48.99	C	ATOM	15480	O1P	G	A	741	153.147	106.723	-65.048	1.00	44.73	O
ATOM	15431	N1	C	A	738	164.454	107.091	-74.053	1.00	48.46	N	ATOM	15481	O2P	G	A	741	154.963	108.313	-65.938	1.00	44.73	O
ATOM	15432	C2	C	A	738	164.831	106.235	-73.007	1.00	48.46	C	ATOM	15482	O5*	G	A	741	155.268	107.074	-63.791	1.00	45.00	O
ATOM	15433	O2	C	A	738	164.720	105.007	-73.165	1.00	48.46	O	ATOM	15483	C5*	G	A	741	155.181	105.924	-62.942	1.00	45.00	C
ATOM	15434	N3	C	A	738	165.317	106.765	-71.863	1.00	48.46	N	ATOM	15484	C4*	G	A	741	155.780	106.218	-61.595	1.00	45.00	C
ATOM	15435	C4	C	A	738	165.460	108.085	-71.748	1.00	48.46	C	ATOM	15485	O4*	G	A	741	157.216	106.403	-61.708	1.00	45.00	O
ATOM	15436	N4	C	A	738	165.910	108.566	-70.592	1.00	48.46	N	ATOM	15486	C3*	G	A	741	155.312	107.486	-60.915	1.00	45.00	C
ATOM	15437	C5	C	A	738	165.136	108.975	-72.813	1.00	48.46	C	ATOM	15487	O3*	G	A	741	154.049	107.357	-60.292	1.00	45.00	O
ATOM	15438	C6	C	A	738	164.635	108.443	-73.933	1.00	48.46	C	ATOM	15488	C2*	G	A	741	156.427	107.728	-59.915	1.00	45.00	C
ATOM	15439	P	C	A	739	159.194	107.761	-75.219	1.00	66.39	P	ATOM	15489	O2*	G	A	741	156.306	106.873	-58.797	1.00	45.00	O
ATOM	15440	O1P	C	A	739	157.925	107.558	-75.982	1.00	48.53	O	ATOM	15490	C1*	G	A	741	157.655	107.337	-60.733	1.00	45.00	C
ATOM	15441	O2P	C	A	739	159.498	109.099	-74.637	1.00	66.39	O	ATOM	15491	N9	G	A	741	158.174	108.524	-61.410	1.00	44.73	N
ATOM	15442	O5*	C	A	739	159.228	106.677	-74.058	1.00	66.39	O	ATOM	15492	C8	G	A	741	157.984	108.887	-62.720	1.00	44.73	C
ATOM	15443	C5*	C	A	739	158.989	105.304	-74.362	1.00	66.39	C	ATOM	15493	N7	G	A	741	158.476	110.063	-63.003	1.00	44.73	N
ATOM	15444	C4*	C	A	739	159.197	104.457	-73.145	1.00	66.39	C	ATOM	15494	C5	G	A	741	159.047	110.491	-61.817	1.00	44.73	C
ATOM	15445	O4*	C	A	739	160.600	104.443	-72.783	1.00	66.39	O	ATOM	15495	C6	G	A	741	159.701	111.707	-61.507	1.00	44.73	C
ATOM	15446	C3*	C	A	739	158.507	104.931	-71.884	1.00	66.39	C	ATOM	15496	O6	G	A	741	159.896	112.676	-62.234	1.00	44.73	O
ATOM	15447	O3*	C	A	739	157.138	104.596	-71.835	1.00	66.39	O	ATOM	15497	N1	G	A	741	160.133	111.736	-60.188	1.00	44.73	N



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ATOM	15498	C2	G A 741	159.941	110.724	-59.270	1.00	44.73	C	ATOM	15548	O5*	C A 744	152.814	119.433	-54.245	1.00	50.31	O
ATOM	15499	N2	G A 741	160.415	110.949	-58.030	1.00	44.73	N	ATOM	15549	C5*	C A 744	153.836	120.115	-53.490	1.00	50.31	C
ATOM	15500	N3	G A 741	159.320	109.580	-59.548	1.00	44.73	N	ATOM	15550	C4*	C A 744	154.329	121.335	-54.240	1.00	50.31	C
ATOM	15501	C4	G A 741	158.899	109.538	-60.831	1.00	44.73	C	ATOM	15551	O4*	C A 744	155.037	120.933	-55.445	1.00	50.31	O
ATOM	15502	P	G A 742	153.125	108.663	-60.112	1.00	54.58	P	ATOM	15552	C3*	C A 744	153.268	122.296	-54.748	1.00	50.31	C
ATOM	15503	O1P	G A 742	151.825	108.151	-59.612	1.00	45.37	O	ATOM	15553	O3*	C A 744	152.790	123.189	-53.759	1.00	50.31	O
ATOM	15504	O2P	G A 742	153.174	109.509	-61.336	1.00	45.37	O	ATOM	15554	C2*	C A 744	153.989	123.021	-55.874	1.00	50.31	C
ATOM	15505	O5*	G A 742	153.825	109.495	-58.951	1.00	54.58	O	ATOM	15555	O2*	C A 744	154.852	124.039	-55.402	1.00	50.31	O
ATOM	15506	C5*	G A 742	154.129	108.873	-57.706	1.00	54.58	C	ATOM	15556	C1*	C A 744	154.828	121.896	-56.469	1.00	50.31	C
ATOM	15507	C4*	G A 742	155.085	109.719	-56.923	1.00	54.58	C	ATOM	15557	N1	C A 744	154.155	121.249	-57.618	1.00	36.94	N
ATOM	15508	O4*	G A 742	156.304	109.897	-57.683	1.00	54.58	O	ATOM	15558	C2	C A 744	154.133	121.915	-58.860	1.00	36.94	C
ATOM	15509	C3*	G A 742	154.639	111.133	-56.621	1.00	54.58	C	ATOM	15559	O2	C A 744	154.624	123.053	-58.946	1.00	36.94	O
ATOM	15510	O3*	G A 742	153.776	111.176	-55.501	1.00	54.58	O	ATOM	15560	N3	C A 744	153.567	121.304	-59.927	1.00	36.94	N
ATOM	15511	C2*	G A 742	155.968	111.829	-56.358	1.00	54.58	C	ATOM	15561	C4	C A 744	153.025	120.092	-59.791	1.00	36.94	C
ATOM	15512	O2*	G A 742	156.512	111.569	-55.076	1.00	54.58	O	ATOM	15562	N4	C A 744	152.514	119.512	-60.874	1.00	36.94	N
ATOM	15513	C1*	G A 742	156.866	111.163	-57.394	1.00	54.58	C	ATOM	15563	C5	C A 744	152.994	119.413	-58.540	1.00	36.94	C
ATOM	15514	N9	G A 742	156.900	111.958	-58.618	1.00	45.37	N	ATOM	15564	C6	C A 744	153.567	120.019	-57.491	1.00	36.94	C
ATOM	15515	C8	G A 742	156.284	111.682	-59.811	1.00	45.37	C	ATOM	15565	P	C A 745	151.253	123.666	-53.812	1.00	55.79	P
ATOM	15516	N7	G A 742	156.470	112.612	-60.709	1.00	45.37	N	ATOM	15566	O1P	C A 745	150.913	124.181	-52.456	1.00	42.45	O
ATOM	15517	C5	G A 742	157.260	113.555	-60.070	1.00	45.37	C	ATOM	15567	O2P	C A 745	150.438	122.563	-54.406	1.00	42.45	O
ATOM	15518	C6	G A 742	157.765	114.781	-60.534	1.00	45.37	C	ATOM	15568	O5*	C A 745	151.242	124.845	-54.884	1.00	55.79	O
ATOM	15519	O6	G A 742	157.615	115.299	-61.641	1.00	45.37	O	ATOM	15569	C5*	C A 745	152.117	125.974	-54.758	1.00	55.79	C
ATOM	15520	N1	G A 742	158.510	115.431	-59.560	1.00	45.37	N	ATOM	15570	C4*	C A 745	152.101	126.778	-56.030	1.00	55.79	C
ATOM	15521	C2	G A 742	158.737	114.958	-58.296	1.00	45.37	C	ATOM	15571	O4*	C A 745	152.644	125.969	-57.093	1.00	55.79	O
ATOM	15522	N2	G A 742	159.460	115.740	-57.486	1.00	45.37	N	ATOM	15572	C3*	C A 745	150.721	127.166	-56.532	1.00	55.79	C
ATOM	15523	N3	G A 742	158.280	113.805	-57.853	1.00	45.37	N	ATOM	15573	O3*	C A 745	150.235	128.346	-55.922	1.00	55.79	O
ATOM	15524	C4	G A 742	157.547	113.162	-58.785	1.00	45.37	C	ATOM	15574	C2*	C A 745	150.937	127.334	-58.026	1.00	55.79	C
ATOM	15525	P	U A 743	152.756	112.404	-55.329	1.00	58.49	P	ATOM	15575	O2*	C A 745	151.507	128.575	-58.377	1.00	55.79	O
ATOM	15526	O1P	U A 743	152.276	112.316	-53.922	1.00	52.12	O	ATOM	15576	C1*	C A 745	151.953	126.235	-58.299	1.00	55.79	C
ATOM	15527	O2P	U A 743	151.774	112.407	-56.447	1.00	52.12	O	ATOM	15577	N1	C A 745	151.327	124.988	-58.769	1.00	42.45	N
ATOM	15528	O5*	U A 743	153.675	113.698	-55.459	1.00	58.49	C	ATOM	15578	C2	C A 745	150.839	124.936	-60.084	1.00	42.45	C
ATOM	15529	C5*	U A 743	154.582	114.067	-54.401	1.00	58.49	C	ATOM	15579	O2	C A 745	150.877	125.970	-60.784	1.00	42.45	O
ATOM	15530	C4*	U A 743	155.191	115.420	-54.680	1.00	58.49	C	ATOM	15580	N3	C A 745	150.331	123.770	-60.554	1.00	42.45	N
ATOM	15531	O4*	U A 743	156.022	115.336	-55.858	1.00	58.49	O	ATOM	15581	C4	C A 745	150.285	122.696	-59.763	1.00	42.45	C
ATOM	15532	C3*	U A 743	154.204	116.531	-54.989	1.00	58.49	C	ATOM	15582	N4	C A 745	149.811	121.565	-60.275	1.00	42.45	N
ATOM	15533	O3*	U A 743	153.714	117.128	-53.806	1.00	58.49	O	ATOM	15583	C5	C A 745	150.734	122.734	-58.410	1.00	42.45	C
ATOM	15534	C2*	U A 743	155.030	117.495	-55.828	1.00	58.49	C	ATOM	15584	C6	C A 745	151.241	123.888	-57.958	1.00	42.45	C
ATOM	15535	O2*	U A 743	155.872	118.337	-55.076	1.00	58.49	O	ATOM	15585	P	A A 746	148.651	128.552	-55.760	1.00	56.92	P
ATOM	15536	C1*	U A 743	155.914	116.533	-56.606	1.00	58.49	C	ATOM	15586	O1P	A A 746	148.475	129.626	-54.740	1.00	46.97	O
ATOM	15537	N1	U A 743	155.351	116.209	-57.923	1.00	52.12	N	ATOM	15587	O2P	A A 746	148.012	127.227	-55.555	1.00	46.97	O
ATOM	15538	C2	U A 743	155.630	117.072	-58.961	1.00	52.12	C	ATOM	15588	O5*	A A 746	148.199	129.082	-57.192	1.00	56.92	O
ATOM	15539	O2	U A 743	156.292	118.088	-58.821	1.00	52.12	O	ATOM	15589	C5*	A A 746	148.736	130.298	-57.735	1.00	56.92	C
ATOM	15540	N3	U A 743	155.107	116.702	-60.169	1.00	52.12	N	ATOM	15590	C4*	A A 746	148.222	130.493	-59.130	1.00	56.92	C
ATOM	15541	C4	U A 743	154.351	115.585	-60.434	1.00	52.12	C	ATOM	15591	O4*	A A 746	148.749	129.445	-59.973	1.00	56.92	O
ATOM	15542	O4	U A 743	153.990	115.363	-61.589	1.00	52.12	O	ATOM	15592	C3*	A A 746	146.718	130.346	-59.245	1.00	56.92	C
ATOM	15543	C5	U A 743	154.095	114.752	-59.303	1.00	52.12	C	ATOM	15593	O3*	A A 746	146.054	131.556	-58.954	1.00	56.92	O
ATOM	15544	C6	U A 743	154.587	115.085	-58.119	1.00	52.12	C	ATOM	15594	C2*	A A 746	146.519	129.880	-60.680	1.00	56.92	C
ATOM	15545	P	C A 744	152.344	117.958	-53.849	1.00	50.31	P	ATOM	15595	O2*	A A 746	146.526	130.927	-61.628	1.00	56.92	O
ATOM	15546	O1P	C A 744	151.821	117.944	-52.453	1.00	36.94	O	ATOM	15596	C1*	A A 746	147.751	129.007	-60.882	1.00	56.92	C
ATOM	15547	O2P	C A 744	151.498	117.430	-54.955	1.00	36.94	O	ATOM	15597	N9	A A 746	147.481	127.593	-60.619	1.00	46.97	N



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ATOM	15598	C8	A A 746	147.682	126.888	-59.453	1.00	46.97	C	ATOM	15648	O1P	C A 749	133.147	127.466	-60.195	1.00	63.50	O
ATOM	15599	N7	A A 746	147.367	125.618	-59.544	1.00	46.97	N	ATOM	15649	O2P	C A 749	134.520	125.469	-59.320	1.00	63.50	O
ATOM	15600	C5	A A 746	146.920	125.479	-60.851	1.00	46.97	C	ATOM	15650	O5*	C A 749	135.247	126.798	-61.324	1.00	56.25	O
ATOM	15601	C6	A A 746	146.441	124.381	-61.565	1.00	46.97	C	ATOM	15651	C5*	C A 749	134.504	126.763	-62.555	1.00	56.25	C
ATOM	15602	N6	A A 746	146.344	123.159	-61.053	1.00	46.97	N	ATOM	15652	C4*	C A 749	134.643	125.423	-63.239	1.00	56.25	C
ATOM	15603	N1	A A 746	146.060	124.580	-62.843	1.00	46.97	N	ATOM	15653	O4*	C A 749	136.028	125.234	-63.609	1.00	56.25	O
ATOM	15604	C2	A A 746	146.167	125.805	-63.359	1.00	46.97	C	ATOM	15654	C3*	C A 749	134.273	124.157	-62.478	1.00	56.25	C
ATOM	15605	N3	A A 746	146.615	126.919	-62.792	1.00	46.97	N	ATOM	15655	O3*	C A 749	132.881	123.848	-62.535	1.00	56.25	O
ATOM	15606	C4	A A 746	146.978	126.687	-61.521	1.00	46.97	C	ATOM	15656	C2*	C A 749	135.063	123.089	-63.227	1.00	56.25	C
ATOM	15607	P	C A 747	144.547	131.510	-58.410	1.00	55.95	P	ATOM	15657	O2*	C A 749	134.390	122.586	-64.371	1.00	56.25	O
ATOM	15608	O1P	C A 747	144.159	132.943	-58.232	1.00	58.64	O	ATOM	15658	C1*	C A 749	136.334	123.850	-63.628	1.00	56.25	C
ATOM	15609	O2P	C A 747	144.468	130.571	-57.249	1.00	58.64	O	ATOM	15659	N1	C A 749	137.470	123.598	-62.714	1.00	63.50	N
ATOM	15610	O5*	C A 747	143.731	130.888	-59.630	1.00	55.95	O	ATOM	15660	C2	C A 749	137.914	122.277	-62.529	1.00	63.50	C
ATOM	15611	C5*	C A 747	143.688	131.566	-60.898	1.00	55.95	C	ATOM	15661	O2	C A 749	137.396	121.367	-63.195	1.00	63.50	O
ATOM	15612	C4*	C A 747	142.794	130.830	-61.859	1.00	55.95	C	ATOM	15662	N3	C A 749	138.899	122.032	-61.637	1.00	63.50	N
ATOM	15613	O4*	C A 747	143.424	129.602	-62.285	1.00	55.95	O	ATOM	15663	C4	C A 749	139.451	122.038	-60.960	1.00	63.50	C
ATOM	15614	C3*	C A 747	141.451	130.415	-61.301	1.00	55.95	C	ATOM	15664	N4	C A 749	140.394	122.748	-60.069	1.00	63.50	N
ATOM	15615	O3*	C A 747	140.559	131.512	-61.394	1.00	55.95	O	ATOM	15665	C5	C A 749	139.055	124.388	-61.161	1.00	63.50	C
ATOM	15616	C2*	C A 747	141.072	129.211	-62.166	1.00	55.95	C	ATOM	15666	C6	C A 749	138.069	124.622	-62.037	1.00	63.50	C
ATOM	15617	O2*	C A 747	140.446	129.538	-63.388	1.00	55.95	O	ATOM	15667	P	G A 750	132.224	122.857	-61.437	1.00	60.30	P
ATOM	15618	C1*	C A 747	142.442	128.604	-62.482	1.00	55.95	C	ATOM	15668	O1P	G A 750	130.740	122.879	-61.603	1.00	50.80	O
ATOM	15619	N1	C A 747	142.813	127.432	-61.673	1.00	58.64	N	ATOM	15669	O2P	G A 750	132.823	123.233	-60.122	1.00	50.80	O
ATOM	15620	C2	C A 747	142.450	126.151	-62.120	1.00	58.64	C	ATOM	15670	O5*	G A 750	132.719	121.394	-61.849	1.00	60.30	O
ATOM	15621	O2	C A 747	141.825	126.037	-63.187	1.00	58.64	O	ATOM	15671	C5*	G A 750	132.239	120.750	-63.053	1.00	60.30	C
ATOM	15622	N3	C A 747	142.794	125.074	-61.377	1.00	58.64	N	ATOM	15672	C4*	G A 750	132.714	119.310	-63.119	1.00	60.30	C
ATOM	15623	C4	C A 747	143.472	125.239	-60.236	1.00	58.64	C	ATOM	15673	O4*	G A 750	134.164	119.291	-63.101	1.00	60.30	O
ATOM	15624	N4	C A 747	143.784	124.157	-59.533	1.00	58.64	N	ATOM	15674	C3*	G A 750	132.310	118.414	-61.954	1.00	60.30	C
ATOM	15625	C5	C A 747	143.858	126.525	-59.765	1.00	58.64	C	ATOM	15675	O3*	G A 750	131.032	117.816	-62.114	1.00	60.30	O
ATOM	15626	C6	C A 747	143.510	127.582	-60.503	1.00	58.64	C	ATOM	15676	C2*	G A 750	133.404	117.360	-61.948	1.00	60.30	C
ATOM	15627	P	C A 748	139.367	131.661	-60.334	1.00	92.31	P	ATOM	15677	O2*	G A 750	133.191	116.359	-62.921	1.00	60.30	O
ATOM	15628	O1P	C A 748	138.786	133.010	-60.512	1.00	60.50	O	ATOM	15678	C1*	G A 750	134.624	118.190	-62.332	1.00	60.30	C
ATOM	15629	O2P	C A 748	139.828	131.242	-58.982	1.00	60.50	O	ATOM	15679	N9	G A 750	135.320	118.701	-61.149	1.00	50.80	N
ATOM	15630	O5*	C A 748	138.303	130.615	-60.879	1.00	92.31	O	ATOM	15680	C8	G A 750	135.532	120.015	-60.807	1.00	50.80	C
ATOM	15631	C5*	C A 748	137.287	130.099	-60.029	1.00	92.31	C	ATOM	15681	N7	G A 750	136.196	120.154	-59.693	1.00	50.80	N
ATOM	15632	C4*	C A 748	137.292	128.602	-60.090	1.00	92.31	C	ATOM	15682	C5	G A 750	136.435	118.852	-59.270	1.00	50.80	C
ATOM	15633	O4*	C A 748	138.660	128.152	-60.120	1.00	92.31	O	ATOM	15683	C6	G A 750	137.120	118.361	-58.118	1.00	50.80	C
ATOM	15634	C3*	C A 748	136.666	127.967	-58.866	1.00	92.31	C	ATOM	15684	O6	G A 750	137.669	119.000	-57.217	1.00	50.80	O
ATOM	15635	O3*	C A 748	135.229	127.930	-58.990	1.00	92.31	O	ATOM	15685	N1	G A 750	137.129	116.975	-58.076	1.00	50.80	N
ATOM	15636	C2*	C A 748	137.457	126.678	-58.655	1.00	92.31	C	ATOM	15686	C2	G A 750	136.562	116.162	-59.015	1.00	50.80	C
ATOM	15637	O2*	C A 748	136.937	125.523	-59.274	1.00	92.31	O	ATOM	15687	N2	G A 750	136.677	114.845	-58.802	1.00	50.80	N
ATOM	15638	C1*	C A 748	138.811	127.027	-59.284	1.00	92.31	C	ATOM	15688	N3	G A 750	135.924	116.601	-60.089	1.00	50.80	N
ATOM	15639	N1	C A 748	139.955	127.258	-58.382	1.00	60.50	N	ATOM	15689	C4	G A 750	135.899	117.946	-60.152	1.00	50.80	C
ATOM	15640	C2	C A 748	140.586	126.154	-57.792	1.00	60.50	C	ATOM	15690	P	U A 751	130.119	117.546	-60.819	1.00	58.81	P
ATOM	15641	O2	C A 748	140.120	125.018	-57.986	1.00	60.50	O	ATOM	15691	O1P	U A 751	128.791	117.097	-61.303	1.00	35.69	O
ATOM	15642	N3	C A 748	141.684	126.353	-57.023	1.00	60.50	N	ATOM	15692	O2P	U A 751	130.226	118.754	-59.944	1.00	35.69	O
ATOM	15643	C4	C A 748	142.143	127.589	-56.820	1.00	60.50	C	ATOM	15693	O5*	U A 751	130.808	116.312	-60.083	1.00	58.81	O
ATOM	15644	N4	C A 748	143.233	127.735	-56.071	1.00	60.50	N	ATOM	15694	C5*	U A 751	130.675	114.981	-60.602	1.00	58.81	C
ATOM	15645	C5	C A 748	141.504	128.731	-57.381	1.00	60.50	C	ATOM	15695	C4*	U A 751	131.410	113.986	-59.727	1.00	58.81	C
ATOM	15646	C6	C A 748	140.421	128.522	-58.144	1.00	60.50	C	ATOM	15696	O4*	U A 751	132.793	114.397	-59.577	1.00	58.81	O
ATOM	15647	P	C A 749	134.473	126.837	-59.928	1.00	56.25	P	ATOM	15697	C3*	U A 751	130.921	113.775	-58.300	1.00	58.81	C



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ATOM	15698	O3*	U A 751	129.874	112.811	-58.256	1.00	58.81	O	ATOM	15748	C5	A A 753	133.985	115.848	-46.934	1.00	43.23	C
ATOM	15699	C2*	U A 751	132.158	113.195	-57.630	1.00	58.81	C	ATOM	15749	C6	A A 753	134.627	116.882	-46.232	1.00	43.23	C
ATOM	15700	O2*	U A 751	132.296	111.820	-57.942	1.00	58.81	O	ATOM	15750	N6	A A 753	134.509	118.173	-46.540	1.00	43.23	N
ATOM	15701	Cl*	U A 751	133.283	113.963	-58.324	1.00	58.81	C	ATOM	15751	N1	A A 753	135.410	116.541	-45.188	1.00	43.23	N
ATOM	15702	N1	U A 751	133.759	115.134	-57.565	1.00	35.69	N	ATOM	15752	C2	A A 753	135.536	115.246	-44.885	1.00	43.23	C
ATOM	15703	C2	U A 751	134.487	114.906	-56.399	1.00	35.69	C	ATOM	15753	N3	A A 753	134.989	114.182	-45.474	1.00	43.23	N
ATOM	15704	O2	U A 751	134.757	113.792	-55.984	1.00	35.69	O	ATOM	15754	C4	A A 753	134.215	114.559	-46.504	1.00	43.23	C
ATOM	15705	N3	U A 751	134.885	116.035	-55.733	1.00	35.69	N	ATOM	15755	P	C A 754	133.061	107.817	-46.791	1.00	44.92	P
ATOM	15706	C4	U A 751	134.641	117.331	-56.084	1.00	35.69	C	ATOM	15756	O1P	C A 754	131.624	107.428	-46.877	1.00	39.00	O
ATOM	15707	O4	U A 751	134.958	118.220	-55.310	1.00	35.69	O	ATOM	15757	O2P	C A 754	133.927	107.189	-45.768	1.00	39.00	O
ATOM	15708	C5	U A 751	133.907	117.496	-57.295	1.00	35.69	C	ATOM	15758	O5*	C A 754	133.746	107.568	-48.207	1.00	44.92	O
ATOM	15709	C6	U A 751	133.498	116.421	-57.978	1.00	35.69	C	ATOM	15759	C5*	C A 754	135.146	107.838	-48.391	1.00	44.92	C
ATOM	15710	P	G A 752	128.554	113.093	-57.379	1.00	47.70	P	ATOM	15760	C4*	C A 754	135.543	107.585	-49.817	1.00	44.92	C
ATOM	15711	O1P	G A 752	127.669	111.899	-57.537	1.00	53.17	O	ATOM	15761	O4*	C A 754	134.654	108.321	-50.679	1.00	44.92	O
ATOM	15712	O2P	G A 752	128.054	114.440	-57.761	1.00	53.17	O	ATOM	15762	C3*	C A 754	136.947	108.041	-50.187	1.00	44.92	C
ATOM	15713	O5*	G A 752	129.070	113.167	-55.873	1.00	47.70	O	ATOM	15763	O3*	C A 754	137.864	106.967	-49.952	1.00	44.92	O
ATOM	15714	C5*	G A 752	129.875	112.119	-55.311	1.00	47.70	C	ATOM	15764	C2*	C A 754	136.831	108.355	-51.678	1.00	44.92	C
ATOM	15715	C4*	G A 752	130.538	112.603	-54.049	1.00	47.70	C	ATOM	15765	O2*	C A 754	137.097	107.237	-52.499	1.00	44.92	O
ATOM	15716	O4*	G A 752	131.257	113.833	-54.347	1.00	47.70	O	ATOM	15766	Cl*	C A 754	135.354	108.741	-51.825	1.00	44.92	C
ATOM	15717	C3*	G A 752	129.602	112.927	-52.890	1.00	47.70	C	ATOM	15767	N1	C A 754	135.036	110.155	-52.070	1.00	39.00	N
ATOM	15718	O3*	G A 752	130.280	112.621	-51.670	1.00	47.70	O	ATOM	15768	C2	C A 754	135.464	111.124	-51.166	1.00	39.00	C
ATOM	15719	C2*	G A 752	129.454	114.441	-52.996	1.00	47.70	C	ATOM	15769	O2	C A 754	136.135	110.775	-50.194	1.00	39.00	O
ATOM	15720	O2*	G A 752	129.115	115.084	-51.786	1.00	47.70	O	ATOM	15770	N3	C A 754	135.141	112.415	-51.377	1.00	39.00	N
ATOM	15721	Cl*	G A 752	130.853	114.839	-53.452	1.00	47.70	C	ATOM	15771	C4	C A 754	134.433	112.753	-52.447	1.00	39.00	C
ATOM	15722	N9	G A 752	130.933	116.137	-54.110	1.00	53.17	N	ATOM	15772	N4	C A 754	134.142	114.037	-52.621	1.00	39.00	N
ATOM	15723	C8	G A 752	130.192	116.589	-55.173	1.00	53.17	C	ATOM	15773	C5	C A 754	133.994	111.787	-53.394	1.00	39.00	C
ATOM	15724	N7	G A 752	130.448	117.832	-55.478	1.00	53.17	N	ATOM	15774	C6	C A 754	134.314	110.513	-53.169	1.00	39.00	C
ATOM	15725	C5	G A 752	131.427	118.213	-54.576	1.00	53.17	C	ATOM	15775	P	G A 755	139.411	107.274	-49.614	1.00	43.75	P
ATOM	15726	C6	G A 752	132.073	119.450	-54.404	1.00	53.17	C	ATOM	15776	O1P	G A 755	140.088	107.865	-50.798	1.00	38.66	O
ATOM	15727	O6	G A 752	131.890	120.508	-55.016	1.00	53.17	O	ATOM	15777	O2P	G A 755	139.972	106.947	-48.993	1.00	38.66	O
ATOM	15728	N1	G A 752	133.009	119.398	-53.384	1.00	53.17	N	ATOM	15778	O5*	G A 755	139.352	108.391	-48.490	1.00	43.75	O
ATOM	15729	C2	G A 752	133.273	118.304	-52.611	1.00	53.17	C	ATOM	15779	C5*	G A 755	139.803	109.712	-48.757	1.00	43.75	C
ATOM	15730	N2	G A 752	134.214	118.463	-51.662	1.00	53.17	N	ATOM	15780	C4*	G A 755	140.002	110.438	-47.467	1.00	43.75	C
ATOM	15731	N3	G A 752	132.662	117.145	-52.750	1.00	53.17	N	ATOM	15781	O4*	G A 755	138.758	110.383	-46.719	1.00	43.75	O
ATOM	15732	C4	G A 752	131.756	117.172	-53.744	1.00	53.17	C	ATOM	15782	C3*	G A 755	141.035	109.816	-46.547	1.00	43.75	C
ATOM	15733	P	A A 753	129.582	111.683	-50.561	1.00	43.03	P	ATOM	15783	O3*	G A 755	142.342	110.262	-46.876	1.00	43.75	O
ATOM	15734	O1P	A A 753	129.270	110.383	-51.215	1.00	43.23	O	ATOM	15784	C2*	G A 755	140.549	110.291	-45.187	1.00	43.75	C
ATOM	15735	O2P	A A 753	128.503	112.441	-49.883	1.00	43.23	O	ATOM	15785	O2*	G A 755	140.858	111.656	-44.957	1.00	43.75	O
ATOM	15736	O5*	A A 753	130.745	111.436	-49.503	1.00	43.03	O	ATOM	15786	Cl*	G A 755	139.031	110.157	-45.352	1.00	43.75	C
ATOM	15737	C5*	A A 753	131.832	110.539	-49.812	1.00	43.03	C	ATOM	15787	N9	G A 755	138.573	108.805	-45.020	1.00	38.66	N
ATOM	15738	C4*	A A 753	132.837	110.520	-48.691	1.00	43.03	C	ATOM	15788	C8	G A 755	138.069	107.857	-45.884	1.00	38.66	C
ATOM	15739	O4*	A A 753	133.525	111.794	-48.632	1.00	43.03	O	ATOM	15789	N7	G A 755	137.809	106.716	-45.301	1.00	38.66	N
ATOM	15740	C3*	A A 753	132.276	110.259	-47.300	1.00	43.03	C	ATOM	15790	C5	G A 755	138.152	106.924	-43.970	1.00	38.66	C
ATOM	15741	O3*	A A 753	133.163	109.407	-46.596	1.00	43.03	O	ATOM	15791	C6	G A 755	138.115	106.040	-42.856	1.00	38.66	C
ATOM	15742	C2*	A A 753	132.269	111.649	-46.665	1.00	43.03	O	ATOM	15792	O6	G A 755	137.793	104.851	-42.824	1.00	38.66	O
ATOM	15743	O2*	A A 753	132.421	111.627	-45.264	1.00	43.03	O	ATOM	15793	N1	G A 755	138.530	106.666	-41.692	1.00	38.66	N
ATOM	15744	Cl*	A A 753	133.491	112.285	-47.312	1.00	43.03	C	ATOM	15794	C2	G A 755	138.953	107.959	-41.608	1.00	38.66	C
ATOM	15745	N9	A A 753	133.504	113.747	-47.352	1.00	43.23	N	ATOM	15795	N2	G A 755	139.315	108.372	-40.395	1.00	38.66	N
ATOM	15746	C8	A A 753	132.867	114.586	-48.222	1.00	43.23	C	ATOM	15796	N3	G A 755	139.018	108.788	-42.633	1.00	38.66	N
ATOM	15747	N7	A A 753	133.127	115.954	-48.018	1.00	43.23	N	ATOM	15797	C4	G A 755	138.602	108.211	-43.775	1.00	38.66	C



Table 1: Sheet 160/521

ATOM	15798	P	C A 756	143.594	109.255	-46.752	1.00	40.97	P	ATOM	15848	O2*	G A 758	147.878	98.240	-39.232	1.00	37.05	O
ATOM	15799	O1P	C A 756	144.739	109.930	-47.388	1.00	35.93	O	ATOM	15849	C1*	G A 758	147.407	100.260	-40.384	1.00	37.05	C
ATOM	15800	O2P	C A 756	143.221	107.898	-47.189	1.00	35.93	O	ATOM	15850	N9	G A 758	147.211	100.749	-41.741	1.00	36.24	N
ATOM	15801	O5*	C A 756	143.880	109.197	-45.192	1.00	40.97	O	ATOM	15851	C8	G A 758	147.883	101.780	-42.358	1.00	36.24	C
ATOM	15802	C5*	C A 756	144.155	110.401	-44.463	1.00	40.97	C	ATOM	15852	N7	G A 758	147.490	101.987	-43.587	1.00	36.24	N
ATOM	15803	C4*	C A 756	144.288	110.108	-42.994	1.00	40.97	C	ATOM	15853	C5	G A 758	146.506	101.032	-43.792	1.00	36.24	C
ATOM	15804	O4*	C A 756	143.011	109.683	-42.459	1.00	40.97	O	ATOM	15854	C6	G A 758	145.745	100.751	-44.933	1.00	36.24	C
ATOM	15805	C3*	C A 756	145.224	108.975	-42.637	1.00	40.97	C	ATOM	15855	O6	G A 758	145.797	101.286	-46.037	1.00	36.24	O
ATOM	15806	O3*	C A 756	146.573	109.373	-42.622	1.00	40.97	O	ATOM	15856	N1	G A 758	144.855	99.107	-44.709	1.00	36.24	N
ATOM	15807	C2*	C A 756	144.731	108.573	-41.263	1.00	40.97	C	ATOM	15857	C2	G A 758	144.724	99.027	-43.534	1.00	36.24	C
ATOM	15808	O2*	C A 756	145.200	109.480	-40.285	1.00	40.97	O	ATOM	15858	N2	G A 758	143.786	98.067	-43.515	1.00	36.24	N
ATOM	15809	C1*	C A 756	143.220	108.732	-41.430	1.00	40.97	C	ATOM	15859	N3	G A 758	145.453	99.261	-42.459	1.00	36.24	N
ATOM	15810	N1	C A 756	142.575	107.466	-41.820	1.00	35.93	N	ATOM	15860	C4	G A 758	146.316	100.270	-42.657	1.00	36.24	C
ATOM	15811	C2	C A 756	142.372	106.474	-40.841	1.00	35.93	C	ATOM	15861	P	A A 759	151.157	97.592	-39.825	1.00	36.60	P
ATOM	15812	O2	C A 756	142.727	106.695	-39.667	1.00	35.93	O	ATOM	15862	O1P	A A 759	152.629	97.711	-39.666	1.00	44.46	O
ATOM	15813	N3	C A 756	141.794	105.305	-41.200	1.00	35.93	N	ATOM	15863	O2P	A A 759	150.576	97.394	-41.180	1.00	44.46	O
ATOM	15814	C4	C A 756	141.418	105.107	-42.469	1.00	35.93	C	ATOM	15864	O5*	A A 759	150.649	96.427	-38.860	1.00	36.60	O
ATOM	15815	N4	C A 756	140.842	103.945	-42.776	1.00	35.93	N	ATOM	15865	C5*	A A 759	150.864	96.513	-37.439	1.00	36.60	C
ATOM	15816	C5	C A 756	141.612	106.095	-43.479	1.00	35.93	C	ATOM	15866	C4*	A A 759	150.423	95.245	-36.748	1.00	36.60	C
ATOM	15817	C6	C A 756	142.184	107.248	-43.113	1.00	35.93	C	ATOM	15867	O4*	A A 759	148.977	95.127	-36.758	1.00	36.60	O
ATOM	15818	P	U A 757	147.694	108.347	-43.137	1.00	33.98	P	ATOM	15868	C3*	A A 759	150.893	93.928	-37.332	1.00	36.60	C
ATOM	15819	O1P	U A 757	148.957	109.128	-43.207	1.00	36.75	O	ATOM	15869	O3*	A A 759	152.234	93.635	-36.979	1.00	36.60	O
ATOM	15820	O2P	U A 757	147.184	107.664	-44.360	1.00	36.75	O	ATOM	15870	C2*	A A 759	149.900	92.943	-36.724	1.00	36.60	C
ATOM	15821	O5*	U A 757	147.779	107.263	-41.970	1.00	33.98	O	ATOM	15871	O2*	A A 759	150.196	92.620	-35.386	1.00	36.60	O
ATOM	15822	C5*	U A 757	148.117	107.636	-40.629	1.00	33.98	C	ATOM	15872	C1*	A A 759	148.612	93.758	-36.716	1.00	36.60	C
ATOM	15823	C4*	U A 757	147.808	106.500	-39.683	1.00	33.98	C	ATOM	15873	N9	A A 759	147.777	93.430	-37.871	1.00	44.46	N
ATOM	15824	O4*	U A 757	146.390	106.218	-39.732	1.00	33.98	O	ATOM	15874	C8	A A 759	147.561	94.126	-39.037	1.00	44.46	C
ATOM	15825	C3*	U A 757	148.452	105.159	-39.985	1.00	33.98	C	ATOM	15875	N7	A A 759	146.790	93.495	-39.892	1.00	44.46	N
ATOM	15826	O3*	U A 757	149.763	105.076	-39.466	1.00	33.98	O	ATOM	15876	C5	A A 759	146.467	92.311	-39.240	1.00	44.46	C
ATOM	15827	C2*	U A 757	147.518	104.175	-39.298	1.00	33.98	C	ATOM	15877	C6	A A 759	145.680	91.200	-39.612	1.00	44.46	C
ATOM	15828	O2*	U A 757	147.753	104.061	-37.912	1.00	33.98	O	ATOM	15878	N6	A A 759	145.047	91.094	-40.779	1.00	44.46	N
ATOM	15829	C1*	U A 757	146.165	104.840	-39.508	1.00	33.98	C	ATOM	15879	N1	A A 759	145.561	90.186	-38.727	1.00	44.46	N
ATOM	15830	N1	U A 757	145.436	104.296	-40.660	1.00	36.75	N	ATOM	15880	C2	A A 759	146.183	90.292	-37.550	1.00	44.46	C
ATOM	15831	C2	U A 757	144.653	103.164	-40.465	1.00	36.75	C	ATOM	15881	N3	A A 759	146.949	91.282	-37.084	1.00	44.46	N
ATOM	15832	O2	U A 757	144.531	102.603	-39.387	1.00	36.75	O	ATOM	15882	C4	A A 759	147.054	92.268	-37.991	1.00	44.46	C
ATOM	15833	N3	U A 757	144.013	102.709	-41.584	1.00	36.75	N	ATOM	15883	P	G A 760	153.342	93.480	-38.138	1.00	45.33	P
ATOM	15834	C4	U A 757	144.073	103.243	-42.845	1.00	36.75	C	ATOM	15884	O1P	G A 760	154.611	93.170	-37.433	1.00	79.39	O
ATOM	15835	O4	U A 757	143.515	102.659	-43.776	1.00	36.75	O	ATOM	15885	O2P	G A 760	153.288	94.1621	-39.085	1.00	79.39	O
ATOM	15836	C5	U A 757	144.885	104.412	-42.955	1.00	36.75	C	ATOM	15886	O5*	G A 760	152.861	92.210	-38.955	1.00	45.33	O
ATOM	15837	C6	U A 757	145.523	104.884	-41.886	1.00	36.75	C	ATOM	15887	C5*	G A 760	153.026	90.919	-38.398	1.00	45.33	C
ATOM	15838	P	G A 758	150.858	104.176	-40.219	1.00	37.05	P	ATOM	15888	C4*	G A 760	152.032	89.959	-38.978	1.00	45.33	C
ATOM	15839	O1P	G A 758	152.094	104.239	-39.374	1.00	36.24	O	ATOM	15889	O4*	G A 760	150.730	90.590	-39.029	1.00	45.33	O
ATOM	15840	O2P	G A 758	150.919	104.549	-41.657	1.00	36.24	O	ATOM	15890	C3*	G A 760	152.182	89.506	-40.420	1.00	45.33	C
ATOM	15841	O5*	G A 758	150.271	102.703	-40.145	1.00	37.05	O	ATOM	15891	O3*	G A 760	153.186	88.563	-40.668	1.00	45.33	O
ATOM	15842	C5*	G A 758	150.124	102.055	-38.889	1.00	37.05	C	ATOM	15892	C2*	G A 760	150.824	88.891	-40.675	1.00	45.33	C
ATOM	15843	C4*	G A 758	149.210	100.877	-39.027	1.00	37.05	C	ATOM	15893	O2*	G A 760	150.699	87.596	-40.133	1.00	45.33	O
ATOM	15844	O4*	G A 758	147.957	101.306	-39.610	1.00	37.05	O	ATOM	15894	C1*	G A 760	149.922	89.862	-39.924	1.00	45.33	C
ATOM	15845	C3*	G A 758	149.676	99.753	-39.927	1.00	37.05	C	ATOM	15895	N9	G A 760	149.374	90.728	-40.953	1.00	79.39	N
ATOM	15846	O3*	G A 758	150.540	98.921	-39.171	1.00	37.05	O	ATOM	15896	C8	G A 760	149.732	91.991	-41.372	1.00	79.39	C
ATOM	15847	C2*	G A 758	148.357	99.068	-40.284	1.00	37.05	C	ATOM	15897	N7	G A 760	149.039	92.391	-42.405	1.00	79.39	N



ATOM 15898	C5	G A 760	148.163	91.337	-42.648	1.00	79.39	C	ATOM 15948	C6	C A 762	154.488	91.456	-47.936	1.00	30.70	C
ATOM 15899	C6	G A 760	147.154	91.164	-43.629	1.00	79.39	C	ATOM 15949	P	G A 763	157.442	89.238	-51.868	1.00	53.06	P
ATOM 15900	O6	G A 760	146.779	91.949	-44.468	1.00	79.39	O	ATOM 15950	O1P	G A 763	157.915	88.241	-52.871	1.00	27.34	O
ATOM 15901	N1	G A 760	146.547	89.915	-43.548	1.00	79.39	N	ATOM 15951	O2P	G A 763	157.862	89.101	-50.454	1.00	27.34	O
ATOM 15902	C2	G A 760	146.836	88.958	-42.612	1.00	79.39	C	ATOM 15952	O5*	G A 763	157.824	90.727	-52.299	1.00	53.06	O
ATOM 15903	N2	G A 760	146.150	87.796	-42.692	1.00	79.39	N	ATOM 15953	C5*	G A 763	157.371	91.262	-53.542	1.00	53.06	C
ATOM 15904	N3	G A 760	147.742	89.120	-41.666	1.00	79.39	N	ATOM 15954	C4*	G A 763	157.530	92.759	-53.558	1.00	53.06	C
ATOM 15905	C4	G A 760	148.365	90.321	-41.754	1.00	79.39	C	ATOM 15955	O4*	G A 763	156.741	93.342	-52.491	1.00	53.06	O
ATOM 15906	P	G A 761	154.161	88.812	-41.903	1.00	54.88	P	ATOM 15956	C3*	G A 763	158.915	93.318	-53.309	1.00	53.06	C
ATOM 15907	O1P	G A 761	155.013	87.611	-42.052	1.00	42.61	O	ATOM 15957	O2*	G A 763	159.755	93.289	-54.441	1.00	53.06	O
ATOM 15908	O2P	G A 761	154.784	90.147	-41.717	1.00	42.61	O	ATOM 15958	C3*	G A 763	158.611	94.744	-52.878	1.00	53.06	C
ATOM 15909	O5*	G A 761	153.195	88.904	-43.162	1.00	54.88	O	ATOM 15959	O2*	G A 763	158.312	95.609	-53.958	1.00	53.06	O
ATOM 15910	C5*	G A 761	152.543	87.738	-43.648	1.00	54.88	C	ATOM 15960	C1*	G A 763	157.355	94.540	-52.042	1.00	53.06	C
ATOM 15911	C4*	G A 761	151.937	87.986	-45.006	1.00	54.88	C	ATOM 15961	N9	G A 763	157.698	94.403	-50.630	1.00	27.34	N
ATOM 15912	O4*	G A 761	151.094	89.149	-44.923	1.00	54.88	O	ATOM 15962	C8	G A 763	157.609	93.278	-49.845	1.00	27.34	C
ATOM 15913	C3*	G A 761	152.887	88.312	-46.133	1.00	54.88	C	ATOM 15963	N7	G A 763	157.984	93.483	-48.611	1.00	27.34	N
ATOM 15914	O3*	G A 761	153.407	87.147	-46.717	1.00	54.88	O	ATOM 15964	C5	G A 763	158.337	94.821	-48.583	1.00	27.34	C
ATOM 15915	C2*	G A 761	152.004	89.100	-47.097	1.00	54.88	C	ATOM 15965	C6	G A 763	158.803	95.622	-47.509	1.00	27.34	C
ATOM 15916	O2*	G A 761	151.129	88.276	-47.845	1.00	54.88	O	ATOM 15966	O6	G A 763	158.967	95.292	-46.313	1.00	27.34	O
ATOM 15917	C1*	G A 761	151.144	89.888	-46.124	1.00	54.88	C	ATOM 15967	N1	G A 763	159.070	96.934	-47.929	1.00	27.34	N
ATOM 15918	N9	G A 761	151.595	91.235	-45.783	1.00	42.61	N	ATOM 15968	C2	G A 763	158.884	97.403	-49.216	1.00	27.34	C
ATOM 15919	C8	G A 761	152.151	91.629	-44.584	1.00	42.61	C	ATOM 15969	N2	G A 763	159.190	98.681	-49.447	1.00	27.34	N
ATOM 15920	N7	G A 761	152.432	92.900	-44.538	1.00	42.61	N	ATOM 15970	N3	G A 763	158.428	96.664	-50.209	1.00	27.34	N
ATOM 15921	C5	G A 761	152.046	93.379	-45.781	1.00	42.61	C	ATOM 15971	C4	G A 763	158.180	95.397	-49.826	1.00	27.34	C
ATOM 15922	C6	G A 761	152.113	94.683	-46.306	1.00	42.61	C	ATOM 15972	P	C A 764	161.341	93.097	-54.233	1.00	40.16	P
ATOM 15923	O6	G A 761	152.547	95.712	-45.760	1.00	42.61	O	ATOM 15973	O1P	C A 764	161.959	92.909	-55.584	1.00	24.60	O
ATOM 15924	N1	G A 761	151.619	94.732	-47.606	1.00	42.61	N	ATOM 15974	O2P	C A 764	161.529	92.060	-53.182	1.00	24.60	O
ATOM 15925	C2	G A 761	151.140	93.657	-48.312	1.00	42.61	C	ATOM 15975	O5*	C A 764	161.845	94.516	-53.724	1.00	40.16	O
ATOM 15926	N2	G A 761	150.740	93.912	-49.567	1.00	42.61	N	ATOM 15976	C5*	C A 764	161.896	95.612	-54.645	1.00	40.16	C
ATOM 15927	N3	G A 761	151.067	92.428	-47.828	1.00	42.61	N	ATOM 15977	C4*	C A 764	162.240	96.880	-53.930	1.00	40.16	C
ATOM 15928	C4	G A 761	151.533	92.362	-46.566	1.00	42.61	C	ATOM 15978	O4*	C A 764	161.293	97.076	-52.858	1.00	40.16	O
ATOM 15929	P	C A 762	154.797	87.234	-47.490	1.00	49.48	P	ATOM 15979	C3*	C A 764	163.587	96.894	-53.237	1.00	40.16	C
ATOM 15930	O1P	C A 762	154.984	85.945	-48.213	1.00	30.70	O	ATOM 15980	O3*	C A 764	164.643	97.252	-54.102	1.00	40.16	O
ATOM 15931	O2P	C A 762	155.807	87.677	-46.494	1.00	30.70	O	ATOM 15981	C2*	C A 764	163.387	97.938	-52.163	1.00	40.16	C
ATOM 15932	O5*	C A 762	154.555	88.382	-48.564	1.00	49.48	O	ATOM 15982	O2*	C A 764	163.516	99.239	-52.700	1.00	40.16	O
ATOM 15933	C5*	C A 762	153.737	88.137	-49.710	1.00	49.48	C	ATOM 15983	C1*	C A 764	161.943	97.666	-51.754	1.00	40.16	C
ATOM 15934	C4*	C A 762	153.751	89.336	-50.613	1.00	49.48	C	ATOM 15984	N1	C A 764	161.891	96.731	-50.624	1.00	24.60	N
ATOM 15935	O4*	C A 762	153.072	90.436	-49.955	1.00	49.48	O	ATOM 15985	C2	C A 764	162.258	97.202	-49.368	1.00	24.60	C
ATOM 15936	C3*	C A 762	155.133	89.889	-50.901	1.00	49.48	O	ATOM 15986	O2	C A 764	162.582	98.400	-49.253	1.00	24.60	O
ATOM 15937	O3*	C A 762	155.840	89.219	-51.914	1.00	49.48	O	ATOM 15987	N3	C A 764	162.258	96.357	-48.309	1.00	24.60	N
ATOM 15938	C2*	C A 762	154.861	91.347	-51.232	1.00	49.48	C	ATOM 15988	C4	C A 764	161.914	95.088	-48.478	1.00	24.60	C
ATOM 15939	O2*	C A 762	154.465	91.574	-52.569	1.00	49.48	O	ATOM 15989	N4	C A 764	161.985	94.288	-47.419	1.00	24.60	N
ATOM 15940	C1*	C A 762	153.719	91.659	-50.271	1.00	49.48	C	ATOM 15990	C5	C A 764	161.500	94.581	-49.746	1.00	24.60	C
ATOM 15941	N1	C A 762	154.248	92.239	-49.030	1.00	30.70	N	ATOM 15991	C6	C A 764	161.509	95.429	-50.785	1.00	24.60	C
ATOM 15942	C2	C A 762	154.511	93.619	-48.987	1.00	30.70	C	ATOM 15992	P	G A 765	166.066	96.543	-53.920	1.00	40.80	P
ATOM 15943	O2	C A 762	154.301	94.311	-50.004	1.00	30.70	O	ATOM 15993	O1P	G A 765	166.937	97.143	-54.966	1.00	32.71	O
ATOM 15944	N3	C A 762	154.987	94.159	-47.848	1.00	30.70	N	ATOM 15994	O2P	G A 765	165.857	95.073	-53.883	1.00	32.71	O
ATOM 15945	C4	C A 762	155.197	93.384	-46.783	1.00	30.70	C	ATOM 15995	O5*	G A 765	166.552	97.001	-52.471	1.00	40.80	O
ATOM 15946	N4	C A 762	155.637	93.965	-45.677	1.00	30.70	N	ATOM 15996	C5*	G A 765	166.953	98.359	-52.223	1.00	40.80	C
ATOM 15947	C5	C A 762	154.956	91.981	-46.806	1.00	30.70	C	ATOM 15997	C4*	G A 765	167.130	98.587	-50.745	1.00	40.80	C



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ATOM	15998	O4*	G A 765	165.907	98.216	-50.075	1.00	40.80	O	ATOM	16048	Cl*	A A 767	178.430	97.623	-47.473	1.00	45.03	C
ATOM	15999	C3*	G A 765	168.201	97.754	-50.067	1.00	40.80	C	ATOM	16049	N9	A A 767	177.257	96.754	-47.325	1.00	32.10	N
ATOM	16000	O3*	G A 765	169.459	98.396	-50.156	1.00	40.80	O	ATOM	16050	C8	A A 767	176.163	96.714	-48.149	1.00	32.10	C
ATOM	16001	C2*	G A 765	167.711	97.696	-48.626	1.00	40.80	C	ATOM	16051	N7	A A 767	175.264	95.832	-47.792	1.00	32.10	N
ATOM	16002	O2*	G A 765	168.026	98.859	-47.885	1.00	40.80	O	ATOM	16052	C5	A A 767	175.796	95.256	-46.655	1.00	32.10	C
ATOM	16003	Cl*	G A 765	166.199	97.631	-48.824	1.00	40.80	C	ATOM	16053	C6	A A 767	175.314	94.272	-45.806	1.00	32.10	C
ATOM	16004	N9	G A 765	165.743	96.250	-48.862	1.00	32.71	N	ATOM	16054	N6	A A 767	174.151	93.666	-45.989	1.00	32.10	N
ATOM	16005	C8	G A 765	165.356	95.529	-49.964	1.00	32.71	C	ATOM	16055	N1	A A 767	176.068	93.923	-44.745	1.00	32.10	N
ATOM	16006	N7	G A 765	165.067	94.290	-49.684	1.00	32.71	N	ATOM	16056	C2	A A 767	177.240	94.536	-44.573	1.00	32.10	C
ATOM	16007	C5	G A 765	165.257	94.197	-48.317	1.00	32.71	C	ATOM	16057	N3	A A 767	177.809	95.488	-45.313	1.00	32.10	N
ATOM	16008	C6	G A 765	165.097	93.102	-47.452	1.00	32.71	C	ATOM	16058	C4	A A 767	177.022	95.811	-46.352	1.00	32.10	C
ATOM	16009	O6	G A 765	164.739	91.947	-47.731	1.00	32.71	O	ATOM	16059	P	A A 768	180.867	95.815	-51.188	1.00	40.24	P
ATOM	16010	N1	G A 765	165.390	93.445	-46.133	1.00	32.71	N	ATOM	16060	ClP	A A 768	182.135	96.087	-51.914	1.00	30.91	O
ATOM	16011	C2	G A 765	165.777	94.696	-45.713	1.00	32.71	C	ATOM	16061	O2P	A A 768	179.639	95.476	-51.955	1.00	30.91	O
ATOM	16012	N2	G A 765	165.994	94.854	-44.403	1.00	32.71	N	ATOM	16062	O5*	A A 768	181.134	94.700	-50.087	1.00	40.24	O
ATOM	16013	N3	G A 765	165.933	95.723	-46.521	1.00	32.71	N	ATOM	16063	C5*	A A 768	182.250	94.824	-49.203	1.00	40.24	C
ATOM	16014	C4	G A 765	165.657	95.404	-47.797	1.00	32.71	C	ATOM	16064	C4*	A A 768	182.092	93.895	-48.034	1.00	40.24	C
ATOM	16015	P	A A 766	170.559	97.846	-51.174	1.00	33.99	P	ATOM	16065	O4*	A A 768	180.885	94.233	-47.317	1.00	40.24	O
ATOM	16016	O1P	A A 766	170.115	98.256	-52.527	1.00	28.65	O	ATOM	16066	C3*	A A 768	181.931	92.432	-48.404	1.00	40.24	C
ATOM	16017	O2P	A A 766	170.815	96.411	-50.880	1.00	28.65	O	ATOM	16067	O3*	A A 768	183.200	91.818	-48.539	1.00	40.24	C
ATOM	16018	O5*	A A 766	171.869	98.651	-50.785	1.00	33.99	O	ATOM	16068	C2*	A A 768	181.151	91.864	-47.229	1.00	40.24	C
ATOM	16019	C5*	A A 766	171.934	100.068	-50.965	1.00	33.99	C	ATOM	16069	O2*	A A 768	181.992	91.530	-46.144	1.00	40.24	O
ATOM	16020	C4*	A A 766	173.104	100.646	-50.204	1.00	33.99	C	ATOM	16070	Cl*	A A 768	180.260	93.049	-46.853	1.00	40.24	C
ATOM	16021	O4*	A A 766	172.836	100.657	-48.780	1.00	33.99	O	ATOM	16071	N9	A A 768	178.940	92.958	-47.476	1.00	30.91	N
ATOM	16022	C3*	A A 766	174.411	99.883	-50.252	1.00	33.99	C	ATOM	16072	C8	A A 768	178.444	93.679	-48.549	1.00	30.91	C
ATOM	16023	O3*	A A 766	175.115	99.966	-51.472	1.00	33.99	O	ATOM	16073	N7	A A 768	177.229	93.331	-48.898	1.00	30.91	N
ATOM	16024	C2*	A A 766	175.176	100.494	-49.090	1.00	33.99	C	ATOM	16074	C5	A A 768	176.901	92.318	-47.998	1.00	30.91	C
ATOM	16025	O2*	A A 766	175.759	101.745	-49.387	1.00	33.99	O	ATOM	16075	C6	A A 768	175.766	91.514	-47.862	1.00	30.91	C
ATOM	16026	Cl*	A A 766	174.062	100.716	-48.083	1.00	33.99	C	ATOM	16076	N6	A A 768	174.733	91.554	-48.704	1.00	30.91	N
ATOM	16027	N9	A A 766	174.109	99.695	-47.045	1.00	28.65	N	ATOM	16077	N1	A A 768	175.739	90.634	-46.836	1.00	30.91	N
ATOM	16028	C8	A A 766	173.287	98.633	-46.768	1.00	28.65	C	ATOM	16078	C2	A A 768	176.813	90.544	-46.041	1.00	30.91	C
ATOM	16029	N7	A A 766	173.677	97.922	-45.733	1.00	28.65	N	ATOM	16079	N3	A A 768	177.959	91.210	-46.097	1.00	30.91	N
ATOM	16030	C5	A A 766	174.836	98.562	-45.308	1.00	28.65	C	ATOM	16080	C4	A A 768	177.937	92.096	-47.106	1.00	30.91	C
ATOM	16031	C6	A A 766	175.743	98.297	-44.271	1.00	28.65	C	ATOM	16081	P	G A 769	183.455	90.795	-49.737	1.00	39.81	P
ATOM	16032	N6	A A 766	175.647	97.255	-43.435	1.00	28.65	N	ATOM	16082	ClP	G A 769	184.829	90.279	-49.541	1.00	26.87	O
ATOM	16033	N1	A A 766	176.783	99.145	-44.122	1.00	28.65	N	ATOM	16083	O2P	G A 769	183.094	91.456	-51.025	1.00	26.87	O
ATOM	16034	C2	A A 766	176.909	100.171	-44.970	1.00	28.65	C	ATOM	16084	O5*	G A 769	182.412	89.638	-49.427	1.00	39.81	O
ATOM	16035	N3	A A 766	176.139	100.513	-45.988	1.00	28.65	N	ATOM	16085	C5*	G A 769	182.546	88.892	-48.235	1.00	39.81	C
ATOM	16036	C4	A A 766	175.106	99.657	-46.103	1.00	28.65	C	ATOM	16086	C4*	G A 769	181.298	88.112	-47.950	1.00	39.81	C
ATOM	16037	P	A A 767	175.826	98.638	-52.035	1.00	45.03	P	ATOM	16087	O4*	G A 769	180.164	89.003	-47.837	1.00	39.81	O
ATOM	16038	OlP	A A 767	176.520	99.030	-53.299	1.00	32.10	O	ATOM	16088	C3*	G A 769	180.820	87.112	-48.978	1.00	39.81	C
ATOM	16039	O2P	A A 767	174.810	97.554	-52.051	1.00	32.10	O	ATOM	16089	O3*	G A 769	181.596	85.934	-48.983	1.00	39.81	O
ATOM	16040	OS*	A A 767	176.910	98.272	-50.920	1.00	45.03	C	ATOM	16090	C2*	G A 769	179.391	86.877	-48.514	1.00	39.81	C
ATOM	16041	C5*	A A 767	178.054	99.121	-50.712	1.00	45.03	C	ATOM	16091	O2*	G A 769	179.337	86.107	-47.327	1.00	39.81	O
ATOM	16042	C4*	A A 767	178.869	98.649	-49.535	1.00	45.03	C	ATOM	16092	Cl*	G A 769	178.975	88.284	-48.123	1.00	39.81	C
ATOM	16043	O4*	A A 767	178.069	98.696	-48.329	1.00	45.03	O	ATOM	16093	N9	G A 769	178.246	88.955	-49.193	1.00	26.87	N
ATOM	16044	C3*	A A 767	179.376	97.223	-49.591	1.00	45.03	C	ATOM	16094	C8	G A 769	178.570	90.129	-49.823	1.00	26.87	C
ATOM	16045	O3*	A A 767	180.574	97.131	-50.324	1.00	45.03	C	ATOM	16095	N7	G A 769	177.699	90.480	-50.728	1.00	26.87	N
ATOM	16046	C2*	A A 767	179.614	96.910	-48.128	1.00	45.03	C	ATOM	16096	C5	G A 769	176.747	89.471	-50.696	1.00	26.87	C
ATOM	16047	O2*	A A 767	180.824	97.510	-47.713	1.00	45.03	O	ATOM	16097	C6	G A 769	175.556	89.307	-51.451	1.00	26.87	C



Table 1: Sheet 163/521

ATOM	16098	O6	G A 769	175.099	90.043	-52.333	1.00	26.87	O	ATOM	16148	O1P	U A 772	180.177	77.170	-58.098	1.00	46.77	O
ATOM	16099	N1	G A 769	174.874	88.148	-51.091	1.00	26.87	N	ATOM	16149	O2P	U A 772	180.266	79.705	-57.706	1.00	46.77	O
ATOM	16100	C2	G A 769	175.290	87.257	-50.133	1.00	26.87	C	ATOM	16150	O5*	U A 772	178.864	78.804	-59.531	1.00	46.59	O
ATOM	16101	N2	G A 769	174.499	86.197	-49.929	1.00	26.87	N	ATOM	16151	C5*	U A 772	177.951	77.889	-60.146	1.00	46.59	C
ATOM	16102	N3	G A 769	176.403	87.396	-49.427	1.00	26.87	N	ATOM	16152	C4*	U A 772	177.358	78.502	-61.384	1.00	46.59	C
ATOM	16103	C4	G A 769	177.074	88.521	-49.758	1.00	26.87	C	ATOM	16153	O4*	U A 772	176.471	79.582	-61.004	1.00	46.59	O
ATOM	16104	P	C A 770	182.042	85.302	-50.393	1.00	42.10	P	ATOM	16154	C3*	U A 772	178.349	79.158	-62.333	1.00	46.59	C
ATOM	16105	O1P	C A 770	183.189	84.396	-50.094	1.00	33.83	O	ATOM	16155	O3*	U A 772	179.041	78.263	-63.194	1.00	46.59	O
ATOM	16106	O2P	C A 770	182.203	86.402	-51.381	1.00	33.83	O	ATOM	16156	C2*	U A 772	177.486	80.160	-63.086	1.00	46.59	C
ATOM	16107	O5*	C A 770	180.775	84.440	-50.809	1.00	42.10	O	ATOM	16157	O2*	U A 772	176.803	79.596	-64.190	1.00	46.59	O
ATOM	16108	C5*	C A 770	180.241	83.509	-49.883	1.00	42.10	C	ATOM	16158	C1*	U A 772	176.519	80.611	-61.988	1.00	46.59	C
ATOM	16109	O4*	C A 770	178.934	82.958	-50.368	1.00	42.10	O	ATOM	16159	N1	U A 772	176.976	81.863	-61.356	1.00	46.77	N
ATOM	16110	O4*	C A 770	177.890	83.957	-50.297	1.00	42.10	O	ATOM	16160	C2	U A 772	176.634	83.064	-61.964	1.00	46.77	C
ATOM	16111	C3*	C A 770	178.862	82.469	-51.795	1.00	42.10	C	ATOM	16161	O2	U A 772	175.924	83.139	-62.942	1.00	46.77	O
ATOM	16112	O3*	C A 770	179.469	81.207	-51.974	1.00	42.10	O	ATOM	16162	N3	U A 772	177.155	84.184	-61.378	1.00	46.77	N
ATOM	16113	C2*	C A 770	177.361	82.429	-52.027	1.00	42.10	C	ATOM	16163	O4	U A 772	177.949	84.242	-60.269	1.00	46.77	O
ATOM	16114	O2*	C A 770	176.780	81.293	-51.418	1.00	42.10	O	ATOM	16164	C4	U A 772	178.431	85.327	-59.932	1.00	46.77	C
ATOM	16115	C1*	C A 770	176.911	83.680	-51.277	1.00	42.10	C	ATOM	16165	C5	U A 772	178.225	82.971	-59.667	1.00	46.77	C
ATOM	16116	N1	C A 770	176.814	84.833	-52.179	1.00	33.83	N	ATOM	16166	C6	U A 772	177.741	81.854	-60.218	1.00	46.77	C
ATOM	16117	C2	C A 770	175.779	84.862	-53.122	1.00	33.83	C	ATOM	16167	P	G A 773	180.580	78.575	-63.575	1.00	55.62	P
ATOM	16118	O2	C A 770	174.972	83.912	-53.167	1.00	33.83	O	ATOM	16168	O1P	G A 773	181.100	77.367	-64.270	1.00	53.78	O
ATOM	16119	N3	C A 770	175.679	85.919	-53.956	1.00	33.83	N	ATOM	16169	O2P	G A 773	181.293	79.082	-62.368	1.00	53.78	O
ATOM	16120	C4	C A 770	176.549	86.918	-53.866	1.00	33.83	C	ATOM	16170	O5*	G A 773	180.475	79.780	-64.615	1.00	55.62	O
ATOM	16121	N4	C A 770	176.392	87.948	-54.681	1.00	33.83	N	ATOM	16171	C5*	G A 773	179.738	79.616	-65.817	1.00	55.62	C
ATOM	16122	C5	C A 770	177.613	86.910	-52.926	1.00	33.83	C	ATOM	16172	C4*	G A 773	179.451	80.942	-66.458	1.00	55.62	C
ATOM	16123	C6	C A 770	177.709	85.859	-52.109	1.00	33.83	C	ATOM	16173	O4*	G A 773	178.579	81.729	-65.607	1.00	55.62	O
ATOM	16124	P	G A 771	180.214	80.899	-53.358	1.00	48.62	P	ATOM	16174	C3*	G A 773	180.605	81.891	-66.727	1.00	55.62	C
ATOM	16125	O1P	G A 771	181.047	79.707	-53.107	1.00	38.16	O	ATOM	16175	O3*	G A 773	181.380	81.574	-67.870	1.00	55.62	O
ATOM	16126	O2P	G A 771	180.838	82.152	-53.859	1.00	38.16	O	ATOM	16176	C2*	G A 773	179.873	83.205	-66.946	1.00	55.62	C
ATOM	16127	O5*	G A 771	179.031	80.538	-54.355	1.00	48.62	O	ATOM	16177	O2*	G A 773	179.352	83.287	-68.256	1.00	55.62	O
ATOM	16128	C5*	G A 771	178.155	79.434	-54.090	1.00	48.62	C	ATOM	16178	C1*	G A 773	178.738	83.106	-65.923	1.00	55.62	C
ATOM	16129	C4*	G A 771	177.117	79.331	-55.172	1.00	48.62	C	ATOM	16179	N9	G A 773	179.094	83.866	-64.725	1.00	53.78	N
ATOM	16130	O4*	G A 771	176.154	80.403	-55.026	1.00	48.62	O	ATOM	16180	C8	G A 773	179.593	83.397	-63.534	1.00	53.78	C
ATOM	16131	C3*	G A 771	177.637	79.502	-56.588	1.00	48.62	C	ATOM	16181	N7	G A 773	179.918	84.353	-62.703	1.00	53.78	N
ATOM	16132	O3*	G A 771	178.239	78.334	-57.125	1.00	48.62	O	ATOM	16182	C5	G A 773	179.587	85.521	-63.377	1.00	53.78	C
ATOM	16133	C2*	G A 771	176.396	79.945	-57.346	1.00	48.62	C	ATOM	16183	C6	G A 773	179.726	86.881	-62.992	1.00	53.78	C
ATOM	16134	O2*	G A 771	175.553	78.865	-57.701	1.00	48.62	O	ATOM	16184	O6	G A 773	180.193	87.342	-61.950	1.00	53.78	O
ATOM	16135	C1*	G A 771	175.709	80.826	-56.306	1.00	48.62	C	ATOM	16185	N1	G A 773	179.258	87.742	-63.978	1.00	53.78	N
ATOM	16136	N9	G A 771	176.066	82.231	-56.485	1.00	38.16	N	ATOM	16186	C2	G A 773	178.731	87.350	-65.179	1.00	53.78	C
ATOM	16137	C8	G A 771	176.983	82.964	-55.767	1.00	38.16	C	ATOM	16187	N2	G A 773	178.334	88.325	-65.997	1.00	53.78	N
ATOM	16138	N7	G A 771	177.092	84.198	-56.184	1.00	38.16	N	ATOM	16188	N3	G A 773	178.603	86.093	-65.553	1.00	53.78	N
ATOM	16139	C5	G A 771	176.198	84.278	-57.240	1.00	38.16	C	ATOM	16189	C4	G A 773	179.051	85.237	-64.612	1.00	53.78	C
ATOM	16140	C6	G A 771	175.891	85.354	-58.086	1.00	38.16	C	ATOM	16190	P	G A 774	182.913	82.086	-67.958	1.00	67.71	P
ATOM	16141	O6	G A 771	176.389	86.481	-58.100	1.00	38.16	O	ATOM	16191	O1P	G A 774	183.432	81.519	-69.237	1.00	45.75	O
ATOM	16142	N1	G A 771	174.905	85.019	-59.001	1.00	38.16	N	ATOM	16192	O2P	G A 774	183.625	81.787	-66.677	1.00	45.75	O
ATOM	16143	C2	G A 771	174.308	83.788	-59.096	1.00	38.16	C	ATOM	16193	O5*	G A 774	182.803	83.672	-68.124	1.00	67.71	O
ATOM	16144	N2	G A 771	173.354	83.652	-60.020	1.00	38.16	N	ATOM	16194	C5*	G A 774	182.189	84.223	-69.291	1.00	67.71	C
ATOM	16145	N3	G A 771	174.616	82.763	-58.331	1.00	38.16	N	ATOM	16195	C4*	G A 774	182.044	85.721	-69.185	1.00	67.71	C
ATOM	16146	C4	G A 771	175.553	83.077	-57.429	1.00	38.16	C	ATOM	16196	O4*	G A 774	181.192	86.094	-68.073	1.00	67.71	O
ATOM	16147	P	U A 772	179.507	78.491	-58.104	1.00	46.59	P	ATOM	16197	C3*	G A 774	183.277	86.571	-68.971	1.00	67.71	C



Table 1: Sheet 164/521

ATOM	16198	O3*	G A 774	184.020	86.761	-70.147	1.00	67.71	O	ATOM	16248	N9	G A 776	189.477	91.537	-64.128	1.00	39.99	N
ATOM	16199	C2*	G A 774	182.666	87.892	-68.526	1.00	67.71	C	ATOM	16249	C8	G A 776	189.328	90.630	-65.143	1.00	39.99	C
ATOM	16200	O2*	G A 774	182.145	88.649	-69.596	1.00	67.71	O	ATOM	16250	N7	G A 776	189.461	89.394	-64.748	1.00	39.99	N
ATOM	16201	C1*	G A 774	181.501	87.421	-67.668	1.00	67.71	C	ATOM	16251	C5	G A 776	189.711	89.495	-63.389	1.00	39.99	C
ATOM	16202	N9	G A 774	181.929	87.429	-66.274	1.00	45.75	N	ATOM	16252	C6	G A 776	189.945	88.485	-62.432	1.00	39.99	C
ATOM	16203	C8	G A 774	182.293	86.356	-65.500	1.00	45.75	C	ATOM	16253	O6	G A 776	189.986	87.261	-62.604	1.00	39.99	O
ATOM	16204	N7	G A 774	182.688	86.699	-64.306	1.00	45.75	N	ATOM	16254	N1	G A 776	190.150	89.021	-61.165	1.00	39.99	N
ATOM	16205	C5	G A 774	182.564	88.077	-64.287	1.00	45.75	C	ATOM	16255	C2	G A 776	190.141	90.362	-60.865	1.00	39.99	C
ATOM	16206	C6	G A 774	182.853	88.996	-63.266	1.00	45.75	C	ATOM	16256	N2	G A 776	190.381	90.672	-59.588	1.00	39.99	N
ATOM	16207	O6	G A 774	183.286	88.766	-62.129	1.00	45.75	O	ATOM	16257	N3	G A 776	189.922	91.321	-61.756	1.00	39.99	N
ATOM	16208	N1	G A 774	182.594	90.304	-63.569	1.00	45.75	N	ATOM	16258	C4	G A 776	189.718	90.816	-62.990	1.00	39.99	C
ATOM	16209	C2	G A 774	182.108	90.669	-64.900	1.00	45.75	C	ATOM	16259	P	A A 777	193.239	94.566	-66.732	1.00	46.65	P
ATOM	16210	N2	G A 774	181.918	91.973	-65.099	1.00	45.75	N	ATOM	16260	O1P	A A 777	193.375	94.787	-68.201	1.00	44.63	O
ATOM	16211	N3	G A 774	181.830	89.814	-65.861	1.00	45.75	N	ATOM	16261	O2P	A A 777	193.683	93.271	-66.145	1.00	44.63	O
ATOM	16212	C4	G A 774	182.084	88.543	-65.489	1.00	45.75	C	ATOM	16262	O5*	A A 777	193.966	95.757	-65.957	1.00	46.65	O
ATOM	16213	P	G A 775	185.576	87.141	-70.039	1.00	46.68	P	ATOM	16263	C5*	A A 777	194.714	96.736	-66.667	1.00	46.65	C
ATOM	16214	O1P	G A 775	186.063	87.320	-71.450	1.00	47.55	O	ATOM	16264	C4*	A A 777	194.443	98.119	-66.136	1.00	46.65	C
ATOM	16215	O2P	G A 775	186.253	86.174	-69.128	1.00	47.55	O	ATOM	16265	O4*	A A 777	193.049	98.468	-66.309	1.00	46.65	O
ATOM	16216	O5*	G A 775	185.609	88.559	-69.316	1.00	46.68	O	ATOM	16266	C3*	A A 777	194.717	98.451	-64.679	1.00	46.65	C
ATOM	16217	C5*	G A 775	185.113	89.733	-69.964	1.00	46.68	C	ATOM	16267	O3*	A A 777	196.097	98.678	-64.421	1.00	46.65	O
ATOM	16218	C4*	G A 775	185.199	90.905	-69.025	1.00	46.68	C	ATOM	16268	C2*	A A 777	193.954	99.758	-64.544	1.00	46.65	C
ATOM	16219	O4*	G A 775	184.415	90.629	-67.835	1.00	46.68	O	ATOM	16269	O2*	A A 777	194.652	100.809	-65.162	1.00	46.65	O
ATOM	16220	C3*	G A 775	186.580	91.198	-68.476	1.00	46.68	C	ATOM	16270	C1*	A A 777	192.708	99.479	-65.378	1.00	46.65	C
ATOM	16221	O3*	G A 775	187.369	91.936	-69.386	1.00	46.68	O	ATOM	16271	N9	A A 777	191.650	98.992	-64.492	1.00	44.63	N
ATOM	16222	C2*	G A 775	186.262	91.963	-67.200	1.00	46.68	C	ATOM	16272	C8	A A 777	191.162	97.715	-64.327	1.00	44.63	C
ATOM	16223	O2*	G A 775	185.864	93.287	-67.470	1.00	46.68	O	ATOM	16273	N7	A A 777	190.258	97.614	-63.379	1.00	44.63	N
ATOM	16224	C1*	G A 775	185.036	91.213	-66.700	1.00	46.68	C	ATOM	16274	C5	A A 777	190.131	98.912	-62.900	1.00	44.63	C
ATOM	16225	N9	G A 775	185.380	90.160	-65.743	1.00	47.55	N	ATOM	16275	C6	A A 777	189.348	99.469	-61.880	1.00	44.63	C
ATOM	16226	C8	G A 775	185.386	88.801	-65.953	1.00	47.55	C	ATOM	16276	N6	A A 777	188.517	98.760	-61.125	1.00	44.63	N
ATOM	16227	N7	G A 775	185.748	88.119	-64.900	1.00	47.55	N	ATOM	16277	N1	A A 777	189.456	100.794	-61.653	1.00	44.63	N
ATOM	16228	C5	G A 775	185.994	89.084	-63.935	1.00	47.55	C	ATOM	16278	C2	A A 777	190.302	101.505	-62.406	1.00	44.63	C
ATOM	16229	C6	G A 775	186.406	88.949	-62.583	1.00	47.55	C	ATOM	16279	N3	A A 777	191.099	101.099	-63.391	1.00	44.63	N
ATOM	16230	O6	G A 775	186.658	87.914	-61.951	1.00	47.55	O	ATOM	16280	C4	A A 777	190.965	99.774	-63.590	1.00	44.63	C
ATOM	16231	N1	G A 775	186.514	90.186	-61.955	1.00	47.55	N	ATOM	16281	P	G A 778	196.686	98.460	-62.933	1.00	49.83	P
ATOM	16232	C2	G A 775	186.262	91.400	-62.551	1.00	47.55	C	ATOM	16282	O1P	G A 778	198.124	98.832	-63.009	1.00	39.54	O
ATOM	16233	N2	G A 775	186.402	92.488	-61.775	1.00	47.55	N	ATOM	16283	O2P	G A 778	196.296	97.132	-62.388	1.00	39.54	O
ATOM	16234	N3	G A 775	185.891	91.538	-63.814	1.00	47.55	N	ATOM	16284	O5*	G A 778	195.943	99.542	-62.036	1.00	49.83	O
ATOM	16235	C4	G A 775	185.772	90.349	-64.440	1.00	47.55	C	ATOM	16285	C5*	G A 778	196.290	100.939	-62.077	1.00	49.83	C
ATOM	16236	P	G A 776	188.966	91.756	-69.362	1.00	47.30	P	ATOM	16286	C4*	G A 778	195.421	101.697	-61.103	1.00	49.83	C
ATOM	16237	O1P	G A 776	189.560	92.596	-70.441	1.00	39.99	O	ATOM	16287	O4*	G A 778	194.032	101.521	-61.497	1.00	49.83	O
ATOM	16238	O2P	G A 776	189.266	90.302	-69.284	1.00	39.99	O	ATOM	16288	C3*	G A 778	195.471	101.186	-59.671	1.00	49.83	C
ATOM	16239	O5*	G A 776	189.407	92.411	-67.987	1.00	47.30	O	ATOM	16289	O3*	G A 778	196.514	101.777	-58.924	1.00	49.83	O
ATOM	16240	C4*	G A 776	189.099	93.779	-67.708	1.00	47.30	C	ATOM	16290	C2*	G A 778	194.108	101.580	-59.134	1.00	49.83	C
ATOM	16241	C5*	G A 776	189.452	94.094	-66.289	1.00	47.30	C	ATOM	16291	O2*	G A 778	194.054	102.950	-58.784	1.00	49.83	O
ATOM	16242	O4*	G A 776	188.654	93.287	-65.395	1.00	47.30	O	ATOM	16292	C1*	G A 778	193.225	101.332	-60.353	1.00	49.83	C
ATOM	16243	C3*	G A 776	190.878	93.771	-65.904	1.00	47.30	C	ATOM	16293	N9	G A 778	192.744	99.955	-60.361	1.00	39.54	N
ATOM	16244	O3*	G A 776	191.709	94.838	-66.313	1.00	47.30	O	ATOM	16294	C8	G A 778	193.265	98.894	-61.055	1.00	39.54	C
ATOM	16245	O2*	G A 776	190.780	93.613	-64.390	1.00	47.30	O	ATOM	16295	N7	G A 778	192.646	97.774	-60.821	1.00	39.54	N
ATOM	16246	C2*	G A 776	190.760	94.836	-63.685	1.00	47.30	C	ATOM	16296	C5	G A 778	191.649	98.121	-59.924	1.00	39.54	C
ATOM	16247	C1*	G A 776	189.403	92.980	-64.239	1.00	47.30	C	ATOM	16297	C6	G A 778	190.643	97.327	-59.309	1.00	39.54	C



ATOM 16298	O6	G A 778	190.413	96.120	-59.448	1.00	39.54	O	ATOM 16348	O2P	A A 781	196.191	95.435	-48.570	1.00	51.38	O
ATOM 16299	N1	G A 778	189.845	98.083	-58.469	1.00	39.54	N	ATOM 16349	O5*	A A 781	194.486	94.348	-47.124	1.00	37.98	O
ATOM 16300	C2	G A 778	189.972	99.432	-58.267	1.00	39.54	C	ATOM 16350	C5*	A A 781	193.301	93.776	-47.623	1.00	37.98	C
ATOM 16301	N2	G A 778	189.087	99.987	-57.439	1.00	39.54	N	ATOM 16351	C4*	A A 781	192.465	93.255	-46.487	1.00	37.98	C
ATOM 16302	N3	G A 778	190.892	100.182	-58.836	1.00	39.54	N	ATOM 16352	O4*	A A 781	191.203	92.811	-47.041	1.00	37.98	O
ATOM 16303	C4	G A 778	191.693	99.466	-59.642	1.00	39.54	C	ATOM 16353	C3*	A A 781	193.047	92.069	-45.721	1.00	37.98	C
ATOM 16304	P	C A 779	197.009	101.078	-57.565	1.00	38.36	P	ATOM 16354	O3*	A A 781	193.782	92.559	-44.594	1.00	37.98	O
ATOM 16305	O1P	C A 779	197.955	102.042	-56.945	1.00	44.21	O	ATOM 16355	C2*	A A 781	191.795	91.295	-45.318	1.00	37.98	C
ATOM 16306	O2P	C A 779	197.451	99.678	-57.819	1.00	44.21	O	ATOM 16356	O2*	A A 781	191.139	91.842	-44.206	1.00	37.98	O
ATOM 16307	O5*	C A 779	195.676	100.929	-56.695	1.00	38.36	O	ATOM 16357	C1*	A A 781	190.871	91.550	-46.509	1.00	37.98	C
ATOM 16308	C5*	C A 779	195.029	102.059	-56.040	1.00	38.36	C	ATOM 16358	N9	A A 781	191.023	90.570	-47.581	1.00	51.38	N
ATOM 16309	C4*	C A 779	193.885	101.568	-55.176	1.00	38.36	C	ATOM 16359	C8	A A 781	191.752	90.681	-48.738	1.00	51.38	C
ATOM 16310	O4*	C A 779	192.931	100.872	-56.016	1.00	38.36	O	ATOM 16360	N7	A A 781	191.715	89.614	-49.484	1.00	51.38	N
ATOM 16311	C3*	C A 779	194.273	100.560	-54.097	1.00	38.36	C	ATOM 16361	C5	A A 781	190.900	88.746	-48.777	1.00	51.38	C
ATOM 16312	O3*	C A 779	194.605	101.225	-52.889	1.00	38.36	O	ATOM 16362	C6	A A 781	190.466	87.451	-49.038	1.00	51.38	C
ATOM 16313	C2*	C A 779	193.013	99.731	-53.905	1.00	38.36	C	ATOM 16363	N6	A A 781	190.809	86.763	-50.127	1.00	51.38	N
ATOM 16314	O2*	C A 779	192.148	100.238	-52.913	1.00	38.36	O	ATOM 16364	N1	A A 781	189.654	86.868	-48.133	1.00	51.38	N
ATOM 16315	C1*	C A 779	192.373	99.789	-55.298	1.00	38.36	C	ATOM 16365	C2	A A 781	189.311	87.560	-47.041	1.00	51.38	C
ATOM 16316	N1	C A 779	192.591	98.554	-56.057	1.00	44.21	N	ATOM 16366	N3	A A 781	189.656	88.785	-46.686	1.00	51.38	N
ATOM 16317	C2	C A 779	191.674	97.521	-55.909	1.00	44.21	C	ATOM 16367	C4	A A 781	190.461	89.327	-47.610	1.00	51.38	C
ATOM 16318	O2	C A 779	190.694	97.695	-55.181	1.00	44.21	O	ATOM 16368	P	A A 782	194.784	91.592	-43.766	1.00	35.15	P
ATOM 16319	N3	C A 779	191.873	96.360	-56.561	1.00	44.21	N	ATOM 16369	O1P	A A 782	194.317	91.534	-42.366	1.00	37.37	O
ATOM 16320	C4	C A 779	192.935	96.214	-57.340	1.00	44.21	C	ATOM 16370	O2P	A A 782	196.179	92.064	-44.041	1.00	37.37	O
ATOM 16321	N4	C A 779	193.095	95.047	-57.941	1.00	44.21	N	ATOM 16371	O5*	A A 782	194.565	90.139	-44.378	1.00	35.15	O
ATOM 16322	C5	C A 779	193.880	97.257	-57.529	1.00	44.21	C	ATOM 16372	C5*	A A 782	193.784	89.166	-43.695	1.00	35.15	C
ATOM 16323	C6	C A 779	193.672	98.401	-56.877	1.00	44.21	C	ATOM 16373	C4*	A A 782	193.776	87.867	-44.468	1.00	35.15	C
ATOM 16324	P	A A 780	195.637	100.553	-51.863	1.00	34.52	P	ATOM 16374	O4*	A A 782	193.281	88.092	-45.814	1.00	35.15	O
ATOM 16325	O1P	A A 780	195.728	101.443	-50.677	1.00	54.41	O	ATOM 16375	C3*	A A 782	195.119	87.204	-44.694	1.00	35.15	C
ATOM 16326	O2P	A A 780	196.869	100.243	-52.639	1.00	54.41	O	ATOM 16376	O3*	A A 782	195.559	86.443	-43.584	1.00	35.15	O
ATOM 16327	O5*	A A 780	194.949	99.176	-51.442	1.00	34.52	O	ATOM 16377	C2*	A A 782	194.846	86.324	-45.896	1.00	35.15	C
ATOM 16328	C5*	A A 780	193.949	99.121	-50.416	1.00	34.52	C	ATOM 16378	O2*	A A 782	194.177	85.141	-45.515	1.00	35.15	O
ATOM 16329	C4*	A A 780	193.244	97.787	-50.444	1.00	34.52	C	ATOM 16379	C1*	A A 782	193.922	87.214	-46.716	1.00	35.15	C
ATOM 16330	O4*	A A 780	192.932	97.477	-51.823	1.00	34.52	O	ATOM 16380	N9	A A 782	194.688	88.019	-47.665	1.00	37.37	N
ATOM 16331	C3*	A A 780	194.022	96.575	-49.951	1.00	34.52	C	ATOM 16381	C8	A A 782	195.066	89.329	-47.527	1.00	37.37	C
ATOM 16332	O3*	A A 780	193.843	96.372	-48.558	1.00	34.52	O	ATOM 16382	N7	A A 782	195.761	89.789	-48.540	1.00	37.37	N
ATOM 16333	C2*	A A 780	193.375	95.417	-50.695	1.00	34.52	C	ATOM 16383	C5	A A 782	195.846	88.709	-49.407	1.00	37.37	C
ATOM 16334	O2*	A A 780	192.227	94.954	-50.032	1.00	34.52	O	ATOM 16384	C6	A A 782	196.450	88.553	-50.668	1.00	37.37	C
ATOM 16335	C1*	A A 780	192.960	96.067	-52.014	1.00	34.52	C	ATOM 16385	N6	A A 782	197.129	89.522	-51.293	1.00	37.37	N
ATOM 16336	N9	A A 780	193.846	95.739	-53.135	1.00	54.41	N	ATOM 16386	N1	A A 782	196.334	87.351	-51.272	1.00	37.37	N
ATOM 16337	C8	A A 780	194.961	96.412	-53.567	1.00	54.41	C	ATOM 16387	C2	A A 782	195.664	86.378	-50.642	1.00	37.37	C
ATOM 16338	N7	A A 780	195.568	95.838	-54.575	1.00	54.41	N	ATOM 16388	N3	A A 782	195.062	86.399	-49.459	1.00	37.37	N
ATOM 16339	C5	A A 780	194.795	94.713	-54.830	1.00	54.41	C	ATOM 16389	C4	A A 782	195.188	87.610	-48.884	1.00	37.37	C
ATOM 16340	C6	A A 780	194.918	93.681	-55.768	1.00	54.41	C	ATOM 16390	P	C A 783	197.066	86.635	-43.063	1.00	48.10	P
ATOM 16341	N6	A A 780	195.908	93.610	-56.651	1.00	54.41	N	ATOM 16391	O1P	C A 783	197.286	85.655	-41.951	1.00	32.34	O
ATOM 16342	N1	A A 780	193.983	92.713	-55.766	1.00	54.41	N	ATOM 16392	O2P	C A 783	197.261	88.101	-42.831	1.00	32.34	O
ATOM 16343	C2	A A 780	192.995	92.786	-54.874	1.00	54.41	C	ATOM 16393	O5*	C A 783	197.964	86.236	-44.314	1.00	48.10	O
ATOM 16344	N3	A A 780	192.774	93.700	-53.933	1.00	54.41	N	ATOM 16394	C5*	C A 783	197.866	84.930	-44.877	1.00	48.10	C
ATOM 16345	C4	A A 780	193.724	94.648	-53.963	1.00	54.41	C	ATOM 16395	C4*	C A 783	198.416	84.928	-46.271	1.00	48.10	C
ATOM 16346	P	A A 781	195.035	95.734	-47.683	1.00	37.98	P	ATOM 16396	O4*	C A 783	197.706	85.911	-47.066	1.00	48.10	O
ATOM 16347	O1P	A A 781	195.227	96.625	-46.501	1.00	51.38	O	ATOM 16397	C3*	C A 783	199.868	85.335	-46.407	1.00	48.10	C



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ATOM 16398	O3*	C A 783	200.752	84.278	-46.103	1.00 48.10	O	ATOM 16448	N1	G A 785	206.193	95.259	-46.821	1.00 39.29	N
ATOM 16399	C2*	C A 783	199.947	85.802	-47.854	1.00 48.10	C	ATOM 16449	C2	G A 785	207.194	95.029	-47.721	1.00 39.29	C
ATOM 16400	O2*	C A 783	200.067	84.740	-48.784	1.00 48.10	O	ATOM 16450	N2	G A 785	207.767	96.109	-48.239	1.00 39.29	N
ATOM 16401	C1*	C A 783	198.586	86.475	-48.020	1.00 48.10	C	ATOM 16451	N3	G A 785	207.605	93.824	-48.079	1.00 39.29	N
ATOM 16402	N1	C A 783	198.664	87.923	-47.790	1.00 32.34	N	ATOM 16452	C4	G A 785	206.921	92.851	-47.440	1.00 39.29	C
ATOM 16403	C2	C A 783	199.185	88.721	-48.807	1.00 32.34	C	ATOM 16453	P	G A 786	211.808	90.401	-45.201	1.00 42.39	P
ATOM 16404	O2	C A 783	199.573	88.171	-49.849	1.00 32.34	O	ATOM 16454	O1P	G A 786	213.217	89.938	-45.163	1.00 40.89	O
ATOM 16405	N3	C A 783	199.259	90.064	-48.632	1.00 32.34	N	ATOM 16455	O2P	G A 786	210.907	90.094	-44.055	1.00 40.89	O
ATOM 16406	C4	C A 783	198.836	90.609	-47.492	1.00 32.34	C	ATOM 16456	O5*	G A 786	211.803	91.967	-45.479	1.00 42.39	O
ATOM 16407	N4	C A 783	198.900	91.929	-47.378	1.00 32.34	N	ATOM 16457	C5*	G A 786	212.573	92.491	-46.550	1.00 42.39	C
ATOM 16408	C5	C A 783	198.318	89.815	-46.422	1.00 32.34	C	ATOM 16458	C4*	G A 786	212.464	93.980	-46.595	1.00 42.39	C
ATOM 16409	C6	C A 783	198.245	88.489	-46.613	1.00 32.34	C	ATOM 16459	O4*	G A 786	211.118	94.333	-46.982	1.00 42.39	O
ATOM 16410	P	C A 784	202.167	84.620	-45.438	1.00 50.57	P	ATOM 16460	C3*	G A 786	212.681	94.735	-45.299	1.00 42.39	C
ATOM 16411	O1P	C A 784	202.819	83.331	-45.120	1.00 42.22	O	ATOM 16461	O3*	G A 786	214.036	94.958	-44.985	1.00 42.39	O
ATOM 16412	O2P	C A 784	201.998	85.644	-44.377	1.00 42.22	O	ATOM 16462	C2*	G A 786	211.967	96.044	-45.582	1.00 42.39	C
ATOM 16413	O5*	C A 784	202.955	85.288	-46.635	1.00 50.57	O	ATOM 16463	O2*	G A 786	212.742	96.922	-46.372	1.00 42.39	O
ATOM 16414	C5*	C A 784	203.233	84.521	-47.795	1.00 50.57	C	ATOM 16464	C1*	G A 786	210.759	95.561	-46.378	1.00 42.39	C
ATOM 16415	C4*	C A 784	204.153	85.273	-48.686	1.00 50.57	C	ATOM 16465	N9	G A 786	209.643	95.324	-45.470	1.00 40.89	N
ATOM 16416	O4*	C A 784	203.443	86.377	-49.287	1.00 50.57	O	ATOM 16466	C8	G A 786	209.147	94.124	-45.026	1.00 40.89	C
ATOM 16417	C3*	C A 784	205.310	85.915	-47.962	1.00 50.57	C	ATOM 16467	N7	G A 786	208.143	94.261	-44.206	1.00 40.89	N
ATOM 16418	O3*	C A 784	206.350	84.977	-47.727	1.00 50.57	O	ATOM 16468	C5	G A 786	207.968	95.635	-44.109	1.00 40.89	C
ATOM 16419	C2*	C A 784	205.689	87.050	-48.904	1.00 50.57	C	ATOM 16469	C6	G A 786	207.025	96.392	-43.379	1.00 40.89	C
ATOM 16420	O2*	C A 784	206.498	86.607	-49.975	1.00 50.57	O	ATOM 16470	O6	G A 786	206.104	95.983	-42.653	1.00 40.89	O
ATOM 16421	C1*	C A 784	204.323	87.467	-49.451	1.00 50.57	C	ATOM 16471	N1	G A 786	207.219	97.759	-43.561	1.00 40.89	N
ATOM 16422	N1	C A 784	203.756	88.654	-48.786	1.00 42.22	N	ATOM 16472	C2	G A 786	208.190	98.322	-44.354	1.00 40.89	C
ATOM 16423	C2	C A 784	204.002	89.916	-49.354	1.00 42.22	C	ATOM 16473	N2	G A 786	208.241	99.665	-44.415	1.00 40.89	N
ATOM 16424	O2	C A 784	204.665	89.985	-50.396	1.00 42.22	O	ATOM 16474	N3	G A 786	209.057	97.625	-45.046	1.00 40.89	N
ATOM 16425	N3	C A 784	203.515	91.025	-48.758	1.00 42.22	N	ATOM 16475	C4	G A 786	208.890	96.299	-44.879	1.00 40.89	C
ATOM 16426	N4	C A 784	202.806	90.918	-47.638	1.00 42.22	C	ATOM 16476	P	A A 787	214.519	94.838	-43.453	1.00 55.69	P
ATOM 16427	C4	C A 784	202.373	92.046	-47.077	1.00 42.22	C	ATOM 16477	O1P	A A 787	216.008	94.932	-43.478	1.00 46.89	O
ATOM 16428	C5	C A 784	202.521	89.646	-47.039	1.00 42.22	C	ATOM 16478	O2P	A A 787	213.872	93.633	-42.861	1.00 46.89	O
ATOM 16429	C6	C A 784	203.014	88.549	-47.641	1.00 42.22	C	ATOM 16479	O5*	A A 787	213.929	96.132	-42.722	1.00 55.69	O
ATOM 16430	P	G A 785	207.595	85.387	-46.791	1.00 48.61	P	ATOM 16480	C5*	A A 787	214.430	97.440	-43.034	1.00 55.69	C
ATOM 16431	O1P	G A 785	208.626	84.367	-47.104	1.00 39.29	O	ATOM 16481	C4*	A A 787	213.462	98.516	-42.584	1.00 55.69	C
ATOM 16432	O2P	G A 785	207.189	85.618	-45.367	1.00 39.29	O	ATOM 16482	O4*	A A 787	212.117	98.154	-42.991	1.00 55.69	O
ATOM 16433	O5*	G A 785	208.063	86.770	-47.418	1.00 48.61	O	ATOM 16483	C3*	A A 787	213.319	98.815	-41.097	1.00 55.69	C
ATOM 16434	C5*	G A 785	208.716	87.763	-46.632	1.00 48.61	C	ATOM 16484	O3*	A A 787	214.341	99.688	-40.622	1.00 55.69	O
ATOM 16435	C4*	G A 785	209.174	88.884	-47.523	1.00 48.61	C	ATOM 16485	C2*	A A 787	211.964	99.508	-41.056	1.00 55.69	C
ATOM 16436	O4*	G A 785	208.033	89.451	-48.217	1.00 48.61	O	ATOM 16486	O2*	A A 787	212.039	100.834	-41.539	1.00 55.69	O
ATOM 16437	C3*	G A 785	209.800	90.051	-46.798	1.00 48.61	C	ATOM 16487	C1*	A A 787	211.179	98.712	-42.091	1.00 55.69	C
ATOM 16438	O3*	G A 785	211.158	89.810	-46.536	1.00 48.61	O	ATOM 16488	N9	A A 787	210.382	97.637	-41.494	1.00 46.89	N
ATOM 16439	C2*	G A 785	209.570	91.209	-47.756	1.00 48.61	C	ATOM 16489	C8	A A 787	210.600	96.281	-41.529	1.00 46.89	C
ATOM 16440	O2*	G A 785	210.531	91.291	-48.783	1.00 48.61	O	ATOM 16490	N7	A A 787	209.677	95.581	-40.914	1.00 46.89	N
ATOM 16441	C1*	G A 785	208.194	90.857	-48.335	1.00 48.61	C	ATOM 16491	C5	A A 787	208.791	96.540	-40.438	1.00 46.89	C
ATOM 16442	N9	G A 785	207.140	91.500	-47.554	1.00 39.29	N	ATOM 16492	C6	A A 787	207.583	96.443	-39.723	1.00 46.89	C
ATOM 16443	C8	G A 785	206.216	90.888	-46.747	1.00 39.29	C	ATOM 16493	N6	A A 787	207.027	95.287	-39.372	1.00 46.89	N
ATOM 16444	N7	G A 785	205.466	91.734	-46.101	1.00 39.29	N	ATOM 16494	N1	A A 787	206.951	97.588	-39.394	1.00 46.89	N
ATOM 16445	C5	G A 785	205.906	92.977	-46.524	1.00 39.29	C	ATOM 16495	C2	A A 787	207.491	98.748	-39.778	1.00 46.89	C
ATOM 16446	C6	G A 785	205.479	94.271	-46.153	1.00 39.29	C	ATOM 16496	N3	A A 787	208.610	98.972	-40.468	1.00 46.89	N
ATOM 16447	O6	G A 785	204.603	94.585	-45.341	1.00 39.29	O	ATOM 16497	C4	A A 787	209.221	97.811	-40.773	1.00 46.89	C



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ATOM	16498	P	U A 788	214.748	99.673	-39.062	1.00	49.17	P	ATOM	16548	O2*	A A 790	212.427	92.862	-26.986	1.00	58.64	O
ATOM	16499	O1P	U A 788	215.749	100.744	-38.856	1.00	34.84	O	ATOM	16549	Cl*	A A 790	211.746	95.056	-26.249	1.00	58.64	C
ATOM	16500	O2P	U A 788	215.066	98.282	-38.649	1.00	34.84	O	ATOM	16550	N9	A A 790	210.533	95.877	-26.220	1.00	76.51	N
ATOM	16501	O3*	U A 788	213.416	100.115	-38.308	1.00	49.17	O	ATOM	16551	C8	A A 790	210.306	97.084	-26.841	1.00	76.51	C
ATOM	16502	C5*	U A 788	212.997	101.502	-38.252	1.00	49.17	C	ATOM	16552	N7	A A 790	209.119	97.588	-26.604	1.00	76.51	N
ATOM	16503	C4*	U A 788	211.789	101.645	-37.349	1.00	49.17	C	ATOM	16553	C5	A A 790	208.522	96.649	-25.774	1.00	76.51	C
ATOM	16504	O4*	U A 788	210.680	100.890	-37.908	1.00	49.17	O	ATOM	16554	C6	A A 790	207.256	96.597	-25.161	1.00	76.51	C
ATOM	16505	C3*	U A 788	211.958	101.082	-35.944	1.00	49.17	C	ATOM	16555	N6	A A 790	206.325	97.545	-25.292	1.00	76.51	N
ATOM	16506	O3*	U A 788	212.557	102.014	-35.055	1.00	49.17	O	ATOM	16556	N1	A A 790	206.977	95.521	-24.396	1.00	76.51	N
ATOM	16507	C2*	U A 788	210.530	100.747	-35.534	1.00	49.17	C	ATOM	16557	C2	A A 790	207.911	94.567	-24.260	1.00	76.51	C
ATOM	16508	O2*	U A 788	209.808	101.861	-35.049	1.00	49.17	O	ATOM	16558	N3	A A 790	209.133	94.504	-24.780	1.00	76.51	N
ATOM	16509	Cl*	U A 788	209.930	100.293	-36.862	1.00	49.17	C	ATOM	16559	C4	A A 790	209.380	95.589	-25.535	1.00	76.51	C
ATOM	16510	N1	U A 788	209.981	98.830	-37.007	1.00	34.84	N	ATOM	16560	P	G A 791	213.069	93.835	-30.796	1.00	62.49	P
ATOM	16511	C2	U A 788	208.941	98.097	-36.457	1.00	34.84	C	ATOM	16561	O1P	G A 791	214.106	92.972	-31.428	1.00	55.15	O
ATOM	16512	O2	U A 788	208.022	98.614	-35.854	1.00	34.84	O	ATOM	16562	O2P	G A 791	212.795	95.184	-31.350	1.00	55.15	O
ATOM	16513	N3	U A 788	209.027	96.736	-36.626	1.00	34.84	N	ATOM	16563	O5*	G A 791	211.706	93.021	-30.758	1.00	62.49	O
ATOM	16514	C4	U A 788	210.038	96.047	-37.262	1.00	34.84	C	ATOM	16564	C5*	G A 791	211.701	91.631	-30.395	1.00	62.49	C
ATOM	16515	O4	U A 788	210.004	94.812	-37.302	1.00	34.84	O	ATOM	16565	C4*	G A 791	210.288	91.139	-30.263	1.00	62.49	C
ATOM	16516	C5	U A 788	211.082	96.878	-37.791	1.00	34.84	C	ATOM	16566	O4*	G A 791	209.670	91.768	-29.116	1.00	62.49	O
ATOM	16517	C6	U A 788	211.017	98.203	-37.652	1.00	34.84	C	ATOM	16567	C3*	G A 791	209.385	91.485	-31.431	1.00	62.49	C
ATOM	16518	P	U A 789	213.527	101.485	-33.887	1.00	57.78	P	ATOM	16568	O3*	G A 791	209.507	90.514	-32.458	1.00	62.49	O
ATOM	16519	O1P	U A 789	213.915	102.663	-33.062	1.00	52.24	O	ATOM	16569	C2*	G A 791	208.000	91.508	-30.798	1.00	62.49	C
ATOM	16520	O2P	U A 789	214.579	100.637	-34.517	1.00	52.24	O	ATOM	16570	O2*	G A 791	207.424	90.222	-30.717	1.00	62.49	O
ATOM	16521	O5*	U A 789	212.594	100.545	-33.005	1.00	57.78	O	ATOM	16571	Cl*	G A 791	208.305	92.027	-29.392	1.00	55.15	N
ATOM	16522	C5*	U A 789	211.469	101.092	-32.319	1.00	57.78	C	ATOM	16572	N9	G A 791	208.078	93.459	-29.241	1.00	55.15	N
ATOM	16523	C4*	U A 789	210.696	100.004	-31.638	1.00	57.78	C	ATOM	16573	C8	G A 791	208.966	94.470	-29.518	1.00	55.15	C
ATOM	16524	O4*	U A 789	210.044	99.162	-32.617	1.00	57.78	O	ATOM	16574	N7	G A 791	208.472	95.658	-29.306	1.00	55.15	N
ATOM	16525	C3*	U A 789	211.502	99.049	-30.786	1.00	57.78	C	ATOM	16575	C5	G A 791	207.181	95.418	-28.860	1.00	55.15	C
ATOM	16526	O3*	U A 789	211.765	99.634	-29.511	1.00	57.78	O	ATOM	16576	C6	G A 791	206.159	96.324	-28.489	1.00	55.15	C
ATOM	16527	C2*	U A 789	210.584	97.831	-30.721	1.00	57.78	C	ATOM	16577	O6	G A 791	206.195	97.561	-28.492	1.00	55.15	O
ATOM	16528	O2*	U A 789	209.559	97.971	-29.758	1.00	57.78	O	ATOM	16578	N1	G A 791	205.001	95.657	-28.089	1.00	55.15	N
ATOM	16529	Cl*	U A 789	209.935	97.845	-32.110	1.00	57.78	C	ATOM	16579	C2	G A 791	204.849	94.291	-28.055	1.00	55.15	C
ATOM	16530	N1	U A 789	210.547	96.900	-33.064	1.00	52.24	N	ATOM	16580	N2	G A 791	203.662	93.831	-27.631	1.00	55.15	N
ATOM	16531	C2	U A 789	210.032	95.614	-33.132	1.00	52.24	C	ATOM	16581	N3	G A 791	205.795	93.435	-28.409	1.00	55.15	N
ATOM	16532	O2	U A 789	209.048	95.252	-32.520	1.00	52.24	O	ATOM	16582	C4	G A 791	206.926	94.064	-28.800	1.00	55.15	C
ATOM	16533	N3	U A 789	210.701	94.766	-33.963	1.00	52.24	N	ATOM	16583	P	A A 792	209.371	90.964	-33.993	1.00	62.82	P
ATOM	16534	C4	U A 789	211.777	95.058	-34.747	1.00	52.24	C	ATOM	16584	O1P	A A 792	210.062	89.967	-34.842	1.00	66.36	O
ATOM	16535	O4	U A 789	212.261	94.174	-35.452	1.00	52.24	O	ATOM	16585	O2P	A A 792	209.721	92.401	-34.113	1.00	66.36	O
ATOM	16536	C5	U A 789	212.223	96.409	-34.669	1.00	52.24	C	ATOM	16586	O5*	A A 792	207.824	90.803	-34.292	1.00	62.82	O
ATOM	16537	C6	U A 789	211.613	97.262	-33.849	1.00	52.24	C	ATOM	16587	C5*	A A 792	206.874	91.619	-33.617	1.00	62.82	C
ATOM	16538	P	A A 790	213.128	99.279	-28.721	1.00	58.64	P	ATOM	16588	C4*	A A 792	205.840	92.097	-34.586	1.00	62.82	C
ATOM	16539	O1P	A A 790	213.033	99.917	-27.376	1.00	76.51	O	ATOM	16589	O4*	A A 792	204.933	92.961	-33.862	1.00	62.82	O
ATOM	16540	O2P	A A 790	214.279	99.612	-29.608	1.00	76.51	O	ATOM	16590	C3*	A A 792	206.406	92.917	-35.729	1.00	62.82	C
ATOM	16541	O5*	A A 790	213.020	97.700	-28.531	1.00	58.64	O	ATOM	16591	O3*	A A 792	205.937	92.414	-37.016	1.00	62.82	O
ATOM	16542	C5*	A A 790	214.137	96.920	-28.084	1.00	58.64	C	ATOM	16592	C2*	A A 792	206.254	94.354	-35.237	1.00	62.82	C
ATOM	16543	C4*	A A 790	213.646	95.624	-27.493	1.00	58.64	C	ATOM	16593	O2*	A A 792	206.256	95.382	-36.194	1.00	62.82	O
ATOM	16544	O4*	A A 790	212.857	95.926	-26.321	1.00	58.64	O	ATOM	16594	Cl*	A A 792	204.999	94.276	-34.368	1.00	62.82	C
ATOM	16545	C3*	A A 790	212.718	94.833	-28.400	1.00	58.64	C	ATOM	16595	N9	A A 792	204.988	95.184	-33.213	1.00	66.36	N
ATOM	16546	O3*	A A 790	213.466	93.968	-29.247	1.00	58.64	O	ATOM	16596	C8	A A 792	206.052	95.716	-32.517	1.00	66.36	C
ATOM	16547	C2*	A A 790	211.837	94.070	-27.418	1.00	58.64	C	ATOM	16597	N7	A A 792	205.698	96.516	-31.540	1.00	66.36	N



Table 1: Sheet 168/521

ATOM	16598	C5	A	A	792	204.310	96.508	-31.589	1.00	66.36	C	ATOM	16648	O1P	C	A	795	198.837	97.469	-42.288	1.00	56.70	O
ATOM	16599	C6	A	A	792	203.330	97.171	-30.828	1.00	66.36	C	ATOM	16649	O2P	C	A	795	201.151	97.167	-41.196	1.00	56.70	O
ATOM	16600	N6	A	A	792	203.609	98.017	-29.831	1.00	66.36	N	ATOM	16650	O5*	C	A	795	199.778	99.188	-40.745	1.00	40.77	O
ATOM	16601	N1	A	A	792	202.035	96.939	-31.135	1.00	66.36	N	ATOM	16651	C5*	C	A	795	198.579	99.886	-40.385	1.00	40.77	C
ATOM	16602	C2	A	A	792	201.753	96.104	-32.139	1.00	66.36	C	ATOM	16652	C4*	C	A	795	198.885	101.011	-39.425	1.00	40.77	C
ATOM	16603	N3	A	A	792	202.579	95.431	-32.929	1.00	66.36	N	ATOM	16653	O4*	C	A	795	199.440	100.488	-38.196	1.00	40.77	O
ATOM	16604	C4	A	A	792	203.859	95.680	-32.603	1.00	66.36	C	ATOM	16654	O3*	C	A	795	199.892	102.035	-39.898	1.00	40.77	O
ATOM	16605	P	U	A	793	204.547	92.902	-37.700	1.00	74.93	P	ATOM	16655	C3*	C	A	795	199.253	103.009	-40.694	1.00	40.77	C
ATOM	16606	O1P	U	A	793	204.336	91.965	-38.832	1.00	64.27	O	ATOM	16656	C2*	C	A	795	200.406	102.629	-38.595	1.00	40.77	O
ATOM	16607	O2P	U	A	793	204.563	94.355	-37.969	1.00	64.27	O	ATOM	16657	O2*	C	A	795	199.581	103.675	-38.107	1.00	40.77	O
ATOM	16608	O5*	U	A	793	203.382	92.578	-36.657	1.00	74.93	O	ATOM	16658	C1*	C	A	795	200.354	101.421	-37.657	1.00	40.77	C
ATOM	16609	C5*	U	A	793	203.265	91.281	-36.022	1.00	74.93	C	ATOM	16659	N1	C	A	795	201.662	100.768	-37.518	1.00	56.70	N
ATOM	16610	C4*	U	A	793	202.324	90.386	-36.793	1.00	74.93	C	ATOM	16660	C2	C	A	795	202.536	101.228	-36.538	1.00	56.70	C
ATOM	16611	O4*	U	A	793	202.440	89.039	-36.268	1.00	74.93	O	ATOM	16661	O2	C	A	795	202.164	102.148	-35.783	1.00	56.70	O
ATOM	16612	C3*	U	A	793	200.837	90.732	-36.797	1.00	74.93	C	ATOM	16662	N3	C	A	795	203.763	100.662	-36.430	1.00	56.70	N
ATOM	16613	O3*	U	A	793	200.318	90.530	-38.105	1.00	74.93	O	ATOM	16663	C4	C	A	795	204.110	99.666	-37.247	1.00	56.70	C
ATOM	16614	C2*	U	A	793	200.223	89.713	-35.834	1.00	74.93	C	ATOM	16664	N4	C	A	795	205.326	99.146	-37.117	1.00	56.70	N
ATOM	16615	O2*	U	A	793	198.916	89.312	-36.210	1.00	74.93	O	ATOM	16665	C5	C	A	795	203.225	99.162	-38.235	1.00	56.70	C
ATOM	16616	C1*	U	A	793	201.160	88.519	-35.985	1.00	74.93	C	ATOM	16666	C6	C	A	795	202.025	99.738	-38.338	1.00	56.70	C
ATOM	16617	N1	U	A	793	201.259	87.651	-34.797	1.00	64.27	N	ATOM	16667	P	C	A	796	199.432	102.957	-42.278	1.00	46.57	P
ATOM	16618	C2	U	A	793	201.020	86.292	-37.971	1.00	64.27	C	ATOM	16668	O1P	C	A	796	198.674	104.083	-42.886	1.00	39.85	O
ATOM	16619	O2	U	A	793	200.728	85.797	-36.046	1.00	64.27	O	ATOM	16669	O2P	C	A	796	199.135	101.552	-42.684	1.00	39.85	O
ATOM	16620	N3	U	A	793	201.144	85.958	-32.572	1.00	64.27	N	ATOM	16670	O5*	C	A	796	200.980	103.248	-42.492	1.00	46.57	O
ATOM	16621	C4	U	A	793	201.481	85.958	-32.572	1.00	64.27	C	ATOM	16671	C5*	C	A	796	201.503	104.572	-42.303	1.00	46.57	C
ATOM	16622	O4	U	A	793	201.636	85.126	-31.671	1.00	64.27	O	ATOM	16672	C4*	C	A	796	202.958	104.632	-42.713	1.00	46.57	C
ATOM	16623	C5	U	A	793	201.703	87.372	-32.465	1.00	64.27	C	ATOM	16673	O4*	C	A	796	203.760	103.891	-41.758	1.00	46.57	O
ATOM	16624	C6	U	A	793	201.586	88.151	-33.554	1.00	64.27	C	ATOM	16674	C3*	C	A	796	203.299	104.014	-44.059	1.00	46.57	C
ATOM	16625	P	A	A	794	199.201	91.535	-38.692	1.00	52.33	P	ATOM	16675	O3*	C	A	796	203.092	104.878	-45.168	1.00	46.57	O
ATOM	16626	O1P	A	A	794	197.849	91.049	-38.284	1.00	61.75	O	ATOM	16676	C2*	C	A	796	204.763	103.665	-43.894	1.00	46.57	C
ATOM	16627	O2P	A	A	794	199.507	91.735	-38.144	1.00	52.33	O	ATOM	16677	O2*	C	A	796	205.551	104.825	-44.064	1.00	46.57	O
ATOM	16628	O5*	A	A	794	199.468	92.919	-37.955	1.00	52.33	O	ATOM	16678	C1*	C	A	796	204.807	103.224	-42.433	1.00	46.57	C
ATOM	16629	C5*	A	A	794	199.895	94.064	-38.700	1.00	52.33	C	ATOM	16679	N1	C	A	796	204.607	101.773	-42.259	1.00	39.85	N
ATOM	16630	C4*	A	A	794	199.300	95.302	-38.110	1.00	52.33	C	ATOM	16680	C2	C	A	796	205.686	100.919	-42.441	1.00	39.85	C
ATOM	16631	O4*	A	A	794	199.693	95.384	-36.723	1.00	52.33	O	ATOM	16681	O2	C	A	796	206.778	101.399	-42.791	1.00	39.85	O
ATOM	16632	C3*	A	A	794	199.784	96.597	-38.728	1.00	52.33	C	ATOM	16682	N3	C	A	796	205.522	99.595	-42.236	1.00	39.85	N
ATOM	16633	O3*	A	A	794	199.023	96.940	-39.868	1.00	52.33	O	ATOM	16683	C4	C	A	796	204.336	99.120	-41.870	1.00	39.85	C
ATOM	16634	C2*	A	A	794	199.580	97.590	-37.601	1.00	52.33	C	ATOM	16684	N4	C	A	796	204.228	97.811	-41.651	1.00	39.85	N
ATOM	16635	O2*	A	A	794	198.240	98.023	-37.548	1.00	52.33	O	ATOM	16685	C5	C	A	796	203.210	99.963	-41.702	1.00	39.85	C
ATOM	16636	C1*	A	A	794	199.910	96.734	-36.375	1.00	52.33	C	ATOM	16686	C6	C	A	796	203.386	101.268	-41.906	1.00	39.85	C
ATOM	16637	N9	A	A	794	201.304	96.877	-35.967	1.00	61.75	N	ATOM	16687	P	C	A	797	202.645	104.231	-46.571	1.00	51.49	P
ATOM	16638	C8	A	A	794	202.377	96.125	-36.367	1.00	61.75	C	ATOM	16688	O1P	C	A	797	202.292	105.286	-47.565	1.00	32.80	O
ATOM	16639	N7	A	A	794	203.515	96.511	-35.848	1.00	61.75	N	ATOM	16689	O2P	C	A	797	201.657	103.161	-46.238	1.00	32.80	O
ATOM	16640	C5	A	A	794	203.166	97.585	-35.045	1.00	61.75	C	ATOM	16690	O5*	C	A	797	203.967	103.512	-47.082	1.00	51.49	O
ATOM	16641	C6	A	A	794	203.922	98.429	-34.226	1.00	61.75	C	ATOM	16691	C5*	C	A	797	205.136	104.275	-47.438	1.00	51.49	C
ATOM	16642	N6	A	A	794	205.239	98.311	-34.068	1.00	61.75	N	ATOM	16692	C4*	C	A	797	206.200	103.352	-47.965	1.00	51.49	C
ATOM	16643	N1	A	A	794	203.273	99.411	-33.564	1.00	61.75	N	ATOM	16693	O4*	C	A	797	206.629	102.469	-46.901	1.00	51.49	O
ATOM	16644	C2	A	A	794	201.952	99.520	-33.723	1.00	61.75	C	ATOM	16694	C3*	C	A	797	205.746	102.401	-49.058	1.00	51.49	C
ATOM	16645	N3	A	A	794	201.130	98.785	-34.461	1.00	61.75	N	ATOM	16695	O3*	C	A	797	205.770	102.983	-50.345	1.00	51.49	O
ATOM	16646	C4	A	A	794	201.808	97.821	-35.107	1.00	61.75	C	ATOM	16696	O2*	C	A	797	206.732	101.255	-48.942	1.00	51.49	C
ATOM	16647	P	C	A	795	199.743	97.641	-41.121	1.00	40.77	P	ATOM	16697	C2*	C	A	797	207.944	101.533	-49.598	1.00	51.49	O



Table 1: Sheet 169/521

ATOM	16698	CI*	C A 797	206.976	101.211	-47.440	1.00	51.49	C	ATOM	16748	N1	G A 799	200.670	91.605	-50.545	1.00	47.04	N
ATOM	16699	N1	C A 797	206.179	100.168	-46.788	1.00	32.80	N	ATOM	16749	C2	G A 799	201.531	90.961	-51.396	1.00	47.04	C
ATOM	16700	C2	C A 797	206.534	98.830	-47.005	1.00	32.80	C	ATOM	16750	N2	G A 799	201.523	89.627	-51.341	1.00	47.04	N
ATOM	16701	O2	C A 797	207.496	98.582	-47.740	1.00	32.80	O	ATOM	16751	N3	G A 799	202.347	91.581	-52.231	1.00	47.04	N
ATOM	16702	N3	C A 797	205.817	97.844	-46.418	1.00	32.80	N	ATOM	16752	C4	G A 799	202.242	92.923	-52.138	1.00	47.04	C
ATOM	16703	C4	C A 797	204.772	98.151	-45.658	1.00	32.80	C	ATOM	16753	P	G A 800	201.375	93.459	-58.023	1.00	43.25	P
ATOM	16704	N4	C A 797	204.075	97.152	-45.141	1.00	32.80	N	ATOM	16754	O1P	G A 800	201.486	92.862	-59.374	1.00	36.23	O
ATOM	16705	C5	C A 797	204.390	99.502	-45.408	1.00	32.80	C	ATOM	16755	O2P	G A 800	200.812	94.824	-57.879	1.00	36.23	O
ATOM	16706	C6	C A 797	205.115	100.473	-45.989	1.00	32.80	C	ATOM	16756	O5*	G A 800	200.546	92.452	-57.116	1.00	43.25	O
ATOM	16707	P	G A 798	204.846	102.358	-51.499	1.00	46.11	P	ATOM	16757	C5*	G A 800	200.843	91.057	-57.143	1.00	43.25	C
ATOM	16708	O1P	G A 798	204.988	103.234	-52.698	1.00	37.93	O	ATOM	16758	C4*	G A 800	200.041	90.336	-56.095	1.00	43.25	C
ATOM	16709	O2P	G A 798	203.500	102.116	-50.932	1.00	37.93	O	ATOM	16759	O4*	G A 800	200.364	90.901	-54.803	1.00	43.25	O
ATOM	16710	O5*	G A 798	205.510	100.931	-51.785	1.00	46.11	O	ATOM	16760	C3*	G A 800	198.532	90.452	-56.220	1.00	43.25	C
ATOM	16711	C5*	G A 798	206.820	100.835	-52.392	1.00	46.11	C	ATOM	16761	O3*	G A 800	198.033	89.432	-57.080	1.00	43.25	O
ATOM	16712	C4*	G A 798	207.124	99.411	-52.812	1.00	46.11	C	ATOM	16762	C2*	G A 800	198.066	90.282	-54.778	1.00	43.25	C
ATOM	16713	O4*	G A 798	207.363	98.560	-51.662	1.00	46.11	O	ATOM	16763	O2*	G A 800	197.977	88.925	-54.391	1.00	43.25	O
ATOM	16714	C3*	G A 798	206.046	98.702	-53.595	1.00	46.11	C	ATOM	16764	CI*	G A 800	199.203	90.956	-54.002	1.00	43.25	C
ATOM	16715	O3*	G A 798	206.136	99.050	-54.961	1.00	46.11	O	ATOM	16765	N9	G A 800	198.961	92.362	-53.720	1.00	36.23	N
ATOM	16716	C2*	G A 798	206.384	97.236	-53.366	1.00	46.11	C	ATOM	16766	C8	G A 800	199.366	93.429	-54.486	1.00	36.23	C
ATOM	16717	O2*	G A 798	207.442	96.836	-54.195	1.00	46.11	O	ATOM	16767	N7	G A 800	199.016	94.578	-53.988	1.00	36.23	N
ATOM	16718	CI*	G A 798	206.898	97.247	-51.929	1.00	46.11	C	ATOM	16768	C5	G A 800	198.342	94.251	-52.819	1.00	36.23	C
ATOM	16719	N9	G A 798	205.862	96.923	-50.951	1.00	37.93	N	ATOM	16769	C6	G A 800	197.746	95.081	-51.852	1.00	36.23	C
ATOM	16720	C8	G A 798	205.098	97.822	-50.255	1.00	37.93	C	ATOM	16770	O6	G A 800	197.703	96.323	-51.827	1.00	36.23	O
ATOM	16721	N7	G A 798	204.246	97.253	-49.453	1.00	37.93	N	ATOM	16771	N1	G A 800	197.162	94.333	-50.827	1.00	36.23	N
ATOM	16722	C5	G A 798	204.456	95.895	-49.625	1.00	37.93	C	ATOM	16772	C2	G A 800	197.165	92.962	-50.745	1.00	36.23	C
ATOM	16723	C6	G A 798	203.811	94.776	-49.014	1.00	37.93	C	ATOM	16773	N2	G A 800	196.556	92.424	-49.686	1.00	36.23	N
ATOM	16724	O6	G A 798	202.897	94.764	-48.163	1.00	37.93	O	ATOM	16774	N3	G A 800	197.729	92.177	-51.642	1.00	36.23	N
ATOM	16725	N1	G A 798	204.325	93.580	-49.484	1.00	37.93	N	ATOM	16775	C4	G A 800	198.295	92.884	-52.646	1.00	36.23	C
ATOM	16726	C2	G A 798	205.321	93.467	-50.410	1.00	37.93	C	ATOM	16776	P	U A 801	196.822	89.751	-58.093	1.00	40.56	P
ATOM	16727	N2	G A 798	205.661	92.221	-50.726	1.00	37.93	N	ATOM	16777	O1P	U A 801	197.147	89.143	-59.410	1.00	45.39	O
ATOM	16728	N3	G A 798	205.933	94.496	-50.983	1.00	37.93	N	ATOM	16778	O2P	U A 801	196.512	91.198	-58.037	1.00	45.39	O
ATOM	16729	C4	G A 798	205.451	95.671	-50.546	1.00	37.93	C	ATOM	16779	O5*	U A 801	195.631	88.891	-57.473	1.00	40.56	O
ATOM	16730	P	G A 799	204.954	98.632	-55.964	1.00	39.79	P	ATOM	16780	C5*	U A 801	195.673	87.467	-57.580	1.00	40.56	C
ATOM	16731	O1P	G A 799	205.534	98.476	-57.328	1.00	47.04	O	ATOM	16781	C4*	U A 801	194.812	86.806	-56.536	1.00	40.56	C
ATOM	16732	O2P	G A 799	203.847	99.599	-55.750	1.00	47.04	O	ATOM	16782	O4*	U A 801	195.366	87.003	-55.214	1.00	40.56	O
ATOM	16733	O5*	G A 799	204.553	97.186	-55.421	1.00	39.79	O	ATOM	16783	C3*	U A 801	193.375	87.255	-56.390	1.00	40.56	C
ATOM	16734	C5*	G A 799	203.758	96.281	-56.189	1.00	39.79	C	ATOM	16784	O3*	U A 801	192.518	86.754	-57.385	1.00	40.56	O
ATOM	16735	C4*	G A 799	204.112	94.859	-55.830	1.00	39.79	C	ATOM	16785	C2*	U A 801	193.023	86.713	-55.017	1.00	40.56	C
ATOM	16736	O4*	G A 799	204.448	94.767	-54.421	1.00	39.79	O	ATOM	16786	O2*	U A 801	192.764	85.323	-55.014	1.00	40.56	O
ATOM	16737	C3*	G A 799	202.975	93.878	-56.014	1.00	39.79	C	ATOM	16787	CI*	U A 801	194.318	86.974	-54.255	1.00	40.56	C
ATOM	16738	O3*	G A 799	202.833	93.447	-57.351	1.00	39.79	O	ATOM	16788	N1	U A 801	194.247	88.277	-53.566	1.00	45.39	N
ATOM	16739	C2*	G A 799	203.326	92.764	-55.041	1.00	39.79	C	ATOM	16789	C2	U A 801	193.671	88.309	-52.294	1.00	45.39	C
ATOM	16740	O2*	G A 799	204.254	91.834	-55.534	1.00	39.79	O	ATOM	16790	O2	U A 801	193.268	87.318	-51.713	1.00	45.39	O
ATOM	16741	CI*	G A 799	203.959	93.545	-53.892	1.00	39.79	C	ATOM	16791	N3	U A 801	193.596	89.545	-51.727	1.00	45.39	N
ATOM	16742	N9	G A 799	202.964	93.843	-52.864	1.00	47.04	N	ATOM	16792	C4	U A 801	194.036	90.728	-52.271	1.00	45.39	C
ATOM	16743	C8	G A 799	202.545	95.080	-52.445	1.00	47.04	C	ATOM	16793	O4	U A 801	193.880	91.770	-51.636	1.00	45.39	O
ATOM	16744	N7	G A 799	201.620	95.023	-51.529	1.00	47.04	N	ATOM	16794	C5	U A 801	194.634	90.614	-53.572	1.00	45.39	C
ATOM	16745	C5	G A 799	201.422	93.667	-51.322	1.00	47.04	C	ATOM	16795	C6	U A 801	194.714	89.428	-54.158	1.00	45.39	C
ATOM	16746	C6	G A 799	200.547	92.989	-50.428	1.00	47.04	C	ATOM	16796	P	A A 802	191.284	87.656	-57.869	1.00	48.04	P
ATOM	16747	O6	G A 799	199.749	93.476	-49.607	1.00	47.04	O	ATOM	16797	O1P	A A 802	190.807	87.110	-59.172	1.00	32.53	O



Table 1: Sheet 170/521

ATOM	16798	O2P	A	A	802	191.703	89.081	-57.784	1.00	32.53	O	ATOM	16848	C3*	U	A	804	183.247	96.290	-56.198	1.00	33.29	C
ATOM	16799	O5*	A	A	802	190.185	87.378	-56.754	1.00	48.04	O	ATOM	16849	O3*	U	A	804	182.152	97.182	-56.182	1.00	33.29	O
ATOM	16800	C5*	A	A	802	189.793	86.040	-56.441	1.00	48.04	C	ATOM	16850	C2*	U	A	804	184.563	97.034	-56.355	1.00	33.29	C
ATOM	16801	C4*	A	A	802	189.011	86.010	-55.154	1.00	48.04	C	ATOM	16851	O2*	U	A	804	184.567	98.251	-55.635	1.00	33.29	O
ATOM	16802	O4*	A	A	802	189.861	86.398	-54.046	1.00	48.04	O	ATOM	16852	C1*	U	A	804	185.556	96.065	-55.708	1.00	33.29	C
ATOM	16803	C3*	A	A	802	187.828	86.951	-55.089	1.00	48.04	C	ATOM	16853	N1	U	A	804	186.266	95.215	-56.685	1.00	45.78	N
ATOM	16804	O3*	A	A	802	186.686	86.334	-55.646	1.00	48.04	O	ATOM	16854	C2	U	A	804	187.369	95.751	-57.345	1.00	45.78	C
ATOM	16805	C2*	A	A	802	187.662	87.167	-53.591	1.00	48.04	C	ATOM	16855	O2	U	A	804	187.817	96.855	-57.120	1.00	45.78	O
ATOM	16806	O2*	A	A	802	186.932	86.118	-52.977	1.00	48.04	O	ATOM	16856	N3	U	A	804	187.936	94.931	-58.278	1.00	45.78	N
ATOM	16807	C1*	A	A	802	189.113	87.144	-53.104	1.00	48.04	C	ATOM	16857	C4	U	A	804	187.551	93.657	-58.605	1.00	45.78	C
ATOM	16808	N9	A	A	802	189.690	88.485	-53.039	1.00	32.53	N	ATOM	16858	O4	U	A	804	188.164	93.054	-59.482	1.00	45.78	O
ATOM	16809	C8	A	A	802	190.543	89.065	-53.948	1.00	32.53	C	ATOM	16859	C5	U	A	804	186.438	93.159	-57.868	1.00	45.78	C
ATOM	16810	N7	A	A	802	190.865	90.301	-53.662	1.00	32.53	N	ATOM	16860	C6	U	A	804	185.847	93.933	-56.956	1.00	45.78	C
ATOM	16811	C5	A	A	802	190.187	90.553	-52.479	1.00	32.53	C	ATOM	16861	P	C	A	805	180.849	96.849	-57.047	1.00	49.10	P
ATOM	16812	C6	A	A	802	190.120	91.690	-51.657	1.00	32.53	C	ATOM	16862	O1P	C	A	805	179.915	97.986	-56.932	1.00	42.69	O
ATOM	16813	N6	A	A	802	190.729	92.844	-51.940	1.00	32.53	N	ATOM	16863	O2P	C	A	805	180.409	95.490	-56.664	1.00	42.69	O
ATOM	16814	N1	A	A	802	189.389	91.599	-50.528	1.00	32.53	N	ATOM	16864	O5*	C	A	805	181.362	96.847	-58.547	1.00	49.10	O
ATOM	16815	C2	A	A	802	188.751	90.446	-50.267	1.00	32.53	C	ATOM	16865	C5*	C	A	805	181.722	98.080	-59.196	1.00	49.10	C
ATOM	16816	N3	A	A	802	188.720	89.319	-50.969	1.00	32.53	N	ATOM	16866	C4*	C	A	805	181.820	97.874	-60.687	1.00	49.10	C
ATOM	16817	C4	A	A	802	189.470	89.436	-52.075	1.00	32.53	C	ATOM	16867	O3*	C	A	805	183.000	97.093	-61.018	1.00	49.10	O
ATOM	16818	P	G	A	803	185.732	87.166	-56.628	1.00	44.33	P	ATOM	16868	C4*	C	A	805	180.678	97.081	-61.287	1.00	49.10	C
ATOM	16819	O1P	G	A	803	184.482	86.357	-56.725	1.00	46.48	O	ATOM	16869	O3*	C	A	805	179.551	97.885	-61.532	1.00	49.10	O
ATOM	16820	O2P	G	A	803	186.472	87.533	-57.867	1.00	46.48	O	ATOM	16870	C2*	C	A	805	181.292	96.537	-62.561	1.00	49.10	C
ATOM	16821	C5*	G	A	803	185.437	88.511	-55.830	1.00	44.33	C	ATOM	16871	O2*	C	A	805	181.348	97.565	-63.533	1.00	49.10	O
ATOM	16822	O5*	G	A	803	184.752	88.474	-54.567	1.00	44.33	C	ATOM	16872	C1*	C	A	805	182.709	96.217	-62.093	1.00	49.10	C
ATOM	16823	C4*	G	A	803	184.902	89.788	-53.856	1.00	44.33	C	ATOM	16873	N1	C	A	805	182.856	94.828	-61.609	1.00	42.69	N
ATOM	16824	O4*	G	A	803	186.307	90.032	-53.597	1.00	44.33	O	ATOM	16874	C2	C	A	805	182.916	93.778	-62.546	1.00	42.69	C
ATOM	16825	C3*	G	A	803	184.439	90.993	-54.651	1.00	44.33	C	ATOM	16875	O2	C	A	805	182.862	94.041	-63.760	1.00	42.69	O
ATOM	16826	C3*	G	A	803	183.042	91.196	-54.498	1.00	44.33	C	ATOM	16876	N3	C	A	805	183.043	92.507	-62.101	1.00	42.69	N
ATOM	16827	O2*	G	A	803	185.260	92.120	-54.045	1.00	44.33	O	ATOM	16877	C4	C	A	805	183.122	92.262	-60.794	1.00	42.69	C
ATOM	16828	O2*	G	A	803	184.676	92.596	-52.848	1.00	44.33	O	ATOM	16878	N4	C	A	805	183.243	91.001	-60.411	1.00	42.69	N
ATOM	16829	C1*	G	A	803	186.582	91.408	-53.737	1.00	44.33	C	ATOM	16879	C5	C	A	805	183.078	93.303	-59.825	1.00	42.69	C
ATOM	16830	N9	G	A	803	187.554	91.571	-54.812	1.00	46.48	N	ATOM	16880	C6	C	A	805	182.940	94.557	-60.270	1.00	42.69	C
ATOM	16831	C8	G	A	803	187.751	90.745	-55.891	1.00	46.48	C	ATOM	16881	P	C	A	806	178.101	97.219	-61.456	1.00	51.65	P
ATOM	16832	N7	G	A	803	188.659	91.191	-56.713	1.00	46.48	C	ATOM	16882	O1P	C	A	806	177.127	98.321	-61.658	1.00	33.28	O
ATOM	16833	C5	G	A	803	189.096	92.374	-56.135	1.00	46.48	C	ATOM	16883	O2P	C	A	806	178.031	96.363	-60.239	1.00	33.28	O
ATOM	16834	C6	G	A	803	190.059	93.305	-56.575	1.00	46.48	C	ATOM	16884	O5*	C	A	806	178.044	96.268	-62.727	1.00	51.65	O
ATOM	16835	O6	G	A	803	190.724	93.294	-57.607	1.00	46.48	O	ATOM	16885	C5*	C	A	806	178.094	96.813	-64.053	1.00	51.65	C
ATOM	16836	N1	G	A	803	190.212	94.346	-55.676	1.00	46.48	N	ATOM	16886	C4*	C	A	806	177.781	95.739	-65.056	1.00	51.65	C
ATOM	16837	C2	G	A	803	189.519	94.483	-54.508	1.00	46.48	C	ATOM	16887	O4*	C	A	806	178.868	94.781	-65.111	1.00	51.65	O
ATOM	16838	N2	G	A	803	189.842	95.535	-53.749	1.00	46.48	N	ATOM	16888	C3*	C	A	806	176.563	94.914	-64.693	1.00	51.65	C
ATOM	16839	N3	G	A	803	188.587	93.642	-54.103	1.00	46.48	N	ATOM	16889	O3*	C	A	806	175.357	95.546	-65.093	1.00	51.65	O
ATOM	16840	C4	G	A	803	188.435	92.613	-54.957	1.00	46.48	C	ATOM	16890	C2*	C	A	806	176.826	93.586	-65.389	1.00	51.65	C
ATOM	16841	P	U	A	804	182.214	91.958	-55.649	1.00	33.29	P	ATOM	16891	O2*	C	A	806	176.443	93.607	-66.745	1.00	51.65	O
ATOM	16842	O1P	U	A	804	180.844	92.106	-55.101	1.00	45.78	O	ATOM	16892	C1*	C	A	806	178.349	93.476	-65.283	1.00	51.65	C
ATOM	16843	O2P	U	A	804	182.399	91.321	-56.975	1.00	45.78	O	ATOM	16893	N1	C	A	806	178.801	92.633	-64.159	1.00	33.28	N
ATOM	16844	O5*	U	A	804	182.873	93.402	-55.686	1.00	33.29	O	ATOM	16894	C2	C	A	806	178.798	91.236	-64.314	1.00	33.28	C
ATOM	16845	C5*	U	A	804	182.586	94.361	-54.657	1.00	33.29	C	ATOM	16895	O2	C	A	806	178.432	90.749	-65.401	1.00	33.28	O
ATOM	16846	C4*	U	A	804	183.419	95.598	-54.858	1.00	33.29	C	ATOM	16896	N3	C	A	806	179.199	90.452	-63.281	1.00	33.28	N
ATOM	16847	O4*	U	A	804	184.825	95.241	-54.811	1.00	33.29	O	ATOM	16897	C4	C	A	806	179.600	91.009	-62.140	1.00	33.28	C



Table 1: Sheet 171/521

ATOM	16898	N4	C A 806	179.984	90.205	-61.157	1.00	33.28	N	ATOM	16948	C4*	G A 809	167.471	84.888	-59.576	1.00	50.69	C
ATOM	16899	C5	C A 806	179.624	92.422	-61.958	1.00	33.28	C	ATOM	16949	O4*	G A 809	168.887	85.051	-59.831	1.00	50.69	O
ATOM	16900	C6	C A 806	179.218	93.189	-62.982	1.00	33.28	C	ATOM	16950	C3*	G A 809	167.379	85.152	-58.088	1.00	50.69	C
ATOM	16901	P	A A 807	173.993	95.199	-64.313	1.00	51.49	P	ATOM	16951	O3*	G A 809	166.212	84.633	-57.498	1.00	50.69	O
ATOM	16902	O1P	A A 807	172.925	96.066	-64.893	1.00	43.56	O	ATOM	16952	C2*	G A 809	168.602	84.410	-57.565	1.00	50.69	C
ATOM	16903	O2P	A A 807	174.225	95.205	-62.835	1.00	43.56	O	ATOM	16953	O2*	G A 809	168.381	83.018	-57.466	1.00	50.69	O
ATOM	16904	O5*	A A 807	173.704	93.705	-64.764	1.00	51.49	O	ATOM	16954	C1*	G A 809	169.616	84.669	-58.672	1.00	50.69	C
ATOM	16905	C5*	A A 807	173.487	93.417	-66.139	1.00	51.49	C	ATOM	16955	N9	G A 809	170.541	85.734	-58.288	1.00	41.27	N
ATOM	16906	C4*	A A 807	173.340	91.945	-66.338	1.00	51.49	C	ATOM	16956	C8	G A 809	170.562	87.037	-58.717	1.00	41.27	C
ATOM	16907	O4*	A A 807	174.594	91.282	-66.060	1.00	51.49	O	ATOM	16957	N7	G A 809	171.508	87.742	-58.159	1.00	41.27	N
ATOM	16908	C3*	A A 807	172.372	91.252	-65.410	1.00	51.49	C	ATOM	16958	C5	G A 809	172.154	86.846	-57.320	1.00	41.27	C
ATOM	16909	O3*	A A 807	171.036	91.433	-65.814	1.00	51.49	O	ATOM	16959	C6	G A 809	173.260	87.031	-56.458	1.00	41.27	C
ATOM	16910	C2*	A A 807	172.822	89.802	-65.490	1.00	51.49	C	ATOM	16960	O6	G A 809	173.912	88.065	-56.245	1.00	41.27	O
ATOM	16911	O2*	A A 807	172.283	89.147	-66.623	1.00	51.49	O	ATOM	16961	N1	G A 809	173.589	85.856	-55.795	1.00	41.27	N
ATOM	16912	C1*	A A 807	174.337	89.957	-65.644	1.00	51.49	C	ATOM	16962	C2	G A 809	172.928	84.661	-55.931	1.00	41.27	C
ATOM	16913	N9	A A 807	175.093	89.686	-64.419	1.00	43.56	N	ATOM	16963	N2	G A 809	173.376	83.635	-55.197	1.00	41.27	N
ATOM	16914	C8	A A 807	175.624	90.563	-63.498	1.00	43.56	C	ATOM	16964	N3	G A 809	171.898	84.482	-56.728	1.00	41.27	N
ATOM	16915	N7	A A 807	176.233	89.969	-62.496	1.00	43.56	N	ATOM	16965	C4	G A 809	171.569	85.606	-57.389	1.00	41.27	C
ATOM	16916	C5	A A 807	176.097	88.616	-62.782	1.00	43.56	C	ATOM	16966	P	C A 810	165.620	85.338	-56.181	1.00	43.46	P
ATOM	16917	C6	A A 807	176.520	87.474	-62.113	1.00	43.56	C	ATOM	16967	O1P	C A 810	164.488	84.469	-55.758	1.00	41.31	O
ATOM	16918	N6	A A 807	177.189	86.269	-60.961	1.00	43.56	N	ATOM	16968	O2P	C A 810	165.379	86.774	-56.482	1.00	41.31	O
ATOM	16919	N1	A A 807	176.227	87.474	-62.672	1.00	43.56	N	ATOM	16969	O5*	C A 810	166.783	85.231	-55.081	1.00	43.46	O
ATOM	16920	C2	A A 807	175.552	86.249	-63.817	1.00	43.56	C	ATOM	16970	C5*	C A 810	167.010	83.979	-54.399	1.00	43.46	C
ATOM	16921	N3	A A 807	175.093	87.261	-64.539	1.00	43.56	N	ATOM	16971	C4*	C A 810	168.202	84.029	-53.445	1.00	43.46	C
ATOM	16922	C4	A A 807	175.403	88.430	-63.961	1.00	43.56	C	ATOM	16972	O4*	C A 810	169.412	84.539	-54.069	1.00	43.46	O
ATOM	16923	P	C A 808	169.895	91.558	-64.694	1.00	48.38	P	ATOM	16973	C3*	C A 810	168.158	84.818	-52.150	1.00	43.46	C
ATOM	16924	O1P	C A 808	168.632	91.975	-65.376	1.00	47.02	O	ATOM	16974	O3*	C A 810	167.351	84.201	-51.162	1.00	43.46	O
ATOM	16925	O2P	C A 808	170.436	92.387	-63.578	1.00	47.02	O	ATOM	16975	C2*	C A 810	169.624	84.753	-51.721	1.00	43.46	C
ATOM	16926	O5*	C A 808	169.715	90.058	-64.191	1.00	48.38	O	ATOM	16976	O2*	C A 810	169.963	83.500	-51.156	1.00	43.46	O
ATOM	16927	C5*	C A 808	169.114	89.091	-65.043	1.00	48.38	C	ATOM	16977	C1*	C A 810	170.351	84.845	-53.055	1.00	43.46	C
ATOM	16928	C4*	C A 808	169.263	87.725	-64.459	1.00	48.38	C	ATOM	16978	N1	C A 810	170.920	86.181	-53.278	1.00	41.31	N
ATOM	16929	O4*	C A 808	170.665	87.363	-64.425	1.00	48.38	O	ATOM	16979	C2	C A 810	172.102	86.516	-52.606	1.00	41.31	C
ATOM	16930	C3*	C A 808	168.835	87.591	-63.016	1.00	48.38	C	ATOM	16980	O2	C A 810	172.599	85.687	-51.822	1.00	41.31	O
ATOM	16931	O3*	C A 808	167.453	87.460	-62.825	1.00	48.38	O	ATOM	16981	N3	C A 810	172.673	87.725	-52.823	1.00	41.31	N
ATOM	16932	C2*	C A 808	169.595	86.366	-62.551	1.00	48.38	C	ATOM	16982	C4	C A 810	172.107	88.582	-53.668	1.00	41.31	C
ATOM	16933	O2*	C A 808	168.951	85.162	-62.901	1.00	48.38	O	ATOM	16983	N4	C A 810	172.724	89.738	-53.883	1.00	41.31	N
ATOM	16934	C1*	C A 808	170.914	86.537	-63.300	1.00	48.38	C	ATOM	16984	C5	C A 810	170.886	88.284	-54.340	1.00	41.31	C
ATOM	16935	N1	C A 808	171.875	87.203	-62.411	1.00	47.02	N	ATOM	16985	C6	C A 810	170.331	87.082	-54.119	1.00	41.31	C
ATOM	16936	C2	C A 808	172.637	86.409	-61.564	1.00	47.02	C	ATOM	16986	P	C A 811	166.839	85.066	-49.905	1.00	36.93	P
ATOM	16937	O2	C A 808	172.532	85.178	-61.655	1.00	47.02	O	ATOM	16987	O1P	C A 811	166.093	84.155	-49.003	1.00	30.57	O
ATOM	16938	N3	C A 808	173.472	86.995	-60.672	1.00	47.02	N	ATOM	16988	O2P	C A 811	166.214	86.331	-50.371	1.00	30.57	O
ATOM	16939	C4	C A 808	173.566	88.322	-60.627	1.00	47.02	C	ATOM	16989	O5*	C A 811	168.167	85.529	-49.162	1.00	36.93	O
ATOM	16940	N4	C A 808	174.384	88.856	-59.726	1.00	47.02	N	ATOM	16990	C5*	C A 811	168.937	84.637	-48.346	1.00	36.93	C
ATOM	16941	C5	C A 808	172.822	89.159	-61.505	1.00	47.02	C	ATOM	16991	C4*	C A 811	170.115	85.384	-47.793	1.00	36.93	C
ATOM	16942	C6	C A 808	171.999	88.563	-62.378	1.00	47.02	C	ATOM	16992	O4*	C A 811	170.735	86.074	-48.897	1.00	36.93	O
ATOM	16943	P	G A 809	166.794	88.157	-61.541	1.00	50.69	P	ATOM	16993	C3*	C A 811	169.759	86.494	-46.819	1.00	36.93	C
ATOM	16944	O1P	G A 809	165.340	88.300	-61.843	1.00	41.27	O	ATOM	16994	O3*	C A 811	169.732	85.955	-45.497	1.00	36.93	O
ATOM	16945	O2P	G A 809	167.600	89.366	-61.212	1.00	41.27	O	ATOM	16995	C2*	C A 811	170.888	87.510	-46.996	1.00	36.93	C
ATOM	16946	O5*	G A 809	167.049	87.115	-60.361	1.00	50.69	O	ATOM	16996	O2*	C A 811	172.007	87.305	-46.156	1.00	36.93	O
ATOM	16947	C5*	G A 809	166.679	85.756	-60.510	1.00	50.69	C	ATOM	16997	C1*	C A 811	171.325	87.262	-48.438	1.00	36.93	C



ATOM	16998	N1	C A 811	171.051	88.337	-49.391	1.00	30.57	N	ATOM	17048	O2P	A A 814	168.969	95.561	-38.418	1.00	24.50	O
ATOM	16999	C2	C A 811	171.790	89.524	-49.295	1.00	30.57	C	ATOM	17049	O5*	A A 814	171.207	96.593	-38.102	1.00	43.83	O
ATOM	17000	O2	C A 811	172.687	89.609	-48.430	1.00	30.57	O	ATOM	17050	C5*	A A 814	172.494	96.710	-37.514	1.00	43.83	C
ATOM	17001	N3	C A 811	171.520	90.542	-50.147	1.00	30.57	N	ATOM	17051	C4*	A A 814	173.229	97.882	-38.092	1.00	43.83	C
ATOM	17002	C4	C A 811	170.578	90.390	-51.077	1.00	30.57	C	ATOM	17052	O4*	A A 814	173.533	97.643	-39.478	1.00	43.83	O
ATOM	17003	N4	C A 811	170.336	91.406	-51.887	1.00	30.57	N	ATOM	17053	C3*	A A 814	172.497	99.204	-38.101	1.00	43.83	C
ATOM	17004	C5	C A 811	169.837	89.186	-51.213	1.00	30.57	C	ATOM	17054	O3*	A A 814	172.618	99.816	-36.832	1.00	43.83	O
ATOM	17005	C6	C A 811	170.099	88.197	-50.355	1.00	30.57	C	ATOM	17055	C2*	A A 814	173.234	99.986	-39.182	1.00	43.83	C
ATOM	17006	P	C A 812	168.584	86.400	-44.471	1.00	46.13	P	ATOM	17056	O2*	A A 814	174.395	100.642	-38.727	1.00	43.83	O
ATOM	17007	O1P	C A 812	169.011	85.887	-43.151	1.00	33.91	O	ATOM	17057	C1*	A A 814	173.668	98.878	-40.139	1.00	43.83	C
ATOM	17008	O2P	C A 812	167.256	86.016	-45.010	1.00	33.91	O	ATOM	17058	N9	A A 814	172.846	98.850	-41.331	1.00	24.50	N
ATOM	17009	O5*	C A 812	168.654	87.986	-44.513	1.00	46.13	O	ATOM	17059	C8	A A 814	171.814	98.006	-41.632	1.00	24.50	C
ATOM	17010	C5*	C A 812	169.217	88.737	-43.438	1.00	46.13	C	ATOM	17060	N7	A A 814	171.215	98.292	-42.762	1.00	24.50	N
ATOM	17011	C4*	C A 812	168.839	90.185	-43.590	1.00	46.13	C	ATOM	17061	C5	A A 814	171.916	99.385	-43.240	1.00	24.50	C
ATOM	17012	O4*	C A 812	169.201	90.570	-44.931	1.00	46.13	O	ATOM	17062	C6	A A 814	171.763	100.152	-44.375	1.00	24.50	C
ATOM	17013	C3*	C A 812	167.355	90.524	-43.492	1.00	46.13	C	ATOM	17063	N6	A A 814	170.801	99.935	-45.278	1.00	24.50	N
ATOM	17014	O3*	C A 812	166.957	90.624	-42.099	1.00	46.13	O	ATOM	17064	N1	A A 814	172.632	101.164	-44.566	1.00	24.50	N
ATOM	17015	C2*	C A 812	167.208	91.765	-44.369	1.00	46.13	C	ATOM	17065	C2	A A 814	173.593	101.366	-43.652	1.00	24.50	C
ATOM	17016	O2*	C A 812	167.500	92.963	-43.692	1.00	46.13	O	ATOM	17066	N3	A A 814	173.832	100.712	-42.535	1.00	24.50	N
ATOM	17017	C1*	C A 812	168.348	91.591	-45.373	1.00	46.13	C	ATOM	17067	C4	A A 814	172.941	99.723	-42.383	1.00	24.50	C
ATOM	17018	N1	C A 812	168.015	91.359	-46.778	1.00	33.91	N	ATOM	17068	P	A A 815	171.356	100.576	-36.192	1.00	36.15	P
ATOM	17019	C2	C A 812	168.426	92.305	-47.735	1.00	33.91	C	ATOM	17069	O1P	A A 815	171.226	100.109	-34.786	1.00	24.61	O
ATOM	17020	O2	C A 812	169.086	93.298	-47.368	1.00	33.91	O	ATOM	17070	O2P	A A 815	170.197	100.449	-37.119	1.00	24.61	O
ATOM	17021	N3	C A 812	168.112	92.102	-49.034	1.00	33.91	N	ATOM	17071	O5*	A A 815	171.795	102.105	-36.204	1.00	36.15	O
ATOM	17022	C4	C A 812	167.457	91.001	-49.395	1.00	33.91	C	ATOM	17072	C5*	A A 815	172.999	102.539	-35.545	1.00	36.15	C
ATOM	17023	N4	C A 812	167.202	90.823	-50.684	1.00	33.91	N	ATOM	17073	C4*	A A 815	173.477	103.828	-36.158	1.00	36.15	C
ATOM	17024	C5	C A 812	167.040	90.026	-48.450	1.00	33.91	C	ATOM	17074	O4*	A A 815	174.365	104.531	-35.255	1.00	36.15	O
ATOM	17025	C6	C A 812	167.329	90.246	-47.162	1.00	33.91	C	ATOM	17075	C3*	A A 815	174.188	103.721	-37.497	1.00	36.15	C
ATOM	17026	P	U A 813	166.968	92.040	-41.295	1.00	41.02	P	ATOM	17076	O3*	A A 815	173.735	104.787	-38.320	1.00	36.15	O
ATOM	17027	O1P	U A 813	166.617	91.648	-39.903	1.00	32.95	O	ATOM	17077	C2*	A A 815	175.653	103.938	-37.124	1.00	36.15	C
ATOM	17028	O2P	U A 813	166.159	93.085	-41.969	1.00	32.95	O	ATOM	17078	O2*	A A 815	176.392	104.548	-38.163	1.00	36.15	O
ATOM	17029	O5*	U A 813	168.487	92.511	-41.262	1.00	41.02	O	ATOM	17079	C1*	A A 815	175.534	104.896	-35.939	1.00	36.15	C
ATOM	17030	C5*	U A 813	169.418	91.911	-40.353	1.00	41.02	C	ATOM	17080	N9	A A 815	176.640	104.856	-34.988	1.00	24.61	N
ATOM	17031	C4*	U A 813	170.761	92.580	-40.467	1.00	41.02	C	ATOM	17081	C8	A A 815	177.176	103.778	-34.330	1.00	24.61	C
ATOM	17032	O4*	U A 813	171.146	92.631	-41.862	1.00	41.02	O	ATOM	17082	N7	A A 815	178.145	104.089	-33.502	1.00	24.61	N
ATOM	17033	C3*	U A 813	170.843	94.032	-40.032	1.00	41.02	C	ATOM	17083	C5	A A 815	178.254	105.456	-33.633	1.00	24.61	C
ATOM	17034	O3*	U A 813	171.029	94.127	-38.631	1.00	41.02	O	ATOM	17084	C6	A A 815	179.083	106.369	-33.026	1.00	24.61	C
ATOM	17035	C2*	U A 813	172.069	94.531	-40.780	1.00	41.02	C	ATOM	17085	N6	A A 815	179.988	106.029	-32.127	1.00	24.61	N
ATOM	17036	O2*	U A 813	173.261	94.107	-40.145	1.00	41.02	O	ATOM	17086	N1	A A 815	178.959	107.662	-33.371	1.00	24.61	N
ATOM	17037	C1*	U A 813	171.956	93.767	-42.092	1.00	41.02	C	ATOM	17087	C2	A A 815	178.045	107.991	-34.286	1.00	24.61	C
ATOM	17038	N1	U A 813	171.421	94.550	-43.219	1.00	32.95	N	ATOM	17088	N3	A A 815	177.191	107.210	-34.937	1.00	24.61	N
ATOM	17039	C2	U A 813	172.291	95.449	-43.820	1.00	32.95	C	ATOM	17089	C4	A A 815	177.347	105.940	-34.555	1.00	24.61	C
ATOM	17040	O2	U A 813	173.443	95.631	-43.417	1.00	32.95	O	ATOM	17090	P	A A 816	173.601	104.573	-39.905	1.00	33.55	P
ATOM	17041	N3	U A 813	171.777	96.125	-44.905	1.00	32.95	N	ATOM	17091	O1P	A A 816	174.919	104.115	-40.433	1.00	23.55	O
ATOM	17042	C4	U A 813	170.520	95.997	-45.435	1.00	32.95	C	ATOM	17092	O2P	A A 816	172.985	105.814	-40.451	1.00	23.55	O
ATOM	17043	O4	U A 813	170.267	96.544	-46.510	1.00	32.95	O	ATOM	17093	O5*	A A 816	172.583	103.354	-40.042	1.00	33.55	O
ATOM	17044	C5	U A 813	169.670	95.076	-44.737	1.00	32.95	C	ATOM	17094	C5*	A A 816	171.202	103.493	-39.702	1.00	33.55	C
ATOM	17045	C6	U A 813	170.137	94.403	-43.684	1.00	32.95	C	ATOM	17095	C4*	A A 816	170.353	103.330	-40.937	1.00	33.55	C
ATOM	17046	P	A A 814	170.316	95.310	-37.812	1.00	43.83	P	ATOM	17096	O4*	A A 816	170.571	102.025	-41.521	1.00	33.55	O
ATOM	17047	O1P	A A 814	170.444	94.906	-36.382	1.00	24.50	O	ATOM	17097	C3*	A A 816	168.856	103.381	-40.727	1.00	33.55	C



ATOM	17098	O3*	A A 816	168.386	104.708	-40.690	1.00	33.55	O	ATOM	17148	C6	G A 818	162.238	114.901	-38.212	1.00	46.17	C
ATOM	17099	C2*	A A 816	168.317	102.643	-41.936	1.00	33.55	C	ATOM	17149	O6	G A 818	161.238	114.884	-38.932	1.00	46.17	O
ATOM	17100	O2*	A A 816	168.270	103.510	-43.049	1.00	33.55	C	ATOM	17150	N1	G A 818	162.177	115.471	-36.942	1.00	46.17	N
ATOM	17101	C1*	A A 816	169.388	101.579	-42.151	1.00	33.55	C	ATOM	17151	C2	G A 818	163.229	115.558	-36.065	1.00	46.17	C
ATOM	17102	N9	A A 816	169.036	100.274	-41.602	1.00	23.55	N	ATOM	17152	N2	G A 818	162.982	116.130	-34.879	1.00	46.17	N
ATOM	17103	C8	A A 816	169.194	99.829	-40.319	1.00	23.55	C	ATOM	17153	N3	G A 818	164.438	115.110	-36.333	1.00	46.17	N
ATOM	17104	N7	A A 816	168.778	98.600	-40.128	1.00	23.55	N	ATOM	17154	C4	G A 818	164.504	114.544	-37.559	1.00	46.17	C
ATOM	17105	C5	A A 816	168.322	98.209	-41.373	1.00	23.55	C	ATOM	17155	P	A A 819	170.235	113.032	-34.644	1.00	40.31	P
ATOM	17106	C6	A A 816	167.779	97.001	-41.839	1.00	23.55	C	ATOM	17156	O1P	A A 819	170.107	113.961	-33.489	1.00	27.39	O
ATOM	17107	N6	A A 816	167.608	95.915	-41.072	1.00	23.55	N	ATOM	17157	O2P	A A 819	171.541	112.910	-35.335	1.00	27.39	O
ATOM	17108	N1	A A 816	167.424	96.938	-43.141	1.00	23.55	N	ATOM	17158	O5*	A A 819	169.726	111.600	-34.173	1.00	40.31	O
ATOM	17109	C2	A A 816	167.623	98.023	-43.914	1.00	23.55	C	ATOM	17159	C5*	A A 819	169.308	110.673	-35.165	1.00	40.31	C
ATOM	17110	N3	A A 816	168.138	99.206	-43.594	1.00	23.55	N	ATOM	17160	C4*	A A 819	168.866	109.371	-34.574	1.00	40.31	C
ATOM	17111	C4	A A 816	168.470	99.233	-42.292	1.00	23.55	C	ATOM	17161	O4*	A A 819	169.968	108.733	-33.909	1.00	40.31	O
ATOM	17112	P	C A 817	167.444	105.151	-39.485	1.00	29.78	P	ATOM	17162	C3*	A A 819	167.656	109.302	-33.665	1.00	40.31	C
ATOM	17113	O1P	C A 817	167.672	104.186	-38.365	1.00	25.11	O	ATOM	17163	O2*	A A 819	166.832	108.264	-34.178	1.00	40.31	O
ATOM	17114	O2P	C A 817	166.077	105.299	-40.046	1.00	29.78	O	ATOM	17164	C3*	A A 819	168.262	108.919	-32.311	1.00	40.31	C
ATOM	17115	O5*	C A 817	168.036	106.562	-39.050	1.00	29.78	O	ATOM	17165	O2*	A A 819	167.435	108.024	-31.584	1.00	40.31	O
ATOM	17116	C5*	C A 817	167.589	107.784	-39.645	1.00	29.78	C	ATOM	17166	C1*	A A 819	169.532	108.169	-32.709	1.00	40.31	C
ATOM	17117	C4*	C A 817	168.533	108.893	-39.277	1.00	29.78	C	ATOM	17167	N9	A A 819	170.641	108.280	-31.770	1.00	27.39	N
ATOM	17118	O4*	C A 817	168.932	108.697	-37.899	1.00	29.78	O	ATOM	17168	C8	A A 819	171.513	109.323	-31.637	1.00	27.39	C
ATOM	17119	C3*	C A 817	169.820	108.960	-40.088	1.00	29.78	C	ATOM	17169	N7	A A 819	172.431	109.130	-30.722	1.00	27.39	N
ATOM	17120	O3*	C A 817	170.215	110.329	-40.187	1.00	29.78	O	ATOM	17170	C5	A A 819	172.139	107.875	-30.217	1.00	27.39	C
ATOM	17121	C2*	C A 817	170.828	108.229	-39.203	1.00	29.78	C	ATOM	17171	C6	A A 819	172.745	107.096	-29.220	1.00	27.39	C
ATOM	17122	O2*	C A 817	172.166	108.683	-39.351	1.00	29.78	O	ATOM	17172	N6	A A 819	173.818	107.481	-28.527	1.00	27.39	N
ATOM	17123	C1*	C A 817	170.329	108.606	-37.818	1.00	29.78	C	ATOM	17173	N1	A A 819	172.209	105.890	-28.955	1.00	27.39	N
ATOM	17124	N1	C A 817	170.675	107.643	-36.777	1.00	25.11	N	ATOM	17174	C2	A A 819	171.137	105.502	-29.654	1.00	27.39	C
ATOM	17125	C2	C A 817	171.770	107.922	-35.958	1.00	25.11	C	ATOM	17175	N3	A A 819	170.475	106.146	-30.619	1.00	27.39	N
ATOM	17126	O2	C A 817	172.440	108.961	-36.176	1.00	25.11	O	ATOM	17176	C4	A A 819	171.036	107.341	-30.852	1.00	27.39	C
ATOM	17127	N3	C A 817	172.071	107.069	-34.952	1.00	25.11	N	ATOM	17177	P	U A 820	165.707	108.605	-35.276	1.00	31.57	P
ATOM	17128	C4	C A 817	171.320	105.987	-34.757	1.00	25.11	C	ATOM	17178	O1P	U A 820	165.097	107.318	-35.678	1.00	34.72	O
ATOM	17129	N4	C A 817	171.616	105.200	-33.731	1.00	25.11	N	ATOM	17179	O2P	U A 820	166.221	109.512	-36.322	1.00	34.72	O
ATOM	17130	C5	C A 817	170.220	105.668	-35.598	1.00	25.11	C	ATOM	17180	O5*	U A 820	164.663	109.476	-34.450	1.00	31.57	O
ATOM	17131	C6	C A 817	169.939	106.511	-36.587	1.00	25.11	C	ATOM	17181	C5*	U A 820	163.661	108.875	-33.599	1.00	31.57	C
ATOM	17132	P	G A 818	169.303	111.372	-40.997	1.00	34.59	P	ATOM	17182	C4*	U A 820	162.543	109.861	-33.367	1.00	31.57	C
ATOM	17133	O1P	G A 818	168.094	110.671	-41.520	1.00	46.17	O	ATOM	17183	O4*	U A 820	163.071	111.007	-32.657	1.00	31.57	O
ATOM	17134	O2P	G A 818	170.155	112.146	-41.926	1.00	46.17	O	ATOM	17184	C3*	U A 820	161.941	110.404	-34.656	1.00	31.57	C
ATOM	17135	O5*	G A 818	168.847	112.392	-39.872	1.00	34.59	O	ATOM	17185	O3*	U A 820	160.588	110.774	-34.450	1.00	31.57	O
ATOM	17136	C9*	G A 818	169.774	113.329	-39.297	1.00	34.59	C	ATOM	17186	C2*	U A 820	162.683	111.712	-34.852	1.00	31.57	C
ATOM	17137	C4*	G A 818	169.199	113.890	-38.025	1.00	34.59	C	ATOM	17187	O2*	U A 820	161.914	112.614	-35.611	1.00	31.57	O
ATOM	17138	O4*	G A 818	167.900	114.476	-38.331	1.00	34.59	O	ATOM	17188	C1*	U A 820	162.837	112.174	-33.407	1.00	31.57	C
ATOM	17139	C3*	G A 818	168.943	112.852	-36.936	1.00	34.59	C	ATOM	17189	N1	U A 820	163.921	113.122	-33.129	1.00	34.72	N
ATOM	17140	O3*	G A 818	169.117	113.520	-35.688	1.00	34.59	O	ATOM	17190	C2	U A 820	163.632	114.187	-32.310	1.00	34.72	C
ATOM	17141	C2*	G A 818	167.461	112.522	-37.141	1.00	34.59	C	ATOM	17191	O2	U A 820	162.536	114.375	-31.828	1.00	34.72	O
ATOM	17142	O2*	G A 818	166.757	112.020	-36.031	1.00	34.59	O	ATOM	17192	N3	U A 820	164.684	115.031	-32.075	1.00	34.72	N
ATOM	17143	C1*	G A 818	166.927	113.900	-37.491	1.00	34.59	C	ATOM	17193	C4	U A 820	165.957	114.926	-32.569	1.00	34.72	C
ATOM	17144	N9	G A 818	165.619	113.976	-38.121	1.00	46.17	N	ATOM	17194	O4	U A 820	166.781	115.784	-32.286	1.00	34.72	O
ATOM	17145	C8	G A 818	165.245	113.526	-39.359	1.00	46.17	C	ATOM	17195	C5	U A 820	166.179	113.806	-33.407	1.00	34.72	C
ATOM	17146	N7	G A 818	163.989	113.763	-39.627	1.00	46.17	N	ATOM	17196	C6	U A 820	165.182	112.960	-33.653	1.00	34.72	C
ATOM	17147	C5	G A 818	163.512	114.406	-38.497	1.00	46.17	C	ATOM	17197	P	G A 821	159.470	109.654	-34.205	1.00	27.73	P



Table 1: Sheet 174/521

ATOM	17198	O1P	G A 821	158.429	110.304	-33.355	1.00	35.69	O	ATOM	17248	O3*	G A 823	148.532	114.581	-43.397	1.00	46.19	O
ATOM	17199	O2P	G A 821	160.138	108.402	-33.728	1.00	35.69	O	ATOM	17249	C2*	G A 823	147.558	113.575	-41.405	1.00	46.19	C
ATOM	17200	O5*	G A 821	158.848	109.403	-35.645	1.00	27.73	O	ATOM	17250	O2*	G A 823	146.390	113.345	-42.167	1.00	46.19	C
ATOM	17201	C5*	G A 821	159.462	108.487	-36.522	1.00	27.73	C	ATOM	17251	C1*	G A 823	147.912	112.304	-40.640	1.00	46.19	C
ATOM	17202	C4*	G A 821	158.425	107.651	-37.194	1.00	27.73	C	ATOM	17252	N9	G A 823	148.551	112.607	-39.358	1.00	33.21	N
ATOM	17203	O4*	G A 821	157.760	106.797	-36.236	1.00	27.73	O	ATOM	17253	C8	G A 823	149.895	112.744	-39.123	1.00	33.21	C
ATOM	17204	C3*	G A 821	157.305	108.430	-37.833	1.00	27.73	C	ATOM	17254	N7	G A 823	150.171	113.013	-37.878	1.00	33.21	N
ATOM	17205	O3*	G A 821	157.679	108.931	-39.082	1.00	27.73	O	ATOM	17255	C5	G A 823	148.936	113.063	-37.254	1.00	33.21	C
ATOM	17206	C2*	G A 821	156.196	107.401	-37.924	1.00	27.73	C	ATOM	17256	C6	G A 823	148.609	113.309	-35.902	1.00	33.21	C
ATOM	17207	O2*	G A 821	156.332	106.564	-39.051	1.00	27.73	O	ATOM	17257	O6	G A 823	149.362	113.539	-34.961	1.00	33.21	O
ATOM	17208	C1*	G A 821	156.411	106.609	-36.634	1.00	27.73	C	ATOM	17258	N1	G A 823	147.246	113.261	-35.688	1.00	33.21	N
ATOM	17209	N9	G A 821	155.544	107.110	-35.576	1.00	35.69	N	ATOM	17259	C2	G A 823	146.311	113.005	-36.651	1.00	33.21	C
ATOM	17210	C8	G A 821	155.921	107.775	-34.441	1.00	35.69	C	ATOM	17260	N2	G A 823	145.033	112.998	-36.238	1.00	33.21	N
ATOM	17211	N7	G A 821	154.912	108.136	-33.706	1.00	35.69	N	ATOM	17261	N3	G A 823	146.602	112.772	-37.924	1.00	33.21	N
ATOM	17212	C5	G A 821	153.804	107.667	-34.395	1.00	35.69	C	ATOM	17262	C4	G A 823	147.926	112.817	-38.151	1.00	33.21	C
ATOM	17213	C6	G A 821	152.430	107.758	-34.088	1.00	35.69	C	ATOM	17263	P	C A 824	148.771	116.162	-43.243	1.00	46.83	P
ATOM	17214	O6	G A 821	151.893	108.267	-33.096	1.00	35.69	O	ATOM	17264	O1P	C A 824	148.577	116.828	-44.568	1.00	35.50	O
ATOM	17215	N1	G A 821	151.651	107.177	-35.073	1.00	35.69	N	ATOM	17265	O2P	C A 824	150.042	116.341	-42.500	1.00	35.50	O
ATOM	17216	C2	G A 821	152.130	106.586	-36.201	1.00	35.69	C	ATOM	17266	O5*	C A 824	147.594	116.614	-42.277	1.00	46.83	O
ATOM	17217	N2	G A 821	151.217	106.128	-37.055	1.00	35.69	N	ATOM	17267	C5*	C A 824	146.228	116.445	-42.672	1.00	46.83	C
ATOM	17218	N3	G A 821	153.405	106.466	-36.482	1.00	35.69	N	ATOM	17268	C4*	C A 824	145.318	116.929	-41.586	1.00	46.83	C
ATOM	17219	C4	G A 821	154.180	107.031	-35.545	1.00	35.69	C	ATOM	17269	O4*	C A 824	145.363	116.026	-40.457	1.00	46.83	O
ATOM	17220	P	C A 822	157.198	110.390	-39.495	1.00	34.19	P	ATOM	17270	C3*	C A 824	145.685	118.273	-40.995	1.00	46.83	C
ATOM	17221	O1P	C A 822	157.993	110.841	-40.656	1.00	36.20	O	ATOM	17271	O3*	C A 824	145.193	119.323	-41.789	1.00	46.83	O
ATOM	17222	O2P	C A 822	157.146	111.225	-38.276	1.00	36.20	O	ATOM	17272	C2*	C A 824	145.005	118.226	-39.640	1.00	46.83	C
ATOM	17223	O5*	C A 822	155.725	110.127	-40.010	1.00	34.19	O	ATOM	17273	O2*	C A 824	143.632	118.510	-39.757	1.00	46.83	O
ATOM	17224	C5*	C A 822	155.514	109.294	-41.148	1.00	34.19	C	ATOM	17274	C1*	C A 824	145.176	116.758	-39.264	1.00	46.83	C
ATOM	17225	C4*	C A 822	154.046	109.061	-41.359	1.00	34.19	C	ATOM	17275	N1	C A 824	146.352	116.587	-38.411	1.00	35.50	N
ATOM	17226	O3*	C A 822	153.497	108.294	-40.254	1.00	34.19	O	ATOM	17276	C2	C A 824	146.178	116.643	-37.033	1.00	35.50	C
ATOM	17227	C4*	C A 822	153.189	110.305	-41.378	1.00	34.19	C	ATOM	17277	O2	C A 824	145.022	116.746	-36.577	1.00	35.50	O
ATOM	17228	O3*	C A 822	153.235	110.989	-42.595	1.00	34.19	O	ATOM	17278	N3	C A 824	147.263	116.575	-36.226	1.00	35.50	N
ATOM	17229	C2*	C A 822	151.818	109.751	-41.062	1.00	34.19	C	ATOM	17279	C4	C A 824	148.477	116.445	-36.755	1.00	35.50	C
ATOM	17230	O2*	C A 822	151.290	109.074	-42.181	1.00	34.19	O	ATOM	17280	N4	C A 824	149.516	116.433	-35.926	1.00	35.50	N
ATOM	17231	C1*	C A 822	152.166	108.715	-40.002	1.00	34.19	C	ATOM	17281	C5	C A 824	148.679	116.337	-38.159	1.00	35.50	C
ATOM	17232	N1	C A 822	152.094	109.283	-38.646	1.00	36.20	N	ATOM	17282	C6	C A 824	147.599	116.410	-38.943	1.00	35.50	C
ATOM	17233	C2	C A 822	150.848	109.377	-38.027	1.00	36.20	C	ATOM	17283	P	G A 825	145.822	120.788	-41.638	1.00	34.55	P
ATOM	17234	O2	C A 822	149.843	108.979	-38.632	1.00	36.20	O	ATOM	17284	O1P	G A 825	145.194	121.573	-42.745	1.00	32.47	O
ATOM	17235	N3	C A 822	150.767	109.894	-36.785	1.00	36.20	N	ATOM	17285	O2P	G A 825	147.295	120.683	-41.551	1.00	32.47	O
ATOM	17236	C4	C A 822	151.869	110.299	-36.161	1.00	36.20	C	ATOM	17286	O5*	G A 825	145.247	121.302	-40.243	1.00	34.55	O
ATOM	17237	N4	C A 822	151.740	110.786	-34.938	1.00	36.20	N	ATOM	17287	C5*	G A 825	143.839	121.511	-40.094	1.00	34.55	C
ATOM	17238	C5	C A 822	153.151	110.217	-36.765	1.00	36.20	C	ATOM	17288	C4*	G A 825	143.515	121.915	-38.695	1.00	34.55	C
ATOM	17239	C6	C A 822	153.218	109.712	-37.998	1.00	36.20	C	ATOM	17289	O4*	G A 825	143.784	120.822	-37.786	1.00	34.55	O
ATOM	17240	P	G A 823	153.060	112.575	-42.579	1.00	46.19	P	ATOM	17290	C3*	G A 825	144.321	123.070	-38.153	1.00	34.55	C
ATOM	17241	O1P	G A 823	153.410	113.043	-43.947	1.00	33.21	O	ATOM	17291	O3*	G A 825	143.760	124.305	-38.546	1.00	34.55	O
ATOM	17242	O2P	G A 823	153.822	113.082	-41.405	1.00	33.21	O	ATOM	17292	C2*	G A 825	144.192	122.871	-36.656	1.00	34.55	C
ATOM	17243	O5*	G A 823	151.498	112.766	-42.308	1.00	46.19	O	ATOM	17293	O2*	G A 825	142.962	123.403	-36.211	1.00	34.55	O
ATOM	17244	C5*	G A 823	150.535	112.054	-43.117	1.00	46.19	C	ATOM	17294	C1*	G A 825	144.193	121.340	-36.535	1.00	34.55	C
ATOM	17245	C4*	G A 823	149.123	112.320	-42.652	1.00	46.19	C	ATOM	17295	N9	G A 825	145.521	120.812	-36.216	1.00	32.47	N
ATOM	17246	O4*	G A 823	148.825	111.569	-41.448	1.00	46.19	O	ATOM	17296	C7	G A 825	146.396	120.200	-37.078	1.00	32.47	C
ATOM	17247	C3*	G A 823	148.785	113.749	-42.287	1.00	46.19	C	ATOM	17297	N8	G A 825	147.535	119.895	-36.519	1.00	32.47	N



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ATOM	17298	C5	G A 825	147.399	120.312	-35.204	1.00	32.47	C	ATOM	17348	O2P	A A 828	148.959	133.205	-33.771	1.00	47.89	O
ATOM	17299	C6	G A 825	148.317	120.258	-34.125	1.00	32.47	C	ATOM	17349	O5*	A A 828	151.419	132.992	-33.417	1.00	43.93	O
ATOM	17300	O6	G A 825	149.472	119.817	-34.117	1.00	32.47	O	ATOM	17350	C5*	A A 828	152.663	133.211	-32.736	1.00	43.93	C
ATOM	17301	N1	G A 825	147.773	120.797	-32.967	1.00	32.47	N	ATOM	17351	C4*	A A 828	153.087	134.651	-32.880	1.00	43.93	C
ATOM	17302	C2	G A 825	146.521	121.323	-32.862	1.00	32.47	C	ATOM	17352	O4*	A A 828	154.087	134.944	-31.878	1.00	43.93	O
ATOM	17303	N2	G A 825	146.189	121.795	-31.673	1.00	32.47	N	ATOM	17353	C3*	A A 828	153.727	135.105	-34.183	1.00	43.93	C
ATOM	17304	N3	G A 825	145.658	121.383	-33.854	1.00	32.47	N	ATOM	17354	O3*	A A 828	152.813	135.444	-35.212	1.00	43.93	O
ATOM	17305	C4	G A 825	146.160	120.865	-34.992	1.00	32.47	C	ATOM	17355	C2*	A A 828	154.485	136.348	-33.743	1.00	43.93	C
ATOM	17306	P	C A 826	144.687	125.615	-38.623	1.00	35.87	P	ATOM	17356	O2*	A A 828	153.648	137.481	-33.644	1.00	43.93	O
ATOM	17307	O1P	C A 826	143.824	126.649	-39.218	1.00	35.55	O	ATOM	17357	C1*	A A 828	154.961	135.943	-32.355	1.00	43.93	C
ATOM	17308	O2P	C A 826	145.980	125.278	-39.276	1.00	35.55	O	ATOM	17358	N9	A A 828	156.301	135.379	-32.423	1.00	47.89	N
ATOM	17309	O5*	C A 826	144.977	125.982	-37.100	1.00	35.87	O	ATOM	17359	C8	A A 828	156.691	134.172	-32.945	1.00	47.89	C
ATOM	17310	C5*	C A 826	143.894	126.288	-36.207	1.00	35.87	C	ATOM	17360	N7	A A 828	157.981	133.964	-32.882	1.00	47.89	N
ATOM	17311	C4*	C A 826	144.397	126.432	-34.796	1.00	35.87	C	ATOM	17361	C5	A A 828	158.471	135.109	-32.270	1.00	47.89	C
ATOM	17312	O4*	C A 826	144.842	125.148	-34.307	1.00	35.87	O	ATOM	17362	C6	A A 828	159.769	135.507	-31.905	1.00	47.89	C
ATOM	17313	O3*	C A 826	145.589	127.348	-34.606	1.00	35.87	C	ATOM	17363	N6	A A 828	160.856	134.770	-32.123	1.00	47.89	N
ATOM	17314	C3*	C A 826	145.174	128.691	-34.470	1.00	35.87	C	ATOM	17364	N1	A A 828	159.912	136.705	-31.300	1.00	47.89	N
ATOM	17315	C2*	C A 826	146.210	126.825	-33.319	1.00	35.87	C	ATOM	17365	C2	A A 828	158.818	137.447	-31.089	1.00	47.89	C
ATOM	17316	O2*	C A 826	145.554	127.332	-32.178	1.00	35.87	O	ATOM	17366	N3	A A 828	157.550	137.185	-31.390	1.00	47.89	N
ATOM	17317	C1*	C A 826	145.945	125.323	-33.435	1.00	35.87	C	ATOM	17367	C4	A A 828	157.445	135.986	-31.981	1.00	47.89	C
ATOM	17318	N1	C A 826	147.105	124.571	-33.970	1.00	35.55	N	ATOM	17368	P	G A 829	153.372	135.762	-36.692	1.00	44.06	P
ATOM	17319	C2	C A 826	148.217	124.362	-33.131	1.00	35.55	C	ATOM	17369	O1P	G A 829	152.234	136.223	-37.521	1.00	42.28	O
ATOM	17320	O2	C A 826	148.171	124.766	-31.964	1.00	35.55	O	ATOM	17370	O2P	G A 829	154.200	134.619	-37.148	1.00	42.28	O
ATOM	17321	N3	C A 826	149.301	123.727	-33.615	1.00	35.55	N	ATOM	17371	O5*	G A 829	154.334	137.010	-36.489	1.00	44.06	O
ATOM	17322	C4	C A 826	149.304	123.289	-34.871	1.00	35.55	C	ATOM	17372	C5*	G A 829	155.410	137.274	-37.392	1.00	44.06	C
ATOM	17323	N4	C A 826	150.395	122.681	-35.303	1.00	35.55	N	ATOM	17373	C4*	G A 829	156.544	137.910	-36.641	1.00	44.06	C
ATOM	17324	C5	C A 826	148.182	123.459	-35.739	1.00	35.55	C	ATOM	17374	O4*	G A 829	156.883	137.051	-35.527	1.00	44.06	O
ATOM	17325	C6	C A 826	147.116	124.097	-35.255	1.00	35.55	C	ATOM	17375	C3*	G A 829	157.828	138.057	-37.428	1.00	44.06	C
ATOM	17326	P	U A 827	146.217	129.872	-34.750	1.00	38.50	P	ATOM	17376	O3*	G A 829	157.847	139.250	-38.188	1.00	44.06	O
ATOM	17327	O1P	U A 827	145.466	131.134	-34.545	1.00	41.07	O	ATOM	17377	C2*	G A 829	158.893	138.002	-36.347	1.00	44.06	C
ATOM	17328	O2P	U A 827	146.873	129.611	-36.055	1.00	41.07	O	ATOM	17378	O2*	G A 829	159.061	139.228	-35.679	1.00	44.06	O
ATOM	17329	O5*	U A 827	147.307	129.731	-33.598	1.00	38.50	O	ATOM	17379	C1*	G A 829	158.287	136.981	-35.385	1.00	44.06	C
ATOM	17330	C5*	U A 827	147.147	130.435	-32.364	1.00	38.50	C	ATOM	17380	N9	G A 829	158.692	135.616	-35.715	1.00	42.28	N
ATOM	17331	C4*	U A 827	148.370	130.278	-31.495	1.00	38.50	C	ATOM	17381	C8	G A 829	157.904	134.624	-36.245	1.00	42.28	C
ATOM	17332	O4*	U A 827	148.659	128.872	-31.348	1.00	38.50	O	ATOM	17382	N7	G A 829	158.551	133.508	-36.445	1.00	42.28	N
ATOM	17333	C3*	U A 827	149.684	130.872	-31.966	1.00	38.50	C	ATOM	17383	C5	G A 829	159.843	133.777	-36.012	1.00	42.28	C
ATOM	17334	O3*	U A 827	149.798	132.233	-31.597	1.00	38.50	O	ATOM	17384	C6	G A 829	160.990	132.945	-35.966	1.00	42.28	C
ATOM	17335	C2*	U A 827	150.690	130.057	-31.172	1.00	38.50	C	ATOM	17385	O6	G A 829	161.092	131.754	-36.279	1.00	42.28	O
ATOM	17336	O2*	U A 827	150.728	130.488	-29.825	1.00	38.50	O	ATOM	17386	N1	G A 829	162.095	133.630	-35.480	1.00	42.28	N
ATOM	17337	C1*	U A 827	150.046	128.677	-31.189	1.00	38.50	C	ATOM	17387	C2	G A 829	162.096	134.937	-35.076	1.00	42.28	C
ATOM	17338	N1	U A 827	150.518	127.826	-32.290	1.00	41.07	N	ATOM	17388	N2	G A 829	163.262	135.427	-34.652	1.00	42.28	N
ATOM	17339	C2	U A 827	151.831	127.387	-32.259	1.00	41.07	C	ATOM	17389	N3	G A 829	161.034	135.712	-35.087	1.00	42.28	N
ATOM	17340	O2	U A 827	152.616	127.682	-31.368	1.00	41.07	O	ATOM	17390	C4	G A 829	159.948	135.074	-35.566	1.00	42.28	C
ATOM	17341	N3	U A 827	152.195	126.598	-33.313	1.00	41.07	N	ATOM	17391	P	G A 830	158.425	139.216	-39.690	1.00	53.41	P
ATOM	17342	C4	U A 827	151.409	126.225	-34.369	1.00	41.07	C	ATOM	17392	O1P	G A 830	158.145	140.553	-40.276	1.00	48.56	O
ATOM	17343	O4	U A 827	151.917	125.622	-35.308	1.00	41.07	O	ATOM	17393	O2P	G A 830	157.941	137.986	-40.391	1.00	48.56	O
ATOM	17344	C5	U A 827	150.073	126.711	-34.323	1.00	41.07	C	ATOM	17394	O5*	G A 830	159.988	139.113	-39.455	1.00	53.41	O
ATOM	17345	C6	U A 827	149.684	127.475	-33.316	1.00	41.07	C	ATOM	17395	C5*	G A 830	160.632	140.113	-38.688	1.00	53.41	C
ATOM	17346	P	A A 828	150.024	133.345	-32.728	1.00	43.93	P	ATOM	17396	C4*	G A 830	162.030	139.697	-38.356	1.00	53.41	C
ATOM	17347	O1P	A A 828	150.162	134.621	-31.959	1.00	47.89	O	ATOM	17397	O4*	G A 830	162.009	138.540	-37.485	1.00	53.41	O



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ATOM	17398	C3*	G A 830	162.905	139.261	-39.511	1.00	53.41	C	ATOM	17448	O2	C A 832	168.266	130.863	-45.634	1.00	50.43	O
ATOM	17399	O3*	G A 830	163.424	140.355	-40.247	1.00	53.41	O	ATOM	17449	N3	C A 832	166.088	131.465	-45.508	1.00	50.43	N
ATOM	17400	C2*	G A 830	163.984	138.464	-38.795	1.00	53.41	C	ATOM	17450	C4	C A 832	165.200	132.448	-45.402	1.00	50.43	C
ATOM	17401	O2*	G A 830	164.951	139.305	-38.202	1.00	53.41	O	ATOM	17451	N4	C A 832	163.911	132.117	-45.393	1.00	50.43	N
ATOM	17402	C1*	G A 830	163.173	137.764	-37.703	1.00	53.41	C	ATOM	17452	C5	C A 832	165.593	133.818	-45.309	1.00	50.43	C
ATOM	17403	N9	G A 830	162.768	136.436	-38.145	1.00	48.56	N	ATOM	17453	C6	C A 832	166.900	134.094	-45.361	1.00	50.43	C
ATOM	17404	C8	G A 830	161.534	136.051	-38.606	1.00	48.56	C	ATOM	17454	P	U A 833	169.411	135.182	-50.045	1.00	50.73	P
ATOM	17405	N7	G A 830	161.502	134.807	-38.998	1.00	48.56	N	ATOM	17455	O1P	U A 833	170.365	135.676	-51.057	1.00	54.89	O
ATOM	17406	C5	G A 830	162.787	134.343	-38.771	1.00	48.56	C	ATOM	17456	O2P	U A 833	168.104	135.868	-49.885	1.00	54.89	O
ATOM	17407	C6	G A 830	163.356	133.081	-39.023	1.00	48.56	C	ATOM	17457	O5*	U A 833	169.146	133.636	-50.330	1.00	50.73	O
ATOM	17408	O6	G A 830	162.830	132.083	-39.545	1.00	48.56	O	ATOM	17458	C5*	U A 833	170.241	132.713	-50.383	1.00	50.73	C
ATOM	17409	N1	G A 830	164.685	133.037	-38.629	1.00	48.56	N	ATOM	17459	C4*	U A 833	169.752	131.283	-50.382	1.00	50.73	C
ATOM	17410	C2	G A 830	165.380	134.083	-38.087	1.00	48.56	C	ATOM	17460	O4*	U A 833	169.065	130.983	-49.138	1.00	50.73	O
ATOM	17411	N2	G A 830	166.657	133.852	-37.786	1.00	48.56	N	ATOM	17461	C3*	U A 833	168.771	130.873	-51.467	1.00	50.73	C
ATOM	17412	N3	G A 830	164.863	135.269	-37.859	1.00	48.56	N	ATOM	17462	O3*	U A 833	169.427	130.580	-52.688	1.00	50.73	O
ATOM	17413	C4	G A 830	163.572	135.329	-38.224	1.00	48.56	C	ATOM	17463	C2*	U A 833	168.119	129.632	-50.859	1.00	50.73	C
ATOM	17414	P	U A 831	163.456	140.278	-41.854	1.00	50.98	P	ATOM	17464	O2*	U A 833	168.878	128.442	-51.017	1.00	50.73	O
ATOM	17415	O1P	U A 831	163.798	141.634	-42.313	1.00	60.50	O	ATOM	17465	C1*	U A 833	168.058	130.006	-49.374	1.00	50.73	C
ATOM	17416	O2P	U A 831	162.238	139.625	-42.387	1.00	60.50	O	ATOM	17466	N1	U A 833	166.744	130.573	-49.028	1.00	54.89	N
ATOM	17417	O5*	U A 831	164.700	139.329	-42.128	1.00	50.98	O	ATOM	17467	C2	U A 833	165.674	129.697	-48.883	1.00	54.89	C
ATOM	17418	C5*	U A 831	165.984	139.663	-41.586	1.00	50.98	C	ATOM	17468	O2	U A 833	165.791	128.485	-48.914	1.00	54.89	O
ATOM	17419	C4*	U A 831	166.941	138.505	-41.724	1.00	50.98	C	ATOM	17469	N3	U A 833	164.461	130.299	-48.682	1.00	54.89	N
ATOM	17420	O4*	U A 831	166.543	137.421	-40.848	1.00	50.98	O	ATOM	17470	C4	U A 833	164.211	131.647	-48.575	1.00	54.89	C
ATOM	17421	C3*	U A 831	167.051	137.857	-43.094	1.00	50.98	C	ATOM	17471	O4	U A 833	163.043	132.042	-48.488	1.00	54.89	O
ATOM	17422	O3*	U A 831	167.895	138.579	-43.975	1.00	50.98	O	ATOM	17472	C5	U A 833	165.372	132.476	-48.668	1.00	54.89	C
ATOM	17423	C2*	U A 831	167.614	136.486	-42.754	1.00	50.98	C	ATOM	17473	C6	U A 833	166.564	131.928	-48.887	1.00	54.89	C
ATOM	17424	O2*	U A 831	169.012	136.536	-42.556	1.00	50.98	O	ATOM	17474	P	C A 834	168.647	130.780	-54.083	1.00	45.08	P
ATOM	17425	C1*	U A 831	166.909	136.184	-41.428	1.00	50.98	C	ATOM	17475	O1P	C A 834	169.710	130.949	-55.114	1.00	51.03	O
ATOM	17426	N1	U A 831	165.696	135.372	-41.618	1.00	60.50	N	ATOM	17476	O2P	C A 834	167.586	131.820	-53.938	1.00	51.03	O
ATOM	17427	C2	U A 831	165.845	134.001	-41.590	1.00	60.50	C	ATOM	17477	O5*	C A 834	167.891	129.400	-54.333	1.00	45.08	O
ATOM	17428	O2	U A 831	166.900	133.454	-41.339	1.00	60.50	O	ATOM	17478	C5*	C A 834	168.612	128.181	-54.558	1.00	45.08	C
ATOM	17429	N3	U A 831	164.710	133.289	-41.857	1.00	60.50	N	ATOM	17479	C4*	C A 834	167.646	127.032	-54.699	1.00	45.08	C
ATOM	17430	C4	U A 831	163.460	133.789	-42.118	1.00	60.50	C	ATOM	17480	O4*	C A 834	166.984	126.784	-53.431	1.00	45.08	O
ATOM	17431	O4	U A 831	162.530	133.003	-42.330	1.00	60.50	O	ATOM	17481	C3*	C A 834	166.512	127.299	-55.665	1.00	45.08	C
ATOM	17432	C5	U A 831	163.372	135.220	-42.091	1.00	60.50	C	ATOM	17482	O3*	C A 834	166.867	127.038	-56.997	1.00	45.08	O
ATOM	17433	C6	U A 831	164.466	135.944	-41.846	1.00	60.50	C	ATOM	17483	C2*	C A 834	165.406	126.385	-55.173	1.00	45.08	C
ATOM	17434	P	C A 832	167.581	138.568	-45.549	1.00	58.84	P	ATOM	17484	O2*	C A 834	165.528	125.062	-55.653	1.00	45.08	O
ATOM	17435	O1P	C A 832	168.358	139.693	-46.115	1.00	50.43	O	ATOM	17485	C1*	C A 834	165.626	126.432	-53.662	1.00	45.08	C
ATOM	17436	O2P	C A 832	166.116	138.504	-45.785	1.00	50.43	O	ATOM	17486	N1	C A 834	164.753	127.431	-53.012	1.00	51.03	N
ATOM	17437	O5*	C A 832	168.215	137.182	-46.026	1.00	58.84	O	ATOM	17487	C2	C A 834	163.415	127.096	-52.765	1.00	51.03	C
ATOM	17438	C5*	C A 832	169.635	136.972	-45.930	1.00	58.84	C	ATOM	17488	O2	C A 834	163.017	125.956	-53.045	1.00	51.03	O
ATOM	17439	C4*	C A 832	170.002	135.530	-46.197	1.00	58.84	C	ATOM	17489	N3	C A 834	162.594	128.019	-52.219	1.00	51.03	N
ATOM	17440	O4*	C A 832	169.522	134.682	-45.124	1.00	58.84	O	ATOM	17490	C4	C A 834	163.062	129.225	-51.901	1.00	51.03	C
ATOM	17441	C3*	C A 832	169.471	134.865	-47.454	1.00	58.84	C	ATOM	17491	N4	C A 834	162.209	130.102	-51.382	1.00	51.03	N
ATOM	17442	O3*	C A 832	170.183	135.195	-48.632	1.00	58.84	O	ATOM	17492	C5	C A 834	164.425	129.584	-52.108	1.00	51.03	C
ATOM	17443	C2*	C A 832	169.621	133.391	-47.113	1.00	58.84	C	ATOM	17493	C6	C A 834	165.227	128.668	-52.665	1.00	51.03	C
ATOM	17444	O2*	C A 832	170.938	132.912	-47.263	1.00	58.84	O	ATOM	17494	P	U A 835	166.179	127.889	-58.157	1.00	42.16	P
ATOM	17445	C1*	C A 832	169.257	133.386	-45.633	1.00	58.84	C	ATOM	17495	O1P	U A 835	166.815	127.473	-59.419	1.00	52.65	O
ATOM	17446	N1	C A 832	167.821	133.094	-45.500	1.00	50.43	N	ATOM	17496	O2P	U A 835	166.200	129.320	-57.760	1.00	52.65	O
ATOM	17447	C2	C A 832	167.406	131.753	-45.552	1.00	50.43	C	ATOM	17497	O5*	U A 835	164.671	127.380	-58.154	1.00	42.16	O



Table 1: Sheet 177/521

ATOM	17498	C5*	U A 835	164.347	126.071	-58.651	1.00	42.16	C	ATOM	17548	C1*	G A 837	152.285	132.489	-58.933	1.00	65.41	C
ATOM	17499	C4*	U A 835	162.884	125.755	-58.423	1.00	42.16	C	ATOM	17549	N9	G A 837	153.559	132.936	-58.387	1.00	54.43	N
ATOM	17500	O4*	U A 835	162.611	125.696	-56.996	1.00	42.16	C	ATOM	17550	C8	G A 837	154.812	132.562	-58.798	1.00	54.43	C
ATOM	17501	C3*	U A 835	161.865	126.754	-58.937	1.00	42.16	C	ATOM	17551	N7	G A 837	155.764	133.177	-58.156	1.00	54.43	N
ATOM	17502	O3*	U A 835	161.593	126.678	-60.316	1.00	42.16	O	ATOM	17552	C5	G A 837	155.100	133.994	-57.259	1.00	54.43	C
ATOM	17503	C2*	U A 835	160.643	126.443	-58.086	1.00	42.16	C	ATOM	17553	C6	G A 837	155.607	134.898	-56.303	1.00	54.43	C
ATOM	17504	O2*	U A 835	159.886	125.331	-58.534	1.00	42.16	O	ATOM	17554	O6	G A 837	156.783	135.179	-56.064	1.00	54.43	O
ATOM	17505	C1*	U A 835	161.291	126.150	-56.736	1.00	42.16	C	ATOM	17555	N1	G A 837	154.586	135.520	-55.593	1.00	54.43	N
ATOM	17506	N1	U A 835	161.380	127.401	-55.975	1.00	52.65	N	ATOM	17556	C2	G A 837	153.250	135.308	-55.793	1.00	54.43	C
ATOM	17507	C2	U A 835	160.229	127.874	-55.388	1.00	52.65	C	ATOM	17557	N2	G A 837	152.427	136.013	-55.016	1.00	54.43	N
ATOM	17508	O2	U A 835	159.184	127.250	-55.382	1.00	52.65	O	ATOM	17558	N3	G A 837	152.760	134.469	-56.689	1.00	54.43	N
ATOM	17509	N3	U A 835	160.346	129.104	-54.797	1.00	52.65	N	ATOM	17559	C4	G A 837	153.738	133.849	-57.380	1.00	54.43	C
ATOM	17510	C4	U A 835	161.479	129.872	-54.704	1.00	52.65	C	ATOM	17560	P	G A 838	151.937	135.307	-62.779	1.00	71.10	P
ATOM	17511	O4	U A 835	161.406	130.993	-54.209	1.00	52.65	O	ATOM	17561	O1P	G A 838	151.124	135.483	-64.006	1.00	75.46	O
ATOM	17512	C5	U A 835	162.642	129.285	-55.281	1.00	52.65	C	ATOM	17562	O2P	G A 838	153.416	135.368	-62.862	1.00	75.46	O
ATOM	17513	C6	U A 835	162.555	128.101	-55.883	1.00	52.65	C	ATOM	17563	O5*	G A 838	151.491	136.348	-61.656	1.00	71.10	O
ATOM	17514	P	G A 836	161.123	128.007	-61.071	1.00	71.67	P	ATOM	17564	C5*	G A 838	150.120	136.418	-61.207	1.00	71.10	C
ATOM	17515	O1P	G A 836	161.161	127.725	-62.523	1.00	51.62	O	ATOM	17565	C4*	G A 838	150.007	137.311	-59.991	1.00	71.10	C
ATOM	17516	O2P	G A 836	161.938	129.112	-60.513	1.00	51.62	O	ATOM	17566	O4*	G A 838	150.818	136.759	-58.927	1.00	71.10	O
ATOM	17517	O5*	G A 836	159.606	128.224	-60.613	1.00	71.67	O	ATOM	17567	C3*	G A 838	150.511	138.735	-60.166	1.00	71.10	C
ATOM	17518	C5*	G A 836	158.557	127.475	-61.245	1.00	71.67	C	ATOM	17568	O3*	G A 838	149.489	139.597	-60.659	1.00	71.10	O
ATOM	17519	O4*	G A 836	157.179	127.831	-60.707	1.00	71.67	C	ATOM	17569	C2*	G A 838	150.901	139.127	-58.747	1.00	71.10	C
ATOM	17520	C4*	G A 836	157.098	127.611	-59.275	1.00	71.67	O	ATOM	17570	O2*	G A 838	149.790	139.556	-57.988	1.00	71.10	O
ATOM	17521	C3*	G A 836	156.564	129.216	-60.858	1.00	71.67	C	ATOM	17571	C1*	G A 838	151.417	137.805	-58.184	1.00	71.10	C
ATOM	17522	O3*	G A 836	156.087	129.538	-62.157	1.00	71.67	O	ATOM	17572	N9	G A 838	152.865	137.667	-58.291	1.00	75.46	N
ATOM	17523	C2*	G A 836	155.370	129.100	-59.918	1.00	71.67	C	ATOM	17573	C8	G A 838	153.555	136.924	-59.218	1.00	75.46	C
ATOM	17524	O2*	G A 836	154.294	128.375	-60.491	1.00	71.67	O	ATOM	17574	N7	G A 838	154.847	136.973	-59.054	1.00	75.46	N
ATOM	17525	C1*	G A 836	155.958	128.289	-58.769	1.00	71.67	C	ATOM	17575	C5	G A 838	155.023	137.805	-57.957	1.00	75.46	C
ATOM	17526	N9	G A 836	156.348	129.221	-57.718	1.00	51.62	N	ATOM	17576	C6	G A 838	156.216	138.227	-57.305	1.00	75.46	C
ATOM	17527	C8	G A 836	157.599	129.699	-57.416	1.00	51.62	C	ATOM	17577	O6	G A 838	157.388	137.937	-57.577	1.00	75.46	O
ATOM	17528	N7	G A 836	157.585	130.603	-56.473	1.00	51.62	N	ATOM	17578	N1	G A 838	155.942	139.068	-56.234	1.00	75.46	N
ATOM	17529	C5	G A 836	156.243	130.714	-56.123	1.00	51.62	C	ATOM	17579	C2	G A 838	154.684	139.451	-55.839	1.00	75.46	C
ATOM	17530	C6	G A 836	155.594	131.558	-55.168	1.00	51.62	C	ATOM	17580	N2	G A 838	154.623	140.268	-54.775	1.00	75.46	N
ATOM	17531	O6	G A 836	156.093	132.420	-54.430	1.00	51.62	O	ATOM	17581	N3	G A 838	153.565	139.062	-56.439	1.00	75.46	N
ATOM	17532	N1	G A 836	154.222	131.323	-55.128	1.00	51.62	N	ATOM	17582	C4	G A 838	153.809	138.246	-57.480	1.00	75.46	C
ATOM	17533	C2	G A 836	153.551	130.409	-55.911	1.00	51.62	C	ATOM	17583	P	U A 839	149.757	140.506	-61.965	1.00	115.50	P
ATOM	17534	N2	G A 836	152.220	130.317	-55.733	1.00	51.62	N	ATOM	17584	O1P	U A 839	148.690	141.540	-61.984	1.00	132.52	O
ATOM	17535	N3	G A 836	154.139	129.640	-56.808	1.00	51.62	N	ATOM	17585	O2P	U A 839	149.938	139.618	-63.143	1.00	132.52	O
ATOM	17536	C4	G A 836	155.475	129.845	-56.860	1.00	51.62	C	ATOM	17586	O5*	U A 839	151.145	141.244	-61.698	1.00	115.50	O
ATOM	17537	P	G A 837	155.868	131.091	-62.555	1.00	65.41	P	ATOM	17587	C5*	U A 839	151.527	141.673	-60.381	1.00	115.50	C
ATOM	17538	O1P	G A 837	155.508	131.093	-63.984	1.00	54.43	O	ATOM	17588	C4*	U A 839	150.952	143.030	-60.080	1.00	115.50	C
ATOM	17539	O2P	G A 837	157.015	131.903	-62.087	1.00	54.43	O	ATOM	17589	O4*	U A 839	149.544	142.899	-59.754	1.00	115.50	O
ATOM	17540	O5*	G A 837	154.590	131.566	-61.726	1.00	65.41	O	ATOM	17590	C3*	U A 839	151.547	143.712	-58.861	1.00	115.50	C
ATOM	17541	C5*	G A 837	153.255	131.145	-62.093	1.00	65.41	C	ATOM	17591	O3*	U A 839	152.721	144.426	-59.216	1.00	115.50	O
ATOM	17542	C4*	G A 837	152.234	131.777	-61.174	1.00	65.41	C	ATOM	17592	C2*	U A 839	150.447	144.670	-58.430	1.00	115.50	C
ATOM	17543	O4*	G A 837	152.539	131.400	-59.806	1.00	65.41	O	ATOM	17593	O2*	U A 839	150.494	145.893	-59.136	1.00	115.50	O
ATOM	17544	C3*	G A 837	152.237	133.297	-61.142	1.00	65.41	C	ATOM	17594	C1*	U A 839	149.181	143.906	-58.824	1.00	115.50	C
ATOM	17545	O3*	G A 837	151.489	133.882	-62.193	1.00	65.41	O	ATOM	17595	N1	U A 839	148.344	143.323	-57.753	1.00	132.52	N
ATOM	17546	C2*	G A 837	151.670	133.608	-59.765	1.00	65.41	C	ATOM	17596	C2	U A 839	148.575	143.680	-56.416	1.00	132.52	C
ATOM	17547	O2*	G A 837	150.260	133.553	-59.694	1.00	65.41	O	ATOM	17597	O2	U A 839	149.478	144.417	-56.056	1.00	132.52	O



ATOM	17598	N3	U A 839	147.697	143.134	-55.512	1.00132.52	N	ATOM	17648	C4*	C A 848	157.905	144.123	-49.932	1.00163.90	C
ATOM	17599	C4	U A 839	146.645	142.284	-55.778	1.00132.52	C	ATOM	17649	O4*	C A 848	158.004	143.965	-51.375	1.00163.90	O
ATOM	17600	O4	U A 839	145.919	141.915	-54.852	1.00132.52	O	ATOM	17650	C3*	C A 848	157.567	142.727	-49.432	1.00163.90	C
ATOM	17601	C5	U A 839	146.488	141.941	-57.159	1.00132.52	C	ATOM	17651	O3*	C A 848	156.918	142.734	-48.167	1.00163.90	O
ATOM	17602	C6	U A 839	147.320	142.455	-58.074	1.00132.52	C	ATOM	17652	C2*	C A 848	156.645	142.205	-50.527	1.00163.90	C
ATOM	17603	P	C A 840	153.712	144.950	-58.069	1.00134.21	P	ATOM	17653	O2*	C A 848	155.324	142.686	-50.388	1.00163.90	O
ATOM	17604	O1P	C A 840	152.910	145.200	-56.841	1.00108.39	O	ATOM	17654	C1*	C A 848	157.268	142.821	-51.779	1.00163.90	C
ATOM	17605	O2P	C A 840	154.494	146.058	-58.669	1.00108.39	O	ATOM	17655	N1	C A 848	158.164	141.881	-52.486	1.00117.40	N
ATOM	17606	O5*	C A 840	154.676	143.708	-57.799	1.00134.21	O	ATOM	17656	C2	C A 848	157.747	141.350	-53.717	1.00117.40	C
ATOM	17607	C5*	C A 840	155.634	143.717	-56.712	1.00134.21	C	ATOM	17657	O2	C A 848	156.657	141.709	-54.191	1.00117.40	O
ATOM	17608	C4*	C A 840	156.931	143.073	-57.155	1.00134.21	C	ATOM	17658	N3	C A 848	158.545	140.462	-54.360	1.00117.40	N
ATOM	17609	O4*	C A 840	156.635	141.709	-57.538	1.00134.21	O	ATOM	17659	C4	C A 848	159.717	140.111	-53.827	1.00117.40	C
ATOM	17610	C3*	C A 840	157.566	143.725	-58.383	1.00134.21	C	ATOM	17660	N4	C A 848	160.471	139.240	-54.499	1.00117.40	N
ATOM	17611	O3*	C A 840	158.581	144.712	-58.075	1.00134.21	O	ATOM	17661	C5	C A 848	160.170	140.641	-52.584	1.00117.40	C
ATOM	17612	C2*	C A 840	158.255	142.553	-59.088	1.00134.21	C	ATOM	17662	C6	C A 848	159.371	141.514	-51.953	1.00117.40	C
ATOM	17613	O2*	C A 840	159.588	142.350	-58.655	1.00134.21	O	ATOM	17663	P	C A 849	156.703	141.346	-47.376	1.00123.95	P
ATOM	17614	C1*	C A 840	157.395	141.355	-58.672	1.00134.21	C	ATOM	17664	O1P	C A 849	156.352	141.703	-45.976	1.00 75.20	O
ATOM	17615	N1	C A 840	156.482	140.799	-59.687	1.00108.39	N	ATOM	17665	O2P	C A 849	157.874	140.456	-47.629	1.00 75.20	O
ATOM	17616	C2	C A 840	156.838	139.602	-60.341	1.00108.39	C	ATOM	17666	O5*	C A 849	155.419	140.700	-48.075	1.00123.95	O
ATOM	17617	O2	C A 840	157.932	139.071	-60.084	1.00108.39	O	ATOM	17667	C5*	C A 849	154.138	141.361	-48.017	1.00123.95	C
ATOM	17618	N3	C A 840	155.979	139.057	-61.236	1.00108.39	N	ATOM	17668	O4*	C A 849	153.132	140.694	-48.938	1.00123.95	O
ATOM	17619	C4	C A 840	154.814	139.658	-61.494	1.00108.39	C	ATOM	17669	C4*	C A 849	153.535	140.830	-50.327	1.00123.95	C
ATOM	17620	N4	C A 840	153.988	139.074	-62.368	1.00108.39	N	ATOM	17670	C3*	C A 849	152.893	139.203	-48.773	1.00123.95	C
ATOM	17621	C5	C A 840	154.442	140.884	-60.864	1.00108.39	C	ATOM	17671	O3*	C A 849	152.017	138.888	-47.706	1.00123.95	O
ATOM	17622	C6	C A 840	155.296	141.415	-59.978	1.00108.39	C	ATOM	17672	C2*	C A 849	152.287	138.809	-50.116	1.00123.95	O
ATOM	17623	P	U A 841	158.442	145.698	-56.794	1.00200.93	P	ATOM	17673	O2*	C A 849	150.895	139.051	-50.206	1.00123.95	O
ATOM	17624	O1P	U A 841	157.020	146.056	-56.562	1.00200.93	O	ATOM	17674	C1*	C A 849	153.033	139.732	-51.077	1.00123.95	C
ATOM	17625	O2P	U A 841	159.440	146.781	-56.986	1.00200.93	O	ATOM	17675	N1	C A 849	154.147	139.034	-51.757	1.00 75.20	N
ATOM	17626	O5*	U A 841	158.944	144.797	-55.577	1.00200.93	O	ATOM	17676	C2	C A 849	153.845	138.207	-52.849	1.00 75.20	C
ATOM	17627	C5*	U A 841	159.153	145.347	-54.257	1.00200.93	C	ATOM	17677	O2	C A 849	152.662	138.099	-53.212	1.00 75.20	O
ATOM	17628	C4*	U A 841	160.622	145.642	-54.043	1.00200.93	C	ATOM	17678	N3	C A 849	154.843	137.549	-53.476	1.00 75.20	N
ATOM	17629	O4*	U A 841	160.960	146.858	-54.760	1.00200.93	O	ATOM	17679	C4	C A 849	156.101	137.692	-53.059	1.00 75.20	C
ATOM	17630	C3*	U A 841	161.044	145.914	-52.606	1.00200.93	C	ATOM	17680	N4	C A 849	157.050	137.026	-53.714	1.00 75.20	N
ATOM	17631	O3*	U A 841	161.378	144.701	-51.936	1.00200.93	O	ATOM	17681	C5	C A 849	156.441	138.525	-51.953	1.00 75.20	C
ATOM	17632	C2*	U A 841	162.270	146.806	-52.767	1.00200.93	C	ATOM	17682	C6	C A 849	155.443	139.173	-51.338	1.00 75.20	C
ATOM	17633	O2*	U A 841	163.462	146.078	-52.990	1.00200.93	O	ATOM	17683	P	U A 850	152.113	137.440	-47.023	1.00 72.85	P
ATOM	17634	C1*	U A 841	161.916	147.607	-54.023	1.00200.93	C	ATOM	17684	O1P	U A 850	151.115	137.356	-45.923	1.00 76.33	O
ATOM	17635	N1	U A 841	161.364	148.946	-53.742	1.00200.93	N	ATOM	17685	O2P	U A 850	153.546	137.195	-46.731	1.00 76.33	O
ATOM	17636	C2	U A 841	162.190	149.880	-53.118	1.00200.93	C	ATOM	17686	O5*	U A 850	151.670	136.451	-48.190	1.00 72.85	O
ATOM	17637	O2	U A 841	163.344	149.640	-52.788	1.00200.93	O	ATOM	17687	C5*	U A 850	150.322	136.445	-48.689	1.00 72.85	C
ATOM	17638	N3	U A 841	161.612	151.106	-52.894	1.00200.93	N	ATOM	17688	C4*	U A 850	150.179	135.422	-49.788	1.00 72.85	C
ATOM	17639	C4	U A 841	160.326	151.493	-53.216	1.00200.93	C	ATOM	17689	O4*	U A 850	150.996	135.819	-50.922	1.00 72.85	O
ATOM	17640	O4	U A 841	159.953	152.635	-52.943	1.00200.93	O	ATOM	17690	C3*	U A 850	150.662	134.016	-49.465	1.00 72.85	C
ATOM	17641	C5	U A 841	159.538	150.483	-53.851	1.00200.93	C	ATOM	17691	O3*	U A 850	149.713	133.226	-48.767	1.00 72.85	O
ATOM	17642	C6	U A 841	160.067	149.276	-54.086	1.00200.93	C	ATOM	17692	C2*	U A 850	150.957	133.441	-50.843	1.00 72.85	C
ATOM	17643	P	C A 848	161.629	144.701	-50.346	1.00163.90	P	ATOM	17693	O2*	U A 850	149.804	132.947	-51.501	1.00 72.85	O
ATOM	17644	O1P	C A 848	161.650	146.119	-49.886	1.00117.40	O	ATOM	17694	C1*	U A 850	151.496	134.666	-51.577	1.00 72.85	C
ATOM	17645	O2P	C A 848	162.797	143.826	-50.069	1.00117.40	O	ATOM	17695	N1	U A 850	152.967	134.689	-51.556	1.00 76.33	N
ATOM	17646	O5*	C A 848	160.326	143.997	-49.755	1.00163.90	O	ATOM	17696	C2	U A 850	153.619	134.037	-52.588	1.00 76.33	C
ATOM	17647	C5*	C A 848	159.164	144.772	-49.403	1.00163.90	C	ATOM	17697	O2	U A 850	153.028	133.471	-53.497	1.00 76.33	O



ATOM	17698	N3	U A 850	154.990	134.064	-52.519	1.00	76.33	N	ATOM	17748	C4	G A 852	157.520	126.005	-51.516	1.00	50.63	C
ATOM	17699	C4	U A 850	155.761	134.657	-51.550	1.00	76.33	C	ATOM	17749	P	G A 853	155.733	121.948	-47.490	1.00	45.01	P
ATOM	17700	O4	U A 850	156.987	134.574	-51.628	1.00	76.33	O	ATOM	17750	O1P	G A 853	155.355	120.628	-46.921	1.00	53.24	O
ATOM	17701	C5	U A 850	155.021	135.317	-50.516	1.00	76.33	C	ATOM	17751	O2P	G A 853	155.461	123.188	-46.713	1.00	53.24	O
ATOM	17702	C6	U A 850	153.682	135.312	-50.554	1.00	76.33	C	ATOM	17752	O5*	G A 853	157.295	121.982	-47.854	1.00	45.01	O
ATOM	17703	P	G A 851	150.223	132.009	-47.844	1.00	72.63	P	ATOM	17753	C5*	G A 853	157.909	120.899	-48.575	1.00	45.01	C
ATOM	17704	O1P	G A 851	149.005	131.448	-47.206	1.00	55.41	O	ATOM	17754	C4*	G A 853	159.349	121.216	-48.960	1.00	45.01	C
ATOM	17705	O2P	G A 851	151.346	132.488	-46.987	1.00	55.41	O	ATOM	17755	O4*	G A 853	159.431	122.388	-49.810	1.00	45.01	O
ATOM	17706	O5*	G A 851	150.790	130.923	-48.874	1.00	72.63	O	ATOM	17756	C3*	G A 853	160.400	121.491	-47.898	1.00	45.01	C
ATOM	17707	C5*	G A 851	149.877	130.103	-49.626	1.00	72.63	C	ATOM	17757	O3*	G A 853	160.890	120.314	-47.279	1.00	45.01	O
ATOM	17708	C4*	G A 851	150.591	129.018	-50.417	1.00	72.63	C	ATOM	17758	C2*	G A 853	161.520	122.097	-48.731	1.00	45.01	C
ATOM	17709	O4*	G A 851	151.221	129.547	-51.611	1.00	72.63	O	ATOM	17759	O2*	G A 853	162.262	121.105	-49.409	1.00	45.01	O
ATOM	17710	C3*	G A 851	151.658	128.137	-49.790	1.00	72.63	C	ATOM	17760	C1*	G A 853	160.750	122.899	-49.772	1.00	45.01	C
ATOM	17711	O3*	G A 851	151.115	127.107	-48.965	1.00	72.63	O	ATOM	17761	N9	G A 853	160.721	124.304	-49.401	1.00	53.24	N
ATOM	17712	C2*	G A 851	152.274	127.505	-51.032	1.00	72.63	C	ATOM	17762	C8	G A 853	159.653	125.013	-48.918	1.00	53.24	C
ATOM	17713	O2*	G A 851	151.453	126.469	-51.519	1.00	72.63	O	ATOM	17763	N7	G A 853	159.948	126.251	-48.630	1.00	53.24	N
ATOM	17714	C1*	G A 851	152.221	128.647	-52.043	1.00	72.63	C	ATOM	17764	C5	G A 853	161.292	126.368	-48.954	1.00	53.24	C
ATOM	17715	N9	G A 851	153.500	129.341	-52.105	1.00	55.41	N	ATOM	17765	C6	G A 853	162.173	127.482	-48.837	1.00	53.24	C
ATOM	17716	C8	G A 851	153.852	130.485	-51.438	1.00	55.41	C	ATOM	17766	O6	G A 853	161.918	128.630	-48.413	1.00	53.24	O
ATOM	17717	N7	G A 851	155.096	130.830	-51.633	1.00	55.41	N	ATOM	17767	N1	G A 853	163.463	127.157	-49.264	1.00	53.24	N
ATOM	17718	C5	G A 851	155.596	129.863	-52.496	1.00	55.41	C	ATOM	17768	C2	G A 853	163.851	125.926	-49.735	1.00	53.24	C
ATOM	17719	C6	G A 851	156.901	129.706	-53.054	1.00	55.41	C	ATOM	17769	N2	G A 853	165.134	125.808	-50.082	1.00	53.24	N
ATOM	17720	O6	G A 851	157.904	130.421	-52.892	1.00	55.41	O	ATOM	17770	N3	G A 853	163.038	124.886	-49.852	1.00	53.24	N
ATOM	17721	N1	G A 851	156.973	128.591	-53.877	1.00	55.41	N	ATOM	17771	C4	G A 853	161.782	125.176	-49.442	1.00	53.24	C
ATOM	17722	C2	G A 851	155.931	127.741	-54.143	1.00	55.41	C	ATOM	17772	P	G A 854	161.632	120.421	-45.858	1.00	34.67	P
ATOM	17723	N2	G A 851	156.199	126.728	-54.975	1.00	55.41	N	ATOM	17773	O1P	G A 854	161.965	119.041	-45.417	1.00	44.80	O
ATOM	17724	N3	G A 851	154.715	127.872	-53.633	1.00	55.41	N	ATOM	17774	O2P	G A 854	160.829	121.303	-44.980	1.00	44.80	O
ATOM	17725	C4	G A 851	154.621	128.947	-52.818	1.00	55.41	C	ATOM	17775	O5*	G A 854	162.996	121.176	-46.171	1.00	34.67	O
ATOM	17726	P	G A 852	152.079	126.293	-47.952	1.00	58.56	P	ATOM	17776	C5*	G A 854	163.958	120.565	-47.031	1.00	34.67	C
ATOM	17727	O1P	G A 852	151.249	125.326	-47.198	1.00	50.63	O	ATOM	17777	C4*	G A 854	165.204	121.391	-47.112	1.00	34.67	C
ATOM	17728	O2P	G A 852	152.925	127.270	-47.214	1.00	50.63	O	ATOM	17778	O4*	G A 854	164.932	122.654	-47.760	1.00	34.67	O
ATOM	17729	O5*	G A 852	153.056	125.446	-48.890	1.00	58.56	O	ATOM	17779	C3*	G A 854	165.850	121.762	-45.799	1.00	34.67	C
ATOM	17730	C5*	G A 852	152.613	124.236	-49.536	1.00	58.56	C	ATOM	17780	O3*	G A 854	166.616	120.667	-45.316	1.00	34.67	O
ATOM	17731	C4*	G A 852	153.737	123.620	-50.341	1.00	58.56	C	ATOM	17781	C2*	G A 854	166.690	122.982	-46.195	1.00	34.67	C
ATOM	17732	O4*	G A 852	154.170	124.546	-51.376	1.00	58.56	O	ATOM	17782	O2*	G A 854	167.928	122.662	-46.813	1.00	34.67	O
ATOM	17733	C3*	G A 852	155.015	123.298	-49.592	1.00	58.56	C	ATOM	17783	C1*	G A 854	165.805	123.643	-47.254	1.00	34.67	C
ATOM	17734	O3*	G A 852	154.970	122.073	-48.899	1.00	58.56	O	ATOM	17784	N9	G A 854	165.006	124.763	-46.765	1.00	44.80	N
ATOM	17735	C2*	G A 852	156.049	123.267	-50.703	1.00	58.56	C	ATOM	17785	C8	G A 854	163.653	124.780	-46.546	1.00	44.80	C
ATOM	17736	O2*	G A 852	156.033	122.047	-51.415	1.00	58.56	O	ATOM	17786	N7	G A 854	163.213	125.939	-46.143	1.00	44.80	N
ATOM	17737	C1*	G A 852	155.564	124.403	-51.598	1.00	58.56	C	ATOM	17787	C5	G A 854	164.344	126.734	-46.093	1.00	44.80	C
ATOM	17738	N9	G A 852	156.224	125.650	-51.221	1.00	50.63	N	ATOM	17788	C6	G A 854	164.486	128.090	-45.746	1.00	44.80	C
ATOM	17739	C8	G A 852	155.699	126.685	-50.483	1.00	50.63	C	ATOM	17789	O6	G A 854	163.602	128.896	-45.414	1.00	44.80	O
ATOM	17740	N7	G A 852	156.553	127.651	-50.273	1.00	50.63	N	ATOM	17790	N1	G A 854	165.816	128.496	-45.816	1.00	44.80	N
ATOM	17741	C5	G A 852	157.710	127.233	-50.919	1.00	50.63	C	ATOM	17791	C2	G A 854	166.864	127.694	-46.176	1.00	44.80	C
ATOM	17742	C6	G A 852	158.986	127.858	-51.028	1.00	50.63	C	ATOM	17792	N2	G A 854	168.059	128.255	-46.170	1.00	44.80	N
ATOM	17743	O6	G A 852	159.365	128.941	-50.556	1.00	50.63	O	ATOM	17793	N3	G A 854	166.741	126.432	-46.513	1.00	44.80	N
ATOM	17744	N1	G A 852	159.870	127.084	-51.766	1.00	50.63	N	ATOM	17794	C4	G A 854	165.462	126.018	-46.453	1.00	44.80	C
ATOM	17745	C2	G A 852	159.578	125.864	-52.318	1.00	50.63	C	ATOM	17795	P	G A 855	167.179	120.693	-43.816	1.00	41.95	P
ATOM	17746	N2	G A 852	160.579	125.267	-52.980	1.00	50.63	N	ATOM	17796	O1P	G A 855	168.381	119.838	-43.816	1.00	43.96	O
ATOM	17747	N3	G A 852	158.398	125.270	-52.226	1.00	50.63	N	ATOM	17797	O2P	G A 855	166.075	120.397	-42.878	1.00	43.96	O



ATOM 17798	O5*	G A 855	167.657	122.206	-43.652	1.00	41.95	O	ATOM 17848	O2*	C A 857	168.311	134.361	-32.965	1.00	48.92	O
ATOM 17799	C5*	G A 855	167.704	122.862	-42.374	1.00	41.95	C	ATOM 17849	C1*	C A 857	167.861	132.788	-34.723	1.00	48.92	C
ATOM 17800	C4*	G A 855	168.715	123.984	-42.409	1.00	41.95	C	ATOM 17850	N1	C A 857	166.707	131.973	-35.144	1.00	55.96	N
ATOM 17801	O4*	G A 855	168.380	124.933	-43.455	1.00	41.95	O	ATOM 17851	C2	C A 857	165.437	132.571	-35.157	1.00	55.96	C
ATOM 17802	C3*	G A 855	168.782	124.839	-41.164	1.00	41.95	C	ATOM 17852	O2	C A 857	165.318	133.736	-34.748	1.00	55.96	O
ATOM 17803	O3*	G A 855	169.590	124.255	-40.176	1.00	41.95	O	ATOM 17853	N3	C A 857	164.376	131.866	-35.600	1.00	55.96	N
ATOM 17804	C2*	G A 855	169.382	126.138	-41.673	1.00	41.95	C	ATOM 17854	C4	C A 857	164.536	130.609	-35.996	1.00	55.96	C
ATOM 17805	O2*	G A 855	170.780	126.052	-41.797	1.00	41.95	O	ATOM 17855	N4	C A 857	163.467	129.962	-36.437	1.00	55.96	N
ATOM 17806	C1*	G A 855	168.753	126.246	-43.057	1.00	41.95	C	ATOM 17856	C5	C A 857	165.805	129.960	-35.959	1.00	55.96	C
ATOM 17807	N9	G A 855	167.557	127.081	-43.011	1.00	43.96	N	ATOM 17857	C6	C A 857	166.855	130.672	-35.530	1.00	55.96	C
ATOM 17808	C8	G A 855	166.252	126.671	-43.127	1.00	43.96	C	ATOM 17858	P	G A 858	168.902	131.805	-30.159	1.00	50.38	P
ATOM 17809	N7	G A 855	165.394	127.642	-42.987	1.00	43.96	N	ATOM 17859	O1P	G A 858	169.607	132.489	-29.035	1.00	48.15	O
ATOM 17810	C5	G A 855	166.179	128.764	-42.780	1.00	43.96	C	ATOM 17860	O2P	G A 858	168.955	130.313	-30.251	1.00	48.15	O
ATOM 17811	C6	G A 855	165.806	130.116	-42.558	1.00	43.96	C	ATOM 17861	O5*	G A 858	167.359	132.231	-30.175	1.00	50.38	O
ATOM 17812	O6	G A 855	164.659	130.603	-42.486	1.00	43.96	O	ATOM 17862	C5*	G A 858	166.886	133.352	-29.386	1.00	50.38	C
ATOM 17813	N1	G A 855	166.925	130.933	-42.405	1.00	43.96	N	ATOM 17863	C4*	G A 858	165.531	133.843	-29.877	1.00	50.38	C
ATOM 17814	C2	G A 855	168.231	130.505	-42.456	1.00	43.96	C	ATOM 17864	O4*	G A 858	165.390	133.548	-31.289	1.00	50.38	O
ATOM 17815	N2	G A 855	169.167	131.446	-42.303	1.00	43.96	N	ATOM 17865	C3*	G A 858	164.278	133.271	-29.221	1.00	50.38	C
ATOM 17816	N3	G A 855	168.589	129.247	-42.650	1.00	43.96	N	ATOM 17866	O3*	G A 858	163.935	134.036	-28.064	1.00	50.38	O
ATOM 17817	C4	G A 855	167.518	128.437	-42.804	1.00	43.96	C	ATOM 17867	O2*	G A 858	163.233	133.468	-30.309	1.00	50.38	O
ATOM 17818	P	C A 856	169.196	124.446	-38.634	1.00	47.27	P	ATOM 17868	C2*	G A 858	162.771	134.800	-30.348	1.00	50.38	C
ATOM 17819	O1P	C A 856	170.030	123.485	-37.869	1.00	46.31	O	ATOM 17869	C1*	G A 858	164.051	133.223	-31.575	1.00	50.38	C
ATOM 17820	O2P	C A 856	167.712	124.386	-38.527	1.00	46.31	O	ATOM 17870	N9	G A 858	164.020	131.827	-31.979	1.00	48.15	N
ATOM 17821	C5*	C A 856	169.656	125.935	-38.280	1.00	47.27	C	ATOM 17871	C8	G A 858	165.042	130.913	-31.881	1.00	48.15	C
ATOM 17822	O5*	C A 856	171.003	126.374	-38.520	1.00	47.27	O	ATOM 17872	N7	G A 858	164.723	129.737	-32.342	1.00	48.15	N
ATOM 17823	C4*	C A 856	171.089	127.882	-38.441	1.00	47.27	C	ATOM 17873	C5	G A 858	163.411	129.886	-32.769	1.00	48.15	C
ATOM 17824	O4*	C A 856	170.323	128.489	-39.512	1.00	47.27	O	ATOM 17874	C6	G A 858	162.543	128.960	-33.367	1.00	48.15	C
ATOM 17825	C3*	C A 856	170.547	128.515	-37.177	1.00	47.27	C	ATOM 17875	O6	G A 858	162.771	127.778	-33.681	1.00	48.15	O
ATOM 17826	O3*	C A 856	171.505	128.527	-36.145	1.00	47.27	O	ATOM 17876	N1	G A 858	161.294	129.528	-33.617	1.00	48.15	N
ATOM 17827	C2*	C A 856	170.213	129.930	-37.620	1.00	47.27	C	ATOM 17877	C2	G A 858	160.942	130.827	-33.335	1.00	48.15	C
ATOM 17828	O2*	C A 856	171.338	130.788	-37.592	1.00	47.27	O	ATOM 17878	N2	G A 858	159.690	131.189	-33.636	1.00	48.15	N
ATOM 17829	C1*	C A 856	169.750	129.703	-39.059	1.00	47.27	C	ATOM 17879	N3	G A 858	161.755	131.700	-32.797	1.00	48.15	N
ATOM 17830	N1	C A 856	168.282	129.596	-39.158	1.00	46.31	N	ATOM 17880	C4	G A 858	162.963	131.168	-32.539	1.00	48.15	C
ATOM 17831	C2	C A 856	167.522	130.762	-39.159	1.00	46.31	C	ATOM 17881	P	A A 859	162.847	133.482	-27.009	1.00	42.31	P
ATOM 17832	O2	C A 856	168.097	131.853	-39.071	1.00	46.31	O	ATOM 17882	O1P	A A 859	162.969	134.376	-25.825	1.00	49.73	O
ATOM 17833	N3	C A 856	166.182	130.676	-39.251	1.00	46.31	N	ATOM 17883	O2P	A A 859	163.005	132.017	-26.832	1.00	49.73	O
ATOM 17834	C4	C A 856	165.596	129.486	-39.332	1.00	46.31	C	ATOM 17884	O5*	A A 859	161.432	133.760	-27.692	1.00	42.31	O
ATOM 17835	N4	C A 856	164.267	129.449	-39.414	1.00	46.31	N	ATOM 17885	C5*	A A 859	161.009	135.105	-27.950	1.00	42.31	C
ATOM 17836	C5	C A 856	166.343	128.279	-39.332	1.00	46.31	C	ATOM 17886	C4*	A A 859	159.507	135.227	-27.880	1.00	42.31	C
ATOM 17837	C6	C A 856	167.671	128.379	-39.245	1.00	46.31	C	ATOM 17887	O4*	A A 859	158.878	134.707	-29.074	1.00	42.31	O
ATOM 17838	P	C A 857	171.028	128.297	-34.636	1.00	48.92	P	ATOM 17888	C3*	A A 859	158.781	134.482	-26.784	1.00	42.31	C
ATOM 17839	O1P	C A 857	172.268	128.198	-33.811	1.00	55.96	O	ATOM 17889	O3*	A A 859	158.890	135.106	-25.522	1.00	42.31	O
ATOM 17840	O2P	C A 857	170.056	127.173	-34.642	1.00	55.96	O	ATOM 17890	C2*	A A 859	157.340	134.517	-27.278	1.00	42.31	C
ATOM 17841	O5*	C A 857	170.215	129.623	-34.270	1.00	48.92	O	ATOM 17891	O2*	A A 859	156.692	135.723	-26.943	1.00	42.31	O
ATOM 17842	C5*	C A 857	170.897	130.873	-34.105	1.00	48.92	C	ATOM 17892	C1*	A A 859	157.513	134.462	-28.799	1.00	42.31	C
ATOM 17843	C4*	C A 857	169.919	132.019	-33.926	1.00	48.92	C	ATOM 17893	N9	A A 859	157.108	133.170	-29.356	1.00	49.73	N
ATOM 17844	O4*	C A 857	169.063	132.137	-35.092	1.00	48.92	O	ATOM 17894	C8	A A 859	157.871	132.113	-29.784	1.00	49.73	C
ATOM 17845	C3*	C A 857	168.935	132.010	-32.764	1.00	48.92	C	ATOM 17895	N5	A A 859	157.166	131.078	-30.182	1.00	49.73	N
ATOM 17846	O3*	C A 857	169.488	132.423	-31.523	1.00	48.92	C	ATOM 17896	C7	A A 859	155.850	131.488	-30.015	1.00	49.73	C
ATOM 17847	C2*	C A 857	167.899	133.029	-33.217	1.00	48.92	C	ATOM 17897	C6	A A 859	154.618	130.848	-30.253	1.00	49.73	C



Table 1: Sheet 181/521

ATOM 17898	A A 859	154.505	129.608	-30.733	1.00	49.73	N	ATOM 17948	P	C A 862	155.169	125.223	-19.789	1.00	36.76	P
ATOM 17899	A A 859	153.491	131.536	-29.979	1.00	49.73	N	ATOM 17949	O1P	C A 862	154.303	124.635	-18.749	1.00	41.51	O
ATOM 17900	A A 859	153.600	132.777	-29.500	1.00	49.73	C	ATOM 17950	O2P	C A 862	156.209	126.199	-19.405	1.00	41.51	O
ATOM 17901	A A 859	154.696	133.487	-29.234	1.00	49.73	N	ATOM 17951	O5*	C A 862	155.880	124.025	-20.549	1.00	36.76	O
ATOM 17902	A A 859	155.800	132.776	-29.518	1.00	49.73	C	ATOM 17952	C5*	C A 862	155.108	123.070	-21.282	1.00	36.76	C
ATOM 17903	A A 860	158.882	134.194	-24.198	1.00	39.24	P	ATOM 17953	C4*	C A 862	156.020	122.154	-22.048	1.00	36.76	C
ATOM 17904	O1P	158.855	135.117	-23.038	1.00	47.10	O	ATOM 17954	O4*	C A 862	156.672	122.886	-23.112	1.00	36.76	O
ATOM 17905	O2P	159.980	133.199	-24.305	1.00	47.10	O	ATOM 17955	C3*	C A 862	157.156	121.559	-21.238	1.00	36.76	C
ATOM 17906	O5*	157.481	133.428	-24.289	1.00	39.24	O	ATOM 17956	C2*	C A 862	156.736	120.399	-20.545	1.00	36.76	O
ATOM 17907	C5*	156.232	134.113	-24.033	1.00	39.24	C	ATOM 17957	O3*	C A 862	158.210	121.250	-22.293	1.00	36.76	C
ATOM 17908	C4*	155.049	133.198	-24.297	1.00	39.24	C	ATOM 17958	O2*	C A 862	158.016	120.007	-22.939	1.00	36.76	O
ATOM 17909	O4*	154.992	132.878	-25.715	1.00	39.24	O	ATOM 17959	C1*	C A 862	157.974	122.370	-23.306	1.00	36.76	C
ATOM 17910	C3*	155.055	131.840	-23.607	1.00	39.24	C	ATOM 17960	N1	C A 862	158.936	123.463	-23.186	1.00	41.51	N
ATOM 17911	O3*	154.577	131.872	-22.276	1.00	39.24	O	ATOM 17961	C2	C A 862	160.156	123.357	-23.838	1.00	41.51	C
ATOM 17912	C2*	154.158	131.003	-24.505	1.00	39.24	C	ATOM 17962	O2	C A 862	160.388	122.353	-24.528	1.00	41.51	O
ATOM 17913	O2*	152.790	131.176	-24.245	1.00	39.24	O	ATOM 17963	N3	C A 862	161.053	124.348	-23.717	1.00	41.51	N
ATOM 17914	C1*	154.482	131.562	-25.891	1.00	39.24	C	ATOM 17964	C4	C A 862	160.759	125.421	-22.997	1.00	41.51	C
ATOM 17915	N9	155.509	130.731	-26.521	1.00	47.10	N	ATOM 17965	N4	C A 862	161.669	126.376	-22.906	1.00	41.51	N
ATOM 17916	C8	156.863	130.943	-26.565	1.00	47.10	C	ATOM 17966	C5	C A 862	159.516	125.562	-22.336	1.00	41.51	C
ATOM 17917	N7	157.530	129.973	-27.135	1.00	47.10	N	ATOM 17967	C6	C A 862	158.644	124.567	-22.449	1.00	41.51	C
ATOM 17918	C5	156.550	129.069	-27.504	1.00	47.10	C	ATOM 17968	P	U A 863	157.514	119.967	-19.213	1.00	35.45	P
ATOM 17919	C6	156.610	127.833	-28.149	1.00	47.10	C	ATOM 17969	O1P	U A 863	156.980	118.665	-18.686	1.00	46.98	O
ATOM 17920	N6	157.748	127.247	-28.518	1.00	47.10	N	ATOM 17970	O2P	U A 863	157.596	121.150	-18.312	1.00	46.98	O
ATOM 17921	N1	155.449	127.202	-28.398	1.00	47.10	N	ATOM 17971	O5*	U A 863	158.980	119.692	-19.752	1.00	35.45	O
ATOM 17922	C2	154.317	127.775	-28.003	1.00	47.10	C	ATOM 17972	C5*	U A 863	159.283	118.516	-20.492	1.00	35.45	C
ATOM 17923	N3	154.132	128.923	-27.374	1.00	47.10	N	ATOM 17973	C4*	U A 863	160.761	118.425	-20.681	1.00	35.45	C
ATOM 17924	C4	155.301	129.531	-27.153	1.00	47.10	C	ATOM 17974	O4*	U A 863	161.206	119.489	-21.554	1.00	35.45	O
ATOM 17925	P	155.436	131.160	-21.114	1.00	32.12	P	ATOM 17975	C3*	U A 863	161.567	118.618	-19.418	1.00	35.45	C
ATOM 17926	O1P	154.821	131.473	-19.798	1.00	43.23	O	ATOM 17976	O3*	U A 863	161.645	117.403	-18.698	1.00	35.45	O
ATOM 17927	O2P	156.881	131.461	-21.341	1.00	43.23	O	ATOM 17977	C2*	U A 863	162.914	119.083	-19.950	1.00	35.45	C
ATOM 17928	O5*	155.240	129.609	-21.386	1.00	32.12	O	ATOM 17978	O2*	U A 863	163.698	117.986	-20.366	1.00	35.45	O
ATOM 17929	C5*	153.935	129.067	-21.551	1.00	32.12	C	ATOM 17979	C1*	U A 863	162.504	119.906	-21.174	1.00	35.45	C
ATOM 17930	C4*	153.991	127.821	-22.391	1.00	32.12	C	ATOM 17980	N1	U A 863	162.483	121.363	-20.959	1.00	46.98	N
ATOM 17931	O4*	154.517	128.155	-23.702	1.00	32.12	O	ATOM 17981	C2	U A 863	163.671	122.054	-21.083	1.00	46.98	C
ATOM 17932	C3*	154.899	126.716	-21.902	1.00	32.12	C	ATOM 17982	O2	U A 863	164.704	121.528	-21.431	1.00	46.98	O
ATOM 17933	O3*	154.272	125.914	-20.925	1.00	32.12	O	ATOM 17983	N3	U A 863	163.598	123.391	-20.802	1.00	46.98	N
ATOM 17934	C2*	155.171	125.951	-23.184	1.00	32.12	C	ATOM 17984	C4	U A 863	162.478	124.098	-20.450	1.00	46.98	C
ATOM 17935	O2*	154.062	125.163	-23.557	1.00	32.12	O	ATOM 17985	O4	U A 863	162.573	125.295	-20.213	1.00	46.98	O
ATOM 17936	C1*	155.289	127.084	-24.199	1.00	32.12	C	ATOM 17986	C5	U A 863	161.281	123.329	-20.385	1.00	46.98	C
ATOM 17937	N9	156.659	127.558	-24.350	1.00	43.23	N	ATOM 17987	C6	U A 863	161.321	122.022	-20.631	1.00	46.98	C
ATOM 17938	C8	157.186	128.710	-23.829	1.00	43.23	C	ATOM 17988	P	A A 864	161.606	117.430	-17.096	1.00	34.08	P
ATOM 17939	N7	158.441	128.880	-24.127	1.00	43.23	N	ATOM 17989	O1P	A A 864	161.633	116.011	-16.650	1.00	48.12	O
ATOM 17940	C5	158.761	127.772	-24.898	1.00	43.23	C	ATOM 17990	O2P	A A 864	160.486	118.310	-16.688	1.00	48.12	O
ATOM 17941	C6	159.979	127.416	-25.533	1.00	43.23	C	ATOM 17991	O5*	A A 864	162.966	118.144	-16.683	1.00	34.08	O
ATOM 17942	O6	161.055	128.032	-25.540	1.00	43.23	O	ATOM 17992	C5*	A A 864	163.312	118.331	-15.306	1.00	34.08	C
ATOM 17943	N1	159.860	126.214	-26.220	1.00	43.23	N	ATOM 17993	C4*	A A 864	164.810	118.235	-15.130	1.00	34.08	C
ATOM 17944	C2	158.720	125.455	-26.290	1.00	43.23	C	ATOM 17994	O4*	A A 864	165.231	116.854	-15.293	1.00	34.08	O
ATOM 17945	N2	158.794	124.329	-27.008	1.00	43.23	N	ATOM 17995	C3*	A A 864	165.628	119.030	-16.140	1.00	34.08	C
ATOM 17946	N3	157.585	125.776	-25.703	1.00	43.23	N	ATOM 17996	O3*	A A 864	165.811	120.375	-15.703	1.00	34.08	O
ATOM 17947	C4	157.674	126.942	-25.035	1.00	43.23	C	ATOM 17997	C2*	A A 864	166.936	118.248	-16.190	1.00	34.08	C



ATOM 17998	O2*	A A 864	167.785	118.558	-15.105	1.00	34.08	O	ATOM 18048	C4	C A 866	167.247	119.731	-23.308	1.00	34.45	C
ATOM 17999	C1*	A A 864	166.448	116.806	-16.013	1.00	34.08	C	ATOM 18049	N4	C A 866	165.929	119.611	-23.364	1.00	34.45	N
ATOM 18000	N9	A A 864	166.194	116.104	-17.276	1.00	48.12	N	ATOM 18050	C5	C A 866	167.838	120.774	-22.545	1.00	34.45	C
ATOM 18001	C8	A A 864	164.999	116.008	-17.940	1.00	48.12	C	ATOM 18051	C6	C A 866	169.175	120.853	-22.539	1.00	34.45	C
ATOM 18002	N7	A A 864	165.053	115.281	-19.027	1.00	48.12	N	ATOM 18052	P	G A 867	172.591	124.192	-25.346	1.00	32.77	P
ATOM 18003	C5	A A 864	166.373	114.874	-19.088	1.00	48.12	C	ATOM 18053	O1P	G A 867	173.795	124.926	-25.804	1.00	42.25	O
ATOM 18004	C6	A A 864	167.062	114.073	-19.993	1.00	48.12	C	ATOM 18054	O2P	G A 867	171.406	124.954	-24.879	1.00	42.25	O
ATOM 18005	N6	A A 864	166.498	113.493	-21.048	1.00	48.12	N	ATOM 18055	O5*	G A 867	172.147	123.228	-26.522	1.00	32.77	O
ATOM 18006	N1	A A 864	168.372	113.878	-19.779	1.00	48.12	N	ATOM 18056	C5*	G A 867	171.073	123.595	-27.378	1.00	32.77	C
ATOM 18007	C2	A A 864	168.943	114.451	-18.717	1.00	48.12	C	ATOM 18057	C4*	G A 867	170.082	122.475	-27.458	1.00	32.77	C
ATOM 18008	N3	A A 864	168.402	115.212	-17.788	1.00	48.12	N	ATOM 18058	O4*	G A 867	169.617	122.113	-26.131	1.00	32.77	O
ATOM 18009	C4	A A 864	167.094	115.389	-18.029	1.00	48.12	C	ATOM 18059	C3*	G A 867	168.841	122.830	-28.242	1.00	32.77	C
ATOM 18010	P	A A 865	165.512	121.598	-16.711	1.00	33.01	P	ATOM 18060	O3*	G A 867	169.063	122.570	-29.611	1.00	32.77	O
ATOM 18011	O1P	A A 865	165.276	122.804	-15.874	1.00	32.19	O	ATOM 18061	C2*	G A 867	167.807	121.893	-27.644	1.00	32.77	C
ATOM 18012	O2P	A A 865	164.497	121.179	-17.706	1.00	32.19	O	ATOM 18062	O2*	G A 867	167.940	120.592	-28.169	1.00	32.77	O
ATOM 18013	O5*	A A 865	166.889	121.858	-17.462	1.00	33.01	O	ATOM 18063	C1*	G A 867	168.224	121.876	-26.170	1.00	32.77	C
ATOM 18014	C5*	A A 865	168.060	122.232	-16.713	1.00	33.01	C	ATOM 18064	N9	G A 867	167.575	122.943	-25.410	1.00	42.25	N
ATOM 18015	C4*	A A 865	169.282	121.589	-17.304	1.00	33.01	C	ATOM 18065	C8	G A 867	168.203	123.994	-24.792	1.00	42.25	C
ATOM 18016	O4*	A A 865	169.082	120.153	-17.351	1.00	33.01	O	ATOM 18066	N7	G A 867	167.377	124.807	-24.191	1.00	42.25	N
ATOM 18017	C3*	A A 865	169.547	121.988	-18.734	1.00	33.01	C	ATOM 18067	C5	G A 867	166.123	124.264	-24.428	1.00	42.25	C
ATOM 18018	O3*	A A 865	170.287	123.197	-18.751	1.00	33.01	O	ATOM 18068	C6	G A 867	164.851	124.716	-24.032	1.00	42.25	C
ATOM 18019	C2*	A A 865	170.295	120.776	-19.286	1.00	33.01	C	ATOM 18069	O6	G A 867	164.568	125.721	-23.393	1.00	42.25	O
ATOM 18020	O2*	A A 865	171.662	120.725	-18.930	1.00	33.01	O	ATOM 18070	N1	G A 867	163.848	123.865	-24.465	1.00	42.25	N
ATOM 18021	C1*	A A 865	169.609	119.629	-18.550	1.00	33.01	C	ATOM 18071	C2	G A 867	164.042	122.729	-25.200	1.00	42.25	C
ATOM 18022	N9	A A 865	168.508	119.060	-19.319	1.00	32.19	N	ATOM 18072	N2	G A 867	162.948	122.036	-25.512	1.00	42.25	N
ATOM 18023	C8	A A 865	167.204	119.462	-19.323	1.00	32.19	C	ATOM 18073	N3	G A 867	165.227	122.301	-25.596	1.00	42.25	N
ATOM 18024	N7	A A 865	166.451	118.803	-20.160	1.00	32.19	N	ATOM 18074	C4	G A 867	166.221	123.111	-25.174	1.00	42.25	C
ATOM 18025	C5	A A 865	167.315	117.892	-20.744	1.00	32.19	C	ATOM 18075	P	C A 868	168.266	123.400	-30.714	1.00	40.32	P
ATOM 18026	C6	A A 865	167.129	116.913	-21.735	1.00	32.19	C	ATOM 18076	O1P	C A 868	168.701	122.919	-32.055	1.00	45.25	O
ATOM 18027	N6	A A 865	165.972	116.686	-22.340	1.00	32.19	N	ATOM 18077	O2P	C A 868	168.385	124.842	-30.377	1.00	45.25	O
ATOM 18028	N1	A A 865	168.193	116.169	-22.088	1.00	32.19	N	ATOM 18078	O5*	C A 868	166.758	122.929	-30.504	1.00	40.32	O
ATOM 18029	C2	A A 865	169.367	116.404	-21.484	1.00	32.19	C	ATOM 18079	C5*	C A 868	166.398	121.554	-30.707	1.00	40.32	C
ATOM 18030	N3	A A 865	168.584	118.025	-20.219	1.00	32.19	N	ATOM 18080	C4*	C A 868	164.906	121.360	-30.576	1.00	40.32	C
ATOM 18031	C4	A A 865	170.223	124.136	-20.043	1.00	39.48	C	ATOM 18081	O4*	C A 868	164.515	121.448	-29.187	1.00	40.32	O
ATOM 18032	P	C A 866	170.223	124.136	-20.043	1.00	39.48	P	ATOM 18082	C3*	C A 868	164.007	122.361	-31.275	1.00	40.32	C
ATOM 18033	O1P	C A 866	171.165	125.256	-19.829	1.00	34.45	O	ATOM 18083	O3*	C A 868	163.813	122.117	-32.644	1.00	40.32	O
ATOM 18034	O2P	C A 866	168.804	124.410	-20.396	1.00	34.45	O	ATOM 18084	C2*	C A 868	162.709	122.179	-30.525	1.00	40.32	C
ATOM 18035	O5*	C A 866	170.848	123.236	-21.196	1.00	39.48	O	ATOM 18085	O2*	C A 868	162.067	120.998	-30.951	1.00	40.32	O
ATOM 18036	C5*	C A 866	172.234	122.825	-21.145	1.00	39.48	C	ATOM 18086	C1*	C A 868	163.217	122.004	-29.100	1.00	40.32	C
ATOM 18037	C4*	C A 866	172.531	121.860	-22.261	1.00	39.48	C	ATOM 18087	N1	C A 868	163.310	123.323	-28.445	1.00	45.25	N
ATOM 18038	O4*	C A 866	171.840	120.605	-22.037	1.00	39.48	O	ATOM 18088	C2	C A 868	162.145	123.908	-27.943	1.00	45.25	C
ATOM 18039	C3*	C A 866	172.058	122.328	-23.618	1.00	39.48	C	ATOM 18089	O2	C A 868	161.078	123.265	-27.982	1.00	45.25	O
ATOM 18040	O3*	C A 866	173.027	123.164	-24.205	1.00	39.48	O	ATOM 18090	N3	C A 868	162.207	125.149	-27.416	1.00	45.25	N
ATOM 18041	C2*	C A 866	171.881	121.026	-24.377	1.00	39.48	C	ATOM 18091	C4	C A 868	163.371	125.785	-27.348	1.00	45.25	C
ATOM 18042	O2*	C A 866	173.100	120.560	-24.908	1.00	39.48	O	ATOM 18092	N4	C A 868	163.382	127.007	-26.829	1.00	45.25	N
ATOM 18043	C1*	C A 866	171.406	120.078	-23.273	1.00	39.48	C	ATOM 18093	C5	C A 868	164.575	125.197	-27.811	1.00	45.25	C
ATOM 18044	N1	C A 866	169.938	119.961	-23.241	1.00	34.45	N	ATOM 18094	C6	C A 868	164.501	123.979	-28.350	1.00	45.25	C
ATOM 18045	C2	C A 866	169.329	118.931	-23.958	1.00	34.45	C	ATOM 18095	P	G A 869	163.745	123.364	-33.646	1.00	32.58	P
ATOM 18046	O2	C A 866	170.042	118.106	-24.548	1.00	34.45	O	ATOM 18096	O1P	G A 869	163.430	122.875	-35.010	1.00	42.18	O
ATOM 18047	N3	C A 866	167.979	118.849	-23.981	1.00	34.45	N	ATOM 18097	O2P	G A 869	164.963	124.189	-33.408	1.00	42.18	O



ATOM 18098	O5*	G A 869	162.498	124.217	-33.151	1.00	32.58	O	ATOM 18148	O2*	U A 871	161.354	122.040	-38.492	1.00	39.66	O
ATOM 18099	C5*	G A 869	161.162	123.675	-33.169	1.00	32.58	C	ATOM 18149	C1*	U A 871	160.589	121.795	-40.773	1.00	39.66	C
ATOM 18100	C4*	G A 869	160.207	124.631	-32.490	1.00	32.58	C	ATOM 18150	N1	U A 871	161.598	122.416	-41.644	1.00	54.35	N
ATOM 18101	O4*	G A 869	160.664	124.876	-31.138	1.00	32.58	O	ATOM 18151	C2	U A 871	162.779	121.721	-41.836	1.00	54.35	C
ATOM 18102	C3*	G A 869	160.106	126.006	-33.126	1.00	32.58	C	ATOM 18152	O2	U A 871	162.997	120.621	-41.354	1.00	54.35	O
ATOM 18103	O3*	G A 869	159.101	125.977	-34.115	1.00	32.58	O	ATOM 18153	N3	U A 871	163.705	122.353	-42.614	1.00	54.35	N
ATOM 18104	C2*	G A 869	159.706	126.901	-31.961	1.00	32.58	C	ATOM 18154	C4	U A 871	163.586	123.574	-43.208	1.00	54.35	C
ATOM 18105	O2*	G A 869	158.312	126.948	-31.735	1.00	32.58	O	ATOM 18155	O4	U A 871	164.574	124.067	-43.758	1.00	54.35	O
ATOM 18106	C1*	G A 869	160.397	126.214	-30.782	1.00	32.58	C	ATOM 18156	C5	U A 871	162.325	124.218	-42.995	1.00	54.35	C
ATOM 18107	N9	G A 869	161.660	126.848	-30.450	1.00	42.18	N	ATOM 18157	C6	U A 871	161.399	123.630	-42.237	1.00	54.35	C
ATOM 18108	C8	G A 869	162.900	126.510	-30.918	1.00	42.18	C	ATOM 18158	P	U A 872	157.863	120.082	-37.574	1.00	36.75	P
ATOM 18109	N7	G A 869	163.838	127.309	-30.501	1.00	42.18	N	ATOM 18159	O1P	A A 872	157.963	118.600	-37.516	1.00	40.29	O
ATOM 18110	C5	G A 869	163.173	128.217	-29.697	1.00	42.18	C	ATOM 18160	O2P	A A 872	156.618	120.716	-38.057	1.00	40.29	O
ATOM 18111	C6	G A 869	163.660	129.328	-28.997	1.00	42.18	C	ATOM 18161	O5*	A A 872	158.177	120.673	-36.132	1.00	36.75	O
ATOM 18112	O6	G A 869	164.820	129.760	-28.951	1.00	42.18	O	ATOM 18162	C5*	A A 872	159.446	120.456	-35.527	1.00	36.75	C
ATOM 18113	N1	G A 869	162.645	129.971	-28.304	1.00	42.18	N	ATOM 18163	C4*	A A 872	159.291	120.237	-34.050	1.00	36.75	C
ATOM 18114	C2	G A 869	161.330	129.586	-28.295	1.00	42.18	C	ATOM 18164	O4*	A A 872	159.030	121.490	-33.357	1.00	36.75	O
ATOM 18115	N2	G A 869	160.511	130.307	-27.546	1.00	42.18	N	ATOM 18165	C3*	A A 872	158.186	119.275	-33.621	1.00	36.75	C
ATOM 18116	N3	G A 869	160.862	128.566	-28.965	1.00	42.18	N	ATOM 18166	O3*	A A 872	158.686	118.504	-32.549	1.00	36.75	O
ATOM 18117	C4	G A 869	161.832	127.929	-29.639	1.00	42.18	C	ATOM 18167	C2*	A A 872	157.149	120.216	-33.006	1.00	36.75	C
ATOM 18118	P	G A 870	159.285	126.817	-35.457	1.00	38.05	P	ATOM 18168	O2*	A A 872	156.355	119.633	-31.994	1.00	36.75	O
ATOM 18119	O1P	U A 870	160.407	126.168	-36.177	1.00	47.38	O	ATOM 18169	C1*	A A 872	158.074	121.237	-32.363	1.00	36.75	C
ATOM 18120	O2P	U A 870	159.348	128.271	-35.145	1.00	47.38	O	ATOM 18170	N9	A A 872	157.490	122.478	-31.857	1.00	40.29	N
ATOM 18121	O5*	U A 870	157.935	126.542	-36.250	1.00	38.05	O	ATOM 18171	C8	A A 872	157.832	123.069	-30.667	1.00	40.29	C
ATOM 18122	C5*	U A 870	157.656	125.260	-36.812	1.00	38.05	C	ATOM 18172	N7	A A 872	157.128	124.133	-30.384	1.00	40.29	N
ATOM 18123	C4*	U A 870	156.595	125.391	-37.872	1.00	38.05	C	ATOM 18173	C5	A A 872	156.271	124.260	-31.465	1.00	40.29	C
ATOM 18124	O4*	U A 870	155.335	125.739	-37.245	1.00	38.05	O	ATOM 18174	C6	A A 872	155.262	125.179	-31.751	1.00	40.29	C
ATOM 18125	C3*	U A 870	156.865	126.465	-38.920	1.00	38.05	C	ATOM 18175	N6	A A 872	154.906	126.164	-30.923	1.00	40.29	N
ATOM 18126	O3*	U A 870	156.417	126.021	-40.195	1.00	38.05	O	ATOM 18176	N1	A A 872	154.607	125.045	-32.919	1.00	40.29	N
ATOM 18127	C2*	U A 870	156.023	127.647	-38.448	1.00	38.05	C	ATOM 18177	C2	A A 872	154.941	124.032	-33.723	1.00	40.29	C
ATOM 18128	O2*	U A 870	155.604	128.491	-39.502	1.00	38.05	O	ATOM 18178	N3	A A 872	155.858	123.087	-33.553	1.00	40.29	N
ATOM 18129	C1*	U A 870	154.835	126.941	-37.800	1.00	38.05	C	ATOM 18179	C4	A A 872	156.498	123.262	-32.391	1.00	40.29	C
ATOM 18130	N1	U A 870	154.201	127.723	-36.729	1.00	47.38	N	ATOM 18180	P	A A 873	159.408	117.110	-32.829	1.00	30.89	P
ATOM 18131	C2	U A 870	152.867	128.058	-36.875	1.00	47.38	C	ATOM 18181	O1P	A A 873	160.719	117.418	-33.430	1.00	41.67	O
ATOM 18132	O2	U A 870	152.196	127.707	-37.826	1.00	47.38	O	ATOM 18182	O2P	A A 873	158.491	116.162	-33.504	1.00	41.67	O
ATOM 18133	N3	U A 870	152.344	128.812	-35.857	1.00	47.38	N	ATOM 18183	O5*	A A 873	159.717	116.594	-31.362	1.00	30.89	O
ATOM 18134	C4	U A 870	153.001	129.243	-34.724	1.00	47.38	C	ATOM 18184	C5*	A A 873	158.661	116.241	-30.464	1.00	30.89	C
ATOM 18135	O4	U A 870	152.396	129.915	-33.887	1.00	47.38	O	ATOM 18185	C4*	A A 873	158.864	116.938	-29.148	1.00	30.89	C
ATOM 18136	C5	U A 870	154.370	128.836	-34.639	1.00	47.38	C	ATOM 18186	O4*	A A 873	160.237	116.759	-28.744	1.00	30.89	O
ATOM 18137	C6	U A 870	154.909	128.112	-35.620	1.00	47.38	C	ATOM 18187	C3*	A A 873	158.607	118.438	-29.142	1.00	30.89	C
ATOM 18138	P	U A 871	157.497	125.527	-41.271	1.00	39.66	P	ATOM 18188	O3*	A A 873	158.180	118.782	-27.823	1.00	30.89	O
ATOM 18139	O1P	U A 871	158.641	126.475	-41.246	1.00	54.35	O	ATOM 18189	C2*	A A 873	159.992	119.041	-29.333	1.00	30.89	C
ATOM 18140	O2P	U A 871	156.822	125.209	-42.565	1.00	54.35	O	ATOM 18190	O1*	A A 873	160.076	120.298	-28.670	1.00	30.89	O
ATOM 18141	O5*	U A 871	158.057	124.194	-40.621	1.00	39.66	O	ATOM 18191	C1*	A A 873	160.871	118.014	-28.617	1.00	30.89	C
ATOM 18142	C5*	U A 871	157.347	122.966	-40.724	1.00	39.66	C	ATOM 18192	N9	A A 873	162.244	117.866	-29.107	1.00	41.67	N
ATOM 18143	C4*	U A 871	158.281	121.834	-40.415	1.00	39.66	C	ATOM 18193	C8	A A 873	162.660	117.179	-30.222	1.00	41.67	C
ATOM 18144	O4*	U A 871	159.338	121.804	-41.418	1.00	39.66	O	ATOM 18194	N7	A A 873	163.961	117.115	-30.346	1.00	41.67	N
ATOM 18145	C3*	U A 871	158.976	121.927	-39.058	1.00	39.66	C	ATOM 18195	C5	A A 873	164.433	117.830	-29.258	1.00	41.67	C
ATOM 18146	O3*	U A 871	159.060	120.623	-39.497	1.00	39.66	O	ATOM 18196	C6	A A 873	165.726	118.108	-28.811	1.00	41.67	C
ATOM 18147	C2*	U A 871	160.368	122.445	-38.412	1.00	39.66	C	ATOM 18197	N6	A A 873	166.823	117.660	-29.420	1.00	41.67	N



Table 1: Sheet 184/521

ATOM	18198	N1	A A 873	165.858	118.861	-27.697	1.00	41.67	N	ATOM	18248	O5*	G A 876	146.345	119.760	-25.159	1.00	29.65	O
ATOM	18199	C2	A A 873	164.753	119.289	-27.084	1.00	41.67	C	ATOM	18249	C5*	G A 876	146.119	118.430	-25.628	1.00	29.65	C
ATOM	18200	N3	A A 873	163.484	119.079	-27.400	1.00	41.67	N	ATOM	18250	C4*	G A 876	145.174	118.475	-26.794	1.00	29.65	C
ATOM	18201	C4	A A 873	163.388	118.329	-28.506	1.00	41.67	C	ATOM	18251	O4*	G A 876	145.764	119.248	-27.870	1.00	29.65	O
ATOM	18202	P	G A 874	156.652	118.556	-27.377	1.00	40.38	P	ATOM	18252	C3*	G A 876	144.842	117.152	-27.432	1.00	29.65	C
ATOM	18203	O1P	G A 874	156.755	117.952	-26.025	1.00	35.36	O	ATOM	18253	O3*	G A 876	143.856	116.483	-26.680	1.00	29.65	O
ATOM	18204	O2P	G A 874	155.877	117.867	-28.456	1.00	35.36	O	ATOM	18254	C2*	G A 876	144.406	117.560	-28.839	1.00	29.65	C
ATOM	18205	O5*	G A 874	156.081	120.031	-27.242	1.00	40.38	O	ATOM	18255	O2*	G A 876	143.074	118.016	-28.959	1.00	29.65	O
ATOM	18206	C5*	G A 874	156.533	120.907	-26.202	1.00	40.38	C	ATOM	18256	C1*	G A 876	145.337	118.736	-29.121	1.00	29.65	C
ATOM	18207	C4*	G A 874	155.681	122.138	-26.202	1.00	40.38	C	ATOM	18257	N9	G A 876	146.507	118.308	-29.877	1.00	35.15	N
ATOM	18208	O4*	G A 874	155.843	122.809	-27.472	1.00	40.38	O	ATOM	18258	C8	G A 876	147.769	118.057	-29.401	1.00	35.15	C
ATOM	18209	C3*	G A 874	154.196	121.830	-26.116	1.00	40.38	C	ATOM	18259	N7	G A 876	148.584	117.622	-30.322	1.00	35.15	N
ATOM	18210	O3*	G A 874	153.800	121.657	-24.760	1.00	40.38	O	ATOM	18260	C5	G A 876	147.815	117.597	-31.475	1.00	35.15	C
ATOM	18211	C2*	G A 874	153.549	123.008	-26.842	1.00	40.38	C	ATOM	18261	C6	G A 876	148.146	117.199	-32.792	1.00	35.15	C
ATOM	18212	O2*	G A 874	153.371	124.174	-26.053	1.00	40.38	O	ATOM	18262	O6	G A 876	149.213	116.767	-33.218	1.00	35.15	O
ATOM	18213	C1*	G A 874	154.594	123.310	-27.916	1.00	40.38	C	ATOM	18263	N1	G A 876	147.073	117.341	-33.655	1.00	35.15	N
ATOM	18214	N9	G A 874	154.305	122.707	-29.209	1.00	35.36	N	ATOM	18264	C2	G A 876	145.838	117.804	-33.302	1.00	35.15	C
ATOM	18215	C8	G A 874	155.037	121.735	-29.844	1.00	35.36	C	ATOM	18265	N2	G A 876	144.943	117.879	-34.285	1.00	35.15	N
ATOM	18216	N7	G A 874	154.548	121.401	-31.006	1.00	35.36	N	ATOM	18266	N3	G A 876	145.507	118.171	-32.077	1.00	35.15	N
ATOM	18217	C5	G A 874	153.419	122.195	-31.145	1.00	35.36	C	ATOM	18267	C4	G A 876	146.539	118.040	-31.220	1.00	35.15	C
ATOM	18218	C6	G A 874	152.475	122.270	-32.203	1.00	35.36	C	ATOM	18268	P	C A 877	143.987	114.907	-26.457	1.00	28.98	P
ATOM	18219	O6	G A 874	152.458	121.637	-33.262	1.00	35.36	O	ATOM	18269	O1P	C A 877	143.190	114.498	-25.265	1.00	40.14	O
ATOM	18220	N1	G A 874	151.473	123.196	-31.932	1.00	35.36	N	ATOM	18270	O2P	C A 877	145.437	114.581	-26.515	1.00	40.14	O
ATOM	18221	C2	G A 874	151.391	123.950	-30.790	1.00	35.36	C	ATOM	18271	O5*	C A 877	143.335	114.311	-27.775	1.00	28.98	O
ATOM	18222	N2	G A 874	150.347	124.764	-30.712	1.00	35.36	N	ATOM	18272	C5*	C A 877	141.977	114.545	-28.091	1.00	28.98	C
ATOM	18223	N3	G A 874	152.271	123.900	-29.796	1.00	35.36	N	ATOM	18273	C4*	C A 877	141.723	114.163	-29.521	1.00	28.98	C
ATOM	18224	C4	G A 874	153.252	123.005	-30.040	1.00	35.36	C	ATOM	18274	O4*	C A 877	142.500	115.033	-30.391	1.00	28.98	O
ATOM	18225	P	C A 875	152.712	120.541	-24.395	1.00	36.57	P	ATOM	18275	C3*	C A 877	142.159	112.772	-29.946	1.00	28.98	C
ATOM	18226	O1P	C A 875	152.587	120.486	-22.921	1.00	32.58	O	ATOM	18276	O3*	C A 877	141.249	111.757	-29.608	1.00	28.98	O
ATOM	18227	O2P	C A 875	152.992	119.297	-25.152	1.00	32.58	O	ATOM	18277	C2*	C A 877	142.296	112.918	-31.452	1.00	28.98	C
ATOM	18228	O5*	C A 875	151.375	121.157	-24.988	1.00	36.57	O	ATOM	18278	O2*	C A 877	141.041	112.856	-32.095	1.00	28.98	O
ATOM	18229	C5*	C A 875	150.862	122.384	-24.481	1.00	36.57	C	ATOM	18279	C1*	C A 877	142.876	114.329	-31.570	1.00	28.98	C
ATOM	18230	C4*	C A 875	149.625	122.764	-25.225	1.00	36.57	C	ATOM	18280	N1	C A 877	144.354	114.318	-31.687	1.00	40.14	N
ATOM	18231	O4*	C A 875	149.961	123.146	-26.576	1.00	36.57	O	ATOM	18281	C2	C A 877	144.940	114.045	-32.942	1.00	40.14	C
ATOM	18232	C3*	C A 875	148.630	121.642	-25.392	1.00	36.57	C	ATOM	18282	O2	C A 877	144.217	113.896	-33.930	1.00	40.14	O
ATOM	18233	O3*	C A 875	147.846	121.487	-24.224	1.00	36.57	O	ATOM	18283	N3	C A 877	146.280	113.952	-33.044	1.00	40.14	N
ATOM	18234	C2*	C A 875	147.837	122.071	-26.622	1.00	36.57	C	ATOM	18284	C4	C A 877	147.039	114.130	-31.971	1.00	40.14	C
ATOM	18235	O2*	C A 875	146.790	122.985	-26.367	1.00	36.57	O	ATOM	18285	N4	C A 877	148.354	113.988	-32.116	1.00	40.14	N
ATOM	18236	C1*	C A 875	148.905	122.792	-27.443	1.00	36.57	C	ATOM	18286	C5	C A 877	146.481	114.453	-30.694	1.00	40.14	C
ATOM	18237	N1	C A 875	149.430	121.951	-28.517	1.00	32.58	N	ATOM	18287	C6	C A 877	145.147	114.536	-30.599	1.00	40.14	C
ATOM	18238	C2	C A 875	148.745	121.915	-29.721	1.00	32.58	C	ATOM	18288	P	G A 878	141.811	110.289	-29.291	1.00	35.64	P
ATOM	18239	O2	C A 875	147.743	122.631	-29.862	1.00	32.58	O	ATOM	18289	O1P	G A 878	140.736	109.521	-28.592	1.00	40.72	O
ATOM	18240	N3	C A 875	149.184	121.107	-30.707	1.00	32.58	N	ATOM	18290	O2P	G A 878	143.143	110.436	-28.642	1.00	40.72	O
ATOM	18241	C4	C A 875	150.268	120.361	-30.517	1.00	32.58	C	ATOM	18291	O5*	G A 878	142.039	109.650	-30.727	1.00	35.64	O
ATOM	18242	N4	C A 875	150.657	119.565	-31.506	1.00	32.58	N	ATOM	18292	C5*	G A 878	140.972	109.572	-31.649	1.00	35.64	C
ATOM	18243	C5	C A 875	151.001	120.397	-29.305	1.00	32.58	C	ATOM	18293	C4*	G A 878	141.473	109.073	-32.973	1.00	35.64	C
ATOM	18244	C6	C A 875	150.554	121.201	-28.341	1.00	32.58	C	ATOM	18294	O4*	G A 878	142.356	110.062	-33.570	1.00	35.64	O
ATOM	18245	P	G A 876	147.240	120.051	-23.881	1.00	29.65	P	ATOM	18295	C3*	G A 878	142.327	107.820	-32.968	1.00	35.64	C
ATOM	18246	O1P	G A 876	146.368	120.190	-22.695	1.00	35.15	O	ATOM	18296	O3*	G A 878	141.605	106.624	-32.770	1.00	35.64	O
ATOM	18247	O2P	G A 876	148.373	119.098	-23.852	1.00	35.15	O	ATOM	18297	C2*	G A 878	143.046	107.909	-34.308	1.00	35.64	C



ATOM	18298	O2*	G A 878	142.246	107.514	-35.407	1.00	35.64	O	ATOM	18348	N4	C A 880	151.753	105.269	-31.480	1.00	35.14	N
ATOM	18299	C1*	G A 878	143.308	109.412	-34.404	1.00	35.64	C	ATOM	18349	C5	C A 880	150.200	103.715	-32.417	1.00	35.14	C
ATOM	18300	N9	G A 878	144.658	109.779	-33.973	1.00	40.72	N	ATOM	18350	C6	C A 880	149.940	102.888	-33.429	1.00	35.14	C
ATOM	18301	C8	G A 878	145.067	110.140	-32.716	1.00	40.72	C	ATOM	18351	P	G A 881	150.625	97.620	-33.210	1.00	33.50	P
ATOM	18302	N7	G A 878	146.344	110.398	-32.648	1.00	40.72	N	ATOM	18352	O1P	G A 881	150.336	96.183	-33.441	1.00	28.77	O
ATOM	18303	C5	G A 878	146.805	110.200	-33.943	1.00	40.72	C	ATOM	18353	O2P	G A 881	150.089	98.281	-32.020	1.00	28.77	O
ATOM	18304	C6	G A 878	148.110	110.337	-34.490	1.00	40.72	C	ATOM	18354	O5*	G A 881	152.182	97.928	-33.179	1.00	33.50	O
ATOM	18305	O6	G A 878	149.155	110.664	-33.920	1.00	40.72	O	ATOM	18355	C5*	G A 881	153.022	97.570	-34.277	1.00	33.50	C
ATOM	18306	N1	G A 878	148.128	110.052	-35.846	1.00	40.72	N	ATOM	18356	C4*	G A 881	154.412	98.123	-34.084	1.00	33.50	C
ATOM	18307	C2	G A 878	147.042	109.682	-36.585	1.00	40.72	C	ATOM	18357	O4*	G A 881	154.399	99.570	-34.241	1.00	33.50	O
ATOM	18308	N2	G A 878	147.262	109.466	-37.883	1.00	40.72	N	ATOM	18358	C3*	G A 881	155.047	97.899	-32.721	1.00	33.50	C
ATOM	18309	N3	G A 878	145.827	109.538	-36.093	1.00	40.72	N	ATOM	18359	O3*	G A 881	155.592	96.595	-32.560	1.00	33.50	O
ATOM	18310	C4	G A 878	145.780	109.818	-34.772	1.00	40.72	C	ATOM	18360	C2*	G A 881	156.100	98.998	-32.684	1.00	33.50	C
ATOM	18311	P	C A 879	142.158	105.576	-31.696	1.00	34.78	P	ATOM	18361	O2*	G A 881	157.249	98.665	-33.429	1.00	33.50	O
ATOM	18312	O1P	C A 879	141.087	104.615	-31.303	1.00	32.36	O	ATOM	18362	C1*	G A 881	155.376	100.151	-33.386	1.00	33.50	C
ATOM	18313	O2P	C A 879	142.844	106.375	-30.650	1.00	32.36	O	ATOM	18363	N9	G A 881	154.704	100.989	-32.390	1.00	28.77	N
ATOM	18314	O5*	C A 879	143.272	104.812	-32.528	1.00	34.78	O	ATOM	18364	C8	G A 881	153.362	101.022	-32.097	1.00	28.77	C
ATOM	18315	C5*	C A 879	142.875	104.021	-33.646	1.00	34.78	C	ATOM	18365	N7	G A 881	153.080	101.790	-31.084	1.00	28.77	N
ATOM	18316	C4*	C A 879	144.030	103.765	-34.574	1.00	34.78	C	ATOM	18366	C5	G A 881	154.301	102.322	-30.705	1.00	28.77	C
ATOM	18317	O4*	C A 879	144.523	105.007	-35.131	1.00	34.78	O	ATOM	18367	C6	G A 881	154.614	103.219	-29.673	1.00	28.77	C
ATOM	18318	C3*	C A 879	145.276	103.127	-34.016	1.00	34.78	C	ATOM	18368	O6	G A 881	153.859	103.732	-28.851	1.00	28.77	O
ATOM	18319	O3*	C A 879	145.140	101.753	-33.800	1.00	34.78	O	ATOM	18369	N1	G A 881	155.968	103.508	-29.639	1.00	28.77	N
ATOM	18320	C2*	C A 879	146.263	103.422	-35.122	1.00	34.78	C	ATOM	18370	C2	G A 881	156.902	102.995	-30.488	1.00	28.77	C
ATOM	18321	O2*	C A 879	146.004	102.606	-36.239	1.00	34.78	O	ATOM	18371	N2	G A 881	158.150	103.405	-30.279	1.00	28.77	N
ATOM	18322	C1*	C A 879	145.884	104.857	-35.478	1.00	34.78	C	ATOM	18372	N3	G A 881	156.627	102.147	-31.462	1.00	28.77	N
ATOM	18323	N1	C A 879	146.693	105.766	-34.648	1.00	32.36	N	ATOM	18373	C4	G A 881	155.311	101.857	-31.512	1.00	28.77	C
ATOM	18324	C2	C A 879	147.946	106.199	-35.129	1.00	32.36	C	ATOM	18374	P	C A 882	155.579	95.899	-31.100	1.00	37.40	P
ATOM	18325	O2	C A 879	148.282	105.920	-36.296	1.00	32.36	O	ATOM	18375	O1P	C A 882	156.200	94.555	-31.234	1.00	36.54	O
ATOM	18326	N3	C A 879	148.753	106.904	-34.306	1.00	32.36	N	ATOM	18376	O2P	C A 882	154.239	96.020	-30.466	1.00	36.54	O
ATOM	18327	C4	C A 879	148.358	107.183	-33.065	1.00	32.36	C	ATOM	18377	O5*	C A 882	156.602	96.790	-30.276	1.00	37.40	O
ATOM	18328	N4	C A 879	149.215	107.793	-32.261	1.00	32.36	N	ATOM	18378	C5*	C A 882	157.964	96.869	-30.689	1.00	37.40	C
ATOM	18329	C5	C A 879	147.071	106.828	-32.586	1.00	32.36	C	ATOM	18379	C4*	C A 882	158.696	97.913	-29.896	1.00	37.40	C
ATOM	18330	C6	C A 879	146.272	106.134	-33.403	1.00	32.36	C	ATOM	18380	O4*	C A 882	158.068	99.208	-30.089	1.00	37.40	O
ATOM	18331	P	C A 880	146.072	101.049	-32.704	1.00	35.47	P	ATOM	18381	C3*	C A 882	158.711	97.737	-28.391	1.00	37.40	C
ATOM	18332	O1P	C A 880	145.515	99.696	-32.458	1.00	35.14	O	ATOM	18382	O3*	C A 882	159.686	96.818	-27.950	1.00	37.40	O
ATOM	18333	O2P	C A 880	146.271	101.971	-31.568	1.00	35.14	O	ATOM	18383	C2*	C A 882	159.009	99.148	-27.913	1.00	37.40	C
ATOM	18334	O5*	C A 880	147.448	100.887	-33.486	1.00	35.47	O	ATOM	18384	O2*	C A 882	160.377	99.473	-28.060	1.00	37.40	O
ATOM	18335	C5*	C A 880	147.472	100.176	-34.735	1.00	35.47	C	ATOM	18385	C1*	C A 882	158.201	99.979	-28.906	1.00	37.40	C
ATOM	18336	C4*	C A 880	148.838	100.225	-35.358	1.00	35.47	C	ATOM	18386	N1	C A 882	156.863	100.294	-28.374	1.00	36.54	N
ATOM	18337	O4*	C A 880	149.176	101.591	-35.699	1.00	35.47	O	ATOM	18387	O2	C A 882	156.755	101.281	-27.408	1.00	36.54	O
ATOM	18338	C3*	C A 880	149.993	99.764	-34.499	1.00	35.47	C	ATOM	18388	O2	C A 882	157.767	101.890	-27.069	1.00	36.54	O
ATOM	18339	O3*	C A 880	150.109	98.369	-34.516	1.00	35.47	O	ATOM	18389	N3	C A 882	155.551	101.559	-26.871	1.00	36.54	N
ATOM	18340	C2*	C A 880	151.172	100.435	-35.178	1.00	35.47	C	ATOM	18390	C4	C A 882	154.472	100.901	-27.286	1.00	36.54	C
ATOM	18341	O2*	C A 880	151.526	99.777	-36.376	1.00	35.47	O	ATOM	18391	N4	C A 882	153.302	101.203	-26.719	1.00	36.54	N
ATOM	18342	C1*	C A 880	150.569	101.785	-35.554	1.00	35.47	C	ATOM	18392	C5	C A 882	154.544	99.904	-28.297	1.00	36.54	C
ATOM	18343	N1	C A 880	150.804	102.767	-34.483	1.00	35.14	N	ATOM	18393	C6	C A 882	155.750	99.630	-28.804	1.00	36.54	C
ATOM	18344	C2	C A 880	151.954	103.553	-34.545	1.00	35.14	C	ATOM	18394	P	C A 883	159.568	96.217	-26.474	1.00	33.12	P
ATOM	18345	O2	C A 880	152.699	103.463	-35.541	1.00	35.14	O	ATOM	18395	O1P	C A 883	160.568	95.142	-26.306	1.00	44.55	O
ATOM	18346	N3	C A 880	152.229	104.391	-33.529	1.00	35.14	N	ATOM	18396	O2P	C A 883	158.139	95.939	-26.202	1.00	44.55	O
ATOM	18347	C4	C A 880	151.405	104.467	-32.484	1.00	35.14	C	ATOM	18397	O5*	C A 883	160.012	97.428	-25.555	1.00	33.12	O



ATOM	18398	C A 883	161.333	97.948	-25.637	1.00	33.12	C	ATOM	18448	N7	G A 885	166.728	95.096	-12.354	1.00	38.72	N
ATOM	18399	C A 883	161.585	98.883	-24.495	1.00	33.12	C	ATOM	18449	C5	G A 885	168.033	95.244	-11.914	1.00	38.72	C
ATOM	18400	C A 883	160.677	100.008	-24.588	1.00	33.12	O	ATOM	18450	C6	G A 885	168.874	94.338	-11.236	1.00	38.72	C
ATOM	18401	C A 883	161.348	98.298	-23.116	1.00	33.12	C	ATOM	18451	O6	G A 885	168.620	93.188	-10.862	1.00	38.72	O
ATOM	18402	C A 883	162.531	97.640	-22.697	1.00	33.12	O	ATOM	18452	N1	G A 885	170.129	94.889	-10.994	1.00	38.72	N
ATOM	18403	C A 883	161.050	99.541	-22.285	1.00	33.12	C	ATOM	18453	C2	G A 885	170.520	96.152	-11.356	1.00	38.72	C
ATOM	18404	C A 883	162.224	100.235	-21.947	1.00	33.12	O	ATOM	18454	N2	G A 885	171.766	96.498	-11.050	1.00	38.72	N
ATOM	18405	C A 883	160.311	100.427	-23.289	1.00	33.12	C	ATOM	18455	N3	G A 885	169.742	97.011	-11.978	1.00	38.72	N
ATOM	18406	C A 883	158.842	100.394	-23.171	1.00	44.55	N	ATOM	18456	C4	G A 885	168.518	96.494	-12.229	1.00	38.72	C
ATOM	18407	C A 883	158.237	101.081	-22.117	1.00	44.55	C	ATOM	18457	P	G A 886	168.318	97.424	-17.990	1.00	40.95	P
ATOM	18408	C A 883	158.953	101.692	-21.308	1.00	44.55	O	ATOM	18458	O1P	G A 886	168.558	98.045	-19.319	1.00	40.14	O
ATOM	18409	C A 883	156.896	101.066	-22.004	1.00	44.55	N	ATOM	18459	O2P	G A 886	167.526	96.161	-17.889	1.00	40.14	O
ATOM	18410	C A 883	156.164	100.403	-22.893	1.00	44.55	C	ATOM	18460	O5*	G A 886	169.718	97.189	-17.276	1.00	40.95	O
ATOM	18411	C A 883	154.842	100.419	-22.748	1.00	44.55	N	ATOM	18461	C5*	G A 886	170.679	98.241	-17.240	1.00	40.95	C
ATOM	18412	C A 883	156.751	99.694	-23.972	1.00	44.55	C	ATOM	18462	C4*	G A 886	171.981	97.756	-16.663	1.00	40.95	C
ATOM	18413	C A 883	158.079	99.713	-24.073	1.00	44.55	C	ATOM	18463	O4*	G A 886	171.819	97.431	-15.262	1.00	40.95	O
ATOM	18414	P	162.447	96.405	-21.669	1.00	36.86	P	ATOM	18464	C3*	G A 886	172.583	96.491	-17.242	1.00	40.95	C
ATOM	18415	O1P	163.839	95.946	-21.408	1.00	43.97	O	ATOM	18465	O3*	G A 886	173.264	96.669	-18.464	1.00	40.95	O
ATOM	18416	O2P	161.425	95.433	-22.133	1.00	43.97	O	ATOM	18466	C2*	G A 886	173.548	96.086	-16.150	1.00	40.95	C
ATOM	18417	O5*	161.926	97.086	-20.337	1.00	36.86	O	ATOM	18467	O2*	G A 886	174.720	96.880	-16.217	1.00	40.95	O
ATOM	18418	C5*	162.701	98.097	-19.638	1.00	36.86	C	ATOM	18468	C1*	G A 886	172.740	96.426	-14.905	1.00	40.95	C
ATOM	18419	C4*	162.121	98.398	-18.354	1.00	36.86	C	ATOM	18469	N9	G A 886	172.001	95.262	-14.438	1.00	40.14	N
ATOM	18420	O4*	160.879	99.134	-18.522	1.00	36.86	O	ATOM	18470	C8	G A 886	170.656	95.012	-14.541	1.00	40.14	C
ATOM	18421	C3*	161.810	97.162	-17.522	1.00	36.86	C	ATOM	18471	N7	G A 886	170.306	93.871	-14.006	1.00	40.14	N
ATOM	18422	O3*	162.137	97.422	-16.168	1.00	36.86	O	ATOM	18472	C5	G A 886	171.494	93.343	-13.532	1.00	40.14	C
ATOM	18423	O2*	160.298	97.026	-17.673	1.00	36.86	O	ATOM	18473	C6	G A 886	171.746	92.141	-12.864	1.00	40.14	C
ATOM	18424	C2*	159.695	96.416	-16.550	1.00	36.86	O	ATOM	18474	O6	G A 886	170.944	91.262	-12.537	1.00	40.14	O
ATOM	18425	C1*	159.862	98.490	-17.805	1.00	36.86	C	ATOM	18475	N1	G A 886	173.095	91.995	-12.564	1.00	40.14	N
ATOM	18426	N1	158.572	98.741	-18.471	1.00	43.97	N	ATOM	18476	C2	G A 886	174.077	92.904	-12.870	1.00	40.14	C
ATOM	18427	C2	157.778	99.770	-17.977	1.00	43.97	C	ATOM	18477	N2	G A 886	175.329	92.597	-12.479	1.00	40.14	N
ATOM	18428	O2	158.143	100.531	-17.096	1.00	43.97	O	ATOM	18478	N3	G A 886	173.851	94.032	-13.504	1.00	40.14	N
ATOM	18429	N3	156.544	99.888	-18.572	1.00	43.97	N	ATOM	18479	C4	G A 886	172.546	94.188	-13.798	1.00	40.14	C
ATOM	18430	C4	156.046	99.127	-19.607	1.00	43.97	C	ATOM	18480	P	G A 887	173.235	95.482	-19.539	1.00	47.10	P
ATOM	18431	O4	154.881	99.289	-19.980	1.00	43.97	O	ATOM	18481	O1P	G A 887	173.900	96.022	-20.757	1.00	37.97	O
ATOM	18432	O5	156.945	98.137	-20.095	1.00	43.97	C	ATOM	18482	O2P	G A 887	171.837	94.966	-19.615	1.00	37.97	O
ATOM	18433	C6	158.144	97.978	-19.525	1.00	43.97	C	ATOM	18483	O5*	G A 887	174.117	94.327	-18.877	1.00	47.10	O
ATOM	18434	P	163.133	96.437	-15.363	1.00	39.92	P	ATOM	18484	C5*	G A 887	175.522	94.517	-18.634	1.00	47.10	C
ATOM	18435	O1P	163.200	95.109	-16.027	1.00	38.72	O	ATOM	18485	C4*	G A 887	176.116	93.311	-17.939	1.00	47.10	C
ATOM	18436	O2P	162.728	96.517	-13.931	1.00	38.72	O	ATOM	18486	O4*	G A 887	175.510	93.140	-16.633	1.00	47.10	O
ATOM	18437	O5*	164.560	97.129	-15.494	1.00	39.92	O	ATOM	18487	C3*	G A 887	175.932	91.959	-18.605	1.00	47.10	C
ATOM	18438	C5*	164.680	98.549	-15.633	1.00	39.92	C	ATOM	18488	O3*	G A 887	176.866	91.709	-19.644	1.00	47.10	O
ATOM	18439	C4*	166.055	98.997	-15.213	1.00	39.92	C	ATOM	18489	C2*	G A 887	176.140	90.996	-17.447	1.00	47.10	C
ATOM	18440	O4*	166.191	98.850	-13.779	1.00	39.92	O	ATOM	18490	O2*	G A 887	177.502	90.738	-17.184	1.00	47.10	O
ATOM	18441	C3*	167.219	98.194	-15.768	1.00	39.92	C	ATOM	18491	C1*	G A 887	175.520	91.769	-16.284	1.00	47.10	C
ATOM	18442	O3*	167.607	98.538	-17.081	1.00	39.92	O	ATOM	18492	N9	G A 887	174.153	91.311	-16.071	1.00	37.97	N
ATOM	18443	C2*	168.316	98.466	-14.756	1.00	39.92	C	ATOM	18493	C8	G A 887	172.989	91.889	-16.512	1.00	37.97	C
ATOM	18444	O2*	168.937	99.717	-14.965	1.00	39.92	O	ATOM	18494	N7	G A 887	171.929	91.182	-16.229	1.00	37.97	N
ATOM	18445	C1*	167.520	98.473	-13.456	1.00	39.92	C	ATOM	18495	C5	G A 887	172.426	90.084	-15.547	1.00	37.97	C
ATOM	18446	N9	167.488	97.129	-12.888	1.00	38.72	N	ATOM	18496	O6	G A 887	171.757	88.976	-15.008	1.00	37.97	C
ATOM	18447	C8	166.444	96.237	-12.920	1.00	38.72	C	ATOM	18497	O6	G A 887	170.547	88.724	-15.039	1.00	37.97	O



ATOM	18498	G A 887	172.639	88.096	-14.387	1.00	37.97	N	ATOM	18548	P	G A 890	175.393	90.486	-26.075	1.00	58.31	P
ATOM	18499	G A 887	173.997	88.267	-14.311	1.00	37.97	C	ATOM	18549	O1P	G A 890	176.117	89.325	-26.651	1.00	55.34	O
ATOM	18500	G A 887	174.683	87.305	-13.684	1.00	37.97	N	ATOM	18550	O2P	G A 890	176.159	91.576	-25.423	1.00	55.34	O
ATOM	18501	G A 887	174.634	89.301	-14.819	1.00	37.97	N	ATOM	18551	O5*	G A 890	174.468	91.140	-27.199	1.00	58.31	O
ATOM	18502	G A 887	173.792	90.162	-15.421	1.00	37.97	C	ATOM	18552	C5*	G A 890	174.207	90.469	-28.447	1.00	58.31	C
ATOM	18503	G A 888	176.443	90.776	-20.882	1.00	39.19	P	ATOM	18553	C4*	G A 890	173.171	89.377	-28.262	1.00	58.31	C
ATOM	18504	G A 888	177.659	90.580	-21.702	1.00	46.88	O	ATOM	18554	C4*	G A 890	171.887	89.918	-27.822	1.00	58.31	O
ATOM	18505	G A 888	175.232	91.359	-21.508	1.00	46.88	O	ATOM	18555	O3*	G A 890	172.869	88.584	-29.531	1.00	58.31	C
ATOM	18506	G A 888	176.055	89.387	-20.201	1.00	39.19	O	ATOM	18556	O3*	G A 890	172.672	87.227	-29.161	1.00	58.31	O
ATOM	18507	G A 888	177.057	88.586	-19.558	1.00	39.19	C	ATOM	18557	C2*	G A 890	171.538	89.161	-29.987	1.00	58.31	C
ATOM	18508	G A 888	176.447	87.343	-18.960	1.00	39.19	C	ATOM	18558	O2*	G A 890	170.802	88.271	-30.786	1.00	58.31	O
ATOM	18509	G A 888	175.523	87.729	-17.919	1.00	39.19	O	ATOM	18559	C1*	G A 890	170.863	89.387	-28.642	1.00	58.31	C
ATOM	18510	G A 888	175.635	86.479	-19.903	1.00	39.19	C	ATOM	18560	N9	G A 890	169.694	90.263	-28.638	1.00	55.34	N
ATOM	18511	G A 888	176.460	85.574	-20.606	1.00	39.19	O	ATOM	18561	C8	G A 890	169.560	91.486	-29.245	1.00	55.34	C
ATOM	18512	G A 888	174.668	85.773	-18.958	1.00	39.19	C	ATOM	18562	N7	G A 890	168.384	92.025	-29.057	1.00	55.34	N
ATOM	18513	G A 888	175.254	84.657	-18.306	1.00	39.19	O	ATOM	18563	C5	G A 890	167.699	91.100	-28.278	1.00	55.34	C
ATOM	18514	G A 888	174.385	86.877	-17.936	1.00	39.19	C	ATOM	18564	C6	G A 890	166.373	91.140	-27.739	1.00	55.34	C
ATOM	18515	G A 888	173.233	87.703	-18.293	1.00	46.88	N	ATOM	18565	O6	G A 890	165.515	92.033	-27.845	1.00	55.34	O
ATOM	18516	G A 888	173.277	88.888	-18.989	1.00	46.88	C	ATOM	18566	N1	G A 890	166.087	89.993	-27.008	1.00	55.34	N
ATOM	18517	G A 888	172.101	89.403	-19.200	1.00	46.88	N	ATOM	18567	C2	G A 890	166.950	88.948	-26.813	1.00	55.34	C
ATOM	18518	G A 888	171.221	88.512	-18.605	1.00	46.88	C	ATOM	18568	N2	G A 890	166.477	87.927	-26.082	1.00	55.34	N
ATOM	18519	G A 888	169.808	88.537	-18.537	1.00	46.88	C	ATOM	18569	N3	G A 890	168.183	88.903	-27.297	1.00	55.34	N
ATOM	18520	G A 888	169.028	89.384	-19.009	1.00	46.88	O	ATOM	18570	C4	G A 890	168.489	90.005	-28.015	1.00	55.34	C
ATOM	18521	G A 888	169.308	87.436	-17.845	1.00	46.88	N	ATOM	18571	P	U A 891	172.645	86.079	-30.281	1.00	52.60	P
ATOM	18522	G A 888	170.072	86.443	-17.294	1.00	46.88	C	ATOM	18572	O1P	U A 891	173.600	86.481	-31.357	1.00	52.48	O
ATOM	18523	G A 888	169.397	85.477	-16.662	1.00	46.88	N	ATOM	18573	O2P	U A 891	171.230	85.772	-30.626	1.00	52.48	O
ATOM	18524	G A 888	171.398	86.403	-17.358	1.00	46.88	N	ATOM	18574	O5*	U A 891	173.195	84.804	-29.498	1.00	52.60	O
ATOM	18525	G A 888	171.902	87.461	-18.027	1.00	46.88	C	ATOM	18575	C5*	U A 891	174.499	84.812	-28.899	1.00	52.60	C
ATOM	18526	A A 889	176.044	85.105	-22.085	1.00	61.64	P	ATOM	18576	C4*	U A 891	174.471	84.106	-27.565	1.00	52.60	C
ATOM	18527	A A 889	174.864	84.192	-21.987	1.00	48.61	O	ATOM	18577	O4*	U A 891	173.895	84.959	-26.542	1.00	52.60	O
ATOM	18528	A A 889	177.278	84.644	-22.763	1.00	48.61	O	ATOM	18578	C3*	U A 891	173.663	82.826	-27.499	1.00	52.60	C
ATOM	18529	A A 889	175.590	86.451	-22.788	1.00	61.64	O	ATOM	18579	O3*	U A 891	174.399	81.728	-28.011	1.00	52.60	O
ATOM	18530	A A 889	175.697	86.601	-24.199	1.00	61.64	C	ATOM	18580	C2*	U A 891	173.356	82.697	-26.005	1.00	52.60	C
ATOM	18531	A A 889	174.674	87.589	-24.679	1.00	61.64	C	ATOM	18581	O2*	U A 891	174.383	82.087	-25.250	1.00	52.60	O
ATOM	18532	A A 889	173.356	87.068	-24.383	1.00	61.64	C	ATOM	18582	C1*	U A 891	173.225	84.163	-25.575	1.00	52.60	C
ATOM	18533	A A 889	174.750	88.970	-24.041	1.00	61.64	C	ATOM	18583	N1	U A 891	171.829	84.626	-25.446	1.00	52.48	N
ATOM	18534	A A 889	174.335	89.910	-25.018	1.00	61.64	O	ATOM	18584	C2	U A 891	171.025	84.014	-24.484	1.00	52.48	C
ATOM	18535	A A 889	173.679	88.905	-22.956	1.00	61.64	C	ATOM	18585	O2	U A 891	171.420	83.120	-23.744	1.00	52.48	O
ATOM	18536	A A 889	173.108	90.168	-22.697	1.00	61.64	O	ATOM	18586	N3	U A 891	169.740	84.485	-24.422	1.00	52.48	N
ATOM	18537	A A 889	172.640	88.011	-23.623	1.00	61.64	C	ATOM	18587	O4	U A 891	169.178	85.475	-25.192	1.00	52.48	C
ATOM	18538	A A 889	171.732	87.290	-22.727	1.00	48.61	N	ATOM	18588	C4	U A 891	167.993	85.773	-25.019	1.00	52.48	O
ATOM	18539	A A 889	171.984	86.185	-21.962	1.00	48.61	C	ATOM	18589	C5	U A 891	170.061	86.060	-26.154	1.00	52.48	C
ATOM	18540	A A 889	170.929	85.737	-21.325	1.00	48.61	N	ATOM	18590	C6	U A 891	171.321	85.629	-26.247	1.00	52.48	C
ATOM	18541	A A 889	169.922	86.615	-21.697	1.00	48.61	C	ATOM	18591	P	A A 892	173.634	80.541	-28.782	1.00	47.40	P
ATOM	18542	A A 889	168.568	86.680	-21.369	1.00	48.61	C	ATOM	18592	O1P	A A 892	174.716	79.653	-29.272	1.00	39.28	O
ATOM	18543	A A 889	167.963	85.797	-20.568	1.00	48.61	N	ATOM	18593	O2P	A A 892	172.647	81.093	-29.746	1.00	39.28	O
ATOM	18544	A A 889	167.841	87.687	-21.901	1.00	48.61	N	ATOM	18594	O5*	A A 892	172.825	79.775	-27.646	1.00	47.40	O
ATOM	18545	A A 889	168.449	88.550	-22.715	1.00	48.61	C	ATOM	18595	C5*	A A 892	173.513	79.172	-26.550	1.00	47.40	C
ATOM	18546	A A 889	169.714	88.588	-23.105	1.00	48.61	N	ATOM	18596	C4*	A A 892	172.538	78.462	-25.653	1.00	47.40	C
ATOM	18547	A A 889	170.406	87.583	-22.554	1.00	48.61	C	ATOM	18597	O4*	A A 892	171.825	79.411	-24.827	1.00	47.40	O



Table 1: Sheet 188/521

ATOM	18598	C3*	A A 892	171.452	77.694	-26.375	1.00	47.40	C	ATOM	18648	C5	G A 894	164.245	78.626	-30.886	1.00	42.85	C
ATOM	18599	O3*	A A 892	171.900	76.424	-26.779	1.00	47.40	O	ATOM	18649	C6	G A 894	164.279	79.948	-31.391	1.00	42.85	C
ATOM	18600	C2*	A A 892	170.350	77.612	-25.332	1.00	47.40	C	ATOM	18650	O6	G A 894	165.265	80.664	-31.613	1.00	42.85	O
ATOM	18601	O2*	A A 892	170.577	76.570	-24.403	1.00	47.40	O	ATOM	18651	N1	G A 894	162.999	80.437	-31.631	1.00	42.85	N
ATOM	18602	C1*	A A 892	170.488	78.969	-24.644	1.00	47.40	C	ATOM	18652	C2	G A 894	161.836	79.750	-31.393	1.00	42.85	C
ATOM	18603	N9	A A 892	169.595	79.977	-25.220	1.00	39.28	N	ATOM	18653	N2	G A 894	160.700	80.390	-31.695	1.00	42.85	N
ATOM	18604	C8	A A 892	169.904	80.978	-26.115	1.00	39.28	C	ATOM	18654	N3	G A 894	161.790	78.528	-30.898	1.00	42.85	N
ATOM	18605	N7	A A 892	168.889	81.745	-26.425	1.00	39.28	N	ATOM	18655	C4	G A 894	163.024	78.028	-30.677	1.00	42.85	C
ATOM	18606	C5	A A 892	167.839	81.215	-25.692	1.00	39.28	C	ATOM	18656	P	G A 895	162.467	72.666	-33.457	1.00	50.92	P
ATOM	18607	C6	A A 892	166.495	81.587	-25.581	1.00	39.28	C	ATOM	18657	O1P	G A 895	161.897	71.358	-33.871	1.00	41.14	O
ATOM	18608	N6	A A 892	165.977	82.636	-26.221	1.00	39.28	N	ATOM	18658	O2P	G A 895	163.917	72.951	-33.676	1.00	41.14	O
ATOM	18609	N1	A A 892	165.696	80.840	-24.777	1.00	39.28	N	ATOM	18659	O5*	G A 895	161.618	73.843	-34.126	1.00	50.92	O
ATOM	18610	C2	A A 892	166.241	79.793	-24.128	1.00	39.28	C	ATOM	18660	C5*	G A 895	160.190	73.909	-33.951	1.00	50.92	C
ATOM	18611	N3	A A 892	167.503	79.352	-24.143	1.00	39.28	N	ATOM	18661	C4*	G A 895	159.654	75.239	-34.421	1.00	50.92	C
ATOM	18612	C4	A A 892	168.256	80.116	-24.954	1.00	39.28	C	ATOM	18662	O4*	G A 895	160.202	76.300	-33.604	1.00	50.92	O
ATOM	18613	P	C A 893	171.330	75.791	-28.134	1.00	57.44	P	ATOM	18663	C3*	G A 895	160.003	75.641	-35.841	1.00	50.92	C
ATOM	18614	O1P	C A 893	172.044	74.497	-28.317	1.00	47.65	O	ATOM	18664	O3*	G A 895	159.134	75.065	-36.803	1.00	50.92	O
ATOM	18615	O2P	C A 893	171.393	76.836	-29.198	1.00	47.65	O	ATOM	18665	C2*	G A 895	159.879	77.156	-35.799	1.00	50.92	C
ATOM	18616	O5*	C A 893	169.810	75.471	-27.790	1.00	57.44	O	ATOM	18666	O2*	G A 895	158.540	77.578	-35.908	1.00	50.92	O
ATOM	18617	C5*	C A 893	169.487	74.541	-26.753	1.00	57.44	C	ATOM	18667	C1*	G A 895	160.382	77.465	-34.393	1.00	50.92	C
ATOM	18618	C4*	C A 893	168.015	74.581	-26.464	1.00	57.44	C	ATOM	18668	N9	G A 895	161.795	77.841	-34.358	1.00	41.14	N
ATOM	18619	O4*	C A 893	167.669	75.869	-25.889	1.00	57.44	O	ATOM	18669	C8	G A 895	162.856	77.061	-33.962	1.00	41.14	C
ATOM	18620	C3*	C A 893	167.119	74.462	-27.680	1.00	57.44	C	ATOM	18670	N7	G A 895	163.999	77.690	-34.005	1.00	41.14	N
ATOM	18621	O3*	C A 893	166.938	73.122	-28.101	1.00	57.44	O	ATOM	18671	C5	G A 895	163.675	78.956	-34.466	1.00	41.14	C
ATOM	18622	C2*	C A 893	165.832	75.133	-27.217	1.00	57.44	C	ATOM	18672	C6	G A 895	164.495	80.072	-34.707	1.00	41.14	C
ATOM	18623	O1*	C A 893	166.369	76.247	-26.315	1.00	57.44	C	ATOM	18673	O6	G A 895	165.711	80.181	-34.542	1.00	41.14	O
ATOM	18624	C1*	C A 893	164.987	74.282	-26.475	1.00	57.44	C	ATOM	18674	N1	G A 895	163.763	81.147	-35.184	1.00	41.14	N
ATOM	18625	N1	C A 893	166.449	77.545	-27.020	1.00	47.65	N	ATOM	18675	C2	G A 895	162.416	81.145	-35.402	1.00	41.14	C
ATOM	18626	C2	C A 893	165.327	78.392	-27.008	1.00	47.65	C	ATOM	18676	N2	G A 895	161.899	82.265	-35.905	1.00	41.14	N
ATOM	18627	O2	C A 893	164.380	78.045	-26.373	1.00	47.65	O	ATOM	18677	N3	G A 895	161.633	80.117	-35.158	1.00	41.14	N
ATOM	18628	N3	C A 893	165.308	79.563	-27.678	1.00	47.65	N	ATOM	18678	C4	G A 895	162.323	79.062	-34.699	1.00	41.14	C
ATOM	18629	C4	C A 893	166.490	79.908	-28.328	1.00	47.65	C	ATOM	18679	P	C A 896	159.707	74.702	-38.261	1.00	45.90	P
ATOM	18630	N4	C A 893	166.500	81.077	-28.968	1.00	47.65	N	ATOM	18680	O1P	C A 896	158.670	73.864	-38.922	1.00	41.79	O
ATOM	18631	C5	C A 893	167.645	79.074	-28.348	1.00	47.65	C	ATOM	18681	O2P	C A 896	161.084	74.171	-38.098	1.00	41.79	O
ATOM	18632	C6	C A 893	167.583	77.916	-27.687	1.00	47.65	C	ATOM	18682	O5*	C A 896	159.835	76.113	-38.991	1.00	45.90	O
ATOM	18633	P	G A 894	166.769	72.806	-29.670	1.00	57.50	P	ATOM	18683	C5*	C A 896	158.673	76.903	-39.216	1.00	45.90	C
ATOM	18634	O1P	G A 894	166.808	71.320	-29.806	1.00	42.85	O	ATOM	18684	C4*	C A 896	159.043	78.267	-39.725	1.00	45.90	C
ATOM	18635	O2P	G A 894	167.727	73.639	-30.453	1.00	42.85	O	ATOM	18685	O4*	C A 896	159.629	79.063	-38.668	1.00	45.90	O
ATOM	18636	O5*	G A 894	165.298	73.322	-29.993	1.00	57.50	O	ATOM	18686	C3*	C A 896	160.065	78.327	-40.837	1.00	45.90	C
ATOM	18637	C5*	G A 894	164.156	72.718	-29.362	1.00	57.50	C	ATOM	18687	O3*	C A 896	159.528	78.017	-42.103	1.00	45.90	O
ATOM	18638	C4*	G A 894	162.910	73.494	-29.694	1.00	57.50	C	ATOM	18688	C2*	C A 896	160.555	79.764	-40.733	1.00	45.90	C
ATOM	18639	O4*	G A 894	162.947	74.780	-29.034	1.00	57.50	O	ATOM	18689	O2*	C A 896	159.671	80.702	-41.316	1.00	45.90	O
ATOM	18640	C3*	G A 894	162.737	73.841	-31.158	1.00	57.50	C	ATOM	18690	C1*	C A 896	160.579	79.959	-39.220	1.00	45.90	C
ATOM	18641	O3*	G A 894	162.156	72.792	-31.890	1.00	57.50	O	ATOM	18691	N1	C A 896	161.916	79.621	-38.699	1.00	41.79	N
ATOM	18642	C2*	G A 894	161.829	75.053	-31.108	1.00	57.50	C	ATOM	18692	C2	C A 896	162.918	80.593	-38.753	1.00	41.79	C
ATOM	18643	O2*	G A 894	160.480	74.703	-30.929	1.00	57.50	O	ATOM	18693	O2	C A 896	162.623	81.741	-39.156	1.00	41.79	O
ATOM	18644	C1*	G A 894	162.328	75.754	-29.853	1.00	57.50	C	ATOM	18694	N3	C A 896	164.177	80.265	-38.361	1.00	41.79	N
ATOM	18645	N9	G A 894	163.308	76.777	-30.196	1.00	42.85	N	ATOM	18695	C4	C A 896	164.437	79.036	-37.917	1.00	41.79	C
ATOM	18646	C8	G A 894	164.676	76.689	-30.130	1.00	42.85	C	ATOM	18696	N4	C A 896	165.686	78.746	-37.583	1.00	41.79	N
ATOM	18647	N7	G A 894	165.279	77.771	-30.540	1.00	42.85	N	ATOM	18697	C5	C A 896	163.425	78.045	-37.808	1.00	41.79	C



ATOM 18698	C A 896	162.191	78.375	-38.204	1.00	41.79	C	ATOM 18748	O4*	C A 899	171.825	76.734	-50.882	1.00	52.43	O
ATOM 18699	P	160.498	77.435	-43.239	1.00	51.75	P	ATOM 18749	C3*	C A 899	172.127	76.515	-48.565	1.00	52.43	C
ATOM 18700	O1P	159.652	77.188	-44.437	1.00	34.47	O	ATOM 18750	O3*	C A 899	172.243	75.517	-47.580	1.00	52.43	O
ATOM 18701	O2P	161.308	76.322	-42.659	1.00	34.47	O	ATOM 18751	C2*	C A 899	173.479	76.875	-49.163	1.00	52.43	C
ATOM 18702	O5*	161.443	78.669	-43.578	1.00	51.75	O	ATOM 18752	O2*	C A 899	174.405	75.804	-49.183	1.00	52.43	O
ATOM 18703	C5*	160.886	79.868	-44.137	1.00	51.75	C	ATOM 18753	C1*	C A 899	173.096	77.283	-50.587	1.00	52.43	C
ATOM 18704	C4*	161.961	80.903	-44.357	1.00	51.75	C	ATOM 18754	N1	C A 899	173.056	78.741	-50.811	1.00	46.46	N
ATOM 18705	O4*	162.485	81.348	-43.079	1.00	51.75	O	ATOM 18755	C2	C A 899	174.247	79.404	-51.070	1.00	46.46	C
ATOM 18706	C3*	163.194	80.452	-45.114	1.00	51.75	C	ATOM 18756	O2	C A 899	175.307	78.756	-51.066	1.00	46.46	O
ATOM 18707	O3*	163.030	80.408	-46.518	1.00	51.75	O	ATOM 18757	N3	C A 899	174.229	80.734	-51.308	1.00	46.46	N
ATOM 18708	O2*	164.230	81.475	-44.683	1.00	51.75	C	ATOM 18758	C4	C A 899	173.081	81.400	-51.272	1.00	46.46	C
ATOM 18709	C2*	164.118	82.688	-45.398	1.00	51.75	C	ATOM 18759	N4	C A 899	173.116	82.713	-51.512	1.00	46.46	N
ATOM 18710	C1*	163.852	81.691	-43.219	1.00	51.75	C	ATOM 18760	C5	C A 899	171.848	80.753	-50.991	1.00	46.46	C
ATOM 18711	N1	164.656	80.816	-42.352	1.00	34.47	N	ATOM 18761	C6	C A 899	171.880	79.434	-50.772	1.00	46.46	C
ATOM 18712	C2	165.966	81.197	-42.047	1.00	34.47	C	ATOM 18762	P	A A 900	172.196	75.934	-46.042	1.00	45.12	P
ATOM 18713	O2	166.375	82.303	-42.433	1.00	34.47	O	ATOM 18763	O1P	A A 900	172.273	74.703	-45.204	1.00	37.92	O
ATOM 18714	N3	166.751	80.353	-41.334	1.00	34.47	N	ATOM 18764	O2P	A A 900	171.024	76.831	-45.911	1.00	37.92	O
ATOM 18715	C4	166.260	79.184	-40.912	1.00	34.47	C	ATOM 18765	O5*	A A 900	173.550	76.740	-45.837	1.00	45.12	O
ATOM 18716	N4	167.072	78.367	-40.248	1.00	34.47	N	ATOM 18766	C5*	A A 900	174.801	76.035	-45.805	1.00	45.12	C
ATOM 18717	C5	164.914	78.798	-41.164	1.00	34.47	C	ATOM 18767	C4*	A A 900	175.946	77.000	-45.899	1.00	45.12	C
ATOM 18718	C6	164.154	79.636	-41.879	1.00	34.47	C	ATOM 18768	O4*	A A 900	175.759	77.806	-47.084	1.00	45.12	O
ATOM 18719	P	163.879	79.338	-47.363	1.00	47.74	P	ATOM 18769	C3*	A A 900	176.040	77.992	-44.763	1.00	45.12	C
ATOM 18720	O1P	163.517	79.500	-48.785	1.00	43.34	O	ATOM 18770	O3*	A A 900	176.828	77.451	-43.723	1.00	45.12	O
ATOM 18721	O2P	163.778	78.002	-46.720	1.00	43.34	O	ATOM 18771	C2*	A A 900	176.727	79.178	-45.412	1.00	45.12	C
ATOM 18722	O5*	165.376	79.835	-47.189	1.00	47.74	O	ATOM 18772	O2*	A A 900	178.110	78.942	-45.493	1.00	45.12	O
ATOM 18723	C5*	165.816	81.016	-47.862	1.00	47.74	C	ATOM 18773	C1*	A A 900	176.167	79.130	-46.832	1.00	45.12	C
ATOM 18724	C4*	167.290	81.189	-47.680	1.00	47.74	C	ATOM 18774	N9	A A 900	175.027	80.006	-47.100	1.00	37.92	N
ATOM 18725	O4*	167.562	81.450	-46.284	1.00	47.74	O	ATOM 18775	C8	A A 900	173.685	79.699	-47.058	1.00	37.92	C
ATOM 18726	C3*	168.133	79.970	-47.997	1.00	47.74	C	ATOM 18776	N7	A A 900	173.908	80.687	-47.423	1.00	37.92	N
ATOM 18727	O3*	168.385	79.824	-49.390	1.00	47.74	O	ATOM 18777	C5	A A 900	173.790	81.718	-47.711	1.00	37.92	C
ATOM 18728	C2*	169.391	80.228	-47.183	1.00	47.74	C	ATOM 18778	C6	A A 900	173.595	83.018	-48.169	1.00	37.92	C
ATOM 18729	O2*	170.296	81.093	-47.827	1.00	47.74	O	ATOM 18779	N6	A A 900	172.400	83.526	-48.440	1.00	37.92	N
ATOM 18730	C1*	168.820	80.912	-45.943	1.00	47.74	C	ATOM 18780	N1	A A 900	174.683	83.794	-48.351	1.00	37.92	N
ATOM 18731	N9	168.623	79.910	-44.917	1.00	43.34	N	ATOM 18781	C2	A A 900	175.884	83.281	-48.097	1.00	37.92	C
ATOM 18732	C8	167.469	79.240	-44.614	1.00	43.34	C	ATOM 18782	N3	A A 900	176.204	82.067	-47.672	1.00	37.92	N
ATOM 18733	N7	167.653	78.289	-43.738	1.00	43.34	N	ATOM 18783	C4	A A 900	175.096	81.322	-47.496	1.00	37.92	C
ATOM 18734	C5	169.007	78.360	-43.432	1.00	43.34	C	ATOM 18784	P	A A 901	176.578	77.934	-42.210	1.00	43.45	P
ATOM 18735	C6	169.801	77.552	-42.592	1.00	43.34	C	ATOM 18785	O1P	A A 901	177.472	77.147	-41.317	1.00	34.53	O
ATOM 18736	O6	169.468	76.548	-41.950	1.00	43.34	O	ATOM 18786	O2P	A A 901	175.109	77.964	-41.946	1.00	34.53	O
ATOM 18737	N1	171.121	77.991	-42.556	1.00	43.34	N	ATOM 18787	O5*	A A 901	177.120	79.430	-42.186	1.00	43.45	O
ATOM 18738	C2	171.617	79.054	-43.256	1.00	43.34	C	ATOM 18788	C5*	A A 901	178.527	79.699	-42.209	1.00	43.45	C
ATOM 18739	N2	172.912	79.331	-43.077	1.00	43.34	N	ATOM 18789	C4*	A A 901	178.771	81.160	-42.476	1.00	43.45	C
ATOM 18740	N3	170.895	79.794	-44.071	1.00	43.34	N	ATOM 18790	O4*	A A 901	178.170	81.523	-43.741	1.00	43.45	O
ATOM 18741	C4	169.605	79.389	-44.113	1.00	43.34	C	ATOM 18791	C3*	A A 901	178.156	82.108	-41.471	1.00	43.45	C
ATOM 18742	P	168.352	78.354	-50.046	1.00	52.43	P	ATOM 18792	O3*	A A 901	179.057	82.317	-40.409	1.00	43.45	O
ATOM 18743	O1P	168.633	78.523	-51.492	1.00	46.46	O	ATOM 18793	C2*	A A 901	177.988	83.382	-42.281	1.00	43.45	C
ATOM 18744	O2P	167.101	77.663	-49.611	1.00	46.46	O	ATOM 18794	O2*	A A 901	179.208	84.081	-42.362	1.00	43.45	O
ATOM 18745	O5*	169.577	77.598	-49.356	1.00	52.43	O	ATOM 18795	C1*	A A 901	177.644	82.832	-43.665	1.00	43.45	C
ATOM 18746	C5*	169.848	76.208	-49.618	1.00	52.43	C	ATOM 18796	N9	A A 901	176.201	82.766	-43.908	1.00	34.53	N
ATOM 18747	C4*	171.334	75.990	-49.743	1.00	52.43	C	ATOM 18797	C8	A A 901	175.326	81.784	-43.519	1.00	34.53	C



ATOM 18798	A A 901	174.075	82.041	-43.811	1.00 34.53	N	ATOM 18848	C2	G A 903	165.544	83.657	-39.536	1.00 41.29	C
ATOM 18799	A A 901	174.133	83.265	-44.449	1.00 34.53	C	ATOM 18849	N2	G A 903	164.278	83.811	-39.948	1.00 41.29	N
ATOM 18800	A A 901	173.139	84.086	-44.973	1.00 34.53	C	ATOM 18850	N3	G A 903	166.432	84.605	-39.777	1.00 41.29	N
ATOM 18801	A A 901	171.845	83.804	-44.887	1.00 34.53	N	ATOM 18851	C4	G A 903	167.650	84.285	-39.292	1.00 41.29	C
ATOM 18802	A A 901	173.517	85.230	-45.576	1.00 34.53	N	ATOM 18852	P	C A 904	168.405	89.743	-36.785	1.00 46.02	P
ATOM 18803	A A 901	174.825	85.532	-45.609	1.00 34.53	C	ATOM 18853	O1P	C A 904	168.323	91.231	-36.697	1.00 41.19	O
ATOM 18804	A A 901	175.863	84.849	-45.115	1.00 34.53	N	ATOM 18854	O2P	C A 904	169.150	88.975	-35.754	1.00 41.19	O
ATOM 18805	A A 901	175.439	83.710	-44.543	1.00 34.53	C	ATOM 18855	O5*	C A 904	166.926	89.156	-36.873	1.00 46.02	O
ATOM 18806	G A 902	178.552	82.190	-38.897	1.00 42.47	P	ATOM 18856	C5*	C A 904	165.952	89.769	-37.729	1.00 46.02	C
ATOM 18807	G A 902	179.242	83.256	-38.131	1.00 40.90	O	ATOM 18857	C4*	C A 904	164.635	89.049	-37.623	1.00 46.02	C
ATOM 18808	G A 902	178.684	80.777	-38.480	1.00 40.90	O	ATOM 18858	O4*	C A 904	164.777	87.697	-38.118	1.00 46.02	O
ATOM 18809	G A 902	177.000	82.528	-38.957	1.00 42.47	O	ATOM 18859	C3*	C A 904	164.094	88.882	-36.220	1.00 46.02	C
ATOM 18810	G A 902	176.455	83.734	-38.379	1.00 42.47	C	ATOM 18860	O3*	C A 904	163.375	90.025	-35.809	1.00 46.02	O
ATOM 18811	G A 902	175.609	84.447	-39.405	1.00 42.47	C	ATOM 18861	C2*	C A 904	163.189	87.671	-36.355	1.00 46.02	C
ATOM 18812	G A 902	175.331	83.534	-40.493	1.00 42.47	O	ATOM 18862	O2*	C A 904	161.930	88.005	-36.889	1.00 46.02	O
ATOM 18813	G A 902	174.245	84.916	-38.936	1.00 42.47	C	ATOM 18863	C1*	C A 904	163.956	86.827	-37.369	1.00 46.02	C
ATOM 18814	G A 902	174.300	86.178	-38.297	1.00 42.47	O	ATOM 18864	N1	C A 904	164.814	85.823	-36.720	1.00 41.19	N
ATOM 18815	G A 902	173.448	84.934	-40.232	1.00 42.47	C	ATOM 18865	C2	C A 904	164.229	84.636	-36.266	1.00 41.19	C
ATOM 18816	G A 902	173.706	86.064	-41.038	1.00 42.47	O	ATOM 18866	O2	C A 904	163.004	84.478	-36.413	1.00 41.19	O
ATOM 18817	G A 902	174.008	83.706	-40.938	1.00 42.47	C	ATOM 18867	N3	C A 904	165.005	83.696	-35.680	1.00 41.19	N
ATOM 18818	G A 902	173.265	82.512	-40.564	1.00 40.90	N	ATOM 18868	C4	C A 904	166.310	83.904	-35.546	1.00 41.19	C
ATOM 18819	G A 902	173.706	81.453	-39.806	1.00 40.90	C	ATOM 18869	N4	C A 904	167.037	82.941	-34.996	1.00 41.19	N
ATOM 18820	G A 902	172.783	80.553	-39.602	1.00 40.90	N	ATOM 18870	C5	C A 904	166.931	85.110	-35.981	1.00 41.19	C
ATOM 18821	G A 902	171.675	81.043	-40.277	1.00 40.90	C	ATOM 18871	C6	C A 904	166.155	86.034	-36.558	1.00 41.19	C
ATOM 18822	G A 902	170.388	80.511	-40.408	1.00 40.90	C	ATOM 18872	P	U A 905	163.441	90.482	-34.275	1.00 33.76	P
ATOM 18823	G A 902	169.949	79.474	-39.939	1.00 40.90	O	ATOM 18873	O1P	U A 905	162.574	91.689	-34.164	1.00 45.31	O
ATOM 18824	G A 902	169.571	81.325	-41.176	1.00 40.90	N	ATOM 18874	O2P	U A 905	164.876	90.568	-33.881	1.00 45.31	O
ATOM 18825	G A 902	169.953	82.512	-41.746	1.00 40.90	C	ATOM 18875	O5*	U A 905	162.747	89.274	-33.499	1.00 33.76	O
ATOM 18826	G A 902	169.025	83.159	-42.470	1.00 40.90	N	ATOM 18876	C5*	U A 905	161.351	89.028	-33.667	1.00 33.76	C
ATOM 18827	G A 902	171.156	83.028	-41.622	1.00 40.90	N	ATOM 18877	C4*	U A 905	160.967	87.701	-33.076	1.00 33.76	C
ATOM 18828	G A 902	171.961	82.244	-40.882	1.00 40.90	C	ATOM 18878	O4*	U A 905	161.707	86.632	-33.712	1.00 33.76	O
ATOM 18829	G A 903	173.277	86.503	-37.102	1.00 40.21	P	ATOM 18879	C3*	U A 905	161.245	87.491	-31.606	1.00 33.76	C
ATOM 18830	G A 903	173.792	87.745	-36.460	1.00 41.29	O	ATOM 18880	O3*	U A 905	160.262	88.109	-30.805	1.00 33.76	O
ATOM 18831	G A 903	173.043	85.287	-36.271	1.00 41.29	O	ATOM 18881	C2*	U A 905	161.211	85.974	-31.483	1.00 33.76	C
ATOM 18832	G A 903	171.915	86.829	-37.848	1.00 40.21	O	ATOM 18882	O2*	U A 905	159.888	85.491	-31.382	1.00 33.76	O
ATOM 18833	G A 903	171.848	87.888	-38.797	1.00 40.21	C	ATOM 18883	C1*	U A 905	161.824	85.535	-32.818	1.00 33.76	C
ATOM 18834	G A 903	170.494	87.911	-39.461	1.00 40.21	C	ATOM 18884	N1	U A 905	163.245	85.166	-32.693	1.00 45.31	N
ATOM 18835	G A 903	170.267	86.655	-40.146	1.00 40.21	O	ATOM 18885	C2	U A 905	163.565	83.837	-32.460	1.00 45.31	C
ATOM 18836	G A 903	169.302	88.052	-38.538	1.00 40.21	C	ATOM 18886	O2	U A 905	162.743	82.948	-32.455	1.00 45.31	O
ATOM 18837	G A 903	169.051	89.398	-38.207	1.00 40.21	O	ATOM 18887	N3	U A 905	164.895	83.590	-32.246	1.00 45.31	N
ATOM 18838	G A 903	168.175	87.458	-39.365	1.00 40.21	C	ATOM 18888	C4	U A 905	165.922	84.504	-32.268	1.00 45.31	C
ATOM 18839	G A 903	167.662	88.374	-40.317	1.00 40.21	O	ATOM 18889	O4	U A 905	167.050	84.158	-31.925	1.00 45.31	O
ATOM 18840	G A 903	168.899	86.324	-40.084	1.00 40.21	C	ATOM 18890	C5	U A 905	165.522	86.834	-32.579	1.00 45.31	C
ATOM 18841	G A 903	168.783	85.047	-39.399	1.00 41.29	N	ATOM 18891	C6	U A 905	164.231	86.115	-32.772	1.00 45.31	C
ATOM 18842	G A 903	169.778	84.356	-38.763	1.00 41.29	C	ATOM 18892	P	G A 906	160.717	89.025	-29.568	1.00 42.93	P
ATOM 18843	G A 903	169.378	83.210	-38.286	1.00 41.29	N	ATOM 18893	O1P	G A 906	159.473	89.392	-28.845	1.00 40.77	O
ATOM 18844	G A 903	168.035	83.151	-38.618	1.00 41.29	C	ATOM 18894	O2P	G A 906	161.622	90.105	-30.057	1.00 40.77	O
ATOM 18845	G A 903	167.076	82.142	-38.374	1.00 41.29	C	ATOM 18895	O5*	G A 906	161.543	88.010	-28.665	1.00 42.93	O
ATOM 18846	G A 903	167.230	81.061	-37.807	1.00 41.29	O	ATOM 18896	C5*	G A 906	160.871	86.923	-28.022	1.00 42.93	C
ATOM 18847	G A 903	165.830	82.489	-38.875	1.00 41.29	N	ATOM 18897	C4*	G A 906	161.859	86.010	-27.345	1.00 42.93	C



Table 1: Sheet 191/521

ATOM	18898	O4*	G A 906	162.639	85.315	-28.348	1.00	42.93	O	ATOM	18948	C1*	A A 908	166.329	81.004	-17.518	1.00	58.18	C
ATOM	18899	C3*	G A 906	162.901	86.668	-26.456	1.00	42.93	C	ATOM	18949	N9	A A 908	167.410	81.771	-18.133	1.00	52.93	N
ATOM	18900	O3*	G A 906	162.432	86.960	-25.161	1.00	42.93	O	ATOM	18950	C8	A A 908	167.316	82.974	-18.792	1.00	52.93	C
ATOM	18901	C2*	G A 906	164.002	85.625	-26.433	1.00	42.93	C	ATOM	18951	N7	A A 908	168.463	83.429	-19.230	1.00	52.93	N
ATOM	18902	O2*	G A 906	163.696	84.560	-25.560	1.00	42.93	O	ATOM	18952	C5	A A 908	169.376	82.463	-18.833	1.00	52.93	C
ATOM	18903	C1*	G A 906	163.961	85.126	-27.872	1.00	42.93	C	ATOM	18953	C6	A A 908	170.765	82.359	-18.994	1.00	52.93	C
ATOM	18904	N9	G A 906	164.843	85.955	-28.674	1.00	40.77	N	ATOM	18954	N6	A A 908	171.505	83.279	-19.614	1.00	52.93	N
ATOM	18905	C8	G A 906	164.507	87.103	-29.346	1.00	40.77	C	ATOM	18955	N1	A A 908	171.376	81.270	-18.487	1.00	52.93	N
ATOM	18906	N7	G A 906	165.523	87.664	-29.937	1.00	40.77	N	ATOM	18956	C2	A A 908	170.630	80.356	-17.855	1.00	52.93	C
ATOM	18907	C5	G A 906	166.590	86.824	-29.646	1.00	40.77	C	ATOM	18957	N3	A A 908	169.314	80.342	-17.635	1.00	52.93	N
ATOM	18908	C6	G A 906	167.942	86.912	-30.020	1.00	40.77	C	ATOM	18958	C4	A A 908	168.740	81.436	-18.159	1.00	52.93	C
ATOM	18909	O6	G A 906	168.484	87.782	-30.689	1.00	40.77	O	ATOM	18959	P	A A 909	165.575	83.092	-13.302	1.00	56.54	P
ATOM	18910	N1	G A 906	168.686	85.849	-29.529	1.00	40.77	N	ATOM	18960	O1P	A A 909	164.560	83.167	-12.218	1.00	51.71	O
ATOM	18911	C2	G A 906	168.186	84.832	-28.767	1.00	40.77	C	ATOM	18961	O2P	A A 909	166.200	84.355	-13.822	1.00	51.71	O
ATOM	18912	N2	G A 906	169.064	83.899	-28.390	1.00	40.77	N	ATOM	18962	O5*	A A 909	166.729	82.090	-12.849	1.00	56.54	O
ATOM	18913	N3	G A 906	166.918	84.737	-28.401	1.00	40.77	N	ATOM	18963	C5*	A A 909	166.419	80.748	-12.441	1.00	56.54	C
ATOM	18914	C4	G A 906	166.182	85.762	-28.876	1.00	40.77	C	ATOM	18964	C4*	A A 909	167.680	79.928	-12.340	1.00	56.54	C
ATOM	18915	P	A A 907	163.204	88.057	-24.278	1.00	44.30	P	ATOM	18965	O4*	A A 909	168.285	79.798	-13.650	1.00	56.54	O
ATOM	18916	O1P	A A 907	162.276	88.351	-23.164	1.00	31.26	O	ATOM	18966	C3*	A A 909	168.767	80.517	-11.457	1.00	56.54	C
ATOM	18917	O2P	A A 907	163.674	89.165	-25.165	1.00	31.26	O	ATOM	18967	O3*	A A 909	168.576	80.110	-10.111	1.00	56.54	O
ATOM	18918	O5*	A A 907	164.476	87.268	-23.730	1.00	44.30	O	ATOM	18968	C2*	A A 909	170.034	79.907	-12.037	1.00	56.54	C
ATOM	18919	C5*	A A 907	164.621	86.938	-22.334	1.00	44.30	C	ATOM	18969	O2*	A A 909	170.276	78.614	-11.531	1.00	56.54	O
ATOM	18920	C4*	A A 907	163.938	85.622	-22.024	1.00	44.30	C	ATOM	18970	C1*	A A 909	169.690	79.827	-13.526	1.00	56.54	C
ATOM	18921	O4*	A A 907	164.313	84.606	-22.987	1.00	44.30	O	ATOM	18971	N9	A A 909	170.168	81.006	-14.231	1.00	51.71	N
ATOM	18922	C3*	A A 907	164.319	85.025	-22.686	1.00	44.30	C	ATOM	18972	C8	A A 909	169.468	82.144	-14.552	1.00	51.71	C
ATOM	18923	O3*	A A 907	163.559	85.561	-19.637	1.00	44.30	O	ATOM	18973	N7	A A 909	170.187	83.049	-15.167	1.00	51.71	N
ATOM	18924	C2*	A A 907	164.061	83.542	-20.886	1.00	44.30	C	ATOM	18974	C5	A A 909	171.446	82.466	-15.261	1.00	51.71	C
ATOM	18925	O2*	A A 907	162.700	83.204	-20.765	1.00	44.30	O	ATOM	18975	C6	A A 909	172.656	82.911	-15.816	1.00	51.71	C
ATOM	18926	C1*	A A 907	164.500	83.359	-22.333	1.00	44.30	C	ATOM	18976	N6	A A 909	172.815	84.108	-16.383	1.00	51.71	N
ATOM	18927	N9	A A 907	165.926	83.043	-22.392	1.00	31.26	N	ATOM	18977	N1	A A 909	173.714	82.074	-15.765	1.00	51.71	N
ATOM	18928	C8	A A 907	166.923	83.760	-23.014	1.00	31.26	C	ATOM	18978	C2	A A 909	173.559	80.880	-15.184	1.00	51.71	C
ATOM	18929	N7	A A 907	168.112	83.227	-22.892	1.00	31.26	N	ATOM	18979	N3	A A 909	172.479	80.353	-14.619	1.00	51.71	N
ATOM	18930	C5	A A 907	167.888	82.083	-22.144	1.00	31.26	C	ATOM	18980	C4	A A 909	171.444	81.205	-14.694	1.00	51.71	C
ATOM	18931	C6	A A 907	168.744	81.086	-21.686	1.00	31.26	C	ATOM	18981	P	C A 910	168.724	81.176	-8.920	1.00	46.92	P
ATOM	18932	N6	A A 907	170.049	81.065	-21.939	1.00	31.26	N	ATOM	18982	O1P	C A 910	168.547	80.352	-7.701	1.00	51.40	O
ATOM	18933	N1	A A 907	168.210	80.090	-20.952	1.00	31.26	N	ATOM	18983	O2P	C A 910	167.830	82.333	-9.162	1.00	51.40	O
ATOM	18934	C2	A A 907	166.894	80.104	-20.710	1.00	31.26	C	ATOM	18984	O5*	C A 910	170.225	81.694	-9.024	1.00	46.92	O
ATOM	18935	N3	A A 907	165.978	80.982	-21.099	1.00	31.26	N	ATOM	18985	C5*	C A 910	171.322	80.779	-8.946	1.00	46.92	C
ATOM	18936	C4	A A 907	166.548	81.960	-21.821	1.00	31.26	C	ATOM	18986	C4*	C A 910	172.564	81.399	-9.533	1.00	46.92	C
ATOM	18937	P	A A 908	164.252	85.782	-18.220	1.00	58.18	P	ATOM	18987	O4*	C A 910	172.375	81.639	-10.953	1.00	46.92	O
ATOM	18938	O1P	A A 908	163.200	86.262	-17.294	1.00	52.93	O	ATOM	18988	C3*	C A 910	172.960	82.757	-8.986	1.00	46.92	C
ATOM	18939	O2P	A A 908	165.480	86.594	-18.437	1.00	52.93	O	ATOM	18989	O3*	C A 910	173.664	82.672	-7.769	1.00	46.92	O
ATOM	18940	O5*	A A 908	164.679	84.319	-17.771	1.00	58.18	O	ATOM	18990	C2*	C A 910	173.812	83.336	-10.104	1.00	46.92	C
ATOM	18941	C5*	A A 908	163.698	83.375	-17.333	1.00	58.18	C	ATOM	18991	O2*	C A 910	175.146	82.872	-10.065	1.00	46.92	O
ATOM	18942	C4*	A A 908	164.377	82.120	-16.862	1.00	58.18	C	ATOM	18992	C1*	C A 910	173.095	82.799	-11.344	1.00	46.92	C
ATOM	18943	O4*	A A 908	165.106	81.549	-17.972	1.00	58.18	O	ATOM	18993	N1	C A 910	172.139	83.779	-11.879	1.00	51.40	N
ATOM	18944	C3*	A A 908	165.428	82.314	-15.785	1.00	58.18	C	ATOM	18994	C2	C A 910	172.631	84.912	-12.558	1.00	51.40	C
ATOM	18945	O3*	A A 908	164.849	82.309	-14.500	1.00	58.18	O	ATOM	18995	O2	C A 910	173.858	85.033	-12.722	1.00	51.40	O
ATOM	18946	C2*	A A 908	166.331	81.115	-15.996	1.00	58.18	C	ATOM	18996	N3	C A 910	171.757	85.841	-13.015	1.00	51.40	N
ATOM	18947	O2*	A A 908	165.751	79.944	-15.459	1.00	58.18	O	ATOM	18997	C4	C A 910	170.445	85.672	-12.822	1.00	51.40	C



Table 1: Sheet 192/521

ATOM	18998	N4	C A 910	169.621	86.617	-13.271	1.00	51.40	N	ATOM	19048	C3*	A A 913	174.628	98.926	-4.291	1.00	69.52	C
ATOM	18999	C5	C A 910	169.920	84.522	-12.154	1.00	51.40	C	ATOM	19049	O3*	A A 913	175.312	100.063	-3.675	1.00	69.52	O
ATOM	19000	C6	C A 910	170.793	83.610	-11.707	1.00	51.40	C	ATOM	19050	C2*	A A 913	173.572	99.144	-5.368	1.00	69.52	C
ATOM	19001	P	U A 911	173.416	83.792	-6.649	1.00	44.10	P	ATOM	19051	O2*	A A 913	173.755	100.311	-6.119	1.00	69.52	O
ATOM	19002	O1P	U A 911	174.162	83.363	-5.427	1.00	59.48	O	ATOM	19052	C1*	A A 913	173.755	97.921	-6.276	1.00	69.52	C
ATOM	19003	O2P	U A 911	171.953	84.052	-6.553	1.00	59.48	O	ATOM	19053	N9	A A 913	172.673	96.934	-6.407	1.00	32.27	N
ATOM	19004	C5*	U A 911	174.096	85.089	-7.278	1.00	44.10	O	ATOM	19054	C8	A A 913	172.683	95.696	-5.812	1.00	32.27	C
ATOM	19005	O5*	U A 911	175.489	85.091	-7.575	1.00	44.10	C	ATOM	19055	N7	A A 913	171.524	95.007	-6.172	1.00	32.27	N
ATOM	19006	C4*	U A 911	175.873	86.346	-8.311	1.00	44.10	C	ATOM	19056	C5	A A 913	170.858	95.849	-7.048	1.00	32.27	C
ATOM	19007	O4*	U A 911	175.203	86.391	-9.591	1.00	44.10	O	ATOM	19057	C6	A A 913	169.668	95.699	-7.772	1.00	32.27	C
ATOM	19008	C3*	U A 911	175.518	87.659	-7.645	1.00	44.10	C	ATOM	19058	N6	A A 913	168.908	94.615	-7.724	1.00	32.27	N
ATOM	19009	O3*	U A 911	176.505	88.017	-6.702	1.00	44.10	O	ATOM	19059	N1	A A 913	169.280	96.715	-8.560	1.00	32.27	N
ATOM	19010	C2*	U A 911	175.480	88.625	-8.820	1.00	44.10	C	ATOM	19060	C2	A A 913	170.044	97.814	-8.611	1.00	32.27	C
ATOM	19011	O2*	U A 911	176.754	89.086	-9.192	1.00	44.10	O	ATOM	19061	N3	A A 913	171.188	98.080	-7.980	1.00	32.27	N
ATOM	19012	C1*	U A 911	174.946	87.735	-9.939	1.00	44.10	C	ATOM	19062	C4	A A 913	171.548	97.043	-7.200	1.00	32.27	C
ATOM	19013	N1	U A 911	173.504	87.899	-10.151	1.00	59.48	N	ATOM	19063	P	A A 914	175.601	101.458	-4.480	1.00	50.65	P
ATOM	19014	C2	U A 911	173.100	88.967	-10.930	1.00	59.48	C	ATOM	19064	O1P	A A 914	176.641	102.153	-3.660	1.00	72.08	O
ATOM	19015	O2	U A 911	173.883	89.758	-11.427	1.00	59.48	O	ATOM	19065	O2P	A A 914	174.334	102.174	-4.800	1.00	72.08	O
ATOM	19016	N3	U A 911	171.747	89.077	-11.102	1.00	59.48	N	ATOM	19066	O5*	A A 914	176.274	101.035	-5.856	1.00	37.17	O
ATOM	19017	C4	U A 911	170.779	88.247	-10.588	1.00	59.48	C	ATOM	19067	C5*	A A 914	176.028	101.761	-7.083	1.00	37.17	C
ATOM	19018	O4	U A 911	169.602	88.455	-10.871	1.00	59.48	O	ATOM	19068	C4*	A A 914	175.943	100.770	-8.220	1.00	37.17	C
ATOM	19019	C5	U A 911	171.275	87.168	-9.787	1.00	59.48	C	ATOM	19069	O4*	A A 914	174.676	100.073	-8.162	1.00	37.17	O
ATOM	19020	C6	U A 911	172.587	87.034	-9.602	1.00	59.48	C	ATOM	19070	C3*	A A 914	176.039	101.262	-9.648	1.00	37.17	C
ATOM	19021	P	C A 912	176.150	89.054	-5.528	1.00	54.27	P	ATOM	19071	O3*	A A 914	177.404	101.347	-10.005	1.00	37.17	O
ATOM	19022	O1P	C A 912	177.316	89.014	-4.603	1.00	37.64	O	ATOM	19072	C2*	A A 914	175.380	100.121	-10.414	1.00	37.17	C
ATOM	19023	O2P	C A 912	174.780	88.790	-5.014	1.00	37.64	O	ATOM	19073	O2*	A A 914	176.263	99.012	-10.526	1.00	37.17	O
ATOM	19024	O5*	C A 912	176.147	90.473	-6.244	1.00	54.27	O	ATOM	19074	C1*	A A 914	174.261	99.707	-9.458	1.00	37.17	C
ATOM	19025	C5*	C A 912	177.365	91.019	-6.743	1.00	54.27	C	ATOM	19075	N9	A A 914	172.973	100.347	-9.722	1.00	32.74	N
ATOM	19026	C4*	C A 912	177.098	92.305	-7.470	1.00	54.27	C	ATOM	19076	C8	A A 914	172.331	101.274	-8.949	1.00	32.74	C
ATOM	19027	O4*	C A 912	176.264	92.055	-8.615	1.00	54.27	O	ATOM	19077	N7	A A 914	171.188	101.679	-9.444	1.00	32.74	N
ATOM	19028	C3*	C A 912	176.361	93.372	-6.694	1.00	54.27	C	ATOM	19078	C5	A A 914	171.069	100.969	-10.627	1.00	32.74	C
ATOM	19029	O3*	C A 912	177.295	94.122	-5.978	1.00	54.27	O	ATOM	19079	C6	A A 914	170.083	100.949	-11.613	1.00	32.74	C
ATOM	19030	C2*	C A 912	175.767	94.226	-7.795	1.00	54.27	C	ATOM	19080	N6	A A 914	168.983	101.692	-11.574	1.00	32.74	N
ATOM	19031	O2*	C A 912	176.745	95.081	-8.339	1.00	54.27	O	ATOM	19081	N1	A A 914	170.263	100.129	-12.661	1.00	32.74	N
ATOM	19032	C1*	C A 912	175.437	93.176	-8.847	1.00	54.27	C	ATOM	19082	C2	A A 914	171.366	99.386	-12.709	1.00	32.74	C
ATOM	19033	N1	C A 912	174.035	92.737	-8.833	1.00	37.64	N	ATOM	19083	N3	A A 914	172.369	99.316	-11.847	1.00	32.74	N
ATOM	19034	C2	C A 912	173.108	93.468	-9.570	1.00	37.64	C	ATOM	19084	C4	A A 914	172.158	100.142	-10.810	1.00	32.74	C
ATOM	19035	O2	C A 912	173.489	94.497	-10.158	1.00	37.64	O	ATOM	19085	P	A A 915	177.848	102.250	-11.251	1.00	42.41	P
ATOM	19036	N3	C A 912	171.829	93.049	-9.622	1.00	37.64	N	ATOM	19086	O1P	A A 915	179.252	101.840	-11.517	1.00	48.08	O
ATOM	19037	C4	C A 912	171.461	91.953	-8.958	1.00	37.64	C	ATOM	19087	O2P	A A 915	177.541	103.697	-10.955	1.00	48.08	O
ATOM	19038	N4	C A 912	170.189	91.571	-9.047	1.00	37.64	N	ATOM	19088	O5*	A A 915	176.934	101.738	-12.462	1.00	42.41	O
ATOM	19039	C5	C A 912	172.381	91.201	-8.174	1.00	37.64	C	ATOM	19089	C5*	A A 915	177.207	100.476	-13.120	1.00	42.41	C
ATOM	19040	C6	C A 912	173.644	91.626	-8.136	1.00	37.64	C	ATOM	19090	C4*	A A 915	176.292	100.267	-14.308	1.00	42.41	C
ATOM	19041	P	A A 913	176.980	94.560	-4.473	1.00	69.52	P	ATOM	19091	O4*	A A 915	174.937	99.971	-13.875	1.00	42.41	O
ATOM	19042	O1P	A A 913	178.138	94.021	-3.711	1.00	32.27	O	ATOM	19092	C3*	A A 915	176.110	101.449	-15.231	1.00	42.41	C
ATOM	19043	O2P	A A 913	175.580	94.172	-4.059	1.00	32.27	O	ATOM	19093	O3*	A A 915	177.154	101.657	-16.134	1.00	42.41	O
ATOM	19044	O5*	A A 913	177.143	96.142	-4.576	1.00	69.52	O	ATOM	19094	C2*	A A 915	174.818	101.121	-15.948	1.00	42.41	C
ATOM	19045	C5*	A A 913	176.234	97.032	-3.928	1.00	69.52	C	ATOM	19095	O2*	A A 915	174.991	100.254	-17.044	1.00	42.41	O
ATOM	19046	C4*	A A 913	175.649	98.003	-4.926	1.00	69.52	C	ATOM	19096	CI*	A A 915	174.011	100.460	-14.835	1.00	42.41	C
ATOM	19047	O4*	A A 913	174.946	97.258	-5.938	1.00	69.52	O	ATOM	19097	N9	A A 915	173.158	101.483	-14.225	1.00	48.08	N



ATOM	19098	C8	A	A	915	173.372	102.246	-13.104	1.00	48.08	C	ATOM	19148	N1	G	A	917	171.774	113.058	-14.530	1.00	36.42	N
ATOM	19099	N7	A	A	915	172.440	103.135	-12.887	1.00	48.08	N	ATOM	19149	C2	G	A	917	170.016	113.384	-15.628	1.00	36.42	C
ATOM	19100	C5	A	A	915	171.544	102.935	-13.926	1.00	48.08	C	ATOM	19150	N2	G	A	917	170.214	114.451	-15.518	1.00	36.42	N
ATOM	19101	C6	A	A	915	170.343	103.565	-14.268	1.00	48.08	C	ATOM	19151	N3	G	A	917	171.038	112.718	-16.756	1.00	36.42	N
ATOM	19102	N6	A	A	915	169.831	104.591	-13.587	1.00	48.08	N	ATOM	19152	C4	G	A	917	171.890	111.676	-16.712	1.00	36.42	C
ATOM	19103	N1	A	A	915	169.680	103.110	-15.351	1.00	48.08	N	ATOM	19153	P	A	A	918	174.344	112.584	-22.294	1.00	29.20	P
ATOM	19104	C2	A	A	915	170.208	102.101	-16.041	1.00	48.08	C	ATOM	19154	OLP	A	A	918	174.363	112.880	-23.752	1.00	37.23	O
ATOM	19105	N3	A	A	915	171.331	101.438	-15.828	1.00	48.08	N	ATOM	19155	O2P	A	A	918	175.533	111.970	-21.632	1.00	37.23	O
ATOM	19106	C4	A	A	915	171.960	101.909	-14.742	1.00	48.08	C	ATOM	19156	O5P	A	A	918	173.980	113.912	-21.520	1.00	29.20	O
ATOM	19107	P	G	A	916	177.659	103.152	-16.383	1.00	40.51	P	ATOM	19157	C5*	A	A	918	172.970	114.758	-22.019	1.00	29.20	C
ATOM	19108	OLP	G	A	916	178.566	103.105	-17.555	1.00	42.58	O	ATOM	19158	C4*	A	A	918	172.677	115.837	-21.025	1.00	29.20	C
ATOM	19109	O2P	G	A	916	178.140	103.678	-15.067	1.00	42.58	O	ATOM	19159	O4*	A	A	918	172.231	115.224	-19.788	1.00	29.20	O
ATOM	19110	O5*	G	A	916	176.346	103.975	-16.776	1.00	40.51	O	ATOM	19160	C3*	A	A	918	173.830	116.729	-20.613	1.00	29.20	C
ATOM	19111	C5*	G	A	916	175.521	103.535	-17.862	1.00	40.51	C	ATOM	19161	O3*	A	A	918	174.031	117.781	-21.556	1.00	29.20	O
ATOM	19112	C4*	G	A	916	174.292	104.406	-18.024	1.00	40.51	C	ATOM	19162	C2*	A	A	918	173.328	117.256	-19.275	1.00	29.20	C
ATOM	19113	O4*	G	A	916	173.431	104.329	-16.854	1.00	40.51	O	ATOM	19163	O2*	A	A	918	172.354	118.264	-19.481	1.00	29.20	O
ATOM	19114	C3*	G	A	916	174.438	105.899	-18.278	1.00	40.51	C	ATOM	19164	C1*	A	A	918	172.597	116.040	-18.703	1.00	29.20	C
ATOM	19115	O3*	G	A	916	174.785	106.213	-19.627	1.00	40.51	O	ATOM	19165	N9	A	A	918	173.399	115.249	-17.776	1.00	37.23	N
ATOM	19116	C2*	G	A	916	173.027	106.393	-17.976	1.00	40.51	C	ATOM	19166	C8	A	A	918	174.158	114.148	-18.060	1.00	37.23	C
ATOM	19117	O2*	G	A	916	172.180	106.157	-19.084	1.00	40.51	O	ATOM	19167	N7	A	A	918	174.786	113.658	-17.020	1.00	37.23	N
ATOM	19118	C1*	G	A	916	172.601	105.481	-16.818	1.00	40.51	C	ATOM	19168	C5	A	A	918	174.407	114.490	-15.977	1.00	37.23	C
ATOM	19119	N9	G	A	916	172.694	106.116	-15.502	1.00	42.58	N	ATOM	19169	C6	A	A	918	174.733	114.501	-14.610	1.00	37.23	C
ATOM	19120	C8	G	A	916	173.521	105.773	-14.461	1.00	42.58	C	ATOM	19170	N6	A	A	918	175.547	113.611	-14.042	1.00	37.23	N
ATOM	19121	N7	G	A	916	173.390	106.553	-13.423	1.00	42.58	N	ATOM	19171	N1	A	A	918	174.190	115.465	-13.840	1.00	37.23	N
ATOM	19122	C5	G	A	916	172.415	107.460	-13.799	1.00	42.58	C	ATOM	19172	C2	A	A	918	173.373	116.345	-14.412	1.00	37.23	C
ATOM	19123	C6	G	A	916	171.864	108.554	-13.094	1.00	42.58	C	ATOM	19173	N3	A	A	918	172.987	116.439	-15.683	1.00	37.23	N
ATOM	19124	O6	G	A	916	172.149	108.964	-11.968	1.00	42.58	O	ATOM	19174	C4	A	A	918	173.550	115.471	-16.426	1.00	37.23	C
ATOM	19125	N1	G	A	916	170.891	109.204	-13.839	1.00	42.58	N	ATOM	19175	P	A	A	919	175.432	118.596	-21.573	1.00	41.25	P
ATOM	19126	C2	G	A	916	170.510	108.851	-15.101	1.00	42.58	C	ATOM	19176	OLP	A	A	919	175.377	119.581	-22.694	1.00	37.78	O
ATOM	19127	N2	G	A	916	169.551	109.592	-15.653	1.00	42.58	N	ATOM	19177	O2P	A	A	919	176.557	117.630	-21.486	1.00	37.78	O
ATOM	19128	N3	G	A	916	171.028	107.845	-15.775	1.00	42.58	N	ATOM	19178	O5*	A	A	919	175.488	119.381	-20.186	1.00	41.25	O
ATOM	19129	C4	G	A	916	171.966	107.197	-15.070	1.00	42.58	C	ATOM	19179	C5*	A	A	919	174.767	120.609	-19.972	1.00	41.25	C
ATOM	19130	P	G	A	917	175.533	107.611	-19.957	1.00	36.13	P	ATOM	19180	C4*	A	A	919	174.772	120.950	-18.504	1.00	41.25	C
ATOM	19131	OLP	G	A	917	176.122	107.544	-21.335	1.00	36.42	O	ATOM	19181	O4*	A	A	919	174.282	119.795	-17.783	1.00	41.25	O
ATOM	19132	O2P	G	A	917	176.399	108.001	-18.806	1.00	36.42	O	ATOM	19182	C3*	A	A	919	176.134	121.231	-17.883	1.00	41.25	C
ATOM	19133	O5*	G	A	917	174.363	108.686	-20.024	1.00	36.13	O	ATOM	19183	O3*	A	A	919	176.490	122.599	-17.996	1.00	41.25	O
ATOM	19134	C5*	G	A	917	173.362	108.615	-21.042	1.00	36.13	C	ATOM	19184	C2*	A	A	919	175.924	120.844	-16.429	1.00	41.25	C
ATOM	19135	C4*	G	A	917	172.356	109.712	-20.845	1.00	36.13	C	ATOM	19185	O2*	A	A	919	175.258	121.847	-15.695	1.00	41.25	O
ATOM	19136	O4*	G	A	917	171.663	109.516	-19.593	1.00	36.13	O	ATOM	19186	C1*	A	A	919	174.989	119.650	-16.568	1.00	41.25	C
ATOM	19137	C3*	G	A	917	172.936	111.103	-20.732	1.00	36.13	C	ATOM	19187	N9	A	A	919	175.762	118.417	-16.635	1.00	37.78	N
ATOM	19138	O3*	G	A	917	173.094	111.653	-22.006	1.00	36.13	O	ATOM	19188	C8	A	A	919	176.123	117.694	-17.740	1.00	37.78	C
ATOM	19139	O2*	G	A	917	171.868	111.842	-19.958	1.00	36.13	O	ATOM	19189	N7	A	A	919	176.856	116.646	-17.465	1.00	37.78	N
ATOM	19140	C2*	G	A	917	170.792	112.172	-20.807	1.00	36.13	O	ATOM	19190	C5	A	A	919	176.974	116.679	-16.084	1.00	37.78	C
ATOM	19141	C1*	G	A	917	171.403	110.759	-18.994	1.00	36.13	C	ATOM	19191	C6	A	A	919	177.612	115.835	-15.173	1.00	37.78	C
ATOM	19142	N9	G	A	917	172.100	110.780	-17.718	1.00	36.42	N	ATOM	19192	N6	A	A	919	178.283	114.739	-15.530	1.00	37.78	N
ATOM	19143	C8	G	A	917	173.053	109.900	-17.266	1.00	36.42	C	ATOM	19193	N1	A	A	919	177.532	116.148	-13.861	1.00	37.78	N
ATOM	19144	N7	G	A	917	173.430	110.142	-16.044	1.00	36.42	N	ATOM	19194	C2	A	A	919	176.850	117.229	-13.507	1.00	37.78	C
ATOM	19145	C5	G	A	917	172.696	111.263	-15.679	1.00	36.42	C	ATOM	19195	N3	A	A	919	176.202	118.096	-14.270	1.00	37.78	N
ATOM	19146	C6	G	A	917	172.664	111.991	-14.461	1.00	36.42	C	ATOM	19196	C4	A	A	919	176.303	117.760	-15.563	1.00	37.78	C
ATOM	19147	O6	G	A	917	173.307	111.787	-13.420	1.00	36.42	O	ATOM	19197	P	U	A	920	177.961	123.077	-17.566	1.00	32.81	P



Table 1: Sheet 194/521

ATOM	19198	O1P	U A 920	178.018	124.543	-17.830	1.00	39.05	O	ATOM	19248	C1*	G A 922	188.420	120.663	-10.663	1.00	50.49	C
ATOM	19199	O2P	U A 920	178.957	122.173	-18.185	1.00	39.05	O	ATOM	19249	N9	G A 922	187.928	120.200	-11.955	1.00	33.77	N
ATOM	19200	O5*	U A 920	178.046	122.787	-16.000	1.00	32.81	O	ATOM	19250	C8	G A 922	187.333	120.941	-12.943	1.00	33.77	C
ATOM	19201	C5*	U A 920	177.478	123.708	-15.064	1.00	32.81	C	ATOM	19251	N7	G A 922	187.018	120.233	-13.993	1.00	33.77	N
ATOM	19202	C4*	U A 920	178.090	123.522	-13.702	1.00	32.81	C	ATOM	19252	C5	G A 922	187.428	118.950	-13.672	1.00	33.77	C
ATOM	19203	O4*	U A 920	177.836	122.178	-13.231	1.00	32.81	C	ATOM	19253	C6	G A 922	187.343	117.753	-14.414	1.00	33.77	C
ATOM	19204	C3*	U A 920	179.590	123.652	-13.608	1.00	32.81	C	ATOM	19254	O6	G A 922	186.860	117.577	-15.544	1.00	33.77	O
ATOM	19205	O3*	U A 920	180.014	124.993	-13.531	1.00	32.81	O	ATOM	19255	N1	G A 922	187.887	116.683	-13.715	1.00	33.77	N
ATOM	19206	C2*	U A 920	179.903	122.898	-12.332	1.00	32.81	C	ATOM	19256	C2	G A 922	188.428	116.758	-12.459	1.00	33.77	C
ATOM	19207	O2*	U A 920	179.631	123.694	-11.200	1.00	32.81	O	ATOM	19257	N2	G A 922	188.894	115.620	-11.942	1.00	33.77	N
ATOM	19208	C1*	U A 920	178.897	121.753	-12.402	1.00	32.81	C	ATOM	19258	N3	G A 922	188.503	117.866	-11.759	1.00	33.77	N
ATOM	19209	N1	U A 920	179.451	120.508	-12.958	1.00	39.05	N	ATOM	19259	C4	G A 922	187.990	118.915	-12.420	1.00	33.77	C
ATOM	19210	O2	U A 920	180.166	119.671	-12.106	1.00	39.05	O	ATOM	19260	P	A A 923	192.568	122.913	-11.247	1.00	48.65	P
ATOM	19211	C2	U A 920	180.399	119.937	-10.941	1.00	39.05	C	ATOM	19261	O1P	A A 923	193.626	123.564	-10.433	1.00	30.52	O
ATOM	19212	N3	U A 920	180.608	118.509	-12.676	1.00	39.05	N	ATOM	19262	O2P	A A 923	192.124	123.547	-12.524	1.00	30.52	O
ATOM	19213	C4	U A 920	180.429	118.098	-13.977	1.00	39.05	C	ATOM	19263	O5*	A A 923	193.022	121.407	-11.491	1.00	48.65	O
ATOM	19214	O4	U A 920	180.776	116.958	-14.298	1.00	39.05	O	ATOM	19264	C5*	A A 923	193.627	120.650	-10.434	1.00	48.65	C
ATOM	19215	C5	U A 920	179.716	119.025	-14.802	1.00	39.05	C	ATOM	19265	C4*	A A 923	193.759	119.201	-10.835	1.00	48.65	C
ATOM	19216	C6	U A 920	179.261	120.168	-14.279	1.00	39.05	C	ATOM	19266	C4*	A A 923	192.438	118.615	-10.983	1.00	48.65	O
ATOM	19217	P	U A 921	181.482	125.372	-14.053	1.00	36.10	P	ATOM	19267	O3*	A A 923	194.433	118.918	-12.169	1.00	48.65	C
ATOM	19218	O1P	U A 921	181.533	126.853	-14.243	1.00	36.85	O	ATOM	19268	O3*	A A 923	195.842	118.910	-12.120	1.00	48.65	O
ATOM	19219	O2P	U A 921	181.789	124.474	-15.208	1.00	36.85	O	ATOM	19269	C2*	A A 923	193.876	117.551	-12.514	1.00	48.65	C
ATOM	19220	O5*	U A 921	182.431	124.919	-12.852	1.00	36.10	O	ATOM	19270	O2*	A A 923	194.495	116.546	-11.730	1.00	48.65	O
ATOM	19221	C5*	U A 921	182.387	125.582	-11.592	1.00	36.10	C	ATOM	19271	C1*	A A 923	192.421	117.728	-12.093	1.00	48.65	C
ATOM	19222	C4*	U A 921	183.137	124.790	-10.562	1.00	36.10	C	ATOM	19272	N9	A A 923	191.681	118.383	-13.178	1.00	30.52	N
ATOM	19223	O4*	U A 921	182.570	123.459	-10.490	1.00	36.10	O	ATOM	19273	C8	A A 923	191.469	119.734	-13.339	1.00	30.52	C
ATOM	19224	C3*	U A 921	184.604	124.527	-10.837	1.00	36.10	C	ATOM	19274	N7	A A 923	190.786	120.042	-14.414	1.00	30.52	N
ATOM	19225	O3*	U A 921	185.452	125.594	-10.472	1.00	36.10	O	ATOM	19275	C5	A A 923	190.530	118.815	-15.005	1.00	30.52	C
ATOM	19226	C2*	U A 921	184.893	123.286	-10.004	1.00	36.10	C	ATOM	19276	C6	A A 923	189.850	118.468	-16.169	1.00	30.52	C
ATOM	19227	O2*	U A 921	185.138	123.584	-8.645	1.00	36.10	O	ATOM	19277	N6	A A 923	189.294	119.355	-16.983	1.00	30.52	N
ATOM	19228	C1*	U A 921	183.580	122.523	-10.135	1.00	36.10	C	ATOM	19278	N1	A A 923	189.757	117.160	-16.477	1.00	30.52	N
ATOM	19229	N1	U A 921	183.640	121.462	-11.153	1.00	36.85	N	ATOM	19279	C2	A A 923	190.326	116.266	-15.661	1.00	30.52	C
ATOM	19230	C2	U A 921	184.235	120.257	-10.796	1.00	36.85	C	ATOM	19280	N3	A A 923	191.007	116.468	-14.534	1.00	30.52	N
ATOM	19231	O2	U A 921	184.712	120.051	-9.695	1.00	36.85	O	ATOM	19281	C4	A A 923	191.071	117.783	-14.255	1.00	30.52	C
ATOM	19232	N3	U A 921	184.253	119.302	-11.776	1.00	36.85	N	ATOM	19282	P	C A 924	196.666	119.454	-13.385	1.00	52.66	P
ATOM	19233	C4	U A 921	183.758	119.417	-13.044	1.00	36.85	C	ATOM	19283	O1P	C A 924	198.092	119.467	-12.950	1.00	41.53	O
ATOM	19234	O4	U A 921	183.918	118.489	-13.836	1.00	36.85	O	ATOM	19284	O2P	C A 924	196.028	120.712	-13.870	1.00	41.53	O
ATOM	19235	C5	U A 921	183.159	120.683	-13.342	1.00	36.85	C	ATOM	19285	O5*	C A 924	196.443	118.331	-14.494	1.00	52.66	O
ATOM	19236	C6	U A 921	183.125	121.639	-12.413	1.00	36.85	C	ATOM	19286	C5*	C A 924	196.870	116.981	-14.257	1.00	52.66	C
ATOM	19237	P	G A 922	186.762	125.870	-11.355	1.00	50.49	P	ATOM	19287	C4*	C A 924	196.360	116.055	-15.337	1.00	52.66	C
ATOM	19238	O1P	G A 922	187.490	127.009	-10.725	1.00	33.77	O	ATOM	19288	O4*	C A 924	194.909	116.038	-15.326	1.00	52.66	O
ATOM	19239	O2P	G A 922	186.328	125.973	-12.773	1.00	33.77	O	ATOM	19289	C3*	C A 924	196.726	116.385	-16.776	1.00	52.66	C
ATOM	19240	O5*	G A 922	187.616	124.522	-11.227	1.00	50.49	O	ATOM	19290	O3*	C A 924	198.017	115.912	-17.121	1.00	52.66	O
ATOM	19241	C5*	G A 922	188.411	124.285	-10.066	1.00	50.49	C	ATOM	19291	C2*	C A 924	195.645	115.650	-17.549	1.00	52.66	C
ATOM	19242	C4*	G A 922	188.886	122.846	-9.992	1.00	50.49	C	ATOM	19292	O2*	C A 924	195.906	114.267	-17.667	1.00	52.66	O
ATOM	19243	O4*	G A 922	187.840	121.919	-10.363	1.00	50.49	C	ATOM	19293	C1*	C A 924	194.434	115.855	-16.643	1.00	52.66	C
ATOM	19244	C3*	G A 922	190.049	122.370	-10.837	1.00	50.49	C	ATOM	19294	N1	C A 924	193.728	117.070	-17.061	1.00	41.53	N
ATOM	19245	O3*	G A 922	191.286	122.775	-10.291	1.00	50.49	O	ATOM	19295	C2	C A 924	192.809	116.975	-18.102	1.00	41.53	C
ATOM	19246	C2*	G A 922	189.930	120.860	-10.688	1.00	50.49	C	ATOM	19296	O2	C A 924	192.588	115.859	-18.604	1.00	41.53	O
ATOM	19247	O2*	G A 922	190.458	120.420	-9.454	1.00	50.49	O	ATOM	19297	N3	C A 924	192.187	118.093	-18.544	1.00	41.53	N



ATOM 19298	C4	C A 924	192.466	119.269	-17.987	1.00	41.53	C	ATOM 19348	P	G A 927	197.673	115.209	-28.227	1.00	55.11	P
ATOM 19299	N4	C A 924	191.866	120.351	-18.484	1.00	41.53	N	ATOM 19349	O1P	G A 927	197.155	114.409	-27.092	1.00	47.61	O
ATOM 19300	C5	C A 924	193.383	119.389	-16.902	1.00	41.53	C	ATOM 19350	O2P	G A 927	196.976	115.143	-29.538	1.00	47.61	O
ATOM 19301	C6	C A 924	193.981	118.275	-16.472	1.00	41.53	C	ATOM 19351	O5*	G A 927	197.786	116.732	-27.777	1.00	55.11	O
ATOM 19302	P	G A 925	198.881	116.681	-18.243	1.00	51.27	P	ATOM 19352	C5*	G A 927	196.770	117.337	-26.993	1.00	55.11	C
ATOM 19303	O1P	G A 925	200.217	116.047	-18.167	1.00	48.27	O	ATOM 19353	C4*	G A 927	195.886	118.183	-27.865	1.00	55.11	C
ATOM 19304	O2P	G A 925	198.760	118.153	-18.145	1.00	48.27	O	ATOM 19354	O4*	G A 927	194.588	118.256	-27.240	1.00	55.11	O
ATOM 19305	O5*	G A 925	198.202	116.266	-19.616	1.00	51.27	O	ATOM 19355	C3*	G A 927	196.287	119.634	-28.084	1.00	55.11	C
ATOM 19306	C5*	G A 925	198.227	114.907	-20.069	1.00	51.27	C	ATOM 19356	O3*	G A 927	197.229	119.835	-29.119	1.00	55.11	O
ATOM 19307	C4*	G A 925	197.581	114.818	-21.420	1.00	51.27	C	ATOM 19357	O2*	G A 927	194.952	120.290	-28.401	1.00	55.11	C
ATOM 19308	O4*	G A 925	196.161	115.052	-21.291	1.00	51.27	O	ATOM 19358	C2*	G A 927	194.518	120.104	-29.732	1.00	55.11	O
ATOM 19309	C3*	G A 925	198.070	115.857	-22.410	1.00	51.27	C	ATOM 19359	C1*	G A 927	194.021	119.530	-27.466	1.00	55.11	C
ATOM 19310	O3*	G A 925	199.221	115.374	-23.084	1.00	51.27	O	ATOM 19360	N9	G A 927	193.965	120.227	-26.192	1.00	47.61	N
ATOM 19311	C2*	G A 925	196.887	115.999	-23.355	1.00	51.27	C	ATOM 19361	C8	G A 927	194.633	119.922	-25.030	1.00	47.61	C
ATOM 19312	O2*	G A 925	196.890	115.003	-24.361	1.00	51.27	O	ATOM 19362	N7	G A 927	194.420	120.786	-24.080	1.00	47.61	N
ATOM 19313	C1*	G A 925	195.695	115.778	-22.414	1.00	51.27	C	ATOM 19363	C5	G A 927	193.552	121.704	-24.648	1.00	47.61	C
ATOM 19314	N9	G A 925	195.060	117.009	-21.938	1.00	48.27	N	ATOM 19364	C6	G A 927	192.981	122.873	-24.112	1.00	47.61	C
ATOM 19315	C8	G A 925	195.425	117.743	-20.838	1.00	48.27	C	ATOM 19365	O6	G A 927	193.142	123.367	-22.991	1.00	47.61	O
ATOM 19316	N7	G A 925	194.684	118.801	-20.658	1.00	48.27	N	ATOM 19366	N1	G A 927	192.152	123.499	-25.036	1.00	47.61	N
ATOM 19317	C5	G A 925	193.769	118.767	-21.701	1.00	48.27	C	ATOM 19367	C2	G A 927	191.920	123.061	-26.319	1.00	47.61	C
ATOM 19318	C6	G A 925	192.717	119.666	-22.028	1.00	48.27	C	ATOM 19368	N2	G A 927	191.100	123.803	-27.071	1.00	47.61	N
ATOM 19319	O6	G A 925	192.361	120.695	-21.436	1.00	48.27	O	ATOM 19369	N3	G A 927	192.454	121.980	-26.829	1.00	47.61	N
ATOM 19320	N1	G A 925	192.047	119.268	-23.172	1.00	48.27	N	ATOM 19370	C4	G A 927	193.253	121.356	-25.945	1.00	47.61	C
ATOM 19321	C2	G A 925	192.333	118.155	-23.905	1.00	48.27	C	ATOM 19371	P	G A 928	198.173	121.139	-29.087	1.00	57.17	P
ATOM 19322	N2	G A 925	191.557	117.972	-24.984	1.00	48.27	N	ATOM 19372	O1P	G A 928	199.039	121.050	-30.287	1.00	47.82	O
ATOM 19323	N3	G A 925	193.301	117.297	-23.610	1.00	48.27	N	ATOM 19373	O2P	G A 928	198.802	121.252	-27.732	1.00	47.82	O
ATOM 19324	C4	G A 925	193.980	117.668	-22.502	1.00	48.27	C	ATOM 19374	O5*	G A 928	197.177	122.366	-29.310	1.00	57.17	O
ATOM 19325	P	G A 926	200.391	116.386	-23.514	1.00	60.26	P	ATOM 19375	C5*	G A 928	196.541	122.573	-30.584	1.00	57.17	C
ATOM 19326	O1P	G A 926	201.336	116.460	-22.387	1.00	36.93	O	ATOM 19376	C4*	G A 928	195.687	123.829	-30.571	1.00	57.17	C
ATOM 19327	O2P	G A 926	199.831	117.640	-24.082	1.00	36.93	O	ATOM 19377	O4*	G A 928	194.540	123.675	-29.681	1.00	57.17	O
ATOM 19328	O5*	G A 926	201.104	115.597	-24.691	1.00	60.26	O	ATOM 19378	C3*	G A 928	196.343	125.111	-30.098	1.00	57.17	C
ATOM 19329	C5*	G A 926	201.067	116.087	-26.038	1.00	60.26	C	ATOM 19379	O3*	G A 928	197.154	125.730	-31.077	1.00	57.17	O
ATOM 19330	C4*	G A 926	201.196	114.943	-27.000	1.00	60.26	C	ATOM 19380	C2*	G A 928	195.139	125.962	-29.722	1.00	57.17	C
ATOM 19331	O4*	G A 926	202.044	113.937	-26.390	1.00	60.26	O	ATOM 19381	O2*	G A 928	194.517	126.521	-30.865	1.00	57.17	O
ATOM 19332	C3*	G A 926	199.918	114.192	-27.325	1.00	60.26	C	ATOM 19382	C1*	G A 928	194.220	124.923	-29.078	1.00	57.17	C
ATOM 19333	O3*	G A 926	199.216	114.797	-28.409	1.00	60.26	O	ATOM 19383	N9	G A 928	194.514	124.822	-27.650	1.00	47.82	N
ATOM 19334	C2*	G A 926	200.437	112.823	-27.740	1.00	60.26	C	ATOM 19384	C8	G A 928	195.210	123.815	-27.023	1.00	47.82	C
ATOM 19335	O2*	G A 926	200.890	112.840	-29.078	1.00	60.26	O	ATOM 19385	N7	G A 928	195.410	124.038	-25.755	1.00	47.82	N
ATOM 19336	C1*	G A 926	201.649	112.655	-26.830	1.00	60.26	C	ATOM 19386	C5	G A 928	194.792	125.257	-25.521	1.00	47.82	C
ATOM 19337	N9	G A 926	201.417	111.795	-25.675	1.00	36.93	N	ATOM 19387	C6	G A 928	194.688	126.017	-24.324	1.00	47.82	C
ATOM 19338	C8	G A 926	200.851	112.132	-24.466	1.00	36.93	C	ATOM 19388	O6	G A 928	195.173	125.773	-23.209	1.00	47.82	O
ATOM 19339	N7	G A 926	200.782	111.125	-23.632	1.00	36.93	N	ATOM 19389	N1	G A 928	193.941	127.175	-24.517	1.00	47.82	N
ATOM 19340	C5	G A 926	201.343	110.062	-24.330	1.00	36.93	C	ATOM 19390	C2	G A 928	193.382	127.562	-25.710	1.00	47.82	C
ATOM 19341	C6	G A 926	201.552	108.700	-23.941	1.00	36.93	C	ATOM 19391	N2	G A 928	192.677	128.704	-25.685	1.00	47.82	N
ATOM 19342	O6	G A 926	201.262	108.140	-22.863	1.00	36.93	O	ATOM 19392	N3	G A 928	193.498	126.875	-26.842	1.00	47.82	N
ATOM 19343	N1	G A 926	202.156	107.966	-24.962	1.00	36.93	N	ATOM 19393	C4	G A 928	194.207	125.740	-26.673	1.00	47.82	C
ATOM 19344	C2	G A 926	202.503	108.465	-26.197	1.00	36.93	C	ATOM 19394	P	G A 929	198.360	126.685	-30.604	1.00	65.85	P
ATOM 19345	N2	G A 926	203.058	107.596	-27.048	1.00	36.93	N	ATOM 19395	O1P	G A 929	199.104	127.136	-31.800	1.00	41.04	O
ATOM 19346	N3	G A 926	202.314	109.723	-26.570	1.00	36.93	N	ATOM 19396	O2P	G A 929	199.091	126.024	-29.501	1.00	41.04	O
ATOM 19347	C4	G A 926	201.737	110.459	-25.594	1.00	36.93	C	ATOM 19397	O5*	G A 929	197.609	127.955	-30.019	1.00	65.85	O



Table 1: Sheet 196/521

ATOM	19398	C5*	G A 929	196.741	128.720	-30.860	1.00	65.85	C	ATOM	19448	C1*	C A 931	202.136	134.715	-21.207	1.00	64.71	C
ATOM	19399	C4*	G A 929	196.195	129.892	-30.102	1.00	65.85	C	ATOM	19449	N1	C A 931	202.370	133.282	-21.393	1.00	32.98	N
ATOM	19400	O4*	G A 929	195.353	129.413	-29.027	1.00	65.85	C	ATOM	19450	C2	C A 931	202.650	132.508	-20.260	1.00	32.98	C
ATOM	19401	C3*	G A 929	197.227	130.757	-29.405	1.00	65.85	C	ATOM	19451	O2	C A 931	202.635	133.047	-19.150	1.00	32.98	O
ATOM	19402	O3*	G A 929	197.814	131.716	-30.261	1.00	65.85	O	ATOM	19452	N3	C A 931	202.930	131.200	-20.399	1.00	32.98	N
ATOM	19403	C2*	G A 929	196.413	131.408	-28.301	1.00	65.85	C	ATOM	19453	C4	C A 931	202.933	130.650	-21.605	1.00	32.98	C
ATOM	19404	O2*	G A 929	195.652	132.503	-28.768	1.00	65.85	C	ATOM	19454	N4	C A 931	203.242	129.373	-21.687	1.00	32.98	N
ATOM	19405	C1*	G A 929	195.470	130.275	-27.914	1.00	65.85	C	ATOM	19455	C5	C A 931	202.624	131.397	-22.779	1.00	32.98	C
ATOM	19406	N9	G A 929	195.987	129.516	-26.782	1.00	41.04	N	ATOM	19456	C6	C A 931	202.346	132.703	-22.628	1.00	32.98	C
ATOM	19407	C8	G A 929	196.549	128.262	-26.783	1.00	41.04	C	ATOM	19457	P	C A 932	205.940	137.217	-22.028	1.00	48.19	P
ATOM	19408	N7	G A 929	196.890	127.854	-25.589	1.00	41.04	N	ATOM	19458	O1P	C A 932	206.596	138.510	-22.419	1.00	33.74	O
ATOM	19409	C5	G A 929	196.542	128.910	-24.753	1.00	41.04	C	ATOM	19459	O2P	C A 932	206.442	135.918	-22.598	1.00	33.74	O
ATOM	19410	C6	G A 929	196.668	129.062	-23.335	1.00	41.04	C	ATOM	19460	O5*	C A 932	205.975	137.106	-20.439	1.00	48.19	O
ATOM	19411	O6	G A 929	197.119	128.258	-22.504	1.00	41.04	O	ATOM	19461	C5*	C A 932	207.097	136.568	-19.771	1.00	48.19	C
ATOM	19412	N1	G A 929	196.191	130.301	-22.914	1.00	41.04	N	ATOM	19462	C4*	C A 932	206.703	136.129	-18.397	1.00	48.19	C
ATOM	19413	C2	G A 929	195.645	131.262	-23.737	1.00	41.04	C	ATOM	19463	O4*	C A 932	205.736	135.063	-18.493	1.00	48.19	O
ATOM	19414	N2	G A 929	195.211	132.378	-23.156	1.00	41.04	N	ATOM	19464	C3*	C A 932	207.857	135.527	-17.638	1.00	48.19	C
ATOM	19415	N3	G A 929	195.524	131.133	-25.041	1.00	41.04	N	ATOM	19465	O3*	C A 932	208.612	136.539	-17.019	1.00	48.19	O
ATOM	19416	C4	G A 929	195.989	129.943	-25.479	1.00	41.04	C	ATOM	19466	C2*	C A 932	207.184	134.576	-16.671	1.00	48.19	C
ATOM	19417	P	C A 930	199.252	132.312	-29.888	1.00	71.60	P	ATOM	19467	O2*	C A 932	206.745	135.221	-15.501	1.00	48.19	O
ATOM	19418	O1P	C A 930	199.557	133.330	-30.911	1.00	39.05	O	ATOM	19468	N1	C A 932	206.001	134.084	-17.506	1.00	48.19	C
ATOM	19419	O2P	C A 930	200.211	131.197	-29.640	1.00	39.05	O	ATOM	19469	C1*	C A 932	206.269	132.802	-18.186	1.00	33.74	N
ATOM	19420	O5*	C A 930	199.008	133.049	-28.499	1.00	71.60	O	ATOM	19470	C2	C A 932	206.601	131.668	-17.414	1.00	33.74	C
ATOM	19421	C5*	C A 930	198.222	134.243	-28.438	1.00	71.60	C	ATOM	19471	O2	C A 932	206.691	131.779	-16.184	1.00	33.74	O
ATOM	19422	C4*	C A 930	198.196	134.787	-27.032	1.00	71.60	C	ATOM	19472	N3	C A 932	206.826	130.489	-18.030	1.00	33.74	N
ATOM	19423	O3*	C A 930	197.488	133.881	-26.150	1.00	71.60	O	ATOM	19473	C4	C A 932	206.746	130.409	-19.357	1.00	33.74	C
ATOM	19424	C4*	C A 930	199.527	134.969	-26.332	1.00	71.60	C	ATOM	19474	N4	C A 932	206.975	129.231	-19.919	1.00	33.74	N
ATOM	19425	O3*	C A 930	200.202	136.135	-26.717	1.00	71.60	O	ATOM	19475	C5	C A 932	206.426	131.541	-20.168	1.00	33.74	C
ATOM	19426	C2*	C A 930	199.117	135.040	-24.871	1.00	71.60	C	ATOM	19476	C6	C A 932	206.198	132.705	-19.546	1.00	33.74	C
ATOM	19427	O2*	C A 930	198.642	136.309	-24.463	1.00	71.60	O	ATOM	19477	P	G A 933	210.176	136.640	-17.330	1.00	48.07	P
ATOM	19428	C1*	C A 930	197.980	134.030	-24.831	1.00	71.60	C	ATOM	19478	O1P	G A 933	210.606	137.973	-16.871	1.00	29.72	O
ATOM	19429	N1	C A 930	198.518	132.754	-24.356	1.00	39.05	N	ATOM	19479	O2P	G A 933	210.434	136.246	-18.747	1.00	29.72	O
ATOM	19430	C2	C A 930	198.700	132.591	-22.974	1.00	39.05	C	ATOM	19480	O5*	G A 933	210.777	135.550	-16.345	1.00	48.07	O
ATOM	19431	O2	C A 930	198.387	133.518	-22.216	1.00	39.05	O	ATOM	19481	C5*	G A 933	210.664	135.740	-14.942	1.00	48.07	C
ATOM	19432	N3	C A 930	199.219	131.440	-22.505	1.00	39.05	N	ATOM	19482	C4*	G A 933	211.012	134.481	-14.214	1.00	48.07	C
ATOM	19433	C4	C A 930	199.563	130.475	-23.355	1.00	39.05	C	ATOM	19483	O4*	G A 933	210.059	133.471	-14.582	1.00	48.07	O
ATOM	19434	N4	C A 930	200.082	129.361	-22.845	1.00	39.05	N	ATOM	19484	C3*	G A 933	212.362	133.869	-14.535	1.00	48.07	C
ATOM	19435	C5	C A 930	199.388	130.612	-24.768	1.00	39.05	C	ATOM	19485	O3*	G A 933	213.408	134.477	-13.785	1.00	48.07	O
ATOM	19436	C6	C A 930	198.860	131.754	-25.220	1.00	39.05	C	ATOM	19486	C2*	G A 933	212.150	132.402	-14.183	1.00	48.07	C
ATOM	19437	P	C A 931	201.799	136.188	-26.599	1.00	64.71	P	ATOM	19487	O1*	G A 933	212.316	132.113	-12.813	1.00	48.07	O
ATOM	19438	O1P	C A 931	202.123	137.592	-27.026	1.00	32.98	O	ATOM	19488	C1*	G A 933	210.683	132.203	-14.561	1.00	48.07	C
ATOM	19439	O2P	C A 931	202.411	135.032	-27.303	1.00	32.98	O	ATOM	19489	N9	G A 933	210.496	131.561	-15.860	1.00	29.72	N
ATOM	19440	O5*	C A 931	202.103	135.950	-25.053	1.00	64.71	O	ATOM	19490	C8	G A 933	210.333	132.158	-17.095	1.00	29.72	C
ATOM	19441	C5*	C A 931	201.688	136.909	-24.088	1.00	64.71	C	ATOM	19491	N7	G A 933	210.189	131.297	-18.064	1.00	29.72	N
ATOM	19442	C4*	C A 931	202.096	136.491	-22.699	1.00	64.71	C	ATOM	19492	C5	G A 933	210.263	130.062	-17.433	1.00	29.72	C
ATOM	19443	O4*	C A 931	201.455	135.250	-22.319	1.00	64.71	O	ATOM	19493	C6	G A 933	210.178	128.752	-17.965	1.00	29.72	C
ATOM	19444	C3*	C A 931	203.553	136.183	-22.421	1.00	64.71	C	ATOM	19494	O6	G A 933	210.006	128.411	-19.135	1.00	29.72	O
ATOM	19445	O3*	C A 931	204.359	137.355	-22.338	1.00	64.71	O	ATOM	19495	N1	G A 933	210.311	127.786	-16.969	1.00	29.72	N
ATOM	19446	C2*	C A 931	203.454	135.468	-21.073	1.00	64.71	C	ATOM	19496	C2	G A 933	210.498	128.051	-15.629	1.00	29.72	C
ATOM	19447	O2*	C A 931	203.311	136.346	-19.977	1.00	64.71	O	ATOM	19497	N2	G A 933	210.599	126.986	-14.821	1.00	29.72	N



ATOM	19498	N3	G A 933	210.576	129.269	-15.122	1.00	29.72	N	ATOM	19548	O4*	C A 936	215.799	125.606	-21.348	1.00	44.33	O
ATOM	19499	C4	G A 933	210.452	130.215	-16.072	1.00	29.72	C	ATOM	19549	C3*	C A 936	217.873	125.201	-22.304	1.00	44.33	C
ATOM	19500	P	C A 934	214.599	135.244	-14.558	1.00	48.26	P	ATOM	19550	O3*	C A 936	218.744	124.220	-22.849	1.00	44.33	O
ATOM	19501	O1P	C A 934	215.291	136.097	-13.553	1.00	61.07	O	ATOM	19551	C2*	C A 936	216.998	125.852	-23.368	1.00	44.33	C
ATOM	19502	O2P	C A 934	214.064	135.870	-15.805	1.00	61.07	O	ATOM	19552	O2*	C A 936	216.455	124.927	-24.289	1.00	44.33	O
ATOM	19503	O5*	C A 934	215.585	134.062	-14.960	1.00	48.26	O	ATOM	19553	C1*	C A 936	215.842	126.381	-22.530	1.00	44.33	C
ATOM	19504	C4*	C A 934	216.133	133.184	-13.960	1.00	48.26	C	ATOM	19554	N1	C A 936	216.048	127.797	-22.186	1.00	34.16	N
ATOM	19505	C5*	C A 934	216.662	131.935	-14.614	1.00	48.26	C	ATOM	19555	C2	C A 936	215.948	128.755	-23.213	1.00	34.16	C
ATOM	19506	O4*	C A 934	217.704	132.287	-15.561	1.00	48.26	O	ATOM	19556	O2	C A 936	215.664	128.380	-24.357	1.00	34.16	O
ATOM	19507	C3*	C A 934	217.266	130.873	-13.699	1.00	48.26	C	ATOM	19557	N3	C A 936	216.161	130.054	-22.929	1.00	34.16	N
ATOM	19508	O3*	C A 934	216.919	129.612	-14.238	1.00	48.26	O	ATOM	19558	C4	C A 936	216.457	130.422	-21.684	1.00	34.16	C
ATOM	19509	C2*	C A 934	218.765	131.028	-13.931	1.00	48.26	C	ATOM	19559	N4	C A 936	216.664	131.719	-21.456	1.00	34.16	N
ATOM	19510	O2*	C A 934	219.478	129.827	-13.740	1.00	48.26	O	ATOM	19560	C5	C A 936	216.554	129.476	-20.616	1.00	34.16	C
ATOM	19511	C1*	C A 934	218.774	131.388	-15.409	1.00	48.26	C	ATOM	19561	C6	C A 936	216.344	128.187	-20.908	1.00	34.16	C
ATOM	19512	N1	C A 934	219.995	131.977	-15.970	1.00	61.07	N	ATOM	19562	P	A A 937	220.273	124.606	-23.176	1.00	42.04	P
ATOM	19513	O2	C A 934	220.318	131.687	-17.300	1.00	61.07	O	ATOM	19563	O1P	A A 937	220.833	123.404	-23.837	1.00	44.31	O
ATOM	19514	O2	C A 934	219.566	130.941	-17.960	1.00	61.07	O	ATOM	19564	O2P	A A 937	220.946	125.136	-21.966	1.00	44.31	O
ATOM	19515	N3	C A 934	221.437	132.226	-17.837	1.00	61.07	N	ATOM	19565	O5*	A A 937	220.155	125.767	-24.265	1.00	42.04	O
ATOM	19516	C4	C A 934	222.209	133.029	-17.103	1.00	61.07	C	ATOM	19566	C5*	A A 937	219.907	125.449	-25.642	1.00	42.04	C
ATOM	19517	N4	C A 934	223.287	133.560	-17.681	1.00	61.07	N	ATOM	19567	O4*	A A 937	219.608	126.696	-26.430	1.00	42.04	C
ATOM	19518	C6	C A 934	221.907	133.332	-15.748	1.00	61.07	C	ATOM	19568	O4*	A A 937	218.589	127.427	-25.705	1.00	42.04	C
ATOM	19519	C6	C A 934	220.801	132.791	-15.226	1.00	61.07	C	ATOM	19569	C3*	A A 937	220.728	127.714	-26.595	1.00	42.04	C
ATOM	19520	P	A A 935	215.732	128.762	-13.586	1.00	56.93	P	ATOM	19570	O3*	A A 937	221.666	127.422	-27.631	1.00	42.04	O
ATOM	19521	O1P	A A 935	214.674	129.712	-13.167	1.00	32.00	O	ATOM	19571	C2*	A A 937	219.948	129.004	-26.818	1.00	42.04	C
ATOM	19522	O2P	A A 935	216.326	127.838	-12.572	1.00	32.00	O	ATOM	19572	C1*	A A 937	219.379	129.124	-28.106	1.00	42.04	O
ATOM	19523	O5*	A A 935	215.168	127.958	-14.839	1.00	56.93	C	ATOM	19573	O2*	A A 937	218.810	128.825	-25.826	1.00	42.04	C
ATOM	19524	C5*	A A 935	214.683	126.624	-14.711	1.00	56.93	C	ATOM	19574	N9	A A 937	219.179	129.360	-24.508	1.00	44.31	N
ATOM	19525	C4*	A A 935	214.259	126.113	-16.058	1.00	56.93	C	ATOM	19575	C8	A A 937	219.521	128.673	-23.363	1.00	44.31	C
ATOM	19526	O4*	A A 935	213.178	126.938	-16.554	1.00	56.93	C	ATOM	19576	N7	A A 937	219.802	129.450	-22.346	1.00	44.31	N
ATOM	19527	C3*	A A 935	215.307	126.204	-17.151	1.00	56.93	C	ATOM	19577	C5	A A 937	219.631	130.732	-22.852	1.00	44.31	C
ATOM	19528	O3*	A A 935	216.201	125.107	-17.134	1.00	56.93	O	ATOM	19578	C6	A A 937	219.771	131.997	-22.274	1.00	44.31	C
ATOM	19529	C2*	A A 935	214.466	126.233	-18.415	1.00	56.93	C	ATOM	19579	N6	A A 937	220.098	132.191	-20.999	1.00	44.31	N
ATOM	19530	O2*	A A 935	214.021	124.937	-18.740	1.00	56.93	C	ATOM	19580	N1	A A 937	219.553	133.074	-23.057	1.00	44.31	N
ATOM	19531	C1*	A A 935	213.267	127.057	-17.963	1.00	56.93	C	ATOM	19581	C2	A A 937	219.205	132.879	-24.331	1.00	44.31	C
ATOM	19532	N9	A A 935	213.366	128.476	-18.306	1.00	32.00	N	ATOM	19582	N3	A A 937	219.026	131.741	-24.986	1.00	44.31	N
ATOM	19533	C8	A A 935	213.541	129.547	-17.465	1.00	32.00	C	ATOM	19583	C4	A A 937	219.258	130.691	-24.181	1.00	44.31	C
ATOM	19534	N7	A A 935	213.556	130.706	-18.082	1.00	32.00	N	ATOM	19584	P	A A 938	223.251	127.516	-27.311	1.00	44.81	P
ATOM	19535	C5	A A 935	213.387	130.372	-19.418	1.00	32.00	C	ATOM	19585	O1P	A A 938	224.017	127.085	-28.519	1.00	46.64	O
ATOM	19536	C6	A A 935	213.310	131.149	-20.588	1.00	32.00	C	ATOM	19586	O2P	A A 938	223.489	126.824	-26.008	1.00	46.64	O
ATOM	19537	N6	A A 935	213.382	132.477	-20.610	1.00	32.00	N	ATOM	19587	O5*	A A 938	223.506	129.075	-27.111	1.00	44.81	O
ATOM	19538	N1	A A 935	213.148	130.505	-21.756	1.00	32.00	N	ATOM	19588	C5*	A A 938	223.424	129.985	-28.222	1.00	44.81	C
ATOM	19539	C2	A A 935	213.066	129.173	-21.744	1.00	32.00	C	ATOM	19589	C4*	A A 938	223.794	131.371	-27.774	1.00	44.81	C
ATOM	19540	N3	A A 935	213.122	128.333	-20.712	1.00	32.00	N	ATOM	19590	O4*	A A 938	222.812	131.806	-26.805	1.00	44.81	O
ATOM	19541	C4	A A 935	213.282	129.004	-19.567	1.00	32.00	C	ATOM	19591	C3*	A A 938	225.125	131.458	-27.048	1.00	44.81	C
ATOM	19542	P	C A 936	217.708	125.310	-17.666	1.00	44.33	P	ATOM	19592	O3*	A A 938	226.225	131.634	-27.936	1.00	44.81	O
ATOM	19543	O1P	C A 936	218.417	124.056	-17.304	1.00	34.16	O	ATOM	19593	C2*	A A 938	224.919	132.638	-26.105	1.00	44.81	C
ATOM	19544	O2P	C A 936	218.249	126.618	-17.201	1.00	34.16	O	ATOM	19594	O2*	A A 938	225.122	133.892	-26.727	1.00	44.81	O
ATOM	19545	O5*	C A 936	217.545	125.403	-19.251	1.00	44.33	O	ATOM	19595	C1*	A A 938	223.446	132.480	-25.738	1.00	44.81	C
ATOM	19546	C5*	C A 936	217.231	124.234	-20.000	1.00	44.33	C	ATOM	19596	N9	A A 938	223.254	131.673	-24.534	1.00	46.64	N
ATOM	19547	C4*	C A 936	216.827	124.593	-21.395	1.00	44.33	C	ATOM	19597	C8	A A 938	222.865	130.351	-24.452	1.00	46.64	C



Table 1: Sheet 198/521

ATOM	19598	N7	A	A	938	222.755	129.908	-23.225	1.00	46.64	N	ATOM	19648	C6	C	A	940	230.238	130.817	-19.821	1.00	60.37	C
ATOM	19599	C5	A	A	938	223.099	131.007	-22.445	1.00	46.64	C	ATOM	19649	P	G	A	941	235.682	130.224	-18.918	1.00	40.79	P
ATOM	19600	C6	A	A	938	223.162	131.196	-21.058	1.00	46.64	C	ATOM	19650	O1P	G	A	941	237.154	130.453	-18.868	1.00	62.67	O
ATOM	19601	N6	A	A	938	222.862	130.246	-20.170	1.00	46.64	N	ATOM	19651	O2P	G	A	941	235.114	129.273	-19.924	1.00	62.67	O
ATOM	19602	N1	A	A	938	223.543	132.408	-20.605	1.00	46.64	N	ATOM	19652	O5*	G	A	941	235.219	129.767	-17.464	1.00	40.79	O
ATOM	19603	C2	A	A	938	223.829	133.356	-21.492	1.00	46.64	C	ATOM	19653	C5*	G	A	941	235.765	130.388	-16.300	1.00	40.79	C
ATOM	19604	N3	A	A	938	223.799	133.306	-22.820	1.00	46.64	N	ATOM	19654	C4*	G	A	941	235.078	129.878	-15.058	1.00	40.79	C
ATOM	19605	C4	A	A	938	223.420	132.092	-23.238	1.00	46.64	C	ATOM	19655	O4*	G	A	941	233.654	130.133	-15.166	1.00	40.79	O
ATOM	19606	P	G	A	939	227.600	130.848	-27.661	1.00	67.31	P	ATOM	19656	C3*	G	A	941	235.163	128.383	-14.784	1.00	40.79	C
ATOM	19607	O1P	G	A	939	228.510	131.309	-28.725	1.00	50.50	O	ATOM	19657	O3*	G	A	941	236.340	127.974	-14.122	1.00	40.79	O
ATOM	19608	O2P	G	A	939	227.332	129.399	-27.495	1.00	50.50	O	ATOM	19658	C2*	G	A	941	233.971	128.151	-13.880	1.00	40.79	C
ATOM	19609	O5*	G	A	939	228.110	131.372	-26.242	1.00	67.31	O	ATOM	19659	O2*	G	A	941	234.265	128.463	-12.526	1.00	40.79	O
ATOM	19610	C5*	G	A	939	228.492	132.740	-26.056	1.00	67.31	C	ATOM	19660	C1*	G	A	941	232.942	129.109	-14.488	1.00	40.79	C
ATOM	19611	C4*	G	A	939	228.687	133.064	-24.583	1.00	67.31	C	ATOM	19661	N9	G	A	941	232.092	128.395	-15.444	1.00	62.67	N
ATOM	19612	O4*	G	A	939	227.447	132.899	-23.847	1.00	67.31	O	ATOM	19662	C8	G	A	941	232.105	128.472	-16.817	1.00	62.67	C
ATOM	19613	C3*	G	A	939	229.702	132.266	-23.773	1.00	67.31	C	ATOM	19663	N7	G	A	941	231.239	127.674	-17.381	1.00	62.67	N
ATOM	19614	O3*	G	A	939	231.028	132.759	-23.967	1.00	67.31	O	ATOM	19664	C5	G	A	941	230.617	127.037	-16.317	1.00	62.67	C
ATOM	19615	C2*	G	A	939	229.265	132.535	-22.334	1.00	67.31	C	ATOM	19665	C6	G	A	941	229.599	126.057	-16.300	1.00	62.67	C
ATOM	19616	O2*	G	A	939	229.843	133.709	-21.794	1.00	67.31	O	ATOM	19666	O6	G	A	941	229.015	125.535	-17.251	1.00	62.67	O
ATOM	19617	C1*	G	A	939	227.748	132.716	-22.475	1.00	67.31	C	ATOM	19667	N1	G	A	941	229.270	125.688	-15.006	1.00	62.67	N
ATOM	19618	N9	G	A	939	227.000	131.578	-21.944	1.00	50.50	N	ATOM	19668	C2	G	A	941	229.840	126.198	-13.875	1.00	62.67	C
ATOM	19619	C8	G	A	939	226.498	130.502	-22.629	1.00	50.50	C	ATOM	19669	N2	G	A	941	229.384	125.728	-12.723	1.00	62.67	N
ATOM	19620	N7	G	A	939	225.953	129.611	-21.849	1.00	50.50	N	ATOM	19670	N3	G	A	941	230.784	127.103	-13.874	1.00	62.67	N
ATOM	19621	C5	G	A	939	226.088	130.141	-20.578	1.00	50.50	C	ATOM	19671	C4	G	A	941	231.124	127.477	-15.119	1.00	62.67	C
ATOM	19622	C6	G	A	939	225.689	129.624	-19.330	1.00	50.50	C	ATOM	19672	P	G	A	942	236.896	126.487	-14.364	1.00	44.43	P
ATOM	19623	O6	G	A	939	225.143	128.543	-19.088	1.00	50.50	O	ATOM	19673	O1P	G	A	942	238.159	126.359	-13.590	1.00	59.07	O
ATOM	19624	N1	G	A	939	225.995	130.499	-18.292	1.00	50.50	N	ATOM	19674	O2P	G	A	942	236.897	126.242	-15.832	1.00	59.07	O
ATOM	19625	C2	G	A	939	226.620	131.715	-18.444	1.00	50.50	C	ATOM	19675	O5*	G	A	942	235.799	125.520	-13.718	1.00	44.43	O
ATOM	19626	N2	G	A	939	226.842	132.429	-17.325	1.00	50.50	N	ATOM	19676	C5*	G	A	942	235.636	125.479	-12.296	1.00	44.43	C
ATOM	19627	N3	G	A	939	227.003	132.199	-19.609	1.00	50.50	N	ATOM	19677	O4*	G	A	942	234.399	124.704	-11.883	1.00	44.43	O
ATOM	19628	C4	G	A	939	226.708	131.365	-20.624	1.00	50.50	C	ATOM	19678	C4*	G	A	942	233.251	125.001	-12.719	1.00	44.43	C
ATOM	19629	P	C	A	940	232.293	131.811	-23.669	1.00	49.50	P	ATOM	19679	C3*	G	A	942	234.396	123.189	-11.878	1.00	44.43	C
ATOM	19630	O1P	C	A	940	233.437	132.488	-24.324	1.00	60.37	O	ATOM	19680	O3*	G	A	942	235.101	122.644	-10.768	1.00	44.43	O
ATOM	19631	O2P	C	A	940	231.958	130.409	-24.023	1.00	60.37	O	ATOM	19681	C2*	G	A	942	232.913	122.911	-11.670	1.00	44.43	C
ATOM	19632	O5*	C	A	940	232.501	131.870	-22.092	1.00	49.50	O	ATOM	19682	O2*	G	A	942	232.549	123.037	-10.315	1.00	44.43	O
ATOM	19633	C5*	C	A	940	233.178	132.982	-21.499	1.00	49.50	C	ATOM	19683	C1*	G	A	942	232.239	124.058	-12.426	1.00	44.43	C
ATOM	19634	C4*	C	A	940	233.073	132.937	-19.993	1.00	49.50	C	ATOM	19684	N9	G	A	942	231.621	123.541	-13.646	1.00	59.07	N
ATOM	19635	O4*	C	A	940	231.685	133.051	-19.577	1.00	49.50	O	ATOM	19685	C8	G	A	942	231.929	123.820	-14.955	1.00	59.07	C
ATOM	19636	C3*	C	A	940	233.557	131.679	-19.304	1.00	49.50	C	ATOM	19686	N7	G	A	942	231.244	123.101	-15.804	1.00	59.07	N
ATOM	19637	O3*	C	A	940	234.958	131.642	-19.146	1.00	49.50	O	ATOM	19687	C5	G	A	942	230.419	122.316	-15.006	1.00	59.07	C
ATOM	19638	C2*	C	A	940	232.846	131.752	-17.960	1.00	49.50	C	ATOM	19688	C6	G	A	942	229.469	121.319	-15.356	1.00	59.07	C
ATOM	19639	O2*	C	A	940	233.491	132.590	-17.024	1.00	49.50	O	ATOM	19689	O6	G	A	942	229.165	120.901	-16.475	1.00	59.07	O
ATOM	19640	C1*	C	A	940	231.500	132.355	-18.357	1.00	49.50	C	ATOM	19690	N1	G	A	942	228.849	120.786	-14.234	1.00	59.07	N
ATOM	19641	N1	C	A	940	230.532	131.271	-18.566	1.00	60.37	N	ATOM	19691	C2	G	A	942	229.106	121.151	-12.945	1.00	59.07	C
ATOM	19642	C2	C	A	940	229.941	130.675	-17.441	1.00	60.37	C	ATOM	19692	N2	G	A	942	228.385	120.532	-12.002	1.00	59.07	N
ATOM	19643	O2	C	A	940	230.177	131.143	-16.309	1.00	60.37	O	ATOM	19693	N3	G	A	942	230.001	122.058	-12.603	1.00	59.07	N
ATOM	19644	N3	C	A	940	229.130	129.609	-17.614	1.00	60.37	N	ATOM	19694	C4	G	A	942	230.616	122.597	-13.678	1.00	59.07	C
ATOM	19645	C4	C	A	940	228.883	129.152	-18.841	1.00	60.37	C	ATOM	19695	P	U	A	943	235.402	121.060	-10.710	1.00	40.40	P
ATOM	19646	N4	C	A	940	228.102	128.081	-18.956	1.00	60.37	N	ATOM	19696	O1P	U	A	943	236.216	120.710	-9.504	1.00	48.30	O
ATOM	19647	C5	C	A	940	229.429	129.770	-20.001	1.00	60.37	C	ATOM	19697	O2P	U	A	943	235.891	120.659	-12.054	1.00	48.30	O



ATOM	19698	O5*	U A 943	233.963	120.420	-10.479	1.00	40.40	O	ATOM	19748	O2*	G A 945	239.651	109.813	-12.693	1.00	41.76	O
ATOM	19699	C5*	U A 943	233.330	120.507	-9.189	1.00	40.40	C	ATOM	19749	Cl*	G A 945	238.401	111.807	-13.151	1.00	41.76	C
ATOM	19700	C4*	U A 943	232.187	119.530	-9.084	1.00	40.40	C	ATOM	19750	N9	G A 945	238.246	113.220	-12.800	1.00	55.66	N
ATOM	19701	O4*	U A 943	231.101	119.928	-9.963	1.00	40.40	O	ATOM	19751	C8	G A 945	237.107	113.978	-12.949	1.00	55.66	C
ATOM	19702	C3*	U A 943	232.504	118.101	-9.480	1.00	40.40	C	ATOM	19752	N7	G A 945	237.255	115.213	-12.552	1.00	55.66	N
ATOM	19703	O3*	U A 943	233.090	117.368	-8.428	1.00	40.40	O	ATOM	19753	C5	G A 945	238.573	115.280	-12.123	1.00	55.66	C
ATOM	19704	C2*	U A 943	231.129	117.566	-9.834	1.00	40.40	C	ATOM	19754	C6	G A 945	239.310	116.371	-11.609	1.00	55.66	C
ATOM	19705	O2*	U A 943	230.398	117.263	-8.662	1.00	40.40	O	ATOM	19755	O6	G A 945	238.945	117.537	-11.456	1.00	55.66	O
ATOM	19706	Cl*	U A 943	230.504	118.776	-10.531	1.00	40.40	C	ATOM	19756	N1	G A 945	240.609	116.000	-11.278	1.00	55.66	N
ATOM	19707	N1	U A 943	230.822	118.768	-11.968	1.00	48.30	N	ATOM	19757	C2	G A 945	241.140	114.744	-11.442	1.00	55.66	C
ATOM	19708	C2	U A 943	230.185	117.839	-12.781	1.00	48.30	C	ATOM	19758	N2	G A 945	242.415	114.584	-11.060	1.00	55.66	N
ATOM	19709	O2	U A 943	229.363	117.044	-12.368	1.00	48.30	O	ATOM	19759	N3	G A 945	240.469	113.720	-11.942	1.00	55.66	N
ATOM	19710	N3	U A 943	230.560	117.871	-14.100	1.00	48.30	N	ATOM	19760	C4	G A 945	239.198	114.057	-12.259	1.00	55.66	C
ATOM	19711	C4	U A 943	231.484	118.707	-14.678	1.00	48.30	C	ATOM	19761	P	A A 946	238.627	109.173	-9.108	1.00	43.14	P
ATOM	19712	O4	U A 943	231.785	118.550	-15.856	1.00	48.30	O	ATOM	19762	OlP	A A 946	239.034	107.768	-8.778	1.00	45.92	O
ATOM	19713	C5	U A 943	232.084	119.643	-13.781	1.00	48.30	C	ATOM	19763	O2P	A A 946	237.657	109.880	-8.208	1.00	45.92	O
ATOM	19714	C6	U A 943	231.743	119.644	-12.494	1.00	48.30	C	ATOM	19764	O5*	A A 946	239.940	110.066	-9.154	1.00	43.14	O
ATOM	19715	P	G A 944	233.962	116.065	-8.771	1.00	50.03	P	ATOM	19765	C5*	A A 946	241.192	109.508	-9.518	1.00	43.14	C
ATOM	19716	OlP	G A 944	234.086	115.257	-7.518	1.00	50.53	O	ATOM	19766	C4*	A A 946	242.295	110.347	-8.951	1.00	43.14	C
ATOM	19717	O2P	G A 944	235.186	116.484	-9.513	1.00	50.53	O	ATOM	19767	O4*	A A 946	242.167	111.698	-9.455	1.00	43.14	O
ATOM	19718	O5*	G A 944	233.047	115.256	-9.786	1.00	50.03	O	ATOM	19768	C3*	A A 946	242.298	110.490	-7.441	1.00	43.14	O
ATOM	19719	C5*	G A 944	231.973	114.444	-9.313	1.00	50.03	C	ATOM	19769	O3*	A A 946	243.012	109.400	-6.865	1.00	43.14	O
ATOM	19720	C4*	G A 944	231.536	113.493	-10.390	1.00	50.03	C	ATOM	19770	C2*	A A 946	243.048	111.797	-7.246	1.00	43.14	C
ATOM	19721	O4*	G A 944	230.973	114.236	-11.500	1.00	50.03	O	ATOM	19771	O2*	A A 946	244.434	111.595	-7.334	1.00	43.14	O
ATOM	19722	C3*	G A 944	232.649	112.665	-10.997	1.00	50.03	C	ATOM	19772	Cl*	A A 946	242.635	112.601	-8.480	1.00	43.14	C
ATOM	19723	O3*	G A 944	232.872	111.497	-10.224	1.00	50.03	O	ATOM	19773	N9	A A 946	241.623	113.638	-8.254	1.00	45.92	N
ATOM	19724	C2*	G A 944	232.067	112.322	-12.354	1.00	50.03	C	ATOM	19774	C8	A A 946	240.288	113.618	-8.568	1.00	45.92	C
ATOM	19725	O2*	G A 944	231.122	111.282	-12.193	1.00	50.03	O	ATOM	19775	N7	A A 946	239.661	114.731	-8.276	1.00	45.92	N
ATOM	19726	Cl*	G A 944	231.325	113.612	-12.714	1.00	50.03	C	ATOM	19776	C5	A A 946	240.644	115.534	-7.717	1.00	45.92	C
ATOM	19727	N9	G A 944	232.132	114.564	-13.473	1.00	50.53	N	ATOM	19777	C6	A A 946	240.620	116.837	-7.205	1.00	45.92	C
ATOM	19728	C8	G A 944	232.811	115.634	-12.952	1.00	50.53	C	ATOM	19778	N6	A A 946	239.534	117.594	-7.158	1.00	45.92	N
ATOM	19729	N7	G A 944	233.438	116.334	-13.856	1.00	50.53	N	ATOM	19779	N1	A A 946	241.769	117.343	-6.730	1.00	45.92	N
ATOM	19730	C5	G A 944	233.162	115.685	-15.050	1.00	50.53	C	ATOM	19780	C2	A A 946	242.864	116.583	-6.761	1.00	45.92	C
ATOM	19731	C6	G A 944	233.570	115.992	-16.369	1.00	50.53	C	ATOM	19781	N3	A A 946	243.015	115.346	-7.211	1.00	45.92	N
ATOM	19732	O6	G A 944	234.294	116.921	-16.755	1.00	50.53	O	ATOM	19782	C4	A A 946	241.853	114.871	-7.686	1.00	45.92	C
ATOM	19733	N1	G A 944	233.054	115.087	-17.289	1.00	50.53	N	ATOM	19783	P	G A 947	242.561	108.788	-5.443	1.00	46.82	P
ATOM	19734	C2	G A 944	232.264	114.022	-16.982	1.00	50.53	C	ATOM	19784	OlP	G A 947	243.354	107.549	-5.207	1.00	53.26	O
ATOM	19735	N2	G A 944	231.876	113.279	-18.018	1.00	50.53	N	ATOM	19785	O2P	G A 947	241.073	108.716	-5.399	1.00	53.26	O
ATOM	19736	N3	G A 944	231.883	113.711	-15.751	1.00	50.53	N	ATOM	19786	O5*	G A 947	243.069	109.873	-4.392	1.00	46.82	O
ATOM	19737	C4	G A 944	232.362	114.586	-14.838	1.00	50.53	C	ATOM	19787	C5*	G A 947	244.467	109.940	-4.035	1.00	46.82	C
ATOM	19738	P	G A 945	234.242	111.334	-9.391	1.00	41.76	P	ATOM	19788	C4*	G A 947	244.757	111.190	-3.247	1.00	46.82	C
ATOM	19739	OlP	G A 945	233.984	110.416	-8.224	1.00	55.66	O	ATOM	19789	O4*	G A 947	244.489	112.359	-4.060	1.00	46.82	O
ATOM	19740	O2P	G A 945	234.812	112.685	-9.150	1.00	55.66	O	ATOM	19790	C3*	G A 947	243.906	111.385	-2.011	1.00	46.82	C
ATOM	19741	O5*	G A 945	235.209	110.549	-10.378	1.00	41.76	O	ATOM	19791	O3*	G A 947	244.407	110.625	-0.914	1.00	46.82	O
ATOM	19742	C5*	G A 945	235.425	110.993	-11.718	1.00	41.76	C	ATOM	19792	C2*	G A 947	243.969	112.893	-1.807	1.00	46.82	C
ATOM	19743	C4*	G A 945	236.727	110.443	-12.241	1.00	41.76	C	ATOM	19793	O2*	G A 947	245.162	113.331	-1.196	1.00	46.82	O
ATOM	19744	O4*	G A 945	237.105	111.283	-13.359	1.00	41.76	O	ATOM	19794	Cl*	G A 947	243.984	113.398	-3.246	1.00	46.82	C
ATOM	19745	C3*	G A 945	237.868	110.530	-11.233	1.00	41.76	C	ATOM	19795	N9	G A 947	242.649	113.742	-3.717	1.00	53.26	N
ATOM	19746	O3*	G A 945	238.079	109.259	-10.625	1.00	41.76	O	ATOM	19796	C8	G A 947	241.759	112.916	-4.360	1.00	53.26	C
ATOM	19747	C2*	G A 945	239.062	110.934	-12.079	1.00	41.76	C	ATOM	19797	N7	G A 947	240.640	113.512	-4.671	1.00	53.26	N



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ATOM	19798	C5	G A 947	240.797	114.809	-4.202	1.00	53.26	C	ATOM	19848	P	U A 950	236.855	114.979	8.294	1.00	60.94	P
ATOM	19799	O6	G A 947	239.916	115.909	-4.251	1.00	53.26	C	ATOM	19849	O1P	U A 950	236.958	115.171	9.766	1.00	51.32	O
ATOM	19800	C6	G A 947	238.786	115.966	-4.737	1.00	53.26	C	ATOM	19850	O2P	U A 950	237.276	113.684	7.698	1.00	51.32	O
ATOM	19801	N1	G A 947	240.467	117.031	-3.652	1.00	53.26	N	ATOM	19851	O5*	U A 950	235.360	115.292	7.834	1.00	60.94	O
ATOM	19802	C2	G A 947	241.704	117.087	-3.072	1.00	53.26	C	ATOM	19852	C5*	U A 950	234.757	116.566	8.128	1.00	60.94	C
ATOM	19803	N2	G A 947	242.044	118.257	-2.547	1.00	53.26	N	ATOM	19853	C4*	U A 950	233.468	116.753	7.349	1.00	60.94	C
ATOM	19804	N3	G A 947	242.539	116.068	-3.015	1.00	53.26	N	ATOM	19854	O4*	U A 950	233.744	116.820	5.924	1.00	60.94	O
ATOM	19805	C4	G A 947	242.027	114.967	-3.601	1.00	53.26	C	ATOM	19855	C3*	U A 950	232.402	115.673	7.461	1.00	60.94	C
ATOM	19806	P	C A 948	243.369	109.969	0.132	1.00	51.96	P	ATOM	19856	O3*	U A 950	231.598	115.775	8.616	1.00	60.94	O
ATOM	19807	O1P	C A 948	244.121	109.111	1.092	1.00	59.83	O	ATOM	19857	C2*	U A 950	231.568	115.919	6.218	1.00	60.94	C
ATOM	19808	O2P	C A 948	242.241	109.366	-0.654	1.00	59.83	O	ATOM	19858	O2*	U A 950	230.700	117.020	6.410	1.00	60.94	O
ATOM	19809	O5*	C A 948	242.828	111.250	0.927	1.00	51.96	O	ATOM	19859	C1*	U A 950	232.646	116.281	5.198	1.00	60.94	C
ATOM	19810	C5*	C A 948	243.728	112.053	1.716	1.00	51.96	C	ATOM	19860	N1	U A 950	233.101	115.097	4.440	1.00	51.32	N
ATOM	19811	C4*	C A 948	243.169	113.441	1.951	1.00	51.96	C	ATOM	19861	C2	U A 950	232.387	114.739	3.305	1.00	51.32	C
ATOM	19812	O4*	C A 948	242.913	114.110	0.690	1.00	51.96	O	ATOM	19862	O2	U A 950	231.416	115.353	2.905	1.00	51.32	O
ATOM	19813	C3*	C A 948	241.857	113.558	2.698	1.00	51.96	C	ATOM	19863	N3	U A 950	232.853	113.629	2.653	1.00	51.32	N
ATOM	19814	O3*	C A 948	242.016	113.468	4.095	1.00	51.96	O	ATOM	19864	C4	U A 950	233.930	112.850	3.000	1.00	51.32	C
ATOM	19815	C2*	C A 948	241.352	114.937	2.289	1.00	51.96	C	ATOM	19865	O4	U A 950	234.212	111.865	2.309	1.00	51.32	O
ATOM	19816	O2*	C A 948	241.861	116.016	3.043	1.00	51.96	O	ATOM	19866	C5	U A 950	234.616	113.277	4.175	1.00	51.32	C
ATOM	19817	C1*	C A 948	241.842	115.031	0.847	1.00	51.96	C	ATOM	19867	C6	U A 950	234.192	114.357	4.839	1.00	51.32	C
ATOM	19818	N1	C A 948	240.753	114.674	-0.079	1.00	59.83	N	ATOM	19868	P	G A 951	231.003	114.435	9.267	1.00	51.02	P
ATOM	19819	C2	C A 948	239.775	115.639	-0.367	1.00	59.83	C	ATOM	19869	O1P	G A 951	230.629	114.760	10.663	1.00	51.92	O
ATOM	19820	O2	C A 948	239.875	116.778	0.140	1.00	59.83	O	ATOM	19870	O2P	G A 951	231.923	113.299	9.003	1.00	51.92	O
ATOM	19821	N3	C A 948	238.747	115.306	-1.185	1.00	59.83	N	ATOM	19871	O5*	G A 951	229.669	114.186	8.438	1.00	51.02	O
ATOM	19822	C4	C A 948	238.674	114.076	-1.705	1.00	59.83	C	ATOM	19872	C5*	G A 951	228.520	115.032	8.630	1.00	51.02	C
ATOM	19823	N4	C A 948	237.633	113.789	-2.490	1.00	59.83	N	ATOM	19873	C4*	G A 951	227.419	114.658	7.667	1.00	51.02	C
ATOM	19824	C5	C A 948	239.662	113.087	-1.439	1.00	59.83	C	ATOM	19874	O4*	G A 951	227.816	115.029	6.320	1.00	51.02	O
ATOM	19825	C6	C A 948	240.674	113.424	-0.632	1.00	59.83	C	ATOM	19875	C3*	G A 951	227.053	113.183	7.569	1.00	51.02	C
ATOM	19826	P	A A 949	240.752	113.079	4.997	1.00	48.84	P	ATOM	19876	O3*	G A 951	226.142	112.735	8.568	1.00	51.02	O
ATOM	19827	O1P	A A 949	241.222	112.843	6.393	1.00	64.59	O	ATOM	19877	C2*	G A 951	226.402	113.130	6.201	1.00	51.02	C
ATOM	19828	O2P	A A 949	240.023	111.988	4.281	1.00	64.59	O	ATOM	19878	O2*	G A 951	225.074	113.613	6.270	1.00	51.02	O
ATOM	19829	O5*	A A 949	239.871	114.412	4.961	1.00	48.84	O	ATOM	19879	C1*	G A 951	227.275	114.101	5.398	1.00	51.02	C
ATOM	19830	C5*	A A 949	240.321	115.601	5.620	1.00	48.84	C	ATOM	19880	N9	G A 951	228.361	113.375	4.731	1.00	51.92	N
ATOM	19831	C4*	A A 949	239.213	116.628	5.697	1.00	48.84	C	ATOM	19881	C8	G A 951	229.645	113.177	5.182	1.00	51.92	C
ATOM	19832	O4*	A A 949	238.973	117.193	4.384	1.00	48.84	O	ATOM	19882	N7	G A 951	230.348	112.399	4.402	1.00	51.92	N
ATOM	19833	C3*	A A 949	237.848	116.158	6.184	1.00	48.84	C	ATOM	19883	C5	G A 951	229.483	112.080	3.359	1.00	51.92	C
ATOM	19834	O3*	A A 949	237.720	116.141	7.596	1.00	48.84	O	ATOM	19884	C6	G A 951	229.668	111.240	2.216	1.00	51.92	C
ATOM	19835	C2*	A A 949	236.916	117.191	5.575	1.00	48.84	C	ATOM	19885	O6	G A 951	230.666	110.584	1.881	1.00	51.92	O
ATOM	19836	O2*	A A 949	236.871	118.378	6.347	1.00	48.84	O	ATOM	19886	N1	G A 951	228.528	111.198	1.427	1.00	51.92	N
ATOM	19837	C1*	A A 949	237.585	117.438	4.222	1.00	48.84	C	ATOM	19887	C2	G A 951	227.366	111.860	1.689	1.00	51.92	C
ATOM	19838	N9	A A 949	237.088	116.473	3.241	1.00	64.59	N	ATOM	19888	N2	G A 951	226.383	111.690	0.804	1.00	51.92	N
ATOM	19839	C8	A A 949	237.650	115.259	2.921	1.00	64.59	C	ATOM	19889	N3	G A 951	227.175	112.630	2.738	1.00	51.92	N
ATOM	19840	N7	A A 949	236.979	114.586	2.028	1.00	64.59	N	ATOM	19890	C4	G A 951	228.265	112.693	3.531	1.00	51.92	C
ATOM	19841	C5	A A 949	235.905	115.408	1.733	1.00	64.59	C	ATOM	19891	P	U A 952	225.987	111.151	8.868	1.00	49.33	P
ATOM	19842	C6	A A 949	234.832	115.257	0.860	1.00	64.59	C	ATOM	19892	O1P	U A 952	224.900	110.997	9.887	1.00	53.35	O
ATOM	19843	N6	A A 949	234.662	114.178	0.092	1.00	64.59	N	ATOM	19893	O2P	U A 952	227.328	110.548	9.131	1.00	53.35	O
ATOM	19844	N1	A A 949	233.927	116.257	0.797	1.00	64.59	N	ATOM	19894	O5*	U A 952	225.415	110.540	7.506	1.00	49.33	O
ATOM	19845	C2	A A 949	234.107	117.332	1.573	1.00	64.59	C	ATOM	19895	C5*	U A 952	224.090	110.891	7.041	1.00	49.33	C
ATOM	19846	N3	A A 949	235.081	117.591	2.435	1.00	64.59	N	ATOM	19896	C4*	U A 952	223.775	110.223	5.716	1.00	49.33	C
ATOM	19847	C4	A A 949	235.959	116.575	2.469	1.00	64.59	C	ATOM	19897	O4*	U A 952	224.692	110.681	4.682	1.00	49.33	O



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ATOM	19898	C3*	U A 952	223.864	108.709	5.652	1.00	49.33	C	ATOM	19948	N7	G A 954	226.441	102.368	5.715	1.00	62.94	N
ATOM	19899	O3*	U A 952	222.707	108.061	6.148	1.00	49.33	O	ATOM	19949	C5	G A 954	227.703	101.812	5.545	1.00	62.94	C
ATOM	19900	C2*	U A 952	224.026	108.458	4.161	1.00	49.33	C	ATOM	19950	C6	G A 954	228.920	102.053	6.237	1.00	62.94	C
ATOM	19901	O2*	U A 952	222.796	108.501	3.468	1.00	49.33	O	ATOM	19951	O6	G A 954	229.135	102.835	7.176	1.00	62.94	O
ATOM	19902	C1*	U A 952	224.889	109.645	3.731	1.00	49.33	C	ATOM	19952	N1	G A 954	229.955	101.269	5.733	1.00	62.94	N
ATOM	19903	N1	U A 952	226.313	109.262	3.688	1.00	53.35	N	ATOM	19953	C2	G A 954	229.835	100.372	4.700	1.00	62.94	C
ATOM	19904	C2	U A 952	226.713	108.430	2.661	1.00	53.35	C	ATOM	19954	N2	G A 954	230.939	99.711	4.348	1.00	62.94	N
ATOM	19905	O2	U A 952	225.965	108.069	1.776	1.00	53.35	O	ATOM	19955	N3	G A 954	228.712	100.139	4.055	1.00	62.94	N
ATOM	19906	N3	U A 952	228.021	108.032	2.707	1.00	53.35	N	ATOM	19956	C4	G A 954	227.695	100.887	4.525	1.00	62.94	C
ATOM	19907	C4	U A 952	228.954	108.370	3.640	1.00	53.35	C	ATOM	19957	P	U A 955	223.763	96.095	4.869	1.00	57.99	P
ATOM	19908	O4	U A 952	230.063	107.846	3.593	1.00	53.35	O	ATOM	19958	O1P	U A 955	223.151	94.825	4.401	1.00	61.87	O
ATOM	19909	C5	U A 952	228.487	109.260	4.650	1.00	53.35	C	ATOM	19959	O2P	U A 955	223.103	96.871	5.956	1.00	61.87	O
ATOM	19910	C6	U A 952	227.215	109.671	4.639	1.00	53.35	C	ATOM	19960	O5*	U A 955	225.275	95.785	5.280	1.00	57.99	O
ATOM	19911	P	G A 953	222.759	106.480	6.451	1.00	58.73	P	ATOM	19961	C5*	U A 955	226.122	94.984	4.426	1.00	57.99	C
ATOM	19912	O1P	G A 953	221.479	106.020	7.047	1.00	56.01	O	ATOM	19962	C4*	U A 955	227.574	95.111	4.836	1.00	57.99	C
ATOM	19913	O2P	G A 953	224.044	106.196	7.147	1.00	56.01	O	ATOM	19963	O4*	U A 955	227.970	96.504	4.761	1.00	57.99	O
ATOM	19914	O5*	G A 953	222.852	105.815	5.012	1.00	58.73	O	ATOM	19964	C3*	U A 955	227.921	94.691	6.254	1.00	57.99	C
ATOM	19915	C5*	G A 953	221.743	105.850	4.102	1.00	58.73	C	ATOM	19965	O3*	U A 955	228.162	93.293	6.349	1.00	57.99	O
ATOM	19916	C4*	G A 953	222.041	104.977	2.916	1.00	58.73	C	ATOM	19966	C2*	U A 955	229.178	95.497	6.541	1.00	57.99	C
ATOM	19917	O4*	G A 953	223.244	105.470	2.270	1.00	58.73	O	ATOM	19967	O2*	U A 955	230.318	94.899	5.975	1.00	57.99	O
ATOM	19918	C3*	G A 953	222.370	103.542	3.286	1.00	58.73	C	ATOM	19968	C1*	U A 955	228.891	96.798	5.795	1.00	57.99	C
ATOM	19919	O3*	G A 953	221.215	102.733	3.441	1.00	58.73	O	ATOM	19969	N1	U A 955	228.311	97.846	6.654	1.00	61.87	N
ATOM	19920	C2*	G A 953	223.275	103.089	2.149	1.00	58.73	C	ATOM	19970	C2	U A 955	229.139	98.455	7.579	1.00	61.87	C
ATOM	19921	O2*	G A 953	222.577	102.627	1.008	1.00	58.73	O	ATOM	19971	O2	U A 955	230.310	98.154	7.717	1.00	61.87	O
ATOM	19922	C1*	G A 953	224.031	104.379	1.826	1.00	58.73	C	ATOM	19972	N3	U A 955	228.541	99.426	8.341	1.00	61.87	N
ATOM	19923	N9	G A 953	225.343	104.447	2.468	1.00	56.01	N	ATOM	19973	C4	U A 955	227.230	99.839	8.284	1.00	61.87	C
ATOM	19924	C8	G A 953	225.714	105.232	3.534	1.00	56.01	C	ATOM	19974	O4	U A 955	226.436	99.161	9.046	1.00	61.87	O
ATOM	19925	N7	G A 953	226.958	105.057	3.890	1.00	56.01	N	ATOM	19975	C5	U A 955	226.986	98.214	6.548	1.00	61.87	C
ATOM	19926	C6	G A 953	227.441	104.099	3.008	1.00	56.01	C	ATOM	19976	C6	U A 955	227.922	92.539	7.752	1.00	59.63	P
ATOM	19927	C5	G A 953	228.726	103.506	2.905	1.00	56.01	C	ATOM	19977	P	U A 956	228.179	91.084	7.538	1.00	58.49	O
ATOM	19928	O6	G A 953	229.720	103.706	3.596	1.00	56.01	O	ATOM	19978	O1P	U A 956	226.613	92.971	8.291	1.00	58.49	O
ATOM	19929	N1	G A 953	228.786	102.590	1.863	1.00	56.01	N	ATOM	19979	O2P	U A 956	229.051	93.148	8.704	1.00	59.63	O
ATOM	19930	C2	G A 953	227.749	102.281	1.025	1.00	56.01	C	ATOM	19980	O5*	U A 956	230.446	92.913	8.436	1.00	59.63	C
ATOM	19931	N2	G A 953	228.007	101.374	0.077	1.00	56.01	N	ATOM	19981	C5*	U A 956	231.322	93.741	9.351	1.00	59.63	C
ATOM	19932	N3	G A 953	226.547	102.821	1.108	1.00	56.01	N	ATOM	19982	C4*	U A 956	231.126	95.155	9.089	1.00	59.63	O
ATOM	19933	C4	G A 953	226.463	103.716	2.118	1.00	56.01	C	ATOM	19983	O4*	U A 956	231.090	93.613	10.847	1.00	59.63	C
ATOM	19934	P	G A 954	221.159	101.674	4.648	1.00	64.16	P	ATOM	19984	C3*	U A 956	231.690	92.470	11.417	1.00	59.63	O
ATOM	19935	O1P	G A 954	219.858	100.947	4.554	1.00	62.94	O	ATOM	19985	O3*	U A 956	231.699	94.899	11.384	1.00	59.63	C
ATOM	19936	O2P	G A 954	221.510	102.418	5.892	1.00	62.94	O	ATOM	19986	C2*	U A 956	233.108	94.833	11.498	1.00	59.63	O
ATOM	19937	O5*	G A 954	222.332	100.638	4.326	1.00	64.16	O	ATOM	19987	O2*	U A 956	231.315	95.892	10.289	1.00	59.63	C
ATOM	19938	C5*	G A 954	222.304	99.852	3.113	1.00	64.16	C	ATOM	19988	C1*	U A 956	230.058	96.576	10.630	1.00	58.49	N
ATOM	19939	C4*	G A 954	223.681	99.323	2.765	1.00	64.16	C	ATOM	19989	N1	U A 956	230.127	97.619	11.539	1.00	58.49	C
ATOM	19940	O4*	G A 954	224.612	100.426	2.631	1.00	64.16	O	ATOM	19990	C2	U A 956	231.175	97.994	12.047	1.00	58.49	O
ATOM	19941	C3*	G A 954	224.345	98.389	3.760	1.00	64.16	C	ATOM	19991	O2	U A 956	228.924	98.208	11.835	1.00	58.49	N
ATOM	19942	O3*	G A 954	223.894	97.057	3.588	1.00	64.16	O	ATOM	19992	N3	U A 956	227.690	97.877	11.327	1.00	58.49	C
ATOM	19943	C2*	G A 954	225.828	98.535	3.430	1.00	64.16	C	ATOM	19993	C4	U A 956	226.700	98.515	11.690	1.00	58.49	O
ATOM	19944	O2*	G A 954	226.279	97.716	2.371	1.00	64.16	O	ATOM	19994	O4	U A 956	227.699	96.793	10.391	1.00	58.49	C
ATOM	19945	C1*	G A 954	225.910	100.000	2.998	1.00	64.16	C	ATOM	19995	C5	U A 956	228.851	96.196	10.082	1.00	58.49	C
ATOM	19946	N9	G A 954	226.407	100.861	4.064	1.00	62.94	N	ATOM	19996	C6	U A 956	230.994	91.778	12.687	1.00	66.71	P
ATOM	19947	C8	G A 954	225.706	101.777	4.812	1.00	62.94	C	ATOM	19997	P	U A 957						



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ATOM 19998	O1P	U A 957	231.788	90.572	13.044	1.00 69.03	O	ATOM 20048	C2*	A A 959	227.382	100.547	19.440	1.00 63.10	C
ATOM 19999	O2P	U A 957	229.538	91.649	12.404	1.00 69.03	O	ATOM 20049	O2*	A A 959	226.744	101.638	20.070	1.00 63.10	O
ATOM 20000	O5*	U A 957	231.185	92.852	13.843	1.00 66.71	O	ATOM 20050	C1*	A A 959	228.091	99.683	20.487	1.00 63.10	C
ATOM 20001	C5*	U A 957	232.502	93.217	14.283	1.00 66.71	C	ATOM 20051	N9	A A 959	229.422	99.220	20.094	1.00 74.91	N
ATOM 20002	C4*	U A 957	232.433	94.353	15.274	1.00 66.71	C	ATOM 20052	C8	A A 959	229.743	98.279	19.144	1.00 74.91	C
ATOM 20003	O4*	U A 957	231.791	95.504	14.661	1.00 66.71	O	ATOM 20053	N7	A A 959	231.031	98.076	19.018	1.00 74.91	N
ATOM 20004	C3*	U A 957	231.626	94.087	16.533	1.00 66.71	C	ATOM 20054	C5	A A 959	231.597	98.937	19.948	1.00 74.91	C
ATOM 20005	O3*	U A 957	232.404	93.374	17.494	1.00 66.71	O	ATOM 20055	C6	A A 959	232.929	99.196	20.305	1.00 74.91	C
ATOM 20006	C2*	U A 957	231.245	95.498	16.979	1.00 66.71	C	ATOM 20056	N6	A A 959	233.978	98.586	19.741	1.00 74.91	N
ATOM 20007	O2*	U A 957	232.279	96.156	17.679	1.00 66.71	O	ATOM 20057	N1	A A 959	233.151	100.113	21.273	1.00 74.91	N
ATOM 20008	C1*	U A 957	231.047	96.211	15.637	1.00 66.71	C	ATOM 20058	C2	A A 959	232.100	100.717	21.835	1.00 74.91	C
ATOM 20009	N1	U A 957	229.633	96.251	15.227	1.00 69.03	N	ATOM 20059	N3	A A 959	230.808	100.565	21.581	1.00 74.91	N
ATOM 20010	C2	U A 957	228.876	97.353	15.617	1.00 69.03	C	ATOM 20060	C4	A A 959	230.619	99.648	20.617	1.00 74.91	C
ATOM 20011	O2	U A 957	229.347	98.313	16.207	1.00 69.03	O	ATOM 20061	P	U A 960	224.519	99.567	16.989	1.00 68.92	P
ATOM 20012	N3	U A 957	227.543	97.289	15.284	1.00 69.03	N	ATOM 20062	O1P	U A 960	223.134	100.104	17.005	1.00 77.14	O
ATOM 20013	C4	U A 957	226.901	96.271	14.606	1.00 69.03	C	ATOM 20063	O2P	U A 960	224.734	98.091	16.912	1.00 77.14	O
ATOM 20014	O4	U A 957	225.672	96.300	14.497	1.00 69.03	O	ATOM 20064	O5*	U A 960	225.282	100.251	15.767	1.00 68.92	O
ATOM 20015	C5	U A 957	227.758	95.196	14.194	1.00 69.03	C	ATOM 20065	C5*	U A 960	226.700	100.443	15.796	1.00 68.92	C
ATOM 20016	C6	U A 957	229.060	95.221	14.508	1.00 69.03	C	ATOM 20066	C4*	U A 960	227.021	101.825	16.310	1.00 68.92	C
ATOM 20017	P	A A 958	231.698	92.279	18.439	1.00 83.92	P	ATOM 20067	O4*	U A 960	228.354	101.813	16.857	1.00 68.92	O
ATOM 20018	O1P	A A 958	232.724	91.858	19.431	1.00 86.93	O	ATOM 20068	C3*	U A 960	226.977	102.976	15.318	1.00 68.92	C
ATOM 20019	O2P	A A 958	231.030	91.250	17.602	1.00 86.93	O	ATOM 20069	O3*	U A 960	226.158	104.091	15.772	1.00 68.92	O
ATOM 20020	O5*	A A 958	230.581	93.127	19.198	1.00 83.92	O	ATOM 20070	C2*	U A 960	228.436	103.169	14.884	1.00 68.92	C
ATOM 20021	C5*	A A 958	229.603	92.496	20.056	1.00 83.92	C	ATOM 20071	O2*	U A 960	228.806	104.504	14.619	1.00 68.92	O
ATOM 20022	C4*	A A 958	229.101	93.487	21.084	1.00 83.92	C	ATOM 20072	C1*	U A 960	229.239	102.524	16.021	1.00 68.92	C
ATOM 20023	O4*	A A 958	230.149	93.748	22.042	1.00 83.92	C	ATOM 20073	N1	U A 960	230.278	101.559	15.614	1.00 77.14	N
ATOM 20024	C3*	A A 958	228.706	94.839	20.513	1.00 83.92	C	ATOM 20074	C2	U A 960	229.991	100.638	14.609	1.00 77.14	C
ATOM 20025	O3*	A A 958	227.314	94.784	20.171	1.00 83.92	O	ATOM 20075	O2	U A 960	228.930	100.603	14.021	1.00 77.14	O
ATOM 20026	C2*	A A 958	228.991	95.811	21.663	1.00 83.92	C	ATOM 20076	N3	U A 960	231.000	99.753	14.326	1.00 77.14	N
ATOM 20027	O2*	A A 958	227.900	95.973	22.546	1.00 83.92	O	ATOM 20077	C4	U A 960	232.235	99.683	14.924	1.00 77.14	C
ATOM 20028	C1*	A A 958	230.125	95.108	22.420	1.00 83.92	C	ATOM 20078	O4	U A 960	233.015	98.793	14.591	1.00 77.14	O
ATOM 20029	N9	A A 958	231.488	95.638	22.299	1.00 86.93	N	ATOM 20079	C5	U A 960	232.464	100.665	15.939	1.00 77.14	C
ATOM 20030	C8	A A 958	232.515	95.139	21.534	1.00 86.93	C	ATOM 20080	C6	U A 960	231.504	101.549	16.238	1.00 77.14	C
ATOM 20031	N7	A A 958	233.647	95.781	21.682	1.00 86.93	N	ATOM 20081	P	U A 961	226.657	105.123	16.915	1.00 68.21	P
ATOM 20032	C5	A A 958	233.345	96.782	22.595	1.00 86.93	C	ATOM 20082	O1P	U A 961	226.875	106.454	16.294	1.00 56.43	O
ATOM 20033	C6	A A 958	234.127	97.809	23.178	1.00 86.93	N	ATOM 20083	O2P	U A 961	227.708	104.535	17.785	1.00 56.43	O
ATOM 20034	N6	A A 958	235.422	98.004	22.919	1.00 86.93	N	ATOM 20084	O5*	U A 961	225.352	105.287	17.807	1.00 68.21	O
ATOM 20035	N1	A A 958	233.520	98.639	24.049	1.00 86.93	N	ATOM 20085	C5*	U A 961	224.741	104.150	18.442	1.00 68.21	C
ATOM 20036	C2	A A 958	232.221	98.449	24.312	1.00 86.93	C	ATOM 20086	C4*	U A 961	223.482	104.579	19.147	1.00 68.21	C
ATOM 20037	N3	A A 958	231.384	97.527	23.831	1.00 86.93	N	ATOM 20087	O4*	U A 961	223.793	105.767	19.927	1.00 68.21	O
ATOM 20038	C4	A A 958	232.015	96.715	22.970	1.00 86.93	C	ATOM 20088	C3*	U A 961	222.359	105.044	18.240	1.00 68.21	C
ATOM 20039	P	A A 959	226.830	95.065	18.658	1.00 63.10	P	ATOM 20089	O3*	U A 961	221.554	104.007	17.722	1.00 68.21	O
ATOM 20040	O1P	A A 959	225.517	94.395	18.462	1.00 74.91	O	ATOM 20090	C2*	U A 961	221.569	105.992	19.124	1.00 68.21	C
ATOM 20041	O2P	A A 959	227.956	94.752	17.738	1.00 74.91	O	ATOM 20091	O2*	U A 961	222.652	105.342	19.989	1.00 68.21	O
ATOM 20042	O5*	A A 959	226.574	96.635	18.647	1.00 63.10	O	ATOM 20092	C1*	U A 961	222.688	106.661	19.915	1.00 68.21	C
ATOM 20043	C5*	A A 959	225.637	97.227	19.566	1.00 63.10	C	ATOM 20093	N1	U A 961	223.089	107.925	19.275	1.00 56.43	N
ATOM 20044	C4*	A A 959	226.079	98.619	19.956	1.00 63.10	C	ATOM 20094	C2	U A 961	222.185	108.973	19.322	1.00 56.43	C
ATOM 20045	O4*	A A 959	227.287	98.549	20.748	1.00 63.10	O	ATOM 20095	O2	U A 961	221.111	108.894	19.902	1.00 56.43	O
ATOM 20046	C3*	A A 959	226.416	99.549	18.805	1.00 63.10	C	ATOM 20096	N3	U A 961	222.580	110.115	18.673	1.00 56.43	N
ATOM 20047	O3*	A A 959	225.236	100.167	18.300	1.00 63.10	O	ATOM 20097	C4	U A 961	223.763	110.319	18.008	1.00 56.43	C



ATOM	20098	O4	U A 961	223.973	111.407	17.467	1.00	56.43	O	ATOM	20148	C5*	A A 964	213.238	112.590	9.613	1.00	56.83	C
ATOM	20099	C5	U A 961	224.653	109.200	18.020	1.00	56.43	C	ATOM	20149	C4*	A A 964	214.053	113.569	8.800	1.00	56.83	C
ATOM	20100	C6	U A 961	224.296	108.071	18.638	1.00	56.43	C	ATOM	20150	O4*	A A 964	215.414	113.568	9.302	1.00	56.83	O
ATOM	20101	P	C A 962	220.954	104.163	16.241	1.00	57.12	P	ATOM	20151	C3*	A A 964	214.174	113.219	7.322	1.00	56.83	C
ATOM	20102	O1P	C A 962	220.191	102.924	15.956	1.00	54.70	O	ATOM	20152	O3*	A A 964	213.082	113.756	6.571	1.00	56.83	O
ATOM	20103	O2P	C A 962	222.090	104.547	15.356	1.00	54.70	O	ATOM	20153	C2*	A A 964	215.517	113.831	6.936	1.00	56.83	C
ATOM	20104	O5*	C A 962	219.976	105.427	16.327	1.00	57.12	O	ATOM	20154	O2*	A A 964	215.427	115.209	6.620	1.00	56.83	O
ATOM	20105	C5*	C A 962	218.954	105.491	17.330	1.00	57.12	C	ATOM	20155	C1*	A A 964	216.329	113.645	8.223	1.00	56.83	C
ATOM	20106	C4*	C A 962	218.277	106.847	17.353	1.00	57.12	C	ATOM	20156	N9	A A 964	217.152	112.430	8.246	1.00	50.93	N
ATOM	20107	O4*	C A 962	219.189	107.907	17.757	1.00	57.12	O	ATOM	20157	C8	A A 964	216.957	111.294	9.004	1.00	50.93	C
ATOM	20108	C3*	C A 962	217.693	107.386	16.065	1.00	57.12	C	ATOM	20158	N7	A A 964	217.851	110.357	8.803	1.00	50.93	N
ATOM	20109	O3*	C A 962	216.511	106.747	15.627	1.00	57.12	O	ATOM	20159	C5	A A 964	218.696	110.907	7.853	1.00	50.93	C
ATOM	20110	C2*	C A 962	217.484	108.858	16.400	1.00	57.12	C	ATOM	20160	C6	A A 964	219.843	110.408	7.215	1.00	50.93	C
ATOM	20111	O2*	C A 962	216.293	109.141	17.117	1.00	57.12	O	ATOM	20161	N6	A A 964	220.350	109.197	7.450	1.00	50.93	N
ATOM	20112	C1*	C A 962	218.720	109.154	17.247	1.00	57.12	C	ATOM	20162	N1	A A 964	220.458	111.210	6.313	1.00	50.93	N
ATOM	20113	N1	C A 962	219.746	109.770	16.377	1.00	54.70	N	ATOM	20163	C2	A A 964	219.939	112.434	6.077	1.00	50.93	C
ATOM	20114	C2	C A 962	219.568	111.121	15.980	1.00	54.70	C	ATOM	20164	N3	A A 964	218.866	113.014	6.613	1.00	50.93	N
ATOM	20115	O2	C A 962	218.583	111.752	16.398	1.00	54.70	O	ATOM	20165	C4	A A 964	218.282	112.189	7.503	1.00	50.93	C
ATOM	20116	N3	C A 962	220.467	111.689	15.145	1.00	54.70	N	ATOM	20166	P	A A 965	212.128	112.768	5.731	1.00	66.73	P
ATOM	20117	C4	C A 962	221.502	110.977	14.696	1.00	54.70	C	ATOM	20167	O1P	A A 965	210.965	113.558	5.231	1.00	58.41	O
ATOM	20118	N4	C A 962	222.341	111.573	13.861	1.00	54.70	N	ATOM	20168	O2P	A A 965	211.895	111.532	6.539	1.00	58.41	O
ATOM	20119	C5	C A 962	221.717	109.616	15.086	1.00	54.70	C	ATOM	20169	O5*	A A 965	213.031	112.367	4.485	1.00	66.73	O
ATOM	20120	C6	C A 962	220.829	109.060	15.927	1.00	54.70	C	ATOM	20170	C5*	A A 965	213.099	113.183	3.291	1.00	66.73	C
ATOM	20121	P	G A 963	216.370	106.371	14.069	1.00	57.84	P	ATOM	20171	C4*	A A 965	213.600	112.342	2.147	1.00	66.73	C
ATOM	20122	O1P	G A 963	215.363	105.272	14.003	1.00	53.44	O	ATOM	20172	O4*	A A 965	214.943	111.920	2.467	1.00	66.73	O
ATOM	20123	O2P	G A 963	217.739	106.145	13.521	1.00	53.44	O	ATOM	20173	C3*	A A 965	212.792	111.063	1.989	1.00	66.73	C
ATOM	20124	O5*	G A 963	215.812	107.703	13.398	1.00	57.84	O	ATOM	20174	O3*	A A 965	211.640	111.293	1.155	1.00	66.73	O
ATOM	20125	C5*	G A 963	214.647	108.321	13.917	1.00	57.84	C	ATOM	20175	C2*	A A 965	213.799	109.991	1.590	1.00	66.73	C
ATOM	20126	C4*	G A 963	214.698	109.812	13.723	1.00	57.84	C	ATOM	20176	O2*	A A 965	213.921	109.743	0.212	1.00	66.73	O
ATOM	20127	O4*	G A 963	215.938	110.335	14.264	1.00	57.84	O	ATOM	20177	C1*	A A 965	215.113	110.560	2.134	1.00	66.73	C
ATOM	20128	C3*	G A 963	214.662	110.361	12.306	1.00	57.84	C	ATOM	20178	N9	A A 965	215.701	109.876	3.280	1.00	58.41	N
ATOM	20129	O3*	G A 963	213.355	110.402	11.751	1.00	57.84	O	ATOM	20179	C8	A A 965	215.278	109.871	4.583	1.00	58.41	C
ATOM	20130	C2*	G A 963	215.208	111.766	12.517	1.00	57.84	C	ATOM	20180	N7	A A 965	216.045	109.172	5.387	1.00	58.41	N
ATOM	20131	O2*	G A 963	214.222	112.634	13.050	1.00	57.84	O	ATOM	20181	C5	A A 965	217.032	108.675	4.552	1.00	58.41	C
ATOM	20132	C1*	G A 963	216.299	111.517	13.563	1.00	57.84	C	ATOM	20182	C6	A A 965	218.133	107.843	4.789	1.00	58.41	C
ATOM	20133	N9	G A 963	217.606	111.321	12.930	1.00	53.44	N	ATOM	20183	N6	A A 965	218.424	107.329	5.985	1.00	58.41	N
ATOM	20134	C8	G A 963	218.385	110.188	12.946	1.00	53.44	C	ATOM	20184	N1	A A 965	218.930	107.543	3.742	1.00	58.41	N
ATOM	20135	N7	G A 963	219.473	110.305	12.233	1.00	53.44	N	ATOM	20185	C2	A A 965	218.616	108.036	2.537	1.00	58.41	C
ATOM	20136	C5	G A 963	219.418	111.597	11.723	1.00	53.44	C	ATOM	20186	N3	A A 965	217.596	108.815	2.183	1.00	58.41	N
ATOM	20137	C6	G A 963	220.319	112.293	10.863	1.00	53.44	C	ATOM	20187	C4	A A 965	216.835	109.103	3.251	1.00	58.41	C
ATOM	20138	O6	G A 963	221.369	111.885	10.347	1.00	53.44	O	ATOM	20188	P	G A 966	211.755	111.379	-0.464	1.00	44.61	P
ATOM	20139	N1	G A 963	219.885	113.586	10.612	1.00	53.44	N	ATOM	20189	O1P	G A 966	210.618	112.234	-0.874	1.00	55.11	O
ATOM	20140	C2	G A 963	218.730	114.136	11.107	1.00	53.44	C	ATOM	20190	O2P	G A 966	211.865	109.999	-1.024	1.00	55.11	O
ATOM	20141	N2	G A 963	218.485	115.396	10.758	1.00	53.44	N	ATOM	20191	O5*	G A 966	213.046	112.255	-0.802	1.00	44.61	O
ATOM	20142	N3	G A 963	217.879	113.499	11.889	1.00	53.44	N	ATOM	20192	C5*	G A 966	214.129	111.720	-1.592	1.00	44.61	C
ATOM	20143	C4	G A 963	218.283	112.244	12.158	1.00	53.44	C	ATOM	20193	C4*	G A 966	214.293	112.475	-2.892	1.00	44.61	C
ATOM	20144	P	A A 964	213.134	110.018	10.202	1.00	56.83	P	ATOM	20194	O4*	G A 966	213.321	112.030	-3.872	1.00	44.61	O
ATOM	20145	O1P	A A 964	211.668	109.992	9.955	1.00	50.93	O	ATOM	20195	C3*	G A 966	214.106	113.981	-2.890	1.00	44.61	C
ATOM	20146	O2P	A A 964	213.952	108.808	9.891	1.00	50.93	O	ATOM	20196	O3*	G A 966	215.198	114.712	-2.365	1.00	44.61	O
ATOM	20147	O5*	A A 964	213.734	111.258	9.406	1.00	56.83	O	ATOM	20197	C2*	G A 966	213.891	114.290	-4.372	1.00	44.61	C



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ATOM	20198	O2*	G A 966	215.078	114.430	-5.119	1.00	44.61	O	ATOM	20248	N6	A A 968	207.451	120.619	-4.670	1.00	60.95	N
ATOM	20199	C1*	G A 966	213.160	113.042	-4.858	1.00	44.61	C	ATOM	20249	N1	A A 968	207.121	119.552	-2.645	1.00	60.95	N
ATOM	20200	N9	G A 966	211.745	113.316	-5.085	1.00	55.11	N	ATOM	20250	C2	A A 968	207.609	119.158	-1.463	1.00	60.95	C
ATOM	20201	C8	G A 966	210.661	112.857	-4.380	1.00	55.11	C	ATOM	20251	N3	A A 968	208.817	119.346	-0.953	1.00	60.95	N
ATOM	20202	N7	G A 966	209.527	113.327	-4.826	1.00	55.11	N	ATOM	20252	C4	A A 968	209.586	120.041	-1.808	1.00	60.95	C
ATOM	20203	C5	G A 966	209.884	114.136	-5.896	1.00	55.11	C	ATOM	20253	P	A A 969	214.489	119.148	2.964	1.00	45.97	P
ATOM	20204	C6	G A 966	209.084	114.922	-6.766	1.00	55.11	C	ATOM	20254	O1P	A A 969	213.908	118.309	4.050	1.00	50.32	O
ATOM	20205	O6	G A 966	207.857	115.064	-6.767	1.00	55.11	O	ATOM	20255	O2P	A A 969	215.003	120.514	3.280	1.00	50.32	O
ATOM	20206	N1	G A 966	209.858	115.594	-7.705	1.00	55.11	N	ATOM	20256	O5*	A A 969	215.622	118.274	2.263	1.00	45.97	O
ATOM	20207	C2	G A 966	211.223	115.526	-7.798	1.00	55.11	C	ATOM	20257	C5*	A A 969	215.470	116.851	2.119	1.00	45.97	C
ATOM	20208	N2	G A 966	211.794	116.257	-8.767	1.00	55.11	N	ATOM	20258	C4*	A A 969	216.311	116.131	3.144	1.00	45.97	C
ATOM	20209	N3	G A 966	211.977	114.797	-6.996	1.00	55.11	N	ATOM	20259	O4*	A A 969	216.005	114.715	3.083	1.00	45.97	O
ATOM	20210	C4	G A 966	211.246	114.135	-6.074	1.00	55.11	C	ATOM	20260	C3*	A A 969	217.814	116.209	2.927	1.00	45.97	C
ATOM	20211	P	C A 967	214.928	116.166	-1.733	1.00	38.56	P	ATOM	20261	O3*	A A 969	218.400	117.396	3.447	1.00	45.97	O
ATOM	20212	O1P	C A 967	216.215	116.655	-1.155	1.00	58.56	O	ATOM	20262	C2*	A A 969	218.310	114.935	3.599	1.00	45.97	C
ATOM	20213	O2P	C A 967	213.725	116.040	-0.864	1.00	58.56	O	ATOM	20263	O2*	A A 969	218.413	115.036	5.005	1.00	45.97	O
ATOM	20214	O5*	C A 967	214.540	117.091	-2.973	1.00	38.56	O	ATOM	20264	C1*	A A 969	217.194	113.958	3.238	1.00	45.97	C
ATOM	20215	C5*	C A 967	215.527	117.458	-3.943	1.00	38.56	C	ATOM	20265	N9	A A 969	217.484	113.324	1.952	1.00	50.32	N
ATOM	20216	C4*	C A 967	214.935	118.388	-4.967	1.00	38.56	C	ATOM	20266	C8	A A 969	216.917	113.609	0.734	1.00	50.32	C
ATOM	20217	O4*	C A 967	213.886	117.697	-5.674	1.00	38.56	O	ATOM	20267	N7	A A 969	217.412	112.910	-0.254	1.00	50.32	N
ATOM	20218	C3*	C A 967	214.295	119.647	-4.413	1.00	38.56	C	ATOM	20268	C5	A A 969	218.358	112.101	0.353	1.00	50.32	C
ATOM	20219	O3*	C A 967	215.299	120.660	-4.296	1.00	38.56	O	ATOM	20269	C6	A A 969	219.226	111.139	-0.156	1.00	50.32	C
ATOM	20220	C2*	C A 967	213.233	119.979	-5.463	1.00	38.56	C	ATOM	20270	N6	A A 969	219.274	110.806	-1.445	1.00	50.32	N
ATOM	20221	O2*	C A 967	213.728	120.732	-6.550	1.00	38.56	O	ATOM	20271	N1	A A 969	220.054	110.517	0.709	1.00	50.32	N
ATOM	20222	C1*	C A 967	212.827	118.590	-5.967	1.00	38.56	C	ATOM	20272	C2	A A 969	219.995	110.851	2.004	1.00	50.32	C
ATOM	20223	N1	C A 967	211.603	118.047	-5.351	1.00	58.56	N	ATOM	20273	N3	A A 969	219.212	111.741	2.606	1.00	50.32	N
ATOM	20224	C2	C A 967	210.352	118.392	-5.878	1.00	58.56	C	ATOM	20274	C4	A A 969	218.409	112.340	1.712	1.00	50.32	C
ATOM	20225	O2	C A 967	210.295	119.141	-6.864	1.00	58.56	O	ATOM	20275	P	C A 970	219.678	118.045	2.699	1.00	42.66	P
ATOM	20226	N3	C A 967	209.238	117.894	-5.292	1.00	58.56	N	ATOM	20276	O1P	C A 970	220.162	119.164	3.556	1.00	60.25	O
ATOM	20227	C4	C A 967	209.344	117.085	-4.226	1.00	58.56	C	ATOM	20277	O2P	C A 970	219.348	118.322	1.255	1.00	60.25	O
ATOM	20228	N4	C A 967	208.228	116.617	-3.673	1.00	58.56	N	ATOM	20278	O5*	C A 970	220.766	116.886	2.801	1.00	42.66	C
ATOM	20229	C5	C A 967	210.600	116.718	-3.680	1.00	58.56	C	ATOM	20279	C5*	C A 970	222.259	115.371	3.958	1.00	42.66	C
ATOM	20230	C6	C A 967	211.690	117.213	-4.266	1.00	58.56	C	ATOM	20280	C4*	C A 970	221.197	116.429	4.090	1.00	42.66	C
ATOM	20231	P	A A 968	215.122	121.856	-3.239	1.00	61.89	P	ATOM	20281	O4*	C A 970	222.477	115.724	3.124	1.00	42.66	C
ATOM	20232	O1P	A A 968	213.946	122.647	-3.703	1.00	60.95	O	ATOM	20282	C3*	C A 970	223.477	115.724	3.124	1.00	42.66	C
ATOM	20233	O2P	A A 968	216.441	122.530	-3.061	1.00	60.95	O	ATOM	20283	O3*	C A 970	224.437	116.492	3.830	1.00	42.66	O
ATOM	20234	O5*	A A 968	214.743	121.107	-1.882	1.00	61.89	O	ATOM	20284	C2*	C A 970	224.006	114.355	2.736	1.00	42.66	C
ATOM	20235	C5*	A A 968	214.738	121.802	-0.609	1.00	61.89	C	ATOM	20285	O2*	C A 970	224.721	113.768	3.792	1.00	42.66	O
ATOM	20236	C4*	A A 968	213.707	121.193	0.319	1.00	61.89	C	ATOM	20286	C1*	C A 970	222.709	113.574	2.525	1.00	42.66	C
ATOM	20237	O4*	A A 968	212.390	121.498	-0.191	1.00	61.89	O	ATOM	20287	N1	C A 970	222.300	113.573	1.105	1.00	60.25	N
ATOM	20238	C3*	A A 968	213.764	119.676	0.496	1.00	61.89	C	ATOM	20288	C2	C A 970	222.793	112.564	0.267	1.00	60.25	C
ATOM	20239	O3*	A A 968	213.376	119.333	1.824	1.00	61.89	O	ATOM	20289	O2	C A 970	223.532	111.685	0.749	1.00	60.25	O
ATOM	20240	C2*	A A 968	212.681	119.171	-0.453	1.00	61.89	C	ATOM	20290	N3	C A 970	222.458	112.572	-1.046	1.00	60.25	N
ATOM	20241	O2*	A A 968	212.079	117.974	0.000	1.00	61.89	O	ATOM	20291	C4	C A 970	221.669	113.534	-1.528	1.00	60.25	C
ATOM	20242	C1*	A A 968	211.665	120.306	-0.394	1.00	61.89	C	ATOM	20292	N4	C A 970	221.393	113.518	-2.838	1.00	60.25	N
ATOM	20243	N9	A A 968	210.875	120.470	-1.611	1.00	60.95	N	ATOM	20293	C5	C A 970	221.136	114.560	-0.694	1.00	60.25	C
ATOM	20244	C8	A A 968	211.235	121.122	-2.768	1.00	60.95	C	ATOM	20294	C6	C A 970	221.473	114.541	0.604	1.00	60.25	C
ATOM	20245	N7	A A 968	210.278	121.181	-3.660	1.00	60.95	N	ATOM	20295	P	G A 971	224.925	117.900	3.212	1.00	48.93	P
ATOM	20246	C5	A A 968	209.225	120.505	-3.060	1.00	60.95	C	ATOM	20296	O1P	G A 971	223.991	118.962	3.681	1.00	75.76	O
ATOM	20247	C6	A A 968	207.927	120.236	-3.485	1.00	60.95	C	ATOM	20297	O2P	G A 971	225.137	117.709	1.756	1.00	75.76	O



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ATOM	20298	O5*	G A 971	226.360	118.120	3.882	1.00	48.93	O	ATOM	20348	O2*	G A 973	218.340	120.524	15.415	1.00	48.08	O
ATOM	20299	C5*	G A 971	226.525	118.109	5.322	1.00	48.93	C	ATOM	20349	Cl*	G A 973	219.030	119.117	13.627	1.00	48.08	C
ATOM	20300	C4*	G A 971	227.101	119.427	5.805	1.00	48.93	C	ATOM	20350	N9	G A 973	219.998	118.065	13.325	1.00	40.43	N
ATOM	20301	O4*	G A 971	228.549	119.380	5.861	1.00	48.93	O	ATOM	20351	C8	G A 973	221.140	118.199	12.568	1.00	40.43	C
ATOM	20302	C3*	G A 971	226.745	120.683	5.006	1.00	48.93	C	ATOM	20352	N7	G A 973	221.815	117.087	12.459	1.00	40.43	N
ATOM	20303	O3*	G A 971	226.442	121.743	5.894	1.00	48.93	O	ATOM	20353	C5	G A 973	221.080	116.161	13.190	1.00	40.43	C
ATOM	20304	C2*	G A 971	228.056	121.027	4.300	1.00	48.93	C	ATOM	20354	C6	G A 973	221.312	114.785	13.414	1.00	40.43	C
ATOM	20305	O2*	G A 971	228.219	122.397	3.981	1.00	48.93	O	ATOM	20355	O6	G A 973	222.235	114.088	13.001	1.00	40.43	O
ATOM	20306	Cl*	G A 971	229.054	120.595	5.362	1.00	48.93	C	ATOM	20356	N1	G A 973	220.323	114.218	14.198	1.00	40.43	N
ATOM	20307	N9	G A 971	230.443	120.418	4.965	1.00	75.76	N	ATOM	20357	C2	G A 973	219.238	114.882	14.692	1.00	40.43	C
ATOM	20308	C8	G A 971	230.969	120.318	3.701	1.00	75.76	C	ATOM	20358	N2	G A 973	218.391	114.146	15.415	1.00	40.43	N
ATOM	20309	N7	G A 971	232.268	120.209	3.700	1.00	75.76	N	ATOM	20359	N3	G A 973	219.000	116.169	14.489	1.00	40.43	N
ATOM	20310	C5	G A 971	232.612	120.227	5.045	1.00	75.76	C	ATOM	20360	C4	G A 973	219.959	116.744	13.734	1.00	40.43	C
ATOM	20311	C6	G A 971	233.877	120.152	5.673	1.00	75.76	C	ATOM	20361	P	A A 974	221.315	122.141	16.306	1.00	62.20	P
ATOM	20312	O6	G A 971	234.999	120.063	5.153	1.00	75.76	O	ATOM	20362	O1P	A A 974	221.434	120.702	16.749	1.00	42.56	O
ATOM	20313	N1	G A 971	233.760	120.200	7.053	1.00	75.76	N	ATOM	20363	O2P	A A 974	220.634	123.128	17.178	1.00	42.56	O
ATOM	20314	C2	G A 971	232.584	120.319	7.743	1.00	75.76	C	ATOM	20364	O5*	A A 974	222.773	122.726	16.033	1.00	62.20	O
ATOM	20315	N2	G A 971	232.677	120.358	9.077	1.00	75.76	N	ATOM	20365	C5*	A A 974	223.485	122.400	14.843	1.00	62.20	C
ATOM	20316	N3	G A 971	231.406	120.397	7.172	1.00	75.76	N	ATOM	20366	C4*	A A 974	224.813	121.773	15.174	1.00	62.20	C
ATOM	20317	C4	G A 971	231.494	120.345	5.831	1.00	75.76	C	ATOM	20367	O4*	A A 974	224.624	120.591	16.000	1.00	62.20	O
ATOM	20318	P	C A 972	225.164	122.672	5.617	1.00	56.09	P	ATOM	20368	C3*	A A 974	225.561	121.316	13.935	1.00	62.20	C
ATOM	20319	O1P	C A 972	224.813	122.622	4.156	1.00	49.67	O	ATOM	20369	O3*	A A 974	226.939	121.594	14.119	1.00	62.20	O
ATOM	20320	O2P	C A 972	225.439	123.983	6.236	1.00	49.67	O	ATOM	20370	C2*	A A 974	226.260	119.818	13.871	1.00	62.20	C
ATOM	20321	O5*	C A 972	224.053	121.969	6.514	1.00	56.09	C	ATOM	20371	O2*	A A 974	226.242	119.039	13.208	1.00	62.20	O
ATOM	20322	C5*	C A 972	223.748	120.573	6.385	1.00	56.09	C	ATOM	20372	Cl*	A A 974	225.169	119.457	15.351	1.00	62.20	C
ATOM	20323	C4*	C A 972	222.346	120.331	6.873	1.00	56.09	C	ATOM	20373	N9	A A 974	224.311	118.300	15.625	1.00	42.56	N
ATOM	20324	O4*	C A 972	221.812	119.113	6.305	1.00	56.09	O	ATOM	20374	C8	A A 974	222.995	118.307	16.044	1.00	42.56	C
ATOM	20325	C3*	C A 972	222.142	120.163	8.369	1.00	56.09	C	ATOM	20375	N7	A A 974	222.493	117.107	16.245	1.00	42.56	N
ATOM	20326	O3*	C A 972	222.134	121.376	9.102	1.00	56.09	O	ATOM	20376	C5	A A 974	223.543	116.252	15.938	1.00	42.56	C
ATOM	20327	C2*	C A 972	220.793	119.470	8.414	1.00	56.09	C	ATOM	20377	C6	A A 974	223.655	114.846	15.967	1.00	42.56	C
ATOM	20328	O2*	C A 972	219.752	120.395	8.188	1.00	56.09	O	ATOM	20378	N6	A A 974	222.664	114.032	16.354	1.00	42.56	N
ATOM	20329	Cl*	C A 972	220.910	118.523	7.222	1.00	56.09	O	ATOM	20379	N1	A A 974	224.833	114.302	15.587	1.00	42.56	N
ATOM	20330	N1	C A 972	221.477	117.250	7.671	1.00	49.67	N	ATOM	20380	C2	A A 974	225.826	115.124	15.219	1.00	42.56	C
ATOM	20331	C2	C A 972	220.657	116.367	8.352	1.00	49.67	C	ATOM	20381	N3	A A 974	225.847	116.459	15.161	1.00	42.56	N
ATOM	20332	O2	C A 972	219.468	116.659	8.493	1.00	49.67	O	ATOM	20382	C4	A A 974	224.663	116.969	15.538	1.00	42.56	C
ATOM	20333	N3	C A 972	221.172	115.215	8.842	1.00	49.67	N	ATOM	20383	P	A A 975	227.577	122.910	13.452	1.00	59.51	P
ATOM	20334	C4	C A 972	222.463	114.936	8.652	1.00	49.67	C	ATOM	20384	O1P	A A 975	226.562	123.576	12.588	1.00	68.21	O
ATOM	20335	N4	C A 972	222.944	113.796	9.161	1.00	49.67	N	ATOM	20385	O2P	A A 975	228.884	122.498	12.879	1.00	68.21	O
ATOM	20336	C5	C A 972	223.323	115.815	7.929	1.00	49.67	C	ATOM	20386	O5*	A A 975	227.855	123.882	14.680	1.00	59.51	O
ATOM	20337	C6	C A 972	222.791	116.947	7.458	1.00	49.67	C	ATOM	20387	C5*	A A 975	228.119	125.289	14.480	1.00	59.51	C
ATOM	20338	P	G A 973	222.722	121.396	10.603	1.00	48.08	P	ATOM	20388	C4*	A A 975	227.741	126.072	15.719	1.00	59.51	C
ATOM	20339	O1P	G A 973	223.060	122.823	10.864	1.00	40.43	O	ATOM	20389	O4*	A A 975	227.900	127.478	15.446	1.00	59.51	O
ATOM	20340	O2P	G A 973	223.754	120.352	10.812	1.00	40.43	O	ATOM	20390	C3*	A A 975	226.291	125.860	16.109	1.00	59.51	C
ATOM	20341	O5*	G A 973	221.491	120.928	11.494	1.00	48.08	O	ATOM	20391	O3*	A A 975	226.199	124.863	17.156	1.00	59.51	O
ATOM	20342	C5*	G A 973	220.350	121.776	11.692	1.00	48.08	C	ATOM	20392	C2*	A A 975	225.736	127.249	16.414	1.00	59.51	C
ATOM	20343	O4*	G A 973	219.537	121.269	12.853	1.00	48.08	C	ATOM	20393	O2*	A A 975	225.721	127.580	17.775	1.00	59.51	O
ATOM	20344	O4*	G A 973	218.969	119.980	12.511	1.00	48.08	C	ATOM	20394	Cl*	A A 975	226.686	128.158	15.640	1.00	59.51	C
ATOM	20345	C3*	G A 973	220.336	121.014	14.122	1.00	48.08	C	ATOM	20395	N9	A A 975	226.263	128.602	14.321	1.00	68.21	N
ATOM	20346	O3*	G A 973	220.530	122.209	14.893	1.00	48.08	O	ATOM	20396	C8	A A 975	226.081	127.845	13.182	1.00	68.21	C
ATOM	20347	C2*	G A 973	219.486	119.957	14.813	1.00	48.08	C	ATOM	20397	N7	A A 975	225.807	128.554	12.112	1.00	68.21	N



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ATOM	20398	C5	A	A	975	225.782	129.858	12.584	1.00	68.21	C	ATOM	20448	N3	A	A	977	234.090	113.873	17.811	1.00	82.93	N
ATOM	20399	C6	A	A	975	225.558	131.081	11.945	1.00	68.21	C	ATOM	20449	C4	A	A	977	232.821	113.431	17.759	1.00	82.93	C
ATOM	20400	N6	A	A	975	225.296	131.197	10.643	1.00	68.21	N	ATOM	20450	P	A	A	978	235.701	116.791	21.464	1.00	51.48	P
ATOM	20401	N1	A	A	975	225.610	132.201	12.702	1.00	68.21	N	ATOM	20451	O1P	A	A	978	236.119	117.828	22.438	1.00	67.04	O
ATOM	20402	C2	A	A	975	225.861	132.078	14.020	1.00	68.21	C	ATOM	20452	O2P	A	A	978	236.326	116.754	20.115	1.00	67.04	O
ATOM	20403	N3	A	A	975	226.083	130.979	14.735	1.00	68.21	N	ATOM	20453	O5*	A	A	978	235.896	115.378	22.172	1.00	51.48	O
ATOM	20404	C4	A	A	975	226.036	129.896	13.949	1.00	68.21	C	ATOM	20454	C5*	A	A	978	236.044	114.181	21.401	1.00	51.48	C
ATOM	20405	P	G	A	976	226.959	125.083	18.573	1.00	49.92	P	ATOM	20455	C4*	A	A	978	236.958	113.230	22.112	1.00	51.48	C
ATOM	20406	O1P	G	A	976	225.946	124.971	19.643	1.00	87.50	O	ATOM	20456	O4*	A	A	978	238.275	113.818	22.178	1.00	51.48	O
ATOM	20407	O2P	G	A	976	227.778	126.309	18.483	1.00	87.50	O	ATOM	20457	C3*	A	A	978	236.577	112.951	23.553	1.00	51.48	C
ATOM	20408	O5*	G	A	976	227.963	123.845	18.690	1.00	49.92	O	ATOM	20458	O3*	A	A	978	235.647	111.876	23.611	1.00	51.48	O
ATOM	20409	C5*	G	A	976	228.470	123.202	17.506	1.00	49.92	C	ATOM	20459	C2*	A	A	978	237.915	112.626	24.218	1.00	51.48	C
ATOM	20410	C4*	G	A	976	229.861	122.637	17.723	1.00	49.92	C	ATOM	20460	O2*	A	A	978	238.308	111.271	24.111	1.00	51.48	O
ATOM	20411	O4*	G	A	976	230.944	123.447	17.194	1.00	49.92	O	ATOM	20461	C1*	A	A	978	238.885	113.494	23.415	1.00	51.48	C
ATOM	20412	C3*	G	A	976	230.289	122.140	19.096	1.00	49.92	C	ATOM	20462	N9	A	A	978	239.314	114.742	24.052	1.00	67.04	N
ATOM	20413	O3*	G	A	976	230.650	120.789	18.972	1.00	49.92	O	ATOM	20463	C8	A	A	978	238.672	115.959	24.053	1.00	67.04	C
ATOM	20414	O2*	G	A	976	231.544	122.971	19.395	1.00	49.92	O	ATOM	20464	N7	A	A	978	239.341	116.910	24.659	1.00	67.04	N
ATOM	20415	C2*	G	A	976	232.507	122.282	20.170	1.00	49.92	C	ATOM	20465	C5	A	A	978	240.496	116.276	25.098	1.00	67.04	C
ATOM	20416	C1*	G	A	976	232.090	123.224	17.991	1.00	49.92	C	ATOM	20466	C6	A	A	978	241.620	116.742	25.793	1.00	67.04	C
ATOM	20417	N9	G	A	976	233.003	124.356	17.854	1.00	87.50	N	ATOM	20467	N6	A	A	978	241.781	118.011	26.176	1.00	67.04	N
ATOM	20418	C8	G	A	976	232.927	125.587	18.461	1.00	87.50	C	ATOM	20468	N1	A	A	978	242.592	115.850	26.079	1.00	67.04	N
ATOM	20419	N7	G	A	976	233.888	126.397	18.101	1.00	87.50	N	ATOM	20469	C2	A	A	978	242.439	114.582	25.677	1.00	67.04	C
ATOM	20420	C5	G	A	976	234.652	125.649	17.216	1.00	87.50	C	ATOM	20470	N3	A	A	978	241.440	114.027	25.009	1.00	67.04	N
ATOM	20421	C6	G	A	976	235.830	125.989	16.498	1.00	87.50	C	ATOM	20471	C4	A	A	978	240.485	114.937	24.746	1.00	67.04	C
ATOM	20422	O6	G	A	976	236.452	127.060	16.495	1.00	87.50	O	ATOM	20472	P	C	A	979	234.292	112.055	24.438	1.00	80.05	P
ATOM	20423	N1	G	A	976	236.277	124.923	15.722	1.00	87.50	N	ATOM	20473	O1P	C	A	979	233.467	110.828	24.271	1.00	54.40	O
ATOM	20424	C2	G	A	976	235.673	123.691	15.646	1.00	87.50	C	ATOM	20474	O2P	C	A	979	233.739	113.369	24.075	1.00	54.40	O
ATOM	20425	N2	G	A	976	236.255	122.786	14.854	1.00	87.50	N	ATOM	20475	O5*	C	A	979	234.793	112.144	25.940	1.00	80.05	O
ATOM	20426	N3	G	A	976	234.578	123.367	16.302	1.00	87.50	N	ATOM	20476	C5*	C	A	979	235.481	111.041	26.538	1.00	80.05	C
ATOM	20427	C4	G	A	976	234.124	124.384	17.062	1.00	87.50	C	ATOM	20477	C4*	C	A	979	235.628	111.268	28.015	1.00	80.05	C
ATOM	20428	P	A	A	977	229.835	119.689	19.783	1.00	58.74	P	ATOM	20478	O4*	C	A	979	236.661	112.258	28.259	1.00	80.05	O
ATOM	20429	O1P	A	A	977	228.414	119.800	19.368	1.00	82.93	O	ATOM	20479	C3*	C	A	979	234.399	111.839	28.696	1.00	80.05	C
ATOM	20430	O2P	A	A	977	230.190	119.804	21.222	1.00	82.93	O	ATOM	20480	O3*	C	A	979	233.398	110.865	28.957	1.00	80.05	O
ATOM	20431	O5*	A	A	977	230.422	118.327	19.227	1.00	58.74	O	ATOM	20481	C2*	C	A	979	234.996	112.495	29.935	1.00	80.05	C
ATOM	20432	C5*	A	A	977	231.811	118.050	19.336	1.00	58.74	C	ATOM	20482	O2*	C	A	979	235.287	111.572	30.975	1.00	80.05	O
ATOM	20433	C4*	A	A	977	231.998	116.822	20.159	1.00	58.74	C	ATOM	20483	C1*	C	A	979	236.299	113.064	29.369	1.00	80.05	C
ATOM	20434	O4*	A	A	977	231.201	115.766	19.586	1.00	58.74	O	ATOM	20484	N1	C	A	979	236.124	114.454	28.895	1.00	54.40	N
ATOM	20435	C3*	A	A	977	233.409	116.273	20.232	1.00	58.74	C	ATOM	20485	C2	C	A	979	236.044	115.495	29.840	1.00	54.40	C
ATOM	20436	O3*	A	A	977	234.102	116.944	21.294	1.00	58.74	O	ATOM	20486	O2	C	A	979	236.186	115.230	31.052	1.00	54.40	O
ATOM	20437	C2*	A	A	977	233.171	114.792	20.526	1.00	58.74	C	ATOM	20487	N3	C	A	979	235.822	116.761	29.407	1.00	54.40	N
ATOM	20438	O1*	A	A	977	233.042	114.539	21.909	1.00	58.74	O	ATOM	20488	C4	C	A	979	235.706	117.010	28.100	1.00	54.40	C
ATOM	20439	C1*	A	A	977	231.819	114.529	19.849	1.00	58.74	C	ATOM	20489	N4	C	A	979	235.480	118.273	27.715	1.00	54.40	N
ATOM	20440	N9	A	A	977	231.794	113.710	18.633	1.00	82.93	N	ATOM	20490	C5	C	A	979	235.815	115.979	27.124	1.00	54.40	C
ATOM	20441	C8	A	A	977	230.700	113.041	18.145	1.00	82.93	C	ATOM	20491	C6	C	A	979	236.020	114.730	27.559	1.00	54.40	C
ATOM	20442	N7	A	A	977	230.941	112.352	17.059	1.00	82.93	N	ATOM	20492	P	C	A	980	231.890	111.133	28.448	1.00	73.13	P
ATOM	20443	C5	A	A	977	232.284	112.589	16.804	1.00	82.93	C	ATOM	20493	O1P	C	A	980	231.011	110.167	29.219	1.00	62.95	O
ATOM	20444	C6	A	A	977	233.147	112.144	15.786	1.00	82.93	C	ATOM	20494	O2P	C	A	980	231.901	111.088	26.959	1.00	62.95	O
ATOM	20445	N6	A	A	977	232.771	111.327	14.801	1.00	82.93	N	ATOM	20495	O5*	C	A	980	231.608	112.658	28.851	1.00	73.13	O
ATOM	20446	N1	A	A	977	234.426	112.572	15.815	1.00	82.93	N	ATOM	20496	C5*	C	A	980	231.655	113.074	30.232	1.00	73.13	C
ATOM	20447	C2	A	A	977	234.802	113.388	16.799	1.00	82.93	C	ATOM	20497	C4*	C	A	980	231.342	114.551	30.381	1.00	73.13	C



ATOM	20498	O4*	C A 980	232.403	115.366	29.825	1.00	73.13	O	ATOM	20548	C4	U A 982	228.182	113.372	21.751	1.00	53.68	C
ATOM	20499	C3*	C A 980	230.076	115.079	29.735	1.00	73.13	C	ATOM	20549	O4	U A 982	228.758	113.671	20.702	1.00	53.68	O
ATOM	20500	O3*	C A 980	228.938	114.831	30.538	1.00	73.13	O	ATOM	20550	C5	U A 982	227.154	114.139	22.393	1.00	53.68	C
ATOM	20501	C2*	C A 980	230.363	116.573	29.617	1.00	73.13	C	ATOM	20551	C6	U A 982	226.457	113.602	23.403	1.00	53.68	C
ATOM	20502	O2*	C A 980	230.153	117.275	30.826	1.00	73.13	O	ATOM	20552	P	A A 983	223.923	109.908	28.567	1.00	66.35	P
ATOM	20503	C1*	C A 980	231.861	116.578	29.325	1.00	73.13	C	ATOM	20553	O1P	A A 983	223.743	111.032	29.530	1.00	59.21	O
ATOM	20504	N1	C A 980	232.160	116.655	27.888	1.00	62.95	N	ATOM	20554	O2P	A A 983	224.517	108.624	29.030	1.00	59.21	O
ATOM	20505	C2	C A 980	232.258	117.921	27.262	1.00	62.95	C	ATOM	20555	O5*	A A 983	222.509	109.584	27.900	1.00	66.35	O
ATOM	20506	O2	C A 980	232.027	118.956	27.920	1.00	62.95	O	ATOM	20556	C5*	A A 983	222.345	108.453	27.010	1.00	66.35	C
ATOM	20507	N3	C A 980	232.597	117.975	25.954	1.00	62.95	N	ATOM	20557	C4*	A A 983	221.198	108.698	26.060	1.00	66.35	C
ATOM	20508	C4	C A 980	232.820	116.844	25.274	1.00	62.95	C	ATOM	20558	O4*	A A 983	221.372	109.992	25.438	1.00	66.35	O
ATOM	20509	N4	C A 980	233.187	116.942	23.999	1.00	62.95	N	ATOM	20559	C3*	A A 983	221.082	107.709	24.910	1.00	66.35	C
ATOM	20510	C5	C A 980	232.687	115.560	25.876	1.00	62.95	C	ATOM	20560	O3*	A A 983	220.223	106.632	25.267	1.00	66.35	O
ATOM	20511	C6	C A 980	232.359	115.512	27.167	1.00	62.95	C	ATOM	20561	C2*	A A 983	220.399	108.527	23.817	1.00	66.35	C
ATOM	20512	P	U A 981	227.621	114.208	29.869	1.00	80.29	P	ATOM	20562	O2*	A A 983	218.995	108.467	23.914	1.00	66.35	O
ATOM	20513	O1P	U A 981	226.469	114.511	30.773	1.00	55.25	O	ATOM	20563	C1*	A A 983	220.854	109.955	24.128	1.00	66.35	C
ATOM	20514	O2P	U A 981	227.922	112.794	29.511	1.00	55.25	O	ATOM	20564	N9	A A 983	221.848	110.524	23.226	1.00	59.21	N
ATOM	20515	O5*	U A 981	227.424	115.079	28.548	1.00	80.29	O	ATOM	20565	C8	A A 983	221.806	111.769	22.647	1.00	59.21	C
ATOM	20516	C5*	U A 981	227.078	116.472	28.645	1.00	80.29	C	ATOM	20566	N7	A A 983	222.843	112.040	21.893	1.00	59.21	N
ATOM	20517	C4*	U A 981	227.203	117.153	27.302	1.00	80.29	C	ATOM	20567	C5	A A 983	223.618	110.890	21.974	1.00	59.21	C
ATOM	20518	O4*	U A 981	228.585	117.095	26.857	1.00	80.29	O	ATOM	20568	C6	A A 983	224.851	110.542	21.398	1.00	59.21	C
ATOM	20519	C3*	U A 981	226.402	116.553	26.155	1.00	80.29	C	ATOM	20569	N6	A A 983	225.536	111.347	20.576	1.00	59.21	N
ATOM	20520	O3*	U A 981	225.044	116.992	26.147	1.00	80.29	O	ATOM	20570	N1	A A 983	225.360	109.323	21.695	1.00	59.21	N
ATOM	20521	C2*	U A 981	227.186	117.020	24.933	1.00	80.29	C	ATOM	20571	C2	A A 983	224.662	108.517	22.511	1.00	59.21	C
ATOM	20522	O2*	U A 981	226.877	118.350	24.556	1.00	80.29	O	ATOM	20572	N3	A A 983	223.490	108.729	23.106	1.00	59.21	N
ATOM	20523	C1*	U A 981	228.628	116.953	25.447	1.00	80.29	C	ATOM	20573	C4	A A 983	223.016	109.948	22.794	1.00	59.21	C
ATOM	20524	N1	U A 981	229.278	115.668	25.130	1.00	55.25	N	ATOM	20574	P	C A 984	220.834	105.286	25.885	1.00	67.98	P
ATOM	20525	C2	U A 981	229.926	115.549	23.913	1.00	55.25	C	ATOM	20575	O1P	C A 984	219.742	104.287	26.024	1.00	79.35	O
ATOM	20526	O2	U A 981	229.994	116.463	23.104	1.00	55.25	O	ATOM	20576	O2P	C A 984	221.609	105.686	27.078	1.00	79.35	O
ATOM	20527	N3	U A 981	230.489	114.316	23.673	1.00	55.25	N	ATOM	20577	O5*	C A 984	221.855	104.753	24.783	1.00	67.98	O
ATOM	20528	C4	U A 981	230.471	113.209	24.504	1.00	55.25	C	ATOM	20578	C5*	C A 984	221.383	104.171	23.552	1.00	67.98	C
ATOM	20529	O4	U A 981	230.995	112.155	24.129	1.00	55.25	O	ATOM	20579	C4*	C A 984	222.515	103.487	22.815	1.00	67.98	C
ATOM	20530	C5	U A 981	229.794	113.413	25.743	1.00	55.25	C	ATOM	20580	O4*	C A 984	223.511	104.461	22.420	1.00	67.98	O
ATOM	20531	C6	U A 981	229.237	114.604	26.009	1.00	55.25	C	ATOM	20581	C3*	C A 984	223.287	102.446	23.602	1.00	67.98	C
ATOM	20532	P	U A 982	223.895	116.027	25.554	1.00	72.60	P	ATOM	20582	O3*	C A 984	222.645	101.185	23.544	1.00	67.98	O
ATOM	20533	O1P	U A 982	224.126	115.950	24.087	1.00	53.68	O	ATOM	20583	C2*	C A 984	224.634	102.414	22.896	1.00	67.98	C
ATOM	20534	O2P	U A 982	222.582	116.503	26.061	1.00	53.68	O	ATOM	20584	O2*	C A 984	224.607	101.579	21.755	1.00	67.98	O
ATOM	20535	O5*	U A 982	224.192	114.590	26.182	1.00	72.60	O	ATOM	20585	C1*	C A 984	224.798	103.875	22.468	1.00	67.98	C
ATOM	20536	C5*	U A 982	223.193	113.553	26.149	1.00	72.60	C	ATOM	20586	N1	C A 984	225.656	104.694	23.353	1.00	79.35	N
ATOM	20537	C4*	U A 982	223.842	112.194	26.023	1.00	72.60	C	ATOM	20587	C2	C A 984	227.059	104.537	23.297	1.00	79.35	C
ATOM	20538	O4*	U A 982	224.505	112.092	24.738	1.00	72.60	O	ATOM	20588	O2	C A 984	227.554	103.708	22.510	1.00	79.35	O
ATOM	20539	C3*	U A 982	224.887	111.841	27.076	1.00	72.60	C	ATOM	20589	N3	C A 984	227.836	105.298	24.097	1.00	79.35	N
ATOM	20540	O3*	U A 982	224.813	110.445	27.344	1.00	72.60	O	ATOM	20590	C4	C A 984	227.279	106.187	24.918	1.00	79.35	C
ATOM	20541	C2*	U A 982	226.209	112.107	26.362	1.00	72.60	C	ATOM	20591	N4	C A 984	228.086	106.929	25.671	1.00	79.35	N
ATOM	20542	O2*	U A 982	227.264	111.296	26.850	1.00	72.60	O	ATOM	20592	C5	C A 984	225.869	106.360	25.000	1.00	79.35	C
ATOM	20543	C1*	U A 982	225.856	111.715	24.929	1.00	72.60	C	ATOM	20593	C6	C A 984	225.104	105.602	24.212	1.00	79.35	C
ATOM	20544	N1	U A 982	226.684	112.320	23.869	1.00	53.68	N	ATOM	20594	P	C A 985	222.779	100.174	24.782	1.00	66.93	P
ATOM	20545	C2	U A 982	227.698	111.542	23.330	1.00	53.68	C	ATOM	20595	O1P	C A 985	221.920	98.992	24.494	1.00	70.17	O
ATOM	20546	O2	U A 982	227.969	110.427	23.740	1.00	53.68	O	ATOM	20596	O2P	C A 985	222.571	100.964	26.031	1.00	70.17	O
ATOM	20547	N3	U A 982	228.386	112.120	22.295	1.00	53.68	N	ATOM	20597	O5*	C A 985	224.291	99.689	24.720	1.00	66.93	O



Table 1: Sheet 208/521

ATOM	20598	C5*	C A 985	224.734	98.846	23.650	1.00	66.93	C	ATOM	20648	N9	G A 987	230.874	97.723	33.272	1.00	68.92	N
ATOM	20599	C4*	C A 985	226.199	98.543	23.793	1.00	66.93	C	ATOM	20649	C8	G A 987	229.745	97.356	32.575	1.00	68.92	C
ATOM	20600	O4*	C A 985	226.968	99.764	23.644	1.00	66.93	O	ATOM	20650	N7	G A 987	228.873	98.322	32.472	1.00	68.92	N
ATOM	20601	C3*	C A 985	226.631	98.001	25.140	1.00	66.93	C	ATOM	20651	C5	G A 987	229.462	99.389	33.135	1.00	68.92	C
ATOM	20602	O3*	C A 985	226.395	96.608	25.259	1.00	66.93	O	ATOM	20652	C6	G A 987	228.990	100.708	33.352	1.00	68.92	C
ATOM	20603	C2*	C A 985	228.110	98.349	25.172	1.00	66.93	C	ATOM	20653	O6	G A 987	227.923	101.212	32.989	1.00	68.92	O
ATOM	20604	O2*	C A 985	228.870	97.437	24.405	1.00	66.93	C	ATOM	20654	N1	G A 987	229.907	101.466	34.070	1.00	68.92	N
ATOM	20605	C1*	C A 985	228.123	99.701	24.461	1.00	66.93	C	ATOM	20655	C2	G A 987	231.124	101.013	34.523	1.00	68.92	N
ATOM	20606	N1	C A 985	228.135	100.859	25.380	1.00	70.17	N	ATOM	20656	N2	G A 987	231.868	101.893	35.205	1.00	68.92	N
ATOM	20607	C2	C A 985	229.327	101.172	26.061	1.00	70.17	C	ATOM	20657	N3	G A 987	231.576	99.787	34.325	1.00	68.92	N
ATOM	20608	O2	C A 985	230.327	100.459	25.885	1.00	70.17	O	ATOM	20658	C4	G A 987	230.699	99.036	33.630	1.00	68.92	C
ATOM	20609	N3	C A 985	229.358	102.243	26.890	1.00	70.17	N	ATOM	20659	P	G A 988	230.527	94.154	37.173	1.00	87.47	P
ATOM	20610	C4	C A 985	228.267	102.993	27.048	1.00	70.17	C	ATOM	20660	O1P	G A 988	230.945	93.030	38.059	1.00	76.87	O
ATOM	20611	N4	C A 985	228.350	104.051	27.855	1.00	70.17	N	ATOM	20661	O2P	G A 988	229.117	94.217	36.684	1.00	76.87	O
ATOM	20612	C5	C A 985	227.041	102.694	26.380	1.00	70.17	C	ATOM	20662	O5*	G A 988	230.880	95.532	37.905	1.00	87.47	O
ATOM	20613	C6	C A 985	227.019	101.627	25.566	1.00	70.17	C	ATOM	20663	C5*	G A 988	232.085	95.657	38.691	1.00	87.47	C
ATOM	20614	P	A A 986	226.100	95.986	26.713	1.00	73.35	P	ATOM	20664	C4*	G A 988	232.115	96.971	39.451	1.00	87.47	C
ATOM	20615	O1P	A A 986	225.667	94.578	26.514	1.00	70.83	O	ATOM	20665	O4*	G A 988	232.200	98.082	38.522	1.00	87.47	O
ATOM	20616	O2P	A A 986	225.214	96.935	27.450	1.00	70.83	O	ATOM	20666	C3*	G A 988	230.927	97.323	40.334	1.00	87.47	C
ATOM	20617	O5*	A A 986	227.525	95.983	27.433	1.00	73.35	O	ATOM	20667	O3*	G A 988	230.929	96.684	41.600	1.00	87.47	O
ATOM	20618	C5*	A A 986	228.565	95.095	26.986	1.00	73.35	C	ATOM	20668	C2*	G A 988	231.051	98.837	40.461	1.00	87.47	C
ATOM	20619	C4*	A A 986	229.852	95.343	27.740	1.00	73.35	C	ATOM	20669	O2*	G A 988	231.969	99.269	41.447	1.00	87.47	O
ATOM	20620	O4*	A A 986	230.362	96.672	27.454	1.00	73.35	O	ATOM	20670	C1*	G A 988	231.548	99.216	39.069	1.00	87.47	C
ATOM	20621	C3*	A A 986	229.802	95.298	29.253	1.00	73.35	C	ATOM	20671	N9	G A 988	230.396	99.533	38.233	1.00	76.87	N
ATOM	20622	O3*	A A 986	229.803	93.981	29.764	1.00	73.35	O	ATOM	20672	C8	G A 988	229.701	98.686	37.398	1.00	76.87	C
ATOM	20623	C2*	A A 986	231.059	96.065	29.642	1.00	73.35	C	ATOM	20673	N7	G A 988	228.676	99.258	36.829	1.00	76.87	N
ATOM	20624	O2*	A A 986	232.227	95.275	29.533	1.00	73.35	O	ATOM	20674	C5	G A 988	228.702	100.562	37.305	1.00	76.87	C
ATOM	20625	C1*	A A 986	231.095	97.151	28.569	1.00	73.35	C	ATOM	20675	C6	G A 988	227.836	101.653	37.046	1.00	76.87	C
ATOM	20626	N9	A A 986	230.493	98.404	29.026	1.00	70.83	N	ATOM	20676	O6	G A 988	226.837	101.690	36.314	1.00	76.87	O
ATOM	20627	C8	A A 986	229.206	98.854	28.845	1.00	70.83	C	ATOM	20677	N1	G A 988	228.227	102.790	37.745	1.00	76.87	N
ATOM	20628	N7	A A 986	228.983	100.040	29.360	1.00	70.83	N	ATOM	20678	C2	G A 988	229.312	102.872	38.586	1.00	76.87	C
ATOM	20629	C5	A A 986	230.202	100.394	29.923	1.00	70.83	C	ATOM	20679	N2	G A 988	229.525	104.064	39.173	1.00	76.87	N
ATOM	20630	C6	A A 986	230.626	101.540	30.619	1.00	70.83	C	ATOM	20680	N3	G A 988	230.128	101.863	38.834	1.00	76.87	N
ATOM	20631	N6	A A 986	229.842	102.587	30.873	1.00	70.83	N	ATOM	20681	C4	G A 988	229.765	100.748	38.165	1.00	76.87	C
ATOM	20632	N1	A A 986	231.904	101.574	31.053	1.00	70.83	N	ATOM	20682	P	C A 989	229.526	96.306	42.293	1.00	92.41	P
ATOM	20633	C2	A A 986	232.693	100.521	30.802	1.00	70.83	C	ATOM	20683	O1P	C A 989	229.876	95.660	43.578	1.00	88.62	O
ATOM	20634	N3	A A 986	232.413	99.391	30.156	1.00	70.83	N	ATOM	20684	O2P	C A 989	228.699	95.567	41.308	1.00	88.62	O
ATOM	20635	C4	A A 986	231.137	99.390	29.736	1.00	70.83	C	ATOM	20685	O5*	C A 989	228.834	97.718	42.589	1.00	92.41	O
ATOM	20636	P	G A 987	228.934	93.652	31.075	1.00	93.54	P	ATOM	20686	C5*	C A 989	229.439	98.646	43.512	1.00	92.41	C
ATOM	20637	O1P	G A 987	228.850	92.166	31.172	1.00	68.92	O	ATOM	20687	C4*	C A 989	228.820	100.031	43.409	1.00	92.41	C
ATOM	20638	O2P	G A 987	227.687	94.455	31.019	1.00	68.92	O	ATOM	20688	O4*	C A 989	228.867	100.505	42.034	1.00	92.41	O
ATOM	20639	O5*	G A 987	229.800	94.230	32.283	1.00	93.54	O	ATOM	20689	C3*	C A 989	227.365	100.250	43.807	1.00	92.41	C
ATOM	20640	C5*	G A 987	231.031	93.597	32.686	1.00	93.54	C	ATOM	20690	O3*	C A 989	227.142	100.333	45.213	1.00	92.41	O
ATOM	20641	C4*	G A 987	231.870	94.552	32.499	1.00	93.54	C	ATOM	20691	C2*	C A 989	227.061	101.585	43.135	1.00	92.41	C
ATOM	20642	O4*	G A 987	232.037	95.770	32.729	1.00	93.54	O	ATOM	20692	O2*	C A 989	227.566	102.702	43.842	1.00	92.41	O
ATOM	20643	C3*	G A 987	231.265	95.023	34.813	1.00	93.54	C	ATOM	20693	C1*	C A 989	227.825	101.451	41.822	1.00	92.41	C
ATOM	20644	O3*	G A 987	231.504	94.129	35.892	1.00	93.54	O	ATOM	20694	N1	C A 989	226.910	100.975	40.760	1.00	88.62	N
ATOM	20645	C2*	G A 987	231.936	96.373	35.025	1.00	93.54	C	ATOM	20695	C2	C A 989	226.113	101.921	40.088	1.00	88.62	C
ATOM	20646	O2*	G A 987	233.236	96.288	35.572	1.00	93.54	O	ATOM	20696	O2	C A 989	226.244	103.127	40.365	1.00	88.62	O
ATOM	20647	C1*	G A 987	232.030	96.893	33.594	1.00	93.54	C	ATOM	20697	N3	C A 989	225.224	101.496	39.161	1.00	88.62	N



Table 1: Sheet 209/521

ATOM 20698	C4	C A 989	225.116	100.194	38.886	1.00	88.62	C	ATOM 20748	O4*	U A 992	213.257	107.153	47.113	1.00	89.85	O
ATOM 20699	N4	C A 989	224.215	99.821	37.981	1.00	88.62	N	ATOM 20749	C3*	U A 992	213.786	108.270	49.104	1.00	89.85	C
ATOM 20700	C5	C A 989	225.927	99.216	39.531	1.00	88.62	C	ATOM 20750	O3*	U A 992	214.782	109.051	49.800	1.00	89.85	O
ATOM 20701	C6	C A 989	226.804	99.645	40.449	1.00	88.62	C	ATOM 20751	C2*	U A 992	212.611	109.028	48.471	1.00	89.85	C
ATOM 20702	P	C A 990	225.669	100.028	45.809	1.00	102.56	P	ATOM 20752	O2*	U A 992	212.876	110.330	47.999	1.00	89.85	O
ATOM 20703	O1P	C A 990	225.814	100.058	47.287	1.00	91.47	O	ATOM 20753	C1*	U A 992	212.254	108.141	47.274	1.00	89.85	C
ATOM 20704	O2P	C A 990	225.102	98.817	45.151	1.00	91.47	O	ATOM 20754	N1	U A 992	210.918	107.517	47.262	1.00	134.33	N
ATOM 20705	O5*	C A 990	224.787	101.290	45.393	1.00	102.56	O	ATOM 20755	C2	U A 992	209.819	108.350	47.061	1.00	134.33	C
ATOM 20706	C5*	C A 990	225.016	102.578	46.001	1.00	102.56	C	ATOM 20756	O2	U A 992	209.908	109.563	46.962	1.00	134.33	O
ATOM 20707	C4*	C A 990	223.910	103.549	45.645	1.00	102.56	C	ATOM 20757	N3	U A 992	208.610	107.708	46.986	1.00	134.33	N
ATOM 20708	O4*	C A 990	223.942	103.841	44.222	1.00	102.56	O	ATOM 20758	C4	U A 992	208.379	106.354	47.103	1.00	134.33	C
ATOM 20709	C3*	C A 990	222.483	103.090	45.901	1.00	102.56	C	ATOM 20759	O4	U A 992	207.232	105.921	46.954	1.00	134.33	O
ATOM 20710	O3*	C A 990	222.085	103.236	47.258	1.00	102.56	O	ATOM 20760	C5	U A 992	209.554	105.565	47.344	1.00	134.33	C
ATOM 20711	C2*	C A 990	221.680	103.972	44.950	1.00	102.56	C	ATOM 20761	C6	U A 992	210.751	106.158	47.415	1.00	134.33	C
ATOM 20712	O2*	C A 990	221.447	105.274	45.453	1.00	102.56	O	ATOM 20762	P	G A 993	215.580	110.250	49.057	1.00	145.09	P
ATOM 20713	C1*	C A 990	222.619	104.059	43.748	1.00	102.56	C	ATOM 20763	O1P	G A 993	216.791	110.450	49.886	1.00	77.53	O
ATOM 20714	N1	C A 990	222.298	103.042	42.718	1.00	91.47	N	ATOM 20764	O2P	G A 993	214.691	111.410	48.799	1.00	77.53	O
ATOM 20715	C2	C A 990	221.365	103.365	41.720	1.00	91.47	C	ATOM 20765	O5*	G A 993	216.065	109.606	47.676	1.00	145.09	O
ATOM 20716	O2	C A 990	220.847	104.498	41.719	1.00	91.47	O	ATOM 20766	C5*	G A 993	216.345	110.414	46.502	1.00	145.09	C
ATOM 20717	N3	C A 990	221.052	102.434	40.783	1.00	91.47	N	ATOM 20767	C4*	G A 993	217.125	109.602	45.484	1.00	145.09	C
ATOM 20718	C4	C A 990	221.629	101.228	40.816	1.00	91.47	C	ATOM 20768	O4*	G A 993	216.497	108.304	45.340	1.00	145.09	O
ATOM 20719	N4	C A 990	221.287	100.344	39.876	1.00	91.47	N	ATOM 20769	C3*	G A 993	217.196	110.168	44.070	1.00	145.09	C
ATOM 20720	C5	C A 990	222.582	100.876	41.814	1.00	91.47	C	ATOM 20770	O3*	G A 993	218.193	111.211	43.946	1.00	145.09	O
ATOM 20721	C6	C A 990	222.886	101.802	42.735	1.00	91.47	C	ATOM 20771	C2*	G A 993	217.325	108.931	43.172	1.00	145.09	O
ATOM 20722	P	U A 991	221.489	101.966	48.048	1.00	146.32	P	ATOM 20772	O2*	G A 993	218.647	108.491	42.934	1.00	145.09	O
ATOM 20723	O1P	U A 991	222.409	101.696	49.178	1.00	109.36	O	ATOM 20773	C1*	G A 993	216.620	107.856	44.004	1.00	145.09	C
ATOM 20724	O2P	U A 991	221.176	100.877	47.084	1.00	109.36	O	ATOM 20774	N9	G A 993	215.338	107.292	43.571	1.00	77.53	N
ATOM 20725	O5*	U A 991	220.126	102.510	48.661	1.00	146.32	O	ATOM 20775	C8	G A 993	215.146	106.019	43.084	1.00	77.53	C
ATOM 20726	C5*	U A 991	218.850	102.067	48.165	1.00	146.32	C	ATOM 20776	N7	G A 993	213.891	105.724	42.885	1.00	77.53	N
ATOM 20727	C4*	U A 991	218.228	103.145	47.315	1.00	146.32	C	ATOM 20777	C5	G A 993	213.208	106.878	43.237	1.00	77.53	C
ATOM 20728	O4*	U A 991	218.894	103.186	46.032	1.00	146.32	O	ATOM 20778	C6	G A 993	211.817	107.142	43.256	1.00	77.53	C
ATOM 20729	C3*	U A 991	216.750	102.975	47.005	1.00	146.32	C	ATOM 20779	O6	G A 993	210.889	106.377	42.970	1.00	77.53	O
ATOM 20730	O3*	U A 991	216.042	103.576	48.100	1.00	146.32	O	ATOM 20780	N1	G A 993	211.546	108.443	43.671	1.00	77.53	N
ATOM 20731	C2*	U A 991	216.595	103.730	45.684	1.00	146.32	C	ATOM 20781	C2	G A 993	212.494	109.372	44.032	1.00	77.53	C
ATOM 20732	O2*	U A 991	216.434	105.121	45.877	1.00	146.32	O	ATOM 20782	N2	G A 993	212.028	110.580	44.409	1.00	77.53	N
ATOM 20733	C1*	U A 991	217.959	103.507	45.019	1.00	146.32	C	ATOM 20783	N3	G A 993	213.804	109.135	44.026	1.00	77.53	N
ATOM 20734	N1	U A 991	218.026	102.473	43.969	1.00	109.36	N	ATOM 20784	C4	G A 993	214.086	107.873	43.627	1.00	77.53	C
ATOM 20735	C2	U A 991	217.479	102.760	42.722	1.00	109.36	C	ATOM 20785	P	A A 994	219.784	110.875	43.942	1.00	92.32	P
ATOM 20736	O2	U A 991	216.908	103.804	42.467	1.00	109.36	O	ATOM 20786	O1P	A A 994	220.195	110.347	42.619	1.00	73.25	O
ATOM 20737	N3	U A 991	217.627	101.768	41.782	1.00	109.36	N	ATOM 20787	O2P	A A 994	220.148	110.113	45.164	1.00	73.25	O
ATOM 20738	C4	U A 991	218.242	100.544	41.951	1.00	109.36	C	ATOM 20788	O5*	A A 994	220.428	112.326	44.063	1.00	92.32	O
ATOM 20739	O4	U A 991	218.317	99.766	40.999	1.00	109.36	O	ATOM 20789	C5*	A A 994	221.715	112.633	43.490	1.00	92.32	C
ATOM 20740	C5	U A 991	218.761	100.314	43.262	1.00	109.36	C	ATOM 20790	C4*	A A 994	221.576	113.697	42.418	1.00	92.32	C
ATOM 20741	C6	U A 991	218.637	101.257	44.202	1.00	109.36	C	ATOM 20791	O4*	A A 994	221.493	113.093	41.099	1.00	92.32	O
ATOM 20742	P	U A 992	214.432	103.692	48.093	1.00	89.85	P	ATOM 20792	C3*	A A 994	220.342	114.581	42.522	1.00	92.32	C
ATOM 20743	O1P	U A 992	213.919	102.724	49.099	1.00	134.33	O	ATOM 20793	O3*	A A 994	220.510	115.635	43.462	1.00	92.32	O
ATOM 20744	O2P	U A 992	213.921	103.636	46.699	1.00	134.33	O	ATOM 20794	C2*	A A 994	220.154	115.065	41.087	1.00	92.32	C
ATOM 20745	O5*	U A 992	214.188	105.170	48.643	1.00	89.85	O	ATOM 20795	O2*	A A 994	220.974	116.175	40.765	1.00	92.32	O
ATOM 20746	C5*	U A 992	215.119	106.217	48.326	1.00	89.85	C	ATOM 20796	C1*	A A 994	220.587	113.831	40.286	1.00	92.32	C
ATOM 20747	C4*	U A 992	214.391	107.481	47.954	1.00	89.85	C	ATOM 20797	N9	A A 994	219.476	112.936	39.927	1.00	73.25	N



Table 1: Sheet 210/521

ATOM	20798	C8	A A 994	219.432	111.569	40.101	1.00	73.25	C	ATOM	20848	C4	A A 996	208.857	116.419	43.736	1.00	62.81	C
ATOM	20799	N7	A A 994	218.309	111.019	39.711	1.00	73.25	N	ATOM	20849	P	U A 997	209.903	121.822	46.847	1.00	134.09	P
ATOM	20800	C5	A A 994	217.563	112.088	39.237	1.00	73.25	C	ATOM	20850	O1P	U A 997	210.258	123.246	47.085	1.00	65.06	O
ATOM	20801	C6	A A 994	216.279	112.160	38.675	1.00	73.25	C	ATOM	20851	O2P	U A 997	210.810	120.743	47.339	1.00	65.06	O
ATOM	20802	N6	A A 994	215.493	111.094	38.490	1.00	73.25	N	ATOM	20852	O5*	U A 997	208.458	121.517	47.436	1.00	134.09	O
ATOM	20803	N1	A A 994	215.825	113.376	38.301	1.00	73.25	N	ATOM	20853	C5*	U A 997	207.352	122.395	47.178	1.00	134.09	C
ATOM	20804	C2	A A 994	216.620	114.437	38.479	1.00	73.25	C	ATOM	20854	C4*	U A 997	206.053	121.670	47.419	1.00	134.09	C
ATOM	20805	N3	A A 994	217.846	114.496	38.994	1.00	73.25	N	ATOM	20855	O4*	U A 997	205.929	120.602	46.441	1.00	134.09	O
ATOM	20806	C4	A A 994	218.267	113.274	39.359	1.00	73.25	C	ATOM	20856	C3*	U A 997	205.935	120.948	48.753	1.00	134.09	C
ATOM	20807	P	C A 995	219.241	116.167	44.298	1.00	107.19	P	ATOM	20857	O3*	U A 997	205.575	121.753	49.859	1.00	134.09	O
ATOM	20808	O1P	C A 995	219.748	116.744	45.567	1.00	69.60	O	ATOM	20858	C2*	U A 997	204.900	119.879	48.454	1.00	134.09	C
ATOM	20809	O5*	C A 995	218.195	115.105	44.346	1.00	69.60	O	ATOM	20859	O2*	U A 997	203.573	120.367	48.496	1.00	134.09	O
ATOM	20810	O2*	C A 995	218.705	117.373	43.411	1.00	107.19	O	ATOM	20860	C1*	U A 997	205.294	119.480	47.035	1.00	134.09	C
ATOM	20811	C5*	C A 995	217.476	118.011	43.741	1.00	107.19	C	ATOM	20861	N1	U A 997	206.261	118.374	47.111	1.00	65.06	N
ATOM	20812	C4*	C A 995	216.772	118.479	42.495	1.00	107.19	C	ATOM	20862	C2	U A 997	205.753	117.080	47.164	1.00	65.06	C
ATOM	20813	O4*	C A 995	216.854	117.472	41.458	1.00	107.19	O	ATOM	20863	O2	U A 997	204.561	116.827	47.085	1.00	65.06	O
ATOM	20814	C3*	C A 995	215.290	118.666	42.731	1.00	107.19	C	ATOM	20864	N3	U A 997	206.694	116.992	47.315	1.00	65.06	N
ATOM	20815	O3*	C A 995	215.012	119.920	43.302	1.00	107.19	O	ATOM	20865	C4	U A 997	208.063	116.254	47.413	1.00	65.06	C
ATOM	20816	C2*	C A 995	214.685	118.444	41.361	1.00	107.19	C	ATOM	20866	O4	U A 997	208.769	115.268	47.650	1.00	65.06	O
ATOM	20817	O2*	C A 995	214.748	119.608	40.558	1.00	107.19	O	ATOM	20867	C5	U A 997	208.517	117.617	47.314	1.00	65.06	C
ATOM	20818	C1*	C A 995	215.597	117.345	40.812	1.00	107.19	C	ATOM	20868	C6	U A 997	207.625	118.602	47.167	1.00	65.06	C
ATOM	20819	N1	C A 995	215.110	115.961	41.038	1.00	69.60	N	ATOM	20869	P	G A 998	206.093	121.337	51.325	1.00	110.14	P
ATOM	20820	C2	C A 995	213.796	115.608	40.648	1.00	69.60	C	ATOM	20870	O1P	G A 998	205.429	122.267	52.275	1.00	110.10	O
ATOM	20821	O2	C A 995	213.037	116.482	40.179	1.00	69.60	O	ATOM	20871	O2P	G A 998	207.578	121.247	51.299	1.00	110.10	O
ATOM	20822	N3	C A 995	213.388	114.323	40.803	1.00	69.60	N	ATOM	20872	O5*	G A 998	205.507	119.868	51.551	1.00	110.14	O
ATOM	20823	C4	C A 995	214.215	113.415	41.333	1.00	69.60	C	ATOM	20873	C5*	G A 998	204.090	119.676	51.609	1.00	110.14	C
ATOM	20824	N4	C A 995	213.771	112.160	41.453	1.00	69.60	N	ATOM	20874	C4*	G A 998	203.714	118.211	51.676	1.00	110.14	C
ATOM	20825	C5	C A 995	215.531	113.752	41.761	1.00	69.60	C	ATOM	20875	O4*	G A 998	204.430	117.441	50.676	1.00	110.14	O
ATOM	20826	C6	C A 995	215.931	115.020	41.599	1.00	69.60	C	ATOM	20876	C3*	G A 998	203.980	117.389	52.929	1.00	110.14	C
ATOM	20827	P	A A 996	214.210	119.973	44.685	1.00	128.90	P	ATOM	20877	O3*	G A 998	203.085	117.642	54.013	1.00	110.14	O
ATOM	20828	O1P	A A 996	214.495	121.291	45.307	1.00	62.81	O	ATOM	20878	C2*	G A 998	203.751	115.970	52.407	1.00	110.14	C
ATOM	20829	O2P	A A 996	214.515	118.724	45.433	1.00	62.81	O	ATOM	20879	O2*	G A 998	202.391	115.578	52.379	1.00	110.14	O
ATOM	20830	O5*	A A 996	212.687	119.891	44.230	1.00	128.90	O	ATOM	20880	C1*	G A 998	204.246	116.069	50.967	1.00	110.14	C
ATOM	20831	C5*	A A 996	212.121	120.882	43.358	1.00	128.90	C	ATOM	20881	N9	G A 998	205.493	115.328	50.832	1.00	110.10	N
ATOM	20832	C4*	A A 996	210.631	120.693	43.276	1.00	128.90	C	ATOM	20882	C8	G A 998	206.771	115.800	50.647	1.00	110.10	C
ATOM	20833	O4*	A A 996	210.331	119.494	42.524	1.00	128.90	O	ATOM	20883	N7	G A 998	207.667	114.845	50.616	1.00	110.10	N
ATOM	20834	C3*	A A 996	209.967	120.474	44.621	1.00	128.90	C	ATOM	20884	C5	G A 998	206.931	113.675	50.782	1.00	110.10	C
ATOM	20835	O3*	A A 996	209.691	121.699	45.263	1.00	128.90	O	ATOM	20885	C6	G A 998	207.350	112.309	50.841	1.00	110.10	C
ATOM	20836	C2*	A A 996	208.716	119.689	44.265	1.00	128.90	C	ATOM	20886	O6	G A 998	208.496	111.842	50.746	1.00	110.10	O
ATOM	20837	O2*	A A 996	207.645	120.506	43.843	1.00	128.90	O	ATOM	20887	N1	G A 998	206.266	111.453	51.028	1.00	110.10	N
ATOM	20838	C1*	A A 996	209.217	118.837	43.100	1.00	128.90	C	ATOM	20888	N2	G A 998	204.954	111.849	51.137	1.00	110.10	C
ATOM	20839	N9	A A 996	209.658	117.521	43.548	1.00	62.81	N	ATOM	20889	C2	G A 998	204.047	110.879	51.309	1.00	110.10	N
ATOM	20840	C8	A A 996	210.931	117.121	43.867	1.00	62.81	C	ATOM	20890	N3	G A 998	204.557	113.105	51.082	1.00	110.10	N
ATOM	20841	N7	A A 996	211.014	115.861	44.232	1.00	62.81	N	ATOM	20891	C4	G A 998	205.590	113.957	50.906	1.00	110.10	C
ATOM	20842	C5	A A 996	209.704	115.404	44.154	1.00	62.81	C	ATOM	20892	P	C A 999	203.433	117.069	55.484	1.00	143.74	P
ATOM	20843	C6	A A 996	209.117	114.145	44.420	1.00	62.81	C	ATOM	20893	O1P	C A 999	202.419	117.640	56.409	1.00	112.60	O
ATOM	20844	N6	A A 996	209.804	113.079	44.835	1.00	62.81	N	ATOM	20894	O2P	C A 999	204.879	117.281	55.761	1.00	112.60	O
ATOM	20845	N1	A A 996	207.780	114.026	44.243	1.00	62.81	N	ATOM	20895	O5*	C A 999	203.187	115.496	55.374	1.00	143.74	O
ATOM	20846	C2	A A 996	207.089	115.103	43.831	1.00	62.81	C	ATOM	20896	C5*	C A 999	201.854	114.974	55.237	1.00	143.74	C
ATOM	20847	N3	A A 996	207.526	116.335	43.555	1.00	62.81	N	ATOM	20897	C4*	C A 999	201.801	113.511	55.619	1.00	143.74	C



ATOM	20898	O4*	C A 999	202.410	112.689	54.591	1.00143.74	O	ATOM	20948	C6	A A1001	209.984	109.066	59.999	1.00175.96	C
ATOM	20899	C3*	C A 999	202.501	113.092	56.902	1.00143.74	C	ATOM	20949	N6	A A1001	210.199	110.259	59.439	1.00175.96	N
ATOM	20900	O3*	C A 999	201.723	113.374	58.064	1.00143.74	O	ATOM	20950	N1	A A1001	210.906	108.095	59.828	1.00175.96	N
ATOM	20901	C2*	C A 999	202.699	111.591	56.693	1.00143.74	C	ATOM	20951	C2	A A1001	210.688	106.897	60.390	1.00175.96	C
ATOM	20902	O2*	C A 999	201.563	110.820	57.033	1.00143.74	O	ATOM	20952	N3	A A1001	209.660	106.485	61.128	1.00175.96	N
ATOM	20903	C1*	C A 999	202.929	111.508	55.181	1.00143.74	C	ATOM	20953	C4	A A1001	208.763	107.474	61.281	1.00175.96	C
ATOM	20904	N1	C A 999	204.355	111.350	54.818	1.00112.60	N	ATOM	20954	P	G A1002	207.786	107.626	67.338	1.00184.88	P
ATOM	20905	C2	C A 999	204.854	110.051	54.593	1.00112.60	C	ATOM	20955	O1P	G A1002	207.304	107.415	68.726	1.00200.93	O
ATOM	20906	O2	C A 999	204.080	109.082	54.684	1.00112.60	O	ATOM	20956	O2P	G A1002	207.841	109.004	66.784	1.00200.93	O
ATOM	20907	N3	C A 999	206.162	109.887	54.285	1.00112.60	N	ATOM	20957	O5*	G A1002	209.236	106.979	67.206	1.00184.88	O
ATOM	20908	C4	C A 999	206.964	110.948	54.195	1.00112.60	C	ATOM	20958	C5*	G A1002	209.534	105.720	67.838	1.00184.88	C
ATOM	20909	N4	C A 999	208.247	110.734	53.898	1.00112.60	N	ATOM	20959	C4*	G A1002	210.929	105.257	67.483	1.00184.88	C
ATOM	20910	C5	C A 999	206.486	112.278	54.408	1.00112.60	C	ATOM	20960	O4*	G A1002	211.001	104.947	66.067	1.00184.88	O
ATOM	20911	C6	C A 999	205.187	112.433	54.713	1.00112.60	C	ATOM	20961	C3*	G A1002	212.067	106.239	67.714	1.00184.88	C
ATOM	20912	P	U A1000	202.448	113.518	59.496	1.00142.91	P	ATOM	20962	O3*	G A1002	212.516	106.254	69.063	1.00184.88	O
ATOM	20913	O1P	U A1000	201.473	114.169	60.407	1.00111.81	O	ATOM	20963	C2*	G A1002	213.143	105.722	66.767	1.00184.88	C
ATOM	20914	O2P	U A1000	203.790	114.130	59.309	1.00111.81	O	ATOM	20964	O2*	G A1002	213.895	104.650	67.304	1.00184.88	O
ATOM	20915	O5*	U A1000	202.638	112.009	59.971	1.00142.91	O	ATOM	20965	C1*	G A1002	212.307	105.223	65.587	1.00184.88	C
ATOM	20916	C5*	U A1000	201.495	111.210	60.326	1.00142.91	C	ATOM	20966	N9	G A1002	212.222	106.231	64.532	1.00200.93	N
ATOM	20917	C4*	U A1000	201.907	109.785	60.615	1.00142.91	C	ATOM	20967	C8	G A1002	211.133	107.001	64.194	1.00200.93	C
ATOM	20918	O4*	U A1000	202.328	109.128	59.390	1.00142.91	O	ATOM	20968	N7	G A1002	211.382	107.844	63.228	1.00200.93	N
ATOM	20919	C3*	U A1000	203.073	109.588	61.572	1.00142.91	C	ATOM	20969	C5	G A1002	212.712	107.611	62.901	1.00200.93	C
ATOM	20920	O3*	U A1000	202.694	109.688	62.942	1.00142.91	O	ATOM	20970	C6	G A1002	213.541	108.229	61.928	1.00200.93	C
ATOM	20921	C2*	U A1000	203.569	108.195	61.198	1.00142.91	C	ATOM	20971	O6	G A1002	213.255	109.136	61.134	1.00200.93	O
ATOM	20922	O2*	U A1000	202.822	107.158	61.807	1.00142.91	O	ATOM	20972	N1	G A1002	214.826	107.689	61.935	1.00200.93	N
ATOM	20923	C1*	U A1000	203.342	108.178	59.683	1.00142.91	C	ATOM	20973	C2	G A1002	215.259	106.685	62.769	1.00200.93	C
ATOM	20924	N1	U A1000	204.563	108.537	58.939	1.00111.81	N	ATOM	20974	N2	G A1002	216.536	106.300	62.622	1.00200.93	N
ATOM	20925	C2	U A1000	205.393	107.506	58.515	1.00111.81	C	ATOM	20975	N3	G A1002	214.495	106.103	63.678	1.00200.93	N
ATOM	20926	O2	U A1000	205.136	106.324	58.696	1.00111.81	O	ATOM	20976	C4	G A1002	213.243	106.613	63.690	1.00200.93	C
ATOM	20927	N3	U A1000	206.538	107.913	57.869	1.00111.81	N	ATOM	20977	P	G A1003	213.127	107.609	69.682	1.00193.44	P
ATOM	20928	C4	U A1000	206.931	109.215	57.602	1.00111.81	C	ATOM	20978	O1P	G A1003	213.407	107.345	71.116	1.00195.15	O
ATOM	20929	O4	U A1000	208.013	109.422	57.043	1.00111.81	O	ATOM	20979	O2P	G A1003	212.235	108.739	69.304	1.00195.15	O
ATOM	20930	C5	U A1000	206.015	110.218	58.052	1.00111.81	C	ATOM	20980	O5*	G A1003	214.519	107.804	68.925	1.00193.44	O
ATOM	20931	C6	U A1000	204.892	109.858	58.685	1.00111.81	C	ATOM	20981	C5*	G A1003	215.581	106.824	69.033	1.00193.44	C
ATOM	20932	P	A A1001	203.759	110.225	64.024	1.00171.05	P	ATOM	20982	C4*	G A1003	216.622	107.060	67.958	1.00193.44	C
ATOM	20933	O1P	A A1001	203.040	110.386	65.313	1.00175.96	O	ATOM	20983	O4*	G A1003	215.968	107.001	66.665	1.00193.44	O
ATOM	20934	O2P	A A1001	204.490	111.387	63.447	1.00175.96	O	ATOM	20984	C3*	G A1003	217.303	108.422	67.990	1.00193.44	C
ATOM	20935	O5*	A A1001	204.785	109.014	64.175	1.00171.05	O	ATOM	20985	O3*	G A1003	218.453	108.414	68.830	1.00193.44	O
ATOM	20936	C5*	A A1001	204.335	107.714	64.611	1.00171.05	C	ATOM	20986	C2*	G A1003	217.679	108.651	66.532	1.00193.44	C
ATOM	20937	C4*	A A1001	205.421	106.680	64.407	1.00171.05	C	ATOM	20987	O2*	G A1003	218.887	108.014	66.170	1.00193.44	O
ATOM	20938	O4*	A A1001	205.676	106.518	62.986	1.00171.05	O	ATOM	20988	C1*	G A1003	216.517	107.980	65.802	1.00193.44	C
ATOM	20939	C3*	A A1001	206.778	107.023	65.001	1.00171.05	C	ATOM	20989	N9	G A1003	215.455	108.916	65.440	1.00195.15	N
ATOM	20940	O3*	A A1001	206.870	106.712	66.383	1.00171.05	O	ATOM	20990	C8	G A1003	214.283	109.152	66.123	1.00195.15	C
ATOM	20941	C2*	A A1001	207.733	106.207	64.139	1.00171.05	C	ATOM	20991	N7	G A1003	213.521	110.039	65.544	1.00195.15	N
ATOM	20942	O2*	A A1001	207.827	104.853	64.542	1.00171.05	O	ATOM	20992	C5	G A1003	214.232	110.416	64.413	1.00195.15	C
ATOM	20943	C1*	A A1001	207.063	106.301	62.766	1.00171.05	C	ATOM	20993	C6	G A1003	213.905	111.340	63.389	1.00195.15	C
ATOM	20944	N9	A A1001	207.585	107.433	61.992	1.00175.96	N	ATOM	20994	O6	G A1003	212.886	112.031	63.269	1.00195.15	O
ATOM	20945	C8	A A1001	207.019	108.678	61.844	1.00175.96	C	ATOM	20995	N1	G A1003	214.912	111.416	62.434	1.00195.15	N
ATOM	20946	N7	A A1001	207.736	109.506	61.125	1.00175.96	N	ATOM	20996	C2	G A1003	216.082	110.697	62.461	1.00195.15	C
ATOM	20947	C5	A A1001	208.846	108.757	60.763	1.00175.96	C	ATOM	20997	N2	G A1003	216.938	110.927	61.464	1.00195.15	N



Table 1: Sheet 212/521

ATOM	20998	N3	G A1003	216.393	109.826	63.401	1.00195.15	N	ATOM	21048	O5*	A A1005	222.565	119.201	62.396	1.00192.67	O
ATOM	20999	C4	G A1003	215.431	109.736	64.339	1.00195.15	C	ATOM	21049	C5*	A A1005	221.570	119.835	61.567	1.00192.67	C
ATOM	21000	P	G A1003A	218.763	109.681	69.771	1.00175.71	P	ATOM	21050	C4*	A A1005	222.036	121.207	61.132	1.00192.67	C
ATOM	21001	O1P	G A1003A	219.464	109.150	70.970	1.00155.21	O	ATOM	21051	O4*	A A1005	222.274	122.020	62.308	1.00192.67	O
ATOM	21002	O2P	G A1003A	217.513	110.470	69.937	1.00155.21	O	ATOM	21052	C3*	A A1005	223.334	121.284	60.335	1.00192.67	C
ATOM	21003	O5*	G A1003A	219.791	110.571	68.935	1.00175.71	O	ATOM	21053	O3*	A A1005	223.095	121.090	58.934	1.00192.67	O
ATOM	21004	C5*	G A1003A	221.216	110.351	69.024	1.00175.71	C	ATOM	21054	C2*	A A1005	223.809	122.712	60.612	1.00192.67	C
ATOM	21005	C4*	G A1003A	221.907	110.892	67.794	1.00175.71	C	ATOM	21055	O2*	A A1005	223.218	123.668	59.753	1.00192.67	O
ATOM	21006	O4*	G A1003A	221.216	110.362	66.630	1.00175.71	O	ATOM	21056	C1*	A A1005	223.300	122.957	62.035	1.00192.67	C
ATOM	21007	C3*	G A1003A	221.867	112.403	67.591	1.00175.71	C	ATOM	21057	N9	A A1005	224.320	122.868	63.084	1.00200.63	N
ATOM	21008	O3*	G A1003A	222.907	113.112	68.258	1.00175.71	O	ATOM	21058	C8	A A1005	225.073	121.780	63.457	1.00200.63	C
ATOM	21009	C2*	G A1003A	221.993	112.537	66.080	1.00175.71	C	ATOM	21059	N7	A A1005	225.910	122.027	64.437	1.00200.63	N
ATOM	21010	O2*	G A1003A	223.328	112.449	65.621	1.00175.71	O	ATOM	21060	C5	A A1005	225.695	123.366	64.730	1.00200.63	C
ATOM	21011	C1*	G A1003A	221.182	111.336	65.600	1.00175.71	C	ATOM	21061	C6	A A1005	226.272	124.231	65.676	1.00200.63	C
ATOM	21012	N9	G A1003A	219.796	111.741	65.387	1.00155.21	N	ATOM	21062	N6	A A1005	227.227	123.860	66.531	1.00200.63	N
ATOM	21013	C8	G A1003A	218.768	111.719	66.301	1.00155.21	C	ATOM	21063	N1	A A1005	225.831	125.508	65.713	1.00200.63	N
ATOM	21014	N7	G A1003A	217.660	112.228	65.838	1.00155.21	N	ATOM	21064	C2	A A1005	224.877	125.880	64.852	1.00200.63	C
ATOM	21015	C5	G A1003A	217.970	112.594	64.536	1.00155.21	C	ATOM	21065	N3	A A1005	224.259	125.163	63.917	1.00200.63	N
ATOM	21016	C6	G A1003A	217.174	113.217	63.547	1.00155.21	C	ATOM	21066	C4	A A1005	224.718	123.898	63.907	1.00200.63	C
ATOM	21017	O6	G A1003A	216.001	113.593	63.628	1.00155.21	O	ATOM	21067	P	C A1006	224.093	120.176	58.050	1.00171.42	P
ATOM	21018	N1	G A1003A	217.880	113.394	62.364	1.00155.21	N	ATOM	21068	O1P	C A1006	223.752	120.430	56.628	1.00179.23	O
ATOM	21019	C2	G A1003A	219.186	113.024	62.156	1.00155.21	C	ATOM	21069	O2P	C A1006	224.054	118.785	58.571	1.00179.23	O
ATOM	21020	N2	G A1003A	219.689	113.261	60.932	1.00155.21	N	ATOM	21070	O5*	C A1006	225.551	120.772	58.312	1.00171.42	O
ATOM	21021	N3	G A1003A	219.944	112.460	63.077	1.00155.21	N	ATOM	21071	C5*	C A1006	225.830	122.180	58.144	1.00171.42	C
ATOM	21022	C4	G A1003A	219.276	112.276	64.235	1.00155.21	C	ATOM	21072	C4*	C A1006	227.025	122.581	58.985	1.00171.42	C
ATOM	21023	P	A A1004	222.833	114.720	68.362	1.00191.14	P	ATOM	21073	O4*	C A1006	226.815	122.099	60.338	1.00171.42	O
ATOM	21024	O1P	A A1004	224.159	115.252	67.952	1.00164.39	O	ATOM	21074	C3*	C A1006	228.366	121.993	58.565	1.00171.42	C
ATOM	21025	O2P	A A1004	222.285	115.068	69.696	1.00164.39	O	ATOM	21075	O3*	C A1006	229.002	122.814	57.585	1.00171.42	O
ATOM	21026	O5*	A A1004	221.752	115.133	67.260	1.00191.14	O	ATOM	21076	C2*	C A1006	229.150	121.952	59.874	1.00171.42	C
ATOM	21027	C5*	A A1004	222.013	116.176	66.293	1.00191.14	C	ATOM	21077	O2*	C A1006	229.780	123.180	60.186	1.00171.42	O
ATOM	21028	O4*	A A1004	221.442	115.794	64.942	1.00191.14	C	ATOM	21078	C1*	C A1006	228.044	121.669	60.896	1.00171.42	C
ATOM	21029	C4*	A A1004	220.028	115.489	65.062	1.00191.14	C	ATOM	21079	N1	C A1006	227.908	120.245	61.275	1.00179.23	N
ATOM	21030	C3*	A A1004	221.521	116.853	63.850	1.00191.14	C	ATOM	21080	C2	C A1006	228.073	119.877	62.623	1.00179.23	C
ATOM	21031	O3*	A A1004	222.814	116.807	63.236	1.00191.14	O	ATOM	21081	O2	C A1006	228.329	120.755	63.467	1.00179.23	O
ATOM	21032	C2*	A A1004	220.390	116.452	62.899	1.00191.14	C	ATOM	21082	N3	C A1006	227.947	118.574	62.970	1.00179.23	N
ATOM	21033	O2*	A A1004	220.791	115.499	61.938	1.00191.14	O	ATOM	21083	C4	C A1006	227.671	117.656	62.040	1.00179.23	C
ATOM	21034	C1*	A A1004	219.368	115.812	63.851	1.00191.14	C	ATOM	21084	N4	C A1006	227.560	116.384	62.429	1.00179.23	N
ATOM	21035	N9	A A1004	218.161	116.597	64.152	1.00164.39	N	ATOM	21085	C5	C A1006	227.498	118.001	60.668	1.00179.23	C
ATOM	21036	C8	A A1004	217.793	117.811	63.623	1.00164.39	C	ATOM	21086	C6	C A1006	227.623	119.291	60.333	1.00179.23	C
ATOM	21037	N7	A A1004	216.651	118.266	64.079	1.00164.39	N	ATOM	21087	P	C A1007	230.136	122.189	56.629	1.00188.29	P
ATOM	21038	C5	A A1004	216.235	117.292	64.974	1.00164.39	C	ATOM	21088	O1P	C A1007	230.510	123.232	55.635	1.00140.80	O
ATOM	21039	C6	A A1004	215.095	117.186	65.796	1.00164.39	C	ATOM	21089	O2P	C A1007	229.662	120.860	56.153	1.00140.80	O
ATOM	21040	N6	A A1004	214.133	118.109	65.853	1.00164.39	N	ATOM	21090	O5*	C A1007	231.381	121.959	57.601	1.00188.29	O
ATOM	21041	N1	A A1004	214.979	116.085	66.568	1.00164.39	N	ATOM	21091	C5*	C A1007	232.184	123.070	58.059	1.00188.29	C
ATOM	21042	C2	A A1004	215.946	115.162	66.516	1.00164.39	C	ATOM	21092	C4*	C A1007	233.346	122.575	58.893	1.00188.29	C
ATOM	21043	N3	A A1004	217.064	115.149	65.790	1.00164.39	N	ATOM	21093	O4*	C A1007	232.841	121.954	60.103	1.00188.29	O
ATOM	21044	C4	A A1004	217.152	116.255	65.029	1.00164.39	C	ATOM	21094	C3*	C A1007	234.223	121.509	58.250	1.00188.29	C
ATOM	21045	P	A A1005	223.171	117.781	62.001	1.00192.67	P	ATOM	21095	O3*	C A1007	235.234	122.069	57.421	1.00188.29	O
ATOM	21046	O1P	A A1005	222.452	117.271	60.804	1.00200.63	O	ATOM	21096	C2*	C A1007	234.816	120.785	59.451	1.00188.29	C
ATOM	21047	O2P	A A1005	224.649	117.916	61.961	1.00200.63	O	ATOM	21097	O2*	C A1007	235.955	121.426	59.986	1.00188.29	O



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ATOM	21098	C1*	C A1007	233.666	120.855	60.456	1.00188.29	C	ATOM	21148	N3	G A1009	238.798	109.794	59.122	1.00157.44	N
ATOM	21099	N1	C A1007	232.852	119.626	60.445	1.00140.80	N	ATOM	21149	C4	G A1009	238.231	110.885	58.563	1.00157.44	C
ATOM	21100	C2	C A1007	233.360	118.474	61.065	1.00140.80	C	ATOM	21150	P	G A1010	243.279	111.169	55.211	1.00122.93	P
ATOM	21101	O2	C A1007	234.472	118.525	61.620	1.00140.80	O	ATOM	21151	O1P	G A1010	244.725	111.254	54.876	1.00154.26	O
ATOM	21102	N3	C A1007	232.627	117.335	61.042	1.00140.80	N	ATOM	21152	O2P	G A1010	242.269	111.528	54.185	1.00154.26	O
ATOM	21103	C4	C A1007	231.435	117.319	60.441	1.00140.80	C	ATOM	21153	O5*	G A1010	242.972	109.699	55.742	1.00122.93	O
ATOM	21104	N4	C A1007	230.748	116.174	60.443	1.00140.80	N	ATOM	21154	C5*	G A1010	243.722	109.155	56.836	1.00122.93	C
ATOM	21105	C5	C A1007	230.893	118.477	59.811	1.00140.80	C	ATOM	21155	C4*	G A1010	243.112	107.859	57.301	1.00122.93	C
ATOM	21106	C6	C A1007	231.627	119.596	59.837	1.00140.80	C	ATOM	21156	O4*	G A1010	241.783	108.103	57.833	1.00122.93	O
ATOM	21107	P	C A1008	235.969	121.142	56.331	1.00186.77	P	ATOM	21157	C3*	G A1010	242.893	106.792	56.243	1.00122.93	C
ATOM	21108	O1P	C A1008	236.858	122.023	55.528	1.00171.05	O	ATOM	21158	O3*	G A1010	244.067	106.052	55.937	1.00122.93	O
ATOM	21109	O2P	C A1008	234.939	120.317	55.647	1.00171.05	O	ATOM	21159	C2*	G A1010	241.808	105.921	56.871	1.00122.93	C
ATOM	21110	O5*	C A1008	236.885	120.172	57.202	1.00186.77	O	ATOM	21160	O2*	G A1010	242.303	104.964	57.786	1.00122.93	O
ATOM	21111	C5*	C A1008	238.093	120.655	57.818	1.00186.77	C	ATOM	21161	C1*	G A1010	240.966	106.959	57.614	1.00122.93	C
ATOM	21112	C4*	C A1008	238.826	119.526	58.502	1.00186.77	C	ATOM	21162	N9	G A1010	239.789	107.340	56.837	1.00154.26	N
ATOM	21113	O4*	C A1008	238.016	119.002	59.585	1.00186.77	O	ATOM	21163	C8	G A1010	239.579	108.512	56.146	1.00154.26	C
ATOM	21114	C3*	C A1008	239.147	118.311	57.645	1.00186.77	C	ATOM	21164	N7	G A1010	238.438	108.535	55.511	1.00154.26	N
ATOM	21115	O3*	C A1008	240.346	118.496	56.899	1.00186.77	O	ATOM	21165	C5	G A1010	237.853	107.310	55.805	1.00154.26	C
ATOM	21116	C2*	C A1008	239.280	117.191	58.673	1.00186.77	C	ATOM	21166	C6	G A1010	236.611	106.759	55.389	1.00154.26	C
ATOM	21117	O2*	C A1008	240.567	117.104	59.251	1.00186.77	O	ATOM	21167	O6	G A1010	235.755	107.259	54.645	1.00154.26	O
ATOM	21118	C1*	C A1008	238.270	117.615	59.739	1.00186.77	C	ATOM	21168	N1	G A1010	236.410	105.489	55.925	1.00154.26	N
ATOM	21119	N1	C A1008	236.998	116.874	59.660	1.00171.05	N	ATOM	21169	C2	G A1010	237.289	104.829	56.748	1.00154.26	C
ATOM	21120	C2	C A1008	236.843	115.722	60.449	1.00171.05	C	ATOM	21170	N2	G A1010	236.913	103.608	57.158	1.00154.26	N
ATOM	21121	O2	C A1008	237.778	115.357	61.181	1.00171.05	O	ATOM	21171	N3	G A1010	238.451	105.329	57.139	1.00154.26	N
ATOM	21122	N3	C A1008	235.681	115.035	60.392	1.00171.05	N	ATOM	21172	C4	G A1010	238.667	106.564	56.632	1.00154.26	C
ATOM	21123	C4	C A1008	234.699	115.451	59.589	1.00171.05	C	ATOM	21173	P	G A1011	245.477	104.585	54.474	1.00136.47	P
ATOM	21124	N4	C A1008	233.568	114.742	59.571	1.00171.05	N	ATOM	21174	O1P	G A1011	243.702	106.137	53.456	1.00136.47	O
ATOM	21125	C5	C A1008	234.832	116.612	58.771	1.00171.05	C	ATOM	21175	O2P	G A1011	243.050	104.092	54.725	1.00142.35	O
ATOM	21126	C6	C A1008	235.986	117.288	58.838	1.00171.05	C	ATOM	21176	O5*	G A1011	243.236	103.032	55.681	1.00142.35	C
ATOM	21127	P	G A1009	240.828	117.355	55.874	1.00150.03	P	ATOM	21177	C5*	G A1011	242.224	101.937	55.453	1.00142.35	C
ATOM	21128	O1P	G A1009	242.122	117.794	55.291	1.00157.44	O	ATOM	21178	C4*	G A1011	240.900	102.395	55.836	1.00142.35	O
ATOM	21129	O2P	G A1009	239.693	117.019	54.976	1.00157.44	O	ATOM	21179	O4*	G A1011	242.073	101.511	54.005	1.00142.35	O
ATOM	21130	O5*	G A1009	241.114	116.104	56.817	1.00150.03	O	ATOM	21180	C3*	G A1011	243.079	100.593	53.597	1.00142.35	O
ATOM	21131	C5*	G A1009	241.320	114.798	56.271	1.00150.03	C	ATOM	21181	O3*	G A1011	240.660	100.942	53.966	1.00142.35	C
ATOM	21132	C4*	G A1009	241.568	113.807	57.380	1.00150.03	C	ATOM	21182	C2*	G A1011	240.594	99.604	54.423	1.00142.35	O
ATOM	21133	O4*	G A1009	240.448	113.805	58.302	1.00150.03	O	ATOM	21183	O2*	G A1011	239.930	101.867	54.943	1.00142.35	C
ATOM	21134	C3*	G A1009	241.690	112.370	56.910	1.00150.03	C	ATOM	21184	C1*	G A1011	239.262	102.987	54.278	1.00136.47	N
ATOM	21135	O3*	G A1009	243.022	112.093	56.498	1.00150.03	O	ATOM	21185	N9	G A1011	239.733	104.275	54.151	1.00136.47	C
ATOM	21136	C2*	G A1009	241.261	111.566	58.133	1.00150.03	C	ATOM	21186	C8	G A1011	238.913	105.063	53.507	1.00136.47	N
ATOM	21137	O2*	G A1009	242.308	111.344	59.056	1.00150.03	O	ATOM	21187	N7	G A1011	237.832	104.251	53.187	1.00136.47	C
ATOM	21138	C1*	G A1009	240.201	112.482	58.756	1.00150.03	C	ATOM	21188	C5	G A1011	236.628	104.553	52.489	1.00136.47	C
ATOM	21139	N9	G A1009	238.832	112.116	58.391	1.00157.44	N	ATOM	21189	C6	G A1011	236.265	105.637	52.007	1.00136.47	O
ATOM	21140	C8	G A1009	237.890	112.923	57.796	1.00157.44	C	ATOM	21190	O6	G A1011	235.809	103.433	52.378	1.00136.47	N
ATOM	21141	N7	G A1009	236.760	112.312	57.566	1.00157.44	N	ATOM	21191	N1	G A1011	236.105	102.183	52.873	1.00136.47	C
ATOM	21142	C5	G A1009	236.961	111.023	58.040	1.00157.44	C	ATOM	21192	C2	G A1011	235.187	101.227	52.660	1.00136.47	N
ATOM	21143	C6	G A1009	236.086	109.902	58.054	1.00157.44	C	ATOM	21193	N2	G A1011	237.218	101.891	53.529	1.00136.47	N
ATOM	21144	O6	G A1009	234.923	109.822	57.629	1.00157.44	O	ATOM	21194	N3	G A1011	238.031	102.964	53.650	1.00136.47	C
ATOM	21145	N1	G A1009	236.691	108.793	58.636	1.00157.44	N	ATOM	21195	C4	G A1011	243.652	100.674	52.096	1.00141.16	P
ATOM	21146	C2	G A1009	237.971	108.760	59.137	1.00157.44	C	ATOM	21196	P	U A1012	244.735	99.667	51.955	1.00 75.25	O
ATOM	21147	N2	G A1009	238.369	107.592	59.666	1.00157.44	N	ATOM	21197	O1P	U A1012					



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ATOM	21198	O2P	U	A1012	243.937	102.103	51.784	1.00	75.25	O	ATOM	21248	C2*	A	A1014	238.731	104.705	38.665	1.00112.13	C	
ATOM	21199	O5*	U	A1012	242.412	100.204	51.209	1.00141.16	O		ATOM	21249	O2*	A	A1014	238.892	105.737	37.712	1.00112.13	O	
ATOM	21200	C5*	U	A1012	241.870	98.872	51.347	1.00141.16	C		ATOM	21250	C1*	A	A1014	239.141	103.374	38.032	1.00112.13	C	
ATOM	21201	C4*	U	A1012	240.645	98.696	50.474	1.00141.16	C		ATOM	21251	N9	A	A1014	238.313	102.227	38.401	1.00	95.17	N
ATOM	21202	O4*	U	A1012	239.520	99.434	51.023	1.00141.16	O		ATOM	21252	C8	A	A1014	238.517	101.362	39.446	1.00	95.17	C
ATOM	21203	C3*	U	A1012	240.748	99.208	49.047	1.00141.16	C		ATOM	21253	N7	A	A1014	237.651	100.381	39.500	1.00	95.17	N
ATOM	21204	O3*	U	A1012	241.436	98.350	48.161	1.00141.16	O		ATOM	21254	C5	A	A1014	236.809	100.622	38.425	1.00	95.17	C
ATOM	21205	C2*	U	A1012	239.290	99.387	48.659	1.00141.16	C		ATOM	21255	C6	A	A1014	235.693	99.929	37.929	1.00	95.17	C
ATOM	21206	O2*	U	A1012	238.671	98.174	48.285	1.00141.16	O		ATOM	21256	N6	A	A1014	235.224	98.799	38.468	1.00	95.17	N
ATOM	21207	C1*	U	A1012	238.695	99.901	49.966	1.00141.16	C		ATOM	21257	N1	A	A1014	235.072	100.439	36.843	1.00	95.17	N
ATOM	21208	N1	U	A1012	238.705	101.372	49.964	1.00	75.25	N	ATOM	21258	C2	A	A1014	235.555	101.568	36.296	1.00	95.17	C
ATOM	21209	C2	U	A1012	237.573	102.015	49.496	1.00	75.25	C	ATOM	21259	N3	A	A1014	236.601	102.303	36.666	1.00	95.17	N
ATOM	21210	O2	U	A1012	236.577	101.413	49.124	1.00	75.25	O	ATOM	21260	C4	A	A1014	237.193	101.769	37.749	1.00	95.17	C
ATOM	21211	N3	U	A1012	237.647	103.391	49.476	1.00	75.25	N	ATOM	21261	P	A	A1015	239.897	106.652	41.693	1.00101.31	P	
ATOM	21212	C4	U	A1012	238.713	104.175	49.871	1.00	75.25	C	ATOM	21262	O1P	A	A1015	241.009	107.609	41.937	1.00	70.36	O
ATOM	21213	O4	U	A1012	238.616	105.410	49.821	1.00	75.25	O	ATOM	21263	O2P	A	A1015	239.769	105.428	42.543	1.00	70.36	O
ATOM	21214	C5	U	A1012	239.845	103.435	50.348	1.00	75.25	C	ATOM	21264	O5*	A	A1015	238.539	107.485	41.730	1.00101.31	O	
ATOM	21215	C6	U	A1012	239.801	102.094	50.383	1.00	75.25	C	ATOM	21265	C5*	A	A1015	238.365	108.655	40.902	1.00101.31	C	
ATOM	21216	P	G	A1013	242.229	98.990	46.922	1.00125.68	P		ATOM	21266	C4*	A	A1015	237.008	108.625	40.244	1.00101.31	C	
ATOM	21217	O1P	G	A1013	242.722	97.851	46.107	1.00111.43	O		ATOM	21267	O4*	A	A1015	236.901	107.401	39.475	1.00101.31	O	
ATOM	21218	O2P	G	A1013	243.192	100.006	47.432	1.00111.43	O		ATOM	21268	C3*	A	A1015	235.825	108.585	41.199	1.00101.31	C	
ATOM	21219	O5*	G	A1013	241.097	99.760	46.104	1.00125.68	O		ATOM	21269	O3*	A	A1015	235.408	109.894	41.568	1.00101.31	O	
ATOM	21220	C5*	G	A1013	240.113	99.030	45.342	1.00125.68	C		ATOM	21270	C2*	A	A1015	234.755	107.878	40.382	1.00101.31	C	
ATOM	21221	C4*	G	A1013	239.285	99.971	44.493	1.00125.68	C		ATOM	21271	O2*	A	A1015	234.120	108.771	39.489	1.00101.31	O	
ATOM	21222	O4*	G	A1013	238.444	100.797	45.339	1.00125.68	O		ATOM	21272	C1*	A	A1015	235.586	106.881	39.576	1.00101.31	C	
ATOM	21223	C3*	G	A1013	240.037	100.966	43.622	1.00125.68	C		ATOM	21273	N9	A	A1015	235.666	105.538	40.161	1.00	70.36	N
ATOM	21224	O3*	G	A1013	240.494	100.398	42.398	1.00125.68	O		ATOM	21274	C8	A	A1015	236.629	105.068	41.019	1.00	70.36	C
ATOM	21225	C2*	G	A1013	238.994	102.055	43.391	1.00125.68	C		ATOM	21275	N7	A	A1015	236.488	103.803	41.335	1.00	70.36	N
ATOM	21226	O2*	G	A1013	238.093	101.755	42.346	1.00125.68	O		ATOM	21276	C5	A	A1015	235.342	103.413	40.657	1.00	70.36	C
ATOM	21227	C1*	G	A1013	238.239	102.056	44.721	1.00125.68	C		ATOM	21277	C6	A	A1015	234.658	102.180	40.583	1.00	70.36	C
ATOM	21228	N9	G	A1013	238.743	103.101	45.602	1.00111.43	N		ATOM	21278	N6	A	A1015	235.060	101.073	41.211	1.00	70.36	N
ATOM	21229	C8	G	A1013	239.808	103.019	46.464	1.00111.43	C		ATOM	21279	N1	A	A1015	233.536	102.125	39.829	1.00	70.36	N
ATOM	21230	N7	G	A1013	240.048	104.138	47.089	1.00111.43	N		ATOM	21280	C2	A	A1015	233.142	103.238	39.192	1.00	70.36	C
ATOM	21231	C5	G	A1013	239.073	105.009	46.621	1.00111.43	C		ATOM	21281	N3	A	A1015	233.703	104.453	39.179	1.00	70.36	N
ATOM	21232	C6	G	A1013	238.826	106.371	46.941	1.00111.43	C		ATOM	21282	C4	A	A1015	234.813	104.475	39.940	1.00	70.36	C
ATOM	21233	O6	G	A1013	239.431	107.098	47.742	1.00111.43	O		ATOM	21283	P	A	A1016	234.603	110.118	42.943	1.00	97.06	P
ATOM	21234	N1	G	A1013	237.744	106.875	46.226	1.00111.43	N		ATOM	21284	O1P	A	A1016	234.371	111.579	43.051	1.00	68.40	O
ATOM	21235	C2	G	A1013	236.987	106.161	45.331	1.00111.43	C		ATOM	21285	O2P	A	A1016	235.311	109.398	44.034	1.00	68.40	O
ATOM	21236	N2	G	A1013	235.981	106.828	44.747	1.00111.43	N		ATOM	21286	O5*	A	A1016	233.204	109.384	42.724	1.00	97.06	O
ATOM	21237	N3	G	A1013	237.200	104.888	45.032	1.00111.43	N		ATOM	21287	C5*	A	A1016	232.166	109.967	41.906	1.00	97.06	C
ATOM	21238	C4	G	A1013	238.255	104.381	45.708	1.00111.43	C		ATOM	21288	C4*	A	A1016	231.067	108.955	41.666	1.00	97.06	C
ATOM	21239	P	A	A1014	241.684	101.117	41.584	1.00112.13	P		ATOM	21289	O4*	A	A1016	231.659	107.785	41.049	1.00	97.06	O
ATOM	21240	O1P	A	A1014	241.888	100.336	40.339	1.00	95.17	O	ATOM	21290	C3*	A	A1016	230.384	108.419	42.916	1.00	97.06	C
ATOM	21241	O2P	A	A1014	242.826	101.328	42.505	1.00	95.17	O	ATOM	21291	O3*	A	A1016	229.296	109.233	43.325	1.00	97.06	O
ATOM	21242	O5*	A	A1014	241.080	102.544	41.195	1.00112.13	O		ATOM	21292	C2*	A	A1016	229.926	107.031	42.488	1.00	97.06	C
ATOM	21243	C5*	A	A1014	241.834	103.481	40.390	1.00112.13	C		ATOM	21293	O2*	A	A1016	228.701	107.016	41.781	1.00	97.06	O
ATOM	21244	C4*	A	A1014	240.948	104.111	39.331	1.00112.13	C		ATOM	21294	C1*	A	A1016	231.059	106.610	41.559	1.00	97.06	C
ATOM	21245	O4*	A	A1014	240.469	103.086	38.428	1.00112.13	O		ATOM	21295	N9	A	A1016	232.084	105.862	42.279	1.00	68.40	N
ATOM	21246	C3*	A	A1014	239.698	104.806	39.842	1.00112.13	C		ATOM	21296	C8	A	A1016	233.225	106.349	42.876	1.00	68.40	C
ATOM	21247	O3*	A	A1014	240.000	106.158	40.168	1.00112.13	O		ATOM	21297	N7	A	A1016	233.959	105.426	43.444	1.00	68.40	N



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ATOM	21298	C5	A A1016	233.254	104.252	43.210	1.00	68.40	C	ATOM	21348	P	C A1019	227.269	101.844	53.680	1.00164.61	P	
ATOM	21299	C6	A A1016	233.511	102.915	43.551	1.00	68.40	C	ATOM	21349	O1P	C A1019	226.164	101.005	54.206	1.00	82.54	O
ATOM	21300	N6	A A1016	234.593	102.521	44.234	1.00	68.40	N	ATOM	21350	O2P	C A1019	227.105	103.324	53.618	1.00	82.54	O
ATOM	21301	N1	A A1016	232.610	101.983	43.160	1.00	68.40	N	ATOM	21351	O5*	C A1019	228.609	101.536	54.490	1.00164.61	O	
ATOM	21302	C2	A A1016	231.531	102.383	42.474	1.00	68.40	C	ATOM	21352	C5*	C A1019	228.994	100.181	54.805	1.00164.61	C	
ATOM	21303	N3	A A1016	231.181	103.610	42.094	1.00	68.40	N	ATOM	21353	C4*	C A1019	230.351	100.152	55.477	1.00164.61	C	
ATOM	21304	C4	A A1016	232.097	104.508	42.496	1.00	68.40	C	ATOM	21354	O4*	C A1019	231.357	100.667	54.562	1.00164.61	O	
ATOM	21305	P	G A1017	229.048	109.496	44.890	1.00107.49	P	ATOM	21355	C3*	C A1019	230.521	101.009	56.722	1.00164.61	C		
ATOM	21306	O1P	G A1017	227.784	110.276	44.977	1.00	77.92	O	ATOM	21356	O3*	C A1019	230.030	100.410	57.910	1.00164.61	O	
ATOM	21307	O2P	G A1017	230.301	110.051	45.466	1.00	77.92	O	ATOM	21357	C2*	C A1019	232.027	101.219	56.774	1.00164.61	C	
ATOM	21308	O5*	G A1017	228.828	108.045	45.513	1.00107.49	O	ATOM	21358	O2*	C A1019	232.719	100.123	57.337	1.00164.61	O		
ATOM	21309	C5*	G A1017	227.800	107.180	45.010	1.00107.49	C	ATOM	21359	C1*	C A1019	232.367	101.348	55.292	1.00164.61	C		
ATOM	21310	C4*	G A1017	228.115	105.737	45.330	1.00107.49	C	ATOM	21360	N1	C A1019	232.366	102.772	54.904	1.00	82.54	N	
ATOM	21311	O4*	G A1017	229.434	105.416	44.827	1.00107.49	O	ATOM	21361	C2	C A1019	233.579	103.485	54.934	1.00	82.54	C	
ATOM	21312	C3*	G A1017	228.172	105.351	46.800	1.00107.49	C	ATOM	21362	O2	C A1019	234.628	102.889	55.241	1.00	82.54	O	
ATOM	21313	O3*	G A1017	226.880	105.058	47.316	1.00107.49	O	ATOM	21363	N3	C A1019	233.575	104.806	54.636	1.00	82.54	N	
ATOM	21314	C2*	G A1017	229.065	104.116	46.785	1.00107.49	C	ATOM	21364	C4	C A1019	232.431	105.418	54.323	1.00	82.54	C	
ATOM	21315	O2*	G A1017	228.384	102.928	46.436	1.00107.49	O	ATOM	21365	N4	C A1019	232.475	106.730	54.064	1.00	82.54	N	
ATOM	21316	C1*	G A1017	230.051	104.465	45.674	1.00107.49	C	ATOM	21366	C5	C A1019	231.189	104.715	54.264	1.00	82.54	C	
ATOM	21317	N9	G A1017	231.280	105.040	46.206	1.00	77.92	N	ATOM	21367	C6	C A1019	231.204	103.406	54.552	1.00	82.54	C
ATOM	21318	C8	G A1017	231.606	106.374	46.328	1.00	77.92	C	ATOM	21368	P	U A1020	229.594	101.349	59.143	1.00150.30	P	
ATOM	21319	N7	G A1017	232.782	106.566	46.862	1.00	77.92	N	ATOM	21369	O1P	U A1020	229.255	100.441	60.268	1.00134.94	O	
ATOM	21320	C5	G A1017	233.261	105.283	47.105	1.00	77.92	C	ATOM	21370	O2P	U A1020	228.587	102.337	58.671	1.00134.94	O	
ATOM	21321	C6	G A1017	234.479	104.851	47.678	1.00	77.92	C	ATOM	21371	O5*	U A1020	230.924	102.149	59.516	1.00150.30	O	
ATOM	21322	O6	G A1017	235.411	105.538	48.108	1.00	77.92	O	ATOM	21372	C5*	U A1020	232.076	101.458	60.037	1.00150.30	C	
ATOM	21323	N1	G A1017	234.557	103.462	47.733	1.00	77.92	N	ATOM	21373	C4*	U A1020	233.231	102.413	60.233	1.00150.30	C	
ATOM	21324	C2	G A1017	233.582	102.596	47.300	1.00	77.92	C	ATOM	21374	O4*	U A1020	233.576	103.017	58.958	1.00150.30	O	
ATOM	21325	N2	G A1017	233.841	101.281	47.436	1.00	77.92	N	ATOM	21375	C3*	U A1020	232.999	103.597	61.163	1.00150.30	C	
ATOM	21326	N3	G A1017	232.437	102.987	46.770	1.00	77.92	N	ATOM	21376	O3*	U A1020	233.157	103.261	62.544	1.00150.30	O	
ATOM	21327	C4	G A1017	232.346	104.333	46.702	1.00	77.92	C	ATOM	21377	C2*	U A1020	234.042	104.597	60.676	1.00150.30	C	
ATOM	21328	P	C A1018	226.587	105.256	48.882	1.00117.83	P	ATOM	21378	O2*	U A1020	235.338	104.350	61.186	1.00150.30	O		
ATOM	21329	O1P	C A1018	225.143	104.966	49.087	1.00	76.09	O	ATOM	21379	C1*	U A1020	234.035	104.344	59.167	1.00150.30	C	
ATOM	21330	O2P	C A1018	227.147	106.578	49.296	1.00	76.09	O	ATOM	21380	N1	U A1020	233.130	105.278	58.475	1.00134.94	N	
ATOM	21331	O5*	C A1018	227.417	104.086	49.572	1.00117.83	O	ATOM	21381	C2	U A1020	233.651	106.499	58.058	1.00134.94	C		
ATOM	21332	C5*	C A1018	227.076	102.708	49.330	1.00117.83	C	ATOM	21382	O2	U A1020	234.824	106.808	58.200	1.00134.94	O		
ATOM	21333	C4*	C A1018	228.141	101.795	49.891	1.00117.83	C	ATOM	21383	N3	U A1020	232.743	107.346	57.467	1.00134.94	N		
ATOM	21334	O4*	C A1018	229.404	102.050	49.220	1.00117.83	O	ATOM	21384	C4	U A1020	231.401	107.106	57.248	1.00134.94	C		
ATOM	21335	C3*	C A1018	228.465	101.973	51.365	1.00117.83	C	ATOM	21385	O4	U A1020	230.703	107.989	56.746	1.00134.94	O		
ATOM	21336	O3*	C A1018	227.565	101.278	52.206	1.00117.83	O	ATOM	21386	C5	U A1020	230.943	105.821	57.683	1.00134.94	C		
ATOM	21337	C2*	C A1018	229.879	101.421	51.463	1.00117.83	C	ATOM	21387	C6	U A1020	231.799	104.971	58.264	1.00134.94	C		
ATOM	21338	O2*	C A1018	229.901	100.008	51.516	1.00117.83	O	ATOM	21388	P	G A1021	232.649	104.287	63.686	1.00162.77	P		
ATOM	21339	C1*	C A1018	230.476	101.884	50.137	1.00117.83	C	ATOM	21389	O1P	G A1021	232.492	103.501	64.937	1.00155.10	O		
ATOM	21340	N1	C A1018	231.187	103.172	50.275	1.00	76.09	N	ATOM	21390	O2P	G A1021	231.506	105.092	63.177	1.00155.10	O	
ATOM	21341	C2	C A1018	232.574	103.160	50.533	1.00	76.09	C	ATOM	21391	O5*	G A1021	233.887	105.268	63.886	1.00162.77	O	
ATOM	21342	O2	C A1018	233.158	102.073	50.656	1.00	76.09	O	ATOM	21392	C5*	G A1021	235.172	104.748	64.262	1.00162.77	C	
ATOM	21343	N3	C A1018	233.236	104.336	50.647	1.00	76.09	N	ATOM	21393	C4*	G A1021	236.215	105.838	64.249	1.00162.77	C	
ATOM	21344	C4	C A1018	232.573	105.492	50.518	1.00	76.09	C	ATOM	21394	O4*	G A1021	236.454	106.294	62.890	1.00162.77	O	
ATOM	21345	N4	C A1018	233.274	106.630	50.621	1.00	76.09	N	ATOM	21395	C3*	G A1021	235.876	107.106	65.012	1.00162.77	C	
ATOM	21346	C5	C A1018	231.163	105.534	50.272	1.00	76.09	C	ATOM	21396	O3*	G A1021	236.083	106.988	66.414	1.00162.77	O	
ATOM	21347	C6	C A1018	230.518	104.363	50.158	1.00	76.09	C	ATOM	21397	C2*	G A1021	236.801	108.131	64.364	1.00162.77	C	



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ATOM	21398	O2*	G A1021	238.119	108.112	64.881	1.00162.77	O	ATOM	21448	N7	G A1023	232.786	116.229	64.949	1.00190.92	N
ATOM	21399	C1*	G A1021	236.803	107.672	62.904	1.00162.77	C	ATOM	21449	C5	G A1023	232.639	117.564	64.597	1.00190.92	C
ATOM	21400	N9	G A1021	235.831	108.427	62.111	1.00155.10	N	ATOM	21450	C6	G A1023	231.611	118.212	63.863	1.00190.92	C
ATOM	21401	C8	G A1021	234.698	107.952	61.491	1.00155.10	C	ATOM	21451	O6	G A1023	230.588	117.721	63.374	1.00190.92	O
ATOM	21402	N7	G A1021	234.008	108.888	60.892	1.00155.10	N	ATOM	21452	N1	G A1023	231.860	119.574	63.726	1.00190.92	N
ATOM	21403	C5	G A1021	234.732	110.053	61.122	1.00155.10	C	ATOM	21453	C2	G A1023	232.951	120.233	64.233	1.00190.92	C
ATOM	21404	C6	G A1021	234.472	111.394	60.725	1.00155.10	C	ATOM	21454	N2	G A1023	233.013	121.549	63.985	1.00190.92	N
ATOM	21405	O6	G A1021	233.518	111.835	60.073	1.00155.10	O	ATOM	21455	N3	G A1023	233.911	119.644	64.931	1.00190.92	N
ATOM	21406	N1	G A1021	235.466	112.262	61.171	1.00155.10	N	ATOM	21456	C4	G A1023	233.692	118.317	65.074	1.00190.92	C
ATOM	21407	C2	G A1021	236.567	111.894	61.905	1.00155.10	C	ATOM	21457	P	G A1024	234.069	119.366	70.886	1.00200.81	P
ATOM	21408	N2	G A1021	237.413	112.878	62.242	1.00155.10	N	ATOM	21458	O1P	G A1024	234.240	120.704	71.503	1.00158.10	O
ATOM	21409	N3	G A1021	236.820	110.651	62.283	1.00155.10	N	ATOM	21459	O2P	G A1024	233.981	118.162	71.752	1.00158.10	O
ATOM	21410	C4	G A1021	235.866	109.787	61.861	1.00155.10	C	ATOM	21460	O5*	G A1024	232.773	119.402	69.955	1.00200.81	O
ATOM	21411	P	G A1022	235.030	107.662	67.430	1.00158.93	P	ATOM	21461	C5*	G A1024	232.522	120.513	69.069	1.00200.81	C
ATOM	21412	O1P	G A1022	235.525	107.411	68.804	1.00150.16	O	ATOM	21462	C4*	G A1024	231.209	120.325	68.335	1.00200.81	C
ATOM	21413	O2P	G A1022	233.662	107.219	67.048	1.00150.16	O	ATOM	21463	O4*	G A1024	231.332	119.302	67.312	1.00200.81	O
ATOM	21414	O5*	G A1022	235.149	109.227	67.143	1.00158.93	O	ATOM	21464	C3*	G A1024	230.025	119.879	69.177	1.00200.81	C
ATOM	21415	C5*	G A1022	236.436	109.856	66.975	1.00158.93	C	ATOM	21465	O3*	G A1024	229.420	120.966	69.863	1.00200.81	O
ATOM	21416	C4*	G A1022	236.295	111.138	66.188	1.00158.93	C	ATOM	21466	C2*	G A1024	229.095	119.247	68.145	1.00200.81	C
ATOM	21417	O4*	G A1022	235.666	110.854	64.909	1.00158.93	O	ATOM	21467	O1*	G A1024	228.287	120.196	67.476	1.00200.81	O
ATOM	21418	C3*	G A1022	235.399	112.188	66.819	1.00158.93	C	ATOM	21468	C1*	G A1024	230.088	118.632	67.154	1.00200.81	C
ATOM	21419	O3*	G A1022	236.100	112.974	67.768	1.00158.93	O	ATOM	21469	N9	G A1024	230.287	117.193	67.338	1.00158.10	N
ATOM	21420	C2*	G A1022	234.935	113.004	65.618	1.00158.93	C	ATOM	21470	C8	G A1024	231.392	116.561	67.860	1.00158.10	C
ATOM	21421	O2*	G A1022	235.889	113.965	65.204	1.00158.93	O	ATOM	21471	N7	G A1024	231.268	115.261	67.908	1.00158.10	N
ATOM	21422	C1*	G A1022	234.805	111.924	64.542	1.00158.93	C	ATOM	21472	C5	G A1024	230.005	115.015	67.386	1.00158.10	C
ATOM	21423	N9	G A1022	233.441	111.406	64.400	1.00150.16	N	ATOM	21473	C6	G A1024	229.311	113.787	67.193	1.00158.10	C
ATOM	21424	C8	G A1022	233.009	110.119	64.635	1.00150.16	C	ATOM	21474	O6	G A1024	229.686	112.637	67.458	1.00158.10	O
ATOM	21425	N7	G A1022	231.726	109.962	64.442	1.00150.16	N	ATOM	21475	N1	G A1024	228.054	113.995	66.634	1.00158.10	N
ATOM	21426	C5	G A1022	231.279	111.218	64.051	1.00150.16	C	ATOM	21476	C2	G A1024	226.527	115.221	66.305	1.00158.10	C
ATOM	21427	C6	G A1022	229.974	111.665	63.716	1.00150.16	C	ATOM	21477	N2	G A1024	226.297	115.212	65.776	1.00158.10	N
ATOM	21428	O6	G A1022	228.920	111.019	63.695	1.00150.16	O	ATOM	21478	N3	G A1024	228.159	116.370	66.482	1.00158.10	N
ATOM	21429	N1	G A1022	229.967	113.016	63.382	1.00150.16	N	ATOM	21479	C4	G A1024	229.386	116.195	67.023	1.00158.10	C
ATOM	21430	C2	G A1022	231.070	113.834	63.373	1.00150.16	C	ATOM	21480	P	U A1025	228.745	120.717	71.301	1.00200.93	P
ATOM	21431	N2	G A1022	230.853	115.107	63.029	1.00150.16	N	ATOM	21481	O1P	U A1025	228.265	122.043	71.778	1.00160.83	O
ATOM	21432	N3	G A1022	232.293	113.432	63.681	1.00150.16	N	ATOM	21482	O2P	U A1025	229.705	119.946	72.135	1.00160.83	O
ATOM	21433	C4	G A1022	232.325	112.122	64.011	1.00150.16	C	ATOM	21483	O5*	U A1025	227.492	119.781	70.969	1.00200.93	O
ATOM	21434	P	G A1023	235.392	113.354	69.160	1.00151.86	P	ATOM	21484	C5*	U A1025	226.155	120.160	71.355	1.00200.93	C
ATOM	21435	O1P	G A1023	235.831	112.353	70.165	1.00190.92	O	ATOM	21485	C4*	U A1025	225.722	121.371	70.565	1.00200.93	C
ATOM	21436	O2P	G A1023	233.938	113.552	68.912	1.00190.92	O	ATOM	21486	O4*	U A1025	225.564	121.027	69.163	1.00200.93	O
ATOM	21437	O5*	G A1023	236.044	114.759	69.530	1.00151.86	O	ATOM	21487	C3*	U A1025	224.396	122.007	70.944	1.00200.93	C
ATOM	21438	C5*	G A1023	235.248	115.954	69.579	1.00151.86	C	ATOM	21488	O3*	U A1025	224.540	122.875	72.062	1.00200.93	O
ATOM	21439	C4*	G A1023	235.894	117.050	68.768	1.00151.86	C	ATOM	21489	C2*	U A1025	224.037	122.784	69.680	1.00200.93	C
ATOM	21440	O4*	G A1023	235.991	116.636	67.377	1.00151.86	O	ATOM	21490	O2*	U A1025	224.691	124.038	69.604	1.00200.93	O
ATOM	21441	C3*	G A1023	235.084	118.331	68.717	1.00151.86	C	ATOM	21491	C1*	U A1025	224.587	121.876	68.578	1.00200.93	C
ATOM	21442	O3*	G A1023	235.285	119.146	69.860	1.00151.86	O	ATOM	21492	N1	U A1025	223.552	121.064	67.909	1.00160.83	N
ATOM	21443	C2*	G A1023	235.539	118.969	67.413	1.00151.86	C	ATOM	21493	C2	U A1025	222.861	121.650	66.852	1.00160.83	C
ATOM	21444	O2*	G A1023	236.763	119.670	67.532	1.00151.86	O	ATOM	21494	O2	U A1025	223.077	122.787	66.460	1.00160.83	O
ATOM	21445	C1*	G A1023	235.712	117.737	66.519	1.00151.86	C	ATOM	21495	N3	U A1025	221.907	120.854	66.272	1.00160.83	N
ATOM	21446	N9	G A1023	234.494	117.427	65.766	1.00190.92	N	ATOM	21496	C4	U A1025	221.575	119.567	66.623	1.00160.83	C
ATOM	21447	C8	G A1023	233.998	116.194	65.632	1.00190.92	C	ATOM	21497	O4	U A1025	220.700	118.980	65.991	1.00160.83	O



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ATOM	21498	C5	U A1025	222.325	119.030	67.718	1.00160.83	C	ATOM	21548	C4*	C A1028	211.541	130.302	71.283	1.00200.93	C
ATOM	21499	C6	U A1025	223.264	119.775	68.308	1.00160.83	C	ATOM	21549	O4*	C A1028	211.437	129.059	70.542	1.00200.93	O
ATOM	21500	P	G A1026	223.557	122.718	73.327	1.00163.44	P	ATOM	21550	C3*	C A1028	211.349	129.894	72.737	1.00200.93	C
ATOM	21501	O1P	G A1026	224.305	121.941	74.351	1.00172.27	O	ATOM	21551	O3*	C A1028	210.866	130.959	73.548	1.00200.93	O
ATOM	21502	O2P	G A1026	222.231	122.228	72.863	1.00172.27	O	ATOM	21552	C2*	C A1028	210.343	128.755	72.635	1.00200.93	C
ATOM	21503	O5*	G A1026	223.388	124.215	73.853	1.00163.44	O	ATOM	21553	O2*	C A1028	209.005	129.202	72.534	1.00200.93	C
ATOM	21504	C5*	G A1026	222.232	125.009	73.502	1.00163.44	C	ATOM	21554	C1*	C A1028	210.764	128.088	71.326	1.00200.93	C
ATOM	21505	C4*	G A1026	222.606	126.046	72.469	1.00163.44	C	ATOM	21555	N1	C A1028	211.674	126.946	71.551	1.00149.70	N
ATOM	21506	O4*	G A1026	223.075	125.366	71.274	1.00163.44	O	ATOM	21556	C2	C A1028	211.124	125.661	71.690	1.00149.70	C
ATOM	21507	C3*	G A1026	221.459	126.916	71.978	1.00163.44	C	ATOM	21557	O2	C A1028	209.893	125.514	71.591	1.00149.70	O
ATOM	21508	O3*	G A1026	221.219	128.043	72.808	1.00163.44	O	ATOM	21558	N3	C A1028	211.948	124.614	71.929	1.00149.70	N
ATOM	21509	C2*	G A1026	221.920	127.323	70.586	1.00163.44	C	ATOM	21559	C4	C A1028	213.266	124.807	72.025	1.00149.70	C
ATOM	21510	O2*	G A1026	222.835	128.403	70.596	1.00163.44	O	ATOM	21560	N4	C A1028	214.034	123.742	72.274	1.00149.70	N
ATOM	21511	C1*	G A1026	222.622	126.051	70.116	1.00163.44	C	ATOM	21561	C5	C A1028	213.853	126.099	71.875	1.00149.70	C
ATOM	21512	N9	G A1026	221.704	125.173	69.390	1.00172.27	N	ATOM	21562	C6	C A1028	213.029	127.129	71.640	1.00149.70	C
ATOM	21513	C8	G A1026	221.139	124.000	69.838	1.00172.27	N	ATOM	21563	P	C A1029	211.064	130.892	75.144	1.00200.34	P
ATOM	21514	N7	G A1026	220.327	123.457	68.973	1.00172.27	N	ATOM	21564	O1P	C A1029	210.606	132.186	75.715	1.00151.13	O
ATOM	21515	C5	G A1026	220.358	124.318	67.885	1.00172.27	C	ATOM	21565	O2P	C A1029	212.441	130.413	75.428	1.00151.13	O
ATOM	21516	C6	G A1026	219.670	124.256	66.652	1.00172.27	C	ATOM	21566	O5*	C A1029	210.051	129.755	75.610	1.00200.34	O
ATOM	21517	O6	G A1026	218.870	123.401	66.260	1.00172.27	O	ATOM	21567	C5*	C A1029	208.628	129.924	75.470	1.00200.34	C
ATOM	21518	N1	G A1026	219.991	125.335	65.835	1.00172.27	N	ATOM	21568	C4*	C A1029	207.915	128.636	75.807	1.00200.34	C
ATOM	21519	C2	G A1026	220.863	126.345	66.163	1.00172.27	C	ATOM	21569	O4*	C A1029	208.314	127.608	74.860	1.00200.34	O
ATOM	21520	N2	G A1026	221.045	127.299	65.239	1.00172.27	N	ATOM	21570	C3*	C A1029	208.239	128.040	77.170	1.00200.34	C
ATOM	21521	N3	G A1026	221.509	126.415	67.312	1.00172.27	N	ATOM	21571	O3*	C A1029	207.482	128.615	78.230	1.00200.34	O
ATOM	21522	C4	G A1026	221.211	125.377	68.121	1.00172.27	C	ATOM	21572	C2*	C A1029	207.948	126.558	76.967	1.00200.34	C
ATOM	21523	P	C A1027	219.709	128.416	73.219	1.00200.93	P	ATOM	21573	O2*	C A1029	206.579	126.226	77.100	1.00200.34	O
ATOM	21524	O1P	C A1027	219.684	128.869	73.537	1.00174.63	O	ATOM	21574	C1*	C A1029	208.398	126.352	75.519	1.00200.34	C
ATOM	21525	O2P	C A1027	219.266	127.434	74.242	1.00174.63	O	ATOM	21575	N1	C A1029	209.793	125.868	75.446	1.00151.13	N
ATOM	21526	O5*	C A1027	218.857	128.167	71.891	1.00200.93	O	ATOM	21576	O2	C A1029	210.042	124.489	75.574	1.00151.13	C
ATOM	21527	C5*	C A1027	219.066	128.969	70.705	1.00200.93	C	ATOM	21577	C2	C A1029	209.081	123.710	75.716	1.00151.13	O
ATOM	21528	C4*	C A1027	218.083	128.586	69.612	1.00200.93	C	ATOM	21578	N3	C A1029	211.322	124.043	75.541	1.00151.13	N
ATOM	21529	O4*	C A1027	218.351	127.242	69.138	1.00200.93	O	ATOM	21579	C4	C A1029	212.328	124.908	75.385	1.00151.13	C
ATOM	21530	C3*	C A1027	216.608	128.583	69.989	1.00200.93	C	ATOM	21580	N4	C A1029	213.573	124.424	75.369	1.00151.13	N
ATOM	21531	O3*	C A1027	216.053	129.889	69.872	1.00200.93	O	ATOM	21581	C5	C A1029	212.104	126.309	75.240	1.00151.13	C
ATOM	21532	C2*	C A1027	215.998	127.627	68.967	1.00200.93	C	ATOM	21582	C6	C A1029	210.836	126.741	75.274	1.00151.13	C
ATOM	21533	O2*	C A1027	215.681	128.250	67.739	1.00200.93	O	ATOM	21583	P	C A1030	207.983	128.432	79.749	1.00169.63	P
ATOM	21534	C1*	C A1027	217.137	126.626	68.738	1.00200.93	C	ATOM	21584	O1P	C A1030	207.084	129.228	80.626	1.00150.03	O
ATOM	21535	N1	C A1027	216.977	125.347	69.465	1.00174.63	N	ATOM	21585	O2P	C A1030	209.451	128.672	79.799	1.00150.03	O
ATOM	21536	C2	C A1027	215.835	124.561	69.219	1.00174.63	C	ATOM	21586	O5*	C A1030	207.724	126.887	80.041	1.00169.63	O
ATOM	21537	O2	C A1027	214.988	124.962	68.403	1.00174.63	O	ATOM	21587	C5*	C A1030	206.388	126.391	80.262	1.00169.63	C
ATOM	21538	N3	C A1027	215.687	123.389	69.879	1.00174.63	N	ATOM	21588	C4*	C A1030	206.429	125.059	80.977	1.00169.63	C
ATOM	21539	C4	C A1027	216.615	122.989	70.753	1.00174.63	C	ATOM	21589	O4*	C A1030	206.798	124.001	80.052	1.00169.63	O
ATOM	21540	N4	C A1027	216.424	121.826	71.381	1.00174.63	N	ATOM	21590	C3*	C A1030	207.436	124.945	82.110	1.00169.63	C
ATOM	21541	C5	C A1027	217.781	123.764	71.022	1.00174.63	C	ATOM	21591	O3*	C A1030	206.982	125.530	83.324	1.00169.63	O
ATOM	21542	C6	C A1027	217.920	124.924	70.364	1.00174.63	C	ATOM	21592	C2*	C A1030	207.661	123.440	82.200	1.00169.63	C
ATOM	21543	P	C A1028	215.467	130.631	71.174	1.00200.93	P	ATOM	21593	O2*	C A1030	206.662	122.772	82.943	1.00169.63	O
ATOM	21544	O1P	C A1028	215.465	132.088	70.854	1.00149.70	O	ATOM	21594	C1*	C A1030	207.576	123.025	80.729	1.00169.63	C
ATOM	21545	O2P	C A1028	216.203	130.143	72.372	1.00149.70	O	ATOM	21595	N1	C A1030	208.914	122.974	80.104	1.00150.03	N
ATOM	21546	O5*	C A1028	213.962	130.112	71.281	1.00200.93	O	ATOM	21596	C2	C A1030	209.625	121.761	80.105	1.00150.03	C
ATOM	21547	C5*	C A1028	212.853	130.969	70.937	1.00200.93	C	ATOM	21597	O2	C A1030	209.095	120.745	80.590	1.00150.03	O



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ATOM	21598	N3	C	Al030	210.872	121.729	79.575	1.00150.03	N	ATOM	21648	O2P	G	Al030C	214.929	123.930	85.980	1.00150.34	O
ATOM	21599	C4	C	Al030	211.407	122.837	79.052	1.00150.03	C	ATOM	21649	O5*	G	Al030C	217.019	122.615	86.337	1.00200.93	O
ATOM	21600	N4	C	Al030	212.644	122.763	78.552	1.00150.03	N	ATOM	21650	C5*	G	Al030C	218.417	122.427	86.637	1.00200.93	C
ATOM	21601	C5	C	Al030	210.699	124.072	79.020	1.00150.03	C	ATOM	21651	C4*	G	Al030C	218.673	120.998	87.055	1.00200.93	C
ATOM	21602	C6	C	Al030	209.470	124.096	79.549	1.00150.03	C	ATOM	21652	O4*	G	Al030C	217.830	120.691	88.195	1.00200.93	O
ATOM	21603	P	G	Al030A	208.027	126.323	84.259	1.00199.71	P	ATOM	21653	C3*	G	Al030C	218.339	119.928	86.023	1.00200.93	C
ATOM	21604	O1P	G	Al030A	207.256	126.932	85.370	1.00178.40	O	ATOM	21654	O3*	G	Al030C	219.437	119.696	85.139	1.00200.93	O
ATOM	21605	O2P	G	Al030A	208.884	127.187	83.404	1.00178.40	O	ATOM	21655	C2*	G	Al030C	218.034	118.707	86.886	1.00200.93	C
ATOM	21606	O5*	G	Al030A	208.939	125.168	84.869	1.00199.71	O	ATOM	21656	O2*	G	Al030C	219.194	117.996	87.270	1.00200.93	O
ATOM	21607	C5*	G	Al030A	208.356	124.111	85.658	1.00199.71	C	ATOM	21657	C1*	G	Al030C	217.393	119.346	88.121	1.00200.93	C
ATOM	21608	C4*	G	Al030A	209.370	123.021	85.913	1.00199.71	C	ATOM	21658	N9	G	Al030C	215.933	119.338	88.076	1.00150.34	N
ATOM	21609	O4*	G	Al030A	209.734	122.390	84.657	1.00199.71	O	ATOM	21659	C8	G	Al030C	215.114	120.303	87.538	1.00150.34	C
ATOM	21610	C3*	G	Al030A	210.693	123.470	86.516	1.00199.71	C	ATOM	21660	N7	G	Al030C	213.846	120.009	87.628	1.00150.34	N
ATOM	21611	O3*	G	Al030A	210.616	123.586	87.933	1.00199.71	O	ATOM	21661	C5	G	Al030C	213.822	118.776	88.268	1.00150.34	C
ATOM	21612	C2*	G	Al030A	211.648	122.367	86.075	1.00199.71	C	ATOM	21662	C6	G	Al030C	212.720	117.949	88.642	1.00150.34	C
ATOM	21613	O2*	G	Al030A	211.579	121.226	86.906	1.00199.71	O	ATOM	21663	O6	G	Al030C	211.508	118.150	88.473	1.00150.34	O
ATOM	21614	C1*	G	Al030A	211.102	122.016	84.688	1.00199.71	C	ATOM	21664	N1	G	Al030C	213.148	116.782	89.272	1.00150.34	N
ATOM	21615	N9	G	Al030A	211.801	122.710	83.606	1.00178.40	N	ATOM	21665	C2	G	Al030C	214.459	116.448	89.514	1.00150.34	C
ATOM	21616	C8	G	Al030A	211.268	123.596	82.699	1.00178.40	C	ATOM	21666	N2	G	Al030C	214.666	115.275	90.137	1.00150.34	N
ATOM	21617	N7	G	Al030A	212.149	124.059	81.854	1.00178.40	N	ATOM	21667	N3	G	Al030C	215.493	117.208	89.171	1.00150.34	N
ATOM	21618	C5	G	Al030A	213.336	123.440	82.220	1.00178.40	C	ATOM	21668	C4	G	Al030C	215.102	118.349	88.556	1.00150.34	C
ATOM	21619	C6	G	Al030A	214.640	123.550	81.667	1.00178.40	C	ATOM	21669	P	A	Al030D	219.198	118.923	83.747	1.00181.65	P
ATOM	21620	O6	G	Al030A	215.017	124.233	80.707	1.00178.40	O	ATOM	21670	O1P	A	Al030D	220.501	118.877	83.038	1.00158.65	O
ATOM	21621	N1	G	Al030A	215.552	122.752	82.349	1.00178.40	N	ATOM	21671	O2P	A	Al030D	218.021	119.515	83.068	1.00158.65	O
ATOM	21622	C2	G	Al030A	215.252	121.950	83.424	1.00178.40	C	ATOM	21672	O5*	A	Al030D	218.820	117.438	84.183	1.00181.65	O
ATOM	21623	N2	G	Al030A	216.270	121.258	83.952	1.00178.40	N	ATOM	21673	C5*	A	Al030D	219.824	116.540	84.690	1.00181.65	C
ATOM	21624	N3	G	Al030A	214.042	121.835	83.945	1.00178.40	N	ATOM	21674	C4*	A	Al030D	219.221	115.188	85.000	1.00181.65	C
ATOM	21625	C4	G	Al030A	213.140	122.604	83.299	1.00178.40	C	ATOM	21675	O4*	A	Al030D	218.245	115.320	86.066	1.00181.65	O
ATOM	21626	P	C	Al030B	211.209	124.894	88.663	1.00199.55	P	ATOM	21676	C3*	A	Al030D	218.466	114.500	83.871	1.00181.65	C
ATOM	21627	O1P	C	Al030B	210.650	124.876	90.037	1.00109.64	O	ATOM	21677	O3*	A	Al030D	219.345	113.785	83.004	1.00181.65	O
ATOM	21628	O2P	C	Al030B	210.998	126.094	87.796	1.00109.64	O	ATOM	21678	C2*	A	Al030D	217.529	113.557	84.624	1.00181.65	C
ATOM	21629	O5*	C	Al030B	212.776	124.619	88.772	1.00199.55	O	ATOM	21679	O2*	A	Al030D	218.134	112.332	84.989	1.00181.65	O
ATOM	21630	C5*	C	Al030B	213.698	125.684	89.092	1.00199.55	C	ATOM	21680	C1*	A	Al030D	217.218	114.358	85.890	1.00181.65	C
ATOM	21631	C4*	C	Al030B	214.975	125.118	89.670	1.00199.55	C	ATOM	21681	N9	A	Al030D	215.923	115.042	85.833	1.00158.65	N
ATOM	21632	O4*	C	Al030B	214.693	124.509	90.954	1.00199.55	O	ATOM	21682	C8	A	Al030D	215.610	116.249	85.249	1.00158.65	C
ATOM	21633	C3*	C	Al030B	215.632	124.021	88.847	1.00199.55	C	ATOM	21683	N7	A	Al030D	214.342	116.572	85.349	1.00158.65	N
ATOM	21634	O3*	C	Al030B	216.487	124.571	87.851	1.00199.55	O	ATOM	21684	C5	A	Al030D	213.783	115.511	86.050	1.00158.65	C
ATOM	21635	C2*	C	Al030B	216.402	123.224	89.895	1.00199.55	C	ATOM	21685	C6	A	Al030D	212.468	115.245	86.477	1.00158.65	C
ATOM	21636	O2*	C	Al030B	217.665	123.783	90.200	1.00199.55	O	ATOM	21686	N6	A	Al030D	211.436	116.058	86.244	1.00158.65	N
ATOM	21637	C1*	C	Al030B	215.488	123.346	91.118	1.00199.55	C	ATOM	21687	N1	A	Al030D	212.248	114.098	87.159	1.00158.65	N
ATOM	21638	N1	C	Al030B	214.591	122.188	91.321	1.00109.64	N	ATOM	21688	C2	A	Al030D	213.282	113.279	87.385	1.00158.65	C
ATOM	21639	C2	C	Al030B	215.107	121.009	91.913	1.00109.64	C	ATOM	21689	N3	A	Al030D	214.558	113.414	87.032	1.00158.65	N
ATOM	21640	O2	C	Al030B	216.310	120.959	92.238	1.00109.64	O	ATOM	21690	C4	A	Al030D	214.746	114.565	86.359	1.00158.65	C
ATOM	21641	N3	C	Al030B	214.278	119.958	92.112	1.00109.64	N	ATOM	21691	P	G	Al031	219.356	114.106	81.425	1.00199.34	P
ATOM	21642	C4	C	Al030B	212.996	120.038	91.748	1.00109.64	C	ATOM	21692	O1P	G	Al031	220.222	113.078	80.788	1.00137.14	O
ATOM	21643	N4	C	Al030B	212.221	118.976	91.965	1.00109.64	N	ATOM	21693	O2P	G	Al031	219.680	115.545	81.253	1.00137.14	O
ATOM	21644	C5	C	Al030B	212.451	121.211	91.142	1.00109.64	C	ATOM	21694	O5*	G	Al031	217.850	113.875	80.942	1.00199.34	O
ATOM	21645	C6	C	Al030B	213.274	122.249	90.948	1.00109.64	C	ATOM	21695	C5*	G	Al031	217.088	112.730	81.387	1.00199.34	C
ATOM	21646	P	G	Al030C	216.368	124.070	86.326	1.00200.93	P	ATOM	21696	C4*	G	Al031	215.627	113.099	81.546	1.00199.34	C
ATOM	21647	O1P	G	Al030C	217.231	124.964	85.514	1.00150.34	O	ATOM	21697	O4*	G	Al031	215.554	114.374	82.235	1.00199.34	O



ATOM	21698	C3*	G A1031	214.821	113.311	80.270	1.00199.34	C	ATOM	21748	C1*	G A1033	207.881	118.166	73.889	1.00196.90	C
ATOM	21699	O3*	G A1031	214.268	112.090	79.783	1.00199.34	O	ATOM	21749	N9	G A1033	209.327	118.381	73.919	1.00145.81	N
ATOM	21700	C2*	G A1031	213.719	114.266	80.717	1.00199.34	C	ATOM	21750	C8	G A1033	210.311	117.451	74.168	1.00145.81	C
ATOM	21701	O2*	G A1031	212.623	113.608	81.323	1.00199.34	O	ATOM	21751	N7	G A1033	211.517	117.949	74.098	1.00145.81	N
ATOM	21702	C1*	G A1031	214.443	115.115	81.761	1.00199.34	C	ATOM	21752	C5	G A1033	211.318	119.290	73.791	1.00145.81	C
ATOM	21703	N9	G A1031	214.917	116.385	81.218	1.00137.14	N	ATOM	21753	C6	G A1033	212.259	120.345	73.589	1.00145.81	C
ATOM	21704	C8	G A1031	216.149	116.657	80.665	1.00137.14	C	ATOM	21754	O6	G A1033	213.495	120.302	73.649	1.00145.81	O
ATOM	21705	N7	G A1031	216.263	117.890	80.252	1.00137.14	N	ATOM	21755	N1	G A1033	211.622	121.546	73.290	1.00145.81	N
ATOM	21706	C5	G A1031	215.036	118.469	80.553	1.00137.14	C	ATOM	21756	C2	G A1033	210.261	121.717	73.195	1.00145.81	C
ATOM	21707	C6	G A1031	214.562	119.793	80.336	1.00137.14	C	ATOM	21757	N2	G A1033	209.837	122.950	72.883	1.00145.81	N
ATOM	21708	O6	G A1031	215.154	120.752	79.821	1.00137.14	O	ATOM	21758	N3	G A1033	209.378	120.750	73.389	1.00145.81	N
ATOM	21709	N1	G A1031	213.254	119.948	80.791	1.00137.14	N	ATOM	21759	C4	G A1033	209.972	119.572	73.679	1.00145.81	C
ATOM	21710	C2	G A1031	212.499	118.962	81.379	1.00137.14	C	ATOM	21760	P	G A1034	207.005	115.824	69.807	1.00172.01	P
ATOM	21711	N2	G A1031	211.255	119.307	81.746	1.00137.14	N	ATOM	21761	O1P	G A1034	205.918	115.172	69.031	1.00130.21	O
ATOM	21712	N3	G A1031	212.928	117.729	81.588	1.00137.14	N	ATOM	21762	O2P	G A1034	208.341	115.173	69.891	1.00130.21	O
ATOM	21713	C4	G A1031	214.196	117.554	81.152	1.00137.14	C	ATOM	21763	O5*	G A1034	207.217	117.297	69.234	1.00172.01	O
ATOM	21714	P	G A1032	213.625	112.034	78.306	1.00197.65	P	ATOM	21764	C5*	G A1034	206.091	118.108	68.855	1.00172.01	C
ATOM	21715	O1P	G A1032	213.039	110.677	78.130	1.00132.27	O	ATOM	21765	C4*	G A1034	206.543	119.496	68.467	1.00172.01	C
ATOM	21716	O2P	G A1032	214.632	112.527	77.333	1.00132.27	O	ATOM	21766	O4*	G A1034	207.246	120.099	69.585	1.00172.01	O
ATOM	21717	O5*	G A1032	212.433	113.093	78.349	1.00197.65	O	ATOM	21767	C3*	G A1034	207.528	119.607	67.312	1.00172.01	C
ATOM	21718	C5*	G A1032	211.130	112.722	78.836	1.00197.65	C	ATOM	21768	O3*	G A1034	206.905	119.570	66.035	1.00172.01	O
ATOM	21719	C4*	G A1032	210.107	113.772	78.470	1.00197.65	C	ATOM	21769	C2*	G A1034	208.196	120.951	67.576	1.00172.01	C
ATOM	21720	O4*	G A1032	210.394	115.006	79.179	1.00197.65	O	ATOM	21770	O2*	G A1034	207.443	122.058	67.122	1.00172.01	O
ATOM	21721	C3*	G A1032	210.040	114.188	77.008	1.00197.65	C	ATOM	21771	C1*	G A1034	208.255	120.970	69.101	1.00172.01	C
ATOM	21722	O3*	G A1032	209.266	113.297	76.215	1.00197.65	O	ATOM	21772	N9	G A1034	209.557	120.507	69.570	1.00130.21	N
ATOM	21723	C2*	G A1032	209.402	115.569	77.085	1.00197.65	C	ATOM	21773	C8	G A1034	209.898	119.253	70.025	1.00130.21	C
ATOM	21724	O2*	G A1032	207.992	115.520	77.182	1.00197.65	O	ATOM	21774	N7	G A1034	211.163	119.149	70.337	1.00130.21	N
ATOM	21725	C1*	G A1032	209.989	116.112	78.389	1.00197.65	C	ATOM	21775	C5	G A1034	211.685	120.412	70.080	1.00130.21	C
ATOM	21726	N9	G A1032	211.142	116.971	78.139	1.00132.27	N	ATOM	21776	C6	G A1034	213.009	120.913	70.226	1.00130.21	C
ATOM	21727	C8	G A1032	212.474	116.648	78.258	1.00132.27	C	ATOM	21777	O6	G A1034	214.020	120.321	70.626	1.00130.21	O
ATOM	21728	N7	G A1032	213.271	117.630	77.930	1.00132.27	N	ATOM	21778	N1	G A1034	213.093	122.250	69.848	1.00130.21	N
ATOM	21729	C5	G A1032	212.414	118.666	77.580	1.00132.27	C	ATOM	21779	C2	G A1034	212.045	123.010	69.389	1.00130.21	C
ATOM	21730	C6	G A1032	212.696	119.987	77.130	1.00132.27	C	ATOM	21780	N2	G A1034	212.328	124.280	69.070	1.00130.21	N
ATOM	21731	O6	G A1032	213.796	120.524	76.953	1.00132.27	O	ATOM	21781	N3	G A1034	210.811	122.559	69.252	1.00130.21	N
ATOM	21732	N1	G A1032	211.529	120.701	76.879	1.00132.27	N	ATOM	21782	C4	G A1034	210.704	121.261	69.613	1.00130.21	C
ATOM	21733	C2	G A1032	210.254	120.216	77.042	1.00132.27	C	ATOM	21783	P	A A1035	207.797	119.272	64.729	1.00179.12	P
ATOM	21734	N2	G A1032	209.256	121.061	76.744	1.00132.27	N	ATOM	21784	O1P	A A1035	206.870	119.110	63.579	1.00168.37	O
ATOM	21735	N3	G A1032	209.978	118.993	77.464	1.00132.27	N	ATOM	21785	O2P	A A1035	208.753	118.182	65.058	1.00168.37	O
ATOM	21736	C4	G A1032	211.097	118.277	77.710	1.00132.27	C	ATOM	21786	O5*	A A1035	208.629	120.617	64.514	1.00179.12	O
ATOM	21737	P	G A1033	209.532	113.207	74.630	1.00196.90	P	ATOM	21787	C5*	A A1035	207.958	121.861	64.218	1.00179.12	C
ATOM	21738	O1P	G A1033	208.832	111.994	74.142	1.00145.81	O	ATOM	21788	C4*	A A1035	208.961	122.967	63.961	1.00179.12	C
ATOM	21739	O2P	G A1033	210.989	113.362	74.383	1.00145.81	O	ATOM	21789	O4*	A A1035	209.737	123.218	65.162	1.00179.12	O
ATOM	21740	O5*	G A1033	208.796	114.489	74.033	1.00196.90	O	ATOM	21790	C3*	A A1035	210.004	122.707	62.885	1.00179.12	C
ATOM	21741	C5*	G A1033	207.364	114.624	74.112	1.00196.90	C	ATOM	21791	O3*	A A1035	209.521	122.957	61.571	1.00179.12	O
ATOM	21742	C4*	G A1033	206.943	116.020	73.713	1.00196.90	C	ATOM	21792	C2*	A A1035	211.132	123.653	63.282	1.00179.12	C
ATOM	21743	O4*	G A1033	207.576	116.978	74.602	1.00196.90	O	ATOM	21793	O2*	A A1035	210.932	124.982	62.842	1.00179.12	O
ATOM	21744	C3*	G A1033	207.352	116.478	72.320	1.00196.90	C	ATOM	21794	C1*	A A1035	211.058	123.594	64.808	1.00179.12	C
ATOM	21745	O3*	G A1033	206.455	116.048	71.303	1.00196.90	O	ATOM	21795	N9	A A1035	211.983	122.588	65.331	1.00168.37	N
ATOM	21746	C2*	G A1033	207.368	117.995	72.459	1.00196.90	C	ATOM	21796	C8	A A1035	211.725	121.272	65.633	1.00168.37	C
ATOM	21747	O2*	G A1033	206.085	118.576	72.337	1.00196.90	O	ATOM	21797	N7	A A1035	212.777	120.608	66.045	1.00168.37	N



Table 1: Sheet 220/521

ATOM	21798	C5	A A1035	213.795	121.549	66.022	1.00168.37	C	ATOM	21848	P	C A1038	218.181	119.179	54.577	1.00176.88	P
ATOM	21799	C6	A A1035	215.160	121.472	66.341	1.00168.37	N	ATOM	21849	O1P	C A1038	219.018	119.294	53.355	1.00159.15	O
ATOM	21800	N6	A A1035	215.759	120.354	66.758	1.00168.37	C	ATOM	21850	O2P	C A1038	216.700	119.191	54.456	1.00159.15	O
ATOM	21801	N1	A A1035	215.900	122.596	66.213	1.00168.37	N	ATOM	21851	O5*	C A1038	218.602	117.849	55.351	1.00176.88	O
ATOM	21802	C2	A A1035	215.299	123.715	65.787	1.00168.37	C	ATOM	21852	C5*	C A1038	219.989	117.543	55.609	1.00176.88	C
ATOM	21803	N3	A A1035	214.026	123.911	65.453	1.00168.37	N	ATOM	21853	C4*	C A1038	220.098	116.338	56.515	1.00176.88	C
ATOM	21804	P	A A1035	213.319	122.776	65.594	1.00168.37	C	ATOM	21854	O4*	C A1038	219.473	116.642	57.788	1.00176.88	C
ATOM	21805	C4	G A1036	210.210	122.218	60.320	1.00168.37	P	ATOM	21855	O3*	C A1038	219.398	115.080	56.021	1.00176.88	O
ATOM	21806	O1P	G A1036	209.386	122.530	59.126	1.00164.83	O	ATOM	21856	O3*	C A1038	220.251	114.333	55.155	1.00176.88	O
ATOM	21807	O2P	G A1036	210.468	120.799	60.681	1.00164.83	O	ATOM	21857	C2*	C A1038	219.075	114.335	57.315	1.00176.88	C
ATOM	21808	O5*	G A1036	211.612	122.962	60.169	1.00173.15	O	ATOM	21858	O2*	C A1038	220.147	113.543	57.788	1.00176.88	O
ATOM	21809	C5*	G A1036	211.673	124.334	59.730	1.00173.15	C	ATOM	21859	C1*	C A1038	218.823	115.487	58.294	1.00176.88	C
ATOM	21810	C4*	G A1036	213.108	124.803	59.640	1.00173.15	C	ATOM	21860	N1	C A1038	217.394	115.805	58.531	1.00159.15	N
ATOM	21811	O4*	G A1036	213.685	124.884	60.967	1.00173.15	O	ATOM	21861	C2	C A1038	216.685	115.085	59.514	1.00159.15	C
ATOM	21812	C3*	G A1036	214.069	123.923	58.854	1.00173.15	C	ATOM	21862	O2	C A1038	217.260	114.190	60.137	1.00159.15	O
ATOM	21813	O3*	G A1036	214.015	124.183	57.455	1.00173.15	O	ATOM	21863	N3	C A1038	215.390	115.388	59.751	1.00159.15	N
ATOM	21814	C2*	G A1036	215.428	124.302	59.437	1.00173.15	C	ATOM	21864	C4	C A1038	214.792	116.354	59.052	1.00159.15	C
ATOM	21815	O2*	G A1036	215.991	125.449	58.833	1.00173.15	O	ATOM	21865	N4	C A1038	213.516	116.625	59.327	1.00159.15	N
ATOM	21816	C1*	G A1036	215.075	124.612	60.894	1.00173.15	C	ATOM	21866	C5	C A1038	215.477	117.090	58.041	1.00159.15	C
ATOM	21817	N9	G A1036	215.404	123.528	61.818	1.00164.83	N	ATOM	21867	C6	C A1038	216.763	116.786	57.815	1.00159.15	C
ATOM	21818	C7	G A1036	214.539	122.670	62.457	1.00164.83	C	ATOM	21868	P	C A1039	219.645	113.134	54.265	1.00129.96	P
ATOM	21819	N8	G A1036	215.148	121.808	63.228	1.00164.83	N	ATOM	21869	O1P	C A1039	220.609	112.887	53.161	1.00120.23	O
ATOM	21820	C5	G A1036	216.496	122.115	63.091	1.00164.83	C	ATOM	21870	O2P	C A1039	218.225	113.428	53.946	1.00120.23	O
ATOM	21821	C6	G A1036	217.646	121.528	63.694	1.00164.83	C	ATOM	21871	O5*	C A1039	219.688	111.872	55.236	1.00129.96	O
ATOM	21822	O6	G A1036	217.702	120.601	64.507	1.00164.83	O	ATOM	21872	C5*	C A1039	220.945	111.280	55.608	1.00129.96	C
ATOM	21823	N1	G A1036	218.818	122.142	63.265	1.00164.83	N	ATOM	21873	C4*	C A1039	220.731	110.144	56.578	1.00129.96	C
ATOM	21824	C2	G A1036	218.883	123.191	62.381	1.00164.83	C	ATOM	21874	O4*	C A1039	220.182	110.653	57.822	1.00129.96	O
ATOM	21825	N2	G A1036	220.111	123.644	62.086	1.00164.83	N	ATOM	21875	C3*	C A1039	219.751	109.065	56.147	1.00129.96	C
ATOM	21826	N3	G A1036	217.824	123.754	61.824	1.00164.83	N	ATOM	21876	O3*	C A1039	220.342	108.097	55.289	1.00129.96	O
ATOM	21827	C4	G A1036	216.671	123.170	62.220	1.00164.83	C	ATOM	21877	C2*	C A1039	219.322	108.460	57.478	1.00129.96	C
ATOM	21828	P	C A1037	214.223	122.977	56.412	1.00190.62	P	ATOM	21878	O2*	C A1039	220.242	107.513	57.981	1.00129.96	O
ATOM	21829	O1P	C A1037	214.459	123.584	55.077	1.00176.51	O	ATOM	21879	C1*	C A1039	219.309	109.688	58.390	1.00129.96	C
ATOM	21830	O2P	C A1037	213.114	122.003	56.589	1.00176.51	O	ATOM	21880	N1	C A1039	217.961	110.276	58.513	1.00120.23	N
ATOM	21831	O5*	C A1037	215.573	122.276	56.888	1.00190.62	O	ATOM	21881	C2	C A1039	216.914	109.487	59.038	1.00120.23	C
ATOM	21832	C5*	C A1037	216.859	122.886	56.656	1.00190.62	C	ATOM	21882	O2	C A1039	217.152	108.319	59.394	1.00120.23	O
ATOM	21833	C4*	C A1037	217.950	122.020	57.237	1.00190.62	C	ATOM	21883	N3	C A1039	215.674	110.023	59.143	1.00120.23	N
ATOM	21834	O4*	C A1037	217.786	121.964	58.678	1.00190.62	O	ATOM	21884	C4	C A1039	215.454	111.283	58.753	1.00120.23	C
ATOM	21835	C3*	C A1037	217.916	120.567	56.785	1.00190.62	C	ATOM	21885	N4	C A1039	214.214	111.769	58.872	1.00120.23	N
ATOM	21836	O3*	C A1037	218.619	120.370	55.565	1.00190.62	O	ATOM	21886	C5	C A1039	216.494	112.101	58.223	1.00120.23	C
ATOM	21837	C2*	C A1037	218.559	119.826	57.952	1.00190.62	C	ATOM	21887	C6	C A1039	217.718	111.565	58.123	1.00120.23	C
ATOM	21838	O2*	C A1037	219.973	119.824	57.898	1.00190.62	O	ATOM	21887	P	U A1040	219.400	107.191	54.352	1.00149.76	P
ATOM	21839	C1*	C A1037	218.086	120.658	59.147	1.00190.62	C	ATOM	21889	O1P	U A1040	220.294	106.298	53.567	1.00160.73	O
ATOM	21840	N1	C A1037	216.885	120.106	59.819	1.00176.51	N	ATOM	21890	O2P	U A1040	218.443	108.082	53.642	1.00160.73	O
ATOM	21841	C2	C A1037	217.026	118.983	60.661	1.00176.51	C	ATOM	21891	O5*	U A1040	218.577	106.291	55.380	1.00149.76	O
ATOM	21842	O2	C A1037	218.150	118.469	60.806	1.00176.51	O	ATOM	21892	C5*	U A1040	219.253	105.348	56.231	1.00149.76	C
ATOM	21843	N3	C A1037	215.932	118.488	61.289	1.00176.51	N	ATOM	21893	C4*	U A1040	218.287	104.711	57.206	1.00149.76	C
ATOM	21844	C4	C A1037	214.739	119.060	61.106	1.00176.51	C	ATOM	21894	O4*	U A1040	217.761	105.706	58.124	1.00149.76	O
ATOM	21845	N4	C A1037	213.693	118.545	61.754	1.00176.51	N	ATOM	21895	C3*	U A1040	217.046	104.059	56.622	1.00149.76	C
ATOM	21846	C5	C A1037	214.565	120.188	60.253	1.00176.51	C	ATOM	21896	O3*	U A1040	217.299	102.765	56.103	1.00149.76	O
ATOM	21847	C6	C A1037	215.652	120.674	59.636	1.00176.51	C	ATOM	21897	C2*	U A1040	216.096	104.030	57.813	1.00149.76	C



Table 1: Sheet 221/521

ATOM	21898	O2*	U A1040	216.333	102.945	58.689	1.00149.76	O	ATOM	21948	N1	G A1042	207.073	106.952	54.718	1.00113.75	N
ATOM	21899	C1*	U A1040	216.447	105.339	58.519	1.00149.76	C	ATOM	21949	C2	G A1042	206.061	106.060	54.988	1.00113.75	C
ATOM	21900	N1	U A1040	215.513	106.421	58.168	1.00160.73	N	ATOM	21950	N2	G A1042	204.835	106.579	55.151	1.00113.75	N
ATOM	21901	C2	U A1040	214.414	106.603	58.987	1.00160.73	C	ATOM	21951	N3	G A1042	206.238	104.755	55.092	1.00113.75	N
ATOM	21902	O2	U A1040	214.197	105.908	59.968	1.00160.73	O	ATOM	21952	C4	G A1042	207.526	104.401	54.893	1.00113.75	C
ATOM	21903	N3	U A1040	213.573	107.623	58.615	1.00160.73	N	ATOM	21953	P	C A1043	205.920	100.738	50.833	1.00156.09	P
ATOM	21904	C4	U A1040	213.710	108.461	57.529	1.00160.73	C	ATOM	21954	O1P	C A1043	204.869	99.907	50.187	1.00158.99	O
ATOM	21905	O4	U A1040	212.879	109.352	57.343	1.00160.73	O	ATOM	21955	O2P	C A1043	207.192	101.008	50.112	1.00158.99	O
ATOM	21906	C5	U A1040	214.865	108.207	56.727	1.00160.73	C	ATOM	21956	O5*	C A1043	205.276	102.145	51.231	1.00156.09	O
ATOM	21907	C6	U A1040	215.708	107.223	57.065	1.00160.73	C	ATOM	21957	C5*	C A1043	203.973	102.217	51.847	1.00156.09	C
ATOM	21908	P	A A1041	216.517	102.281	54.785	1.00143.23	P	ATOM	21958	O4*	C A1043	203.409	103.619	51.754	1.00156.09	C
ATOM	21909	O1P	A A1041	217.227	101.087	54.262	1.00130.05	O	ATOM	21959	O4*	C A1043	204.239	104.549	52.496	1.00156.09	O
ATOM	21910	O2P	A A1041	216.324	103.468	53.904	1.00130.05	O	ATOM	21960	C3*	C A1043	203.310	104.231	50.366	1.00156.09	C
ATOM	21911	O5*	A A1041	215.089	101.824	55.328	1.00143.23	O	ATOM	21961	O3*	C A1043	202.145	103.803	49.675	1.00156.09	O
ATOM	21912	C5*	A A1041	214.947	100.622	56.111	1.00143.23	C	ATOM	21962	C2*	C A1043	203.274	105.728	50.658	1.00156.09	C
ATOM	21913	C4*	A A1041	213.585	100.572	56.762	1.00143.23	C	ATOM	21963	O2*	C A1043	201.986	106.210	50.978	1.00156.09	O
ATOM	21914	O4*	A A1041	213.446	101.682	57.683	1.00143.23	O	ATOM	21964	C1*	C A1043	204.173	105.830	51.889	1.00156.09	C
ATOM	21915	C3*	A A1041	212.386	100.697	55.834	1.00143.23	C	ATOM	21965	N1	C A1043	205.532	106.281	51.540	1.00158.99	N
ATOM	21916	O3*	A A1041	212.034	99.444	55.262	1.00143.23	O	ATOM	21966	C2	C A1043	205.786	107.661	51.484	1.00158.99	C
ATOM	21917	O2*	A A1041	211.297	101.217	56.763	1.00143.23	C	ATOM	21967	O2	C A1043	204.871	108.453	51.753	1.00158.99	O
ATOM	21918	C2*	A A1041	210.672	100.194	57.512	1.00143.23	C	ATOM	21968	N3	C A1043	207.017	108.093	51.138	1.00158.99	N
ATOM	21919	C1*	A A1041	212.096	102.109	57.712	1.00143.23	C	ATOM	21969	C4	C A1043	207.979	107.211	50.856	1.00158.99	C
ATOM	21920	N9	A A1041	212.039	103.519	57.333	1.00130.05	N	ATOM	21970	N4	C A1043	209.179	107.685	50.505	1.00158.99	N
ATOM	21921	C8	A A1041	212.998	104.282	56.712	1.00130.05	C	ATOM	21971	C5	C A1043	207.753	105.802	50.917	1.00158.99	C
ATOM	21922	N7	A A1041	212.633	105.524	56.506	1.00130.05	N	ATOM	21972	C6	C A1043	206.527	105.386	51.260	1.00158.99	C
ATOM	21923	C5	A A1041	211.347	105.585	57.026	1.00130.05	C	ATOM	21973	P	A A1044	202.069	103.956	48.077	1.00120.77	P
ATOM	21924	C6	A A1041	210.409	106.628	57.115	1.00130.05	C	ATOM	21974	O1P	A A1044	200.769	103.362	47.671	1.00101.96	O
ATOM	21925	N6	A A1041	210.629	107.867	56.664	1.00130.05	N	ATOM	21975	O2P	A A1044	203.328	103.431	47.489	1.00101.96	O
ATOM	21926	N1	A A1041	209.217	106.353	57.693	1.00130.05	N	ATOM	21976	O5*	A A1044	202.005	105.535	47.844	1.00120.77	O
ATOM	21927	C2	A A1041	208.994	105.112	58.146	1.00130.05	C	ATOM	21977	C5*	A A1044	200.810	106.257	48.178	1.00120.77	C
ATOM	21928	N3	A A1041	209.793	104.051	58.119	1.00130.05	N	ATOM	21978	C4*	A A1044	200.895	107.709	47.759	1.00120.77	C
ATOM	21929	C4	A A1041	210.969	104.357	57.540	1.00130.05	C	ATOM	21979	O4*	A A1044	201.752	108.469	48.649	1.00120.77	O
ATOM	21930	P	G A1042	211.626	99.363	53.710	1.00186.73	P	ATOM	21980	C3*	A A1044	201.430	108.086	46.387	1.00120.77	C
ATOM	21931	O1P	G A1042	211.613	97.912	53.381	1.00113.75	O	ATOM	21981	O3*	A A1044	200.529	107.856	45.310	1.00120.77	O
ATOM	21932	O2P	G A1042	212.503	100.286	52.939	1.00113.75	O	ATOM	21982	C2*	A A1044	201.653	109.588	46.554	1.00120.77	C
ATOM	21933	O5*	G A1042	210.132	99.928	53.657	1.00186.73	O	ATOM	21983	O2*	A A1044	200.488	110.360	46.327	1.00120.77	O
ATOM	21934	C5*	G A1042	209.006	99.055	53.887	1.00186.73	C	ATOM	21984	C1*	A A1044	202.076	109.699	48.020	1.00120.77	C
ATOM	21935	C4*	G A1042	207.759	99.849	54.227	1.00186.73	C	ATOM	21985	N9	A A1044	203.515	109.953	48.095	1.00101.96	N
ATOM	21936	O4*	G A1042	208.066	100.795	55.287	1.00186.73	O	ATOM	21986	C8	A A1044	204.563	109.087	48.305	1.00101.96	C
ATOM	21937	C3*	G A1042	207.132	100.725	53.149	1.00186.73	C	ATOM	21987	N7	A A1044	205.743	109.656	48.208	1.00101.96	N
ATOM	21938	O3*	G A1042	206.290	100.040	52.237	1.00186.73	O	ATOM	21988	C5	A A1044	205.451	110.989	47.937	1.00101.96	C
ATOM	21939	C2*	G A1042	206.311	101.707	53.971	1.00186.73	C	ATOM	21989	C6	A A1044	206.267	112.120	47.707	1.00101.96	C
ATOM	21940	O2*	G A1042	205.066	101.193	54.399	1.00186.73	O	ATOM	21990	N6	A A1044	207.603	112.084	47.706	1.00101.96	N
ATOM	21941	C1*	G A1042	207.218	101.927	55.173	1.00186.73	C	ATOM	21991	N1	A A1044	205.653	113.303	47.470	1.00101.96	N
ATOM	21942	N9	G A1042	208.018	103.122	54.930	1.00113.75	N	ATOM	21992	C2	A A1044	204.317	113.339	47.464	1.00101.96	C
ATOM	21943	C8	G A1042	209.366	103.215	54.675	1.00113.75	C	ATOM	21993	N3	A A1044	203.446	112.352	47.660	1.00101.96	N
ATOM	21944	N7	G A1042	209.763	104.443	54.474	1.00113.75	N	ATOM	21994	C4	A A1044	204.084	111.189	47.891	1.00101.96	C
ATOM	21945	C5	G A1042	208.608	105.204	54.612	1.00113.75	C	ATOM	21995	P	C A1045	201.111	107.484	43.850	1.00131.60	P
ATOM	21946	C6	G A1042	208.407	106.611	54.513	1.00113.75	C	ATOM	21996	O1P	C A1045	199.993	107.652	42.882	1.00101.30	O
ATOM	21947	O6	G A1042	209.239	107.497	54.285	1.00113.75	O	ATOM	21997	O2P	C A1045	201.816	106.174	43.944	1.00101.30	O



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ATOM	21998	O5*	C A1045	202.206	108.602	43.532	1.00131.60	O	ATOM	22048	C1*	G A1047	212.441	110.144	36.771	1.00 88.32	C
ATOM	21999	C5*	C A1045	201.884	110.006	43.601	1.00131.60	C	ATOM	22049	N9	G A1047	211.068	109.689	36.583	1.00 76.18	N
ATOM	22000	C4*	C A1045	203.140	110.835	43.795	1.00131.60	C	ATOM	22050	C8	G A1047	209.917	110.387	36.863	1.00 76.18	C
ATOM	22001	O4*	C A1045	204.079	110.114	44.643	1.00131.60	O	ATOM	22051	N7	G A1047	208.833	109.739	36.538	1.00 76.18	N
ATOM	22002	C3*	C A1045	203.951	111.160	42.552	1.00131.60	C	ATOM	22052	C5	G A1047	209.294	108.534	36.025	1.00 76.18	C
ATOM	22003	O3*	C A1045	203.442	112.301	41.877	1.00131.60	O	ATOM	22053	C6	G A1047	208.577	107.420	35.501	1.00 76.18	C
ATOM	22004	C2*	C A1045	205.340	111.434	43.118	1.00131.60	C	ATOM	22054	O6	G A1047	207.351	107.266	35.401	1.00 76.18	O
ATOM	22005	O2*	C A1045	205.470	112.742	43.637	1.00131.60	O	ATOM	22055	N1	G A1047	209.439	106.415	35.070	1.00 76.18	N
ATOM	22006	C1*	C A1045	205.413	110.434	44.268	1.00131.60	C	ATOM	22056	C2	G A1047	210.809	106.469	35.142	1.00 76.18	C
ATOM	22007	N1	C A1045	206.128	109.199	43.881	1.00101.30	N	ATOM	22057	N2	G A1047	211.465	105.404	34.660	1.00 76.18	N
ATOM	22008	C2	C A1045	207.538	109.221	43.814	1.00101.30	C	ATOM	22058	N3	G A1047	211.488	107.492	35.644	1.00 76.18	N
ATOM	22009	O2	C A1045	208.144	110.270	44.098	1.00101.30	O	ATOM	22059	C4	G A1047	210.671	108.484	36.056	1.00 76.18	C
ATOM	22010	N3	C A1045	208.199	108.100	43.440	1.00101.30	N	ATOM	22060	P	G A1048	212.796	113.180	33.077	1.00 83.46	P
ATOM	22011	C4	C A1045	207.517	106.992	43.137	1.00101.30	C	ATOM	22061	O1P	G A1048	213.778	114.048	32.384	1.00 68.30	O
ATOM	22012	N4	C A1045	208.208	105.915	42.755	1.00101.30	N	ATOM	22062	O2P	G A1048	211.384	113.630	33.209	1.00 68.30	O
ATOM	22013	C5	C A1045	206.092	106.939	43.206	1.00101.30	C	ATOM	22063	O5*	G A1048	212.803	111.750	32.374	1.00 83.46	O
ATOM	22014	C6	C A1045	205.445	108.052	43.580	1.00101.30	C	ATOM	22064	C5*	G A1048	214.051	111.111	32.063	1.00 83.46	C
ATOM	22015	P	A A1046	204.074	112.727	40.464	1.00111.80	P	ATOM	22065	C4*	G A1048	213.829	109.874	31.226	1.00 83.46	C
ATOM	22016	O1P	A A1046	203.417	113.993	40.030	1.00 87.62	O	ATOM	22066	O4*	G A1048	213.226	108.826	32.035	1.00 83.46	O
ATOM	22017	O2P	A A1046	204.046	111.531	39.577	1.00 87.62	O	ATOM	22067	C3*	G A1048	212.893	109.991	30.037	1.00 83.46	C
ATOM	22018	O5*	A A1046	205.592	113.052	40.820	1.00111.80	O	ATOM	22068	O3*	G A1048	213.425	110.669	28.914	1.00 83.46	O
ATOM	22019	C5*	A A1046	206.617	113.029	39.817	1.00111.80	C	ATOM	22069	C2*	G A1048	212.528	108.535	29.782	1.00 83.46	C
ATOM	22020	C4*	A A1046	207.966	113.224	40.460	1.00111.80	C	ATOM	22070	O2*	G A1048	213.506	107.805	29.072	1.00 83.46	O
ATOM	22021	O4*	A A1046	208.227	112.132	41.376	1.00111.80	O	ATOM	22071	C1*	G A1048	212.411	108.003	31.212	1.00 83.46	C
ATOM	22022	C3*	A A1046	209.144	113.206	39.508	1.00111.80	C	ATOM	22072	N9	G A1048	211.016	108.166	31.609	1.00 68.30	N
ATOM	22023	O3*	A A1046	209.357	114.479	38.929	1.00111.80	O	ATOM	22073	C8	G A1048	210.430	109.264	32.200	1.00 68.30	C
ATOM	22024	C3*	A A1046	210.294	112.791	40.412	1.00111.80	C	ATOM	22074	N7	G A1048	209.130	109.174	32.260	1.00 68.30	N
ATOM	22025	O2*	A A1046	210.790	113.876	41.167	1.00111.80	O	ATOM	22075	C5	G A1048	208.846	107.928	31.714	1.00 68.30	C
ATOM	22026	C1*	A A1046	209.604	111.798	41.346	1.00111.80	C	ATOM	22076	C6	G A1048	207.609	107.293	31.482	1.00 68.30	C
ATOM	22027	N9	A A1046	209.727	110.417	40.875	1.00 87.62	N	ATOM	22077	O6	G A1048	206.473	107.722	31.702	1.00 68.30	O
ATOM	22028	C8	A A1046	208.713	109.526	40.616	1.00 87.62	C	ATOM	22078	N1	G A1048	207.778	106.035	30.915	1.00 68.30	N
ATOM	22029	N7	A A1046	209.128	108.359	40.187	1.00 87.62	N	ATOM	22079	C2	G A1048	208.986	105.465	30.601	1.00 68.30	C
ATOM	22030	C5	A A1046	210.509	108.484	40.163	1.00 87.62	C	ATOM	22080	N2	G A1048	208.943	104.241	30.053	1.00 68.30	N
ATOM	22031	C6	A A1046	211.533	107.591	39.793	1.00 87.62	C	ATOM	22081	N3	G A1048	210.148	106.052	30.805	1.00 68.30	N
ATOM	22032	N6	A A1046	211.308	106.348	39.359	1.00 87.62	N	ATOM	22082	C4	G A1048	210.003	107.276	31.354	1.00 68.30	C
ATOM	22033	N1	A A1046	212.810	108.027	39.886	1.00 87.62	N	ATOM	22083	P	U A1049	212.585	111.890	28.275	1.00 83.27	P
ATOM	22034	C2	A A1046	213.031	109.279	40.320	1.00 87.62	C	ATOM	22084	O1P	U A1049	213.001	113.161	28.932	1.00 69.89	O
ATOM	22035	N3	A A1046	212.152	110.212	40.692	1.00 87.62	N	ATOM	22085	O2P	U A1049	211.149	111.508	28.286	1.00 69.89	O
ATOM	22036	C4	A A1046	210.894	109.745	40.590	1.00 87.62	C	ATOM	22086	O5*	U A1049	213.058	111.948	26.754	1.00 83.27	O
ATOM	22037	P	G A1047	209.530	114.600	37.339	1.00 88.32	P	ATOM	22087	C5*	U A1049	212.975	110.785	25.892	1.00 83.27	C
ATOM	22038	O1P	G A1047	210.093	115.946	37.074	1.00 76.18	O	ATOM	22088	C4*	U A1049	214.317	110.530	25.247	1.00 83.27	C
ATOM	22039	O2P	G A1047	208.256	114.199	36.696	1.00 76.18	O	ATOM	22089	O4*	U A1049	214.677	111.655	24.419	1.00 83.27	O
ATOM	22040	O5*	G A1047	210.614	113.488	36.985	1.00 88.32	O	ATOM	22090	C3*	U A1049	215.450	110.384	26.249	1.00 83.27	C
ATOM	22041	C5*	G A1047	211.997	113.651	37.358	1.00 88.32	C	ATOM	22091	O3*	U A1049	215.529	109.009	26.682	1.00 83.27	O
ATOM	22042	C4*	G A1047	212.812	112.463	36.894	1.00 88.32	C	ATOM	22092	C2*	U A1049	216.683	110.969	25.556	1.00 83.27	C
ATOM	22043	O4*	G A1047	212.412	111.276	37.627	1.00 88.32	O	ATOM	22093	O2*	U A1049	217.551	110.021	24.997	1.00 83.27	O
ATOM	22044	C3*	G A1047	212.631	112.075	35.437	1.00 88.32	C	ATOM	22094	C1*	U A1049	216.074	111.831	24.444	1.00 83.27	C
ATOM	22045	O3*	G A1047	213.390	112.871	34.539	1.00 88.32	O	ATOM	22095	N1	U A1049	216.368	113.272	24.413	1.00 69.89	N
ATOM	22046	C2*	G A1047	213.016	110.601	35.435	1.00 88.32	C	ATOM	22096	C2	U A1049	217.601	113.676	23.925	1.00 69.89	C
ATOM	22047	O2*	G A1047	214.410	110.373	35.416	1.00 88.32	O	ATOM	22097	O2	U A1049	218.466	112.894	23.577	1.00 69.89	O



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ATOM	22098	N3	U A1049	217.784	115.034	23.861	1.00	69.89	N	ATOM	22148	O2P	U A1052	208.708	106.952	17.789	1.00	83.85	O
ATOM	22099	C4	U A1049	216.885	116.010	24.236	1.00	69.89	C	ATOM	22149	O5*	U A1052	206.417	106.138	17.319	1.00	67.50	O
ATOM	22100	O4	U A1049	217.187	117.195	24.104	1.00	69.89	O	ATOM	22150	C5*	U A1052	205.424	105.189	16.885	1.00	67.50	C
ATOM	22101	C5	U A1049	215.650	115.517	24.750	1.00	69.89	C	ATOM	22151	C4*	U A1052	204.039	105.743	17.100	1.00	67.50	C
ATOM	22102	C6	U A1049	215.440	114.199	24.824	1.00	69.89	C	ATOM	22152	O4*	U A1052	203.773	105.853	18.520	1.00	67.50	C
ATOM	22103	P	G A1050	215.756	107.813	25.609	1.00	78.33	P	ATOM	22153	C3*	U A1052	203.792	107.133	16.534	1.00	67.50	C
ATOM	22104	O1P	G A1050	216.838	106.929	26.108	1.00	66.54	O	ATOM	22154	O3*	U A1052	203.387	107.054	15.164	1.00	67.50	O
ATOM	22105	O2P	G A1050	215.859	108.382	24.245	1.00	66.54	O	ATOM	22155	C2*	U A1052	202.656	107.648	17.414	1.00	67.50	C
ATOM	22106	O5*	G A1050	214.422	106.934	25.654	1.00	78.33	O	ATOM	22156	O2*	U A1052	201.379	107.212	16.985	1.00	67.50	O
ATOM	22107	C5*	G A1050	214.511	105.520	25.383	1.00	78.33	C	ATOM	22157	C1*	U A1052	202.974	106.998	18.766	1.00	67.50	C
ATOM	22108	O4*	G A1050	213.157	104.888	25.079	1.00	78.33	C	ATOM	22158	N1	U A1052	203.688	107.905	19.687	1.00	83.85	N
ATOM	22109	O4*	G A1050	212.370	104.696	26.286	1.00	78.33	O	ATOM	22159	C2	U A1052	202.937	108.860	20.369	1.00	83.85	C
ATOM	22110	C3*	G A1050	212.152	105.469	24.086	1.00	78.33	C	ATOM	22160	O2	U A1052	201.725	108.946	20.277	1.00	83.85	O
ATOM	22111	O3*	G A1050	212.451	105.307	22.700	1.00	78.33	O	ATOM	22161	N3	U A1052	203.664	109.713	21.165	1.00	83.85	N
ATOM	22112	C2*	G A1050	210.926	104.618	24.398	1.00	78.33	C	ATOM	22162	O4	U A1052	205.029	109.713	21.359	1.00	83.85	C
ATOM	22113	O2*	G A1050	210.997	103.350	23.777	1.00	78.33	O	ATOM	22163	C4	U A1052	205.542	110.603	22.041	1.00	83.85	O
ATOM	22114	C1*	G A1050	211.019	104.458	25.916	1.00	78.33	C	ATOM	22164	C5	U A1052	205.731	108.683	20.651	1.00	83.85	C
ATOM	22115	N9	G A1050	210.134	105.445	26.531	1.00	66.54	N	ATOM	22165	C6	U A1052	205.057	107.836	19.861	1.00	83.85	C
ATOM	22116	C8	G A1050	210.462	106.593	27.215	1.00	66.54	C	ATOM	22166	P	G A1053	204.060	108.015	14.050	1.00	59.52	P
ATOM	22117	N7	G A1050	209.417	107.304	27.551	1.00	66.54	N	ATOM	22167	O1P	G A1053	203.135	108.039	12.872	1.00	61.60	O
ATOM	22118	C5	G A1050	208.337	106.570	27.081	1.00	66.54	C	ATOM	22168	O2P	G A1053	205.480	107.611	13.863	1.00	61.60	O
ATOM	22119	C6	G A1050	206.948	106.841	27.136	1.00	66.54	C	ATOM	22169	O5*	G A1053	204.031	109.477	14.674	1.00	59.52	O
ATOM	22120	O6	G A1050	206.371	107.818	27.635	1.00	66.54	O	ATOM	22170	C5*	G A1053	204.671	110.532	13.981	1.00	59.52	C
ATOM	22121	N1	G A1050	206.207	105.829	26.524	1.00	66.54	N	ATOM	22171	C4*	G A1053	203.770	111.718	13.895	1.00	59.52	C
ATOM	22122	C2	G A1050	206.739	104.700	25.934	1.00	66.54	C	ATOM	22172	O4*	G A1053	204.130	112.643	14.948	1.00	59.52	O
ATOM	22123	N2	G A1050	205.874	103.836	25.379	1.00	66.54	N	ATOM	22173	C3*	G A1053	203.936	112.488	12.593	1.00	59.52	C
ATOM	22124	N3	G A1050	208.027	104.439	25.887	1.00	66.54	N	ATOM	22174	O3*	G A1053	202.693	113.106	12.259	1.00	59.52	O
ATOM	22125	C4	G A1050	208.762	105.410	26.470	1.00	66.54	C	ATOM	22175	C2*	G A1053	204.932	113.572	12.955	1.00	59.52	C
ATOM	22126	P	C A1051	211.548	106.074	21.595	1.00	68.63	P	ATOM	22176	O2*	G A1053	204.837	114.704	12.113	1.00	59.52	O
ATOM	22127	O1P	C A1051	212.145	105.810	20.261	1.00	62.14	O	ATOM	22177	C1*	G A1053	204.488	113.883	14.378	1.00	59.52	C
ATOM	22128	O2P	C A1051	211.315	107.482	22.032	1.00	62.14	O	ATOM	22178	N9	G A1053	205.493	114.533	15.208	1.00	61.60	N
ATOM	22129	O5*	C A1051	210.150	105.305	21.610	1.00	68.63	O	ATOM	22179	C8	G A1053	206.775	114.116	15.480	1.00	61.60	C
ATOM	22130	C5*	C A1051	209.998	104.018	20.955	1.00	68.63	C	ATOM	22180	N7	G A1053	207.428	114.948	16.243	1.00	61.60	N
ATOM	22131	C4*	C A1051	208.543	103.762	20.603	1.00	68.63	C	ATOM	22181	C5	G A1053	206.519	115.968	16.491	1.00	61.60	C
ATOM	22132	O4*	C A1051	207.748	103.758	21.818	1.00	68.63	O	ATOM	22182	C6	G A1053	206.655	117.157	17.249	1.00	61.60	C
ATOM	22133	C3*	C A1051	207.881	104.802	19.709	1.00	68.63	C	ATOM	22183	O6	G A1053	207.643	117.561	17.878	1.00	61.60	O
ATOM	22134	O3*	C A1051	208.108	104.560	18.325	1.00	68.63	O	ATOM	22184	N1	G A1053	205.486	117.910	17.231	1.00	61.60	N
ATOM	22135	C2*	C A1051	206.407	104.686	20.079	1.00	68.63	C	ATOM	22185	C2	G A1053	204.337	117.562	16.573	1.00	61.60	C
ATOM	22136	O2*	C A1051	205.729	103.656	19.385	1.00	68.63	O	ATOM	22186	N2	G A1053	203.318	118.406	16.685	1.00	61.60	N
ATOM	22137	C1*	C A1051	206.485	104.356	21.570	1.00	68.63	C	ATOM	22187	N3	G A1053	204.199	116.465	15.860	1.00	61.60	N
ATOM	22138	N1	C A1051	206.359	105.556	22.424	1.00	62.14	N	ATOM	22188	C4	G A1053	205.321	115.720	15.864	1.00	61.60	C
ATOM	22139	C2	C A1051	205.074	106.013	22.775	1.00	62.14	C	ATOM	22189	P	C A1054	205.202	113.119	10.743	1.00	73.35	P
ATOM	22140	O2	C A1051	204.075	105.382	22.380	1.00	62.14	O	ATOM	22190	O1P	C A1054	203.227	113.876	10.007	1.00	89.43	O
ATOM	22141	N3	C A1051	204.959	107.129	23.539	1.00	62.14	N	ATOM	22191	O2P	C A1054	200.791	113.557	10.699	1.00	89.43	O
ATOM	22142	C4	C A1051	206.055	107.774	23.955	1.00	62.14	C	ATOM	22192	O5*	C A1054	202.273	111.575	10.374	1.00	73.35	O
ATOM	22143	N4	C A1051	205.893	108.876	24.694	1.00	62.14	N	ATOM	22193	C5*	C A1054	201.990	110.584	11.392	1.00	73.35	C
ATOM	22144	C5	C A1051	207.366	107.321	23.627	1.00	62.14	C	ATOM	22194	C4*	C A1054	200.528	110.637	11.740	1.00	73.35	C
ATOM	22145	C6	C A1051	207.471	106.223	22.867	1.00	62.14	C	ATOM	22195	O4*	C A1054	199.792	110.092	10.617	1.00	73.35	O
ATOM	22146	P	U A1052	207.966	105.771	17.279	1.00	67.50	P	ATOM	22196	C3*	C A1054	200.035	109.850	12.941	1.00	73.35	C
ATOM	22147	O1P	U A1052	208.289	105.223	15.939	1.00	83.85	O	ATOM	22197	O3*	C A1054	200.171	110.595	14.154	1.00	73.35	O



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ATOM	22198	C2*	C A1054	198.569	109.675	12.586	1.00	73.35	C	ATOM	22248	O4	U A1056	203.680	116.049	19.182	1.00	71.67	O
ATOM	22199	O2*	C A1054	197.886	110.896	12.779	1.00	73.35	C	ATOM	22249	C5	U A1056	201.496	115.366	18.573	1.00	71.67	C
ATOM	22200	C1*	C A1054	198.643	109.427	11.080	1.00	73.35	C	ATOM	22250	C6	U A1056	200.214	115.742	18.514	1.00	71.67	C
ATOM	22201	N1	C A1054	198.764	108.003	10.712	1.00	89.43	N	ATOM	22251	P	G A1057	197.912	120.843	15.661	1.00	58.41	P
ATOM	22202	C2	C A1054	198.323	107.581	9.437	1.00	89.43	C	ATOM	22252	O1P	G A1057	196.902	121.714	15.007	1.00	64.52	O
ATOM	22203	O2	C A1054	197.902	108.422	8.628	1.00	89.43	O	ATOM	22253	O2P	G A1057	199.079	120.372	14.877	1.00	64.52	O
ATOM	22204	N3	C A1054	198.381	106.267	9.125	1.00	89.43	N	ATOM	22254	O5*	G A1057	198.494	121.577	16.954	1.00	58.41	O
ATOM	22205	C4	C A1054	198.868	105.387	10.011	1.00	89.43	C	ATOM	22255	C5*	G A1057	197.623	122.168	17.939	1.00	58.41	C
ATOM	22206	N4	C A1054	198.894	104.091	9.667	1.00	89.43	N	ATOM	22256	C4*	G A1057	198.420	122.986	18.932	1.00	58.41	C
ATOM	22207	C5	C A1054	199.350	105.793	11.295	1.00	89.43	C	ATOM	22257	O4*	G A1057	199.271	122.115	19.717	1.00	58.41	O
ATOM	22208	C6	C A1054	199.281	107.094	11.598	1.00	89.43	C	ATOM	22258	C3*	G A1057	199.353	124.034	18.347	1.00	58.41	C
ATOM	22209	P	A A1055	199.956	109.863	15.582	1.00	49.92	P	ATOM	22259	O3*	G A1057	198.641	125.244	18.108	1.00	58.41	O
ATOM	22210	O1P	A A1055	201.038	110.324	16.478	1.00	63.30	O	ATOM	22260	C2*	G A1057	200.424	124.196	19.428	1.00	58.41	C
ATOM	22211	O2P	A A1055	199.722	108.397	15.401	1.00	63.30	O	ATOM	22261	O2*	G A1057	200.127	125.148	20.432	1.00	58.41	O
ATOM	22212	O5*	A A1055	198.617	110.510	16.138	1.00	49.92	O	ATOM	22262	C1*	G A1057	200.468	122.799	20.057	1.00	58.41	C
ATOM	22213	C5*	A A1055	197.325	110.022	15.729	1.00	49.92	C	ATOM	22263	N9	G A1057	201.606	121.997	19.621	1.00	64.52	N
ATOM	22214	C4*	A A1055	196.244	110.829	16.395	1.00	49.92	C	ATOM	22264	C8	G A1057	201.589	120.973	18.707	1.00	64.52	C
ATOM	22215	O4*	A A1055	196.277	110.590	17.832	1.00	49.92	O	ATOM	22265	N7	G A1057	202.764	120.450	18.503	1.00	64.52	N
ATOM	22216	C3*	A A1055	196.435	112.323	16.242	1.00	49.92	C	ATOM	22266	C5	G A1057	203.614	121.171	19.332	1.00	64.52	C
ATOM	22217	O3*	A A1055	195.868	112.811	15.049	1.00	49.92	O	ATOM	22267	C6	G A1057	205.021	121.062	19.531	1.00	64.52	C
ATOM	22218	C2*	A A1055	195.736	112.866	17.474	1.00	49.92	C	ATOM	22268	O6	G A1057	205.827	120.309	18.970	1.00	64.52	O
ATOM	22219	O2*	A A1055	194.331	112.884	17.295	1.00	49.92	O	ATOM	22269	N1	G A1057	205.471	121.964	20.484	1.00	64.52	N
ATOM	22220	C1*	A A1055	196.110	111.816	18.524	1.00	49.92	C	ATOM	22270	C2	G A1057	204.686	122.866	21.148	1.00	64.52	C
ATOM	22221	N9	A A1055	197.379	112.152	19.184	1.00	63.30	N	ATOM	22271	N2	G A1057	205.323	123.628	22.047	1.00	64.52	N
ATOM	22222	C8	A A1055	198.578	111.496	19.073	1.00	63.30	C	ATOM	22272	N3	G A1057	203.381	123.004	20.952	1.00	64.52	N
ATOM	22223	N7	A A1055	199.556	112.066	19.732	1.00	63.30	N	ATOM	22273	C4	G A1057	202.914	122.123	20.039	1.00	64.52	C
ATOM	22224	C5	A A1055	198.961	113.166	20.334	1.00	63.30	C	ATOM	22274	P	G A1058	199.153	126.266	16.978	1.00	53.10	P
ATOM	22225	C6	A A1055	199.471	114.190	21.167	1.00	63.30	C	ATOM	22275	O1P	G A1058	198.472	127.579	17.177	1.00	65.64	O
ATOM	22226	N6	A A1055	200.747	114.285	21.531	1.00	63.30	N	ATOM	22276	O2P	G A1058	199.031	125.578	15.670	1.00	65.64	O
ATOM	22227	N1	A A1055	198.615	115.129	21.607	1.00	63.30	N	ATOM	22277	O5*	G A1058	200.705	126.439	17.307	1.00	53.10	O
ATOM	22228	C2	A A1055	197.339	115.050	21.222	1.00	63.30	C	ATOM	22278	C5*	G A1058	201.118	127.062	18.534	1.00	53.10	C
ATOM	22229	N3	A A1055	196.741	114.149	20.433	1.00	63.30	N	ATOM	22279	C4*	G A1058	202.620	127.023	18.681	1.00	53.10	C
ATOM	22230	C4	A A1055	197.618	113.222	20.019	1.00	63.30	C	ATOM	22280	O4*	G A1058	203.094	125.704	19.055	1.00	53.10	O
ATOM	22231	P	U A1056	196.397	114.196	14.432	1.00	45.98	P	ATOM	22281	C3*	G A1058	203.408	127.402	17.447	1.00	53.10	C
ATOM	22232	O1P	U A1056	195.342	114.739	13.528	1.00	71.67	O	ATOM	22282	O3*	G A1058	203.471	128.816	17.335	1.00	53.10	O
ATOM	22233	O2P	U A1056	197.778	113.993	13.909	1.00	71.67	O	ATOM	22283	C2*	G A1058	204.763	126.761	17.720	1.00	53.10	C
ATOM	22234	O5*	U A1056	196.502	115.175	15.687	1.00	45.98	O	ATOM	22284	O2*	G A1058	205.589	127.564	18.531	1.00	53.10	O
ATOM	22235	C5*	U A1056	197.226	116.413	15.578	1.00	45.98	C	ATOM	22285	C1*	G A1058	204.375	125.493	18.493	1.00	53.10	C
ATOM	22236	C4*	U A1056	197.132	117.203	16.859	1.00	45.98	C	ATOM	22286	N9	G A1058	204.297	124.320	17.634	1.00	65.64	N
ATOM	22237	O3*	U A1056	197.702	116.450	17.969	1.00	45.98	O	ATOM	22287	C8	G A1058	203.180	123.868	16.979	1.00	65.64	C
ATOM	22238	C4*	U A1056	197.913	118.506	16.834	1.00	45.98	C	ATOM	22288	N7	G A1058	203.397	122.795	16.274	1.00	65.64	N
ATOM	22239	O3*	U A1056	197.158	119.554	16.254	1.00	45.98	O	ATOM	22289	C5	G A1058	204.738	122.517	16.476	1.00	65.64	C
ATOM	22240	C2*	U A1056	198.178	118.769	18.305	1.00	45.98	C	ATOM	22290	C6	G A1058	205.530	121.470	15.972	1.00	65.64	C
ATOM	22241	O2*	U A1056	197.086	119.412	18.916	1.00	45.98	O	ATOM	22291	O6	G A1058	205.197	120.547	15.220	1.00	65.64	O
ATOM	22242	C1*	U A1056	198.351	117.347	18.864	1.00	45.98	C	ATOM	22292	N1	G A1058	206.837	121.558	16.423	1.00	65.64	N
ATOM	22243	N1	U A1056	199.765	116.944	19.008	1.00	71.67	N	ATOM	22293	C2	G A1058	207.323	122.531	17.251	1.00	65.64	C
ATOM	22244	C2	U A1056	200.650	117.821	19.642	1.00	71.67	C	ATOM	22294	N2	G A1058	208.626	122.436	17.556	1.00	65.64	N
ATOM	22245	O2	U A1056	200.310	118.883	20.133	1.00	71.67	O	ATOM	22295	N3	G A1058	206.590	123.518	17.737	1.00	65.64	N
ATOM	22246	N3	U A1056	201.953	117.403	19.675	1.00	71.67	N	ATOM	22296	C4	G A1058	205.313	123.450	17.310	1.00	65.64	C
ATOM	22247	C4	U A1056	202.463	116.230	19.170	1.00	71.67	C	ATOM	22297	P	C A1059	203.443	129.504	15.887	1.00	59.83	P



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ATOM	22298	O1P	C A1059	203.461	130.984	16.044	1.00	74.07	O	ATOM	22348	C1*	G A1061	210.047	123.428	4.732	1.00	46.09	C
ATOM	22299	O2P	C A1059	202.361	128.868	15.102	1.00	74.07	O	ATOM	22349	N9	G A1061	208.627	123.694	4.966	1.00	69.32	N
ATOM	22300	O5*	C A1059	204.843	129.058	15.286	1.00	59.83	O	ATOM	22350	C8	G A1061	208.092	124.697	5.738	1.00	69.32	C
ATOM	22301	C5*	C A1059	206.065	129.383	15.975	1.00	59.83	C	ATOM	22351	N7	G A1061	206.790	124.675	5.772	1.00	69.32	N
ATOM	22302	C4*	C A1059	207.228	128.600	15.404	1.00	59.83	C	ATOM	22352	C5	G A1061	206.440	123.594	4.976	1.00	69.32	C
ATOM	22303	O4*	C A1059	207.171	127.215	15.831	1.00	59.83	O	ATOM	22353	O6	G A1061	205.167	123.066	4.659	1.00	69.32	C
ATOM	22304	C3*	C A1059	207.326	128.528	13.889	1.00	59.83	C	ATOM	22354	O6	G A1061	204.057	123.451	5.040	1.00	69.32	O
ATOM	22305	O3*	C A1059	207.920	129.677	13.310	1.00	59.83	O	ATOM	22355	N1	G A1061	205.267	121.973	3.814	1.00	69.32	N
ATOM	22306	C2*	C A1059	208.189	127.300	13.687	1.00	59.83	C	ATOM	22356	C2	G A1061	206.440	121.448	3.342	1.00	69.32	C
ATOM	22307	O2*	C A1059	209.544	127.622	13.898	1.00	59.83	O	ATOM	22357	N2	G A1061	206.329	120.392	2.530	1.00	69.32	N
ATOM	22308	C1*	C A1059	207.695	126.389	14.810	1.00	59.83	C	ATOM	22358	N3	G A1061	207.633	121.921	3.641	1.00	69.32	N
ATOM	22309	N1	C A1059	206.622	125.502	14.332	1.00	74.07	N	ATOM	22359	C4	G A1061	207.560	122.987	4.459	1.00	69.32	C
ATOM	22310	C2	C A1059	206.930	124.170	14.037	1.00	74.07	C	ATOM	22360	P	U A1062	211.493	126.585	1.428	1.00	57.87	P
ATOM	22311	O2	C A1059	208.090	123.763	14.219	1.00	74.07	O	ATOM	22361	O1P	U A1062	212.691	126.743	0.561	1.00	72.70	O
ATOM	22312	N3	C A1059	205.959	123.357	13.561	1.00	74.07	N	ATOM	22362	O2P	U A1062	210.817	127.793	1.976	1.00	72.70	O
ATOM	22313	C4	C A1059	204.724	123.826	13.387	1.00	74.07	C	ATOM	22363	O5*	U A1062	210.392	125.696	0.689	1.00	57.87	O
ATOM	22314	N4	C A1059	203.798	122.987	12.920	1.00	74.07	N	ATOM	22364	C5*	U A1062	210.713	124.383	0.177	1.00	57.87	C
ATOM	22315	C5	C A1059	204.381	125.176	13.689	1.00	74.07	C	ATOM	22365	C4*	U A1062	209.494	123.741	-0.442	1.00	57.87	C
ATOM	22316	C6	C A1059	205.349	125.970	14.157	1.00	74.07	C	ATOM	22366	O4*	U A1062	208.580	123.297	0.588	1.00	57.87	O
ATOM	22317	P	C A1060	207.590	130.040	11.781	1.00	55.68	P	ATOM	22367	O3*	U A1062	208.670	124.637	-1.352	1.00	57.87	C
ATOM	22318	O1P	C A1060	208.163	131.390	11.458	1.00	62.69	O	ATOM	22368	C3*	U A1062	209.193	124.614	-2.664	1.00	57.87	O
ATOM	22319	O2P	C A1060	206.136	129.811	11.583	1.00	62.69	O	ATOM	22369	C2*	U A1062	207.288	124.002	-1.303	1.00	57.87	C
ATOM	22320	O5*	C A1060	208.379	128.899	10.979	1.00	55.68	O	ATOM	22370	O2*	U A1062	207.136	122.966	-2.255	1.00	57.87	O
ATOM	22321	C5*	C A1060	209.808	128.699	11.166	1.00	55.68	C	ATOM	22371	C1*	U A1062	207.246	123.434	0.123	1.00	57.87	C
ATOM	22322	O4*	C A1060	210.301	127.455	10.433	1.00	55.68	C	ATOM	22372	N1	U A1062	206.493	124.274	1.070	1.00	72.70	N
ATOM	22323	C4*	C A1060	209.782	126.246	11.048	1.00	55.68	C	ATOM	22373	C2	U A1062	205.142	124.018	1.230	1.00	72.70	C
ATOM	22324	C3*	C A1060	209.949	127.310	8.960	1.00	55.68	C	ATOM	22374	O2	U A1062	204.559	123.125	0.646	1.00	72.70	O
ATOM	22325	O3*	C A1060	210.824	128.041	8.132	1.00	55.68	O	ATOM	22375	N3	U A1062	204.495	124.847	2.104	1.00	72.70	N
ATOM	22326	C2*	C A1060	210.093	125.813	8.729	1.00	55.68	C	ATOM	22376	C4	U A1062	205.041	125.878	2.828	1.00	72.70	C
ATOM	22327	O2*	C A1060	211.423	125.397	8.537	1.00	55.68	O	ATOM	22377	O4	U A1062	204.325	126.522	3.594	1.00	72.70	O
ATOM	22328	C1*	C A1060	209.602	125.246	10.055	1.00	55.68	C	ATOM	22378	C5	U A1062	206.439	126.077	2.619	1.00	72.70	C
ATOM	22329	N1	C A1060	208.171	124.944	9.941	1.00	62.69	N	ATOM	22379	C6	U A1062	207.101	125.289	1.770	1.00	72.70	C
ATOM	22330	C2	C A1060	207.787	123.665	9.578	1.00	62.69	C	ATOM	22380	P	C A1063	209.259	125.968	-3.521	1.00	36.87	P
ATOM	22331	O2	C A1060	208.659	122.810	9.398	1.00	62.69	O	ATOM	22381	O1P	C A1063	210.490	125.871	-4.353	1.00	65.83	O
ATOM	22332	N3	C A1060	206.474	123.391	9.426	1.00	62.69	N	ATOM	22382	O2P	C A1063	209.055	127.149	-2.637	1.00	65.83	O
ATOM	22333	C4	C A1060	205.564	124.350	9.619	1.00	62.69	C	ATOM	22383	O5*	C A1063	208.004	125.872	-4.489	1.00	36.87	O
ATOM	22334	N4	C A1060	204.282	124.050	9.421	1.00	62.69	N	ATOM	22384	C5*	C A1063	207.885	124.793	-5.424	1.00	36.87	C
ATOM	22335	C5	C A1060	205.931	125.660	10.012	1.00	62.69	C	ATOM	22385	C4*	C A1063	206.438	124.555	-5.761	1.00	36.87	C
ATOM	22336	C6	C A1060	207.229	125.912	10.162	1.00	62.69	C	ATOM	22386	O4*	C A1063	205.748	124.120	-4.567	1.00	36.87	O
ATOM	22337	P	G A1061	210.361	128.439	6.652	1.00	46.09	P	ATOM	22387	C3*	C A1063	205.661	125.767	-6.240	1.00	36.87	C
ATOM	22338	O1P	G A1061	211.356	129.406	6.110	1.00	69.32	O	ATOM	22388	O3*	C A1063	205.775	125.932	-7.631	1.00	36.87	O
ATOM	22339	O2P	G A1061	208.926	128.807	6.685	1.00	69.32	O	ATOM	22389	C2*	C A1063	204.236	125.406	-5.874	1.00	36.87	C
ATOM	22340	O5*	G A1061	210.505	127.076	5.843	1.00	46.09	O	ATOM	22390	O2*	C A1063	203.677	124.555	-6.855	1.00	36.87	O
ATOM	22341	C5*	G A1061	211.772	126.405	5.762	1.00	46.09	C	ATOM	22391	C1*	C A1063	204.434	124.643	-4.561	1.00	36.87	C
ATOM	22342	C4*	G A1061	211.647	125.124	4.970	1.00	46.09	C	ATOM	22392	N1	C A1063	204.267	125.462	-3.339	1.00	65.83	N
ATOM	22343	O4*	G A1061	210.805	124.177	5.671	1.00	46.09	O	ATOM	22393	C2	C A1063	203.115	125.292	-2.554	1.00	65.83	C
ATOM	22344	C3*	G A1061	211.015	125.257	3.601	1.00	46.09	C	ATOM	22394	O2	C A1063	202.265	124.451	-2.894	1.00	65.83	O
ATOM	22345	O3*	G A1061	211.958	125.649	2.638	1.00	46.09	C	ATOM	22395	N3	C A1063	202.960	126.045	-1.442	1.00	65.83	N
ATOM	22346	C2*	G A1061	210.501	123.855	3.337	1.00	46.09	C	ATOM	22396	C4	C A1063	203.896	126.927	-1.096	1.00	65.83	C
ATOM	22347	O2*	G A1061	211.538	123.004	2.917	1.00	46.09	O	ATOM	22397	N4	C A1063	203.700	127.642	0.009	1.00	65.83	N



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ATOM	22398	C5	C A1063	205.075	127.115	-1.869	1.00	65.83	C	ATOM	22448	C4*	C A1066	205.294	133.205	-9.351	1.00	51.48	C
ATOM	22399	C6	C A1063	205.218	126.373	-2.971	1.00	65.83	C	ATOM	22449	O4*	C A1066	205.021	132.431	-8.161	1.00	51.48	O
ATOM	22400	P	G A1064	205.479	127.360	-8.281	1.00	43.25	P	ATOM	22450	C3*	C A1066	204.087	134.117	-9.541	1.00	51.48	C
ATOM	22401	O1P	G A1064	204.016	127.577	-8.199	1.00	75.03	O	ATOM	22451	O3*	C A1066	203.889	134.339	-10.934	1.00	51.48	O
ATOM	22402	O2P	G A1064	206.147	127.397	-9.608	1.00	75.03	O	ATOM	22452	C2*	C A1066	202.937	133.280	-8.995	1.00	51.48	C
ATOM	22403	O5*	G A1064	206.230	128.362	-7.290	1.00	43.25	O	ATOM	22453	O2*	C A1066	202.437	132.426	-9.996	1.00	51.48	O
ATOM	22404	C5*	G A1064	206.578	129.728	-7.666	1.00	43.25	C	ATOM	22454	C1*	C A1066	203.626	132.419	-7.928	1.00	51.48	C
ATOM	22405	C4*	G A1064	206.844	130.542	-6.417	1.00	43.25	C	ATOM	22455	N1	C A1066	203.369	132.756	-6.514	1.00	70.66	N
ATOM	22406	O4*	G A1064	205.579	130.755	-5.743	1.00	43.25	O	ATOM	22456	C2	C A1066	202.202	132.285	-5.914	1.00	70.66	C
ATOM	22407	C3*	G A1064	207.762	129.849	-5.399	1.00	43.25	C	ATOM	22457	O2	C A1066	201.379	131.667	-6.601	1.00	70.66	O
ATOM	22408	O3*	G A1064	208.410	130.799	-4.537	1.00	43.25	O	ATOM	22458	N3	C A1066	201.994	132.518	-4.600	1.00	70.66	N
ATOM	22409	C2*	G A1064	206.761	129.156	-4.484	1.00	43.25	C	ATOM	22459	C4	C A1066	202.894	133.199	-3.892	1.00	70.66	C
ATOM	22410	O2*	G A1064	207.282	128.889	-3.196	1.00	43.25	O	ATOM	22460	N4	C A1066	202.667	133.365	-2.585	1.00	70.66	N
ATOM	22411	C1*	G A1064	205.637	130.193	-4.452	1.00	43.25	C	ATOM	22461	C5	C A1066	204.072	133.729	-4.488	1.00	70.66	C
ATOM	22412	N9	G A1064	204.319	129.678	-4.104	1.00	75.03	N	ATOM	22462	C6	C A1066	204.268	133.488	-5.788	1.00	70.66	C
ATOM	22413	C8	G A1064	203.503	128.866	-4.849	1.00	75.03	C	ATOM	22463	P	A A1067	203.140	135.663	-11.445	1.00	45.20	P
ATOM	22414	N7	G A1064	202.393	128.561	-4.238	1.00	75.03	N	ATOM	22464	O1P	A A1067	202.937	135.598	-12.918	1.00	59.62	O
ATOM	22415	C5	G A1064	202.482	129.221	-3.021	1.00	75.03	C	ATOM	22465	O2P	A A1067	203.872	136.809	-10.863	1.00	59.62	O
ATOM	22416	C6	G A1064	201.580	129.267	-1.924	1.00	75.03	C	ATOM	22466	O5*	A A1067	201.704	135.567	-10.768	1.00	45.20	O
ATOM	22417	O6	G A1064	200.479	128.720	-1.801	1.00	75.03	O	ATOM	22467	C5*	A A1067	200.761	134.529	-11.145	1.00	45.20	C
ATOM	22418	N1	G A1064	202.078	130.050	-0.893	1.00	75.03	N	ATOM	22468	C4*	A A1067	199.338	134.957	-10.828	1.00	45.20	C
ATOM	22419	C2	G A1064	203.278	130.703	-0.912	1.00	75.03	C	ATOM	22469	O4*	A A1067	199.146	134.990	-9.385	1.00	45.20	O
ATOM	22420	N2	G A1064	203.588	131.384	0.177	1.00	75.03	N	ATOM	22470	C3*	A A1067	198.972	136.339	-11.345	1.00	45.20	C
ATOM	22421	N3	G A1064	204.114	130.681	-1.921	1.00	75.03	N	ATOM	22471	O3*	A A1067	197.795	136.353	-12.201	1.00	45.20	O
ATOM	22422	C4	G A1064	203.660	129.921	-2.933	1.00	75.03	C	ATOM	22472	C2*	A A1067	199.161	137.250	-10.125	1.00	45.20	C
ATOM	22423	P	U A1065	209.818	131.466	-4.931	1.00	53.30	P	ATOM	22473	O2*	A A1067	198.374	138.400	-10.041	1.00	45.20	O
ATOM	22424	O1P	U A1065	210.360	130.843	-6.165	1.00	74.81	O	ATOM	22474	C1*	A A1067	198.947	136.316	-8.937	1.00	45.20	C
ATOM	22425	O2P	U A1065	210.628	131.467	-3.687	1.00	74.81	O	ATOM	22475	N9	A A1067	199.938	136.550	-7.889	1.00	59.62	N
ATOM	22426	O5*	U A1065	209.400	132.962	-5.265	1.00	53.30	O	ATOM	22476	C8	A A1067	201.244	136.937	-8.054	1.00	59.62	C
ATOM	22427	C5*	U A1065	208.184	133.206	-5.971	1.00	53.30	C	ATOM	22477	N7	A A1067	201.927	136.998	-6.938	1.00	59.62	N
ATOM	22428	C4*	U A1065	207.666	134.591	-5.706	1.00	53.30	C	ATOM	22478	C5	A A1067	201.005	136.644	-5.969	1.00	59.62	C
ATOM	22429	O4*	U A1065	207.267	134.831	-4.340	1.00	53.30	O	ATOM	22479	C6	A A1067	201.109	136.512	-4.582	1.00	59.62	C
ATOM	22430	C3*	U A1065	208.618	135.734	-5.978	1.00	53.30	C	ATOM	22480	N6	A A1067	202.237	136.731	-3.904	1.00	59.62	N
ATOM	22431	O3*	U A1065	208.744	135.970	-7.390	1.00	53.30	O	ATOM	22481	N1	A A1067	200.006	136.142	-3.900	1.00	59.62	N
ATOM	22432	C2*	U A1065	208.128	136.875	-5.060	1.00	53.30	C	ATOM	22482	C2	A A1067	198.878	135.930	-4.579	1.00	59.62	C
ATOM	22433	O2*	U A1065	207.639	138.051	-5.675	1.00	53.30	O	ATOM	22483	N3	A A1067	198.653	136.023	-5.886	1.00	59.62	N
ATOM	22434	C1*	U A1065	207.005	136.207	-4.263	1.00	53.30	C	ATOM	22484	C4	A A1067	199.771	136.384	-6.535	1.00	59.62	C
ATOM	22435	N1	U A1065	206.906	136.644	-2.865	1.00	74.81	N	ATOM	22485	P	G A1068	196.318	136.061	-11.616	1.00	32.21	P
ATOM	22436	C2	U A1065	205.971	137.633	-2.578	1.00	74.81	C	ATOM	22486	O1P	G A1068	195.334	136.240	-12.723	1.00	47.68	O
ATOM	22437	O2	U A1065	205.237	138.127	-3.423	1.00	74.81	O	ATOM	22487	O2P	G A1068	196.176	136.865	-10.394	1.00	47.68	O
ATOM	22438	N3	U A1065	205.932	138.028	-1.267	1.00	74.81	N	ATOM	22488	O5*	G A1068	196.341	134.529	-11.192	1.00	32.21	O
ATOM	22439	C4	U A1065	206.712	137.551	-0.236	1.00	74.81	C	ATOM	22489	C5*	G A1068	195.255	133.972	-10.462	1.00	32.21	C
ATOM	22440	O4	U A1065	206.546	137.992	0.902	1.00	74.81	O	ATOM	22490	C4*	G A1068	195.752	133.349	-9.183	1.00	32.21	C
ATOM	22441	C5	U A1065	207.646	136.534	-0.612	1.00	74.81	C	ATOM	22491	O4*	G A1068	196.572	134.306	-8.468	1.00	32.21	O
ATOM	22442	C6	U A1065	207.705	136.121	-1.882	1.00	74.81	C	ATOM	22492	C3*	G A1068	194.633	133.000	-8.218	1.00	32.21	C
ATOM	22443	P	C A1066	207.442	136.221	-8.308	1.00	51.48	P	ATOM	22493	O3*	G A1068	194.089	131.707	-8.467	1.00	32.21	O
ATOM	22444	O1P	C A1066	207.963	136.300	-9.699	1.00	70.66	O	ATOM	22494	C2*	G A1068	195.295	133.125	-6.852	1.00	32.21	C
ATOM	22445	O2P	C A1066	206.592	137.331	-7.791	1.00	70.66	O	ATOM	22495	O2*	G A1068	196.023	131.966	-6.518	1.00	32.21	O
ATOM	22446	O5*	C A1066	206.620	134.860	-8.175	1.00	51.48	O	ATOM	22496	C1*	G A1068	196.250	134.294	-7.081	1.00	32.21	C
ATOM	22447	C5*	C A1066	206.644	133.874	-9.222	1.00	51.48	C	ATOM	22497	N9	G A1068	195.687	135.606	-6.749	1.00	47.68	N



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ATOM	22498	C8	G A1068	195.480	136.641	-7.630	1.00	47.68	C	ATOM	22548	P	C A1071	183.105	132.646	-1.267	1.00	61.81	P
ATOM	22499	N7	G A1068	194.967	137.702	-7.074	1.00	47.68	N	ATOM	22549	O1P	C A1071	182.415	131.422	-0.740	1.00	33.31	O
ATOM	22500	C5	G A1068	194.824	137.356	-5.741	1.00	47.68	C	ATOM	22550	O2P	C A1071	182.892	133.064	-2.683	1.00	33.31	O
ATOM	22501	C6	G A1068	194.307	138.105	-4.659	1.00	47.68	C	ATOM	22551	O5*	C A1071	182.782	133.896	-0.337	1.00	61.81	O
ATOM	22502	O6	G A1068	193.879	139.264	-4.666	1.00	47.68	O	ATOM	22552	C5*	C A1071	183.251	133.938	1.029	1.00	61.81	C
ATOM	22503	N1	G A1068	194.313	137.372	-3.476	1.00	47.68	N	ATOM	22553	O4*	C A1071	183.048	135.317	1.616	1.00	61.81	C
ATOM	22504	C2	G A1068	194.762	136.084	-3.353	1.00	47.68	C	ATOM	22554	C4*	C A1071	183.982	136.257	1.033	1.00	61.81	O
ATOM	22505	N2	G A1068	194.659	135.547	-2.138	1.00	47.68	N	ATOM	22555	C3*	C A1071	181.679	135.927	1.375	1.00	61.81	C
ATOM	22506	N3	G A1068	195.266	135.372	-4.355	1.00	47.68	N	ATOM	22556	O3*	C A1071	180.735	135.455	2.331	1.00	61.81	O
ATOM	22507	C4	G A1068	195.262	136.064	-5.516	1.00	47.68	C	ATOM	22557	C2*	C A1071	181.952	137.422	1.478	1.00	61.81	C
ATOM	22508	P	C A1069	192.526	131.460	-8.228	1.00	57.83	P	ATOM	22558	O2*	C A1071	181.987	137.892	2.804	1.00	61.81	O
ATOM	22509	O1P	C A1069	192.230	130.036	-8.503	1.00	52.63	O	ATOM	22559	C1*	C A1071	183.362	137.521	0.904	1.00	61.81	C
ATOM	22510	O2P	C A1069	191.783	132.532	-8.969	1.00	52.63	O	ATOM	22560	N1	C A1071	183.377	137.908	-0.511	1.00	33.31	N
ATOM	22511	O5*	C A1069	192.378	131.665	-6.657	1.00	57.83	O	ATOM	22561	C2	C A1071	183.105	139.243	-0.850	1.00	33.31	C
ATOM	22512	C5*	C A1069	192.976	130.736	-5.738	1.00	57.83	C	ATOM	22562	O2	C A1071	182.803	140.042	0.052	1.00	33.31	O
ATOM	22513	C4*	C A1069	192.513	131.024	-4.330	1.00	57.83	C	ATOM	22563	N3	C A1071	183.165	139.624	-2.150	1.00	33.31	N
ATOM	22514	O4*	C A1069	193.057	132.294	-3.886	1.00	57.83	C	ATOM	22564	C4	C A1071	183.463	138.725	-3.092	1.00	33.31	C
ATOM	22515	C3*	C A1069	191.014	131.181	-4.145	1.00	57.83	C	ATOM	22565	N4	C A1071	183.532	139.139	-4.364	1.00	33.31	N
ATOM	22516	O3*	C A1069	190.341	129.937	-4.029	1.00	57.83	O	ATOM	22566	C5	C A1071	183.711	137.357	-2.775	1.00	33.31	C
ATOM	22517	C2*	C A1069	190.925	132.031	-2.882	1.00	57.83	C	ATOM	22567	C6	C A1071	183.659	136.997	-1.485	1.00	33.31	C
ATOM	22518	O2*	C A1069	191.104	131.278	-1.698	1.00	57.83	O	ATOM	22568	P	G A1072	179.164	135.443	1.969	1.00	55.34	P
ATOM	22519	C1*	C A1069	192.120	132.960	-3.056	1.00	57.83	C	ATOM	22569	O1P	G A1072	178.515	134.784	3.145	1.00	49.17	O
ATOM	22520	N1	C A1069	191.758	134.248	-3.685	1.00	52.63	N	ATOM	22570	O2P	G A1072	178.917	134.908	0.601	1.00	49.17	O
ATOM	22521	C2	C A1069	191.330	135.297	-2.868	1.00	52.63	C	ATOM	22571	O5*	G A1072	178.794	136.993	1.913	1.00	55.34	O
ATOM	22522	O2	C A1069	191.239	135.100	-1.641	1.00	52.63	O	ATOM	22572	C5*	G A1072	178.863	137.807	3.087	1.00	55.34	C
ATOM	22523	N3	C A1069	191.021	136.496	-3.431	1.00	52.63	N	ATOM	22573	C4*	G A1072	178.423	139.207	2.769	1.00	55.34	C
ATOM	22524	C4	C A1069	191.117	136.656	-4.754	1.00	52.63	C	ATOM	22574	O4*	G A1072	179.436	139.885	1.987	1.00	55.34	O
ATOM	22525	N4	C A1069	190.809	137.852	-5.272	1.00	52.63	N	ATOM	22575	C3*	G A1072	177.167	139.322	1.930	1.00	55.34	C
ATOM	22526	C5	C A1069	191.533	135.600	-5.608	1.00	52.63	C	ATOM	22576	O3*	G A1072	175.991	139.179	2.716	1.00	55.34	O
ATOM	22527	C6	C A1069	191.841	134.424	-5.038	1.00	52.63	C	ATOM	22577	C2*	G A1072	177.305	140.711	1.325	1.00	55.34	C
ATOM	22528	P	U A1070	188.741	129.904	-4.128	1.00	57.86	P	ATOM	22578	O2*	G A1072	176.876	141.718	2.211	1.00	55.34	O
ATOM	22529	O1P	U A1070	188.302	128.551	-3.713	1.00	37.07	O	ATOM	22579	C1*	G A1072	178.819	140.829	1.130	1.00	55.34	C
ATOM	22530	O2P	U A1070	188.324	130.462	-5.436	1.00	37.07	O	ATOM	22580	N9	G A1072	179.231	140.575	-0.251	1.00	49.17	N
ATOM	22531	O5*	U A1070	188.301	130.917	-2.987	1.00	57.86	O	ATOM	22581	C8	G A1072	179.633	139.377	-0.806	1.00	49.17	C
ATOM	22532	C5*	U A1070	187.036	131.583	-3.014	1.00	57.86	C	ATOM	22582	N7	G A1072	179.901	139.466	-2.084	1.00	49.17	N
ATOM	22533	C4*	U A1070	186.927	132.497	-1.821	1.00	57.86	C	ATOM	22583	C5	G A1072	179.672	140.801	-2.390	1.00	49.17	C
ATOM	22534	O4*	U A1070	187.933	133.537	-1.909	1.00	57.86	O	ATOM	22584	C6	G A1072	179.780	141.493	-3.624	1.00	49.17	C
ATOM	22535	C3*	U A1070	185.619	133.241	-1.677	1.00	57.86	C	ATOM	22585	O6	G A1072	180.114	141.057	-4.722	1.00	49.17	O
ATOM	22536	O3*	U A1070	184.674	132.419	-1.015	1.00	57.86	O	ATOM	22586	N1	G A1072	179.443	142.834	-3.490	1.00	49.17	N
ATOM	22537	C3*	U A1070	186.025	134.446	-0.843	1.00	57.86	C	ATOM	22587	C2	G A1072	179.051	143.437	-2.324	1.00	49.17	C
ATOM	22538	O2*	U A1070	186.167	134.119	0.524	1.00	57.86	O	ATOM	22588	N2	G A1072	178.773	144.746	-2.408	1.00	49.17	N
ATOM	22539	C1*	U A1070	187.416	134.748	-1.396	1.00	57.86	C	ATOM	22589	N3	G A1072	178.941	142.805	-1.164	1.00	49.17	N
ATOM	22540	N1	U A1070	187.404	135.733	-2.486	1.00	37.07	N	ATOM	22590	C4	G A1072	179.264	141.500	-1.269	1.00	49.17	C
ATOM	22541	O2	U A1070	187.066	137.043	-2.192	1.00	37.07	O	ATOM	22591	P	U A1073	174.746	138.326	2.146	1.00	42.19	P
ATOM	22542	C2	U A1070	186.736	137.419	-1.082	1.00	37.07	C	ATOM	22592	O1P	U A1073	173.836	138.074	3.299	1.00	56.29	O
ATOM	22543	N3	U A1070	187.123	137.904	-3.254	1.00	37.07	N	ATOM	22593	O2P	U A1073	175.258	137.161	1.373	1.00	56.29	O
ATOM	22544	C4	U A1070	187.466	137.603	-4.549	1.00	37.07	C	ATOM	22594	O5*	U A1073	174.065	139.340	1.112	1.00	42.19	O
ATOM	22545	O4	U A1070	187.588	138.514	-5.368	1.00	37.07	O	ATOM	22595	C5*	U A1073	173.361	140.491	1.587	1.00	42.19	C
ATOM	22546	C5	U A1070	187.768	136.231	-4.777	1.00	37.07	C	ATOM	22596	C4*	U A1073	173.281	141.558	0.527	1.00	42.19	C
ATOM	22547	C6	U A1070	187.729	135.367	-3.765	1.00	37.07	C	ATOM	22597	O4*	U A1073	174.613	141.981	0.132	1.00	42.19	O



Table 1: Sheet 228/521

ATOM	22598	C3*	U A1073	172.616	141.172	-0.778	1.00	42.19	C	ATOM	22648	O2	C A1075	173.662	137.909	-10.893	1.00	45.22	O
ATOM	22599	O3*	U A1073	171.207	141.172	-0.689	1.00	42.19	O	ATOM	22649	N3	C A1075	173.570	136.950	-8.856	1.00	45.22	N
ATOM	22600	C2*	U A1073	173.170	142.215	-1.747	1.00	42.19	C	ATOM	22650	C4	C A1075	172.953	136.871	-7.683	1.00	45.22	C
ATOM	22601	O2*	U A1073	172.520	143.466	-1.717	1.00	42.19	O	ATOM	22651	N4	C A1075	173.418	136.000	-6.792	1.00	45.22	N
ATOM	22602	C1*	U A1073	174.606	142.373	-1.240	1.00	42.19	C	ATOM	22652	C5	C A1075	171.825	137.681	-7.372	1.00	45.22	C
ATOM	22603	N1	U A1073	175.482	141.470	-2.007	1.00	56.29	N	ATOM	22653	C6	C A1075	171.386	138.515	-8.320	1.00	45.22	C
ATOM	22604	C2	U A1073	175.941	141.903	-3.243	1.00	56.29	C	ATOM	22654	P	C A1076	167.356	137.382	-11.709	1.00	48.19	P
ATOM	22605	O2	U A1073	175.755	143.034	-3.665	1.00	56.29	O	ATOM	22655	O1P	C A1076	166.143	137.526	-12.557	1.00	31.81	O
ATOM	22606	N3	U A1073	176.628	140.960	-3.966	1.00	56.29	N	ATOM	22656	O2P	C A1076	167.239	136.880	-10.326	1.00	31.81	O
ATOM	22607	C4	U A1073	176.915	139.663	-3.582	1.00	56.29	C	ATOM	22657	O5*	C A1076	168.409	136.446	-12.450	1.00	48.19	O
ATOM	22608	O4	U A1073	177.422	138.880	-4.398	1.00	56.29	O	ATOM	22658	C5*	C A1076	168.694	136.618	-13.852	1.00	48.19	C
ATOM	22609	C5	U A1073	176.467	139.323	-2.267	1.00	56.29	C	ATOM	22659	O4*	C A1076	169.551	135.486	-14.357	1.00	48.19	C
ATOM	22610	C6	U A1073	175.790	140.212	-1.544	1.00	56.29	C	ATOM	22660	O4*	C A1076	170.869	135.563	-13.769	1.00	48.19	O
ATOM	22611	P	G A1074	170.364	140.114	-1.554	1.00	41.19	P	ATOM	22661	C3*	C A1076	169.075	134.094	-14.001	1.00	48.19	C
ATOM	22612	O1P	G A1074	168.939	140.258	-1.157	1.00	47.89	O	ATOM	22662	O3*	C A1076	168.074	133.631	-14.874	1.00	48.19	O
ATOM	22613	O2P	G A1074	171.021	138.790	-1.429	1.00	47.89	O	ATOM	22663	C2*	C A1076	170.344	133.271	-14.095	1.00	48.19	C
ATOM	22614	O5*	G A1074	170.504	140.677	-3.036	1.00	41.19	O	ATOM	22664	O2*	C A1076	170.656	132.904	-15.424	1.00	48.19	O
ATOM	22615	C5*	G A1074	170.077	142.009	-3.315	1.00	41.19	C	ATOM	22665	C1*	C A1076	171.378	134.259	-13.564	1.00	48.19	C
ATOM	22616	C4*	G A1074	170.517	142.448	-4.686	1.00	41.19	C	ATOM	22666	N1	C A1076	171.578	134.070	-12.126	1.00	31.81	N
ATOM	22617	O4*	G A1074	171.957	142.598	-4.746	1.00	41.19	O	ATOM	22667	C2	C A1076	172.270	132.942	-11.682	1.00	31.81	C
ATOM	22618	C3*	G A1074	170.190	141.518	-5.832	1.00	41.19	C	ATOM	22668	O2	C A1076	172.704	132.135	-12.518	1.00	31.81	O
ATOM	22619	O3*	G A1074	168.862	141.680	-6.255	1.00	41.19	O	ATOM	22669	N3	C A1076	172.441	132.749	-10.357	1.00	31.81	N
ATOM	22620	C2*	G A1074	171.178	141.966	-6.895	1.00	41.19	C	ATOM	22670	C4	C A1076	171.939	133.619	-9.493	1.00	31.81	C
ATOM	22621	O2*	G A1074	170.754	143.159	-7.510	1.00	41.19	O	ATOM	22671	N4	C A1076	172.097	133.371	-8.200	1.00	31.81	N
ATOM	22622	C1*	G A1074	172.413	142.269	-6.051	1.00	41.19	C	ATOM	22672	C5	C A1076	171.240	134.782	-9.916	1.00	31.81	C
ATOM	22623	N9	G A1074	173.267	141.088	-5.958	1.00	47.89	N	ATOM	22673	C6	C A1076	171.086	134.969	-11.229	1.00	31.81	C
ATOM	22624	C8	G A1074	173.450	140.266	-4.870	1.00	47.89	C	ATOM	22674	P	G A1077	166.857	132.780	-14.276	1.00	35.76	P
ATOM	22625	N7	G A1074	174.265	139.277	-5.107	1.00	47.89	N	ATOM	22675	O1P	G A1077	165.860	132.663	-15.382	1.00	46.77	O
ATOM	22626	C5	G A1074	174.649	139.459	-6.429	1.00	47.89	C	ATOM	22676	O2P	G A1077	166.459	133.343	-12.958	1.00	46.77	O
ATOM	22627	C6	G A1074	175.521	138.697	-7.244	1.00	47.89	C	ATOM	22677	O5*	G A1077	167.506	131.367	-13.961	1.00	35.76	O
ATOM	22628	O6	G A1074	176.160	137.667	-8.950	1.00	47.89	O	ATOM	22678	C5*	G A1077	168.052	130.574	-15.014	1.00	35.76	C
ATOM	22629	N1	G A1074	175.614	139.236	-8.524	1.00	47.89	N	ATOM	22679	C4*	G A1077	168.772	129.394	-14.440	1.00	35.76	C
ATOM	22630	C2	G A1074	174.955	140.360	-8.963	1.00	47.89	C	ATOM	22680	O4*	G A1077	169.924	129.846	-13.689	1.00	35.76	O
ATOM	22631	N2	G A1074	175.169	140.722	-10.234	1.00	47.89	N	ATOM	22681	C3*	G A1077	168.008	128.575	-13.422	1.00	35.76	C
ATOM	22632	N3	G A1074	174.148	141.074	-8.214	1.00	47.89	N	ATOM	22682	O3*	G A1077	167.085	127.700	-14.016	1.00	35.76	O
ATOM	22633	C4	G A1074	174.041	140.571	-6.967	1.00	47.89	C	ATOM	22683	C2*	G A1077	169.121	127.839	-12.705	1.00	35.76	C
ATOM	22634	P	C A1075	168.036	140.400	-6.732	1.00	42.06	P	ATOM	22684	O2*	G A1077	169.548	126.705	-13.427	1.00	35.76	O
ATOM	22635	O1P	C A1075	166.616	140.784	-6.998	1.00	45.22	O	ATOM	22685	C1*	G A1077	170.222	128.900	-12.686	1.00	35.76	C
ATOM	22636	O2P	C A1075	168.344	139.329	-5.747	1.00	45.22	O	ATOM	22686	N9	G A1077	170.268	129.574	-11.399	1.00	46.77	N
ATOM	22637	O5*	C A1075	168.702	140.047	-8.126	1.00	42.06	O	ATOM	22687	C8	G A1077	169.679	130.761	-9.1048	1.00	46.77	C
ATOM	22638	C5*	C A1075	168.524	140.913	-9.253	1.00	42.06	C	ATOM	22688	N7	G A1077	169.830	131.050	-9.783	1.00	46.77	N
ATOM	22639	C4*	C A1075	169.370	140.439	-10.400	1.00	42.06	C	ATOM	22689	C5	G A1077	170.579	129.996	-9.279	1.00	46.77	C
ATOM	22640	O4*	C A1075	170.766	140.501	-10.012	1.00	42.06	O	ATOM	22690	C6	G A1077	171.044	129.743	-7.968	1.00	46.77	C
ATOM	22641	C3*	C A1075	169.171	138.991	-10.807	1.00	42.06	C	ATOM	22691	O6	G A1077	170.866	130.410	-6.947	1.00	46.77	O
ATOM	22642	O3*	C A1075	168.079	138.808	-11.672	1.00	42.06	O	ATOM	22692	N1	G A1077	171.787	128.571	-7.907	1.00	46.77	N
ATOM	22643	C2*	C A1075	170.486	138.658	-11.483	1.00	42.06	C	ATOM	22693	C2	G A1077	172.054	127.752	-8.970	1.00	46.77	C
ATOM	22644	O2*	C A1075	170.514	139.154	-12.807	1.00	42.06	O	ATOM	22694	N2	G A1077	172.825	126.695	-8.716	1.00	46.77	N
ATOM	22645	C1*	C A1075	171.472	139.429	-10.607	1.00	42.06	C	ATOM	22695	N3	G A1077	171.609	127.962	-10.190	1.00	46.77	N
ATOM	22646	N1	C A1075	171.995	138.573	-9.538	1.00	45.22	N	ATOM	22696	C4	G A1077	170.882	129.095	-10.272	1.00	46.77	C
ATOM	22647	C2	C A1075	173.110	137.799	-9.798	1.00	45.22	C	ATOM	22697	P	U A1078	165.578	127.678	-13.472	1.00	32.81	P



ATOM	22698	O1P	U A1078	164.751	126.856	-14.396	1.00	42.62	O	ATOM	22748	O3*	A A1080	177.298	123.095	-5.105	1.00	38.15	O
ATOM	22699	O2P	U A1078	165.201	129.095	-13.214	1.00	42.62	O	ATOM	22749	C2*	A A1080	176.916	122.239	-7.360	1.00	38.15	C
ATOM	22700	O5*	U A1078	165.703	126.888	-12.096	1.00	32.81	O	ATOM	22750	O2*	A A1080	177.599	121.088	-6.904	1.00	38.15	O
ATOM	22701	C5*	U A1078	164.665	126.956	-11.121	1.00	32.81	C	ATOM	22751	C1*	A A1080	175.622	121.769	-8.023	1.00	38.15	C
ATOM	22702	C4*	U A1078	164.721	125.763	-10.218	1.00	32.81	C	ATOM	22752	N9	A A1080	175.203	122.582	-9.162	1.00	29.44	N
ATOM	22703	O4*	U A1078	164.503	124.568	-10.999	1.00	32.81	O	ATOM	22753	C8*	A A1080	174.837	123.905	-9.184	1.00	29.44	C
ATOM	22704	C3*	U A1078	166.043	125.514	-9.518	1.00	32.81	C	ATOM	22754	N7	A A1080	174.492	124.337	-10.374	1.00	29.44	N
ATOM	22705	O3*	U A1078	166.153	126.290	-8.341	1.00	32.81	O	ATOM	22755	C5	A A1080	174.643	123.225	-11.190	1.00	29.44	C
ATOM	22706	C2*	U A1078	165.981	124.022	-9.210	1.00	32.81	C	ATOM	22756	C6	A A1080	174.424	123.021	-12.556	1.00	29.44	C
ATOM	22707	O2*	U A1078	165.230	123.719	-8.057	1.00	32.81	O	ATOM	22757	N6	A A1080	173.982	123.970	-13.383	1.00	29.44	N
ATOM	22708	C1*	U A1078	165.204	123.486	-10.409	1.00	32.81	C	ATOM	22758	N1	A A1080	174.669	121.791	-13.054	1.00	29.44	N
ATOM	22709	N1	U A1078	166.077	122.853	-11.408	1.00	42.62	N	ATOM	22759	C2	A A1080	175.102	120.842	-12.229	1.00	29.44	C
ATOM	22710	C2	U A1078	166.401	121.526	-11.211	1.00	42.62	C	ATOM	22760	N3	A A1080	175.343	120.905	-10.928	1.00	29.44	N
ATOM	22711	O2	U A1078	165.974	120.877	-10.274	1.00	42.62	O	ATOM	22761	C4	A A1080	175.089	122.140	-10.460	1.00	29.44	C
ATOM	22712	N3	U A1078	167.242	120.987	-12.149	1.00	42.62	N	ATOM	22762	P	G A1081	178.207	124.400	-4.840	1.00	31.61	P
ATOM	22713	C4	U A1078	167.773	121.626	-13.240	1.00	42.62	C	ATOM	22763	O1P	G A1081	179.002	124.095	-3.621	1.00	44.13	O
ATOM	22714	O4	U A1078	168.543	121.024	-13.972	1.00	42.62	O	ATOM	22764	O2P	G A1081	177.359	125.615	-4.881	1.00	44.13	O
ATOM	22715	C5	U A1078	167.381	122.988	-13.383	1.00	42.62	C	ATOM	22765	O5*	G A1081	179.156	124.475	-6.116	1.00	31.61	O
ATOM	22716	C6	U A1078	166.565	123.543	-12.484	1.00	42.62	C	ATOM	22766	C5*	G A1081	179.478	125.727	-6.718	1.00	31.61	C
ATOM	22717	P	G A1079	167.526	127.051	-8.031	1.00	36.40	P	ATOM	22767	C4*	G A1081	178.963	125.770	-8.127	1.00	31.61	C
ATOM	22718	O1P	G A1079	167.425	127.723	-6.707	1.00	36.33	O	ATOM	22768	O4*	G A1081	177.514	125.638	-8.124	1.00	31.61	O
ATOM	22719	O2P	G A1079	167.868	127.849	-9.234	1.00	36.33	O	ATOM	22769	C3*	G A1081	179.227	127.097	-8.812	1.00	31.61	C
ATOM	22720	O5*	G A1079	168.550	125.863	-7.804	1.00	36.40	O	ATOM	22770	O3*	G A1081	180.535	127.161	-9.350	1.00	31.61	O
ATOM	22721	C5*	G A1079	168.347	124.946	-6.725	1.00	36.40	C	ATOM	22771	C2*	G A1081	178.114	127.177	-9.849	1.00	31.61	C
ATOM	22722	C4*	G A1079	169.317	123.805	-6.830	1.00	36.40	C	ATOM	22772	O2*	G A1081	178.397	126.462	-11.022	1.00	31.61	O
ATOM	22723	O4*	G A1079	169.082	123.085	-8.063	1.00	36.40	O	ATOM	22773	C1*	G A1081	176.951	126.510	-9.106	1.00	31.61	C
ATOM	22724	C3*	G A1079	170.777	124.196	-6.891	1.00	36.40	C	ATOM	22774	N9	G A1081	176.141	127.516	-8.419	1.00	44.13	N
ATOM	22725	O3*	G A1079	171.295	124.349	-5.588	1.00	36.40	O	ATOM	22775	C8	G A1081	175.949	127.627	-7.064	1.00	44.13	C
ATOM	22726	C2*	G A1079	171.402	123.010	-7.607	1.00	36.40	C	ATOM	22776	N7	G A1081	175.245	128.673	-6.730	1.00	44.13	N
ATOM	22727	O2*	G A1079	171.540	121.924	-6.713	1.00	36.40	O	ATOM	22777	C5	G A1081	174.935	129.281	-7.938	1.00	44.13	C
ATOM	22728	C1*	G A1079	170.308	122.644	-8.604	1.00	36.40	C	ATOM	22778	C6	G A1081	174.194	130.464	-8.207	1.00	44.13	C
ATOM	22729	N9	G A1079	170.427	123.220	-9.940	1.00	36.33	N	ATOM	22779	O6	G A1081	173.654	131.242	-7.402	1.00	44.13	O
ATOM	22730	C8	G A1079	170.039	124.477	-10.335	1.00	36.33	C	ATOM	22780	N1	G A1081	174.113	130.712	-9.570	1.00	44.13	N
ATOM	22731	N7	G A1079	170.146	124.667	-11.620	1.00	36.33	N	ATOM	22781	C2	G A1081	174.670	129.935	-10.543	1.00	44.13	C
ATOM	22732	C5	G A1079	170.659	123.472	-12.100	1.00	36.33	C	ATOM	22782	N2	G A1081	174.461	130.343	-11.795	1.00	44.13	N
ATOM	22733	C6	G A1079	170.950	123.068	-13.421	1.00	36.33	C	ATOM	22783	N3	G A1081	175.375	128.839	-10.307	1.00	44.13	N
ATOM	22734	O6	G A1079	170.788	123.695	-14.464	1.00	36.33	O	ATOM	22784	C4	G A1081	175.463	128.572	-8.992	1.00	44.13	C
ATOM	22735	N1	G A1079	171.465	121.781	-13.462	1.00	36.33	N	ATOM	22785	P	G A1082	181.365	128.539	-9.263	1.00	40.76	P
ATOM	22736	C2	G A1079	171.659	120.979	-12.370	1.00	36.33	C	ATOM	22786	O1P	G A1082	182.746	128.248	-9.721	1.00	43.23	O
ATOM	22737	N2	G A1079	172.165	119.762	-12.610	1.00	36.33	N	ATOM	22787	O2P	G A1082	181.163	129.132	-7.917	1.00	43.23	O
ATOM	22738	N3	G A1079	171.376	121.338	-11.131	1.00	36.33	N	ATOM	22788	O5*	G A1082	180.667	129.459	-10.361	1.00	40.76	O
ATOM	22739	C4	G A1079	170.878	122.585	-11.070	1.00	36.33	C	ATOM	22789	C5*	G A1082	180.605	129.021	-11.715	1.00	40.76	C
ATOM	22740	P	A A1080	172.603	125.242	-5.365	1.00	38.15	P	ATOM	22790	C4*	G A1082	179.639	129.852	-12.513	1.00	40.76	C
ATOM	22741	O1P	A A1080	172.781	125.422	-3.905	1.00	29.44	O	ATOM	22791	O4*	G A1082	178.325	129.769	-11.914	1.00	40.76	O
ATOM	22742	O2P	A A1080	172.502	126.419	-6.256	1.00	29.44	O	ATOM	22792	C3*	G A1082	179.911	131.342	-12.603	1.00	40.76	C
ATOM	22743	O5*	A A1080	173.795	124.303	-5.830	1.00	38.15	O	ATOM	22793	O3*	G A1082	180.883	131.673	-13.577	1.00	40.76	O
ATOM	22744	C5*	A A1080	174.090	123.109	-5.096	1.00	38.15	C	ATOM	22794	C2*	G A1082	178.542	131.903	-12.951	1.00	40.76	C
ATOM	22745	C4*	A A1080	175.137	122.307	-5.809	1.00	38.15	C	ATOM	22795	O2*	G A1082	178.232	131.791	-14.322	1.00	40.76	O
ATOM	22746	O4*	A A1080	174.600	121.808	-7.054	1.00	38.15	O	ATOM	22796	C1*	G A1082	177.624	130.985	-12.148	1.00	40.76	C
ATOM	22747	C3*	A A1080	176.388	123.069	-6.200	1.00	38.15	C	ATOM	22797	N9	G A1082	177.255	131.587	-10.867	1.00	43.23	N



Table 1: Sheet 230/521

ATOM	22798	C8	G A1082	177.596	131.163	-9.604	1.00	43.23	C	ATOM	22848	N2	G A1084	180.811	138.364	-4.872	1.00	48.93	N
ATOM	22799	N7	G A1082	177.098	131.915	-8.663	1.00	43.23	N	ATOM	22849	N3	G A1084	181.364	137.619	-7.115	1.00	48.93	N
ATOM	22800	C5	G A1082	176.389	132.895	-9.346	1.00	43.23	C	ATOM	22850	C4	G A1084	181.792	137.917	-8.186	1.00	48.93	C
ATOM	22801	C6	G A1082	175.630	133.981	-8.859	1.00	43.23	C	ATOM	22851	P	U A1085	185.725	142.102	-11.427	1.00	60.15	P
ATOM	22802	O6	G A1082	175.435	134.316	-7.687	1.00	43.23	O	ATOM	22852	O1P	U A1085	185.927	142.119	-9.953	1.00	59.05	O
ATOM	22803	N1	G A1082	175.065	134.717	-9.894	1.00	43.23	N	ATOM	22853	O2P	U A1085	186.134	143.278	-12.261	1.00	59.05	O
ATOM	22804	C2	G A1082	175.215	134.444	-11.222	1.00	43.23	C	ATOM	22854	O5*	U A1085	186.422	140.785	-11.980	1.00	60.15	O
ATOM	22805	N2	G A1082	174.576	135.259	-12.068	1.00	43.23	N	ATOM	22855	C5*	U A1085	187.859	140.662	-12.075	1.00	60.15	C
ATOM	22806	N3	G A1082	175.932	133.440	-11.692	1.00	43.23	N	ATOM	22856	C4*	U A1085	188.232	139.206	-12.046	1.00	60.15	C
ATOM	22807	C4	G A1082	176.481	132.709	-10.703	1.00	43.23	C	ATOM	22857	O4*	U A1085	188.009	138.724	-10.710	1.00	60.15	O
ATOM	22808	P	U A1083	181.985	132.792	-13.239	1.00	55.47	P	ATOM	22858	C3*	U A1085	187.326	138.377	-12.942	1.00	60.15	C
ATOM	22809	O1P	U A1083	182.981	132.824	-14.338	1.00	53.82	O	ATOM	22859	O3*	U A1085	187.782	138.302	-14.315	1.00	60.15	O
ATOM	22810	O2P	U A1083	182.452	132.571	-11.839	1.00	53.82	O	ATOM	22860	C2*	U A1085	187.023	137.082	-12.182	1.00	60.15	C
ATOM	22811	O5*	U A1083	181.153	134.141	-13.323	1.00	55.47	O	ATOM	22861	O2*	U A1085	187.683	135.929	-12.662	1.00	60.15	O
ATOM	22812	C5*	U A1083	180.415	134.465	-14.506	1.00	55.47	C	ATOM	22862	C1*	U A1085	187.475	137.420	-10.757	1.00	60.15	C
ATOM	22813	C4*	U A1083	179.532	135.327	-13.285	1.00	55.47	C	ATOM	22863	N1	U A1085	186.563	137.235	-9.614	1.00	59.05	N
ATOM	22814	O3*	U A1083	180.224	136.886	-13.685	1.00	55.47	O	ATOM	22864	C2	U A1085	186.395	135.951	-9.127	1.00	59.05	C
ATOM	22815	C4*	U A1083	180.816	137.650	-14.735	1.00	55.47	O	ATOM	22865	O2	U A1085	186.833	134.961	-9.687	1.00	59.05	O
ATOM	22816	O3*	U A1083	179.076	137.624	-12.993	1.00	55.47	C	ATOM	22866	N3	U A1085	185.682	135.862	-7.960	1.00	59.05	N
ATOM	22817	C2*	U A1083	178.265	138.381	-13.870	1.00	55.47	C	ATOM	22867	C4	U A1085	185.106	136.890	-7.259	1.00	59.05	C
ATOM	22818	O2*	U A1083	178.364	136.147	-11.080	1.00	53.82	N	ATOM	22868	O4	U A1085	184.632	136.662	-6.145	1.00	59.05	O
ATOM	22819	C1*	U A1083	177.665	136.920	-10.178	1.00	53.82	C	ATOM	22869	C5	U A1085	185.248	138.177	-7.869	1.00	59.05	C
ATOM	22820	N1	U A1083	176.977	137.873	-10.521	1.00	53.82	O	ATOM	22870	C6	U A1085	185.948	138.302	-8.999	1.00	59.05	C
ATOM	22821	C2	U A1083	177.802	136.543	-8.863	1.00	53.82	N	ATOM	22871	P	U A1086	189.309	137.875	-14.697	1.00	54.49	P
ATOM	22822	O2	U A1083	178.558	135.499	-8.375	1.00	53.82	C	ATOM	22872	O1P	U A1086	189.910	136.891	-13.752	1.00	59.69	O
ATOM	22823	N3	U A1083	178.505	135.215	-7.179	1.00	53.82	O	ATOM	22873	O2P	U A1086	190.030	139.139	-14.984	1.00	59.69	O
ATOM	22824	C4	U A1083	179.270	134.772	-9.367	1.00	53.82	C	ATOM	22874	O5*	U A1086	189.104	137.111	-16.080	1.00	54.49	O
ATOM	22825	O4	U A1083	179.153	135.111	-10.652	1.00	53.82	C	ATOM	22875	C5*	U A1086	188.414	135.836	-16.135	1.00	54.49	C
ATOM	22826	C5	U A1083	182.412	137.878	-14.770	1.00	46.59	P	ATOM	22876	C4*	U A1086	187.278	135.877	-17.144	1.00	54.49	C
ATOM	22827	C6	U A1083	182.619	138.627	-16.032	1.00	48.93	O	ATOM	22877	O4*	U A1086	186.064	136.409	-16.550	1.00	54.49	O
ATOM	22828	P	G A1084	183.124	136.597	-14.546	1.00	48.93	O	ATOM	22878	C3*	U A1086	187.511	136.727	-18.384	1.00	54.49	C
ATOM	22829	O1P	G A1084	182.725	138.830	-13.534	1.00	46.59	O	ATOM	22879	O3*	U A1086	188.267	136.052	-19.376	1.00	54.49	O
ATOM	22830	O2P	G A1084	182.165	140.142	-13.469	1.00	46.59	C	ATOM	22880	C2*	U A1086	186.094	137.027	-18.854	1.00	54.49	C
ATOM	22831	O5*	G A1084	182.162	140.637	-12.047	1.00	46.59	C	ATOM	22881	O2*	U A1086	185.546	135.961	-19.597	1.00	54.49	O
ATOM	22832	C5*	G A1084	181.355	139.770	-11.210	1.00	46.59	C	ATOM	22882	C1*	U A1086	185.345	137.164	-17.525	1.00	54.49	C
ATOM	22833	C4*	G A1084	183.503	140.698	-11.344	1.00	46.59	C	ATOM	22883	N1	U A1086	185.248	138.565	-17.061	1.00	59.69	N
ATOM	22834	O4*	G A1084	184.160	141.898	-11.733	1.00	46.59	O	ATOM	22884	C2	U A1086	184.672	139.520	-17.903	1.00	59.69	C
ATOM	22835	C3*	G A1084	183.105	140.670	-9.863	1.00	46.59	C	ATOM	22885	O2	U A1086	184.234	139.255	-19.011	1.00	59.69	O
ATOM	22836	O3*	G A1084	182.737	141.938	-9.339	1.00	46.59	O	ATOM	22886	N3	U A1086	184.633	140.800	-17.386	1.00	59.69	N
ATOM	22837	C2*	G A1084	181.848	139.795	-9.884	1.00	46.59	C	ATOM	22887	C4	U A1086	185.096	141.217	-16.141	1.00	59.69	C
ATOM	22838	O1*	G A1084	182.032	138.420	-9.442	1.00	48.93	N	ATOM	22888	O4	U A1086	184.941	142.394	-15.778	1.00	59.69	O
ATOM	22839	C2*	G A1084	182.457	137.365	-10.206	1.00	48.93	C	ATOM	22889	C5	U A1086	185.670	140.178	-15.351	1.00	59.69	C
ATOM	22840	N9	G A1084	182.491	136.240	-9.549	1.00	48.93	N	ATOM	22890	C6	U A1086	185.721	138.926	-15.821	1.00	59.69	C
ATOM	22841	C8	G A1084	182.071	136.572	-8.273	1.00	48.93	C	ATOM	22891	P	G A1087	189.457	136.829	-20.125	1.00	52.72	P
ATOM	22842	N7	G A1084	181.904	135.760	-7.124	1.00	48.93	C	ATOM	22892	O1P	G A1087	190.164	135.831	-20.961	1.00	41.64	O
ATOM	22843	C5	G A1084	182.087	134.547	-7.003	1.00	48.93	O	ATOM	22893	O2P	G A1087	190.227	137.597	-19.114	1.00	41.64	O
ATOM	22844	C6	G A1084	181.471	136.498	-6.034	1.00	48.93	N	ATOM	22894	O5*	G A1087	188.696	137.844	-21.085	1.00	52.72	O
ATOM	22845	O6	G A1084	181.221	137.845	-6.044	1.00	48.93	C	ATOM	22895	C5*	G A1087	187.880	137.348	-22.145	1.00	52.72	C
ATOM	22846	N1	G A1084							ATOM	22896	C4*	G A1087	187.247	138.488	-22.886	1.00	52.72	C
ATOM	22847	C2	G A1084							ATOM	22897	O4*	G A1087	186.330	139.173	-22.003	1.00	52.72	O



ATOM	22898	C3*	G A1087	188.194	139.571	-23.376	1.00	52.72	C	ATOM	22948	C1*	G A1089	194.583	147.728	-23.611	1.00	74.53	C
ATOM	22899	O3*	G A1087	188.772	139.236	-24.631	1.00	52.72	O	ATOM	22949	N9	G A1089	194.352	146.812	-22.499	1.00	51.56	N
ATOM	22900	C2*	G A1087	187.282	140.789	-23.470	1.00	52.72	C	ATOM	22950	C8	G A1089	194.003	145.484	-22.532	1.00	51.56	C
ATOM	22901	O2*	G A1087	186.524	140.815	-24.665	1.00	52.72	O	ATOM	22951	N7	G A1089	193.986	144.932	-21.346	1.00	51.56	N
ATOM	22902	C1*	G A1087	186.348	140.563	-22.281	1.00	52.72	C	ATOM	22952	C5	G A1089	194.323	145.966	-20.480	1.00	51.56	C
ATOM	22903	N9	G A1087	186.786	141.259	-21.075	1.00	41.64	N	ATOM	22953	C6	G A1089	194.492	145.983	-19.055	1.00	51.56	C
ATOM	22904	C8	G A1087	187.086	140.695	-19.852	1.00	41.64	C	ATOM	22954	O6	G A1089	194.391	145.053	-18.250	1.00	51.56	O
ATOM	22905	N7	G A1087	187.436	141.573	-18.953	1.00	41.64	N	ATOM	22955	N1	G A1089	194.825	147.255	-18.599	1.00	51.56	N
ATOM	22906	C5	G A1087	187.369	142.787	-19.620	1.00	41.64	C	ATOM	22956	C2	G A1089	194.987	148.368	-19.399	1.00	51.56	C
ATOM	22907	C6	G A1087	187.638	144.078	-19.158	1.00	41.64	C	ATOM	22957	N2	G A1089	195.295	149.516	-18.787	1.00	51.56	N
ATOM	22908	O6	G A1087	187.998	144.420	-18.032	1.00	41.64	O	ATOM	22958	N3	G A1089	194.852	148.359	-20.707	1.00	51.56	N
ATOM	22909	N1	G A1087	187.455	145.029	-20.160	1.00	41.64	N	ATOM	22959	C4	G A1089	194.523	147.136	-21.178	1.00	51.56	C
ATOM	22910	C2	G A1087	187.062	144.751	-21.450	1.00	41.64	C	ATOM	22960	P	U A1090	198.837	146.170	-25.085	1.00	71.28	P
ATOM	22911	N2	G A1087	186.961	145.795	-22.281	1.00	41.64	N	ATOM	22961	O1P	U A1090	199.952	146.633	-25.955	1.00	70.69	O
ATOM	22912	N3	G A1087	186.796	143.536	-21.892	1.00	41.64	N	ATOM	22962	O2P	U A1090	198.562	144.716	-24.944	1.00	70.69	O
ATOM	22913	C4	G A1087	186.972	142.609	-20.932	1.00	41.64	C	ATOM	22963	O5*	U A1090	199.090	146.712	-23.610	1.00	71.28	O
ATOM	22914	P	G A1088	190.352	139.426	-24.855	1.00	71.51	P	ATOM	22964	C5*	U A1090	199.459	148.074	-23.384	1.00	71.28	C
ATOM	22915	O1P	G A1088	190.672	138.659	-26.090	1.00	44.59	O	ATOM	22965	C4*	U A1090	199.554	148.349	-21.908	1.00	71.28	C
ATOM	22916	O2P	G A1088	191.068	139.112	-23.586	1.00	44.59	O	ATOM	22966	O4*	U A1090	198.273	148.070	-21.281	1.00	71.28	O
ATOM	22917	O5*	G A1088	190.516	140.978	-25.166	1.00	71.51	O	ATOM	22967	C3*	U A1090	200.539	147.500	-21.123	1.00	71.28	C
ATOM	22918	C5*	G A1088	190.083	141.516	-26.424	1.00	71.51	C	ATOM	22968	O3*	U A1090	201.868	147.981	-21.191	1.00	71.28	O
ATOM	22919	C4*	G A1088	190.269	143.009	-26.444	1.00	71.51	C	ATOM	22969	C2*	U A1090	199.993	147.596	-19.707	1.00	71.28	C
ATOM	22920	O4*	G A1088	189.334	143.615	-25.517	1.00	71.51	O	ATOM	22970	O2*	U A1090	200.384	148.780	-19.050	1.00	71.28	O
ATOM	22921	C3*	G A1088	191.626	143.502	-25.971	1.00	71.51	C	ATOM	22971	C1*	U A1090	198.487	147.620	-19.954	1.00	71.28	C
ATOM	22922	O3*	G A1088	192.654	143.427	-26.944	1.00	71.51	O	ATOM	22972	N1	U A1090	197.942	146.266	-19.804	1.00	70.69	N
ATOM	22923	C2*	G A1088	191.321	144.917	-25.498	1.00	71.51	C	ATOM	22973	C2	U A1090	197.766	145.804	-18.516	1.00	70.69	C
ATOM	22924	O2*	G A1088	191.269	145.896	-26.519	1.00	71.51	O	ATOM	22974	O2	U A1090	197.993	146.488	-17.531	1.00	70.69	O
ATOM	22925	C1*	G A1088	189.943	144.722	-24.873	1.00	71.51	C	ATOM	22975	N3	U A1090	197.317	144.512	-18.419	1.00	70.69	N
ATOM	22926	N8	G A1088	190.118	144.405	-23.473	1.00	44.59	N	ATOM	22976	C4	U A1090	197.025	143.656	-19.452	1.00	70.69	C
ATOM	22927	C9	G A1088	190.044	143.177	-22.831	1.00	44.59	C	ATOM	22977	O4	U A1090	196.657	142.509	-19.198	1.00	70.69	O
ATOM	22928	N7	G A1088	190.315	143.237	-21.555	1.00	44.59	N	ATOM	22978	C5	U A1090	197.208	144.214	-20.757	1.00	70.69	C
ATOM	22929	C5	G A1088	190.567	144.583	-21.327	1.00	44.59	C	ATOM	22979	C6	U A1090	197.645	145.472	-20.885	1.00	70.69	C
ATOM	22930	C6	G A1088	190.924	145.254	-20.145	1.00	44.59	C	ATOM	22980	P	U A1091	203.087	146.963	-20.946	1.00	59.32	P
ATOM	22931	O6	G A1088	191.082	144.781	-19.013	1.00	44.59	O	ATOM	22981	O1P	U A1091	204.336	147.690	-21.305	1.00	76.49	O
ATOM	22932	N1	G A1088	191.106	146.618	-20.370	1.00	44.59	N	ATOM	22982	O2P	U A1091	202.762	145.672	-21.603	1.00	76.49	O
ATOM	22933	C2	G A1088	190.962	147.245	-21.590	1.00	44.59	C	ATOM	22983	O5*	U A1091	203.088	146.688	-19.380	1.00	59.32	O
ATOM	22934	N2	G A1088	191.209	148.558	-21.638	1.00	44.59	N	ATOM	22984	C5*	U A1091	203.205	147.769	-18.459	1.00	59.32	C
ATOM	22935	N3	G A1088	190.612	146.628	-22.690	1.00	44.59	N	ATOM	22985	C4*	U A1091	202.948	147.299	-17.053	1.00	59.32	C
ATOM	22936	C4	G A1088	190.437	145.311	-22.491	1.00	44.59	C	ATOM	22986	O4*	U A1091	201.587	146.815	-16.914	1.00	59.32	O
ATOM	22937	P	G A1089	194.166	143.167	-26.460	1.00	74.53	P	ATOM	22987	C3*	U A1091	203.779	146.137	-16.549	1.00	59.32	C
ATOM	22938	O1P	G A1089	194.945	142.938	-27.695	1.00	51.56	O	ATOM	22988	O3*	U A1091	205.084	146.522	-16.153	1.00	59.32	O
ATOM	22939	O2P	G A1089	194.201	142.149	-25.367	1.00	51.56	O	ATOM	22989	C2*	U A1091	202.961	145.662	-15.354	1.00	59.32	C
ATOM	22940	O5*	G A1089	194.592	144.558	-25.811	1.00	74.53	O	ATOM	22990	O2*	U A1091	203.183	146.426	-14.181	1.00	59.32	O
ATOM	22941	C5*	G A1089	194.622	145.753	-26.603	1.00	74.53	C	ATOM	22991	C1*	U A1091	201.531	145.893	-15.840	1.00	59.32	C
ATOM	22942	C4*	G A1089	195.036	146.929	-25.762	1.00	74.53	C	ATOM	22992	N1	U A1091	200.900	144.631	-16.266	1.00	76.49	N
ATOM	22943	O4*	G A1089	193.995	147.208	-24.791	1.00	74.53	O	ATOM	22993	C2	U A1091	200.573	143.739	-15.257	1.00	76.49	C
ATOM	22944	C3*	G A1089	196.289	146.753	-24.914	1.00	74.53	C	ATOM	22994	O3	U A1091	200.749	143.983	-14.089	1.00	76.49	O
ATOM	22945	O3*	G A1089	197.516	146.939	-25.601	1.00	74.53	O	ATOM	22995	N2	U A1091	200.029	142.555	-15.668	1.00	76.49	N
ATOM	22946	C2*	G A1089	196.093	147.806	-23.837	1.00	74.53	C	ATOM	22996	C4	U A1091	199.763	142.172	-16.952	1.00	76.49	C
ATOM	22947	O2*	G A1089	196.479	149.100	-24.252	1.00	74.53	O	ATOM	22997	O4	U A1091	199.263	141.060	-17.151	1.00	76.49	O



Table 1: Sheet 232/521

ATOM	22998	C5	U A1091	200.106	143.150	-17.954	1.00	76.49	C	ATOM	23048	C5*	G A1094	195.641	140.922	-12.571	1.00	56.40	C
ATOM	22999	C6	U A1091	200.651	144.319	-17.583	1.00	76.49	C	ATOM	23049	C4*	G A1094	194.904	141.322	-11.298	1.00	56.40	C
ATOM	23000	P	A A1092	206.314	145.514	-16.390	1.00	52.84	P	ATOM	23050	O4*	G A1094	193.662	140.585	-11.106	1.00	56.40	O
ATOM	23001	O1P	A A1092	207.524	146.062	-15.704	1.00	65.21	O	ATOM	23051	C3*	G A1094	195.662	141.248	-9.970	1.00	56.40	C
ATOM	23002	O2P	A A1092	206.337	145.246	-17.853	1.00	65.21	O	ATOM	23052	O3*	G A1094	195.462	142.444	-9.229	1.00	56.40	O
ATOM	23003	O5*	A A1092	205.903	144.177	-15.635	1.00	52.84	O	ATOM	23053	O2*	G A1094	194.931	140.135	-9.722	1.00	56.40	O
ATOM	23004	C5*	A A1092	206.741	143.017	-15.699	1.00	52.84	C	ATOM	23054	C2*	G A1094	194.966	140.267	-7.830	1.00	56.40	C
ATOM	23005	C4*	A A1092	206.675	142.262	-14.397	1.00	52.84	C	ATOM	23055	C1*	G A1094	193.506	140.346	-9.727	1.00	56.40	C
ATOM	23006	O4*	A A1092	207.342	143.016	-13.357	1.00	52.84	O	ATOM	23056	N9	G A1094	192.642	139.197	-9.504	1.00	59.35	N
ATOM	23007	C3*	A A1092	205.264	142.053	-13.885	1.00	52.84	C	ATOM	23057	C8	G A1094	192.982	137.874	-9.640	1.00	59.35	C
ATOM	23008	O3*	A A1092	204.695	140.895	-14.445	1.00	52.84	O	ATOM	23058	N7	G A1094	192.037	137.058	-9.257	1.00	59.35	N
ATOM	23009	C2*	A A1092	205.452	141.948	-12.383	1.00	52.84	C	ATOM	23059	C5	G A1094	190.999	137.893	-8.865	1.00	59.35	C
ATOM	23010	O2*	A A1092	205.858	140.645	-12.016	1.00	52.84	O	ATOM	23060	C6	G A1094	189.727	137.580	-8.326	1.00	59.35	C
ATOM	23011	C1*	A A1092	206.595	142.939	-12.155	1.00	52.84	C	ATOM	23061	O6	G A1094	189.252	136.469	-8.063	1.00	59.35	O
ATOM	23012	N9	A A1092	206.186	144.306	-11.822	1.00	65.21	N	ATOM	23062	N1	G A1094	188.985	138.724	-8.079	1.00	59.35	N
ATOM	23013	C8	A A1092	206.070	145.357	-12.700	1.00	65.21	C	ATOM	23063	C2	G A1094	189.410	140.004	-8.311	1.00	59.35	C
ATOM	23014	N7	A A1092	205.820	146.504	-12.123	1.00	65.21	N	ATOM	23064	N2	G A1094	188.535	140.967	-8.011	1.00	59.35	N
ATOM	23015	C5	A A1092	205.739	146.186	-10.777	1.00	65.21	C	ATOM	23065	N3	G A1094	190.600	140.315	-8.800	1.00	59.35	N
ATOM	23016	C6	A A1092	205.527	146.973	-9.642	1.00	65.21	C	ATOM	23066	C4	G A1094	191.341	139.218	-9.047	1.00	59.35	C
ATOM	23017	N6	A A1092	205.384	148.303	-9.687	1.00	65.21	N	ATOM	23067	P	U A1095	196.603	142.965	-8.233	1.00	58.43	P
ATOM	23018	N1	A A1092	205.479	146.348	-8.443	1.00	65.21	N	ATOM	23068	O1P	U A1095	197.535	141.840	-7.980	1.00	55.98	O
ATOM	23019	C2	A A1092	205.648	145.023	-8.407	1.00	65.21	C	ATOM	23069	O2P	U A1095	195.933	143.619	-7.084	1.00	55.98	O
ATOM	23020	N3	A A1092	205.876	144.174	-9.407	1.00	65.21	N	ATOM	23070	O5*	U A1095	197.348	144.083	-9.092	1.00	58.43	O
ATOM	23021	C4	A A1092	205.916	144.828	-10.581	1.00	65.21	C	ATOM	23071	C5*	U A1095	198.312	144.956	-8.480	1.00	58.43	C
ATOM	23022	P	A A1093	203.219	140.973	-15.039	1.00	66.65	P	ATOM	23072	C4*	U A1095	198.535	146.185	-9.330	1.00	58.43	C
ATOM	23023	O1P	A A1093	202.940	139.696	-15.732	1.00	43.67	O	ATOM	23073	O4*	U A1095	199.241	145.837	-10.545	1.00	58.43	C
ATOM	23024	O2P	A A1093	203.089	142.254	-15.774	1.00	43.67	O	ATOM	23074	C3*	U A1095	197.298	146.920	-9.815	1.00	58.43	C
ATOM	23025	O5*	A A1093	202.324	141.010	-13.730	1.00	66.65	O	ATOM	23075	O3*	U A1095	196.767	147.782	-8.822	1.00	58.43	O
ATOM	23026	C5*	A A1093	202.351	139.901	-12.811	1.00	66.65	C	ATOM	23076	C2*	U A1095	197.819	147.685	-11.029	1.00	58.43	C
ATOM	23027	C4*	A A1093	201.569	140.234	-11.569	1.00	66.65	C	ATOM	23077	O2*	U A1095	198.482	148.891	-10.709	1.00	58.43	O
ATOM	23028	O4*	A A1093	202.312	141.191	-10.782	1.00	66.65	C	ATOM	23078	C1*	U A1095	198.843	146.706	-11.596	1.00	58.43	C
ATOM	23029	C3*	A A1093	200.202	140.864	-11.806	1.00	66.65	C	ATOM	23079	N1	U A1095	198.295	145.903	-12.701	1.00	55.98	N
ATOM	23030	O3*	A A1093	199.218	139.839	-11.996	1.00	66.65	O	ATOM	23080	C2	U A1095	198.210	146.494	-13.962	1.00	55.98	C
ATOM	23031	C2*	A A1093	199.985	141.651	-10.517	1.00	66.65	C	ATOM	23081	O2	U A1095	198.546	147.650	-14.191	1.00	55.98	O
ATOM	23032	O2*	A A1093	199.491	140.839	-9.467	1.00	66.65	C	ATOM	23082	N3	U A1095	197.703	145.682	-14.941	1.00	55.98	N
ATOM	23033	C1*	A A1093	201.414	142.082	-10.156	1.00	66.65	C	ATOM	23083	C4	U A1095	197.268	144.387	-14.801	1.00	55.98	C
ATOM	23034	N9	A A1093	201.746	143.441	-10.581	1.00	43.67	N	ATOM	23084	O4	U A1095	196.796	143.806	-15.771	1.00	55.98	O
ATOM	23035	C8	A A1093	201.955	143.884	-11.859	1.00	43.67	C	ATOM	23085	C5	U A1095	197.377	143.855	-13.480	1.00	55.98	C
ATOM	23036	N7	A A1093	202.115	145.611	-10.633	1.00	43.67	C	ATOM	23086	C6	U A1095	197.876	144.607	-12.501	1.00	55.98	C
ATOM	23037	C5	A A1093	202.239	146.881	-10.059	1.00	43.67	C	ATOM	23087	P	C A1096	195.210	148.185	-8.873	1.00	60.26	P
ATOM	23038	C6	A A1093	202.428	147.991	-10.767	1.00	43.67	N	ATOM	23088	O1P	C A1096	194.997	149.051	-7.684	1.00	60.26	O
ATOM	23039	N6	A A1093	202.150	146.977	-8.716	1.00	43.67	N	ATOM	23089	O2P	C A1096	194.392	146.952	-9.034	1.00	60.26	O
ATOM	23040	N1	A A1093	201.935	145.863	-8.010	1.00	43.67	N	ATOM	23090	O5*	C A1096	195.075	149.083	-10.187	1.00	59.67	O
ATOM	23041	C2	A A1093	201.781	144.612	-8.435	1.00	43.67	C	ATOM	23091	C5*	C A1096	195.566	150.431	-10.189	1.00	59.67	C
ATOM	23042	N3	A A1093	201.880	144.551	-9.775	1.00	43.67	C	ATOM	23092	C4*	C A1096	195.686	150.955	-11.591	1.00	59.67	C
ATOM	23043	C4	A A1093	198.075	139.991	-13.127	1.00	56.40	P	ATOM	23093	O4*	C A1096	196.494	150.032	-12.364	1.00	59.67	O
ATOM	23044	P	G A1094	198.083	138.737	-13.914	1.00	59.35	O	ATOM	23094	C3*	C A1096	194.406	151.099	-12.402	1.00	59.67	C
ATOM	23045	O1P	G A1094	198.216	141.282	-13.836	1.00	59.35	O	ATOM	23095	O3*	C A1096	193.685	152.305	-12.144	1.00	59.67	O
ATOM	23046	O2P	G A1094	196.717	139.993	-12.279	1.00	56.40	O	ATOM	23096	C2*	C A1096	194.929	151.061	-13.833	1.00	59.67	C
ATOM	23047	O5*	G A1094							ATOM	23097	O2*	C A1096	195.416	152.310	-14.291	1.00	59.67	O



ATOM	23098	C1*	C A1096	196.069	150.047	-13.718	1.00	59.67	C	ATOM	23148	O1P	G A1099	182.972	153.723	-20.504	1.00	50.57	O
ATOM	23099	N1	C A1096	195.605	148.699	-14.106	1.00	60.26	N	ATOM	23149	O2P	G A1099	184.228	152.775	-18.443	1.00	50.57	O
ATOM	23100	C2	C A1096	195.504	148.396	-15.464	1.00	60.26	C	ATOM	23150	O5*	G A1099	183.690	151.327	-20.422	1.00	68.21	O
ATOM	23101	O2	C A1096	195.866	149.238	-16.289	1.00	60.26	O	ATOM	23151	C5*	G A1099	183.467	151.057	-21.812	1.00	68.21	C
ATOM	23102	N3	C A1096	195.018	147.199	-15.843	1.00	60.26	N	ATOM	23152	C4*	G A1099	183.284	149.578	-22.037	1.00	68.21	C
ATOM	23103	C4	C A1096	194.651	146.311	-14.923	1.00	60.26	C	ATOM	23153	O4*	G A1099	184.452	148.860	-21.571	1.00	68.21	O
ATOM	23104	N4	C A1096	194.156	145.145	-15.341	1.00	60.26	N	ATOM	23154	C3*	G A1099	182.153	148.914	-21.281	1.00	68.21	C
ATOM	23105	C5	C A1096	194.772	146.577	-13.530	1.00	60.26	C	ATOM	23155	O3*	G A1099	180.892	149.113	-21.889	1.00	68.21	O
ATOM	23106	C6	C A1096	195.251	147.771	-13.169	1.00	60.26	C	ATOM	23156	C2*	G A1099	182.565	147.453	-21.285	1.00	68.21	C
ATOM	23107	P	C A1097	192.113	152.394	-12.511	1.00	76.08	P	ATOM	23157	O2*	G A1099	182.263	146.803	-22.495	1.00	68.21	O
ATOM	23108	O1P	C A1097	191.609	153.694	-12.003	1.00	58.37	O	ATOM	23158	C1*	G A1099	184.075	147.565	-21.143	1.00	68.21	C
ATOM	23109	O2P	C A1097	191.448	151.129	-12.093	1.00	58.37	O	ATOM	23159	N9	G A1099	184.459	147.373	-19.751	1.00	50.57	N
ATOM	23110	O5*	C A1097	192.076	152.494	-14.097	1.00	76.08	O	ATOM	23160	C8	G A1099	184.885	148.308	-18.832	1.00	50.57	C
ATOM	23111	C5*	C A1097	192.688	153.604	-14.760	1.00	76.08	C	ATOM	23161	N7	G A1099	185.103	147.795	-17.648	1.00	50.57	N
ATOM	23112	C4*	C A1097	192.610	153.428	-16.250	1.00	76.08	C	ATOM	23162	C5	G A1099	184.810	146.441	-17.797	1.00	50.57	C
ATOM	23113	O4*	C A1097	193.385	152.268	-16.647	1.00	76.08	O	ATOM	23163	C6	G A1099	184.842	145.355	-16.848	1.00	50.57	C
ATOM	23114	C3*	C A1097	191.217	153.166	-16.790	1.00	76.08	C	ATOM	23164	O6	G A1099	185.127	145.374	-15.632	1.00	50.57	O
ATOM	23115	O3*	C A1097	190.503	154.373	-17.005	1.00	76.08	O	ATOM	23165	N1	G A1099	184.480	144.153	-17.447	1.00	50.57	N
ATOM	23116	C2*	C A1097	191.494	152.431	-18.093	1.00	76.08	C	ATOM	23166	C2	G A1099	184.120	143.993	-18.765	1.00	50.57	C
ATOM	23117	O2*	C A1097	191.742	153.315	-19.169	1.00	76.08	O	ATOM	23167	N2	G A1099	183.813	142.737	-19.156	1.00	50.57	N
ATOM	23118	C1*	C A1097	192.751	151.629	-17.741	1.00	76.08	C	ATOM	23168	N3	G A1099	184.067	144.986	-19.643	1.00	50.57	N
ATOM	23119	N1	C A1097	192.444	150.235	-17.368	1.00	58.37	N	ATOM	23169	C4	G A1099	184.426	146.168	-19.094	1.00	50.57	C
ATOM	23120	C2	C A1097	192.024	149.351	-18.374	1.00	58.37	C	ATOM	23170	P	C A1100	179.609	149.367	-20.953	1.00	54.22	P
ATOM	23121	O2	C A1097	191.952	149.764	-19.538	1.00	58.37	O	ATOM	23171	O1P	C A1100	178.483	149.785	-21.847	1.00	43.37	O
ATOM	23122	N3	C A1097	191.715	148.076	-18.050	1.00	58.37	N	ATOM	23172	O2P	C A1100	180.050	150.271	-19.836	1.00	43.37	O
ATOM	23123	C4	C A1097	191.821	147.669	-16.786	1.00	58.37	C	ATOM	23173	O5*	C A1100	179.272	147.929	-20.342	1.00	54.22	O
ATOM	23124	N4	C A1097	191.506	146.402	-16.512	1.00	58.37	N	ATOM	23174	C5*	C A1100	178.848	146.847	-21.187	1.00	54.22	C
ATOM	23125	C5	C A1097	192.257	148.542	-15.744	1.00	58.37	C	ATOM	23175	C4*	C A1100	178.916	145.543	-20.433	1.00	54.22	C
ATOM	23126	C6	C A1097	192.553	149.803	-16.076	1.00	58.37	C	ATOM	23176	O4*	C A1100	180.264	145.345	-19.959	1.00	54.22	O
ATOM	23127	P	C A1098	188.926	154.425	-16.704	1.00	65.51	P	ATOM	23177	C3*	C A1100	178.059	145.458	-19.185	1.00	54.22	C
ATOM	23128	O1P	C A1098	188.528	155.855	-16.827	1.00	61.81	O	ATOM	23178	O3*	C A1100	176.756	145.024	-19.523	1.00	54.22	O
ATOM	23129	O2P	C A1098	188.686	153.693	-15.418	1.00	61.81	O	ATOM	23179	C2*	C A1100	178.789	144.431	-18.331	1.00	54.22	C
ATOM	23130	O5*	C A1098	188.251	153.646	-17.925	1.00	65.51	O	ATOM	23180	O2*	C A1100	178.482	143.094	-18.655	1.00	54.22	O
ATOM	23131	C5*	C A1098	188.112	154.300	-19.199	1.00	65.51	C	ATOM	23181	C1*	C A1100	180.240	144.702	-18.704	1.00	54.22	C
ATOM	23132	C4*	C A1098	187.819	153.309	-20.304	1.00	65.51	C	ATOM	23182	N1	C A1100	180.912	145.564	-17.735	1.00	43.37	N
ATOM	23133	O4*	C A1098	188.865	152.310	-20.382	1.00	65.51	O	ATOM	23183	C2	C A1100	181.373	144.994	-16.548	1.00	43.37	C
ATOM	23134	C3*	C A1098	186.556	152.485	-20.198	1.00	65.51	C	ATOM	23184	O2	C A1100	181.197	143.783	-16.356	1.00	43.37	O
ATOM	23135	O3*	C A1098	185.405	153.176	-20.607	1.00	65.51	O	ATOM	23185	N3	C A1100	181.998	145.770	-15.639	1.00	43.37	N
ATOM	23136	C2*	C A1098	186.847	151.330	-22.137	1.00	65.51	C	ATOM	23186	C4	C A1100	182.164	147.067	-15.881	1.00	43.37	C
ATOM	23137	O2*	C A1098	186.673	151.684	-22.491	1.00	65.51	O	ATOM	23187	N4	C A1100	182.787	147.797	-14.952	1.00	43.37	N
ATOM	23138	C1*	C A1098	188.323	151.087	-20.857	1.00	65.51	C	ATOM	23188	C5	C A1100	181.699	147.674	-17.087	1.00	43.37	C
ATOM	23139	N1	C A1098	188.449	150.066	-19.808	1.00	61.81	N	ATOM	23189	C6	C A1100	181.087	146.894	-17.976	1.00	43.37	C
ATOM	23140	C2	C A1098	188.150	148.741	-20.132	1.00	61.81	C	ATOM	23190	P	A A1101	175.483	145.725	-18.848	1.00	66.49	P
ATOM	23141	O2	C A1098	187.825	148.468	-21.302	1.00	61.81	O	ATOM	23191	O1P	A A1101	174.312	145.313	-19.685	1.00	45.26	O
ATOM	23142	N3	C A1098	188.219	147.793	-19.169	1.00	61.81	N	ATOM	23192	O2P	A A1101	175.789	147.172	-18.673	1.00	45.26	O
ATOM	23143	C4	C A1098	188.571	148.132	-17.926	1.00	61.81	C	ATOM	23193	O5*	A A1101	175.388	145.025	-17.420	1.00	66.49	O
ATOM	23144	N4	C A1098	188.610	147.170	-17.001	1.00	61.81	N	ATOM	23194	C5*	A A1101	175.240	143.603	-17.327	1.00	66.49	C
ATOM	23145	C5	C A1098	188.896	149.473	-17.574	1.00	61.81	C	ATOM	23195	C4*	A A1101	175.521	143.133	-15.925	1.00	66.49	C
ATOM	23146	C6	C A1098	188.826	150.397	-18.536	1.00	61.81	C	ATOM	23196	O4*	A A1101	174.552	143.681	-15.021	1.00	66.49	O
ATOM	23147	P	G A1099	184.001	152.810	-19.923	1.00	68.21	P	ATOM	23197	C3*	A A1101	175.446	141.627	-15.748	1.00	66.49	C



ATOM	23198	O3*	A A1101	176.725	141.012	-16.017	1.00	66.49	O	ATOM	23248	O2	C A1103	178.765	145.997	-4.677	1.00	48.77	O
ATOM	23199	C2*	A A1101	174.833	141.386	-14.367	1.00	66.49	C	ATOM	23249	N3	C A1103	179.747	144.225	-5.699	1.00	48.77	N
ATOM	23200	O2*	A A1101	175.687	140.785	-13.414	1.00	66.49	O	ATOM	23250	C4	C A1103	180.142	143.660	-6.835	1.00	48.77	C
ATOM	23201	C1*	A A1101	174.359	142.784	-13.948	1.00	66.49	C	ATOM	23251	N4	C A1103	180.723	142.470	-6.770	1.00	48.77	N
ATOM	23202	N9	A A1101	172.971	142.913	-13.494	1.00	45.26	N	ATOM	23252	C5	C A1103	179.958	144.295	-8.095	1.00	48.77	C
ATOM	23203	C8	A A1101	171.825	142.982	-14.247	1.00	45.26	C	ATOM	23253	C6	C A1103	179.368	145.493	-8.107	1.00	48.77	C
ATOM	23204	N7	A A1101	170.747	143.192	-13.541	1.00	45.26	N	ATOM	23254	P	G A1104	181.704	150.661	-7.581	1.00	51.67	P
ATOM	23205	C5	A A1101	171.207	143.245	-12.233	1.00	45.26	C	ATOM	23255	O1P	G A1104	181.920	152.146	-7.637	1.00	48.83	O
ATOM	23206	C6	A A1101	170.555	143.460	-11.007	1.00	45.26	C	ATOM	23256	O2P	G A1104	182.547	149.764	-8.422	1.00	48.83	O
ATOM	23207	N6	A A1101	169.239	143.652	-10.888	1.00	45.26	N	ATOM	23257	O5*	G A1104	181.764	150.185	-6.060	1.00	51.67	O
ATOM	23208	N1	A A1101	171.307	143.466	-9.889	1.00	45.26	N	ATOM	23258	C5*	G A1104	182.998	149.845	-5.432	1.00	51.67	C
ATOM	23209	C2	A A1101	172.622	143.254	-10.000	1.00	45.26	C	ATOM	23259	C4*	G A1104	182.722	149.282	-4.070	1.00	51.67	C
ATOM	23210	N3	A A1101	173.347	143.035	-11.089	1.00	45.26	N	ATOM	23260	O4*	G A1104	181.759	148.209	-4.203	1.00	51.67	O
ATOM	23211	C4	A A1101	172.570	143.051	-12.187	1.00	45.26	C	ATOM	23261	C3*	G A1104	183.903	148.645	-3.364	1.00	51.67	C
ATOM	23212	P	A A1102	178.096	141.550	-15.319	1.00	48.30	P	ATOM	23262	O3*	G A1104	184.697	149.592	-2.673	1.00	51.67	O
ATOM	23213	O1P	A A1102	179.087	141.351	-16.393	1.00	48.97	O	ATOM	23263	C2*	G A1104	183.236	147.658	-2.420	1.00	51.67	C
ATOM	23214	O2P	A A1102	178.376	141.002	-13.962	1.00	48.97	O	ATOM	23264	O2*	G A1104	182.783	148.267	-1.233	1.00	51.67	O
ATOM	23215	O5*	A A1102	177.935	143.121	-15.176	1.00	48.30	O	ATOM	23265	C1*	G A1104	182.044	147.192	-3.256	1.00	51.67	C
ATOM	23216	C5*	A A1102	178.796	143.863	-14.308	1.00	48.30	C	ATOM	23266	N9	G A1104	182.354	145.959	-3.976	1.00	48.83	N
ATOM	23217	C4*	A A1102	177.969	144.640	-13.325	1.00	48.30	C	ATOM	23267	C8	G A1104	182.573	145.810	-5.328	1.00	48.83	C
ATOM	23218	O4*	A A1102	177.068	143.731	-12.659	1.00	48.30	O	ATOM	23268	N7	G A1104	182.873	144.586	-5.664	1.00	48.83	N
ATOM	23219	C3*	A A1102	178.747	145.335	-12.220	1.00	48.30	C	ATOM	23269	C5	G A1104	182.839	143.882	-4.470	1.00	48.83	C
ATOM	23220	O3*	A A1102	179.133	146.631	-12.674	1.00	48.30	O	ATOM	23270	C6	G A1104	183.082	142.522	-4.209	1.00	48.83	C
ATOM	23221	C2*	A A1102	177.722	145.392	-11.093	1.00	48.30	C	ATOM	23271	O6	G A1104	183.389	141.636	-5.002	1.00	48.83	O
ATOM	23222	O2*	A A1102	176.784	146.443	-11.267	1.00	48.30	O	ATOM	23272	N1	G A1104	182.940	142.225	-2.862	1.00	48.83	N
ATOM	23223	C1*	A A1102	176.968	144.078	-11.298	1.00	48.30	C	ATOM	23273	C2	G A1104	182.617	143.127	-1.887	1.00	48.83	C
ATOM	23224	N9	A A1102	177.500	142.965	-10.517	1.00	48.97	N	ATOM	23274	N2	G A1104	182.543	142.650	-0.647	1.00	48.83	N
ATOM	23225	C8	A A1102	178.278	141.939	-10.969	1.00	48.97	C	ATOM	23275	N3	G A1104	182.387	144.404	-2.113	1.00	48.83	N
ATOM	23226	N7	A A1102	178.590	141.068	-10.045	1.00	48.97	N	ATOM	23276	C4	G A1104	182.514	144.711	-3.420	1.00	48.83	C
ATOM	23227	C5	A A1102	177.983	141.559	-8.903	1.00	48.97	C	ATOM	23277	P	A A1105	186.234	149.243	-2.334	1.00	58.23	P
ATOM	23228	C6	A A1102	177.937	141.085	-7.584	1.00	48.97	C	ATOM	23278	O1P	A A1105	186.792	150.415	-1.600	1.00	57.69	O
ATOM	23229	N6	A A1102	178.523	139.963	-7.185	1.00	48.97	N	ATOM	23279	O2P	A A1105	186.894	148.783	-3.597	1.00	57.69	O
ATOM	23230	N1	A A1102	177.252	141.809	-6.678	1.00	48.97	N	ATOM	23280	O5*	A A1105	186.134	148.030	-1.302	1.00	58.23	O
ATOM	23231	C2	A A1102	176.649	142.931	-7.086	1.00	48.97	C	ATOM	23281	C5*	A A1105	185.575	148.241	-0.011	1.00	58.23	C
ATOM	23232	N3	A A1102	176.612	143.477	-8.305	1.00	48.97	N	ATOM	23282	C4*	A A1105	185.437	146.942	0.721	1.00	58.23	C
ATOM	23233	C4	A A1102	177.310	142.730	-9.177	1.00	48.97	C	ATOM	23283	O4*	A A1105	184.598	146.040	-0.040	1.00	58.23	O
ATOM	23234	P	C A1103	180.314	147.435	-11.934	1.00	55.84	P	ATOM	23284	C3*	A A1105	186.709	146.149	0.937	1.00	58.23	C
ATOM	23235	O1P	C A1103	180.393	148.690	-12.722	1.00	48.77	O	ATOM	23285	O3*	A A1105	187.476	146.608	2.025	1.00	58.23	O
ATOM	23236	O2P	C A1103	181.528	146.601	-11.760	1.00	48.77	O	ATOM	23286	C2*	A A1105	186.177	144.744	1.172	1.00	58.23	C
ATOM	23237	O5*	C A1103	179.743	147.720	-10.475	1.00	55.84	O	ATOM	23287	O2*	A A1105	185.707	144.522	2.485	1.00	58.23	O
ATOM	23238	C5*	C A1103	178.727	148.711	-10.263	1.00	55.84	C	ATOM	23288	C1*	A A1105	185.013	144.698	0.187	1.00	58.23	C
ATOM	23239	C4*	C A1103	178.462	148.869	-8.793	1.00	55.84	C	ATOM	23289	N9	A A1105	185.469	144.124	-1.080	1.00	57.69	N
ATOM	23240	O4*	C A1103	177.842	147.669	-8.273	1.00	55.84	O	ATOM	23290	C8	A A1105	185.649	144.764	-2.282	1.00	57.69	C
ATOM	23241	C3*	C A1103	179.712	149.035	-7.958	1.00	55.84	C	ATOM	23291	N7	A A1105	186.097	143.982	-3.236	1.00	57.69	N
ATOM	23242	O3*	C A1103	180.180	150.369	-7.974	1.00	55.84	O	ATOM	23292	C5	A A1105	186.219	142.743	-2.623	1.00	57.69	C
ATOM	23243	C2*	C A1103	179.283	148.528	-6.583	1.00	55.84	C	ATOM	23293	C6	A A1105	186.641	141.503	-3.101	1.00	57.69	C
ATOM	23244	O2*	C A1103	178.608	149.470	-5.779	1.00	55.84	O	ATOM	23294	N6	A A1105	187.047	141.306	-4.353	1.00	57.69	N
ATOM	23245	C1*	C A1103	178.315	147.410	-6.961	1.00	55.84	C	ATOM	23295	N1	A A1105	186.635	140.460	-2.242	1.00	57.69	N
ATOM	23246	N1	C A1103	178.959	146.086	-6.948	1.00	48.77	N	ATOM	23296	C2	A A1105	186.235	140.669	-0.983	1.00	57.69	C
ATOM	23247	C2	C A1103	179.150	145.439	-5.719	1.00	48.77	C	ATOM	23297	N3	A A1105	185.821	141.796	-0.409	1.00	57.69	N



ATOM	23298	C4	A All105	185.832	142.810	-1.296	1.00	57.69	C	ATOM	23348	O4*	G All108	197.187	138.358	0.228	1.00	61.42	O
ATOM	23299	P	G All106	189.037	146.249	2.089	1.00	57.20	P	ATOM	23349	C3*	G All108	199.336	139.215	-0.007	1.00	61.42	C
ATOM	23300	O1P	G All106	189.643	147.054	3.166	1.00	50.70	O	ATOM	23350	O3*	G All108	200.757	139.060	0.092	1.00	61.42	O
ATOM	23301	O2P	G All106	189.591	146.325	0.717	1.00	50.70	O	ATOM	23351	C2*	G All108	198.877	138.744	-1.381	1.00	61.42	C
ATOM	23302	O5*	G All106	189.058	144.747	2.598	1.00	57.20	O	ATOM	23352	O2*	G All108	199.432	137.488	-1.720	1.00	61.42	O
ATOM	23303	C5*	G All106	188.561	144.434	3.896	1.00	57.20	C	ATOM	23353	C1*	G All108	197.381	138.557	-1.161	1.00	61.42	C
ATOM	23304	C4*	G All106	188.722	142.974	4.163	1.00	57.20	C	ATOM	23354	N9	G All108	196.735	139.788	-1.596	1.00	49.04	N
ATOM	23305	O4*	G All106	187.891	142.224	3.242	1.00	57.20	O	ATOM	23355	C8	G All108	196.113	140.745	-0.835	1.00	49.04	C
ATOM	23306	C3*	G All106	190.115	142.458	3.889	1.00	57.20	C	ATOM	23356	N7	G All108	195.684	141.763	-1.539	1.00	49.04	N
ATOM	23307	O3*	G All106	191.001	142.693	4.945	1.00	57.20	O	ATOM	23357	C5	G All108	196.032	141.448	-2.847	1.00	49.04	C
ATOM	23308	C2*	G All106	189.873	140.985	3.626	1.00	57.20	C	ATOM	23358	O6	G All108	195.829	142.169	-4.072	1.00	49.04	O
ATOM	23309	O2*	G All106	189.678	140.246	4.816	1.00	57.20	O	ATOM	23359	C6	G All108	195.269	143.258	-4.250	1.00	49.04	C
ATOM	23310	C1*	G All106	188.568	141.044	2.843	1.00	57.20	C	ATOM	23360	N1	G All108	196.355	141.481	-5.160	1.00	49.04	N
ATOM	23311	N9	G All106	188.850	141.120	1.412	1.00	50.70	N	ATOM	23361	C2	G All108	196.980	140.262	-5.095	1.00	49.04	C
ATOM	23312	C8	G All106	188.782	142.224	0.584	1.00	50.70	C	ATOM	23362	N2	G All108	197.400	139.760	-6.256	1.00	49.04	N
ATOM	23313	N7	G All106	189.113	141.959	-0.653	1.00	50.70	N	ATOM	23363	N3	G All108	197.173	139.585	-3.977	1.00	49.04	N
ATOM	23314	C5	G All106	189.415	140.597	-0.642	1.00	50.70	C	ATOM	23364	C4	G All108	196.677	140.231	-2.899	1.00	49.04	C
ATOM	23316	O6	G All106	189.833	139.728	-1.694	1.00	50.70	O	ATOM	23365	P	C All109	201.718	140.292	-0.339	1.00	49.29	P
ATOM	23317	N1	G All106	190.022	139.993	-2.889	1.00	50.70	N	ATOM	23366	O1P	C All109	203.108	139.763	-0.481	1.00	71.42	O
ATOM	23318	C2	G All106	190.031	138.430	-1.232	1.00	50.70	C	ATOM	23367	O2P	C All109	201.467	141.458	0.550	1.00	71.42	O
ATOM	23319	N2	G All106	189.849	138.014	0.066	1.00	50.70	N	ATOM	23368	O5*	C All109	201.183	140.745	-1.771	1.00	49.29	O
ATOM	23320	N3	G All106	190.088	136.728	0.316	1.00	50.70	N	ATOM	23369	C5*	C All109	201.665	140.124	-2.964	1.00	49.29	C
ATOM	23321	C4	G All106	189.460	138.801	1.047	1.00	50.70	C	ATOM	23370	C4*	C All109	201.619	141.092	-4.113	1.00	49.29	C
ATOM	23322	P	C All107	189.260	140.070	0.627	1.00	50.70	P	ATOM	23371	O4*	C All109	200.249	141.462	-4.382	1.00	49.29	O
ATOM	23323	O1P	C All107	192.545	142.918	4.609	1.00	43.52	O	ATOM	23372	C3*	C All109	202.329	142.415	-3.907	1.00	49.29	C
ATOM	23324	O2P	C All107	193.254	143.309	5.856	1.00	43.52	O	ATOM	23373	O3*	C All109	203.716	142.310	-4.172	1.00	49.29	O
ATOM	23325	O5*	C All107	192.579	143.823	3.420	1.00	43.52	O	ATOM	23374	C2*	C All109	201.629	143.331	-4.903	1.00	49.29	C
ATOM	23326	C5*	C All107	193.044	141.461	4.198	1.00	61.19	O	ATOM	23375	O2*	C All109	202.140	143.233	-6.215	1.00	49.29	O
ATOM	23327	C4*	C All107	193.063	140.392	5.169	1.00	61.19	C	ATOM	23376	C1*	C All109	200.202	142.787	-4.879	1.00	49.29	C
ATOM	23328	O4*	C All107	193.591	139.107	4.557	1.00	61.19	O	ATOM	23377	N1	C All109	199.306	143.589	-4.031	1.00	71.42	N
ATOM	23329	C3*	C All107	192.661	138.593	3.565	1.00	61.19	C	ATOM	23378	C2	C All109	198.853	144.817	-4.516	1.00	71.42	C
ATOM	23330	O3*	C All107	194.916	139.166	3.814	1.00	61.19	O	ATOM	23379	O2	C All109	199.216	145.189	-5.641	1.00	71.42	O
ATOM	23331	C2*	C All107	196.043	139.120	4.665	1.00	61.19	O	ATOM	23380	N3	C All109	198.040	145.570	-3.750	1.00	71.42	N
ATOM	23332	O2*	C All107	194.840	137.923	2.943	1.00	61.19	C	ATOM	23381	C4	C All109	197.685	145.145	-2.538	1.00	71.42	C
ATOM	23333	C1*	C All107	195.106	136.749	3.691	1.00	61.19	C	ATOM	23382	N4	C All109	196.900	145.936	-1.806	1.00	71.42	N
ATOM	23334	N1	C All107	193.373	137.938	2.532	1.00	61.19	C	ATOM	23383	C5	C All109	198.126	143.894	-2.018	1.00	71.42	C
ATOM	23335	C2	C All107	193.205	138.718	1.298	1.00	43.52	N	ATOM	23384	C6	C All109	198.926	143.154	-2.791	1.00	71.42	C
ATOM	23336	O2	C All107	193.438	138.101	0.063	1.00	43.52	O	ATOM	23385	P	A All110	204.750	143.203	-3.337	1.00	60.81	P
ATOM	23337	N3	C All107	193.744	136.890	0.041	1.00	43.52	O	ATOM	23386	O1P	A All110	206.089	142.995	-3.947	1.00	68.71	O
ATOM	23338	C4	C All107	193.319	138.837	-1.074	1.00	43.52	N	ATOM	23387	O2P	A All110	204.550	142.906	-1.896	1.00	68.71	O
ATOM	23339	N4	C All107	192.973	140.128	-1.002	1.00	43.52	C	ATOM	23388	O5*	A All110	204.283	144.697	-3.630	1.00	60.81	O
ATOM	23340	C5	C All107	192.877	140.827	-2.133	1.00	43.52	N	ATOM	23389	C5*	A All110	204.521	145.303	-4.915	1.00	60.81	C
ATOM	23341	C6	C All107	192.714	140.766	0.238	1.00	43.52	C	ATOM	23390	C4*	A All110	203.920	146.688	-4.963	1.00	60.81	C
ATOM	23342	P	G All108	192.842	140.033	1.351	1.00	43.52	C	ATOM	23391	O4*	A All110	202.478	146.576	-4.837	1.00	60.81	O
ATOM	23343	O1P	G All108	197.341	139.986	4.294	1.00	61.42	P	ATOM	23392	C3*	A All110	204.330	147.634	-3.843	1.00	60.81	C
ATOM	23344	O2P	G All108	198.406	139.360	5.113	1.00	49.04	O	ATOM	23393	O3*	A All110	205.552	148.303	-4.097	1.00	60.81	O
ATOM	23345	O5*	G All108	197.042	141.431	4.440	1.00	49.04	O	ATOM	23394	C2*	A All110	203.552	148.581	-3.768	1.00	60.81	C
ATOM	23346	C5*	G All108	197.638	139.688	2.751	1.00	61.42	O	ATOM	23395	O2*	A All110	203.142	148.566	-4.791	1.00	60.81	O
ATOM	23347	C4*	G All108	198.388	138.513	2.387	1.00	61.42	C	ATOM	23396	C1*	A All110	201.984	147.612	-4.006	1.00	60.81	C
ATOM	23348	C4*	G All108	198.488	138.312	0.880	1.00	61.42	C	ATOM	23397	N9	A All110	201.542	146.990	-2.757	1.00	68.71	N



Table 1: Sheet 236/521

ATOM	23398	C8	A A1110	201.951	145.781	-2.241	1.00	68.71	C	ATOM	23448	C6	C A1112	204.996	150.395	3.655	1.00	67.35	C
ATOM	23399	N7	A A1110	201.370	145.461	-1.112	1.00	68.71	N	ATOM	23449	P	C A1113	208.533	154.359	6.039	1.00	58.02	P
ATOM	23400	C5	A A1110	200.522	146.530	-0.865	1.00	68.71	C	ATOM	23450	O1P	C A1113	208.947	155.525	6.859	1.00	73.64	O
ATOM	23401	C6	A A1110	199.622	146.787	0.168	1.00	68.71	C	ATOM	23451	O2P	C A1113	208.953	154.296	4.615	1.00	73.64	O
ATOM	23402	N6	A A1110	199.387	145.932	1.165	1.00	68.71	N	ATOM	23452	O5*	C A1113	209.016	153.045	6.801	1.00	58.02	O
ATOM	23403	N1	A A1110	198.950	147.958	0.137	1.00	68.71	N	ATOM	23453	C5*	C A1113	208.976	152.973	8.231	1.00	58.02	C
ATOM	23404	C2	A A1110	199.165	148.794	-0.885	1.00	68.71	C	ATOM	23454	O4*	C A1113	209.729	151.761	8.712	1.00	58.02	C
ATOM	23405	N3	A A1110	199.971	148.655	-1.929	1.00	68.71	N	ATOM	23455	C4*	C A1113	209.075	150.570	8.204	1.00	58.02	C
ATOM	23406	C4	A A1110	200.630	147.487	-1.860	1.00	68.71	C	ATOM	23456	C3*	C A1113	211.158	151.634	8.217	1.00	58.02	C
ATOM	23407	P	A A1111	206.576	148.566	-2.884	1.00	74.13	P	ATOM	23457	O3*	C A1113	212.097	152.368	8.972	1.00	58.02	O
ATOM	23408	O1P	A A1111	207.788	149.131	-3.530	1.00	61.80	O	ATOM	23458	C2*	C A1113	211.403	150.137	8.294	1.00	58.02	C
ATOM	23409	O2P	A A1111	206.692	147.353	-2.021	1.00	61.80	O	ATOM	23459	O2*	C A1113	211.709	149.702	9.606	1.00	58.02	O
ATOM	23410	O5*	A A1111	205.866	149.679	-1.989	1.00	74.13	O	ATOM	23460	C1*	C A1113	210.046	149.597	7.846	1.00	58.02	C
ATOM	23411	C5*	A A1111	205.455	150.944	-2.549	1.00	74.13	C	ATOM	23461	N1	C A1113	209.990	149.406	6.375	1.00	73.64	N
ATOM	23412	C4*	A A1111	204.567	151.689	-1.575	1.00	74.13	C	ATOM	23462	C2	C A1113	210.635	148.298	5.800	1.00	73.64	C
ATOM	23413	O4*	A A1111	203.312	150.976	-1.423	1.00	74.13	O	ATOM	23463	O2	C A1113	211.221	147.488	6.533	1.00	73.64	O
ATOM	23414	C3*	A A1111	205.106	151.820	-0.158	1.00	74.13	C	ATOM	23464	N3	C A1113	210.601	148.142	4.459	1.00	73.64	N
ATOM	23415	O3*	A A1111	206.009	152.912	-0.007	1.00	74.13	O	ATOM	23465	C4	C A1113	209.955	149.030	3.695	1.00	73.64	C
ATOM	23416	C2*	A A1111	203.833	151.986	0.662	1.00	74.13	C	ATOM	23466	N4	C A1113	209.949	148.834	2.372	1.00	73.64	N
ATOM	23417	O2*	A A1111	203.327	153.306	0.634	1.00	74.13	O	ATOM	23467	C5	C A1113	209.287	150.156	4.251	1.00	73.64	C
ATOM	23418	C1*	A A1111	202.870	151.061	-0.080	1.00	74.13	C	ATOM	23468	C6	C A1113	209.327	150.303	5.580	1.00	73.64	C
ATOM	23419	N9	A A1111	202.879	149.712	0.488	1.00	61.80	N	ATOM	23469	P	C A1114	213.353	153.038	8.219	1.00	81.72	P
ATOM	23420	C8	A A1111	203.649	148.649	0.095	1.00	61.80	C	ATOM	23470	O1P	C A1114	213.948	154.051	9.133	1.00	70.77	O
ATOM	23421	N7	A A1111	203.446	147.561	0.794	1.00	61.80	N	ATOM	23471	O2P	C A1114	212.909	153.456	6.855	1.00	70.77	O
ATOM	23422	C5	A A1111	202.478	147.932	1.714	1.00	61.80	C	ATOM	23472	O5*	C A1114	214.383	151.832	8.071	1.00	81.72	O
ATOM	23423	C6	A A1111	201.831	147.224	2.743	1.00	61.80	C	ATOM	23473	C5*	C A1114	214.744	151.032	9.205	1.00	81.72	C
ATOM	23424	N6	A A1111	202.079	145.943	3.032	1.00	61.80	N	ATOM	23474	C4*	C A1114	215.678	149.929	8.782	1.00	81.72	C
ATOM	23425	N1	A A1111	200.909	147.886	3.476	1.00	61.80	N	ATOM	23475	O4*	C A1114	214.967	148.982	7.949	1.00	81.72	O
ATOM	23426	C2	A A1111	200.664	149.166	3.189	1.00	61.80	C	ATOM	23476	C3*	C A1114	216.848	150.361	7.920	1.00	81.72	C
ATOM	23427	N3	A A1111	201.208	149.939	2.250	1.00	61.80	N	ATOM	23477	O3*	C A1114	217.926	150.862	8.669	1.00	81.72	O
ATOM	23428	C4	A A1111	202.118	149.253	1.537	1.00	61.80	C	ATOM	23478	C2*	C A1114	217.206	149.079	7.191	1.00	81.72	C
ATOM	23429	P	C A1112	207.282	152.766	0.975	1.00	82.98	P	ATOM	23479	O2*	C A1114	217.918	148.187	8.023	1.00	81.72	O
ATOM	23430	O1P	C A1112	208.139	153.954	0.728	1.00	67.35	O	ATOM	23480	C1*	C A1114	215.825	148.498	6.929	1.00	81.72	C
ATOM	23431	O2P	C A1112	207.861	151.401	0.837	1.00	67.35	O	ATOM	23481	N1	C A1114	215.292	148.928	5.621	1.00	70.77	N
ATOM	23432	O5*	C A1112	206.664	152.869	2.442	1.00	82.98	O	ATOM	23482	C2	C A1114	215.493	148.107	4.515	1.00	70.77	C
ATOM	23433	C5*	C A1112	206.094	154.105	2.929	1.00	82.98	C	ATOM	23483	O2	C A1114	216.139	147.064	4.655	1.00	70.77	O
ATOM	23434	C4*	C A1112	205.390	153.878	4.249	1.00	82.98	C	ATOM	23484	N3	C A1114	214.982	148.468	3.320	1.00	70.77	N
ATOM	23435	O4*	C A1112	204.299	152.942	4.052	1.00	82.98	O	ATOM	23485	C4	C A1114	214.298	149.603	3.204	1.00	70.77	C
ATOM	23436	C3*	C A1112	206.231	153.274	5.366	1.00	82.98	C	ATOM	23486	N4	C A1114	213.786	149.903	2.010	1.00	70.77	N
ATOM	23437	O3*	C A1112	206.925	154.287	6.092	1.00	82.98	O	ATOM	23487	C5	C A1114	214.100	150.477	4.308	1.00	70.77	C
ATOM	23438	C2*	C A1112	205.183	152.589	6.238	1.00	82.98	C	ATOM	23488	C6	C A1114	214.608	150.104	5.487	1.00	70.77	C
ATOM	23439	O2*	C A1112	204.543	153.463	7.147	1.00	82.98	O	ATOM	23489	P	C A1115	218.883	151.960	8.009	1.00	88.75	P
ATOM	23440	C1*	C A1112	204.156	152.129	5.201	1.00	82.98	C	ATOM	23490	O1P	C A1115	219.786	152.390	9.105	1.00	73.59	O
ATOM	23441	N1	C A1112	204.347	150.723	4.813	1.00	67.35	N	ATOM	23491	O2P	C A1115	218.048	152.964	7.292	1.00	73.59	O
ATOM	23442	C2	C A1112	203.869	149.717	5.662	1.00	67.35	C	ATOM	23492	O5*	C A1115	219.724	151.152	6.921	1.00	88.75	O
ATOM	23443	O2	C A1112	203.243	150.031	6.677	1.00	67.35	O	ATOM	23493	C5*	C A1115	220.770	150.246	7.323	1.00	88.75	C
ATOM	23444	N3	C A1112	204.096	148.426	5.348	1.00	67.35	N	ATOM	23494	C4*	C A1115	221.450	149.641	6.115	1.00	88.75	C
ATOM	23445	C4	C A1112	204.746	148.116	4.226	1.00	67.35	C	ATOM	23495	O4*	C A1115	220.517	148.794	5.393	1.00	88.75	O
ATOM	23446	N4	C A1112	204.952	146.822	3.963	1.00	67.35	N	ATOM	23496	C3*	C A1115	221.956	150.605	5.057	1.00	88.75	C
ATOM	23447	C5	C A1112	205.213	149.118	3.325	1.00	67.35	C	ATOM	23497	O3*	C A1115	223.211	151.178	5.359	1.00	88.75	O



ATOM	23498	C A1115	222.042	149.718	3.828	1.00	88.75	C	ATOM	23548	C2	G A1117	218.952	156.970	-5.421	1.00	67.00	C
ATOM	23499	C A1115	223.206	148.918	3.824	1.00	88.75	O	ATOM	23549	N2	G A1117	218.408	157.200	-6.625	1.00	67.00	N
ATOM	23500	C A1115	220.814	148.831	4.006	1.00	88.75	O	ATOM	23550	N3	G A1117	220.246	156.683	-5.321	1.00	67.00	N
ATOM	23501	N1	219.673	149.415	3.276	1.00	73.59	N	ATOM	23551	C4	G A1117	220.616	156.461	-4.042	1.00	67.00	C
ATOM	23502	C2	219.646	149.305	1.875	1.00	73.59	C	ATOM	23552	P	C A1118	226.653	159.034	-2.610	1.00	79.86	P
ATOM	23503	O2	220.540	148.659	1.303	1.00	73.59	O	ATOM	23553	O1P	C A1118	228.060	159.295	-3.008	1.00	73.35	O
ATOM	23504	N3	218.648	149.903	1.185	1.00	73.59	N	ATOM	23554	O2P	C A1118	226.340	158.789	-1.179	1.00	73.35	O
ATOM	23505	C4	217.697	150.576	1.836	1.00	73.59	C	ATOM	23555	O5*	C A1118	225.777	160.244	-3.161	1.00	79.86	O
ATOM	23506	N4	216.752	151.185	1.112	1.00	73.59	N	ATOM	23556	C5*	C A1118	226.064	160.816	-4.449	1.00	79.86	C
ATOM	23507	C5	217.677	150.665	3.259	1.00	73.59	C	ATOM	23557	C4*	C A1118	225.252	162.068	-4.677	1.00	79.86	C
ATOM	23508	C6	218.674	150.076	3.933	1.00	73.59	C	ATOM	23558	O4*	C A1118	223.854	161.714	-4.849	1.00	79.86	O
ATOM	23509	P	223.559	152.644	4.792	1.00	68.63	P	ATOM	23559	C3*	C A1118	225.251	163.091	-3.546	1.00	79.86	C
ATOM	23510	O1P	224.833	153.066	5.435	1.00	61.30	O	ATOM	23560	O3*	C A1118	226.399	163.941	-3.505	1.00	79.86	O
ATOM	23511	O2P	222.346	153.498	4.922	1.00	61.30	O	ATOM	23561	C2*	C A1118	223.950	163.843	-3.796	1.00	79.86	C
ATOM	23512	O5*	223.808	152.437	3.229	1.00	68.63	O	ATOM	23562	O2*	C A1118	224.061	164.823	-4.817	1.00	79.86	O
ATOM	23513	C5*	224.866	151.588	2.758	1.00	68.63	C	ATOM	23563	C1*	C A1118	223.032	162.704	-4.245	1.00	79.86	C
ATOM	23514	C4*	224.825	151.480	1.256	1.00	68.63	C	ATOM	23564	N1	C A1118	222.340	162.090	-3.087	1.00	73.35	N
ATOM	23515	O4*	223.592	150.837	0.839	1.00	68.63	O	ATOM	23565	C2	C A1118	221.147	162.662	-2.616	1.00	73.35	C
ATOM	23516	C3*	224.819	152.790	0.492	1.00	68.63	C	ATOM	23566	O2	C A1118	220.684	163.655	-3.191	1.00	73.35	O
ATOM	23517	O3*	226.101	153.384	0.369	1.00	68.63	O	ATOM	23567	N3	C A1118	220.532	162.116	-1.541	1.00	73.35	N
ATOM	23518	C2*	224.236	152.379	-0.852	1.00	68.63	C	ATOM	23568	N4	C A1118	221.062	161.048	-0.938	1.00	73.35	C
ATOM	23519	O2*	225.174	151.819	-1.747	1.00	68.63	O	ATOM	23569	C4	C A1118	220.430	160.549	0.129	1.00	73.35	N
ATOM	23520	C1*	223.214	151.322	-0.440	1.00	68.63	C	ATOM	23570	C5	C A1118	222.265	160.443	-1.399	1.00	73.35	C
ATOM	23521	N1	221.859	151.911	-0.391	1.00	61.30	N	ATOM	23571	C6	C A1118	222.863	160.988	-2.467	1.00	73.35	C
ATOM	23522	C2	221.276	152.339	-1.604	1.00	61.30	C	ATOM	23572	P	C A1119	226.859	164.580	-2.097	1.00	97.74	P
ATOM	23523	O2	221.880	152.124	-2.669	1.00	61.30	O	ATOM	23573	O1P	C A1119	228.143	165.271	-2.337	1.00	97.74	O
ATOM	23524	N3	220.075	152.962	-1.584	1.00	61.30	N	ATOM	23574	O2P	C A1119	226.771	163.553	-1.025	1.00	74.90	O
ATOM	23525	C4	219.440	153.140	-0.429	1.00	61.30	C	ATOM	23575	O5*	C A1119	225.751	165.690	-1.818	1.00	97.74	O
ATOM	23526	N4	218.270	153.774	-0.458	1.00	61.30	N	ATOM	23576	C5*	C A1119	225.553	166.775	-2.747	1.00	97.74	C
ATOM	23527	C5	219.982	152.677	0.812	1.00	61.30	C	ATOM	23577	C4*	C A1119	224.425	167.672	-2.290	1.00	97.74	C
ATOM	23528	C6	221.184	152.073	0.785	1.00	61.30	C	ATOM	23578	O4*	C A1119	223.171	166.940	-2.346	1.00	97.74	O
ATOM	23529	P	226.252	154.982	0.520	1.00	70.08	P	ATOM	23579	C3*	C A1119	224.510	168.177	-0.855	1.00	97.74	C
ATOM	23530	O1P	227.658	155.231	0.923	1.00	67.00	O	ATOM	23580	O3*	C A1119	225.347	169.319	-0.696	1.00	97.74	O
ATOM	23531	O2P	225.138	155.491	1.365	1.00	67.00	O	ATOM	23581	C2*	C A1119	223.053	168.467	-0.524	1.00	97.74	C
ATOM	23532	O5*	226.045	155.562	-0.947	1.00	70.08	O	ATOM	23582	O2*	C A1119	222.616	169.724	-1.009	1.00	97.74	O
ATOM	23533	C5*	224.889	155.219	-1.683	1.00	70.08	C	ATOM	23583	C1*	C A1119	222.342	167.327	-1.259	1.00	97.74	C
ATOM	23534	C4*	225.011	155.667	-3.107	1.00	70.08	C	ATOM	23584	N1	C A1119	222.171	166.164	-0.362	1.00	74.90	N
ATOM	23535	O4*	223.904	155.052	-3.801	1.00	70.08	O	ATOM	23585	C2	C A1119	221.068	166.130	0.510	1.00	74.90	C
ATOM	23536	C3*	224.874	157.173	-3.289	1.00	70.08	C	ATOM	23586	O2	C A1119	220.241	167.055	0.476	1.00	74.90	O
ATOM	23537	O3*	226.172	157.763	-3.494	1.00	70.08	O	ATOM	23587	N3	C A1119	220.937	165.091	1.368	1.00	74.90	N
ATOM	23538	C2*	223.963	157.303	-4.515	1.00	70.08	C	ATOM	23588	C4	C A1119	221.847	164.112	1.376	1.00	74.90	C
ATOM	23539	O2*	224.650	157.299	-5.751	1.00	70.08	O	ATOM	23589	N4	C A1119	221.688	163.115	2.252	1.00	74.90	N
ATOM	23540	C1*	223.101	156.039	4.409	1.00	70.08	C	ATOM	23590	C5	C A1119	222.962	164.112	0.490	1.00	74.90	C
ATOM	23541	N9	221.886	156.157	3.603	1.00	67.00	N	ATOM	23591	C6	C A1119	223.084	165.143	-0.354	1.00	74.90	C
ATOM	23542	C8	221.793	155.993	-2.239	1.00	67.00	C	ATOM	23592	P	G A1120	226.095	169.565	0.712	1.00	99.69	P
ATOM	23543	N7	220.588	156.184	-1.780	1.00	67.00	N	ATOM	23593	O1P	G A1120	227.102	170.622	0.463	1.00	99.69	O
ATOM	23544	C5	219.835	156.496	-2.905	1.00	67.00	C	ATOM	23594	O2P	G A1120	226.526	168.266	1.302	1.00	99.69	O
ATOM	23545	C6	218.456	156.831	-3.025	1.00	67.00	C	ATOM	23595	O5*	G A1120	224.955	170.149	1.662	1.00	101.58	O
ATOM	23546	O6	217.607	156.947	-2.128	1.00	67.00	O	ATOM	23596	C5*	G A1120	224.311	171.411	1.383	1.00	101.58	C
ATOM	23547	N1	218.097	157.050	-4.351	1.00	67.00	N	ATOM	23597	C4*	G A1120	223.183	171.654	2.365	1.00	101.58	C



Table 1: Sheet 238/521

ATOM	23598	O4*	G A1120	222.205	170.587	2.231	1.00118.58	O	ATOM	23648	C2	U A1122	223.652	167.973	13.138	1.00118.16	C
ATOM	23599	C3*	G A1120	223.556	171.636	3.844	1.00118.58	C	ATOM	23649	O2	U A1122	224.362	167.403	14.173	1.00118.16	O
ATOM	23600	O3*	G A1120	224.063	172.881	4.319	1.00118.58	O	ATOM	23650	N3	U A1122	224.364	167.338	12.149	1.00118.16	N
ATOM	23601	C2*	G A1120	222.240	171.258	4.513	1.00118.58	C	ATOM	23651	C4	U A1122	224.792	167.877	10.954	1.00118.16	C
ATOM	23602	O2*	G A1120	221.364	172.357	4.666	1.00118.58	O	ATOM	23652	O4	U A1122	225.385	167.161	10.148	1.00118.16	O
ATOM	23603	C1*	G A1120	221.652	170.275	3.502	1.00118.58	C	ATOM	23653	C5	U A1122	224.444	169.249	10.758	1.00118.16	C
ATOM	23604	N9	G A1120	222.009	168.899	3.847	1.00 99.69	N	ATOM	23654	C6	U A1122	223.745	169.899	11.694	1.00118.16	C
ATOM	23605	C8	G A1120	223.005	168.129	3.293	1.00 99.69	C	ATOM	23655	P	A A1123	225.544	172.821	16.475	1.00150.03	P
ATOM	23606	N7	G A1120	223.114	166.954	3.850	1.00 99.69	N	ATOM	23656	O1P	A A1123	225.505	173.408	17.841	1.00111.62	O
ATOM	23607	C5	G A1120	222.123	166.942	4.823	1.00 99.69	C	ATOM	23657	O2P	A A1123	226.299	173.517	15.396	1.00111.62	O
ATOM	23608	C6	G A1120	221.762	165.934	5.759	1.00 99.69	C	ATOM	23658	O5*	A A1123	226.089	171.330	16.610	1.00150.03	O
ATOM	23609	O6	G A1120	222.272	164.820	5.930	1.00 99.69	O	ATOM	23659	C5*	A A1123	225.615	170.476	17.666	1.00150.03	C
ATOM	23610	N1	G A1120	220.695	166.334	6.554	1.00 99.69	N	ATOM	23660	C4*	A A1123	226.492	169.256	17.796	1.00150.03	C
ATOM	23611	C2	G A1120	220.060	167.547	6.468	1.00 99.69	C	ATOM	23661	O4*	A A1123	226.162	168.278	16.777	1.00150.03	O
ATOM	23612	N2	G A1120	219.046	167.747	7.322	1.00 99.69	N	ATOM	23662	C3*	A A1123	227.987	169.474	17.632	1.00150.03	C
ATOM	23613	N3	G A1120	220.392	168.497	5.610	1.00 99.69	N	ATOM	23663	O3*	A A1123	228.604	170.009	18.792	1.00150.03	O
ATOM	23614	C4	G A1120	221.424	168.129	4.824	1.00 99.69	C	ATOM	23664	O2*	A A1123	228.481	168.076	17.287	1.00150.03	O
ATOM	23615	P	U A1121	224.867	172.931	5.716	1.00110.25	P	ATOM	23665	O2*	A A1123	228.634	167.258	18.428	1.00150.03	O
ATOM	23616	O1P	U A1121	225.441	174.293	5.845	1.00117.23	O	ATOM	23666	C1*	A A1123	227.326	167.540	16.439	1.00150.03	C
ATOM	23617	O2P	U A1121	225.760	171.750	5.814	1.00117.23	O	ATOM	23667	N9	A A1123	227.591	167.692	15.007	1.00111.62	N
ATOM	23618	O5*	U A1121	223.733	172.752	6.820	1.00110.25	O	ATOM	23668	C8	A A1123	227.663	168.852	14.271	1.00111.62	C
ATOM	23619	C5*	U A1121	222.715	173.755	7.007	1.00110.25	C	ATOM	23669	N7	A A1123	227.962	168.660	13.009	1.00111.62	N
ATOM	23620	C4*	U A1121	221.854	173.403	8.194	1.00110.25	C	ATOM	23670	C5	A A1123	228.085	167.282	12.902	1.00111.62	C
ATOM	23621	O4*	U A1121	221.098	172.200	7.899	1.00110.25	O	ATOM	23671	C6	A A1123	228.394	166.442	11.819	1.00111.62	C
ATOM	23622	C3*	U A1121	222.632	173.067	9.455	1.00110.25	C	ATOM	23672	N6	A A1123	228.649	166.887	10.587	1.00111.62	N
ATOM	23623	O3*	U A1121	222.995	174.226	10.190	1.00110.25	O	ATOM	23673	N1	A A1123	228.433	165.112	12.047	1.00111.62	N
ATOM	23624	C2*	U A1121	221.684	172.143	10.211	1.00110.25	C	ATOM	23674	C2	A A1123	228.181	164.666	13.283	1.00111.62	C
ATOM	23625	O2*	U A1121	220.723	172.824	10.998	1.00110.25	O	ATOM	23675	N3	A A1123	227.883	165.353	14.381	1.00111.62	N
ATOM	23626	C1*	U A1121	221.008	171.390	9.061	1.00110.25	C	ATOM	23676	C4	A A1123	227.850	166.672	14.121	1.00111.62	C
ATOM	23627	N1	U A1121	221.660	170.098	8.780	1.00117.23	N	ATOM	23677	P	G A1124	229.501	171.338	18.664	1.00140.05	P
ATOM	23628	C2	U A1121	221.156	168.963	9.404	1.00117.23	C	ATOM	23678	O1P	G A1124	229.752	171.842	20.034	1.00135.58	O
ATOM	23629	O2	U A1121	220.183	168.979	10.144	1.00117.23	O	ATOM	23679	O2P	G A1124	228.861	172.228	17.659	1.00135.58	O
ATOM	23630	N3	U A1121	221.836	167.803	9.124	1.00117.23	N	ATOM	23680	O5*	G A1124	230.880	170.831	18.050	1.00140.05	O
ATOM	23631	C4	U A1121	222.933	167.658	8.301	1.00117.23	C	ATOM	23681	C5*	G A1124	231.919	170.262	18.881	1.00140.05	C
ATOM	23632	O4	U A1121	223.458	166.553	8.189	1.00117.23	O	ATOM	23682	O4*	G A1124	232.185	168.839	18.457	1.00140.05	C
ATOM	23633	C5	U A1121	223.382	168.866	7.680	1.00117.23	C	ATOM	23683	C4*	G A1124	231.592	168.634	17.162	1.00140.05	O
ATOM	23634	C6	U A1121	222.749	170.014	7.932	1.00117.23	C	ATOM	23684	C3*	G A1124	233.649	168.438	18.327	1.00140.05	C
ATOM	23635	P	U A1122	224.332	174.209	11.083	1.00101.38	P	ATOM	23685	O3*	G A1124	234.082	167.902	19.585	1.00140.05	O
ATOM	23636	O1P	U A1122	224.519	175.581	11.623	1.00118.16	O	ATOM	23686	C2*	G A1124	233.635	167.370	17.224	1.00140.05	C
ATOM	23637	O2P	U A1122	225.424	173.573	10.291	1.00118.16	O	ATOM	23687	O2*	G A1124	233.517	166.048	17.721	1.00140.05	O
ATOM	23638	O5*	U A1122	223.958	173.251	12.299	1.00101.38	O	ATOM	23688	C1*	G A1124	232.372	167.725	16.424	1.00140.05	C
ATOM	23639	C5*	U A1122	222.829	173.543	13.138	1.00101.38	C	ATOM	23689	N9	G A1124	232.459	168.210	15.047	1.00135.58	N
ATOM	23640	C4*	U A1122	222.548	172.384	14.057	1.00101.38	C	ATOM	23690	C8	G A1124	232.407	169.517	14.622	1.00135.58	C
ATOM	23641	O4*	U A1122	222.073	171.248	13.289	1.00101.38	O	ATOM	23691	N7	G A1124	232.396	169.636	13.321	1.00135.58	N
ATOM	23642	C3*	U A1122	223.752	171.860	14.819	1.00101.38	C	ATOM	23692	C5	G A1124	232.465	168.330	12.856	1.00135.58	C
ATOM	23643	O3*	U A1122	224.023	172.620	15.993	1.00101.38	O	ATOM	23693	C6	A A1124	232.465	167.827	11.531	1.00135.58	C
ATOM	23644	C2*	U A1122	223.361	170.416	15.120	1.00101.38	C	ATOM	23694	O6	G A1124	232.381	168.456	10.468	1.00135.58	O
ATOM	23645	O2*	U A1122	222.564	170.268	16.279	1.00101.38	O	ATOM	23695	N1	G A1124	232.565	166.438	11.513	1.00135.58	N
ATOM	23646	C1*	U A1122	222.551	170.046	13.874	1.00101.38	C	ATOM	23696	C2	G A1124	232.643	165.635	12.626	1.00135.58	C
ATOM	23647	N1	U A1122	223.335	169.304	12.869	1.00118.16	N	ATOM	23697	N2	G A1124	232.744	164.317	12.406	1.00135.58	N



ATOM	23698	N3	G A1124	232.625	166.089	13.865	1.00135.58	N	ATOM	23748	O3*	G A1127	241.814	163.453	8.074	1.00	76.07	O	
ATOM	23699	C4	G A1124	232.535	167.437	13.908	1.00135.58	C	ATOM	23749	C2*	G A1127	240.124	164.733	9.280	1.00	76.07	C	
ATOM	23700	P	U A1125	235.636	167.576	19.840	1.00200.81	P	ATOM	23750	O2*	G A1127	239.576	165.045	8.013	1.00	76.07	O	
ATOM	23701	O1P	U A1125	235.811	167.435	21.305	1.00	71.73	O	ATOM	23751	C1*	G A1127	239.014	164.243	10.208	1.00	76.07	C
ATOM	23702	O2P	U A1125	236.402	168.616	19.109	1.00	71.73	O	ATOM	23752	N9	G A1127	239.129	164.754	11.570	1.00190.04	N	
ATOM	23703	O5*	U A1125	235.866	166.119	19.212	1.00200.81	O	ATOM	23753	C8	G A1127	239.386	164.042	12.717	1.00190.04	C		
ATOM	23704	C5*	U A1125	236.851	165.885	18.170	1.00200.81	C	ATOM	23754	N7	G A1127	239.394	164.784	13.788	1.00190.04	N		
ATOM	23705	C4*	U A1125	237.968	164.971	18.662	1.00200.81	C	ATOM	23755	C5	G A1127	239.133	166.062	13.318	1.00190.04	C		
ATOM	23706	O4*	U A1125	238.391	165.415	19.975	1.00200.81	O	ATOM	23756	C6	G A1127	239.011	167.285	14.014	1.00190.04	C		
ATOM	23707	C3*	U A1125	237.705	163.472	18.828	1.00200.81	C	ATOM	23757	O6	G A1127	239.095	167.492	15.231	1.00190.04	O		
ATOM	23708	O3*	U A1125	237.939	162.768	17.600	1.00200.81	O	ATOM	23758	N1	G A1127	238.757	168.341	13.144	1.00190.04	N		
ATOM	23709	C2*	U A1125	238.752	163.054	19.861	1.00200.81	C	ATOM	23759	C2	G A1127	238.630	168.230	11.780	1.00190.04	C		
ATOM	23710	O2*	U A1125	240.010	162.719	19.313	1.00200.81	O	ATOM	23760	N2	G A1127	238.392	169.363	11.108	1.00190.04	N		
ATOM	23711	C1*	U A1125	238.895	164.315	20.708	1.00200.81	C	ATOM	23761	N3	G A1127	238.730	167.093	11.124	1.00190.04	N		
ATOM	23712	N1	U A1125	238.183	164.210	21.987	1.00	71.73	N	ATOM	23762	C4	G A1127	238.981	166.058	11.949	1.00190.04	C	
ATOM	23713	C2	U A1125	238.851	163.582	23.031	1.00	71.73	C	ATOM	23763	P	C A1128	243.399	163.211	8.138	1.00107.57	P	
ATOM	23714	O2	U A1125	239.975	163.121	22.911	1.00	71.73	O	ATOM	23764	O1P	C A1128	243.665	161.904	7.489	1.00105.46	O	
ATOM	23715	N3	U A1125	238.151	163.515	24.216	1.00	71.73	N	ATOM	23765	O2P	C A1128	243.872	163.442	9.529	1.00105.46	O	
ATOM	23716	C4	U A1125	236.872	164.002	24.461	1.00	71.73	C	ATOM	23766	O5*	C A1128	243.980	164.361	7.204	1.00107.57	O	
ATOM	23717	O4	U A1125	236.378	163.884	25.591	1.00	71.73	O	ATOM	23767	C5*	C A1128	243.318	164.721	5.977	1.00107.57	C	
ATOM	23718	C5	U A1125	236.243	164.631	23.324	1.00	71.73	C	ATOM	23768	C4*	C A1128	243.129	166.219	5.909	1.00107.57	C	
ATOM	23719	C6	U A1125	236.903	164.710	22.155	1.00	71.73	C	ATOM	23769	O4*	C A1128	242.345	166.638	7.053	1.00107.57	O	
ATOM	23720	P	U A1126	237.818	161.154	17.542	1.00168.35	P	ATOM	23770	C3*	C A1128	244.391	167.072	5.968	1.00107.57	C		
ATOM	23721	O1P	U A1126	236.463	160.868	17.002	1.00199.73	O	ATOM	23771	O3*	C A1128	244.923	167.282	4.665	1.00107.57	O		
ATOM	23722	O2P	U A1126	238.221	160.561	18.840	1.00199.73	O	ATOM	23772	C2*	C A1128	243.885	168.386	6.544	1.00107.57	C		
ATOM	23723	O5*	U A1126	238.902	160.723	16.445	1.00168.35	O	ATOM	23773	O2*	C A1128	243.325	169.178	5.515	1.00107.57	O		
ATOM	23724	C5*	U A1126	238.891	159.402	15.847	1.00168.35	C	ATOM	23774	C1*	C A1128	242.784	167.912	7.492	1.00107.57	C		
ATOM	23725	C4*	U A1126	238.462	159.487	14.396	1.00168.35	C	ATOM	23775	N1	C A1128	243.173	167.811	8.915	1.00105.46	N		
ATOM	23726	O4*	U A1126	237.168	160.137	14.340	1.00168.35	O	ATOM	23776	C2	C A1128	243.043	168.941	9.731	1.00105.46	C		
ATOM	23727	C3*	U A1126	239.355	160.308	13.476	1.00168.35	C	ATOM	23777	O2	C A1128	242.687	170.017	9.219	1.00105.46	O		
ATOM	23728	O3*	U A1126	240.352	159.483	12.884	1.00168.35	O	ATOM	23778	N3	C A1128	243.313	168.835	11.057	1.00105.46	N		
ATOM	23729	C2*	U A1126	238.391	160.808	12.404	1.00168.35	C	ATOM	23779	C4	C A1128	243.714	167.668	11.568	1.00105.46	C		
ATOM	23730	O2*	U A1126	238.205	159.877	11.362	1.00168.35	O	ATOM	23780	N4	C A1128	243.935	167.602	12.885	1.00105.46	N		
ATOM	23731	C1*	U A1126	237.084	160.951	13.184	1.00168.35	C	ATOM	23781	C5	C A1128	243.900	166.515	10.751	1.00105.46	C		
ATOM	23732	N1	U A1126	236.750	162.329	13.588	1.00199.73	N	ATOM	23782	C6	C A1128	243.624	166.630	9.444	1.00105.46	C		
ATOM	23733	C2	U A1126	236.071	163.129	12.678	1.00199.73	C	ATOM	23783	P	C A1129	246.291	168.099	4.487	1.00200.93	P		
ATOM	23734	O2	U A1126	235.755	162.750	11.559	1.00199.73	O	ATOM	23784	O1P	C A1129	246.681	167.947	3.074	1.00200.93	O		
ATOM	23735	N3	U A1126	235.776	164.394	13.130	1.00199.73	N	ATOM	23785	O2P	C A1129	247.232	167.678	5.560	1.00200.93	O		
ATOM	23736	C4	U A1126	236.084	164.931	14.365	1.00199.73	C	ATOM	23786	O5*	C A1129	245.872	169.623	4.704	1.00200.93	O		
ATOM	23737	O4	U A1126	235.750	166.085	14.625	1.00199.73	O	ATOM	23787	C5*	C A1129	246.216	170.334	5.915	1.00200.93	C		
ATOM	23738	C5	U A1126	236.787	164.052	15.238	1.00199.73	C	ATOM	23788	C4*	C A1129	246.654	171.747	5.593	1.00200.93	C		
ATOM	23739	C6	U A1126	237.090	162.816	14.831	1.00199.73	C	ATOM	23789	O4*	C A1129	246.842	172.472	6.836	1.00200.93	O		
ATOM	23740	P	G A1127	241.681	160.145	12.264	1.00	76.07	P	ATOM	23790	C3*	C A1129	247.984	171.858	4.860	1.00200.93	C	
ATOM	23741	O1P	G A1127	242.320	159.130	11.386	1.00190.04	O	ATOM	23791	O3*	C A1129	247.843	171.625	3.441	1.00200.93	O		
ATOM	23742	O2P	G A1127	242.451	160.725	13.392	1.00190.04	O	ATOM	23792	C2*	C A1129	248.563	173.199	5.327	1.00200.93	C		
ATOM	23743	O5*	G A1127	241.165	161.342	11.346	1.00	76.07	O	ATOM	23793	O2*	C A1129	248.249	174.347	4.567	1.00200.93	O	
ATOM	23744	C5*	G A1127	240.724	161.099	10.003	1.00	76.07	C	ATOM	23794	C1*	C A1129	247.958	173.342	6.728	1.00200.93	C	
ATOM	23745	O4*	G A1127	240.134	162.353	9.406	1.00	76.07	O	ATOM	23795	N1	C A1129	248.884	173.081	7.852	1.00200.93	N	
ATOM	23746	C4*	G A1127	239.060	162.828	10.250	1.00	76.07	C	ATOM	23796	C2	C A1129	249.857	174.052	8.182	1.00200.93	C	
ATOM	23747	C3*	G A1127	241.072	163.539	9.277	1.00	76.07	C	ATOM	23797	O2	C A1129	249.934	175.095	7.504	1.00200.93	O	



Table 1: Sheet 240/521

ATOM 23798	N3	C A1129	250.685	173.824	9.228	1.00200.93	N	ATOM 23848	P	C A1132	248.997	178.313	4.400	1.00152.49	P
ATOM 23799	C4	C A1129	250.578	172.692	9.932	1.00200.93	C	ATOM 23849	O1P	C A1132	249.871	178.996	3.413	1.00142.40	O
ATOM 23800	N4	C A1129	251.404	172.517	10.961	1.00200.93	N	ATOM 23850	O2P	C A1132	249.083	176.841	4.554	1.00142.40	O
ATOM 23801	C5	C A1129	249.614	171.691	9.612	1.00200.93	C	ATOM 23851	O5*	C A1132	249.242	178.955	5.839	1.00152.49	O
ATOM 23802	C6	C A1129	248.798	171.922	8.576	1.00200.93	C	ATOM 23852	C5*	C A1132	249.388	180.380	6.002	1.00152.49	C
ATOM 23803	P	A A1130	247.212	172.752	2.466	1.00129.65	P	ATOM 23853	C4*	C A1132	249.645	180.724	7.453	1.00152.49	C
ATOM 23804	O1P	A A1130	248.253	173.131	1.468	1.0085.07	O	ATOM 23854	O4*	C A1132	248.490	180.358	8.251	1.00152.49	O
ATOM 23805	O2P	A A1130	246.532	173.812	3.264	1.0085.07	O	ATOM 23855	C3*	C A1132	250.815	180.012	8.119	1.00152.49	C
ATOM 23806	O5*	A A1130	246.057	171.978	1.685	1.00129.65	O	ATOM 23856	O3*	C A1132	252.058	180.664	7.866	1.00152.49	O
ATOM 23807	C5*	A A1130	244.986	171.331	2.411	1.00129.65	C	ATOM 23857	C2*	C A1132	250.440	180.053	9.597	1.00152.49	C
ATOM 23808	C4*	A A1130	243.695	172.101	2.252	1.00129.65	C	ATOM 23858	O2*	C A1132	250.813	181.254	10.241	1.00152.49	O
ATOM 23809	O4*	A A1130	242.747	171.566	3.201	1.00129.65	O	ATOM 23859	C1*	C A1132	248.914	179.948	9.542	1.00152.49	C
ATOM 23810	C3*	A A1130	243.790	173.591	2.565	1.00129.65	C	ATOM 23860	N1	C A1132	248.419	178.580	9.808	1.00142.40	N
ATOM 23811	O3*	A A1130	244.034	174.296	1.345	1.00129.65	O	ATOM 23861	C2	C A1132	248.308	178.150	11.145	1.00142.40	C
ATOM 23812	C2*	A A1130	242.402	173.931	3.099	1.00129.65	C	ATOM 23862	O2	C A1132	248.612	178.933	12.061	1.00142.40	O
ATOM 23813	O2*	A A1130	241.486	174.234	2.071	1.00129.65	O	ATOM 23863	N3	C A1132	247.875	176.896	11.402	1.00142.40	N
ATOM 23814	C1*	A A1130	241.976	172.616	3.749	1.00129.65	C	ATOM 23864	C4	C A1132	247.554	176.083	10.396	1.00142.40	C
ATOM 23815	N9	A A1130	242.072	172.544	5.208	1.0085.07	N	ATOM 23865	N4	C A1132	247.137	174.852	10.701	1.00142.40	N
ATOM 23816	C8	A A1130	242.928	171.764	5.949	1.0085.07	C	ATOM 23866	C5	C A1132	247.648	176.493	9.032	1.00142.40	C
ATOM 23817	N7	A A1130	242.709	171.811	7.241	1.0085.07	N	ATOM 23867	C6	C A1132	248.080	177.736	8.786	1.00142.40	C
ATOM 23818	C5	A A1130	241.655	172.704	7.367	1.0085.07	C	ATOM 23868	P	G A1133	253.437	179.854	8.053	1.00147.89	P
ATOM 23819	C6	A A1130	240.936	173.165	8.486	1.0085.07	C	ATOM 23869	O1P	G A1133	254.511	180.663	7.421	1.00172.29	O
ATOM 23820	N6	A A1130	241.164	172.751	9.734	1.0085.07	N	ATOM 23870	O2P	G A1133	253.224	178.450	7.611	1.00172.29	O
ATOM 23821	N1	A A1130	239.952	174.066	8.272	1.0085.07	N	ATOM 23871	O5*	G A1133	253.672	179.846	9.631	1.00147.89	O
ATOM 23822	C2	A A1130	239.706	174.462	7.010	1.0085.07	C	ATOM 23872	C5*	G A1133	254.222	180.998	10.315	1.00147.89	C
ATOM 23823	N3	A A1130	240.300	174.087	5.874	1.0085.07	N	ATOM 23873	C4*	G A1133	254.490	180.669	11.769	1.00147.89	C
ATOM 23824	C4	A A1130	241.275	173.193	6.124	1.0085.07	C	ATOM 23874	O4*	G A1133	253.232	180.406	12.442	1.00147.89	O
ATOM 23825	P	G A1131	244.986	175.602	1.317	1.00192.48	P	ATOM 23875	C3*	G A1133	255.321	179.417	11.992	1.00147.89	C
ATOM 23826	O1P	G A1131	244.466	176.454	1.209	1.00133.63	O	ATOM 23876	O3*	G A1133	256.710	179.693	11.941	1.00147.89	O
ATOM 23827	O2P	G A1131	246.407	175.180	1.291	1.00133.63	O	ATOM 23877	C2*	G A1133	254.867	178.941	13.365	1.00147.89	C
ATOM 23828	O5*	G A1131	244.703	176.373	2.686	1.00192.48	O	ATOM 23878	O2*	G A1133	255.525	179.591	14.432	1.00147.89	O
ATOM 23829	C5*	G A1131	244.624	177.814	2.704	1.00192.48	C	ATOM 23879	C1*	G A1133	253.388	179.330	13.351	1.00147.89	C
ATOM 23830	C4*	G A1131	245.047	178.359	4.046	1.00192.48	C	ATOM 23880	N9	G A1133	252.543	178.230	12.894	1.00172.29	N
ATOM 23831	O4*	G A1131	244.119	177.911	5.065	1.00192.48	O	ATOM 23881	C8	G A1133	251.900	178.130	11.683	1.00172.29	C
ATOM 23832	C3*	G A1131	246.411	177.938	4.571	1.00192.48	C	ATOM 23882	N7	G A1133	251.233	177.018	11.546	1.00172.29	N
ATOM 23833	O3*	G A1131	247.478	178.714	4.047	1.00192.48	O	ATOM 23883	C5	G A1133	251.443	176.343	12.739	1.00172.29	C
ATOM 23834	C2*	G A1131	246.266	178.147	6.071	1.00192.48	C	ATOM 23884	C6	G A1133	250.975	175.084	13.167	1.00172.29	C
ATOM 23835	O2*	G A1131	246.496	179.482	6.473	1.00192.48	O	ATOM 23885	O6	G A1133	250.261	174.287	12.557	1.00172.29	O
ATOM 23836	C1*	G A1131	244.802	177.773	6.298	1.00192.48	C	ATOM 23886	N1	G A1133	251.423	174.777	14.448	1.00172.29	N
ATOM 23837	N9	G A1131	244.704	176.389	6.742	1.00133.63	N	ATOM 23887	C2	G A1133	252.223	175.584	15.218	1.00172.29	C
ATOM 23838	C8	G A1131	244.883	175.258	5.984	1.00133.63	C	ATOM 23888	N2	G A1133	252.546	175.118	16.429	1.00172.29	N
ATOM 23839	N7	G A1131	244.809	174.159	6.683	1.00133.63	N	ATOM 23889	N3	G A1133	252.672	176.763	14.827	1.00172.29	N
ATOM 23840	C5	G A1131	244.550	174.591	7.977	1.00133.63	C	ATOM 23890	C4	G A1133	252.245	177.079	13.585	1.00172.29	C
ATOM 23841	C6	G A1131	244.382	173.852	9.180	1.00133.63	C	ATOM 23891	P	G A1134	257.718	178.580	11.370	1.00147.14	P
ATOM 23842	O6	G A1131	244.446	172.626	9.351	1.00133.63	O	ATOM 23892	O1P	G A1134	259.039	179.235	11.196	1.00167.85	O
ATOM 23843	N1	G A1131	244.121	174.690	10.259	1.00133.63	N	ATOM 23893	O2P	G A1134	257.067	177.929	10.204	1.00167.85	O
ATOM 23844	C2	G A1131	244.041	176.060	10.196	1.00133.63	C	ATOM 23894	O5*	G A1134	257.832	177.511	12.551	1.00147.14	O
ATOM 23845	N2	G A1131	243.770	176.692	11.347	1.00133.63	N	ATOM 23895	C5*	G A1134	258.437	177.861	13.814	1.00147.14	C
ATOM 23846	N3	G A1131	244.210	176.759	9.086	1.00133.63	N	ATOM 23896	C4*	G A1134	258.215	176.766	14.834	1.00147.14	C
ATOM 23847	C4	G A1131	244.460	175.965	9.024	1.00133.63	C	ATOM 23897	O4*	G A1134	256.786	176.533	14.968	1.00147.14	O



ATOM	23898	C3*	G A1134	258.799	175.395	14.513	1.00147.14	C	ATOM	23948	O2	U A1136	260.695	163.989	19.471	1.00150.19	O
ATOM	23899	O3*	G A1134	260.175	175.267	14.878	1.00147.14	C	ATOM	23949	N3	U A1136	260.338	166.230	19.593	1.00150.19	N
ATOM	23900	C2*	G A1134	257.907	174.465	15.329	1.00147.14	O	ATOM	23950	C4	U A1136	260.414	167.530	19.131	1.00150.19	C
ATOM	23901	O2*	G A1134	258.289	174.375	16.689	1.00147.14	O	ATOM	23951	O4	U A1136	259.958	168.444	19.819	1.00150.19	O
ATOM	23902	C1*	G A1134	256.544	175.154	15.206	1.00147.14	C	ATOM	23952	C5	U A1136	261.066	167.679	17.869	1.00150.19	C
ATOM	23903	N9	G A1134	255.789	174.612	14.074	1.00167.85	N	ATOM	23953	C6	U A1136	261.553	166.606	17.246	1.00150.19	C
ATOM	23904	C8	G A1134	255.450	175.262	12.909	1.00167.85	C	ATOM	23954	P	C A1137	261.289	163.509	12.186	1.00200.31	P
ATOM	23905	N7	G A1134	254.846	174.488	12.047	1.00167.85	N	ATOM	23955	O1P	C A1137	260.557	162.480	11.406	1.00156.32	O
ATOM	23906	C5	G A1134	254.766	173.257	12.684	1.00167.85	C	ATOM	23956	O2P	C A1137	262.695	163.838	11.827	1.00156.32	O
ATOM	23907	C6	G A1134	254.236	172.021	12.232	1.00167.85	C	ATOM	23957	O5*	C A1137	260.437	164.853	12.143	1.00200.31	O
ATOM	23908	O6	G A1134	253.738	171.752	11.135	1.00167.85	O	ATOM	23958	C5*	C A1137	259.058	164.861	12.543	1.00200.31	C
ATOM	23909	N1	G A1134	254.345	171.033	13.203	1.00167.85	N	ATOM	23959	C4*	C A1137	258.201	165.459	11.456	1.00200.31	C
ATOM	23910	C2	G A1134	254.909	171.202	14.443	1.00167.85	C	ATOM	23960	O4*	C A1137	258.556	166.845	11.256	1.00200.31	O
ATOM	23911	N2	G A1134	254.919	170.125	15.240	1.00167.85	N	ATOM	23961	C3*	C A1137	258.286	164.816	10.079	1.00200.31	C
ATOM	23912	N3	G A1134	255.424	172.342	14.871	1.00167.85	N	ATOM	23962	O3*	C A1137	257.371	163.719	10.025	1.00200.31	O
ATOM	23913	C4	G A1134	255.319	173.321	13.946	1.00167.85	C	ATOM	23963	C2*	C A1137	257.856	165.951	9.147	1.00200.31	C
ATOM	23914	P	U A1135	261.187	174.435	13.929	1.00200.32	P	ATOM	23964	O2*	C A1137	256.454	166.028	8.984	1.00200.31	O
ATOM	23915	O1P	U A1135	262.580	174.657	14.402	1.00146.95	O	ATOM	23965	C1*	C A1137	258.322	167.198	9.908	1.00200.31	C
ATOM	23916	O2P	U A1135	260.837	174.743	12.517	1.00146.95	O	ATOM	23966	N1	C A1137	259.514	167.889	9.378	1.00156.32	N
ATOM	23917	O5*	U A1135	260.824	172.903	14.180	1.00200.32	O	ATOM	23967	C2	C A1137	259.333	168.944	8.467	1.00156.32	C
ATOM	23918	C5*	U A1135	261.081	172.260	15.446	1.00200.32	C	ATOM	23968	O2	C A1137	258.181	169.252	8.116	1.00156.32	O
ATOM	23919	C4*	U A1135	260.436	170.893	15.468	1.00200.32	C	ATOM	23969	N3	C A1137	260.417	169.601	7.993	1.00156.32	N
ATOM	23920	O4*	U A1135	259.040	171.064	15.109	1.00200.32	O	ATOM	23970	C4	C A1137	261.641	169.243	8.389	1.00156.32	C
ATOM	23921	C3*	U A1135	260.985	169.886	14.460	1.00200.32	C	ATOM	23971	N4	C A1137	262.679	169.926	7.899	1.00156.32	N
ATOM	23922	O3*	U A1135	262.070	169.134	15.017	1.00200.32	O	ATOM	23972	C5	C A1137	261.855	168.170	9.305	1.00156.32	C
ATOM	23923	C2*	U A1135	259.776	169.004	14.160	1.00200.32	C	ATOM	23973	C6	C A1137	260.774	167.526	9.768	1.00156.32	C
ATOM	23924	O2*	U A1135	259.595	167.971	15.109	1.00200.32	O	ATOM	23974	P	G A1138	257.654	162.462	9.056	1.00150.48	P
ATOM	23925	C1*	U A1135	258.621	170.004	14.268	1.00200.32	C	ATOM	23975	O1P	G A1138	258.911	161.800	9.487	1.00135.68	O
ATOM	23926	N1	U A1135	258.186	170.577	12.981	1.00146.95	N	ATOM	23976	O2P	G A1138	257.519	162.933	7.650	1.00135.68	O
ATOM	23927	C2	U A1135	257.251	169.873	12.232	1.00146.95	C	ATOM	23977	O5*	G A1138	256.444	161.466	9.373	1.00150.48	O
ATOM	23928	O2	U A1135	256.794	168.790	12.577	1.00146.95	O	ATOM	23978	C5*	G A1138	255.112	161.977	9.627	1.00150.48	C
ATOM	23929	N3	U A1135	256.873	170.485	11.058	1.00146.95	N	ATOM	23979	C4*	G A1138	254.353	161.076	10.586	1.00150.48	C
ATOM	23930	C4	U A1135	257.323	171.694	10.564	1.00146.95	C	ATOM	23980	O4*	G A1138	255.203	160.700	11.698	1.00150.48	O
ATOM	23931	O4	U A1135	256.854	172.131	9.514	1.00146.95	O	ATOM	23981	C3*	G A1138	253.135	161.743	11.213	1.00150.48	C
ATOM	23932	C5	U A1135	258.294	172.348	11.381	1.00146.95	C	ATOM	23982	O3*	G A1138	251.978	161.562	10.397	1.00150.48	O
ATOM	23933	C6	U A1135	258.683	171.786	12.530	1.00146.95	C	ATOM	23983	C2*	G A1138	252.994	161.039	12.561	1.00150.48	C
ATOM	23934	P	U A1136	262.983	168.198	14.067	1.00184.10	P	ATOM	23984	O2*	G A1138	252.219	159.861	12.497	1.00150.48	O
ATOM	23935	O1P	U A1136	264.395	168.379	14.487	1.00150.19	O	ATOM	23985	C1*	G A1138	254.447	160.681	12.896	1.00150.48	C
ATOM	23936	O2P	U A1136	262.605	168.431	12.646	1.00150.19	O	ATOM	23986	N9	G A1138	255.116	161.552	13.858	1.00135.68	N
ATOM	23937	O5*	U A1136	262.548	166.712	14.449	1.00184.10	O	ATOM	23987	C8	G A1138	255.609	161.193	15.091	1.00135.68	C
ATOM	23938	C5*	U A1136	263.371	165.571	14.100	1.00184.10	C	ATOM	23988	N7	G A1138	256.211	162.174	15.708	1.00135.68	N
ATOM	23939	C4*	U A1136	262.944	164.361	14.904	1.00184.10	C	ATOM	23989	C5	G A1138	256.101	163.251	14.836	1.00135.68	C
ATOM	23940	O4*	U A1136	263.151	164.656	16.306	1.00184.10	O	ATOM	23990	C6	G A1138	256.576	164.590	14.953	1.00135.68	C
ATOM	23941	C3*	U A1136	261.466	164.016	14.768	1.00184.10	C	ATOM	23991	O6	G A1138	257.220	165.105	15.876	1.00135.68	O
ATOM	23942	O3*	U A1136	261.265	163.054	13.732	1.00184.10	O	ATOM	23992	N1	G A1138	256.234	165.351	13.840	1.00135.68	N
ATOM	23943	C2*	U A1136	261.116	163.418	16.129	1.00184.10	C	ATOM	23993	C2	G A1138	255.532	164.892	12.754	1.00135.68	C
ATOM	23944	O2*	U A1136	261.386	162.032	16.212	1.00184.10	O	ATOM	23994	N2	G A1138	255.293	165.788	11.784	1.00135.68	N
ATOM	23945	C1*	U A1136	262.059	164.180	17.067	1.00184.10	C	ATOM	23995	N3	G A1138	255.095	163.651	12.626	1.00135.68	N
ATOM	23946	N1	U A1136	261.463	165.331	17.768	1.00150.19	N	ATOM	23996	C4	G A1138	255.413	162.889	13.697	1.00135.68	C
ATOM	23947	C2	U A1136	260.824	165.102	18.979	1.00150.19	C	ATOM	23997	P	G A1139	251.702	162.560	9.163	1.00152.97	P



Table 1: Sheet 242/521

ATOM	23998	O1P	G A1139	252.386	161.994	7.971	1.00139.60	O	ATOM	24048	O3*	C A1141	250.024	169.853	21.376	1.00173.20	O
ATOM	23999	O2P	G A1139	252.011	163.947	9.593	1.00139.60	O	ATOM	24049	C2*	C A1141	251.211	170.992	19.570	1.00173.20	C
ATOM	24000	O5*	G A1139	250.129	162.464	8.916	1.00152.97	O	ATOM	24050	O2*	C A1141	251.728	171.835	20.579	1.00173.20	O
ATOM	24001	C5*	G A1139	249.222	162.217	10.007	1.00152.97	C	ATOM	24051	C1*	C A1141	252.351	170.495	18.678	1.00173.20	C
ATOM	24002	C4*	G A1139	249.363	163.298	11.049	1.00152.97	C	ATOM	24052	N1	C A1141	252.006	170.444	17.244	1.00148.00	N
ATOM	24003	O4*	G A1139	249.093	164.588	10.466	1.00152.97	O	ATOM	24053	C2	C A1141	252.191	171.595	16.461	1.00148.00	C
ATOM	24004	C3*	G A1139	248.425	163.216	12.240	1.00152.97	C	ATOM	24054	O2	C A1141	252.619	172.628	16.997	1.00148.00	O
ATOM	24005	C3*	G A1139	249.031	162.300	13.166	1.00152.97	C	ATOM	24055	N3	C A1141	251.898	171.550	15.142	1.00148.00	N
ATOM	24006	C2*	G A1139	248.333	164.670	12.735	1.00152.97	C	ATOM	24056	C4	C A1141	251.435	170.422	14.599	1.00148.00	C
ATOM	24007	O2*	G A1139	249.226	164.973	13.782	1.00152.97	O	ATOM	24057	N4	C A1141	251.169	170.421	13.291	1.00148.00	N
ATOM	24008	C1*	G A1139	248.758	165.477	11.503	1.00152.97	C	ATOM	24058	C5	C A1141	251.226	169.242	15.372	1.00148.00	C
ATOM	24009	N9	G A1139	247.880	166.530	10.997	1.00139.60	N	ATOM	24059	C6	C A1141	251.520	169.297	16.677	1.00148.00	C
ATOM	24010	C8	G A1139	247.317	166.627	9.745	1.00139.60	C	ATOM	24060	P	G A1142	248.438	170.062	21.450	1.00108.65	P
ATOM	24011	N7	G A1139	246.677	167.750	9.557	1.00139.60	N	ATOM	24061	O1P	G A1142	248.039	169.845	22.865	1.00166.20	O
ATOM	24012	C5	G A1139	246.806	168.426	10.765	1.00139.60	C	ATOM	24062	O2P	G A1142	247.805	169.255	20.378	1.00166.20	O
ATOM	24013	C6	G A1139	246.339	169.713	11.162	1.00139.60	C	ATOM	24063	O5*	G A1142	248.239	171.600	21.090	1.00108.65	O
ATOM	24014	O6	G A1139	245.714	170.551	10.495	1.00139.60	O	ATOM	24064	C5*	G A1142	248.654	172.618	22.013	1.00108.65	C
ATOM	24015	N1	G A1139	246.679	169.993	12.481	1.00139.60	N	ATOM	24065	C4*	G A1142	248.617	173.976	21.356	1.00108.65	C
ATOM	24016	C2	G A1139	247.383	169.156	13.311	1.00139.60	C	ATOM	24066	O4*	G A1142	249.552	174.009	20.249	1.00108.65	O
ATOM	24017	N2	G A1139	247.599	169.600	14.555	1.00139.60	N	ATOM	24067	C3*	G A1142	247.286	174.403	20.759	1.00108.65	C
ATOM	24018	N3	G A1139	247.838	167.969	12.951	1.00139.60	N	ATOM	24068	O3*	G A1142	246.443	174.980	21.752	1.00108.65	O
ATOM	24019	C4	G A1139	247.517	167.670	11.674	1.00139.60	C	ATOM	24069	C2*	G A1142	247.709	175.424	19.707	1.00108.65	C
ATOM	24020	P	C A1140	248.626	162.313	14.722	1.00165.10	P	ATOM	24070	O2*	G A1142	247.912	176.716	20.243	1.00108.65	O
ATOM	24021	O1P	C A1140	248.599	160.897	15.177	1.00116.47	O	ATOM	24071	C1*	G A1142	249.049	174.855	19.230	1.00108.65	C
ATOM	24022	O2P	C A1140	247.419	163.164	14.905	1.00116.47	O	ATOM	24072	N9	G A1142	248.940	174.081	17.997	1.00166.20	N
ATOM	24023	O5*	C A1140	249.871	163.033	15.416	1.00165.10	O	ATOM	24073	C8	G A1142	249.080	172.720	17.856	1.00166.20	C
ATOM	24024	C5*	C A1140	250.767	162.303	16.286	1.00165.10	C	ATOM	24074	N7	G A1142	248.910	172.313	16.629	1.00166.20	N
ATOM	24025	C4*	C A1140	251.823	163.222	16.870	1.00165.10	C	ATOM	24075	C5	G A1142	248.642	173.473	15.913	1.00166.20	C
ATOM	24026	O4*	C A1140	252.835	163.543	15.879	1.00165.10	O	ATOM	24076	C6	G A1142	248.362	173.659	14.535	1.00166.20	C
ATOM	24027	C3*	C A1140	251.356	164.575	17.383	1.00165.10	C	ATOM	24077	O6	G A1142	248.292	172.808	13.639	1.00166.20	O
ATOM	24028	O3*	C A1140	250.799	164.518	18.687	1.00165.10	O	ATOM	24078	N1	G A1142	248.150	174.999	14.232	1.00166.20	N
ATOM	24029	C2*	C A1140	252.636	165.401	17.362	1.00165.10	C	ATOM	24079	C2	G A1142	248.198	176.028	15.133	1.00166.20	C
ATOM	24030	O2*	C A1140	253.435	165.196	18.512	1.00165.10	O	ATOM	24080	N2	G A1142	247.965	177.249	14.640	1.00166.20	N
ATOM	24031	C1*	C A1140	253.351	164.843	16.131	1.00165.10	C	ATOM	24081	N3	G A1142	248.455	175.871	16.422	1.00166.20	N
ATOM	24032	N1	C A1140	253.166	165.689	14.930	1.00116.47	N	ATOM	24082	C4	G A1142	248.664	174.574	16.740	1.00166.20	C
ATOM	24033	C2	C A1140	253.946	166.852	14.792	1.00116.47	C	ATOM	24083	P	G A1143	244.861	174.693	21.723	1.00116.49	P
ATOM	24034	O2	C A1140	254.770	167.139	15.676	1.00116.47	O	ATOM	24084	O1P	G A1143	244.255	175.419	22.866	1.00170.08	O
ATOM	24035	N3	C A1140	253.783	167.631	13.700	1.00116.47	N	ATOM	24085	O2P	G A1143	244.657	173.227	21.595	1.00170.08	O
ATOM	24036	C4	C A1140	252.892	167.293	12.767	1.00116.47	C	ATOM	24086	O5*	G A1143	244.364	175.389	20.378	1.00116.49	O
ATOM	24037	N4	C A1140	252.769	168.091	11.705	1.00116.47	N	ATOM	24087	C5*	G A1143	244.671	176.773	20.099	1.00116.49	C
ATOM	24038	C5	C A1140	252.089	166.123	12.880	1.00116.47	C	ATOM	24088	C4*	G A1143	244.549	177.053	18.616	1.00116.49	C
ATOM	24039	C6	C A1140	252.257	165.357	13.966	1.00116.47	C	ATOM	24089	O4*	G A1143	245.531	176.264	17.891	1.00116.49	O
ATOM	24040	P	C A1141	249.784	165.671	19.159	1.00173.20	P	ATOM	24090	C3*	G A1143	243.215	176.680	17.987	1.00116.49	C
ATOM	24041	O1P	C A1141	249.414	165.381	20.569	1.00148.00	O	ATOM	24091	O3*	G A1143	242.242	177.701	18.142	1.00116.49	O
ATOM	24042	O2P	C A1141	248.715	165.798	18.132	1.00148.00	O	ATOM	24092	C2*	G A1143	243.587	176.432	16.530	1.00116.49	C
ATOM	24043	O5*	C A1141	250.666	167.000	19.116	1.00173.20	O	ATOM	24093	O2*	G A1143	243.676	177.622	15.762	1.00116.49	O
ATOM	24044	C5*	C A1141	251.602	167.308	20.171	1.00173.20	C	ATOM	24094	C1*	G A1143	244.972	175.792	16.673	1.00116.49	C
ATOM	24045	C4*	C A1141	251.873	168.796	20.219	1.00173.20	C	ATOM	24095	N9	G A1143	244.909	174.329	16.743	1.00170.08	N
ATOM	24046	O4*	C A1141	252.714	169.193	19.108	1.00173.20	O	ATOM	24096	C8	G A1143	244.940	173.556	17.883	1.00170.08	C
ATOM	24047	C3*	C A1141	250.647	169.686	20.115	1.00173.20	C	ATOM	24097	N7	G A1143	244.853	172.276	17.640	1.00170.08	N



ATOM	24098	C5	G A1143	244.761	172.192	16.258	1.00170.08	C	ATOM	24148	C6	C A1145	235.001	171.392	14.052	1.00121.54	C
ATOM	24099	C6	G A1143	244.645	171.059	15.417	1.00170.08	C	ATOM	24149	P	A A1146	231.689	173.379	10.176	1.00145.70	P
ATOM	24100	O6	G A1143	244.595	169.864	15.736	1.00170.08	O	ATOM	24150	O1P	A A1146	230.492	174.216	9.881	1.00 84.01	O
ATOM	24101	N1	G A1143	244.583	171.422	14.075	1.00170.08	N	ATOM	24151	O2P	A A1146	231.511	172.013	10.754	1.00 84.01	O
ATOM	24102	C2	G A1143	244.628	172.710	13.601	1.00170.08	C	ATOM	24152	O5*	A A1146	232.598	173.297	8.865	1.00145.70	O
ATOM	24103	N2	G A1143	244.560	172.851	12.271	1.00170.08	N	ATOM	24153	C5*	A A1146	232.920	174.491	8.117	1.00145.70	C
ATOM	24104	N3	G A1143	244.734	173.779	14.375	1.00170.08	N	ATOM	24154	C4*	A A1146	233.898	174.196	6.991	1.00145.70	C
ATOM	24105	C4	G A1143	244.796	173.449	15.684	1.00170.08	C	ATOM	24155	O4*	A A1146	235.276	174.312	7.428	1.00145.70	O
ATOM	24106	P	G A1144	240.686	177.308	18.196	1.00146.71	P	ATOM	24156	C3*	A A1146	233.852	172.841	6.307	1.00145.70	C
ATOM	24107	O1P	G A1144	239.916	178.549	18.472	1.00185.05	O	ATOM	24157	O3*	A A1146	232.785	172.711	5.383	1.00145.70	O
ATOM	24108	O2P	G A1144	240.531	176.130	19.091	1.00185.05	O	ATOM	24158	C2*	A A1146	235.200	172.790	5.592	1.00145.70	C
ATOM	24109	O5*	G A1144	240.370	176.847	16.706	1.00146.71	O	ATOM	24159	O2*	A A1146	235.197	173.430	4.332	1.00145.70	O
ATOM	24110	C5*	G A1144	240.456	177.780	15.610	1.00146.71	C	ATOM	24160	C1*	A A1146	236.105	173.565	6.550	1.00145.70	C
ATOM	24111	C4*	G A1144	240.138	177.087	14.304	1.00146.71	C	ATOM	24161	N9	A A1146	236.971	172.676	7.326	1.00 84.01	N
ATOM	24112	O4*	G A1144	241.216	176.183	13.950	1.00146.71	O	ATOM	24162	C8	A A1146	237.044	172.504	8.690	1.00 84.01	C
ATOM	24113	C3*	G A1144	238.899	176.210	14.319	1.00146.71	C	ATOM	24163	N7	A A1146	237.915	171.596	9.066	1.00 84.01	N
ATOM	24114	O3*	G A1144	237.712	176.951	14.124	1.00146.71	O	ATOM	24164	C5	A A1146	238.460	171.140	7.869	1.00 84.01	C
ATOM	24115	C2*	G A1144	239.175	175.223	13.193	1.00146.71	C	ATOM	24165	C6	A A1146	239.441	170.159	7.576	1.00 84.01	C
ATOM	24116	O2*	G A1144	238.877	175.737	11.909	1.00146.71	O	ATOM	24166	N6	A A1146	240.056	169.415	8.504	1.00 84.01	N
ATOM	24117	C1*	G A1144	240.683	175.023	13.334	1.00146.71	C	ATOM	24167	N1	A A1146	239.761	169.965	6.275	1.00 84.01	N
ATOM	24118	N9	G A1144	240.986	173.876	14.184	1.00185.05	N	ATOM	24168	C2	A A1146	239.131	170.694	5.340	1.00 84.01	C
ATOM	24119	C8	G A1144	241.213	173.877	15.541	1.00185.05	C	ATOM	24169	N3	A A1146	238.192	171.629	5.486	1.00 84.01	N
ATOM	24120	N7	G A1144	241.439	172.686	16.023	1.00185.05	N	ATOM	24170	C4	A A1146	237.897	171.807	6.789	1.00 84.01	C
ATOM	24121	C5	G A1144	241.359	171.850	14.918	1.00185.05	C	ATOM	24171	P	C A1147	232.133	171.264	5.132	1.00112.90	P
ATOM	24122	C6	G A1144	241.514	170.445	14.817	1.00185.05	C	ATOM	24172	O1P	C A1147	231.167	171.401	4.014	1.00 78.84	O
ATOM	24123	O6	G A1144	241.764	169.630	15.713	1.00185.05	O	ATOM	24173	O2P	C A1147	231.677	170.726	6.447	1.00 78.84	O
ATOM	24124	N1	G A1144	241.349	170.008	13.506	1.00185.05	N	ATOM	24174	O5*	C A1147	233.359	170.365	4.653	1.00112.90	O
ATOM	24125	C2	G A1144	241.069	170.820	12.432	1.00185.05	C	ATOM	24175	C5*	C A1147	233.955	170.540	3.351	1.00112.90	C
ATOM	24126	N2	G A1144	240.935	170.217	11.248	1.00185.05	N	ATOM	24176	C4*	C A1147	235.001	169.474	3.114	1.00112.90	C
ATOM	24127	N3	G A1144	240.927	172.128	12.515	1.00185.05	N	ATOM	24177	O4*	C A1147	236.126	169.692	4.001	1.00112.90	O
ATOM	24128	C4	G A1144	241.083	172.572	13.777	1.00185.05	C	ATOM	24178	C3*	C A1147	234.542	168.053	3.403	1.00112.90	C
ATOM	24129	P	C A1145	236.351	176.461	14.823	1.00121.83	P	ATOM	24179	O3*	C A1147	233.873	167.492	2.275	1.00112.90	O
ATOM	24130	O1P	C A1145	235.968	177.483	15.826	1.00121.54	O	ATOM	24180	C2*	C A1147	235.840	167.334	3.764	1.00112.90	C
ATOM	24131	O2P	C A1145	236.500	175.040	15.251	1.00121.54	O	ATOM	24181	O2*	C A1147	236.579	166.858	2.657	1.00112.90	O
ATOM	24132	O5*	C A1145	235.306	176.554	13.627	1.00121.83	O	ATOM	24182	C1*	C A1147	236.634	168.447	4.451	1.00112.90	C
ATOM	24133	C5*	C A1145	234.295	175.556	13.448	1.00121.83	C	ATOM	24183	N1	C A1147	236.531	168.408	5.921	1.00 78.84	N
ATOM	24134	C4*	C A1145	234.631	174.677	12.264	1.00121.83	C	ATOM	24184	C2	C A1147	237.459	167.640	6.658	1.00 78.84	C
ATOM	24135	O4*	C A1145	235.862	173.955	12.510	1.00121.83	O	ATOM	24185	O2	C A1147	238.341	167.007	6.052	1.00 78.84	O
ATOM	24136	C3*	C A1145	233.588	173.616	11.979	1.00121.83	C	ATOM	24186	N3	C A1147	237.365	167.611	8.010	1.00 78.84	N
ATOM	24137	O3*	C A1145	232.590	174.243	11.176	1.00121.83	O	ATOM	24187	C4	C A1147	236.398	168.301	8.626	1.00 78.84	C
ATOM	24138	C3*	C A1145	234.398	172.495	11.324	1.00121.83	C	ATOM	24188	N4	C A1147	236.336	168.244	9.955	1.00 78.84	N
ATOM	24139	O2*	C A1145	234.629	172.696	9.950	1.00121.83	O	ATOM	24189	C5	C A1147	235.446	169.083	7.903	1.00 78.84	C
ATOM	24140	C1*	C A1145	235.747	172.628	12.034	1.00121.83	C	ATOM	24190	C6	C A1147	235.548	169.107	6.569	1.00 78.84	C
ATOM	24141	N1	C A1145	235.997	171.731	13.177	1.00121.54	N	ATOM	24191	P	U A1148	232.810	166.304	2.483	1.00 90.10	P
ATOM	24142	C2	C A1145	237.298	171.252	13.372	1.00121.54	C	ATOM	24192	O1P	U A1148	232.298	165.958	1.131	1.00 94.26	O
ATOM	24143	O2	C A1145	238.180	171.558	12.553	1.00121.54	O	ATOM	24193	O2P	U A1148	231.849	166.680	3.554	1.00 94.26	O
ATOM	24144	N3	C A1145	237.565	170.473	14.444	1.00121.54	N	ATOM	24194	O5*	U A1148	233.707	165.107	3.033	1.00 90.10	O
ATOM	24145	C4	C A1145	236.592	170.164	15.302	1.00121.54	C	ATOM	24195	C5*	U A1148	234.653	164.451	2.173	1.00 90.10	C
ATOM	24146	N4	C A1145	236.909	169.403	16.355	1.00121.54	N	ATOM	24196	C4*	U A1148	235.321	163.303	2.890	1.00 90.10	C
ATOM	24147	C5	C A1145	235.254	170.623	15.121	1.00121.54	C	ATOM	24197	O4*	U A1148	236.276	163.797	3.861	1.00 90.10	O



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ATOM	24198	C3*	U A1148	234.429	162.373	3.695	1.00	90.10	C	ATOM	24248	O4	U A1150	228.632	163.218	9.177	1.00	76.89	O
ATOM	24199	O3*	U A1148	233.776	161.398	2.909	1.00	90.10	O	ATOM	24249	C5	U A1150	229.534	161.040	9.459	1.00	76.89	C
ATOM	24200	C2*	U A1148	235.414	161.717	4.651	1.00	90.10	C	ATOM	24250	C6	U A1150	229.983	160.149	10.353	1.00	76.89	C
ATOM	24201	O2*	U A1148	236.075	160.597	4.092	1.00	90.10	O	ATOM	24251	P	A A1151	227.919	155.305	12.554	1.00	74.28	P
ATOM	24202	C1*	U A1148	236.403	162.853	4.913	1.00	90.10	C	ATOM	24252	O1P	A A1151	227.815	154.016	13.310	1.00	80.16	O
ATOM	24203	N1	U A1148	236.126	163.501	6.204	1.00	94.26	N	ATOM	24253	O2P	A A1151	227.786	155.316	11.076	1.00	80.16	O
ATOM	24204	C2	U A1148	236.647	162.893	7.340	1.00	94.26	C	ATOM	24254	O5*	A A1151	226.827	156.310	13.119	1.00	74.28	O
ATOM	24205	O2	U A1148	237.342	161.889	7.299	1.00	94.26	O	ATOM	24255	C5*	A A1151	226.751	156.575	14.520	1.00	74.28	C
ATOM	24206	N3	U A1148	236.323	163.500	8.524	1.00	94.26	N	ATOM	24256	C4*	A A1151	225.611	157.508	14.808	1.00	74.28	C
ATOM	24207	C4	U A1148	235.553	164.625	8.695	1.00	94.26	C	ATOM	24257	O4*	A A1151	225.903	158.834	14.276	1.00	74.28	O
ATOM	24208	O4	U A1148	235.281	164.994	9.837	1.00	94.26	O	ATOM	24258	C3*	A A1151	224.249	157.105	14.248	1.00	74.28	C
ATOM	24209	C5	U A1148	235.068	165.213	7.478	1.00	94.26	C	ATOM	24259	O3*	A A1151	223.279	157.332	15.262	1.00	74.28	O
ATOM	24210	C6	U A1148	235.364	164.647	6.304	1.00	94.26	C	ATOM	24260	C2*	A A1151	224.058	158.068	13.072	1.00	74.28	C
ATOM	24211	P	C A1149	232.328	160.870	3.353	1.00	70.51	P	ATOM	24261	O2*	A A1151	222.714	158.377	12.781	1.00	74.28	O
ATOM	24212	O1P	C A1149	231.986	159.739	2.446	1.00	98.91	O	ATOM	24262	C1*	A A1151	224.768	159.312	13.592	1.00	74.28	C
ATOM	24213	O2P	C A1149	231.432	162.050	3.418	1.00	98.91	O	ATOM	24263	N9	A A1151	225.181	160.298	12.595	1.00	80.16	N
ATOM	24214	O5*	C A1149	232.532	160.316	4.837	1.00	70.51	O	ATOM	24264	C8	A A1151	225.858	160.125	11.410	1.00	80.16	C
ATOM	24215	C5*	C A1149	233.385	159.190	5.096	1.00	70.51	C	ATOM	24265	N7	A A1151	226.065	161.243	10.750	1.00	80.16	N
ATOM	24216	C4*	C A1149	233.755	159.142	6.559	1.00	70.51	C	ATOM	24266	C5	A A1151	225.487	162.217	11.554	1.00	80.16	C
ATOM	24217	O4*	C A1149	234.271	160.440	6.934	1.00	70.51	O	ATOM	24267	C6	A A1151	225.366	163.614	11.417	1.00	80.16	C
ATOM	24218	C3*	C A1149	232.625	158.874	7.546	1.00	70.51	C	ATOM	24268	N6	A A1151	225.850	164.302	10.385	1.00	80.16	N
ATOM	24219	O3*	C A1149	232.448	157.471	7.749	1.00	70.51	O	ATOM	24269	N1	A A1151	224.723	164.288	12.395	1.00	80.16	N
ATOM	24220	C2*	C A1149	233.121	159.551	8.820	1.00	70.51	C	ATOM	24270	C2	A A1151	224.240	163.599	13.441	1.00	80.16	C
ATOM	24221	O2*	C A1149	234.022	158.740	9.540	1.00	70.51	O	ATOM	24271	N3	A A1151	224.294	162.291	13.687	1.00	80.16	N
ATOM	24222	C1*	C A1149	233.880	160.754	8.260	1.00	70.51	C	ATOM	24272	C4	A A1151	224.938	161.649	12.693	1.00	80.16	C
ATOM	24223	N1	C A1149	233.105	162.014	8.231	1.00	98.91	N	ATOM	24273	P	A A1152	221.805	156.730	15.108	1.00	79.79	P
ATOM	24224	C2	C A1149	232.807	162.666	9.444	1.00	98.91	C	ATOM	24274	O1P	A A1152	221.404	156.271	16.457	1.00	99.25	O
ATOM	24225	O2	C A1149	233.186	162.162	10.516	1.00	98.91	O	ATOM	24275	O2P	A A1152	221.797	155.765	13.981	1.00	99.25	O
ATOM	24226	N3	C A1149	232.111	163.828	9.411	1.00	98.91	N	ATOM	24276	O5*	A A1152	220.927	158.004	14.695	1.00	79.79	O
ATOM	24227	C4	C A1149	231.714	164.339	8.240	1.00	98.91	C	ATOM	24277	C5*	A A1152	220.242	158.778	15.700	1.00	79.79	C
ATOM	24228	N4	C A1149	231.034	165.489	8.254	1.00	98.91	N	ATOM	24278	C4*	A A1152	219.716	160.096	15.146	1.00	79.79	C
ATOM	24229	C5	C A1149	231.997	163.697	7.000	1.00	98.91	C	ATOM	24279	O4*	A A1152	220.804	160.927	14.676	1.00	79.79	O
ATOM	24230	C6	C A1149	232.685	162.549	7.041	1.00	98.91	C	ATOM	24280	C3*	A A1152	218.744	160.132	13.973	1.00	79.79	C
ATOM	24231	P	U A1150	231.003	156.894	8.156	1.00	94.96	P	ATOM	24281	O3*	A A1152	217.397	159.852	14.355	1.00	79.79	O
ATOM	24232	O1P	U A1150	231.105	155.413	8.093	1.00	76.89	O	ATOM	24282	C2*	A A1152	218.824	161.596	13.543	1.00	79.79	C
ATOM	24233	O2P	U A1150	229.964	157.604	7.367	1.00	76.89	O	ATOM	24283	O2*	A A1152	217.979	162.421	14.314	1.00	79.79	O
ATOM	24234	O5*	U A1150	230.821	157.303	9.679	1.00	94.96	O	ATOM	24284	C1*	A A1152	220.263	161.966	13.888	1.00	79.79	C
ATOM	24235	C5*	U A1150	231.547	156.634	10.721	1.00	94.96	C	ATOM	24285	N9	A A1152	221.079	162.175	12.699	1.00	99.25	N
ATOM	24236	C4*	U A1150	231.185	157.239	12.049	1.00	94.96	C	ATOM	24286	C8	A A1152	222.432	161.791	10.953	1.00	99.25	N
ATOM	24237	O4*	U A1150	231.535	158.646	12.016	1.00	94.96	O	ATOM	24287	N7	A A1152	222.041	163.122	10.966	1.00	99.25	C
ATOM	24238	C3*	U A1150	229.695	157.219	12.339	1.00	94.96	C	ATOM	24288	C5	A A1152	222.328	164.208	10.111	1.00	99.25	C
ATOM	24239	O3*	U A1150	229.316	155.995	12.954	1.00	94.96	O	ATOM	24289	C6	A A1152	223.104	164.115	9.031	1.00	99.25	N
ATOM	24240	C2*	U A1150	229.498	158.437	13.234	1.00	94.96	C	ATOM	24290	N6	A A1152	221.778	165.404	10.408	1.00	99.25	N
ATOM	24241	O2*	U A1150	229.817	158.173	14.583	1.00	94.96	O	ATOM	24291	C1	A A1152	220.991	165.494	11.485	1.00	99.25	C
ATOM	24242	C1*	U A1150	230.533	159.410	12.664	1.00	94.96	C	ATOM	24292	N2	A A1152	220.643	164.549	12.358	1.00	99.25	N
ATOM	24243	N1	U A1150	230.004	160.398	11.705	1.00	76.89	N	ATOM	24293	N3	A A1152	221.210	163.373	12.037	1.00	99.25	C
ATOM	24244	C2	U A1150	229.534	161.601	12.206	1.00	76.89	C	ATOM	24294	C4	A A1152	216.250	159.711	13.223	1.00	86.58	P
ATOM	24245	O2	U A1150	229.512	161.861	13.395	1.00	76.89	O	ATOM	24295	P	C A1153	214.979	159.388	13.924	1.00	107.72	O
ATOM	24246	N3	U A1150	229.086	162.492	11.260	1.00	76.89	N	ATOM	24296	O1P	C A1153	216.752	158.802	12.161	1.00	107.72	O
ATOM	24247	C4	U A1150	229.049	162.311	9.900	1.00	76.89	C	ATOM	24297	O2P	C A1153						



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ATOM	24298	O5*	C Al153	216.105	161.170	12.585	1.00	86.58	O	ATOM	24348	O2*	G Al155	214.643	168.890	-0.490	1.00	87.75	O
ATOM	24299	C5*	C Al153	215.421	162.226	13.289	1.00	86.58	C	ATOM	24349	Cl*	G Al155	215.288	167.497	1.345	1.00	87.75	C
ATOM	24300	C4*	C Al153	215.537	163.532	12.534	1.00	86.58	C	ATOM	24350	N8	G Al155	215.866	166.165	1.523	1.00	89.18	N
ATOM	24301	O4*	C Al153	216.935	163.887	12.354	1.00	86.58	O	ATOM	24351	C9	G Al155	215.668	165.293	2.569	1.00	89.18	C
ATOM	24302	C3*	C Al153	214.973	163.550	11.124	1.00	86.58	C	ATOM	24352	N7	G Al155	216.353	164.186	2.452	1.00	89.18	N
ATOM	24303	O3*	C Al153	213.576	163.778	11.108	1.00	86.58	O	ATOM	24353	C5	G Al155	217.040	164.330	1.254	1.00	89.18	C
ATOM	24304	C2*	C Al153	215.726	164.700	10.462	1.00	86.58	C	ATOM	24354	O6	G Al155	217.943	163.456	0.604	1.00	89.18	C
ATOM	24305	O2*	C Al153	215.146	165.967	10.688	1.00	86.58	C	ATOM	24355	C6	G Al155	218.336	162.345	0.974	1.00	89.18	O
ATOM	24306	Cl*	C Al153	217.092	164.1613	11.142	1.00	86.58	C	ATOM	24356	N1	G Al155	218.403	163.993	-0.595	1.00	89.18	N
ATOM	24307	N1	C Al153	218.078	163.936	10.278	1.00	107.72	N	ATOM	24357	C2	G Al155	218.043	165.217	-1.102	1.00	89.18	C
ATOM	24308	C2	C Al153	218.789	164.704	9.341	1.00	107.72	C	ATOM	24358	N2	G Al155	218.597	165.564	-2.268	1.00	89.18	N
ATOM	24309	O2	C Al153	218.605	165.929	9.301	1.00	107.72	O	ATOM	24359	N3	G Al155	217.204	166.043	-0.507	1.00	89.18	N
ATOM	24310	N3	C Al153	219.658	164.091	8.507	1.00	107.72	N	ATOM	24360	C4	G Al155	216.745	165.540	0.661	1.00	89.18	C
ATOM	24311	C4	C Al153	219.841	162.772	8.587	1.00	107.72	C	ATOM	24361	P	G Al156	211.097	167.373	-1.058	1.00	103.90	P
ATOM	24312	N4	C Al153	220.704	162.209	7.736	1.00	107.72	N	ATOM	24362	O1P	G Al156	210.304	168.344	-1.869	1.00	68.99	O
ATOM	24313	C5	C Al153	219.148	161.969	9.543	1.00	107.72	C	ATOM	24363	O2P	G Al156	210.393	166.363	-0.207	1.00	68.99	O
ATOM	24314	C6	C Al153	218.287	162.586	10.362	1.00	107.72	C	ATOM	24364	O5*	G Al156	212.098	166.615	-2.043	1.00	103.90	O
ATOM	24315	P	G Al154	212.751	163.519	9.755	1.00	100.03	P	ATOM	24365	C5*	G Al156	212.720	167.309	-3.150	1.00	103.90	C
ATOM	24316	O1P	G Al154	211.315	163.771	10.057	1.00	122.79	O	ATOM	24366	C4*	G Al156	213.537	166.350	-3.990	1.00	103.90	C
ATOM	24317	O2P	G Al154	213.168	162.200	9.213	1.00	122.79	O	ATOM	24367	O4*	G Al156	214.706	165.912	-3.250	1.00	103.90	O
ATOM	24318	O5*	G Al154	213.269	164.651	8.759	1.00	100.03	O	ATOM	24368	O3*	G Al156	212.838	165.064	-4.387	1.00	103.90	C
ATOM	24319	C5*	G Al154	212.856	166.011	8.930	1.00	100.03	C	ATOM	24369	C3*	G Al156	211.999	165.232	-5.517	1.00	103.90	C
ATOM	24320	C4*	G Al154	213.504	166.900	7.899	1.00	100.03	C	ATOM	24370	C2*	G Al156	214.005	164.124	-4.641	1.00	103.90	C
ATOM	24321	O4*	G Al154	214.944	166.895	8.073	1.00	100.03	O	ATOM	24371	O2*	G Al156	214.594	164.339	-5.908	1.00	103.90	O
ATOM	24322	C3*	G Al154	213.313	166.525	6.439	1.00	100.03	C	ATOM	24372	Cl*	G Al156	214.985	164.557	-3.552	1.00	103.90	C
ATOM	24323	O3*	G Al154	212.056	166.926	5.918	1.00	100.03	O	ATOM	24373	N9	G Al156	214.813	163.783	-2.326	1.00	68.99	N
ATOM	24324	C2*	G Al154	214.473	167.246	5.765	1.00	100.03	C	ATOM	24374	C8	G Al156	213.906	164.028	-1.323	1.00	68.99	C
ATOM	24325	O2*	G Al154	214.225	168.616	5.514	1.00	100.03	O	ATOM	24375	N7	G Al156	213.969	163.162	-0.349	1.00	68.99	N
ATOM	24326	Cl*	G Al154	215.572	167.104	6.817	1.00	100.03	C	ATOM	24376	C5	G Al156	214.977	162.289	-0.728	1.00	68.99	C
ATOM	24327	N9	G Al154	216.415	165.955	6.504	1.00	122.79	N	ATOM	24377	C6	G Al156	215.488	161.142	-0.070	1.00	68.99	C
ATOM	24328	C8	G Al154	216.452	164.734	7.134	1.00	122.79	C	ATOM	24378	O6	G Al156	215.133	160.653	1.007	1.00	68.99	O
ATOM	24329	N7	G Al154	217.278	163.894	6.572	1.00	122.79	N	ATOM	24379	N1	G Al156	216.516	160.548	-0.798	1.00	68.99	N
ATOM	24330	C5	G Al154	217.826	164.606	5.514	1.00	122.79	C	ATOM	24380	C2	G Al156	216.990	160.998	-2.011	1.00	68.99	C
ATOM	24331	C6	G Al154	218.772	164.216	4.531	1.00	122.79	C	ATOM	24381	N2	G Al156	217.998	160.291	-2.552	1.00	68.99	N
ATOM	24332	O6	G Al154	219.325	163.118	4.384	1.00	122.79	O	ATOM	24382	N3	G Al156	216.513	162.064	-2.643	1.00	68.99	N
ATOM	24333	N1	G Al154	219.054	165.259	3.651	1.00	122.79	N	ATOM	24383	C4	G Al156	215.515	162.659	-1.946	1.00	68.99	C
ATOM	24334	C2	G Al154	218.491	166.510	3.702	1.00	122.79	C	ATOM	24384	P	A Al157	210.478	164.713	-5.451	1.00	84.73	P
ATOM	24335	N2	G Al154	218.894	167.383	2.772	1.00	122.79	N	ATOM	24385	O1P	A Al157	209.613	165.877	-5.789	1.00	96.70	O
ATOM	24336	N3	G Al154	217.599	166.879	4.601	1.00	122.79	N	ATOM	24386	O2P	A Al157	210.378	163.986	-4.159	1.00	96.70	O
ATOM	24337	C4	G Al154	217.316	165.885	5.470	1.00	122.79	C	ATOM	24387	O5*	A Al157	210.271	163.643	-6.630	1.00	84.73	O
ATOM	24338	P	G Al155	211.376	166.057	4.748	1.00	87.75	P	ATOM	24388	C5*	A Al157	209.213	162.781	-6.766	1.00	84.73	C
ATOM	24339	O1P	G Al155	209.950	166.481	4.651	1.00	89.18	O	ATOM	24389	C4*	A Al157	209.643	161.392	-7.182	1.00	84.73	C
ATOM	24340	O2P	G Al155	211.704	164.622	4.992	1.00	89.18	O	ATOM	24390	O4*	A Al157	210.418	161.500	-8.398	1.00	84.73	O
ATOM	24341	O5*	G Al155	212.121	166.546	3.426	1.00	87.75	O	ATOM	24391	C3*	A Al157	210.522	160.647	-6.179	1.00	84.73	C
ATOM	24342	C5*	G Al155	212.149	167.939	3.101	1.00	87.75	C	ATOM	24392	O3*	A Al157	210.286	159.240	-6.286	1.00	84.73	O
ATOM	24343	C4*	G Al155	213.177	168.226	2.036	1.00	87.75	C	ATOM	24393	C2*	A Al157	211.931	160.924	-6.692	1.00	84.73	C
ATOM	24344	O4*	G Al155	214.498	167.825	2.475	1.00	87.75	O	ATOM	24394	O2*	A Al157	212.859	159.924	-6.322	1.00	84.73	O
ATOM	24345	C3*	G Al155	213.008	167.533	0.702	1.00	87.75	C	ATOM	24395	Cl*	A Al157	211.699	160.951	-8.202	1.00	84.73	C
ATOM	24346	O3*	G Al155	212.069	168.215	-0.104	1.00	87.75	O	ATOM	24396	N9	A Al157	212.649	161.752	-8.970	1.00	96.70	N
ATOM	24347	C2*	G Al155	214.406	167.630	0.104	1.00	87.75	C	ATOM	24397	C8	A Al157	212.633	163.109	-9.178	1.00	96.70	C



Table 1: Sheet 246/521

ATOM	24398	N7	A A1157	213.601	163.538	-9.949	1.00	96.70	N	ATOM	24448	O2P	G A1160	201.878	162.748	-14.185	1.00	95.78	O
ATOM	24399	C5	A A1157	214.308	162.388	-10.263	1.00	96.70	C	ATOM	24449	O5*	G A1160	203.826	163.397	-12.758	1.00	93.50	O
ATOM	24400	C6	A A1157	215.444	162.174	-11.044	1.00	96.70	C	ATOM	24450	C5*	G A1160	203.165	164.442	-12.035	1.00	93.50	C
ATOM	24401	N6	A A1157	216.095	163.151	-11.679	1.00	96.70	N	ATOM	24451	C4*	G A1160	204.015	165.693	-12.035	1.00	93.50	C
ATOM	24402	N1	A A1157	215.899	160.908	-11.152	1.00	96.70	N	ATOM	24452	O4*	G A1160	205.288	165.406	-11.394	1.00	93.50	O
ATOM	24403	C2	A A1157	215.244	159.932	-10.511	1.00	96.70	C	ATOM	24453	C3*	G A1160	204.402	166.242	-13.403	1.00	93.50	C
ATOM	24404	N3	A A1157	214.163	160.009	-9.748	1.00	96.70	N	ATOM	24454	O3*	G A1160	203.402	167.063	-13.991	1.00	93.50	O
ATOM	24405	C4	A A1157	213.739	161.281	-9.662	1.00	96.70	C	ATOM	24455	C2*	G A1160	205.675	167.022	-13.101	1.00	93.50	C
ATOM	24406	P	C A1158	208.867	158.619	-5.849	1.00	84.80	P	ATOM	24456	O2*	G A1160	205.443	168.321	-12.594	1.00	93.50	O
ATOM	24407	O1P	C A1158	208.450	159.284	-4.584	1.00	91.07	O	ATOM	24457	C1*	G A1160	206.320	166.152	-12.024	1.00	93.50	C
ATOM	24408	O2P	C A1158	209.014	157.137	-5.887	1.00	91.07	O	ATOM	24458	N9	G A1160	207.277	165.220	-12.617	1.00	95.78	N
ATOM	24409	O5*	C A1158	207.866	159.059	-7.015	1.00	84.80	O	ATOM	24459	C8	G A1160	207.201	163.847	-12.643	1.00	95.78	C
ATOM	24410	C5*	C A1158	206.443	158.993	-6.816	1.00	84.80	C	ATOM	24460	N7	G A1160	208.193	163.291	-13.287	1.00	95.78	N
ATOM	24411	C4*	C A1158	205.711	159.912	-7.777	1.00	84.80	C	ATOM	24461	C5	G A1160	208.975	164.359	-13.709	1.00	95.78	C
ATOM	24412	O4*	C A1158	206.292	161.236	-7.752	1.00	84.80	O	ATOM	24462	C6	G A1160	210.171	164.377	-14.467	1.00	95.78	C
ATOM	24413	C3*	C A1158	205.690	159.541	-9.254	1.00	84.80	C	ATOM	24463	O6	G A1160	210.786	163.428	-14.947	1.00	95.78	O
ATOM	24414	O3*	C A1158	204.630	158.603	-9.473	1.00	84.80	O	ATOM	24464	N1	G A1160	210.638	165.672	-14.659	1.00	95.78	N
ATOM	24415	C2*	C A1158	205.399	160.880	-9.949	1.00	84.80	C	ATOM	24465	C2	G A1160	210.027	166.808	-14.195	1.00	95.78	C
ATOM	24416	O2*	C A1158	204.026	161.134	-10.169	1.00	84.80	O	ATOM	24466	N2	G A1160	210.637	167.966	-14.479	1.00	95.78	N
ATOM	24417	C1*	C A1158	205.945	161.906	-8.945	1.00	84.80	C	ATOM	24467	N3	G A1160	208.902	166.809	-13.501	1.00	95.78	N
ATOM	24418	N1	C A1158	207.079	162.742	-9.371	1.00	91.07	N	ATOM	24468	C4	G A1160	208.434	165.557	-13.294	1.00	95.78	C
ATOM	24419	C2	C A1158	208.230	162.144	-9.884	1.00	91.07	C	ATOM	24469	P	C A1161	203.352	167.225	-15.591	1.00	109.50	P
ATOM	24420	O2	C A1158	208.279	160.915	-9.981	1.00	91.07	O	ATOM	24470	O1P	C A1161	202.221	168.132	-15.907	1.00	131.11	O
ATOM	24421	N3	C A1158	209.268	162.921	-10.255	1.00	91.07	N	ATOM	24471	O2P	C A1161	203.397	165.870	-16.197	1.00	131.11	O
ATOM	24422	C4	C A1158	209.192	164.242	-10.124	1.00	91.07	C	ATOM	24472	O5*	C A1161	204.711	167.978	-15.950	1.00	109.50	C
ATOM	24423	N4	C A1158	210.248	164.968	-10.496	1.00	91.07	N	ATOM	24473	C5*	C A1161	204.895	169.377	-15.631	1.00	109.50	C
ATOM	24424	C5	C A1158	208.030	164.879	-9.609	1.00	91.07	C	ATOM	24474	C4*	C A1161	206.071	169.944	-16.396	1.00	109.50	C
ATOM	24425	C6	C A1158	207.005	164.099	-9.253	1.00	91.07	C	ATOM	24475	O4*	C A1161	207.292	169.302	-15.944	1.00	109.50	O
ATOM	24426	P	U A1159	204.727	157.529	-10.664	1.00	94.26	P	ATOM	24476	C3*	C A1161	206.047	169.721	-17.905	1.00	109.50	C
ATOM	24427	O1P	U A1159	203.609	156.579	-10.474	1.00	114.18	O	ATOM	24477	O3*	C A1161	205.307	170.723	-18.600	1.00	109.50	O
ATOM	24428	O2P	U A1159	206.119	157.015	-10.740	1.00	114.18	O	ATOM	24478	C2*	C A1161	207.523	169.757	-18.274	1.00	109.50	C
ATOM	24429	O5*	U A1159	204.400	158.376	-11.969	1.00	94.26	O	ATOM	24479	O2*	C A1161	208.006	171.077	-18.435	1.00	109.50	O
ATOM	24430	C5*	U A1159	205.206	158.247	-13.142	1.00	94.26	C	ATOM	24480	C1*	C A1161	208.167	169.110	-17.045	1.00	109.50	C
ATOM	24431	C4*	U A1159	205.374	159.591	-13.801	1.00	94.26	C	ATOM	24481	N1	C A1161	208.404	167.657	-17.216	1.00	131.11	N
ATOM	24432	O4*	U A1159	206.496	159.519	-14.716	1.00	94.26	O	ATOM	24482	C2	C A1161	209.432	167.225	-18.082	1.00	131.11	C
ATOM	24433	C3*	U A1159	204.174	160.115	-14.590	1.00	94.26	C	ATOM	24483	O2	C A1161	210.099	168.069	-18.705	1.00	131.11	O
ATOM	24434	O3*	U A1159	204.073	161.541	-14.435	1.00	94.26	O	ATOM	24484	N3	C A1161	209.663	165.897	-18.220	1.00	131.11	N
ATOM	24435	C2*	U A1159	204.554	159.781	-16.037	1.00	94.26	C	ATOM	24485	C4	C A1161	208.917	165.015	-17.549	1.00	131.11	C
ATOM	24436	O2*	U A1159	203.980	160.678	-16.969	1.00	94.26	O	ATOM	24486	N4	C A1161	209.189	163.719	-17.709	1.00	131.11	N
ATOM	24437	C1*	U A1159	206.083	159.913	-16.006	1.00	94.26	C	ATOM	24487	C5	C A1161	207.861	165.423	-16.682	1.00	131.11	C
ATOM	24438	N1	U A1159	206.834	159.104	-16.984	1.00	114.18	N	ATOM	24488	C6	C A1161	207.642	166.738	-16.544	1.00	131.11	C
ATOM	24439	C2	U A1159	207.355	159.750	-18.096	1.00	114.18	C	ATOM	24489	P	C A1162	204.675	170.389	-20.042	1.00	139.68	P
ATOM	24440	O2	U A1159	207.180	160.936	-18.321	1.00	114.18	O	ATOM	24490	O1P	C A1162	203.933	171.597	-20.494	1.00	146.96	O
ATOM	24441	N3	U A1159	208.089	158.951	-18.941	1.00	114.18	N	ATOM	24491	O2P	C A1162	203.964	169.090	-19.940	1.00	146.96	O
ATOM	24442	C4	U A1159	208.345	157.601	-18.799	1.00	114.18	C	ATOM	24492	O5*	C A1162	205.940	170.181	-20.992	1.00	139.68	O
ATOM	24443	O4	U A1159	209.056	157.026	-19.630	1.00	114.18	O	ATOM	24493	C5*	C A1162	206.651	171.307	-21.551	1.00	139.68	C
ATOM	24444	C5	U A1159	207.755	157.002	-17.640	1.00	114.18	C	ATOM	24494	C4*	C A1162	207.609	170.844	-22.630	1.00	139.68	C
ATOM	24445	C6	U A1159	207.038	157.753	-16.795	1.00	114.18	C	ATOM	24495	O4*	C A1162	208.652	170.027	-22.039	1.00	139.68	O
ATOM	24446	P	G A1160	203.011	162.188	-13.398	1.00	93.50	P	ATOM	24496	C3*	C A1162	207.002	169.972	-23.720	1.00	139.68	C
ATOM	24447	O1P	G A1160	202.740	161.226	-12.299	1.00	95.78	O	ATOM	24497	O3*	C A1162	206.407	170.748	-24.754	1.00	139.68	O



ATOM	24498	C2*	C A1162	208.192	169.158	-24.216	1.00139.68	C	ATOM	24548	C2	G A1164	204.511	158.772	-27.196	1.00132.87	C
ATOM	24499	O2*	C A1162	208.968	169.818	-25.196	1.00139.68	O	ATOM	24549	N2	G A1164	204.569	157.444	-27.336	1.00132.87	N
ATOM	24500	C1*	C A1162	209.007	168.983	-22.933	1.00139.68	C	ATOM	24550	N3	G A1164	204.780	159.546	-28.229	1.00132.87	N
ATOM	24501	N1	C A1162	208.747	167.689	-22.273	1.00146.96	N	ATOM	24551	C4	G A1164	204.689	160.856	-27.916	1.00132.87	C
ATOM	24502	C2	C A1162	209.420	166.548	-22.733	1.00146.96	C	ATOM	24552	P	C A1165	201.079	162.764	-32.434	1.00139.37	P
ATOM	24503	O2	C A1162	210.220	166.658	-23.677	1.00146.96	O	ATOM	24553	O1P	C A1165	200.468	163.037	-33.762	1.00102.56	O
ATOM	24504	N3	C A1162	209.180	165.357	-22.138	1.00146.96	N	ATOM	24554	O5P	C A1165	200.756	163.655	-31.282	1.00102.56	O
ATOM	24505	C4	C A1162	208.312	165.277	-21.126	1.00146.96	C	ATOM	24555	O2P	C A1165	200.757	161.255	-32.027	1.00139.37	O
ATOM	24506	N4	C A1162	208.110	164.081	-20.569	1.00146.96	N	ATOM	24556	C5*	C A1165	200.945	160.188	-32.980	1.00139.37	C
ATOM	24507	C5	C A1162	207.615	166.418	-20.640	1.00146.96	C	ATOM	24557	C4*	C A1165	200.613	158.850	-32.363	1.00139.37	C
ATOM	24508	C6	C A1162	207.860	167.592	-21.233	1.00146.96	C	ATOM	24558	O4*	C A1165	201.571	158.546	-31.316	1.00139.37	O
ATOM	24509	P	C A1163	205.128	170.176	-25.540	1.00126.02	P	ATOM	24559	C3*	C A1165	199.257	158.720	-31.683	1.00139.37	C
ATOM	24510	O1P	C A1163	204.549	171.296	-26.328	1.00144.62	O	ATOM	24560	O3*	C A1165	198.180	158.479	-32.584	1.00139.37	O
ATOM	24511	O2P	C A1163	204.276	169.452	-24.559	1.00144.62	O	ATOM	24561	C2*	C A1165	199.489	157.559	-30.722	1.00139.37	C
ATOM	24512	O5*	C A1163	205.745	169.112	-26.553	1.00126.02	O	ATOM	24562	O2*	C A1165	199.380	156.290	-31.339	1.00139.37	O
ATOM	24513	C5*	C A1163	206.435	169.545	-27.731	1.00126.02	C	ATOM	24563	C1*	C A1165	200.934	157.806	-30.286	1.00139.37	C
ATOM	24514	C4*	C A1163	206.925	168.359	-28.517	1.00126.02	C	ATOM	24564	N1	C A1165	200.980	158.590	-29.034	1.00102.56	N
ATOM	24515	O4*	C A1163	207.918	167.639	-27.741	1.00126.02	O	ATOM	24565	C2	C A1165	201.210	157.920	-27.820	1.00102.56	C
ATOM	24516	C3*	C A1163	205.889	167.306	-28.877	1.00126.02	C	ATOM	24566	O2	C A1165	201.418	156.694	-27.833	1.00102.56	O
ATOM	24517	O3*	C A1163	205.129	167.656	-30.032	1.00126.02	O	ATOM	24567	N3	C A1165	201.198	158.626	-26.664	1.00102.56	N
ATOM	24518	C2*	C A1163	206.747	166.061	-29.089	1.00126.02	C	ATOM	24568	C4	C A1165	200.971	159.942	-26.688	1.00102.56	C
ATOM	24519	O2*	C A1163	207.340	165.994	-30.372	1.00126.02	O	ATOM	24569	N4	C A1165	200.943	160.591	-25.523	1.00102.56	N
ATOM	24520	C1*	C A1163	207.839	166.252	-28.034	1.00126.02	C	ATOM	24570	C5	C A1165	200.758	160.650	-27.907	1.00102.56	C
ATOM	24521	N1	C A1163	207.540	165.513	-26.790	1.00144.62	N	ATOM	24571	C6	C A1165	200.774	159.945	-29.044	1.00102.56	C
ATOM	24522	O2	C A1163	207.712	164.115	-26.769	1.00144.62	C	ATOM	24572	P	G A1166	196.686	158.935	-32.177	1.00137.77	P
ATOM	24523	C2	C A1163	208.159	163.541	-27.778	1.00144.62	C	ATOM	24573	O1P	G A1166	195.770	158.443	-33.240	1.00 90.14	O
ATOM	24524	N3	C A1163	207.389	163.429	-25.650	1.00144.62	N	ATOM	24574	O2P	G A1166	196.678	160.384	-31.811	1.00 90.14	O
ATOM	24525	C4	C A1163	206.927	164.077	-24.578	1.00144.62	C	ATOM	24575	O5*	G A1166	196.387	158.098	-30.856	1.00137.77	O
ATOM	24526	N4	C A1163	206.607	163.356	-23.503	1.00144.62	N	ATOM	24576	C5*	G A1166	196.402	156.662	-30.880	1.00137.77	C
ATOM	24527	C5	C A1163	206.769	165.494	-24.562	1.00144.62	C	ATOM	24577	C4*	G A1166	196.092	156.106	-29.511	1.00137.77	C
ATOM	24528	C6	C A1163	207.084	166.166	-25.676	1.00144.62	C	ATOM	24578	O4*	G A1166	197.182	156.388	-28.589	1.00137.77	O
ATOM	24529	P	G A1164	203.672	167.005	-30.257	1.00131.61	P	ATOM	24579	C3*	G A1166	194.877	156.684	-28.811	1.00137.77	C
ATOM	24530	O1P	G A1164	203.117	167.562	-31.518	1.00132.87	O	ATOM	24580	O3*	G A1166	193.642	156.180	-29.279	1.00137.77	O
ATOM	24531	O2P	G A1164	202.892	167.127	-28.998	1.00132.87	O	ATOM	24581	C2*	G A1166	195.154	156.347	-27.354	1.00137.77	C
ATOM	24532	O5*	G A1164	203.978	165.464	-30.511	1.00131.61	O	ATOM	24582	O2*	G A1166	194.847	155.005	-27.036	1.00137.77	O
ATOM	24533	C5*	G A1164	204.715	165.047	-31.671	1.00131.61	C	ATOM	24583	C1*	G A1166	196.664	156.571	-27.277	1.00137.77	C
ATOM	24534	C4*	G A1164	204.806	163.544	-31.722	1.00131.61	C	ATOM	24584	N9	G A1166	196.929	157.944	-26.850	1.00 90.14	N
ATOM	24535	O4*	G A1164	205.683	163.056	-30.672	1.00131.61	O	ATOM	24585	C8	G A1166	197.046	159.055	-27.651	1.00 90.14	C
ATOM	24536	C3*	G A1164	203.503	162.807	-31.485	1.00131.61	C	ATOM	24586	N7	G A1166	197.188	160.162	-26.975	1.00 90.14	N
ATOM	24537	O3*	G A1164	202.673	162.761	-32.628	1.00131.61	O	ATOM	24587	C5	G A1166	197.185	159.758	-25.647	1.00 90.14	C
ATOM	24538	C2*	G A1164	203.974	161.435	-31.022	1.00131.61	C	ATOM	24588	C6	G A1166	197.285	160.521	-24.454	1.00 90.14	C
ATOM	24539	O2*	G A1164	204.325	160.576	-32.089	1.00131.61	O	ATOM	24589	O6	G A1166	197.388	161.745	-24.329	1.00 90.14	O
ATOM	24540	C1*	G A1164	205.214	161.799	-30.204	1.00131.61	C	ATOM	24590	N1	G A1166	197.245	159.713	-23.325	1.00 90.14	N
ATOM	24541	N9	G A1164	204.894	161.907	-28.780	1.00132.87	N	ATOM	24591	C2	G A1166	197.120	158.350	-23.338	1.00 90.14	C
ATOM	24542	C8	G A1164	204.707	163.054	-28.042	1.00132.87	C	ATOM	24592	N2	G A1166	197.111	157.755	-22.143	1.00 90.14	N
ATOM	24543	N7	G A1164	204.384	162.818	-26.798	1.00132.87	N	ATOM	24593	N3	G A1166	197.014	157.625	-24.441	1.00 90.14	N
ATOM	24544	C5	G A1164	204.364	161.433	-26.705	1.00132.87	C	ATOM	24594	C4	G A1166	197.052	158.390	-25.552	1.00 90.14	C
ATOM	24545	C6	G A1164	204.069	160.589	-25.604	1.00132.87	C	ATOM	24595	P	A A1167	192.419	157.201	-29.480	1.00115.33	P
ATOM	24546	O6	G A1164	203.751	160.907	-24.452	1.00132.87	O	ATOM	24596	O1P	A A1167	191.206	156.403	-29.791	1.00 89.78	O
ATOM	24547	N1	G A1164	204.169	159.244	-25.950	1.00132.87	N	ATOM	24597	O2P	A A1167	192.870	158.250	-30.424	1.00 89.78	O



Table 1: Sheet 248/521

ATOM	24598	O5*	A All167	192.255	157.875	-28.042	1.00115.33	O	ATOM	24648	C2*	A All169	197.174	153.199	-17.540	1.00	69.18	C
ATOM	24599	C5*	A All167	191.353	158.985	-27.822	1.00115.33	C	ATOM	24649	O2*	A All169	196.939	152.236	-16.529	1.00	69.18	O
ATOM	24600	C4*	A All167	190.581	158.774	-26.536	1.00115.33	C	ATOM	24650	C1*	A All169	195.912	153.364	-18.392	1.00	69.18	C
ATOM	24601	O4*	A All167	189.794	157.569	-26.681	1.00115.33	O	ATOM	24651	N9	A All169	196.196	153.694	-19.793	1.00	79.36	N
ATOM	24602	C3*	A All167	191.442	158.542	-25.300	1.00115.33	C	ATOM	24652	C8	A All169	196.184	154.940	-20.369	1.00	79.36	C
ATOM	24603	O3*	A All167	191.747	159.770	-24.647	1.00115.33	O	ATOM	24653	N7	A All169	196.479	154.939	-21.644	1.00	79.36	N
ATOM	24604	C2*	A All167	190.578	157.638	-24.429	1.00115.33	C	ATOM	24654	C5	A All169	196.706	153.603	-21.932	1.00	79.36	C
ATOM	24605	O2*	A All167	189.652	158.337	-23.623	1.00115.33	O	ATOM	24655	C6	A All169	197.068	152.943	-23.117	1.00	79.36	C
ATOM	24606	C1*	A All167	189.823	156.824	-25.479	1.00115.33	C	ATOM	24656	N6	A All169	197.277	153.568	-24.282	1.00	79.36	N
ATOM	24607	N9	A All167	190.420	155.522	-25.775	1.00	89.78	ATOM	24657	N1	A All169	197.212	151.603	-23.068	1.00	79.36	N
ATOM	24608	C8	A All167	191.023	155.121	-26.941	1.00	89.78	ATOM	24658	C2	A All169	197.009	150.980	-21.902	1.00	79.36	C
ATOM	24609	N7	A All167	191.425	153.876	-26.927	1.00	89.78	ATOM	24659	N3	A All169	196.671	151.490	-20.721	1.00	79.36	N
ATOM	24610	C5	A All167	191.072	153.428	-25.665	1.00	89.78	ATOM	24660	C4	A All169	196.533	152.823	-20.803	1.00	79.36	C
ATOM	24611	C6	A All167	191.222	152.189	-25.033	1.00	89.78	ATOM	24661	P	G All171	199.531	155.304	-15.668	1.00	98.83	P
ATOM	24612	N6	A All167	191.787	151.127	-25.611	1.00	89.78	ATOM	24662	O1P	G All171	200.165	154.867	-14.401	1.00	81.71	O
ATOM	24613	N1	A All167	190.769	152.074	-23.766	1.00	89.78	ATOM	24663	O2P	G All171	199.341	156.752	-15.927	1.00	81.71	O
ATOM	24614	C2	A All167	190.207	153.141	-23.185	1.00	89.78	ATOM	24664	C5*	G All171	200.370	154.701	-16.881	1.00	98.83	O
ATOM	24615	N3	A All167	190.009	154.358	-23.678	1.00	89.78	ATOM	24665	O5*	G All171	200.601	153.288	-16.980	1.00	98.83	C
ATOM	24616	C4	A All167	190.466	154.435	-24.938	1.00	89.78	ATOM	24666	C4*	G All171	200.804	152.881	-18.422	1.00	98.83	C
ATOM	24617	P	A All168	193.205	159.991	-24.005	1.00	88.99	ATOM	24667	O4*	G All171	199.840	153.585	-19.248	1.00	98.83	O
ATOM	24618	O1P	A All168	193.276	161.409	-23.542	1.00	75.84	ATOM	24668	C3*	G All171	202.143	153.205	-19.070	1.00	98.83	C
ATOM	24619	O2P	A All168	194.199	159.486	-24.997	1.00	75.84	ATOM	24669	C3*	G All171	203.125	152.208	-18.798	1.00	98.83	O
ATOM	24620	O5*	A All168	193.218	159.059	-22.708	1.00	88.99	ATOM	24670	C2*	G All171	201.802	153.236	-20.557	1.00	98.83	C
ATOM	24621	C5*	A All168	192.430	159.400	-21.545	1.00	88.99	ATOM	24671	O2*	G All171	201.784	151.957	-21.157	1.00	98.83	O
ATOM	24622	C4*	A All168	192.329	158.219	-20.607	1.00	88.99	ATOM	24672	C1*	G All171	200.380	153.784	-20.542	1.00	98.83	C
ATOM	24623	O4*	A All168	191.712	157.106	-21.298	1.00	88.99	ATOM	24673	N9	G All171	200.320	155.199	-20.884	1.00	81.71	N
ATOM	24624	C3*	A All168	193.653	157.682	-20.097	1.00	88.99	ATOM	24674	C8	G All171	200.188	156.272	-20.037	1.00	81.71	C
ATOM	24625	O3*	A All168	194.043	158.372	-18.925	1.00	88.99	ATOM	24675	N7	G All171	200.142	157.416	-20.665	1.00	81.71	N
ATOM	24626	C2*	A All168	193.342	156.221	-19.805	1.00	88.99	ATOM	24676	C5	G All171	200.260	157.075	-22.006	1.00	81.71	C
ATOM	24627	O2*	A All168	192.743	156.042	-18.541	1.00	88.99	ATOM	24677	C6	G All171	200.267	157.894	-23.169	1.00	81.71	C
ATOM	24628	C1*	A All168	192.324	155.893	-20.898	1.00	88.99	ATOM	24678	O6	G All171	200.165	159.123	-23.246	1.00	81.71	O
ATOM	24629	N9	A All168	192.904	155.272	-22.090	1.00	75.84	ATOM	24679	N1	G All171	200.406	157.134	-24.328	1.00	81.71	N
ATOM	24630	C8	A All168	193.148	155.877	-23.297	1.00	75.84	ATOM	24680	C2	G All171	200.521	155.761	-24.367	1.00	81.71	C
ATOM	24631	N7	A All168	193.618	155.067	-24.208	1.00	75.84	ATOM	24681	N2	G All171	200.645	155.199	-25.588	1.00	81.71	N
ATOM	24632	C5	A All168	193.703	153.846	-23.557	1.00	75.84	ATOM	24682	N3	G All171	200.514	154.991	-23.289	1.00	81.71	N
ATOM	24633	C6	A All168	194.109	152.573	-23.987	1.00	75.84	ATOM	24683	C4	G All171	200.379	155.711	-22.154	1.00	81.71	C
ATOM	24634	N6	A All168	194.499	152.304	-25.235	1.00	75.84	ATOM	24684	P	C All172	204.643	152.442	-19.271	1.00120.13	P	
ATOM	24635	N1	A All168	194.090	151.571	-23.088	1.00	75.84	ATOM	24685	O1P	C All172	205.440	151.315	-18.722	1.00	82.67	O
ATOM	24636	C2	A All168	193.673	151.835	-21.851	1.00	75.84	ATOM	24686	O2P	C All172	205.037	153.838	-18.966	1.00	82.67	O
ATOM	24637	N3	A All168	193.251	152.983	-21.331	1.00	75.84	ATOM	24687	O5*	C All172	204.572	152.347	-20.859	1.00120.13	O	
ATOM	24638	C4	A All168	193.288	153.962	-22.247	1.00	75.84	ATOM	24688	C5*	C All172	204.637	151.083	-21.543	1.00120.13	C	
ATOM	24639	P	A All169	195.600	158.518	-18.574	1.00	69.18	ATOM	24689	C4*	C All172	204.991	151.304	-22.995	1.00120.13	C	
ATOM	24640	O1P	A All169	195.715	159.415	-17.394	1.00	79.36	ATOM	24690	O4*	C All172	203.921	152.051	-23.635	1.00120.13	O	
ATOM	24641	O2P	A All169	196.318	158.862	-19.829	1.00	79.36	ATOM	24691	C3*	C All172	206.231	152.157	-23.227	1.00120.13	C	
ATOM	24642	O5*	A All169	196.040	157.058	-18.108	1.00	69.18	ATOM	24692	O3*	C All172	207.451	151.435	-23.140	1.00120.13	O	
ATOM	24643	C5*	A All169	195.659	156.539	-16.815	1.00	69.18	ATOM	24693	C2*	C All172	205.982	152.751	-24.607	1.00120.13	C	
ATOM	24644	C4*	A All169	195.908	155.049	-16.757	1.00	69.18	ATOM	24694	O2*	C All172	206.336	151.891	-25.672	1.00120.13	O	
ATOM	24645	O4*	A All169	195.161	154.428	-17.836	1.00	69.18	ATOM	24695	C1*	C All172	204.469	152.965	-24.574	1.00120.13	C	
ATOM	24646	C3*	A All169	197.350	154.599	-16.968	1.00	69.18	ATOM	24696	N1	C All172	204.157	154.344	-24.145	1.00	82.67	N
ATOM	24647	O3*	A All169	198.098	154.569	-15.750	1.00	69.18	ATOM	24697	C2	C All172	204.073	155.349	-25.125	1.00	82.67	C



ATOM	24698	O2	C A1172	204.210	155.037	-26.324	1.00	82.67	O	ATOM	24748	N3	G A1174	210.723	162.264	-25.653	1.00106.71	N	
ATOM	24699	N3	C A1172	203.846	156.631	-24.741	1.00	82.67	N	ATOM	24749	C4	G A1174	210.676	161.024	-25.124	1.00106.71	C	
ATOM	24700	C4	C A1172	203.698	156.925	-23.445	1.00	82.67	C	ATOM	24750	P	G A1175	216.438	159.310	-25.812	1.00119.27	P	
ATOM	24701	N4	C A1172	203.494	158.204	-23.117	1.00	82.67	N	ATOM	24751	O1P	G A1175	217.792	159.135	-26.391	1.00141.86	O	
ATOM	24702	C5	C A1172	203.755	155.921	-22.429	1.00	82.67	C	ATOM	24752	O2P	G A1175	216.057	158.541	-24.597	1.00141.86	O	
ATOM	24703	C6	C A1172	203.980	154.656	-22.820	1.00	82.67	C	ATOM	24753	O5*	G A1175	216.220	160.864	-25.521	1.00119.27	O	
ATOM	24704	P	G A1173	208.817	152.233	-22.857	1.00135.43		P	ATOM	24754	C5*	G A1175	216.530	161.846	-26.525	1.00119.27	C	
ATOM	24705	O1P	G A1173	209.899	151.222	-22.751	1.00	95.53	O	ATOM	24755	C4*	G A1175	216.025	163.212	-26.119	1.00119.27	C	
ATOM	24706	O2P	G A1173	208.615	153.214	-21.751	1.00	95.53	O	ATOM	24756	O4*	G A1175	214.586	163.156	-25.920	1.00119.27	O	
ATOM	24707	O5*	G A1173	209.035	153.060	-24.195	1.00135.43		O	ATOM	24757	C3*	G A1175	216.550	163.803	-24.817	1.00119.27	C	
ATOM	24708	C5*	G A1173	209.214	152.382	-25.442	1.00135.43		C	ATOM	24758	O3*	G A1175	217.827	164.416	-24.937	1.00119.27	O	
ATOM	24709	C4*	G A1173	209.412	153.380	-26.545	1.00135.43		C	ATOM	24759	C2*	G A1175	215.467	164.818	-24.460	1.00119.27	C	
ATOM	24710	O4*	G A1173	208.185	154.131	-26.744	1.00135.43		O	ATOM	24760	O2*	G A1175	215.583	166.046	-25.157	1.00119.27	O	
ATOM	24711	C3*	G A1173	210.466	154.440	-26.273	1.00135.43		C	ATOM	24761	C1*	G A1175	214.205	164.087	-24.913	1.00119.27	C	
ATOM	24712	O3*	G A1173	211.790	153.983	-26.529	1.00135.43		O	ATOM	24762	N9	G A1175	213.582	163.368	-23.800	1.00141.86	N	
ATOM	24713	C2*	G A1173	210.026	155.580	-27.184	1.00135.43		C	ATOM	24763	C8	G A1175	213.491	162.005	-23.620	1.00141.86	C	
ATOM	24714	O2*	G A1173	210.478	155.450	-28.518	1.00135.43		O	ATOM	24764	N7	G A1175	212.887	161.674	-22.509	1.00141.86	N	
ATOM	24715	C1*	G A1173	208.499	155.464	-27.115	1.00135.43		C	ATOM	24765	C5	G A1175	212.555	162.888	-21.921	1.00141.86	C	
ATOM	24716	N9	G A1173	207.973	156.369	-26.098	1.00	95.53	N	ATOM	24766	C6	G A1175	211.884	163.168	-20.700	1.00141.86	C	
ATOM	24717	C8	G A1173	207.635	156.063	-24.799	1.00	95.53	C	ATOM	24767	O6	G A1175	211.428	162.373	-19.871	1.00141.86	O	
ATOM	24718	N7	G A1173	207.284	157.110	-24.102	1.00	95.53	N	ATOM	24768	N1	G A1175	211.762	164.536	-20.485	1.00141.86	N	
ATOM	24719	C5	G A1173	207.374	158.168	-24.999	1.00	95.53	C	ATOM	24769	C2	G A1175	212.220	165.513	-21.334	1.00141.86	C	
ATOM	24720	C6	G A1173	207.131	159.557	-24.814	1.00	95.53	C	ATOM	24770	N2	G A1175	212.006	166.779	-20.947	1.00141.86	N	
ATOM	24721	O6	G A1173	206.782	160.149	-23.788	1.00	95.53	O	ATOM	24771	N3	G A1175	212.841	165.269	-22.475	1.00141.86	N	
ATOM	24722	N1	G A1173	207.342	160.275	-25.988	1.00	95.53	N	ATOM	24772	C4	G A1175	212.974	163.943	-22.704	1.00141.86	C	
ATOM	24723	C2	G A1173	207.738	159.734	-27.184	1.00	95.53	C	ATOM	24773	P	A A1176	218.752	164.586	-23.627	1.00132.95	P	
ATOM	24724	N2	G A1173	207.882	160.598	-28.197	1.00	95.53	N	ATOM	24774	O1P	A A1176	220.065	165.098	-24.097	1.00117.55	O	
ATOM	24725	N3	G A1173	207.972	158.443	-27.372	1.00	95.53	N	ATOM	24775	O2P	A A1176	218.692	163.331	-22.820	1.00117.55	O	
ATOM	24726	C4	G A1173	207.774	157.725	-26.242	1.00	95.53	C	ATOM	24776	O5*	A A1176	218.052	165.753	-22.796	1.00132.95	O	
ATOM	24727	P	G A1174	213.019	154.594	-25.684	1.00116.68		P	ATOM	24777	C5*	A A1176	218.131	167.122	-23.241	1.00132.95	C	
ATOM	24728	O1P	G A1174	214.252	153.970	-26.226	1.00106.71		O	ATOM	24778	C4*	A A1176	217.618	168.062	-22.173	1.00132.95	C	
ATOM	24729	O2P	G A1174	212.724	154.485	-24.229	1.00106.71		O	ATOM	24779	O4*	A A1176	216.206	167.816	-21.945	1.00132.95	O	
ATOM	24730	O5*	G A1174	213.023	156.136	-26.096	1.00116.68		O	ATOM	24780	C3*	A A1176	218.256	167.944	-20.797	1.00132.95	C	
ATOM	24731	C5*	G A1174	213.277	156.518	-27.460	1.00116.68		C	ATOM	24781	O3*	A A1176	219.467	168.683	-20.704	1.00132.95	O	
ATOM	24732	C4*	G A1174	213.202	158.019	-27.632	1.00116.68		C	ATOM	24782	C2*	A A1176	217.176	168.505	-19.880	1.00132.95	C	
ATOM	24733	O4*	G A1174	211.834	158.481	-27.480	1.00116.68		O	ATOM	24783	O2*	A A1176	217.196	169.919	-19.810	1.00132.95	O	
ATOM	24734	C3*	G A1174	213.997	158.891	-26.671	1.00116.68		C	ATOM	24784	C1*	A A1176	215.899	168.035	-20.579	1.00132.95	C	
ATOM	24735	O3*	G A1174	215.383	158.979	-26.982	1.00116.68		O	ATOM	24785	N9	A A1176	215.376	166.786	-20.020	1.00117.55	N	
ATOM	24736	C2*	G A1174	213.295	160.242	-26.795	1.00116.68		C	ATOM	24786	C8	A A1176	215.610	165.501	-20.451	1.00117.55	C	
ATOM	24737	O2*	G A1174	213.740	161.052	-27.867	1.00116.68		O	ATOM	24787	N7	A A1176	214.997	164.586	-19.742	1.00117.55	N	
ATOM	24738	C1*	G A1174	211.839	159.820	-27.002	1.00116.68		C	ATOM	24788	C5	A A1176	214.313	165.314	-18.780	1.00117.55	C	
ATOM	24739	N9	G A1174	211.143	159.881	-25.721	1.00106.71		N	ATOM	24789	C6	A A1176	213.470	164.927	-17.732	1.00117.55	C	
ATOM	24740	C8	G A1174	210.877	158.850	-24.849	1.00106.71		C	ATOM	24790	N6	A A1176	213.153	163.659	-17.472	1.00117.55	N	
ATOM	24741	N7	G A1174	210.322	159.251	-23.737	1.00106.71		N	ATOM	24791	N1	A A1176	212.951	165.897	-16.951	1.00117.55	N	
ATOM	24742	C5	G A1174	210.197	160.626	-23.893	1.00106.71		C	ATOM	24792	C2	A A1176	213.261	167.170	-17.222	1.00117.55	C	
ATOM	24743	C6	G A1174	209.680	161.607	-23.012	1.00106.71		C	ATOM	24793	N3	A A1176	214.036	167.661	-18.183	1.00117.55	N	
ATOM	24744	O6	G A1174	209.225	161.457	-21.870	1.00106.71		O	ATOM	24794	C4	A A1176	214.539	166.669	-18.937	1.00117.55	C	
ATOM	24745	N1	G A1174	209.737	162.879	-23.578	1.00106.71		N	ATOM	24795	P	A A1177	220.645	168.165	-19.738	1.00	92.00	P
ATOM	24746	C2	G A1174	210.233	163.170	-24.828	1.00106.71		C	ATOM	24796	O1P	G A1177	221.862	168.927	-20.111	1.00109.91	O	
ATOM	24747	N2	G A1174	210.209	164.460	-25.201	1.00106.71		N	ATOM	24797	O2P	G A1177	220.674	166.681	-19.780	1.00109.91	O	



Table 1: Sheet 250/521

ATOM	24798	O5*	G A1177	220.194	168.617	-18.273	1.00	92.00	O	ATOM	24848	C3*	A A1179	223.528	162.047	-10.188	1.00	83.09	C
ATOM	24799	C5*	G A1177	219.852	169.995	-17.983	1.00	92.00	C	ATOM	24849	O3*	A A1179	223.869	161.604	-11.484	1.00	83.09	O
ATOM	24800	C4*	G A1177	218.931	170.067	-16.782	1.00	92.00	C	ATOM	24850	C2*	A A1179	223.225	160.901	-9.239	1.00	83.09	C
ATOM	24801	O4*	G A1177	217.689	169.383	-17.082	1.00	92.00	O	ATOM	24851	O2*	A A1179	224.122	159.820	-9.398	1.00	83.09	O
ATOM	24802	C3*	G A1177	219.462	169.385	-15.535	1.00	92.00	C	ATOM	24852	C1*	A A1179	223.435	161.574	-7.880	1.00	83.09	C
ATOM	24803	O3*	G A1177	220.241	170.283	-14.775	1.00	92.00	O	ATOM	24853	N9	A A1179	222.184	162.132	-7.360	1.00	78.86	N
ATOM	24804	C2*	G A1177	218.201	168.969	-14.792	1.00	92.00	C	ATOM	24854	C8	A A1179	221.662	163.386	-7.566	1.00	78.86	C
ATOM	24805	O2*	G A1177	217.661	169.999	-13.995	1.00	92.00	O	ATOM	24855	N7	A A1179	220.512	163.585	-6.968	1.00	78.86	N
ATOM	24806	C1*	G A1177	217.249	168.654	-15.947	1.00	92.00	C	ATOM	24856	C5	A A1179	220.261	162.383	-6.321	1.00	78.86	C
ATOM	24807	N9	G A1177	217.239	167.236	-16.300	1.00	109.91	N	ATOM	24857	C6	A A1179	219.201	161.950	-5.499	1.00	78.86	C
ATOM	24808	C8	G A1177	217.929	166.639	-17.330	1.00	109.91	C	ATOM	24858	N6	A A1179	218.152	162.702	-5.173	1.00	78.86	N
ATOM	24809	N7	G A1177	217.737	165.351	-17.397	1.00	109.91	N	ATOM	24859	N1	A A1179	219.261	160.698	-5.014	1.00	78.86	N
ATOM	24810	C5	G A1177	216.869	165.077	-16.351	1.00	109.91	C	ATOM	24860	C2	A A1179	220.315	159.935	-5.336	1.00	78.86	C
ATOM	24811	C6	G A1177	216.319	163.851	-15.924	1.00	109.91	C	ATOM	24861	N3	A A1179	221.369	160.225	-6.094	1.00	78.86	N
ATOM	24812	O6	G A1177	216.491	162.723	-16.402	1.00	109.91	O	ATOM	24862	C4	A A1179	221.281	161.479	-6.559	1.00	78.86	C
ATOM	24813	N1	G A1177	215.494	164.022	-14.820	1.00	109.91	N	ATOM	24863	P	A A1180	222.732	161.544	-12.614	1.00	79.86	P
ATOM	24814	C2	G A1177	215.232	165.221	-14.204	1.00	109.91	C	ATOM	24864	O1P	A A1180	223.358	161.086	-13.876	1.00	86.82	O
ATOM	24815	N2	G A1177	214.408	165.177	-13.148	1.00	109.91	N	ATOM	24865	O2P	A A1180	221.988	162.825	-12.597	1.00	86.82	O
ATOM	24816	N3	G A1177	215.739	166.374	-14.594	1.00	109.91	N	ATOM	24866	O5*	A A1180	221.759	160.399	-12.089	1.00	79.86	O
ATOM	24817	C4	G A1177	216.546	166.230	-15.665	1.00	109.91	C	ATOM	24867	C5*	A A1180	222.262	159.085	-11.760	1.00	79.86	C
ATOM	24818	P	G A1178	221.643	169.797	-14.183	1.00	88.49	P	ATOM	24868	O4*	A A1180	221.218	158.303	-10.995	1.00	79.86	C
ATOM	24819	O1P	G A1178	222.203	170.892	-13.358	1.00	96.60	O	ATOM	24869	C4*	A A1180	220.964	158.969	-9.734	1.00	79.86	C
ATOM	24820	O2P	G A1178	222.421	169.268	-15.338	1.00	96.60	O	ATOM	24870	C3*	A A1180	219.864	158.208	-11.685	1.00	79.86	C
ATOM	24821	O5*	G A1178	221.242	168.603	-13.209	1.00	88.49	O	ATOM	24871	O3*	A A1180	219.827	157.078	-12.553	1.00	79.86	O
ATOM	24822	C5*	G A1178	220.382	168.832	-12.079	1.00	88.49	C	ATOM	24872	C2*	A A1180	218.887	158.089	-10.520	1.00	79.86	C
ATOM	24823	C4*	G A1178	220.003	167.521	-11.423	1.00	88.49	C	ATOM	24873	O2*	A A1180	218.728	156.757	-10.072	1.00	79.86	O
ATOM	24824	O4*	G A1178	219.024	166.805	-12.225	1.00	88.49	O	ATOM	24874	C1*	A A1180	219.579	158.930	-9.438	1.00	79.86	C
ATOM	24825	C3*	G A1178	221.118	166.510	-11.221	1.00	88.49	C	ATOM	24875	N9	A A1180	219.104	160.314	-9.351	1.00	86.82	N
ATOM	24826	O3*	G A1178	221.931	166.779	-10.097	1.00	88.49	O	ATOM	24876	C8	A A1180	219.642	161.412	-9.977	1.00	86.82	C
ATOM	24827	C2*	G A1178	220.356	165.200	-11.077	1.00	88.49	C	ATOM	24877	N7	A A1180	219.007	162.528	-9.727	1.00	86.82	N
ATOM	24828	O2*	G A1178	219.861	165.021	-9.763	1.00	88.49	O	ATOM	24878	C5	A A1180	217.981	162.145	-8.877	1.00	86.82	C
ATOM	24829	C1*	G A1178	219.206	165.405	-12.065	1.00	88.49	C	ATOM	24879	C6	A A1180	216.947	162.871	-8.258	1.00	86.82	C
ATOM	24830	N9	G A1178	219.502	164.818	-13.371	1.00	96.60	N	ATOM	24880	N6	A A1180	216.770	164.185	-8.412	1.00	86.82	N
ATOM	24831	C8	G A1178	220.151	165.419	-14.424	1.00	96.60	C	ATOM	24881	N1	A A1180	216.087	162.191	-7.470	1.00	86.82	N
ATOM	24832	N7	G A1178	220.292	164.633	-15.458	1.00	96.60	N	ATOM	24882	C2	A A1180	216.262	160.874	-7.322	1.00	86.82	C
ATOM	24833	C5	G A1178	219.696	163.440	-15.068	1.00	96.60	C	ATOM	24883	N3	A A1180	217.192	160.080	-7.853	1.00	86.82	N
ATOM	24834	C6	G A1178	219.541	162.210	-15.771	1.00	96.60	C	ATOM	24884	C4	A A1180	218.030	160.785	-8.632	1.00	86.82	C
ATOM	24835	O6	G A1178	219.922	161.913	-16.912	1.00	96.60	O	ATOM	24885	P	G A1181	219.103	157.187	-13.980	1.00	115.87	P
ATOM	24836	N1	G A1178	218.866	161.271	-15.004	1.00	96.60	N	ATOM	24886	O1P	G A1181	219.618	156.069	-14.793	1.00	96.66	O
ATOM	24837	C2	G A1178	218.404	161.476	-13.728	1.00	96.60	C	ATOM	24887	O2P	G A1181	219.180	158.565	-14.507	1.00	96.66	O
ATOM	24838	N2	G A1178	217.769	160.446	-13.162	1.00	96.60	N	ATOM	24888	O5*	G A1181	217.594	156.859	-13.635	1.00	115.87	O
ATOM	24839	N3	G A1178	218.549	162.605	-13.060	1.00	96.60	N	ATOM	24889	C5*	G A1181	217.296	155.748	-12.793	1.00	115.87	C
ATOM	24840	C4	G A1178	219.197	163.540	-13.784	1.00	96.60	C	ATOM	24890	C4*	G A1181	215.818	155.634	-12.600	1.00	115.87	C
ATOM	24841	P	A A1179	223.499	166.449	-10.177	1.00	83.09	P	ATOM	24891	O4*	G A1181	215.331	156.893	-12.081	1.00	115.87	O
ATOM	24842	O1P	A A1179	224.196	167.255	-9.138	1.00	78.86	O	ATOM	24892	C3*	G A1181	214.994	155.406	-13.857	1.00	115.87	C
ATOM	24843	O2P	A A1179	223.918	166.562	-11.602	1.00	78.86	O	ATOM	24893	O3*	G A1181	214.924	154.039	-14.225	1.00	115.87	O
ATOM	24844	O5*	A A1179	223.594	164.917	-9.755	1.00	83.09	O	ATOM	24894	C2*	G A1181	213.633	155.954	-13.455	1.00	115.87	C
ATOM	24845	C5*	A A1179	224.846	164.215	-9.842	1.00	83.09	C	ATOM	24895	O2*	G A1181	212.873	155.052	-12.666	1.00	115.87	O
ATOM	24846	C4*	A A1179	224.664	162.761	-9.483	1.00	83.09	C	ATOM	24896	C1*	G A1181	214.038	157.143	-12.590	1.00	115.87	C
ATOM	24847	O4*	A A1179	224.346	162.641	-8.071	1.00	83.09	O	ATOM	24897	N9	G A1181	214.081	158.378	-13.358	1.00	96.66	N



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ATOM	24898	C8	G A1181	214.881	158.671	-14.436	1.00	96.66	C	ATOM	24948	N6	A A1183	208.983	143.493	-9.931	1.00	92.18	N
ATOM	24899	N7	G A1181	214.678	159.870	-14.906	1.00	96.66	N	ATOM	24949	N1	A A1183	208.700	144.581	-7.908	1.00	92.18	N
ATOM	24900	C5	G A1181	213.684	160.398	-14.088	1.00	96.66	C	ATOM	24950	C2	A A1183	208.674	145.722	-7.216	1.00	92.18	C
ATOM	24901	C6	G A1181	213.053	161.667	-14.103	1.00	96.66	C	ATOM	24951	N3	A A1183	208.877	146.963	-7.638	1.00	92.18	N
ATOM	24902	O6	G A1181	213.247	162.610	-14.870	1.00	96.66	O	ATOM	24952	C4	A A1183	209.138	146.978	-8.957	1.00	92.18	C
ATOM	24903	N1	G A1181	212.101	161.781	-13.093	1.00	96.66	N	ATOM	24953	P	G A1184	212.544	152.645	-8.955	1.00	72.03	P
ATOM	24904	C2	G A1181	211.791	160.799	-12.192	1.00	96.66	C	ATOM	24954	O1P	G A1184	213.186	151.321	-8.669	1.00	69.28	O
ATOM	24905	N2	G A1181	210.840	161.087	-11.309	1.00	96.66	N	ATOM	24955	O2P	G A1184	211.994	153.447	-7.825	1.00	69.28	O
ATOM	24906	N3	G A1181	212.371	159.619	-12.161	1.00	96.66	N	ATOM	24956	O5*	G A1184	213.619	153.544	-9.718	1.00	72.03	O
ATOM	24907	C4	G A1181	213.304	159.488	-13.132	1.00	96.66	C	ATOM	24957	C5*	G A1184	214.265	153.092	-10.935	1.00	72.03	C
ATOM	24908	P	G A1182	214.330	153.643	-15.661	1.00	121.17	P	ATOM	24958	C4*	G A1184	215.742	152.833	-10.693	1.00	72.03	C
ATOM	24909	O1P	G A1182	214.863	152.297	-15.967	1.00	109.65	O	ATOM	24959	O4*	G A1184	216.300	153.941	-9.936	1.00	72.03	O
ATOM	24910	O2P	G A1182	214.587	154.766	-16.599	1.00	109.65	O	ATOM	24960	C3*	G A1184	216.071	151.603	-9.858	1.00	72.03	C
ATOM	24911	O5*	G A1182	212.751	153.562	-15.431	1.00	121.17	O	ATOM	24961	O3*	G A1184	216.154	150.424	-10.645	1.00	72.03	O
ATOM	24912	C5*	G A1182	212.175	152.858	-14.298	1.00	121.17	C	ATOM	24962	C2*	G A1184	217.419	151.952	-9.248	1.00	72.03	C
ATOM	24913	C4*	G A1182	210.738	153.296	-14.087	1.00	121.17	C	ATOM	24963	O2*	G A1184	218.506	151.674	-10.108	1.00	72.03	O
ATOM	24914	O4*	G A1182	210.738	154.742	-13.983	1.00	121.17	O	ATOM	24964	C1*	G A1184	217.279	153.460	-9.030	1.00	72.03	C
ATOM	24915	C3*	G A1182	209.784	152.970	-15.233	1.00	121.17	C	ATOM	24965	N9	G A1184	216.841	153.755	-7.668	1.00	69.28	N
ATOM	24916	O3*	G A1182	209.232	151.633	-15.151	1.00	121.17	O	ATOM	24966	C8	G A1184	215.613	154.227	-7.271	1.00	69.28	C
ATOM	24917	C2*	G A1182	208.813	154.151	-15.276	1.00	121.17	C	ATOM	24967	N7	G A1184	215.502	154.341	-5.977	1.00	69.28	N
ATOM	24918	O2*	G A1182	207.649	154.054	-14.486	1.00	121.17	O	ATOM	24968	C5	G A1184	216.733	153.930	-5.489	1.00	69.28	C
ATOM	24919	C1*	G A1182	209.683	155.293	-14.744	1.00	121.17	C	ATOM	24969	C6	G A1184	217.198	153.833	-4.166	1.00	69.28	C
ATOM	24920	N9	G A1182	210.279	156.169	-15.747	1.00	109.65	N	ATOM	24970	O6	G A1184	216.589	154.079	-3.123	1.00	69.28	O
ATOM	24921	C8	G A1182	210.978	155.803	-16.873	1.00	109.65	C	ATOM	24971	N1	G A1184	218.512	153.389	-4.115	1.00	69.28	N
ATOM	24922	N7	G A1182	211.436	156.823	-17.547	1.00	109.65	N	ATOM	24972	C2	G A1184	219.274	153.066	-5.203	1.00	69.28	C
ATOM	24923	C5	G A1182	211.006	157.930	-16.828	1.00	109.65	C	ATOM	24973	N2	G A1184	220.516	152.650	-4.949	1.00	69.28	N
ATOM	24924	C6	G A1182	211.205	159.315	-17.066	1.00	109.65	C	ATOM	24974	N3	G A1184	218.848	153.142	-6.448	1.00	69.28	N
ATOM	24925	O6	G A1182	211.828	159.855	-17.984	1.00	109.65	O	ATOM	24975	C4	G A1184	217.576	153.580	-6.518	1.00	69.28	C
ATOM	24926	N1	G A1182	210.591	160.096	-16.089	1.00	109.65	N	ATOM	24976	P	G A1185	215.900	148.991	-9.960	1.00	75.44	P
ATOM	24927	C2	G A1182	209.880	159.610	-15.019	1.00	109.65	C	ATOM	24977	O1P	G A1185	215.876	148.017	-11.077	1.00	68.38	O
ATOM	24928	N2	G A1182	209.363	160.523	-14.184	1.00	109.65	N	ATOM	24978	O2P	G A1185	214.732	149.086	-9.039	1.00	68.38	O
ATOM	24929	N3	G A1182	209.690	158.323	-14.784	1.00	109.65	N	ATOM	24979	O5*	G A1185	217.209	148.719	-9.091	1.00	75.44	O
ATOM	24930	C4	G A1182	210.279	157.545	-15.722	1.00	109.65	C	ATOM	24980	C5*	G A1185	218.400	148.198	-9.704	1.00	75.44	C
ATOM	24931	P	G A1183	208.266	151.188	-13.922	1.00	100.72	P	ATOM	24981	C4*	G A1185	219.415	147.833	-8.653	1.00	75.44	C
ATOM	24932	O1P	A A1183	208.099	149.712	-14.031	1.00	92.18	O	ATOM	24982	O4*	G A1185	219.831	149.033	-7.952	1.00	75.44	O
ATOM	24933	O2P	A A1183	207.057	152.044	-13.825	1.00	92.18	O	ATOM	24983	C3*	G A1185	218.920	146.906	-7.557	1.00	75.44	C
ATOM	24934	O5*	A A1183	209.154	151.405	-12.627	1.00	100.72	O	ATOM	24984	O3*	G A1185	218.988	145.547	-7.931	1.00	75.44	O
ATOM	24935	C5*	A A1183	208.642	152.119	-11.512	1.00	100.72	C	ATOM	24985	O2*	G A1185	219.848	147.230	-6.397	1.00	75.44	C
ATOM	24936	C4*	A A1183	209.172	151.526	-10.244	1.00	100.72	C	ATOM	24986	O2*	G A1185	221.088	146.561	-6.486	1.00	75.44	O
ATOM	24937	O4*	A A1183	208.559	150.240	-10.015	1.00	100.72	O	ATOM	24987	C1*	G A1185	220.042	148.738	-6.575	1.00	75.44	C
ATOM	24938	C3*	A A1183	210.664	151.245	-10.225	1.00	100.72	C	ATOM	24988	N9	G A1185	219.055	149.483	-5.791	1.00	68.38	N
ATOM	24939	O3*	A A1183	211.342	152.502	-10.020	1.00	100.72	O	ATOM	24989	C8	G A1185	217.966	150.181	-6.267	1.00	68.38	C
ATOM	24940	C2*	A A1183	210.798	150.137	-9.166	1.00	100.72	C	ATOM	24990	N7	G A1185	217.214	150.662	-5.316	1.00	68.38	N
ATOM	24941	O2*	A A1183	210.969	150.583	-7.835	1.00	100.72	O	ATOM	24991	C5	G A1185	217.849	150.274	-4.142	1.00	68.38	C
ATOM	24942	C1*	A A1183	209.432	149.448	-9.242	1.00	100.72	C	ATOM	24992	C6	G A1185	217.486	150.483	-2.793	1.00	68.38	C
ATOM	24943	N9	A A1183	209.399	148.075	-9.737	1.00	92.18	N	ATOM	24993	O6	G A1185	216.482	151.050	-2.347	1.00	68.38	O
ATOM	24944	C8	A A1183	209.596	147.593	-11.008	1.00	92.18	C	ATOM	24994	N1	G A1185	218.423	149.939	-1.921	1.00	68.38	N
ATOM	24945	N7	A A1183	209.482	146.291	-11.101	1.00	92.18	N	ATOM	24995	C2	G A1185	219.556	149.272	-2.300	1.00	68.38	C
ATOM	24946	C5	A A1183	209.195	145.890	-9.804	1.00	92.18	C	ATOM	24996	N2	G A1185	220.337	148.832	-1.316	1.00	68.38	N
ATOM	24947	C6	A A1183	208.961	144.633	-9.235	1.00	92.18	C	ATOM	24997	N3	G A1185	219.898	149.055	-3.553	1.00	68.38	N



Table 1: Sheet 252/521

ATOM	24998	C4	G A1185	219.003	149.576	-4.417	1.00	68.38	C	ATOM	25048	O5*	A A1188	214.216	139.379	4.068	1.00	66.31	O
ATOM	24999	P	G A1186	217.925	144.512	-7.325	1.00	55.20	P	ATOM	25049	C5*	A A1188	214.781	139.512	5.384	1.00	66.31	C
ATOM	25000	O1P	G A1186	218.050	143.254	-8.097	1.00	73.09	O	ATOM	25050	C4*	A A1188	213.890	140.369	6.241	1.00	66.31	C
ATOM	25001	O2P	G A1186	216.609	145.196	-7.244	1.00	73.09	O	ATOM	25051	O4*	A A1188	213.850	141.709	5.709	1.00	66.31	O
ATOM	25002	O5*	G A1186	218.456	144.243	-5.852	1.00	55.20	O	ATOM	25052	C3*	A A1188	212.440	139.933	6.295	1.00	66.31	C
ATOM	25003	C5*	G A1186	219.740	143.649	-5.653	1.00	55.20	C	ATOM	25053	O3*	A A1188	212.268	138.966	7.309	1.00	66.31	O
ATOM	25004	C4*	G A1186	220.027	143.491	-4.184	1.00	55.20	C	ATOM	25054	O2*	A A1188	211.714	141.221	6.634	1.00	66.31	C
ATOM	25005	O4*	G A1186	220.249	144.793	-3.581	1.00	55.20	O	ATOM	25055	C2*	A A1188	211.759	141.490	8.021	1.00	66.31	O
ATOM	25006	C3*	G A1186	218.910	142.880	-3.364	1.00	55.20	C	ATOM	25056	C1*	A A1188	212.561	142.252	5.892	1.00	66.31	C
ATOM	25007	O3*	G A1186	218.872	141.471	-3.426	1.00	55.20	O	ATOM	25057	N9	A A1188	212.040	142.574	4.573	1.00	57.08	N
ATOM	25008	C2*	G A1186	219.218	143.390	-1.963	1.00	55.20	C	ATOM	25058	C8	A A1188	212.502	142.114	3.363	1.00	57.08	C
ATOM	25009	O2*	G A1186	220.208	142.620	-1.301	1.00	55.20	O	ATOM	25059	N7	A A1188	211.860	142.605	2.330	1.00	57.08	N
ATOM	25010	C1*	G A1186	219.729	144.801	-2.257	1.00	55.20	C	ATOM	25060	C5	A A1188	210.905	143.439	2.897	1.00	57.08	C
ATOM	25011	N9	G A1186	218.622	145.752	-2.205	1.00	73.09	N	ATOM	25061	C6	A A1188	209.921	144.271	2.331	1.00	57.08	C
ATOM	25012	C8	G A1186	217.967	146.327	-3.270	1.00	73.09	C	ATOM	25062	N6	A A1188	209.738	144.407	1.014	1.00	57.08	N
ATOM	25013	N7	G A1186	216.977	147.094	-2.908	1.00	73.09	N	ATOM	25063	N1	A A1188	209.130	144.972	3.175	1.00	57.08	N
ATOM	25014	C5	G A1186	216.984	147.034	-1.522	1.00	73.09	C	ATOM	25064	C2	A A1188	209.333	144.843	4.497	1.00	57.08	C
ATOM	25015	C6	G A1186	216.138	147.654	-0.577	1.00	73.09	C	ATOM	25065	N3	A A1188	210.232	144.102	5.150	1.00	57.08	N
ATOM	25016	O6	G A1186	215.176	148.406	-0.782	1.00	73.09	O	ATOM	25066	C4	A A1188	210.996	143.418	4.282	1.00	57.08	C
ATOM	25017	N1	G A1186	216.497	147.324	0.724	1.00	73.09	N	ATOM	25067	P	C A1189	211.430	137.640	6.997	1.00	50.91	P
ATOM	25018	C2	G A1186	217.539	146.504	1.070	1.00	73.09	C	ATOM	25068	O1P	C A1189	211.108	137.035	8.313	1.00	63.71	O
ATOM	25019	N2	G A1186	217.728	146.313	2.379	1.00	73.09	N	ATOM	25069	O2P	C A1189	212.162	136.838	5.982	1.00	63.71	O
ATOM	25020	N3	G A1186	218.336	145.914	0.198	1.00	73.09	N	ATOM	25070	O5*	C A1189	210.086	138.215	6.359	1.00	50.91	O
ATOM	25021	C4	G A1186	218.003	146.221	-1.072	1.00	73.09	C	ATOM	25071	C5*	C A1189	209.151	138.921	7.188	1.00	50.91	C
ATOM	25022	P	G A1187	217.653	140.699	-2.729	1.00	66.64	P	ATOM	25072	C4*	C A1189	208.098	139.613	6.359	1.00	50.91	C
ATOM	25023	O1P	G A1187	217.818	139.244	-2.940	1.00	60.09	O	ATOM	25073	O3*	C A1189	208.708	140.578	5.472	1.00	50.91	C
ATOM	25024	O2P	G A1187	216.396	141.370	-3.141	1.00	60.09	O	ATOM	25074	C3*	C A1189	207.215	138.768	5.459	1.00	50.91	C
ATOM	25025	O5*	G A1187	217.887	140.967	-1.181	1.00	66.64	O	ATOM	25075	O3*	C A1189	206.134	138.230	6.183	1.00	50.91	O
ATOM	25026	C5*	G A1187	216.928	140.546	-0.216	1.00	66.64	C	ATOM	25076	C2*	C A1189	206.695	139.808	4.483	1.00	50.91	C
ATOM	25027	C4*	G A1187	217.274	141.098	1.144	1.00	66.64	C	ATOM	25077	O2*	C A1189	205.645	140.557	5.069	1.00	50.91	O
ATOM	25028	O4*	G A1187	217.386	142.546	1.085	1.00	66.64	O	ATOM	25078	C1*	C A1189	207.921	140.705	4.308	1.00	50.91	C
ATOM	25029	C3*	G A1187	216.187	140.838	2.164	1.00	66.64	C	ATOM	25079	N1	C A1189	208.732	140.275	3.163	1.00	63.71	N
ATOM	25030	O3*	G A1187	216.323	139.547	2.728	1.00	66.64	O	ATOM	25080	C2	C A1189	208.466	140.821	1.905	1.00	63.71	C
ATOM	25031	C2*	G A1187	216.356	141.983	3.151	1.00	66.64	C	ATOM	25081	O2	C A1189	207.565	141.670	1.792	1.00	63.71	O
ATOM	25032	O2*	G A1187	217.400	141.735	4.068	1.00	66.64	C	ATOM	25082	N3	C A1189	209.190	140.404	0.842	1.00	63.71	N
ATOM	25033	C1*	G A1187	216.755	143.128	2.217	1.00	66.64	C	ATOM	25083	C4	C A1189	210.139	139.478	1.002	1.00	63.71	C
ATOM	25034	N9	G A1187	215.624	143.927	1.736	1.00	60.09	N	ATOM	25084	N4	C A1189	210.814	139.082	-0.078	1.00	63.71	N
ATOM	25035	C8	G A1187	215.298	144.196	0.425	1.00	60.09	C	ATOM	25085	C5	C A1189	210.437	138.914	2.275	1.00	63.71	C
ATOM	25036	N7	G A1187	214.249	144.960	0.299	1.00	60.09	N	ATOM	25086	C6	C A1189	209.721	139.340	3.317	1.00	63.71	C
ATOM	25037	C5	G A1187	213.849	145.211	1.601	1.00	60.09	C	ATOM	25087	P	G A1190	206.033	136.653	6.407	1.00	65.94	P
ATOM	25038	C6	G A1187	212.777	145.996	2.094	1.00	60.09	C	ATOM	25088	O1P	G A1190	204.983	136.503	7.433	1.00	81.10	O
ATOM	25039	O6	G A1187	211.936	146.643	1.457	1.00	60.09	O	ATOM	25089	O2P	G A1190	207.375	136.079	6.640	1.00	81.10	O
ATOM	25040	N1	G A1187	212.737	145.985	3.484	1.00	60.09	N	ATOM	25090	O5*	G A1190	205.463	136.119	5.028	1.00	65.94	O
ATOM	25041	C2	G A1187	213.614	145.302	4.300	1.00	60.09	C	ATOM	25091	C5*	G A1190	204.113	136.412	4.641	1.00	65.94	C
ATOM	25042	N2	G A1187	213.409	145.407	5.627	1.00	60.09	N	ATOM	25092	C4*	G A1190	203.708	135.573	3.452	1.00	65.94	C
ATOM	25043	N3	G A1187	214.619	144.569	3.849	1.00	60.09	N	ATOM	25093	O4*	G A1190	204.670	135.820	2.403	1.00	65.94	O
ATOM	25044	C4	G A1187	214.680	144.571	2.502	1.00	60.09	C	ATOM	25094	C3*	G A1190	203.651	134.053	3.619	1.00	65.94	C
ATOM	25045	P	A A1188	215.016	138.636	2.909	1.00	66.31	P	ATOM	25095	O3*	G A1190	202.370	133.693	4.223	1.00	65.94	O
ATOM	25046	O1P	A A1188	215.435	137.301	3.435	1.00	57.08	O	ATOM	25096	C2*	G A1190	203.933	133.564	2.209	1.00	65.94	C
ATOM	25047	O2P	A A1188	214.205	138.728	1.651	1.00	57.08	O	ATOM	25097	O2*	G A1190	202.773	133.693	1.417	1.00	65.94	O



ATOM	25098	C1*	G A1190	204.893	134.633	1.679	1.00	65.94	C	ATOM	25148	C4	C A1192	196.627	129.458	-0.780	1.00	63.29	C
ATOM	25099	N9	G A1190	206.326	134.351	1.712	1.00	81.10	N	ATOM	25149	N4	C A1192	197.787	129.019	-1.268	1.00	63.29	N
ATOM	25100	C8	G A1190	207.202	134.691	2.712	1.00	81.10	C	ATOM	25150	C5	C A1192	196.619	130.419	0.262	1.00	63.29	C
ATOM	25101	N7	G A1190	208.439	134.383	2.438	1.00	81.10	N	ATOM	25151	C6	C A1192	195.430	130.795	0.744	1.00	63.29	C
ATOM	25102	C5	G A1190	208.377	133.786	1.187	1.00	81.10	C	ATOM	25152	P	G A1193	192.506	128.443	4.993	1.00	46.75	P
ATOM	25103	C6	G A1190	209.408	133.259	0.374	1.00	81.10	C	ATOM	25153	O1P	G A1193	191.430	128.032	5.936	1.00	67.60	O
ATOM	25104	O6	G A1190	210.630	133.228	0.599	1.00	81.10	O	ATOM	25154	O2P	G A1193	193.900	128.629	5.498	1.00	67.60	O
ATOM	25105	N1	G A1190	208.905	132.737	-0.814	1.00	81.10	N	ATOM	25155	O5*	G A1193	192.511	127.371	3.817	1.00	46.75	O
ATOM	25106	C2	G A1190	207.585	132.739	-1.179	1.00	81.10	C	ATOM	25156	C5*	G A1193	193.399	126.239	3.849	1.00	46.75	C
ATOM	25107	N2	G A1190	207.308	132.199	-2.368	1.00	81.10	N	ATOM	25157	O4*	G A1193	193.644	125.736	2.447	1.00	46.75	C
ATOM	25108	N3	G A1190	206.614	133.237	-0.435	1.00	81.10	N	ATOM	25158	O4*	G A1193	194.218	126.783	1.612	1.00	46.75	C
ATOM	25109	C4	G A1190	207.078	133.740	0.730	1.00	81.10	C	ATOM	25159	C3*	G A1193	194.620	124.586	2.359	1.00	46.75	C
ATOM	25110	P	A A1191	201.239	132.810	3.437	1.00	43.34	P	ATOM	25160	O3*	G A1193	193.945	123.377	2.590	1.00	46.75	O
ATOM	25111	O1P	A A1191	200.201	132.454	4.445	1.00	61.81	O	ATOM	25161	C2*	G A1193	195.130	124.706	0.933	1.00	46.75	C
ATOM	25112	O2P	A A1191	201.882	131.710	2.656	1.00	61.81	O	ATOM	25162	O2*	G A1193	194.217	124.179	-0.003	1.00	46.75	O
ATOM	25113	O5*	A A1191	200.504	133.854	2.477	1.00	43.34	O	ATOM	25163	C1*	G A1193	195.198	126.225	0.756	1.00	46.75	C
ATOM	25114	C5*	A A1191	199.799	134.972	3.045	1.00	43.34	C	ATOM	25164	N9	G A1193	196.503	126.746	1.167	1.00	67.60	N
ATOM	25115	C4*	A A1191	198.366	135.031	2.551	1.00	43.34	C	ATOM	25165	C8	G A1193	196.764	127.587	2.218	1.00	67.60	C
ATOM	25116	O4*	A A1191	198.366	135.379	1.151	1.00	43.34	O	ATOM	25166	N7	G A1193	198.032	127.848	2.365	1.00	67.60	N
ATOM	25117	C3*	A A1191	197.505	133.782	2.703	1.00	43.34	C	ATOM	25167	C5	G A1193	198.649	127.144	1.344	1.00	67.60	C
ATOM	25118	O3*	A A1191	196.831	133.833	3.973	1.00	43.34	O	ATOM	25168	C6	G A1193	200.024	127.033	1.002	1.00	67.60	C
ATOM	25119	C2*	A A1191	196.522	133.912	1.533	1.00	43.34	C	ATOM	25169	O6	G A1193	201.000	127.548	1.552	1.00	67.60	O
ATOM	25120	O2*	A A1191	195.357	134.666	1.813	1.00	43.34	O	ATOM	25170	N1	G A1193	200.208	126.215	-0.103	1.00	67.60	N
ATOM	25121	C1*	A A1191	197.352	134.668	0.483	1.00	61.81	C	ATOM	25171	C2	G A1193	199.204	125.577	-0.791	1.00	67.60	C
ATOM	25122	N9	A A1191	198.002	133.848	-0.545	1.00	61.81	N	ATOM	25172	N2	G A1193	199.582	124.824	-1.830	1.00	67.60	N
ATOM	25123	C8	A A1191	199.335	133.524	-0.618	1.00	61.81	C	ATOM	25173	N3	G A1193	197.925	125.671	-0.482	1.00	67.60	N
ATOM	25124	N7	A A1191	199.653	132.826	-1.676	1.00	61.81	N	ATOM	25174	C4	G A1193	197.720	126.465	0.589	1.00	67.60	C
ATOM	25125	C5	A A1191	198.447	132.665	-2.341	1.00	61.81	C	ATOM	25175	P	U A1194	194.764	122.099	3.082	1.00	58.18	P
ATOM	25126	C6	A A1191	198.113	132.020	-3.535	1.00	61.81	C	ATOM	25176	O1P	U A1194	193.816	120.965	3.241	1.00	59.37	O
ATOM	25127	N6	A A1191	198.999	131.394	-4.312	1.00	61.81	N	ATOM	25177	O2P	U A1194	195.616	122.505	4.220	1.00	59.37	O
ATOM	25128	N1	A A1191	196.822	132.035	-3.914	1.00	61.81	N	ATOM	25178	O5*	U A1194	195.715	121.783	1.849	1.00	58.18	O
ATOM	25129	C2	A A1191	195.939	132.657	-3.140	1.00	61.81	C	ATOM	25179	C5*	U A1194	195.178	121.393	0.571	1.00	58.18	C
ATOM	25130	N3	A A1191	196.127	133.302	-2.001	1.00	61.81	N	ATOM	25180	C4*	U A1194	196.284	120.863	-0.309	1.00	58.18	C
ATOM	25131	C4	A A1191	197.420	133.273	-1.649	1.00	61.81	C	ATOM	25181	O4*	U A1194	197.174	121.944	-0.688	1.00	58.18	C
ATOM	25132	P	C A1192	196.191	132.502	4.636	1.00	50.64	P	ATOM	25182	C3*	U A1194	197.181	119.831	0.354	1.00	58.18	C
ATOM	25133	O1P	C A1192	195.495	132.923	5.880	1.00	63.29	O	ATOM	25183	O3*	U A1194	196.642	118.521	0.234	1.00	58.18	O
ATOM	25134	O2P	C A1192	197.206	131.417	4.702	1.00	63.29	O	ATOM	25184	C2*	U A1194	198.487	119.969	-0.410	1.00	58.18	C
ATOM	25135	O5*	C A1192	195.051	132.071	3.615	1.00	50.64	O	ATOM	25185	O2*	U A1194	198.494	119.182	-1.575	1.00	58.18	O
ATOM	25136	C5*	C A1192	193.708	132.581	3.730	1.00	50.64	C	ATOM	25186	C1*	U A1194	198.500	121.461	-0.764	1.00	58.18	C
ATOM	25137	C4*	C A1192	192.766	131.736	2.906	1.00	50.64	C	ATOM	25187	N1	U A1194	199.337	122.248	0.150	1.00	59.37	N
ATOM	25138	O4*	C A1192	193.080	131.905	1.498	1.00	50.64	O	ATOM	25188	C2	U A1194	200.691	122.375	-0.143	1.00	59.37	C
ATOM	25139	C3*	C A1192	192.897	130.243	3.157	1.00	50.64	C	ATOM	25189	O2	U A1194	201.212	121.913	-1.152	1.00	59.37	O
ATOM	25140	O3*	C A1192	192.102	129.797	4.237	1.00	50.64	O	ATOM	25190	N3	U A1194	201.417	123.070	0.794	1.00	59.37	N
ATOM	25141	C2*	C A1192	192.453	129.624	1.843	1.00	50.64	C	ATOM	25191	C4	U A1194	200.942	123.650	1.953	1.00	59.37	C
ATOM	25142	O2*	C A1192	191.055	129.478	1.753	1.00	50.64	O	ATOM	25192	O4	U A1194	201.717	124.253	2.689	1.00	59.37	O
ATOM	25143	C1*	C A1192	192.953	130.655	0.827	1.00	50.64	C	ATOM	25193	C5	U A1194	199.539	123.495	2.165	1.00	59.37	C
ATOM	25144	N1	C A1192	194.266	130.277	0.247	1.00	63.29	N	ATOM	25194	C6	U A1194	198.804	122.821	1.277	1.00	59.37	C
ATOM	25145	C2	C A1192	194.303	129.360	-0.809	1.00	63.29	C	ATOM	25195	P	C A1195	196.996	117.412	1.342	1.00	51.85	P
ATOM	25146	O2	C A1192	193.239	128.942	-1.281	1.00	63.29	O	ATOM	25196	O1P	C A1195	196.192	116.195	1.056	1.00	78.58	O
ATOM	25147	N3	C A1192	195.499	128.963	-1.293	1.00	63.29	N	ATOM	25197	O2P	C A1195	196.923	118.046	2.687	1.00	78.58	O



ATOM	25198	O5*	C A1195	198.510	117.066	1.033	1.00	51.85	O	ATOM	25248	C8	G A1197	203.463	118.158	5.586	1.00	65.62	C
ATOM	25199	C5*	C A1195	198.887	116.533	-0.239	1.00	51.85	C	ATOM	25249	N7	G A1197	203.116	119.146	6.463	1.00	65.62	N
ATOM	25200	C4*	C A1195	200.354	116.264	-0.240	1.00	51.85	C	ATOM	25250	C5	G A1197	204.297	119.843	6.679	1.00	65.62	C
ATOM	25201	O4*	C A1195	201.034	117.533	-0.158	1.00	51.85	O	ATOM	25251	C6	G A1197	204.545	121.012	7.438	1.00	65.62	C
ATOM	25202	C3*	C A1195	200.778	115.446	0.968	1.00	51.85	C	ATOM	25252	O6	G A1197	203.746	121.693	8.088	1.00	65.62	O
ATOM	25203	O3*	C A1195	200.693	114.074	0.539	1.00	51.85	O	ATOM	25253	N1	G A1197	205.884	121.373	7.391	1.00	65.62	N
ATOM	25204	C2*	C A1195	202.172	115.996	1.286	1.00	51.85	C	ATOM	25254	C2	G A1197	206.861	120.703	6.704	1.00	65.62	C
ATOM	25205	O2*	C A1195	203.212	115.354	0.574	1.00	51.85	O	ATOM	25255	N2	G A1197	208.097	121.214	6.786	1.00	65.62	N
ATOM	25206	C1*	C A1195	202.079	117.449	0.782	1.00	51.85	C	ATOM	25256	N3	G A1197	206.645	119.615	5.990	1.00	65.62	N
ATOM	25207	N1	C A1195	201.900	118.550	1.761	1.00	78.58	N	ATOM	25257	C4	G A1197	205.349	119.244	6.019	1.00	65.62	C
ATOM	25208	O2	C A1195	203.032	119.111	2.375	1.00	78.58	C	ATOM	25258	P	G A1198	206.566	113.238	7.085	1.00	51.17	P
ATOM	25209	C2	C A1195	204.146	118.619	2.150	1.00	78.58	O	ATOM	25259	O1P	G A1198	207.417	112.029	6.919	1.00	66.78	O
ATOM	25210	N3	C A1195	202.880	120.173	3.202	1.00	78.58	N	ATOM	25260	O2P	G A1198	205.288	113.132	7.823	1.00	66.78	O
ATOM	25211	C4	C A1195	201.666	120.666	3.438	1.00	78.58	C	ATOM	25261	O5*	G A1198	207.449	114.384	7.751	1.00	51.17	O
ATOM	25212	N4	C A1195	201.572	121.723	4.235	1.00	78.58	N	ATOM	25262	C5*	G A1198	208.776	114.671	7.263	1.00	51.17	C
ATOM	25213	C5	C A1195	200.497	120.096	2.861	1.00	78.58	C	ATOM	25263	C4*	G A1198	209.501	115.625	8.191	1.00	51.17	C
ATOM	25214	C6	C A1195	200.656	119.047	2.040	1.00	78.58	C	ATOM	25264	O4*	G A1198	209.117	117.007	7.957	1.00	51.17	O
ATOM	25215	P	U A1196	201.005	112.855	1.544	1.00	71.05	P	ATOM	25265	C3*	G A1198	209.278	115.416	9.671	1.00	51.17	C
ATOM	25216	O1P	U A1196	202.327	113.098	2.150	1.00	99.87	O	ATOM	25266	O3*	G A1198	210.064	114.357	10.153	1.00	51.17	O
ATOM	25217	O2P	U A1196	200.781	111.612	0.772	1.00	99.87	O	ATOM	25267	C2*	G A1198	209.672	116.761	10.259	1.00	51.17	C
ATOM	25218	O5*	U A1196	199.881	112.912	2.677	1.00	71.05	O	ATOM	25268	O2*	G A1198	211.060	116.894	10.419	1.00	51.17	O
ATOM	25219	C5*	U A1196	199.759	114.055	3.546	1.00	71.05	C	ATOM	25269	C1*	G A1198	209.213	117.731	9.170	1.00	51.17	C
ATOM	25220	C4*	U A1196	199.472	113.642	4.980	1.00	71.05	C	ATOM	25270	N9	G A1198	207.910	118.302	9.491	1.00	66.78	N
ATOM	25221	O4*	U A1196	198.116	113.159	5.134	1.00	71.05	O	ATOM	25271	C8	G A1198	206.670	117.850	9.106	1.00	66.78	C
ATOM	25222	C3*	U A1196	200.292	112.531	5.631	1.00	71.05	C	ATOM	25272	N7	G A1198	205.693	118.548	9.613	1.00	66.78	N
ATOM	25223	O3*	U A1196	201.636	112.894	6.002	1.00	71.05	O	ATOM	25273	C5	G A1198	206.329	119.526	10.366	1.00	66.78	C
ATOM	25224	C2*	U A1196	199.431	112.078	6.816	1.00	71.05	C	ATOM	25274	C6	G A1198	205.793	120.574	11.162	1.00	66.78	C
ATOM	25225	O2*	U A1196	199.764	112.659	8.061	1.00	71.05	O	ATOM	25275	O6	G A1198	204.610	120.850	11.384	1.00	66.78	O
ATOM	25226	C1*	U A1196	198.027	112.524	6.393	1.00	71.05	C	ATOM	25276	N1	G A1198	206.797	121.337	11.740	1.00	66.78	N
ATOM	25227	N1	U A1196	196.987	111.483	6.393	1.00	99.87	N	ATOM	25277	C2	G A1198	208.140	121.119	11.585	1.00	66.78	C
ATOM	25228	C2	U A1196	195.685	111.885	6.664	1.00	99.87	C	ATOM	25278	N2	G A1198	208.954	121.973	12.222	1.00	66.78	N
ATOM	25229	O2	U A1196	195.358	113.058	6.794	1.00	99.87	O	ATOM	25279	N3	G A1198	208.651	120.144	10.860	1.00	66.78	N
ATOM	25230	N3	U A1196	194.778	110.863	6.772	1.00	99.87	N	ATOM	25280	C4	G A1198	207.695	119.393	10.284	1.00	66.78	C
ATOM	25231	C4	U A1196	195.021	109.512	6.621	1.00	99.87	C	ATOM	25281	P	U A1199	209.538	113.497	11.395	1.00	48.87	P
ATOM	25232	O4	U A1196	194.111	108.707	6.841	1.00	99.87	O	ATOM	25282	O1P	U A1199	210.306	112.230	11.464	1.00	57.22	O
ATOM	25233	C5	U A1196	196.375	109.181	6.289	1.00	99.87	C	ATOM	25283	O2P	U A1199	208.047	113.448	11.333	1.00	57.22	O
ATOM	25234	C6	U A1196	197.287	110.151	6.185	1.00	99.87	C	ATOM	25284	O5*	U A1199	209.950	114.384	12.651	1.00	48.87	O
ATOM	25235	P	G A1197	201.947	114.260	6.815	1.00	44.68	P	ATOM	25285	C5*	U A1199	211.325	114.738	12.902	1.00	48.87	C
ATOM	25236	O1P	G A1197	202.958	113.905	7.816	1.00	65.62	O	ATOM	25286	C4*	U A1199	211.396	115.866	13.912	1.00	48.87	C
ATOM	25237	O2P	G A1197	200.711	114.997	7.230	1.00	65.62	O	ATOM	25287	O4*	U A1199	210.764	117.050	13.361	1.00	48.87	O
ATOM	25238	O5*	G A1197	202.701	115.134	5.727	1.00	44.68	O	ATOM	25288	C3*	U A1199	210.679	115.602	15.226	1.00	48.87	C
ATOM	25239	C5*	G A1197	203.269	114.502	4.567	1.00	44.68	C	ATOM	25289	O3*	U A1199	211.558	114.958	16.128	1.00	48.87	O
ATOM	25240	C4*	G A1197	204.636	115.042	4.306	1.00	44.68	C	ATOM	25290	C2*	U A1199	210.314	117.004	15.697	1.00	48.87	C
ATOM	25241	O4*	G A1197	204.511	116.418	3.886	1.00	44.68	O	ATOM	25291	O2*	U A1199	211.382	117.656	16.350	1.00	48.87	O
ATOM	25242	C3*	G A1197	205.516	115.060	5.535	1.00	44.68	C	ATOM	25292	C1*	U A1199	210.052	117.727	14.374	1.00	48.87	C
ATOM	25243	O3*	G A1197	206.218	113.835	5.638	1.00	44.68	O	ATOM	25293	N1	U A1199	208.633	117.759	13.991	1.00	57.22	N
ATOM	25244	C2*	G A1197	206.438	116.233	5.257	1.00	44.68	C	ATOM	25294	C2	U A1199	207.943	118.929	14.199	1.00	57.22	C
ATOM	25245	O2*	G A1197	207.483	115.837	4.387	1.00	44.68	O	ATOM	25295	O2	U A1199	208.459	119.918	14.674	1.00	57.22	O
ATOM	25246	C1*	G A1197	205.500	117.197	4.518	1.00	44.68	C	ATOM	25296	N3	U A1199	206.623	118.902	13.825	1.00	57.22	N
ATOM	25247	N9	G A1197	204.804	118.158	5.373	1.00	65.62	N	ATOM	25297	C4	U A1199	205.941	117.844	13.273	1.00	57.22	C



Table 1: Sheet 255/521

ATOM	25298	O4	U A1199	204.741	117.961	13.022	1.00	57.22	O	ATOM	25348	C4*	G A1202	215.326	119.742	22.093	1.00	59.49	C
ATOM	25299	C5	U A1199	206.727	116.668	13.082	1.00	57.22	C	ATOM	25349	O4*	G A1202	215.218	120.970	21.324	1.00	59.49	O
ATOM	25300	C6	U A1199	208.010	116.663	13.441	1.00	57.22	C	ATOM	25350	C3*	G A1202	214.136	119.771	23.034	1.00	59.49	C
ATOM	25301	P	C A1200	211.126	113.580	16.804	1.00	84.91	P	ATOM	25351	O3*	G A1202	214.361	118.975	24.199	1.00	59.49	O
ATOM	25302	O1P	C A1200	212.341	112.903	17.304	1.00	76.64	O	ATOM	25352	O2*	G A1202	213.991	121.257	23.338	1.00	59.49	C
ATOM	25303	O2P	C A1200	210.237	112.869	15.875	1.00	76.64	O	ATOM	25353	C2*	G A1202	214.871	121.710	24.345	1.00	59.49	O
ATOM	25304	O5*	C A1200	210.248	114.045	18.037	1.00	84.91	O	ATOM	25354	C1*	G A1202	214.395	121.893	22.009	1.00	59.49	C
ATOM	25305	C5*	C A1200	210.094	113.201	19.183	1.00	84.91	C	ATOM	25355	N9	G A1202	213.246	122.217	21.165	1.00	68.23	N
ATOM	25306	C4*	C A1200	209.156	113.847	20.160	1.00	84.91	C	ATOM	25356	C8	G A1202	212.723	121.467	20.141	1.00	68.23	C
ATOM	25307	O4*	C A1200	207.876	114.025	19.520	1.00	84.91	O	ATOM	25357	N7	G A1202	211.683	122.023	19.578	1.00	68.23	N
ATOM	25308	C3*	C A1200	208.851	113.063	21.427	1.00	84.91	C	ATOM	25358	C5	G A1202	211.505	123.211	20.272	1.00	68.23	C
ATOM	25309	O3*	C A1200	209.755	113.460	22.458	1.00	84.91	O	ATOM	25359	C6	G A1202	210.531	124.241	20.117	1.00	68.23	C
ATOM	25310	C2*	C A1200	207.491	113.618	21.842	1.00	84.91	C	ATOM	25360	O6	G A1202	209.585	124.305	19.327	1.00	68.23	O
ATOM	25311	O2*	C A1200	207.645	114.774	22.653	1.00	84.91	O	ATOM	25361	N1	G A1202	210.733	125.270	21.020	1.00	68.23	N
ATOM	25312	C1*	C A1200	206.879	114.056	20.508	1.00	84.91	C	ATOM	25362	C2	G A1202	211.721	125.307	21.961	1.00	68.23	N
ATOM	25313	N1	C A1200	205.694	113.320	20.047	1.00	76.64	N	ATOM	25363	N2	G A1202	211.741	126.388	22.734	1.00	68.23	N
ATOM	25314	C2	C A1200	204.441	113.698	20.547	1.00	76.64	C	ATOM	25364	N3	G A1202	212.622	124.360	22.131	1.00	68.23	N
ATOM	25315	O2	C A1200	204.376	114.605	21.394	1.00	76.64	O	ATOM	25365	C4	G A1202	212.460	123.349	21.254	1.00	68.23	C
ATOM	25316	N3	C A1200	203.334	113.069	20.099	1.00	76.64	N	ATOM	25366	P	C A1203	213.105	118.323	24.966	1.00	62.40	P
ATOM	25317	C4	C A1200	203.440	112.094	19.199	1.00	76.64	C	ATOM	25367	O1P	C A1203	213.578	117.789	26.267	1.00	68.00	O
ATOM	25318	N4	C A1200	202.319	111.512	18.781	1.00	76.64	N	ATOM	25368	O2P	C A1203	212.395	117.427	24.035	1.00	68.00	O
ATOM	25319	C5	C A1200	204.703	111.673	18.689	1.00	76.64	C	ATOM	25369	O5*	C A1203	212.180	119.584	25.262	1.00	62.40	O
ATOM	25320	C6	C A1200	205.795	112.305	19.138	1.00	76.64	C	ATOM	25370	C5*	C A1203	212.674	120.658	26.079	1.00	62.40	C
ATOM	25321	P	A A1201	211.126	112.661	22.707	1.00	56.73	P	ATOM	25371	C4*	C A1203	211.697	121.806	26.112	1.00	62.40	C
ATOM	25322	O1P	A A1201	211.028	111.305	22.074	1.00	63.84	O	ATOM	25372	O4*	C A1203	211.661	122.494	24.835	1.00	62.40	O
ATOM	25323	O2P	A A1201	211.401	112.763	24.164	1.00	63.84	O	ATOM	25373	C3*	C A1203	210.254	121.435	26.381	1.00	62.40	C
ATOM	25324	O5*	A A1201	212.215	113.563	21.958	1.00	56.73	O	ATOM	25374	O3*	C A1203	209.999	121.185	27.749	1.00	62.40	O
ATOM	25325	C5*	A A1201	212.309	114.977	22.249	1.00	56.73	C	ATOM	25375	C2*	C A1203	209.505	122.638	25.831	1.00	62.40	C
ATOM	25326	C4*	A A1201	213.265	115.681	21.299	1.00	56.73	C	ATOM	25376	O2*	C A1203	209.465	123.729	26.732	1.00	62.40	O
ATOM	25327	O4*	A A1201	214.620	115.235	21.547	1.00	56.73	O	ATOM	25377	C1*	C A1203	210.347	122.980	24.595	1.00	62.40	C
ATOM	25328	C3*	A A1201	213.014	115.542	19.805	1.00	56.73	C	ATOM	25378	N1	C A1203	209.802	122.298	23.398	1.00	68.00	N
ATOM	25329	O3*	A A1201	212.834	116.802	19.121	1.00	56.73	O	ATOM	25379	C2	C A1203	208.659	122.836	22.752	1.00	68.00	C
ATOM	25330	C2*	A A1201	214.083	114.557	19.328	1.00	56.73	C	ATOM	25380	O2	C A1203	208.160	123.906	23.168	1.00	68.00	O
ATOM	25331	O2*	A A1201	214.574	114.776	18.021	1.00	56.73	O	ATOM	25381	N3	C A1203	208.128	122.170	21.702	1.00	68.00	N
ATOM	25332	C1*	A A1201	215.183	114.686	20.376	1.00	56.73	C	ATOM	25382	C4	C A1203	208.676	121.025	21.290	1.00	68.00	C
ATOM	25333	N9	A A1201	215.679	113.353	20.717	1.00	63.84	N	ATOM	25383	N4	C A1203	208.094	120.386	20.276	1.00	68.00	N
ATOM	25334	C8	A A1201	214.996	112.367	21.397	1.00	63.84	C	ATOM	25384	C5	C A1203	209.840	120.478	21.902	1.00	68.00	C
ATOM	25335	N7	A A1201	215.667	111.246	21.522	1.00	63.84	N	ATOM	25385	C6	C A1203	210.368	121.141	22.936	1.00	68.00	C
ATOM	25336	C5	A A1201	216.876	111.510	20.893	1.00	63.84	C	ATOM	25386	P	A A1204	209.015	119.981	28.153	1.00	83.66	P
ATOM	25337	C6	A A1201	218.012	110.719	20.671	1.00	63.84	C	ATOM	25387	O1P	A A1204	209.029	119.887	29.631	1.00	70.38	O
ATOM	25338	N6	A A1201	218.116	109.452	21.072	1.00	63.84	N	ATOM	25388	O2P	A A1204	209.357	118.773	27.350	1.00	70.38	O
ATOM	25339	N1	A A1201	219.049	111.280	20.010	1.00	63.84	N	ATOM	25389	O5*	A A1204	207.595	120.547	27.697	1.00	83.66	O
ATOM	25340	C2	A A1201	218.939	112.553	19.605	1.00	63.84	C	ATOM	25390	C5*	A A1204	207.156	121.853	28.136	1.00	83.66	C
ATOM	25341	N3	A A1201	217.922	113.399	19.749	1.00	63.84	N	ATOM	25391	C4*	A A1204	205.849	122.233	27.481	1.00	83.66	C
ATOM	25342	C4	A A1201	216.906	112.809	20.406	1.00	63.84	C	ATOM	25392	O4*	A A1204	206.070	122.509	26.074	1.00	83.66	O
ATOM	25343	P	G A1202	214.048	117.838	18.962	1.00	59.49	P	ATOM	25393	C3*	A A1204	204.757	121.175	27.516	1.00	83.66	C
ATOM	25344	O1P	G A1202	213.614	118.901	18.032	1.00	68.23	O	ATOM	25394	O3*	A A1204	204.025	121.197	28.739	1.00	83.66	O
ATOM	25345	O2P	G A1202	215.296	117.095	18.671	1.00	68.23	O	ATOM	25395	C2*	A A1204	203.902	121.546	26.308	1.00	83.66	C
ATOM	25346	O5*	G A1202	214.120	118.497	20.411	1.00	59.49	O	ATOM	25396	O2*	A A1204	202.978	122.577	26.593	1.00	83.66	O
ATOM	25347	C5*	G A1202	215.354	118.566	21.149	1.00	59.49	C	ATOM	25397	C1*	A A1204	204.959	122.054	25.315	1.00	83.66	C



Table 1: Sheet 256/521

ATOM	25398	N9	A	A1204	205.426	121.004	24.395	1.00	70.38	N	ATOM	25448	N2	G	A1206	197.829	109.419	21.406	1.00	77.30	N
ATOM	25399	C8	A	A1204	206.670	120.413	24.350	1.00	70.38	C	ATOM	25449	N3	G	A1206	197.710	111.190	22.867	1.00	77.30	N
ATOM	25400	N7	A	A1204	206.771	119.457	23.457	1.00	70.38	C	ATOM	25450	C4	G	A1206	198.482	112.072	23.538	1.00	77.30	C
ATOM	25401	C5	A	A1204	205.514	119.420	22.864	1.00	70.38	C	ATOM	25451	P	G	A1207	196.002	111.247	29.093	1.00	71.27	P
ATOM	25402	C6	A	A1204	204.967	118.605	21.858	1.00	70.38	C	ATOM	25452	O1P	G	A1207	194.903	111.037	30.067	1.00	78.03	O
ATOM	25403	N6	A	A1204	205.636	117.623	21.252	1.00	70.38	N	ATOM	25453	O2P	G	A1207	197.350	111.649	29.574	1.00	78.03	O
ATOM	25404	C1	A	A1204	203.689	118.826	21.499	1.00	70.38	N	ATOM	25454	O5*	G	A1207	196.145	109.919	28.226	1.00	71.27	O
ATOM	25405	C2	A	A1204	203.010	119.792	22.118	1.00	70.38	C	ATOM	25455	C5*	G	A1207	195.022	109.390	27.504	1.00	71.27	C
ATOM	25406	N3	A	A1204	203.405	120.619	23.078	1.00	70.38	N	ATOM	25456	C4*	G	A1207	195.487	108.381	26.487	1.00	71.27	C
ATOM	25407	C4	A	A1204	204.682	120.379	23.416	1.00	70.38	C	ATOM	25457	O4*	G	A1207	196.255	109.043	25.446	1.00	71.27	O
ATOM	25408	P	U	A1205	203.687	119.811	29.496	1.00	72.78	P	ATOM	25458	C3*	G	A1207	196.426	107.316	27.025	1.00	71.27	C
ATOM	25409	O1P	U	A1205	203.027	120.153	30.778	1.00	72.20	O	ATOM	25459	O3*	G	A1207	195.749	106.246	27.650	1.00	71.27	O
ATOM	25410	O2P	U	A1205	204.895	118.944	29.506	1.00	72.20	O	ATOM	25460	C2*	G	A1207	197.194	106.869	25.785	1.00	71.27	C
ATOM	25411	O5*	U	A1205	202.584	119.116	28.576	1.00	72.78	O	ATOM	25461	O2*	G	A1207	196.544	105.873	25.019	1.00	71.27	O
ATOM	25412	C5*	U	A1205	201.265	119.687	28.435	1.00	72.78	C	ATOM	25462	C1*	G	A1207	197.283	108.170	24.988	1.00	71.27	C
ATOM	25413	C4*	U	A1205	200.506	119.000	27.325	1.00	72.78	C	ATOM	25463	N9	G	A1207	198.587	108.810	25.160	1.00	78.03	N
ATOM	25414	O4*	U	A1205	201.185	119.245	26.069	1.00	72.78	O	ATOM	25464	C8	G	A1207	198.884	109.952	25.869	1.00	78.03	C
ATOM	25415	C3*	U	A1205	200.403	117.485	27.427	1.00	72.78	C	ATOM	25465	N7	G	A1207	200.155	110.255	25.839	1.00	78.03	N
ATOM	25416	O3*	U	A1205	199.307	117.085	28.252	1.00	72.78	O	ATOM	25466	C5	G	A1207	200.731	109.257	25.062	1.00	78.03	C
ATOM	25417	C2*	U	A1205	200.229	117.066	25.971	1.00	72.78	C	ATOM	25467	C6	G	A1207	202.077	109.056	24.673	1.00	78.03	C
ATOM	25418	O2*	U	A1205	198.897	117.186	25.512	1.00	72.78	O	ATOM	25468	O6	G	A1207	203.064	109.749	24.936	1.00	78.03	O
ATOM	25419	C1*	U	A1205	201.096	118.095	25.242	1.00	72.78	C	ATOM	25469	N1	G	A1207	202.221	107.913	23.893	1.00	78.03	N
ATOM	25420	N1	U	A1205	202.458	117.599	24.972	1.00	72.20	N	ATOM	25470	C2	G	A1207	201.202	107.072	23.529	1.00	78.03	C
ATOM	25421	C2	U	A1205	202.655	116.774	23.871	1.00	72.20	C	ATOM	25471	N2	G	A1207	201.544	106.016	22.781	1.00	78.03	N
ATOM	25422	O2	U	A1205	201.770	116.485	23.084	1.00	72.20	O	ATOM	25472	N3	G	A1207	199.942	107.252	23.874	1.00	78.03	N
ATOM	25423	C3	U	A1205	203.937	116.305	23.724	1.00	72.20	C	ATOM	25473	C4	G	A1207	199.778	108.357	24.636	1.00	78.03	C
ATOM	25424	C4	U	A1205	205.022	116.582	24.532	1.00	72.20	C	ATOM	25474	P	C	A1208	196.556	105.299	28.657	1.00	75.20	P
ATOM	25425	O4	U	A1205	206.105	116.049	24.298	1.00	72.20	O	ATOM	25475	O1P	C	A1208	195.620	104.273	29.192	1.00	75.20	O
ATOM	25426	C5	U	A1205	204.748	117.464	25.618	1.00	72.20	C	ATOM	25476	O2P	C	A1208	197.300	106.179	29.589	1.00	75.20	O
ATOM	25427	C6	U	A1205	203.511	117.929	25.798	1.00	72.20	C	ATOM	25477	O5*	C	A1208	197.634	104.570	27.742	1.00	75.20	O
ATOM	25428	P	G	A1206	199.255	115.589	28.861	1.00	66.54	P	ATOM	25478	C5*	C	A1208	197.267	103.475	26.891	1.00	75.20	C
ATOM	25429	O1P	G	A1206	198.630	115.691	30.202	1.00	77.30	O	ATOM	25479	C4*	C	A1208	198.504	102.838	26.308	1.00	75.20	C
ATOM	25430	O2P	G	A1206	200.582	114.938	28.722	1.00	77.30	O	ATOM	25480	O4*	C	A1208	199.225	103.830	25.532	1.00	75.20	O
ATOM	25431	O5*	G	A1206	198.238	114.819	27.906	1.00	66.54	O	ATOM	25481	C3*	C	A1208	199.525	102.335	27.316	1.00	75.20	C
ATOM	25432	C5*	G	A1206	196.867	115.244	27.781	1.00	66.54	C	ATOM	25482	O3*	C	A1208	199.234	101.028	27.788	1.00	75.20	O
ATOM	25433	C4*	G	A1206	196.129	114.339	26.828	1.00	66.54	C	ATOM	25483	C2*	C	A1208	200.827	102.373	26.529	1.00	75.20	C
ATOM	25434	O4*	G	A1206	196.602	114.564	25.477	1.00	66.54	O	ATOM	25484	O2*	C	A1208	200.990	101.228	25.720	1.00	75.20	O
ATOM	25435	C3*	G	A1206	196.345	112.855	27.068	1.00	66.54	C	ATOM	25485	C1*	C	A1208	200.622	103.609	25.652	1.00	75.20	C
ATOM	25436	O3*	G	A1206	195.472	112.352	28.059	1.00	66.54	O	ATOM	25486	N1	C	A1208	201.239	104.817	26.226	1.00	75.20	N
ATOM	25437	C2*	G	A1206	196.093	112.244	25.694	1.00	66.54	C	ATOM	25487	C2	C	A1208	202.634	104.953	26.182	1.00	75.20	C
ATOM	25438	O2*	G	A1206	194.727	112.010	25.406	1.00	66.54	O	ATOM	25488	O2	C	A1208	203.309	104.066	25.640	1.00	75.20	O
ATOM	25439	C1*	G	A1206	196.648	113.331	24.769	1.00	66.54	C	ATOM	25489	N3	C	A1208	203.209	106.045	26.731	1.00	75.20	N
ATOM	25440	N9	G	A1206	198.036	113.061	24.391	1.00	77.30	N	ATOM	25490	C4	C	A1208	202.451	106.979	27.305	1.00	75.20	C
ATOM	25441	C8	G	A1206	199.158	113.718	24.837	1.00	77.30	C	ATOM	25491	N4	C	A1208	203.060	108.032	27.851	1.00	75.20	N
ATOM	25442	N7	G	A1206	200.267	113.220	24.364	1.00	77.30	N	ATOM	25492	C5	C	A1208	201.031	106.874	27.351	1.00	75.20	C
ATOM	25443	C5	G	A1206	199.856	112.176	23.547	1.00	77.30	C	ATOM	25493	C6	C	A1208	200.472	105.790	26.803	1.00	75.20	C
ATOM	25444	C6	G	A1206	200.617	111.263	22.779	1.00	77.30	C	ATOM	25494	P	C	A1209	199.711	100.601	29.265	1.00	83.58	P
ATOM	25445	O6	G	A1206	201.847	111.187	22.668	1.00	77.30	O	ATOM	25495	O1P	C	A1209	199.181	99.234	29.555	1.00	71.93	O
ATOM	25446	N1	G	A1206	199.803	110.366	22.099	1.00	77.30	N	ATOM	25496	O2P	C	A1209	199.373	101.737	30.173	1.00	71.93	O
ATOM	25447	C2	G	A1206	198.433	110.350	22.148	1.00	77.30	C	ATOM	25497	O5*	C	A1209	201.300	100.499	29.157	1.00	83.58	O



ATOM	25498	C5*	C A1209	201.928	99.447	28.394	1.00	83.58	C	ATOM	25548	O2	U A1211	209.504	104.384	38.457	1.00	60.73	O
ATOM	25499	C4*	C A1209	203.417	99.689	28.281	1.00	83.58	C	ATOM	25549	N3	U A1211	207.459	104.700	37.533	1.00	60.73	N
ATOM	25500	O4*	C A1209	203.639	100.992	27.679	1.00	83.58	O	ATOM	25550	C4	U A1211	206.329	104.308	36.839	1.00	60.73	C
ATOM	25501	C3*	C A1209	204.210	99.735	29.580	1.00	83.58	C	ATOM	25551	O4	U A1211	205.423	105.132	36.643	1.00	60.73	O
ATOM	25502	O3*	C A1209	204.583	98.437	30.045	1.00	83.58	O	ATOM	25552	C5	U A1211	206.333	102.925	36.416	1.00	60.73	C
ATOM	25503	C2*	C A1209	205.422	100.571	29.194	1.00	83.58	C	ATOM	25553	C6	U A1211	207.386	102.140	36.704	1.00	60.73	C
ATOM	25504	O2*	C A1209	206.406	99.817	28.515	1.00	83.58	O	ATOM	25554	P	U A1212	210.936	98.458	41.173	1.00	142.66	P
ATOM	25505	C1*	C A1209	204.808	101.577	28.223	1.00	83.58	C	ATOM	25555	O1P	U A1212	209.490	98.236	41.437	1.00	173.83	O
ATOM	25506	N1	C A1209	204.439	102.842	28.886	1.00	71.93	N	ATOM	25556	O2P	U A1212	211.862	98.675	42.312	1.00	173.83	O
ATOM	25507	C2	C A1209	205.438	103.796	29.135	1.00	71.93	C	ATOM	25557	O5*	U A1212	211.460	97.248	40.279	1.00	142.66	O
ATOM	25508	O2	C A1209	206.605	103.566	28.772	1.00	71.93	O	ATOM	25558	C5*	U A1212	212.594	96.457	40.675	1.00	142.66	C
ATOM	25509	N3	C A1209	205.108	104.943	29.761	1.00	71.93	N	ATOM	25559	C4*	U A1212	213.873	97.219	40.417	1.00	142.66	C
ATOM	25510	C4	C A1209	203.848	105.166	30.124	1.00	71.93	C	ATOM	25560	O4*	U A1212	214.171	98.080	41.545	1.00	142.66	O
ATOM	25511	N4	C A1209	203.573	106.317	30.732	1.00	71.93	N	ATOM	25561	C3*	U A1212	215.108	96.355	40.249	1.00	142.66	C
ATOM	25512	C5	C A1209	202.815	104.222	29.878	1.00	71.93	C	ATOM	25562	O3*	U A1212	215.145	95.941	38.883	1.00	142.66	O
ATOM	25513	C6	C A1209	203.150	103.086	29.263	1.00	71.93	C	ATOM	25563	C2*	U A1212	216.247	97.287	40.670	1.00	142.66	C
ATOM	25514	P	C A1210	204.757	98.175	31.629	1.00	83.88	P	ATOM	25564	O2*	U A1212	216.698	98.137	39.638	1.00	142.66	O
ATOM	25515	O1P	C A1210	204.842	96.699	31.839	1.00	72.75	O	ATOM	25565	C1*	U A1212	215.572	98.148	41.742	1.00	142.66	C
ATOM	25516	O2P	C A1210	203.716	98.961	32.347	1.00	72.75	O	ATOM	25566	N1	U A1212	215.868	97.786	43.139	1.00	173.83	N
ATOM	25517	O5*	C A1210	206.170	98.822	31.985	1.00	83.88	O	ATOM	25567	C2	U A1212	215.856	98.806	44.085	1.00	173.83	C
ATOM	25518	C5*	C A1210	207.389	98.249	31.484	1.00	83.88	C	ATOM	25568	O2	U A1212	215.623	99.973	43.811	1.00	173.83	O
ATOM	25519	C4*	C A1210	208.577	99.040	31.968	1.00	83.88	C	ATOM	25569	N3	U A1212	216.127	98.407	45.368	1.00	173.83	N
ATOM	25520	O4*	C A1210	208.513	100.393	31.451	1.00	83.88	O	ATOM	25570	C4	U A1212	216.400	97.129	45.801	1.00	173.83	C
ATOM	25521	C3*	C A1210	208.686	99.219	33.469	1.00	83.88	C	ATOM	25571	O4	U A1212	216.573	96.925	47.003	1.00	173.83	O
ATOM	25522	O3*	C A1210	209.284	98.074	34.059	1.00	83.88	O	ATOM	25572	C5	U A1212	216.403	96.135	44.770	1.00	173.83	C
ATOM	25523	C2*	C A1210	209.538	100.479	33.599	1.00	83.88	C	ATOM	25573	C6	U A1212	216.143	96.486	43.508	1.00	173.83	C
ATOM	25524	O2*	C A1210	210.922	100.246	33.469	1.00	83.88	O	ATOM	25574	P	A A1213	216.506	95.392	38.234	1.00	147.67	P
ATOM	25525	C1*	C A1210	209.093	101.287	32.382	1.00	83.88	C	ATOM	25575	O1P	A A1213	216.093	94.437	37.179	1.00	92.96	O
ATOM	25526	N1	C A1210	208.129	102.358	32.689	1.00	72.75	N	ATOM	25576	O2P	A A1213	217.413	94.940	39.320	1.00	92.96	O
ATOM	25527	C2	C A1210	208.600	103.527	33.304	1.00	72.75	C	ATOM	25577	O5*	A A1213	217.145	96.690	37.560	1.00	147.67	O
ATOM	25528	O2	C A1210	209.801	103.613	33.588	1.00	72.75	O	ATOM	25578	C5*	A A1213	216.834	97.081	36.198	1.00	147.67	C
ATOM	25529	N3	C A1210	207.734	104.528	33.574	1.00	72.75	N	ATOM	25579	C4*	A A1213	215.502	97.796	36.142	1.00	147.67	C
ATOM	25530	C4	C A1210	206.445	104.398	33.253	1.00	72.75	C	ATOM	25580	O4*	A A1213	215.342	98.640	37.297	1.00	147.67	O
ATOM	25531	N4	C A1210	205.629	105.419	33.522	1.00	72.75	N	ATOM	25581	C3*	A A1213	215.285	98.729	34.960	1.00	147.67	C
ATOM	25532	C5	C A1210	205.933	103.216	32.636	1.00	72.75	C	ATOM	25582	O3*	A A1213	214.758	97.986	33.858	1.00	147.67	O
ATOM	25533	C6	C A1210	206.802	102.230	32.377	1.00	72.75	C	ATOM	25583	C2*	A A1213	214.228	99.714	35.474	1.00	147.67	C
ATOM	25534	P	U A1211	208.665	97.456	35.412	1.00	109.22	P	ATOM	25584	O2*	A A1213	212.912	99.305	35.177	1.00	147.67	O
ATOM	25535	O1P	U A1211	208.476	95.994	35.176	1.00	60.73	O	ATOM	25585	C1*	A A1213	214.395	99.634	36.994	1.00	147.67	C
ATOM	25536	O2P	U A1211	207.504	98.288	35.841	1.00	60.73	O	ATOM	25586	N9	A A1213	214.707	100.856	37.735	1.00	92.96	N
ATOM	25537	O5*	U A1211	209.834	97.657	36.475	1.00	109.22	O	ATOM	25587	C8	A A1213	215.658	101.026	38.709	1.00	92.96	C
ATOM	25538	C5*	U A1211	209.562	98.140	37.798	1.00	109.22	C	ATOM	25588	N7	A A1213	215.638	102.210	39.269	1.00	92.96	N
ATOM	25539	C4*	U A1211	210.157	99.512	37.979	1.00	109.22	C	ATOM	25589	C5	A A1213	214.617	102.873	38.606	1.00	92.96	C
ATOM	25540	O4*	U A1211	209.470	100.454	37.127	1.00	109.22	O	ATOM	25590	C6	A A1213	214.086	104.171	38.743	1.00	92.96	C
ATOM	25541	C3*	U A1211	209.994	100.114	39.366	1.00	109.22	C	ATOM	25591	N6	A A1213	214.512	105.060	39.647	1.00	92.96	N
ATOM	25542	O3*	U A1211	211.080	99.728	40.207	1.00	109.22	O	ATOM	25592	N1	A A1213	213.082	104.527	37.912	1.00	92.96	N
ATOM	25543	C2*	U A1211	210.095	101.617	39.115	1.00	109.22	C	ATOM	25593	C2	A A1213	212.642	103.630	37.020	1.00	92.96	C
ATOM	25544	O2*	U A1211	211.420	102.085	39.243	1.00	109.22	O	ATOM	25594	N3	A A1213	213.050	102.381	36.806	1.00	92.96	N
ATOM	25545	C1*	U A1211	209.665	101.749	37.652	1.00	109.22	C	ATOM	25595	C4	A A1213	214.052	102.060	37.641	1.00	92.96	C
ATOM	25546	N1	U A1211	208.495	102.603	37.390	1.00	60.73	N	ATOM	25596	P	C A1214	215.569	97.902	32.472	1.00	87.89	P
ATOM	25547	C2	U A1211	208.554	103.928	37.839	1.00	60.73	C	ATOM	25597	O1P	C A1214	215.067	96.692	31.771	1.00	68.96	O



ATOM	25598	O2P	C A1214	217.018	98.026	32.783	1.00	68.96	O	ATOM	25648	C2*	G A1216	221.503	108.553	37.902	1.00	72.76	C
ATOM	25599	O5*	C A1214	215.089	99.182	31.648	1.00	87.89	O	ATOM	25649	O2*	G A1216	220.676	109.310	39.082	1.00	72.76	O
ATOM	25600	C5*	C A1214	216.035	100.113	31.067	1.00	87.89	C	ATOM	25650	C1*	G A1216	220.400	107.524	38.144	1.00	72.76	C
ATOM	25601	C4*	C A1214	215.294	101.258	30.420	1.00	87.89	C	ATOM	25651	N9	G A1216	220.676	106.205	37.576	1.00	78.31	N
ATOM	25602	O4*	C A1214	214.471	100.710	29.372	1.00	87.89	O	ATOM	25652	C8	G A1216	220.056	105.586	36.515	1.00	78.31	C
ATOM	25603	C3*	C A1214	214.339	101.974	31.369	1.00	87.89	C	ATOM	25653	N7	G A1216	220.512	104.383	36.287	1.00	78.31	N
ATOM	25604	O3*	C A1214	214.915	103.145	31.978	1.00	87.89	O	ATOM	25654	C5	G A1216	221.495	104.201	37.248	1.00	78.31	C
ATOM	25605	O2*	C A1214	213.180	102.409	30.477	1.00	87.89	C	ATOM	25655	C6	G A1216	222.324	103.087	37.511	1.00	78.31	C
ATOM	25606	O2*	C A1214	213.337	103.711	29.934	1.00	87.89	O	ATOM	25656	O6	G A1216	222.340	101.992	36.945	1.00	78.31	O
ATOM	25607	C1*	C A1214	213.226	101.375	29.342	1.00	87.89	C	ATOM	25657	N1	G A1216	223.193	103.331	38.567	1.00	78.31	N
ATOM	25608	N1	C A1214	212.159	100.360	29.261	1.00	68.96	N	ATOM	25658	C2	G A1216	223.246	104.495	39.292	1.00	78.31	C
ATOM	25609	O2	C A1214	210.877	100.732	28.804	1.00	68.96	C	ATOM	25659	N2	G A1216	224.152	104.544	40.279	1.00	78.31	N
ATOM	25610	O2	C A1214	210.627	101.929	28.586	1.00	68.96	O	ATOM	25660	N3	G A1216	222.467	105.537	39.067	1.00	78.31	N
ATOM	25611	N3	C A1214	209.943	99.770	28.621	1.00	68.96	N	ATOM	25661	C4	G A1216	221.621	105.321	38.038	1.00	78.31	C
ATOM	25612	C4	C A1214	210.236	98.492	28.899	1.00	68.96	C	ATOM	25662	P	C A1217	222.815	110.913	35.880	1.00	92.51	P
ATOM	25613	N4	C A1214	209.297	97.563	28.676	1.00	68.96	N	ATOM	25663	O1P	C A1217	223.021	112.381	35.700	1.00	71.20	O
ATOM	25614	C5	C A1214	211.507	98.102	29.415	1.00	68.96	C	ATOM	25664	O2P	C A1217	222.772	110.017	34.692	1.00	71.20	O
ATOM	25615	C6	C A1214	212.425	99.057	29.582	1.00	68.96	C	ATOM	25665	O5*	C A1217	223.954	110.328	36.827	1.00	92.51	O
ATOM	25616	P	G A1215	216.320	103.752	31.447	1.00	80.22	P	ATOM	25666	C5*	C A1217	224.215	110.913	38.112	1.00	92.51	C
ATOM	25617	O1P	G A1215	216.140	104.097	30.014	1.00	86.79	O	ATOM	25667	C4*	C A1217	225.361	110.205	38.787	1.00	92.51	C
ATOM	25618	O2P	G A1215	217.438	102.860	31.852	1.00	86.79	O	ATOM	25668	O4*	C A1217	224.966	108.869	39.185	1.00	92.51	O
ATOM	25619	O5*	G A1215	216.469	105.126	32.241	1.00	80.22	O	ATOM	25669	C3*	C A1217	226.596	109.989	37.937	1.00	92.51	C
ATOM	25620	C5*	G A1215	215.379	106.071	32.287	1.00	80.22	C	ATOM	25670	O3*	C A1217	227.404	111.152	37.878	1.00	92.51	O
ATOM	25621	C4*	G A1215	215.154	106.555	33.704	1.00	80.22	C	ATOM	25671	C2*	C A1217	227.280	108.831	38.647	1.00	92.51	C
ATOM	25622	O4*	G A1215	214.791	105.437	34.556	1.00	80.22	O	ATOM	25672	O2*	C A1217	228.000	109.256	39.783	1.00	92.51	O
ATOM	25623	C3*	G A1215	216.359	107.176	34.382	1.00	80.22	C	ATOM	25673	C1*	C A1217	226.084	108.002	39.110	1.00	92.51	C
ATOM	25624	O3*	G A1215	216.470	108.544	34.021	1.00	80.22	C	ATOM	25674	N1	C A1217	225.776	106.891	38.187	1.00	71.20	N
ATOM	25625	C2*	G A1215	216.057	106.965	35.863	1.00	80.22	C	ATOM	25675	C2	C A1217	226.441	105.667	38.360	1.00	71.20	C
ATOM	25626	O2*	G A1215	215.143	107.922	36.367	1.00	80.22	O	ATOM	25676	O2	C A1217	227.242	105.542	39.303	1.00	71.20	O
ATOM	25627	C1*	G A1215	215.353	105.607	35.847	1.00	80.22	C	ATOM	25677	N3	C A1217	226.189	104.649	37.498	1.00	71.20	N
ATOM	25628	N8	G A1215	216.205	104.451	36.141	1.00	86.79	N	ATOM	25678	C4	C A1217	225.309	104.813	36.506	1.00	71.20	C
ATOM	25629	C9	G A1215	216.298	103.282	35.417	1.00	86.79	C	ATOM	25679	N4	C A1217	225.098	103.782	35.677	1.00	71.20	N
ATOM	25630	N7	G A1215	217.135	102.421	35.929	1.00	86.79	N	ATOM	25680	C5	C A1217	224.608	106.040	36.316	1.00	71.20	C
ATOM	25631	C5	G A1215	217.634	103.059	37.056	1.00	86.79	C	ATOM	25681	C6	C A1217	224.869	107.043	37.170	1.00	71.20	C
ATOM	25632	C6	G A1215	218.585	102.617	38.018	1.00	86.79	C	ATOM	25682	P	C A1218	228.367	111.386	36.608	1.00	78.14	P
ATOM	25633	O6	G A1215	219.214	101.549	38.049	1.00	86.79	O	ATOM	25683	O1P	C A1218	229.072	112.683	36.836	1.00	78.23	O
ATOM	25634	N1	G A1215	218.781	103.568	39.017	1.00	86.79	N	ATOM	25684	O2P	C A1218	227.577	111.189	35.360	1.00	78.23	O
ATOM	25635	C2	G A1215	218.150	104.791	39.082	1.00	86.79	C	ATOM	25685	O5*	C A1218	229.432	110.205	36.725	1.00	78.14	O
ATOM	25636	N2	G A1215	218.453	105.564	40.137	1.00	86.79	N	ATOM	25686	C5*	C A1218	230.257	110.101	37.889	1.00	78.14	C
ATOM	25637	N3	G A1215	217.280	105.223	38.180	1.00	86.79	N	ATOM	25687	O4*	C A1218	231.062	108.830	37.861	1.00	78.14	C
ATOM	25638	C4	G A1215	217.067	104.312	37.205	1.00	86.79	C	ATOM	25688	O4*	C A1218	230.195	107.673	37.897	1.00	78.14	O
ATOM	25639	P	G A1216	217.892	109.124	33.538	1.00	72.76	P	ATOM	25689	C3*	C A1218	231.935	108.599	36.644	1.00	78.14	C
ATOM	25640	O1P	G A1216	217.715	110.574	33.232	1.00	78.31	O	ATOM	25690	O3*	C A1218	233.147	109.333	36.766	1.00	78.14	O
ATOM	25641	O2P	G A1216	218.448	108.212	32.502	1.00	78.31	O	ATOM	25691	C2*	C A1218	232.166	107.090	36.689	1.00	78.14	C
ATOM	25642	O5*	G A1216	218.800	109.002	34.837	1.00	72.76	O	ATOM	25692	O2*	C A1218	233.219	106.718	37.542	1.00	78.14	O
ATOM	25643	C5*	G A1216	218.471	109.732	36.023	1.00	72.76	C	ATOM	25693	C1*	C A1218	230.865	106.579	37.309	1.00	78.14	C
ATOM	25644	C4*	G A1216	219.427	109.391	37.135	1.00	72.76	C	ATOM	25694	N1	C A1218	229.977	105.912	36.348	1.00	78.23	N
ATOM	25645	O4*	G A1216	219.195	108.040	37.609	1.00	72.76	O	ATOM	25695	C2	C A1218	230.256	104.582	36.007	1.00	78.23	C
ATOM	25646	C3*	G A1216	220.902	109.393	36.785	1.00	72.76	C	ATOM	25696	O2	C A1218	231.240	104.026	36.518	1.00	78.23	O
ATOM	25647	O3*	G A1216	221.465	110.691	36.726	1.00	72.76	O	ATOM	25697	N3	C A1218	229.454	103.941	35.130	1.00	78.23	N



ATOM	25698	C4	C A1218	228.412	104.577	34.593	1.00	78.23	C	ATOM	25748	O5*	G A1221	237.774	104.689	25.752	1.00	76.13	O
ATOM	25699	N4	C A1218	227.648	103.900	33.733	1.00	78.23	N	ATOM	25749	C5*	G A1221	238.311	103.414	25.353	1.00	76.13	C
ATOM	25700	C5	C A1218	228.107	105.936	34.915	1.00	78.23	C	ATOM	25750	C4*	G A1221	237.250	102.579	24.673	1.00	76.13	C
ATOM	25701	C6	C A1218	228.907	106.558	35.791	1.00	78.23	C	ATOM	25751	O4*	G A1221	236.180	102.299	25.616	1.00	76.13	O
ATOM	25702	P	U A1219	233.890	109.873	35.450	1.00	64.95	P	ATOM	25752	C3*	G A1221	236.542	103.206	23.480	1.00	76.13	C
ATOM	25703	O1P	U A1219	234.805	110.971	35.861	1.00	66.55	O	ATOM	25753	O3*	G A1221	237.271	103.096	22.268	1.00	76.13	O
ATOM	25704	O2P	U A1219	232.866	110.131	34.404	1.00	66.55	O	ATOM	25754	C2*	G A1221	235.231	102.431	23.450	1.00	76.13	C
ATOM	25705	O5*	U A1219	234.785	108.629	35.024	1.00	64.95	O	ATOM	25755	O2*	G A1221	235.334	101.146	22.868	1.00	76.13	O
ATOM	25706	C5*	U A1219	235.848	108.174	35.872	1.00	64.95	C	ATOM	25756	C1*	G A1221	234.929	102.299	24.942	1.00	76.13	C
ATOM	25707	C4*	U A1219	236.305	106.796	35.459	1.00	64.95	C	ATOM	25757	N9	G A1221	234.190	103.490	25.349	1.00	61.53	N
ATOM	25708	O4*	U A1219	235.246	105.833	35.696	1.00	64.95	O	ATOM	25758	C8	G A1221	234.684	104.580	26.022	1.00	61.53	C
ATOM	25709	C3*	U A1219	236.646	106.603	33.992	1.00	64.95	C	ATOM	25759	N7	G A1221	233.814	105.541	26.144	1.00	61.53	N
ATOM	25710	O3*	U A1219	237.932	107.070	33.642	1.00	64.95	O	ATOM	25760	C5	G A1221	232.668	105.048	25.539	1.00	61.53	C
ATOM	25711	C2*	U A1219	236.501	105.100	33.827	1.00	64.95	C	ATOM	25761	C6	G A1221	231.399	105.654	25.344	1.00	61.53	C
ATOM	25712	O2*	U A1219	237.610	104.396	34.356	1.00	64.95	O	ATOM	25762	O6	G A1221	231.023	106.794	25.677	1.00	61.53	O
ATOM	25713	C1*	U A1219	235.276	104.829	34.694	1.00	64.95	C	ATOM	25763	N1	G A1221	230.528	104.800	24.675	1.00	61.53	N
ATOM	25714	N1	U A1219	234.037	104.925	33.903	1.00	66.55	N	ATOM	25764	C2	G A1221	230.838	103.535	24.246	1.00	61.53	C
ATOM	25715	C2	U A1219	233.527	103.762	33.349	1.00	66.55	C	ATOM	25765	N2	G A1221	229.867	102.871	23.608	1.00	61.53	N
ATOM	25716	O2	U A1219	234.063	102.675	33.479	1.00	66.55	O	ATOM	25766	N3	G A1221	232.013	102.963	24.423	1.00	61.53	N
ATOM	25717	N3	U A1219	232.364	103.922	32.631	1.00	66.55	N	ATOM	25767	C4	G A1221	232.875	103.772	25.068	1.00	61.53	C
ATOM	25718	C4	U A1219	231.675	105.104	32.407	1.00	66.55	C	ATOM	25768	P	G A1222	237.035	104.172	21.090	1.00	67.10	P
ATOM	25719	O4	U A1219	230.615	105.080	31.778	1.00	66.55	O	ATOM	25769	O1P	G A1222	237.817	103.667	19.931	1.00	75.17	O
ATOM	25720	C5	U A1219	232.273	106.264	32.998	1.00	66.55	C	ATOM	25770	O2P	G A1222	237.271	105.549	21.586	1.00	75.17	O
ATOM	25721	C6	U A1219	233.400	106.139	33.709	1.00	66.55	C	ATOM	25771	O5*	G A1222	235.484	104.046	20.742	1.00	67.10	O
ATOM	25722	P	G A1220	238.148	107.752	32.206	1.00	88.11	P	ATOM	25772	C5*	G A1222	234.935	102.800	20.265	1.00	67.10	C
ATOM	25723	O1P	G A1220	239.577	108.156	32.122	1.00	63.72	O	ATOM	25773	C4*	G A1222	233.463	102.942	19.951	1.00	67.10	C
ATOM	25724	O2P	G A1220	237.084	108.783	32.023	1.00	63.72	O	ATOM	25774	O4*	G A1222	232.699	103.180	21.167	1.00	67.10	O
ATOM	25725	O5*	G A1220	237.933	106.533	31.202	1.00	88.11	O	ATOM	25775	C3*	G A1222	233.056	104.096	19.059	1.00	67.10	C
ATOM	25726	C5*	G A1220	238.904	105.480	31.159	1.00	88.11	C	ATOM	25776	O3*	G A1222	233.296	103.887	17.693	1.00	67.10	O
ATOM	25727	O4*	G A1220	238.436	104.331	30.299	1.00	88.11	O	ATOM	25777	C2*	G A1222	231.572	104.226	19.360	1.00	67.10	C
ATOM	25728	O4*	G A1220	237.283	103.681	30.903	1.00	88.11	O	ATOM	25778	O2*	G A1222	230.786	103.282	18.666	1.00	67.10	O
ATOM	25729	C3*	G A1220	237.973	104.625	28.882	1.00	88.11	C	ATOM	25779	C1*	G A1222	231.538	103.941	20.860	1.00	67.10	C
ATOM	25730	O3*	G A1220	238.997	104.856	27.933	1.00	88.11	O	ATOM	25780	N9	G A1222	231.583	105.215	21.573	1.00	75.17	N
ATOM	25731	C2*	G A1220	237.178	103.372	28.553	1.00	88.11	C	ATOM	25781	C8	G A1222	232.643	105.772	22.248	1.00	75.17	C
ATOM	25732	O2*	G A1220	238.007	102.278	28.198	1.00	88.11	O	ATOM	25782	N7	G A1222	232.396	106.978	22.686	1.00	75.17	N
ATOM	25733	C1*	G A1220	236.471	103.109	29.884	1.00	88.11	C	ATOM	25783	C5	G A1222	231.083	107.223	22.298	1.00	75.17	C
ATOM	25734	N9	G A1220	235.175	103.791	29.848	1.00	63.72	N	ATOM	25784	C6	G A1222	230.265	108.376	22.479	1.00	75.17	C
ATOM	25735	C8	G A1220	234.848	105.033	30.352	1.00	63.72	C	ATOM	25785	O6	G A1222	230.548	109.441	23.039	1.00	75.17	O
ATOM	25736	N7	G A1220	233.631	105.400	30.055	1.00	63.72	N	ATOM	25786	N1	G A1222	229.002	108.201	21.920	1.00	75.17	N
ATOM	25737	C5	G A1220	233.113	104.329	29.333	1.00	63.72	C	ATOM	25787	C2	G A1222	228.573	107.067	21.272	1.00	75.17	C
ATOM	25738	C6	G A1220	231.835	104.150	28.723	1.00	63.72	C	ATOM	25788	N2	G A1222	227.314	107.093	20.791	1.00	75.17	N
ATOM	25739	O6	G A1220	230.872	104.929	28.696	1.00	63.72	O	ATOM	25789	N3	G A1222	229.321	105.985	21.103	1.00	75.17	N
ATOM	25740	N1	G A1220	231.743	102.916	28.087	1.00	63.72	N	ATOM	25790	C4	G A1222	230.559	106.136	21.634	1.00	75.17	C
ATOM	25741	C2	G A1220	232.746	101.977	28.034	1.00	63.72	C	ATOM	25791	P	C A1223	233.650	105.148	16.774	1.00	55.67	P
ATOM	25742	N2	G A1220	232.477	100.853	27.362	1.00	63.72	N	ATOM	25792	O1P	C A1223	233.848	104.626	15.408	1.00	61.81	O
ATOM	25743	N3	G A1220	233.929	102.128	28.594	1.00	63.72	N	ATOM	25793	O2P	C A1223	234.732	105.917	17.436	1.00	61.81	O
ATOM	25744	C4	G A1220	234.045	103.320	29.219	1.00	63.72	C	ATOM	25794	O5*	C A1223	232.332	106.048	16.789	1.00	55.67	O
ATOM	25745	P	G A1221	238.650	105.703	26.611	1.00	76.13	P	ATOM	25795	C5*	C A1223	231.070	105.500	16.367	1.00	55.67	C
ATOM	25746	O1P	G A1221	239.919	105.948	25.886	1.00	61.53	O	ATOM	25796	C4*	C A1223	229.972	106.540	16.429	1.00	55.67	C
ATOM	25747	O2P	G A1221	237.790	106.862	26.989	1.00	61.53	O	ATOM	25797	O4*	C A1223	229.701	106.918	17.802	1.00	55.67	O



ATOM	25798	C3*	C A1223	230.201	107.861	15.713	1.00	55.67	C	ATOM	25848	N7	A A1225	231.374	102.596	12.682	1.00	77.67	N
ATOM	25799	O2*	C A1223	229.931	107.779	14.322	1.00	55.67	O	ATOM	25849	C5	A A1225	231.422	101.727	11.603	1.00	77.67	C
ATOM	25800	C3*	C A1223	229.207	108.790	16.403	1.00	55.67	C	ATOM	25850	C6	A A1225	230.427	101.221	10.759	1.00	77.67	C
ATOM	25801	O2*	C A1223	227.913	108.740	15.842	1.00	55.67	O	ATOM	25851	N6	A A1225	229.134	101.534	10.874	1.00	77.67	N
ATOM	25802	C1*	C A1223	229.195	108.243	17.834	1.00	55.67	C	ATOM	25852	N1	A A1225	230.807	100.374	9.778	1.00	77.67	N
ATOM	25803	N1	C A1223	230.020	109.067	18.740	1.00	61.81	N	ATOM	25853	C2	A A1225	232.101	100.066	9.666	1.00	77.67	C
ATOM	25804	O2	C A1223	229.420	110.169	19.385	1.00	61.81	C	ATOM	25854	N3	A A1225	233.131	100.476	10.397	1.00	77.67	N
ATOM	25805	O2	C A1223	228.207	110.382	19.221	1.00	61.81	C	ATOM	25855	C4	A A1225	232.721	101.315	11.363	1.00	77.67	C
ATOM	25806	N3	C A1223	230.178	110.972	20.168	1.00	61.81	N	ATOM	25856	P	C A1226	239.171	100.636	10.218	1.00	75.08	P
ATOM	25807	C4	C A1223	231.478	110.714	20.329	1.00	61.81	C	ATOM	25857	O1P	C A1226	240.181	99.685	10.738	1.00	53.50	O
ATOM	25808	N4	C A1223	232.189	111.554	21.084	1.00	61.81	N	ATOM	25858	O2P	C A1226	239.587	102.004	9.830	1.00	53.50	O
ATOM	25809	C5	C A1223	232.107	109.585	19.715	1.00	61.81	C	ATOM	25859	O5*	C A1226	238.488	99.928	8.980	1.00	75.08	O
ATOM	25810	C6	C A1223	231.347	108.795	18.938	1.00	61.81	C	ATOM	25860	C5*	C A1226	238.829	100.312	7.657	1.00	75.08	C
ATOM	25811	P	G A1224	230.413	108.963	13.353	1.00	64.36	P	ATOM	25861	C4*	C A1226	237.982	99.556	6.697	1.00	75.08	C
ATOM	25812	O1P	G A1224	229.960	110.246	13.931	1.00	71.43	O	ATOM	25862	O4*	C A1226	236.665	99.451	7.270	1.00	75.08	O
ATOM	25813	O2P	G A1224	230.030	108.612	11.974	1.00	71.43	O	ATOM	25863	C3*	C A1226	237.808	100.219	5.347	1.00	75.08	C
ATOM	25814	O5*	G A1224	231.997	108.917	13.449	1.00	64.36	O	ATOM	25864	O3*	C A1226	238.884	99.923	4.443	1.00	75.08	C
ATOM	25815	C5*	G A1224	232.706	107.667	13.557	1.00	64.36	C	ATOM	25865	C2*	C A1226	236.411	99.789	4.919	1.00	75.08	C
ATOM	25816	C4*	G A1224	234.181	107.889	13.319	1.00	64.36	C	ATOM	25866	O2*	C A1226	236.353	98.541	4.248	1.00	75.08	O
ATOM	25817	O4*	G A1224	234.634	108.960	14.163	1.00	64.36	C	ATOM	25867	C1*	C A1226	235.696	99.664	6.269	1.00	75.08	C
ATOM	25818	C3*	G A1224	235.087	106.717	13.652	1.00	64.36	C	ATOM	25868	N1	C A1226	234.861	100.812	6.377	1.00	53.50	N
ATOM	25819	O3*	G A1224	235.081	105.769	12.549	1.00	64.36	O	ATOM	25869	C2	C A1226	233.488	100.783	6.377	1.00	53.50	C
ATOM	25820	C2*	G A1224	236.410	107.345	14.147	1.00	64.36	C	ATOM	25870	O2	C A1226	233.042	99.830	5.706	1.00	53.50	O
ATOM	25821	O2*	G A1224	237.540	107.309	13.287	1.00	64.36	O	ATOM	25871	N3	C A1226	232.689	101.792	6.822	1.00	53.50	N
ATOM	25822	C1*	G A1224	236.008	108.803	14.410	1.00	64.36	C	ATOM	25872	C4	C A1226	233.217	102.798	7.525	1.00	53.50	C
ATOM	25823	N9	G A1224	236.306	109.422	15.695	1.00	71.43	N	ATOM	25873	N4	C A1226	232.393	103.742	7.978	1.00	53.50	N
ATOM	25824	C8	G A1224	235.919	109.018	16.950	1.00	71.43	C	ATOM	25874	C5	C A1226	234.615	102.873	7.803	1.00	53.50	C
ATOM	25825	N7	G A1224	236.297	109.844	17.890	1.00	71.43	N	ATOM	25875	C6	C A1226	235.393	101.872	7.363	1.00	53.50	C
ATOM	25826	C5	G A1224	236.987	110.842	17.213	1.00	71.43	C	ATOM	25876	P	A A1227	239.373	98.393	4.177	1.00	54.39	P
ATOM	25827	C6	G A1224	237.628	112.017	17.695	1.00	71.43	C	ATOM	25877	O1P	A A1227	239.316	97.564	5.408	1.00	63.26	O
ATOM	25828	O6	G A1224	237.723	112.424	18.857	1.00	71.43	O	ATOM	25878	O2P	A A1227	240.669	98.533	3.460	1.00	63.26	O
ATOM	25829	N1	G A1224	238.195	112.752	16.659	1.00	71.43	N	ATOM	25879	O5*	A A1227	238.337	97.748	3.146	1.00	54.39	O
ATOM	25830	C2	G A1224	238.157	112.404	15.337	1.00	71.43	C	ATOM	25880	C5*	A A1227	238.603	96.432	2.614	1.00	54.39	C
ATOM	25831	N2	G A1224	238.753	113.241	14.493	1.00	71.43	N	ATOM	25881	C4*	A A1227	237.863	96.180	1.312	1.00	54.39	C
ATOM	25832	N3	G A1224	237.574	111.316	14.876	1.00	71.43	N	ATOM	25882	O4*	A A1227	236.655	95.417	1.562	1.00	54.39	O
ATOM	25833	C4	G A1224	237.011	110.587	15.862	1.00	71.43	C	ATOM	25883	C3*	A A1227	237.405	97.332	0.431	1.00	54.39	C
ATOM	25834	P	A A1225	235.922	106.038	11.183	1.00	70.14	P	ATOM	25884	O3*	A A1227	238.409	97.944	-0.367	1.00	54.39	O
ATOM	25835	O1P	A A1225	236.324	107.463	11.065	1.00	77.67	O	ATOM	25885	C2*	A A1227	236.365	96.644	-0.444	1.00	54.39	C
ATOM	25836	O2P	A A1225	235.141	105.429	10.081	1.00	77.67	O	ATOM	25886	O2*	A A1227	236.956	95.916	-1.505	1.00	54.39	O
ATOM	25837	O5*	A A1225	237.230	105.161	11.430	1.00	70.14	O	ATOM	25887	C1*	A A1227	235.706	95.685	0.551	1.00	54.39	C
ATOM	25838	C5*	A A1225	237.375	103.865	10.824	1.00	70.14	C	ATOM	25888	N9	A A1227	234.534	96.301	1.173	1.00	63.26	N
ATOM	25839	C4*	A A1225	236.889	102.767	11.748	1.00	70.14	C	ATOM	25889	C8	A A1227	234.439	97.559	1.736	1.00	63.26	C
ATOM	25840	O4*	A A1225	235.554	103.045	12.209	1.00	70.14	O	ATOM	25890	N7	A A1227	233.237	97.862	2.161	1.00	63.26	N
ATOM	25841	C3*	A A1225	236.798	101.408	11.061	1.00	70.14	C	ATOM	25891	C5	A A1227	232.494	96.730	1.876	1.00	63.26	C
ATOM	25842	O3*	A A1225	238.006	100.693	11.317	1.00	70.14	O	ATOM	25892	C6	A A1227	231.139	96.424	2.076	1.00	63.26	C
ATOM	25843	C2*	A A1225	235.651	100.691	11.782	1.00	70.14	C	ATOM	25893	N6	A A1227	230.257	97.277	2.610	1.00	63.26	N
ATOM	25844	O2*	A A1225	236.077	99.686	12.674	1.00	70.14	O	ATOM	25894	N1	A A1227	230.713	95.198	1.694	1.00	63.26	N
ATOM	25845	C1*	A A1225	234.936	101.822	12.535	1.00	70.14	C	ATOM	25895	C2	A A1227	231.605	94.351	1.133	1.00	63.26	C
ATOM	25846	N9	A A1225	233.492	101.934	12.319	1.00	77.67	N	ATOM	25896	N3	A A1227	232.903	94.534	0.880	1.00	63.26	N
ATOM	25847	C8	A A1225	232.622	102.687	13.068	1.00	77.67	C	ATOM	25897	C4	A A1227	233.286	95.754	1.281	1.00	63.26	C



ATOM	25898	P	C A1228	238.086	99.351	-1.080	1.00	50.51	P	ATOM	25948	O3*	C A1230	226.962	110.378	-6.802	1.00	40.73	O
ATOM	25899	O1P	C A1228	239.217	99.738	-1.952	1.00	64.54	O	ATOM	25949	C2*	C A1230	226.645	109.945	-4.434	1.00	40.73	C
ATOM	25900	O2P	C A1228	237.611	100.294	-0.042	1.00	64.54	O	ATOM	25950	O2*	C A1230	225.315	110.355	-4.650	1.00	40.73	C
ATOM	25901	O5*	C A1228	236.857	98.995	-2.019	1.00	50.51	O	ATOM	25951	C1*	C A1230	226.640	108.636	-3.648	1.00	40.73	C
ATOM	25902	C5*	C A1228	235.999	100.018	-2.530	1.00	50.51	C	ATOM	25952	N1	C A1230	227.810	108.506	-2.744	1.00	52.30	N
ATOM	25903	C4*	C A1228	234.603	99.476	-2.710	1.00	50.51	C	ATOM	25953	C2	C A1230	227.869	109.291	-1.578	1.00	52.30	C
ATOM	25904	O4*	C A1228	234.131	98.936	-1.446	1.00	50.51	O	ATOM	25954	O2	C A1230	226.927	110.040	-1.305	1.00	52.30	C
ATOM	25905	C3*	C A1228	233.574	100.522	-3.093	1.00	50.51	C	ATOM	25955	N3	C A1230	228.950	109.203	-0.776	1.00	52.30	N
ATOM	25906	O3*	C A1228	233.541	100.744	-4.478	1.00	50.51	O	ATOM	25956	C4	C A1230	229.938	108.365	-1.080	1.00	52.30	C
ATOM	25907	C2*	C A1228	232.282	99.936	-2.555	1.00	50.51	C	ATOM	25957	N4	C A1230	230.988	108.311	-0.255	1.00	52.30	N
ATOM	25908	O2*	C A1228	231.716	98.975	-3.437	1.00	50.51	O	ATOM	25958	C5	C A1230	229.897	107.542	-2.241	1.00	52.30	C
ATOM	25909	C1*	C A1228	232.771	99.294	-1.249	1.00	50.51	C	ATOM	25959	C6	C A1230	228.829	107.644	-3.038	1.00	52.30	C
ATOM	25910	N1	C A1228	232.721	100.244	-0.110	1.00	64.54	N	ATOM	25960	P	G A1231	227.635	111.830	-6.909	1.00	42.93	P
ATOM	25911	C2	C A1228	231.530	100.380	0.634	1.00	64.54	C	ATOM	25961	O1P	G A1231	227.203	112.465	-8.191	1.00	59.48	O
ATOM	25912	O2	C A1228	230.544	99.692	0.338	1.00	64.54	O	ATOM	25962	O2P	G A1231	229.085	111.695	-6.602	1.00	59.48	O
ATOM	25913	N3	C A1228	231.489	101.265	1.655	1.00	64.54	N	ATOM	25963	O5*	G A1231	226.989	112.639	-5.702	1.00	42.93	O
ATOM	25914	C4	C A1228	232.564	101.999	1.950	1.00	64.54	C	ATOM	25964	C5*	G A1231	225.606	112.988	-5.706	1.00	42.93	C
ATOM	25915	N4	C A1228	232.472	102.859	2.963	1.00	64.54	N	ATOM	25965	C4*	G A1231	225.283	113.837	-4.509	1.00	42.93	C
ATOM	25916	C5	C A1228	233.782	101.882	1.217	1.00	64.54	C	ATOM	25966	O4*	G A1231	225.518	113.072	-3.307	1.00	42.93	O
ATOM	25917	C6	C A1228	233.818	101.000	0.211	1.00	64.54	C	ATOM	25967	C3*	G A1231	226.138	115.073	-4.331	1.00	42.93	C
ATOM	25918	P	A A1229	233.504	102.241	-5.019	1.00	55.29	P	ATOM	25968	O3*	G A1231	225.676	116.154	-5.110	1.00	42.93	O
ATOM	25919	O1P	A A1229	233.908	102.228	-6.453	1.00	55.11	O	ATOM	25969	C2*	G A1231	226.009	115.341	-2.845	1.00	42.93	C
ATOM	25920	O2P	A A1229	234.275	103.049	-4.050	1.00	55.11	O	ATOM	25970	O2*	G A1231	224.783	115.970	-2.538	1.00	42.93	O
ATOM	25921	O5*	A A1229	231.969	102.654	-4.883	1.00	55.29	O	ATOM	25971	C1*	G A1231	226.000	113.922	-2.287	1.00	42.93	C
ATOM	25922	C5*	A A1229	230.951	102.026	-5.697	1.00	55.29	C	ATOM	25972	N9	G A1231	227.339	113.479	-1.917	1.00	59.48	N
ATOM	25923	C4*	A A1229	229.601	102.666	-5.450	1.00	55.29	C	ATOM	25973	C8	G A1231	228.146	112.611	-2.607	1.00	59.48	C
ATOM	25924	O4*	A A1229	229.050	102.229	-4.178	1.00	55.29	O	ATOM	25974	N7	G A1231	229.301	112.421	-2.036	1.00	59.48	N
ATOM	25925	C3*	A A1229	229.626	104.178	-5.361	1.00	55.29	C	ATOM	25975	C5	G A1231	229.250	113.208	-0.897	1.00	59.48	C
ATOM	25926	O3*	A A1229	229.572	104.778	-6.633	1.00	55.29	O	ATOM	25976	C6	G A1231	230.209	113.406	0.112	1.00	59.48	C
ATOM	25927	C2*	A A1229	228.403	104.485	-4.512	1.00	55.29	C	ATOM	25977	O6	G A1231	231.336	112.909	0.207	1.00	59.48	O
ATOM	25928	O2*	A A1229	227.210	104.453	-5.260	1.00	55.29	O	ATOM	25978	N1	G A1231	229.750	114.284	1.085	1.00	59.48	N
ATOM	25929	C1*	A A1229	228.420	103.321	-3.522	1.00	55.29	C	ATOM	25979	C2	G A1231	228.522	114.897	1.079	1.00	59.48	C
ATOM	25930	N9	A A1229	229.225	103.668	-2.346	1.00	55.11	N	ATOM	25980	N2	G A1231	228.259	115.723	2.103	1.00	59.48	N
ATOM	25931	C8	A A1229	230.481	103.206	-2.019	1.00	55.11	C	ATOM	25981	N3	G A1231	227.618	114.717	0.140	1.00	59.48	N
ATOM	25932	N7	A A1229	230.984	103.753	-0.941	1.00	55.11	N	ATOM	25982	C4	G A1231	228.045	113.865	-0.810	1.00	59.48	C
ATOM	25933	C5	A A1229	229.991	104.624	-0.518	1.00	55.11	C	ATOM	25983	P	U A1232	226.719	117.273	-5.594	1.00	38.84	P
ATOM	25934	C6	A A1229	229.917	105.510	0.563	1.00	55.11	C	ATOM	25984	O1P	U A1232	226.029	118.223	-6.522	1.00	60.11	O
ATOM	25935	N6	A A1229	230.903	105.685	1.441	1.00	55.11	N	ATOM	25985	O2P	U A1232	227.966	116.586	-6.038	1.00	60.11	O
ATOM	25936	N1	A A1229	228.784	106.224	0.711	1.00	55.11	N	ATOM	25986	O5*	U A1232	227.062	118.021	-4.234	1.00	38.84	O
ATOM	25937	C2	A A1229	227.797	106.054	-0.178	1.00	55.11	C	ATOM	25987	C5*	U A1232	226.055	118.740	-3.502	1.00	38.84	C
ATOM	25938	N3	A A1229	227.749	105.261	-1.241	1.00	55.11	N	ATOM	25988	C4*	U A1232	226.683	119.401	-2.305	1.00	38.84	C
ATOM	25939	C4	A A1229	228.892	104.565	-1.360	1.00	55.11	C	ATOM	25989	O4*	U A1232	227.176	118.382	-1.404	1.00	38.84	O
ATOM	25940	P	C A1230	230.152	106.255	-6.820	1.00	40.73	P	ATOM	25990	C3*	U A1232	227.898	120.234	-2.649	1.00	38.84	C
ATOM	25941	O1P	C A1230	230.231	106.560	-8.267	1.00	52.30	O	ATOM	25991	O3*	U A1232	227.497	121.546	-3.022	1.00	38.84	O
ATOM	25942	O2P	C A1230	231.377	106.335	-5.975	1.00	52.30	O	ATOM	25992	C2*	U A1232	228.727	120.182	-1.373	1.00	38.84	C
ATOM	25943	O5*	C A1230	229.016	107.185	-6.205	1.00	40.73	C	ATOM	25993	O2*	U A1232	228.309	121.135	-0.430	1.00	38.84	O
ATOM	25944	C5*	C A1230	227.683	107.198	-6.753	1.00	40.73	C	ATOM	25994	C1*	U A1232	228.397	118.791	-0.837	1.00	38.84	C
ATOM	25945	C4*	C A1230	226.795	108.108	-5.935	1.00	40.73	C	ATOM	25995	N1	U A1232	229.399	117.770	-1.153	1.00	60.11	N
ATOM	25946	O4*	C A1230	226.665	107.573	-4.593	1.00	40.73	O	ATOM	25996	C2	U A1232	230.460	117.613	-0.286	1.00	60.11	C
ATOM	25947	C3*	C A1230	227.318	109.522	-5.728	1.00	40.73	C	ATOM	25997	O2	U A1232	230.600	118.286	0.720	1.00	60.11	O



ATOM	25998	N3	U	A1232	231.355	116.635	-0.638	1.00	60.11	N	ATOM	26048	O2P	U	A1235	239.504	126.293	-2.996	1.00	55.10	O
ATOM	25999	C4	U	A1232	231.295	115.820	-1.743	1.00	60.11	C	ATOM	26049	O5*	U	A1235	241.541	125.078	-2.165	1.00	45.08	O
ATOM	26000	O4	U	A1232	232.166	114.972	-1.919	1.00	60.11	O	ATOM	26050	C5*	U	A1235	242.579	124.788	-1.209	1.00	45.08	C
ATOM	26001	C5	U	A1232	230.170	116.048	-2.598	1.00	60.11	C	ATOM	26051	C4*	U	A1235	243.521	123.733	-1.741	1.00	45.08	C
ATOM	26002	C6	U	A1232	229.284	116.992	-2.272	1.00	60.11	C	ATOM	26052	O4*	U	A1235	242.848	122.444	-1.778	1.00	45.08	O
ATOM	26003	P	G	A1233	228.554	122.521	-3.717	1.00	44.81	P	ATOM	26053	C3*	U	A1235	244.039	123.915	-3.160	1.00	45.08	C
ATOM	26004	O1P	G	A1233	227.888	123.819	-3.989	1.00	59.70	O	ATOM	26054	O3*	U	A1235	245.124	124.807	-3.295	1.00	45.08	O
ATOM	26005	O2P	G	A1233	229.188	121.765	-4.827	1.00	59.70	O	ATOM	26055	C2*	U	A1235	244.447	122.503	-3.539	1.00	45.08	C
ATOM	26006	O5*	G	A1233	229.629	122.725	-2.558	1.00	44.81	O	ATOM	26056	O2*	U	A1235	245.703	122.172	-2.985	1.00	45.08	O
ATOM	26007	C5*	G	A1233	231.031	122.894	-2.841	1.00	44.81	C	ATOM	26057	C1*	U	A1235	243.350	121.675	-2.868	1.00	45.08	C
ATOM	26008	C4*	G	A1233	231.855	122.566	-1.614	1.00	44.81	C	ATOM	26058	N1	U	A1235	242.250	121.369	-3.805	1.00	55.10	N
ATOM	26009	O4*	G	A1233	231.728	121.154	-1.296	1.00	44.81	O	ATOM	26059	C2	U	A1235	242.423	120.306	-4.695	1.00	55.10	C
ATOM	26010	C3*	G	A1233	233.353	122.791	-1.746	1.00	44.81	C	ATOM	26060	O2	U	A1235	243.423	119.612	-4.721	1.00	55.10	O
ATOM	26011	O3*	G	A1233	233.675	124.162	-1.528	1.00	44.81	O	ATOM	26061	N3	U	A1235	241.378	120.093	-5.557	1.00	55.10	N
ATOM	26012	C2*	G	A1233	233.930	121.844	-0.695	1.00	44.81	C	ATOM	26062	C4	U	A1235	240.202	120.808	-5.630	1.00	55.10	C
ATOM	26013	O2*	G	A1233	233.889	122.343	0.626	1.00	44.81	O	ATOM	26063	O4	U	A1235	239.373	120.526	-6.500	1.00	55.10	O
ATOM	26014	C1*	G	A1233	232.950	120.674	-0.755	1.00	44.81	C	ATOM	26064	C5	U	A1235	240.093	121.876	-4.675	1.00	55.10	C
ATOM	26015	N9	G	A1233	233.411	119.549	-1.562	1.00	59.70	N	ATOM	26065	C6	U	A1235	241.092	122.113	-3.819	1.00	55.10	C
ATOM	26016	C8	G	A1233	232.756	118.977	-2.626	1.00	59.70	C	ATOM	26066	P	A	A1236	245.262	125.657	-4.649	1.00	58.89	P
ATOM	26017	N7	G	A1233	233.390	117.955	-3.132	1.00	59.70	N	ATOM	26067	O1P	A	A1236	246.509	126.432	-4.496	1.00	52.63	O
ATOM	26018	C5	G	A1233	234.541	117.852	-2.364	1.00	59.70	C	ATOM	26068	O2P	A	A1236	243.994	126.381	-4.925	1.00	52.63	O
ATOM	26019	C6	G	A1233	235.605	116.929	-2.442	1.00	59.70	C	ATOM	26069	O5*	A	A1236	245.450	124.543	-5.782	1.00	58.89	O
ATOM	26020	O6	G	A1233	235.746	115.982	-3.232	1.00	59.70	O	ATOM	26070	C5*	A	A1236	246.668	123.787	-5.837	1.00	58.89	C
ATOM	26021	N1	G	A1233	236.570	117.181	-1.476	1.00	59.70	N	ATOM	26071	C4*	A	A1236	246.582	122.595	-6.782	1.00	58.89	C
ATOM	26022	C2	G	A1233	236.516	118.187	-0.552	1.00	59.70	C	ATOM	26072	O4*	A	A1236	245.407	121.776	-6.536	1.00	58.89	O
ATOM	26023	N2	G	A1233	237.548	118.249	0.296	1.00	59.70	N	ATOM	26073	C3*	A	A1236	246.581	122.751	-8.296	1.00	58.89	C
ATOM	26024	N3	G	A1233	235.526	119.061	-0.466	1.00	59.70	N	ATOM	26074	O3*	A	A1236	247.868	123.085	-8.826	1.00	58.89	O
ATOM	26025	C4	G	A1233	234.577	118.834	-1.396	1.00	59.70	C	ATOM	26075	C2*	A	A1236	246.217	121.328	-8.717	1.00	58.89	C
ATOM	26026	P	C	A1234	234.820	124.866	-2.416	1.00	53.91	P	ATOM	26076	O2*	A	A1236	247.316	120.448	-8.589	1.00	58.89	O
ATOM	26027	O1P	C	A1234	234.709	126.337	-2.199	1.00	52.90	O	ATOM	26077	C1*	A	A1236	245.203	120.919	-7.649	1.00	58.89	C
ATOM	26028	O2P	C	A1234	234.794	124.341	-3.800	1.00	52.90	O	ATOM	26078	N9	A	A1236	243.835	121.057	-8.162	1.00	52.63	N
ATOM	26029	O5*	C	A1234	236.158	124.328	-1.741	1.00	53.91	O	ATOM	26079	C8	A	A1236	243.036	122.176	-8.193	1.00	52.63	C
ATOM	26030	C5*	C	A1234	236.490	124.678	-0.387	1.00	53.91	C	ATOM	26080	N7	A	A1236	241.892	121.993	-8.810	1.00	52.63	N
ATOM	26031	C4*	C	A1234	237.778	124.010	0.031	1.00	53.91	C	ATOM	26081	C5	A	A1236	241.930	120.661	-9.195	1.00	52.63	C
ATOM	26032	O4*	C	A1234	237.594	122.573	0.097	1.00	53.91	O	ATOM	26082	C6	A	A1236	241.022	119.861	-9.898	1.00	52.63	C
ATOM	26033	C3*	C	A1234	238.943	124.211	-0.915	1.00	53.91	C	ATOM	26083	N6	A	A1236	239.861	120.314	-10.380	1.00	52.63	N
ATOM	26034	O3*	C	A1234	239.609	125.429	-0.650	1.00	53.91	O	ATOM	26084	N1	A	A1236	241.350	118.569	-10.101	1.00	52.63	N
ATOM	26035	C2*	C	A1234	239.813	122.988	-0.654	1.00	53.91	C	ATOM	26085	C2	A	A1236	242.519	118.126	-9.637	1.00	52.63	C
ATOM	26036	O2*	C	A1234	240.651	123.139	0.470	1.00	53.91	O	ATOM	26086	N3	A	A1236	243.464	118.782	-8.976	1.00	52.63	N
ATOM	26037	C1*	C	A1234	238.764	121.917	-0.351	1.00	53.91	C	ATOM	26087	C4	A	A1236	243.106	120.064	-8.783	1.00	52.63	C
ATOM	26038	N1	C	A1234	238.405	121.075	-1.512	1.00	52.90	N	ATOM	26088	P	C	A1237	247.982	123.908	-10.217	1.00	60.28	P
ATOM	26039	C2	C	A1234	239.226	119.981	-1.834	1.00	52.90	C	ATOM	26089	O1P	C	A1237	249.206	124.749	-10.111	1.00	47.87	O
ATOM	26040	O2	C	A1234	240.250	119.773	-1.155	1.00	52.90	O	ATOM	26090	O2P	C	A1237	246.691	124.548	-10.568	1.00	47.87	O
ATOM	26041	N3	C	A1234	238.882	119.180	-2.875	1.00	52.90	N	ATOM	26091	O5*	C	A1237	248.239	122.793	-11.324	1.00	60.28	O
ATOM	26042	C4	C	A1234	237.779	119.438	-3.580	1.00	52.90	C	ATOM	26092	C5*	C	A1237	249.379	121.931	-11.255	1.00	60.28	C
ATOM	26043	N4	C	A1234	237.473	118.616	-4.578	1.00	52.90	N	ATOM	26093	C4*	C	A1237	249.081	120.626	-11.946	1.00	60.28	C
ATOM	26044	C5	C	A1234	236.939	120.552	-3.286	1.00	52.90	C	ATOM	26094	O4*	C	A1237	247.925	120.029	-11.314	1.00	60.28	O
ATOM	26045	C6	C	A1234	237.287	121.338	-2.258	1.00	52.90	C	ATOM	26095	C3*	C	A1237	248.727	120.708	-13.423	1.00	60.28	C
ATOM	26046	P	U	A1235	240.411	126.151	-1.831	1.00	45.08	P	ATOM	26096	O3*	C	A1237	249.906	120.645	-14.216	1.00	60.28	O
ATOM	26047	O1P	U	A1235	241.070	127.361	-1.286	1.00	55.10	O	ATOM	26097	C2*	C	A1237	247.868	119.467	-13.628	1.00	60.28	C



ATOM	26098	O2*	C A1237	248.644	118.312	-13.864	1.00	60.28	O	ATOM	26148	N1	A A1239	259.145	129.488	-16.084	1.00	43.34	N
ATOM	26099	Cl*	C A1237	247.151	119.343	-12.281	1.00	60.28	C	ATOM	26149	C2	A A1239	258.448	130.551	-16.502	1.00	43.34	C
ATOM	26100	N1	C A1237	245.785	119.913	-12.306	1.00	47.87	N	ATOM	26150	N3	A A1239	257.145	130.665	-16.735	1.00	43.34	N
ATOM	26101	C2	C A1237	244.718	119.091	-12.670	1.00	47.87	C	ATOM	26151	C4	A A1239	256.521	129.503	-16.487	1.00	43.34	C
ATOM	26102	O2	C A1237	244.928	117.884	-12.871	1.00	47.87	O	ATOM	26152	P	U A1240	251.468	132.951	-19.418	1.00	57.89	P
ATOM	26103	N3	C A1237	243.479	119.624	-12.786	1.00	47.87	N	ATOM	26153	O1P	U A1240	250.773	131.966	-20.293	1.00	56.81	O
ATOM	26104	C4	C A1237	243.283	120.911	-12.526	1.00	47.87	C	ATOM	26154	O2P	U A1240	252.195	134.087	-20.033	1.00	56.81	O
ATOM	26105	N4	C A1237	242.058	121.397	-12.677	1.00	47.87	N	ATOM	26155	O5*	U A1240	250.396	133.522	-18.384	1.00	57.89	O
ATOM	26106	C5	C A1237	244.338	121.760	-12.105	1.00	47.87	C	ATOM	26156	C5*	U A1240	250.694	134.648	-17.526	1.00	57.89	C
ATOM	26107	C6	C A1237	245.563	121.227	-12.010	1.00	47.87	C	ATOM	26157	C4*	U A1240	249.448	135.076	-16.781	1.00	57.89	C
ATOM	26108	P	A A1238	249.812	120.748	-15.821	1.00	48.65	P	ATOM	26158	O4*	U A1240	248.468	135.596	-17.721	1.00	57.89	O
ATOM	26109	O1P	A A1238	248.420	120.482	-16.239	1.00	68.81	O	ATOM	26159	C3*	U A1240	248.758	133.952	-16.017	1.00	57.89	C
ATOM	26110	O2P	A A1238	250.920	119.932	-16.401	1.00	68.81	O	ATOM	26160	O3*	U A1240	248.122	134.502	-14.866	1.00	57.89	O
ATOM	26111	O5*	A A1238	250.162	122.270	-16.129	1.00	48.65	O	ATOM	26161	C2*	U A1240	247.659	133.527	-16.986	1.00	57.89	C
ATOM	26112	C5*	A A1238	249.133	123.232	-16.310	1.00	48.65	C	ATOM	26162	O2*	U A1240	246.560	132.906	-16.364	1.00	57.89	C
ATOM	26113	C4*	A A1238	249.333	124.402	-15.378	1.00	48.65	C	ATOM	26163	Cl*	U A1240	247.264	134.876	-17.586	1.00	57.89	C
ATOM	26114	O4*	A A1238	249.957	123.962	-14.138	1.00	48.65	O	ATOM	26164	N1	U A1240	246.569	134.856	-18.884	1.00	56.81	N
ATOM	26115	C3*	A A1238	250.218	125.553	-15.820	1.00	48.65	C	ATOM	26165	C2	U A1240	245.505	135.732	-19.052	1.00	56.81	C
ATOM	26116	O3*	A A1238	249.539	126.446	-16.682	1.00	48.65	O	ATOM	26166	O2	U A1240	245.125	136.497	-18.187	1.00	56.81	O
ATOM	26117	C2*	A A1238	250.508	126.241	-14.495	1.00	48.65	C	ATOM	26167	N3	U A1240	244.896	135.679	-20.274	1.00	56.81	N
ATOM	26118	O2*	A A1238	249.415	127.023	-14.063	1.00	48.65	O	ATOM	26168	C4	U A1240	245.222	134.861	-21.324	1.00	56.81	C
ATOM	26119	Cl*	A A1238	250.634	125.056	-13.541	1.00	68.81	C	ATOM	26169	O4	U A1240	244.576	134.940	-22.369	1.00	56.81	O
ATOM	26120	N9	A A1238	252.041	124.716	-13.326	1.00	68.81	N	ATOM	26170	C5	U A1240	246.325	133.983	-21.078	1.00	56.81	C
ATOM	26121	C8	A A1238	252.719	123.558	-13.608	1.00	68.81	C	ATOM	26171	C6	U A1240	246.946	134.012	-19.898	1.00	56.81	C
ATOM	26122	N7	A A1238	254.000	123.621	-13.336	1.00	68.81	N	ATOM	26172	P	G A1241	248.959	134.764	-13.517	1.00	56.20	P
ATOM	26123	C5	A A1238	254.173	124.901	-12.832	1.00	68.81	C	ATOM	26173	O1P	G A1241	247.968	135.060	-12.448	1.00	64.13	O
ATOM	26124	C6	A A1238	255.300	125.591	-12.371	1.00	68.81	C	ATOM	26174	O2P	G A1241	250.018	135.754	-13.828	1.00	64.13	O
ATOM	26125	N6	A A1238	256.523	125.080	-12.360	1.00	68.81	N	ATOM	26175	O5*	G A1241	249.632	133.364	-13.169	1.00	56.20	O
ATOM	26126	N1	A A1238	255.128	126.846	-11.920	1.00	68.81	N	ATOM	26176	C5*	G A1241	248.828	132.190	-13.066	1.00	56.20	C
ATOM	26127	C2	A A1238	253.903	127.369	-11.942	1.00	68.81	C	ATOM	26177	C4*	G A1241	249.684	130.997	-12.756	1.00	56.20	C
ATOM	26128	N3	A A1238	252.768	126.829	-12.360	1.00	68.81	N	ATOM	26178	O4*	G A1241	250.641	130.811	-13.822	1.00	56.20	O
ATOM	26129	C4	A A1238	252.974	125.578	-12.800	1.00	68.81	C	ATOM	26179	C3*	G A1241	250.522	131.113	-11.501	1.00	56.20	C
ATOM	26130	P	A A1239	250.335	127.115	-17.899	1.00	56.44	P	ATOM	26180	O3*	G A1241	249.778	130.731	-10.364	1.00	56.20	O
ATOM	26131	O1P	A A1239	249.421	127.941	-18.727	1.00	43.34	O	ATOM	26181	C2*	G A1241	251.673	130.160	-11.784	1.00	56.20	C
ATOM	26132	O2P	A A1239	251.118	126.026	-18.530	1.00	43.34	O	ATOM	26182	O2*	G A1241	251.313	128.813	-11.562	1.00	56.20	O
ATOM	26133	O5*	A A1239	251.344	128.118	-17.189	1.00	56.44	C	ATOM	26183	Cl*	G A1241	251.875	130.375	-13.282	1.00	56.20	C
ATOM	26134	C5*	A A1239	250.870	129.353	-16.636	1.00	56.44	C	ATOM	26184	N9	G A1241	252.895	131.373	-13.610	1.00	64.13	N
ATOM	26135	C4*	A A1239	251.874	130.455	-16.871	1.00	56.44	C	ATOM	26185	C8	G A1241	252.698	132.626	-14.147	1.00	64.13	C
ATOM	26136	O4*	A A1239	253.091	130.133	-16.159	1.00	56.44	O	ATOM	26186	N7	G A1241	253.812	133.262	-14.384	1.00	64.13	N
ATOM	26137	C3*	A A1239	252.276	130.718	-18.319	1.00	56.44	C	ATOM	26187	C5	G A1241	254.803	132.385	-13.969	1.00	64.13	C
ATOM	26138	O3*	A A1239	252.473	132.115	-18.492	1.00	56.44	C	ATOM	26188	C6	G A1241	256.206	132.512	-14.001	1.00	64.13	C
ATOM	26139	C2*	A A1239	253.625	130.017	-18.439	1.00	56.44	C	ATOM	26189	O6	G A1241	256.884	133.454	-14.422	1.00	64.13	O
ATOM	26140	O2*	A A1239	254.479	130.629	-19.382	1.00	56.44	O	ATOM	26190	N1	G A1241	256.831	131.384	-13.480	1.00	64.13	N
ATOM	26141	Cl*	A A1239	254.186	130.214	-17.037	1.00	56.44	C	ATOM	26191	C2	ATOM	256.187	130.277	-12.994	1.00	64.13	C
ATOM	26142	N9	A A1239	255.184	129.239	-16.620	1.00	43.34	N	ATOM	26192	N2	G A1241	256.957	129.296	-12.523	1.00	64.13	N
ATOM	26143	C8	A A1239	255.023	127.922	-16.266	1.00	43.34	C	ATOM	26193	N3	G A1241	254.882	130.143	-12.968	1.00	64.13	N
ATOM	26144	N7	A A1239	256.139	127.330	-15.914	1.00	43.34	N	ATOM	26194	C4	G A1241	254.254	131.225	-13.470	1.00	64.13	C
ATOM	26145	C5	A A1239	257.097	128.324	-16.054	1.00	43.34	C	ATOM	26195	P	C A1242	250.058	131.454	-8.968	1.00	56.59	P
ATOM	26146	C6	A A1239	258.483	128.333	-15.853	1.00	43.34	C	ATOM	26196	O1P	C A1242	248.945	131.132	-8.046	1.00	53.88	O
ATOM	26147	N6	A A1239	259.176	127.263	-15.457	1.00	43.34	N	ATOM	26197	O2P	C A1242	250.354	132.871	-9.294	1.00	53.88	O



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ATOM	26198	O5*	C A1242	251.361	130.722	-8.422	1.00	56.59	O	ATOM	26248	C2	C A1244	260.951	136.687	-4.085	1.00	58.11	C
ATOM	26199	C5*	C A1242	251.282	129.367	-7.965	1.00	56.59	C	ATOM	26249	O2	C A1244	262.082	137.190	-3.973	1.00	58.11	O
ATOM	26200	C4*	C A1242	252.661	128.812	-7.696	1.00	56.59	C	ATOM	26250	N3	C A1244	260.038	137.187	-4.948	1.00	58.11	N
ATOM	26201	O4*	C A1242	253.425	128.776	-8.929	1.00	56.59	O	ATOM	26251	C4	C A1244	258.836	136.617	-5.046	1.00	58.11	C
ATOM	26202	C3*	C A1242	253.549	129.581	-6.731	1.00	56.59	C	ATOM	26252	N4	C A1244	257.976	137.139	-5.921	1.00	58.11	N
ATOM	26203	O3*	C A1242	253.229	129.320	-5.367	1.00	56.59	O	ATOM	26253	C5	C A1244	258.466	135.481	-4.252	1.00	58.11	C
ATOM	26204	C2*	C A1242	254.943	129.106	-7.133	1.00	56.59	C	ATOM	26254	C6	C A1244	259.378	134.996	-3.399	1.00	58.11	C
ATOM	26205	O2*	C A1242	255.293	127.827	-6.630	1.00	56.59	O	ATOM	26255	P	A A1245	260.274	136.462	1.999	1.00	92.99	P
ATOM	26206	C1*	C A1242	254.795	129.000	-8.648	1.00	56.59	C	ATOM	26256	O1P	A A1245	260.743	136.396	3.409	1.00	76.87	O
ATOM	26207	N1	C A1242	255.207	130.245	-9.315	1.00	53.88	N	ATOM	26257	O2P	A A1245	258.819	136.417	1.707	1.00	76.87	O
ATOM	26208	O2	C A1242	256.571	130.564	-9.372	1.00	53.88	C	ATOM	26258	O5*	A A1245	260.853	137.772	1.309	1.00	92.99	O
ATOM	26209	O2	C A1242	257.398	129.780	-8.864	1.00	53.88	C	ATOM	26259	C5*	A A1245	262.241	138.084	1.421	1.00	92.99	C
ATOM	26210	N3	C A1242	256.950	131.714	-9.972	1.00	53.88	N	ATOM	26260	C4*	A A1245	262.570	139.298	0.604	1.00	92.99	C
ATOM	26211	C4	C A1242	256.030	132.527	-10.498	1.00	53.88	C	ATOM	26261	O4*	A A1245	262.330	139.023	-0.796	1.00	92.99	O
ATOM	26212	N4	C A1242	256.444	133.650	-11.076	1.00	53.88	N	ATOM	26262	C3*	A A1245	261.747	140.542	0.878	1.00	92.99	C
ATOM	26213	C5	C A1242	254.643	132.225	-10.455	1.00	53.88	C	ATOM	26263	O3*	A A1245	262.218	141.238	2.025	1.00	92.99	O
ATOM	26214	C6	C A1242	254.279	131.087	-9.862	1.00	53.88	C	ATOM	26264	C2*	A A1245	261.918	141.339	-0.412	1.00	92.99	C
ATOM	26215	P	C A1243	253.417	130.482	-4.279	1.00	66.28	P	ATOM	26265	O2*	A A1245	263.100	142.109	-0.459	1.00	92.99	O
ATOM	26216	O1P	C A1243	252.909	129.976	-2.980	1.00	50.16	O	ATOM	26266	C1*	A A1245	262.005	140.229	-1.461	1.00	92.99	C
ATOM	26217	O2P	C A1243	252.874	131.742	-4.843	1.00	50.16	O	ATOM	26267	N9	A A1245	260.745	140.060	-2.178	1.00	76.87	N
ATOM	26218	O5*	C A1243	255.001	130.598	-4.157	1.00	66.28	O	ATOM	26268	C8	A A1245	259.741	139.144	-1.985	1.00	76.87	C
ATOM	26219	C5*	C A1243	255.786	129.467	-3.687	1.00	66.28	C	ATOM	26269	N7	A A1245	258.715	139.316	-2.781	1.00	76.87	N
ATOM	26220	C4*	C A1243	257.269	129.795	-3.675	1.00	66.28	C	ATOM	26270	C5	A A1245	259.073	140.414	-3.555	1.00	76.87	C
ATOM	26221	O4*	C A1243	257.754	129.983	-5.029	1.00	66.28	O	ATOM	26271	C6	A A1245	258.407	141.116	-4.578	1.00	76.87	C
ATOM	26222	C3*	C A1243	257.657	131.066	-2.943	1.00	66.28	C	ATOM	26272	N6	A A1245	257.182	140.809	-5.008	1.00	76.87	N
ATOM	26223	O3*	C A1243	257.769	130.833	-1.548	1.00	66.28	O	ATOM	26273	N1	A A1245	259.048	142.164	-5.146	1.00	76.87	N
ATOM	26224	C2*	C A1243	258.972	131.456	-3.612	1.00	66.28	C	ATOM	26274	C1	A A1245	260.268	142.481	-4.702	1.00	76.87	C
ATOM	26225	O2*	C A1243	260.106	130.753	-3.134	1.00	66.28	O	ATOM	26275	N3	A A1245	260.990	141.906	-3.742	1.00	76.87	N
ATOM	26226	C1*	C A1243	258.718	131.018	-5.050	1.00	66.28	C	ATOM	26276	C4	A A1245	260.326	140.869	-3.204	1.00	76.87	C
ATOM	26227	N1	C A1243	258.195	132.106	-5.883	1.00	50.16	N	ATOM	26277	P	A A1246	261.185	142.077	2.927	1.00	83.31	P
ATOM	26228	C2	C A1243	259.095	132.897	-6.596	1.00	50.16	C	ATOM	26278	O1P	C A1246	261.904	142.427	4.176	1.00	94.46	O
ATOM	26229	O2	C A1243	260.319	132.696	-6.453	1.00	50.16	O	ATOM	26279	O2P	C A1246	259.906	141.330	3.011	1.00	94.46	O
ATOM	26230	N3	C A1243	258.617	133.866	-7.415	1.00	50.16	N	ATOM	26280	O5*	C A1246	260.937	143.404	2.076	1.00	83.31	O
ATOM	26231	C4	C A1243	257.301	134.064	-7.514	1.00	50.16	C	ATOM	26281	C5*	C A1246	262.039	144.255	1.724	1.00	83.31	C
ATOM	26232	N4	C A1243	256.870	135.012	-8.346	1.00	50.16	N	ATOM	26282	C4*	C A1246	261.663	145.191	0.597	1.00	83.31	C
ATOM	26233	C5	C A1243	256.366	133.294	-6.768	1.00	50.16	C	ATOM	26283	O4*	C A1246	261.425	144.446	-0.626	1.00	83.31	O
ATOM	26234	C6	C A1243	256.850	132.335	-5.975	1.00	50.16	C	ATOM	26284	C3*	C A1246	260.393	146.000	0.772	1.00	83.31	C
ATOM	26235	P	C A1244	257.488	132.034	-0.524	1.00	96.05	P	ATOM	26285	O3*	C A1246	260.539	147.111	1.623	1.00	83.31	O
ATOM	26236	O1P	C A1244	257.525	131.413	0.825	1.00	58.11	O	ATOM	26286	C2*	C A1246	260.037	146.380	-0.661	1.00	83.31	C
ATOM	26237	O2P	C A1244	256.288	132.791	-0.957	1.00	58.11	O	ATOM	26287	O2*	C A1246	260.760	147.484	-1.173	1.00	83.31	O
ATOM	26238	O5*	C A1244	258.746	132.992	-0.711	1.00	96.05	O	ATOM	26288	C1*	C A1246	260.435	145.111	-1.407	1.00	83.31	C
ATOM	26239	C5*	C A1244	260.050	132.572	-0.273	1.00	96.05	C	ATOM	26289	N1	C A1246	259.270	144.213	-1.590	1.00	94.46	N
ATOM	26240	C4*	C A1244	261.082	133.630	-0.579	1.00	96.05	C	ATOM	26290	C2	C A1246	258.407	144.440	-2.682	1.00	94.46	C
ATOM	26241	O4*	C A1244	261.281	133.729	-2.010	1.00	96.05	O	ATOM	26291	O2	C A1246	258.647	145.380	-3.463	1.00	94.46	O
ATOM	26242	C3*	C A1244	260.752	135.048	-0.147	1.00	96.05	C	ATOM	26292	N3	C A1246	257.338	143.634	-2.854	1.00	94.46	N
ATOM	26243	O3*	C A1244	261.027	135.272	1.227	1.00	96.05	O	ATOM	26293	C4	C A1246	257.108	142.638	-1.998	1.00	94.46	C
ATOM	26244	C2*	C A1244	261.634	135.887	-1.064	1.00	96.05	C	ATOM	26294	N4	C A1246	256.040	141.869	-2.217	1.00	94.46	N
ATOM	26245	O2*	C A1244	262.967	136.009	-0.612	1.00	96.05	O	ATOM	26295	C5	C A1246	257.962	142.385	-0.881	1.00	94.46	C
ATOM	26246	C1*	C A1244	261.613	135.061	-2.349	1.00	96.05	C	ATOM	26296	C6	C A1246	259.019	143.186	-0.718	1.00	94.46	C
ATOM	26247	N1	C A1244	260.615	135.572	-3.292	1.00	58.11	N	ATOM	26297	P	U A1247	259.327	147.498	2.602	1.00	90.63	P



Table 1: Sheet 265/521

ATOM	26298	U A1247	259.807	148.584	3.490	1.00	76.61	O	ATOM	26348	C2*	C A1249	243.411	151.002	-0.721	1.00	83.92	C
ATOM	26299	O2P	258.780	146.242	3.196	1.00	76.61	O	ATOM	26349	O2*	C A1249	242.773	151.979	-1.516	1.00	83.92	O
ATOM	26300	O5*	258.249	148.125	1.615	1.00	90.63	O	ATOM	26350	Cl*	C A1249	244.716	150.534	-1.376	1.00	83.92	C
ATOM	26301	C5*	258.555	149.320	0.881	1.00	90.63	C	ATOM	26351	N1	C A1249	245.148	149.206	-0.877	1.00	58.71	N
ATOM	26302	C4*	257.488	149.593	-0.143	1.00	90.63	C	ATOM	26352	C2	C A1249	244.564	148.037	-1.401	1.00	58.71	C
ATOM	26303	O4*	257.510	148.553	-1.156	1.00	90.63	O	ATOM	26353	O2	C A1249	243.683	148.130	-2.289	1.00	58.71	O
ATOM	26304	C3*	256.059	149.579	0.370	1.00	90.63	C	ATOM	26354	N3	C A1249	244.980	146.835	-0.921	1.00	58.71	N
ATOM	26305	O3*	255.679	150.780	1.015	1.00	90.63	O	ATOM	26355	C4	C A1249	245.926	146.776	0.022	1.00	58.71	C
ATOM	26306	C2*	255.271	149.287	-0.899	1.00	90.63	C	ATOM	26356	N4	C A1249	246.310	145.580	0.458	1.00	58.71	N
ATOM	26307	O2*	255.114	150.420	-1.735	1.00	90.63	O	ATOM	26357	C5	C A1249	246.523	147.937	0.561	1.00	58.71	C
ATOM	26308	Cl*	256.185	148.274	-1.585	1.00	90.63	C	ATOM	26358	C6	C A1249	246.112	149.116	0.094	1.00	58.71	C
ATOM	26309	N1	255.829	146.913	-1.150	1.00	76.61	N	ATOM	26359	P	A A1250	242.720	152.300	2.757	1.00	96.33	P
ATOM	26311	O2	254.268	146.717	-1.833	1.00	76.61	C	ATOM	26360	O1P	A A1250	242.065	153.561	3.175	1.00	60.63	O
ATOM	26312	N3	254.493	145.021	-1.321	1.00	76.61	N	ATOM	26361	O2P	A A1250	243.914	151.806	3.495	1.00	60.63	O
ATOM	26313	C4	255.058	144.394	-0.226	1.00	76.61	C	ATOM	26362	OS*	A A1250	241.654	151.114	2.735	1.00	96.33	O
ATOM	26314	O4	254.589	143.330	0.175	1.00	76.61	O	ATOM	26363	C5*	A A1250	240.768	150.964	1.614	1.00	96.33	C
ATOM	26315	C5	256.113	145.124	0.397	1.00	76.61	C	ATOM	26364	C4*	A A1250	239.693	149.930	1.880	1.00	96.33	C
ATOM	26316	C6	256.455	146.324	-0.072	1.00	76.61	C	ATOM	26365	O4*	A A1250	240.214	148.578	1.805	1.00	96.33	O
ATOM	26317	P	254.457	150.757	2.058	1.00	103.14	P	ATOM	26366	C3*	A A1250	238.940	149.930	3.202	1.00	96.33	C
ATOM	26318	O1P	254.447	152.082	2.724	1.00	90.81	O	ATOM	26367	OS*	A A1250	237.977	150.985	3.302	1.00	96.33	O
ATOM	26319	O2P	254.530	149.518	2.883	1.00	90.81	O	ATOM	26368	C2*	A A1250	238.254	148.563	3.157	1.00	96.33	C
ATOM	26320	O5*	253.181	150.675	1.107	1.00	103.14	O	ATOM	26369	O2*	A A1250	237.088	148.579	2.362	1.00	96.33	O
ATOM	26321	C5*	253.050	151.608	0.019	1.00	103.14	C	ATOM	26370	Cl*	A A1250	239.274	147.707	2.407	1.00	96.33	C
ATOM	26322	C4*	251.702	151.492	-0.655	1.00	103.14	C	ATOM	26371	N8	A A1250	239.939	146.726	3.269	1.00	60.63	N
ATOM	26323	O4*	251.645	150.386	-1.592	1.00	103.14	O	ATOM	26372	C9	A A1250	241.024	146.861	4.096	1.00	60.63	C
ATOM	26324	C3*	250.463	151.309	0.194	1.00	103.14	C	ATOM	26373	N7	A A1250	241.309	145.772	4.773	1.00	60.63	N
ATOM	26325	O3*	250.057	152.513	0.816	1.00	103.14	O	ATOM	26374	C5	A A1250	240.356	144.856	4.354	1.00	60.63	C
ATOM	26326	C2*	249.441	150.878	-0.850	1.00	103.14	C	ATOM	26375	C6	A A1250	240.105	143.513	4.705	1.00	60.63	C
ATOM	26327	O2*	248.923	151.996	-1.543	1.00	103.14	O	ATOM	26376	N6	A A1250	240.805	142.830	5.611	1.00	60.63	N
ATOM	26328	Cl*	250.289	150.028	-1.801	1.00	103.14	C	ATOM	26377	N1	A A1250	239.083	142.887	4.092	1.00	60.63	N
ATOM	26329	N9	250.113	148.597	-1.542	1.00	90.81	N	ATOM	26378	C2	A A1250	238.357	143.573	3.196	1.00	60.63	C
ATOM	26330	C8	250.814	147.791	-0.674	1.00	90.81	C	ATOM	26379	N3	A A1250	238.486	144.832	2.792	1.00	60.63	N
ATOM	26331	N7	250.388	146.548	-0.643	1.00	90.81	N	ATOM	26381	P	A A1251	237.388	151.406	4.753	1.00	82.03	P
ATOM	26332	C5	249.340	146.529	-1.556	1.00	90.81	C	ATOM	26382	O1P	A A1251	236.749	152.742	4.601	1.00	62.80	O
ATOM	26333	C6	248.472	145.501	-1.997	1.00	90.81	C	ATOM	26383	O2P	A A1251	238.402	151.186	5.821	1.00	62.80	O
ATOM	26334	N6	248.519	144.242	-1.525	1.00	90.81	N	ATOM	26384	OS*	A A1251	236.231	150.350	5.036	1.00	82.03	O
ATOM	26335	N1	247.542	145.817	-2.918	1.00	90.81	N	ATOM	26385	C5*	A A1251	235.088	150.260	4.174	1.00	82.03	C
ATOM	26336	C2	247.491	147.077	-3.375	1.00	90.81	C	ATOM	26386	C4*	A A1251	234.418	148.924	4.345	1.00	82.03	C
ATOM	26337	N3	248.244	148.125	-3.048	1.00	90.81	N	ATOM	26387	O4*	A A1251	235.378	147.870	4.093	1.00	82.03	O
ATOM	26338	C4	249.163	147.782	-2.124	1.00	90.81	C	ATOM	26388	C3*	A A1251	233.893	148.630	5.732	1.00	82.03	C
ATOM	26339	P	248.780	152.507	1.788	1.00	83.92	P	ATOM	26389	O3*	A A1251	232.599	149.201	5.882	1.00	82.03	O
ATOM	26340	O1P	248.705	153.815	2.473	1.00	58.71	O	ATOM	26390	C2*	A A1251	232.870	147.108	5.761	1.00	82.03	C
ATOM	26341	O2P	248.777	151.254	2.596	1.00	58.71	O	ATOM	26391	O2*	A A1251	232.720	146.596	5.124	1.00	82.03	O
ATOM	26342	O5*	247.553	152.489	0.780	1.00	83.92	O	ATOM	26392	Cl*	A A1251	235.085	146.754	4.903	1.00	82.03	C
ATOM	26343	C5*	246.246	152.205	1.264	1.00	83.92	C	ATOM	26393	N9	A A1251	236.283	146.395	5.662	1.00	62.80	N
ATOM	26344	C4*	245.240	152.242	0.145	1.00	83.92	C	ATOM	26394	C8	A A1251	237.255	147.215	6.173	1.00	62.80	C
ATOM	26345	O4*	245.711	151.468	-0.991	1.00	83.92	O	ATOM	26395	N7	A A1251	238.190	146.575	6.839	1.00	62.80	N
ATOM	26346	C3*	243.939	151.591	0.573	1.00	83.92	C	ATOM	26396	C5	A A1251	237.811	145.244	6.754	1.00	62.80	C
ATOM	26347	O3*	243.090	152.519	1.212	1.00	83.92	O	ATOM	26397	C6	A A1251	238.381	144.056	7.261	1.00	62.80	C



Table 1: Sheet 266/521

ATOM	26398	N6	A A1251	239.492	144.009	7.993	1.00	62.80	N	ATOM	26448	P	C A1254	230.667	142.833	17.257	1.00	76.66	P
ATOM	26399	N1	A A1251	237.758	142.897	6.985	1.00	62.80	N	ATOM	26449	O1P	C A1254	229.354	142.298	17.668	1.00	63.04	O
ATOM	26400	C2	A A1251	236.639	142.932	6.257	1.00	62.80	C	ATOM	26450	O2P	C A1254	230.891	144.306	17.231	1.00	63.04	O
ATOM	26401	N3	A A1251	236.002	143.979	5.731	1.00	62.80	N	ATOM	26451	O5*	C A1254	231.780	142.134	18.155	1.00	76.66	O
ATOM	26402	C4	A A1251	236.646	145.118	6.021	1.00	62.80	C	ATOM	26452	C5*	C A1254	231.827	140.710	18.279	1.00	76.66	C
ATOM	26403	P	A A1252	232.111	149.714	7.329	1.00	72.13	P	ATOM	26453	C4*	C A1254	233.238	140.262	18.544	1.00	76.66	C
ATOM	26404	O1P	A A1252	230.912	150.565	7.093	1.00	85.65	O	ATOM	26454	O4*	C A1254	234.103	140.757	17.488	1.00	76.66	O
ATOM	26405	O2P	A A1252	233.271	150.279	8.064	1.00	85.65	O	ATOM	26455	C3*	C A1254	233.874	140.817	19.803	1.00	76.66	C
ATOM	26406	O5*	A A1252	231.671	148.378	8.087	1.00	72.13	O	ATOM	26456	O3*	C A1254	233.505	140.111	20.969	1.00	76.66	O
ATOM	26407	C5*	A A1252	230.628	147.535	7.553	1.00	72.13	C	ATOM	26457	C2*	C A1254	235.363	140.728	19.501	1.00	76.66	C
ATOM	26408	C4*	A A1252	230.806	146.115	8.026	1.00	72.13	C	ATOM	26458	O2*	C A1254	235.907	139.432	19.679	1.00	76.66	O
ATOM	26409	O4*	A A1252	232.113	145.641	7.625	1.00	72.13	O	ATOM	26459	C1*	C A1254	235.383	141.080	18.020	1.00	76.66	C
ATOM	26410	C3*	A A1252	230.772	145.904	9.526	1.00	72.13	C	ATOM	26460	N1	C A1254	235.651	142.516	17.796	1.00	63.04	N
ATOM	26411	O3*	A A1252	229.434	145.772	9.983	1.00	72.13	O	ATOM	26461	C2	C A1254	236.949	142.999	18.006	1.00	63.04	C
ATOM	26412	C2*	A A1252	231.584	144.625	9.712	1.00	72.13	C	ATOM	26462	O2	C A1254	237.823	142.213	18.405	1.00	63.04	O
ATOM	26413	O2*	A A1252	230.841	143.441	9.510	1.00	72.13	O	ATOM	26463	N3	C A1254	237.213	144.310	17.772	1.00	63.04	N
ATOM	26414	C1*	A A1252	232.620	144.750	8.597	1.00	72.13	C	ATOM	26464	C4	C A1254	236.238	145.126	17.353	1.00	63.04	C
ATOM	26415	N9	A A1252	233.911	145.254	9.058	1.00	85.65	N	ATOM	26465	N4	C A1254	236.536	146.409	17.128	1.00	63.04	N
ATOM	26416	C8	A A1252	234.401	146.536	9.002	1.00	85.65	C	ATOM	26466	C5	C A1254	234.909	144.662	17.146	1.00	63.04	C
ATOM	26417	N7	A A1252	235.611	146.657	9.490	1.00	85.65	N	ATOM	26467	C6	C A1254	234.661	143.364	17.380	1.00	63.04	C
ATOM	26418	C5	A A1252	235.937	145.370	9.899	1.00	85.65	C	ATOM	26468	P	G A1255	233.364	140.917	22.348	1.00100.38	P	
ATOM	26419	C6	A A1252	237.089	144.829	10.495	1.00	85.65	C	ATOM	26469	O1P	G A1255	232.631	140.059	23.325	1.00	65.34	O
ATOM	26420	N6	A A1252	238.170	145.547	10.790	1.00	85.65	N	ATOM	26470	O2P	G A1255	232.834	142.269	21.991	1.00	65.34	O
ATOM	26421	N1	A A1252	237.093	143.507	10.778	1.00	85.65	N	ATOM	26471	O5*	G A1255	234.868	141.081	22.856	1.00100.38	O	
ATOM	26422	C2	A A1252	236.010	142.786	10.473	1.00	85.65	C	ATOM	26472	C5*	G A1255	235.642	139.933	23.265	1.00100.38	C	
ATOM	26423	N3	A A1252	234.869	143.179	9.908	1.00	85.65	N	ATOM	26473	C4*	G A1255	237.022	140.363	23.699	1.00100.38	C	
ATOM	26424	C4	A A1252	234.898	144.498	9.643	1.00	85.65	C	ATOM	26474	O4*	G A1255	237.679	141.025	22.588	1.00100.38	O	
ATOM	26425	P	G A1253	229.117	145.873	11.557	1.00	68.95	P	ATOM	26475	C3*	G A1255	237.068	141.375	24.832	1.00100.38	C	
ATOM	26426	O1P	G A1253	227.628	145.832	11.686	1.00	72.56	O	ATOM	26476	O3*	G A1255	237.013	140.735	26.110	1.00100.38	O	
ATOM	26427	O2P	G A1253	229.879	147.022	12.111	1.00	72.56	O	ATOM	26477	C2*	G A1255	238.397	142.084	24.593	1.00100.38	C	
ATOM	26428	O5*	G A1253	229.731	144.529	12.154	1.00	68.95	C	ATOM	26478	O2*	G A1255	239.494	141.352	25.096	1.00100.38	O	
ATOM	26429	C5*	G A1253	230.295	144.471	13.469	1.00	68.95	C	ATOM	26479	C1*	G A1255	238.496	142.074	23.069	1.00100.38	C	
ATOM	26430	C4*	G A1253	231.167	143.252	13.576	1.00	68.95	C	ATOM	26480	N9	G A1255	238.085	143.317	22.423	1.00	65.34	N
ATOM	26431	O4*	G A1253	232.289	143.402	12.674	1.00	68.95	O	ATOM	26481	C8	G A1255	236.867	143.589	21.852	1.00	65.34	C
ATOM	26432	C3*	G A1253	231.809	142.975	14.921	1.00	68.95	C	ATOM	26482	N7	G A1255	236.805	144.780	21.317	1.00	65.34	N
ATOM	26433	O3*	G A1253	230.933	142.276	15.778	1.00	68.95	O	ATOM	26483	C5	G A1255	238.055	145.333	21.556	1.00	65.34	C
ATOM	26434	C2*	G A1253	233.010	142.121	14.549	1.00	68.95	C	ATOM	26484	C6	G A1255	238.579	146.610	21.210	1.00	65.34	C
ATOM	26435	O2*	G A1253	232.673	140.763	14.348	1.00	68.95	O	ATOM	26485	O6	G A1255	238.026	147.527	20.597	1.00	65.34	O
ATOM	26436	C1*	G A1253	233.430	142.750	13.220	1.00	68.95	C	ATOM	26486	N1	G A1255	239.885	146.768	21.654	1.00	65.34	N
ATOM	26437	N9	G A1253	234.514	143.724	13.386	1.00	72.56	N	ATOM	26487	C2	G A1255	240.603	145.824	22.342	1.00	65.34	C
ATOM	26438	C8	G A1253	234.502	145.065	13.061	1.00	72.56	C	ATOM	26488	N2	G A1255	241.856	146.175	22.693	1.00	65.34	N
ATOM	26439	N7	G A1253	235.616	145.675	13.363	1.00	72.56	N	ATOM	26489	N3	G A1255	240.131	144.624	22.667	1.00	65.34	N
ATOM	26440	C5	G A1253	236.417	144.681	13.915	1.00	72.56	C	ATOM	26490	C4	G A1255	238.857	144.450	22.246	1.00	65.34	C
ATOM	26441	C6	G A1253	237.733	144.745	14.439	1.00	72.56	C	ATOM	26491	P	A A1256	235.853	141.139	27.149	1.00111.37	P	
ATOM	26442	O6	G A1253	238.480	145.728	14.529	1.00	72.56	O	ATOM	26492	O1P	A A1256	234.665	140.326	26.809	1.00120.79	O	
ATOM	26443	N1	G A1253	238.165	143.503	14.895	1.00	72.56	N	ATOM	26493	O2P	A A1256	235.744	142.617	27.181	1.00120.79	O	
ATOM	26444	C2	G A1253	237.433	142.348	14.855	1.00	72.56	C	ATOM	26494	O5*	A A1256	236.383	140.649	28.570	1.00111.37	O	
ATOM	26445	N2	G A1253	238.030	141.256	15.350	1.00	72.56	N	ATOM	26495	C5*	A A1256	236.961	139.343	28.739	1.00111.37	C	
ATOM	26446	N3	G A1253	236.205	142.271	14.370	1.00	72.56	N	ATOM	26496	C4*	A A1256	237.751	139.276	30.031	1.00111.37	C	
ATOM	26447	C4	G A1253	235.760	143.469	13.924	1.00	72.56	C	ATOM	26497	O4*	A A1256	238.611	140.443	30.109	1.00111.37	O	



Table 1: Sheet 267/521

ATOM	26498	C3*	A A1256	236.966	139.282	31.338	1.00111.37	C	ATOM	26548	C5	G A1258	242.633	141.159	28.798	1.00105.15	C
ATOM	26499	O3*	A A1256	236.452	137.954	31.596	1.00111.37	O	ATOM	26549	C6	G A1258	243.310	142.405	28.897	1.00105.15	C
ATOM	26500	C2*	A A1256	237.956	139.888	32.340	1.00111.37	C	ATOM	26550	O6	G A1258	244.269	142.710	29.619	1.00105.15	O
ATOM	26501	O2*	A A1256	238.869	138.992	32.929	1.00111.37	O	ATOM	26551	N1	G A1258	242.768	143.351	28.030	1.00105.15	N
ATOM	26502	C1*	A A1256	238.760	140.843	31.456	1.00111.37	C	ATOM	26552	C2	G A1258	241.721	143.128	27.176	1.00105.15	C
ATOM	26503	N9	A A1256	238.395	142.254	31.570	1.00120.79	N	ATOM	26553	N2	G A1258	241.336	144.166	26.426	1.00105.15	N
ATOM	26504	C8	A A1256	237.362	142.808	32.285	1.00120.79	C	ATOM	26554	N3	G A1258	241.093	141.973	27.066	1.00105.15	N
ATOM	26505	N7	A A1256	237.329	144.116	32.236	1.00120.79	N	ATOM	26555	C4	G A1258	241.597	141.039	27.900	1.00105.15	C
ATOM	26506	C5	A A1256	238.408	144.448	31.425	1.00120.79	C	ATOM	26556	P	C A1259	242.570	136.295	24.233	1.00 77.16	P
ATOM	26507	C6	A A1256	238.927	145.684	31.002	1.00120.79	C	ATOM	26557	O1P	C A1259	242.485	135.241	23.197	1.00 98.56	O
ATOM	26508	N6	A A1256	238.414	146.858	31.370	1.00120.79	N	ATOM	26558	O2P	C A1259	243.681	136.258	25.220	1.00 98.56	O
ATOM	26509	N1	A A1256	240.008	145.670	30.190	1.00120.79	N	ATOM	26559	O5*	C A1259	242.619	137.704	23.499	1.00 77.16	O
ATOM	26510	C2	A A1256	240.527	144.490	29.843	1.00120.79	C	ATOM	26560	C5*	C A1259	241.669	138.013	22.486	1.00 77.16	C
ATOM	26511	N3	A A1256	240.137	143.262	30.185	1.00120.79	N	ATOM	26561	C4*	C A1259	242.002	139.326	21.834	1.00 77.16	C
ATOM	26512	C4	A A1256	239.061	143.311	30.990	1.00120.79	C	ATOM	26562	O4*	C A1259	241.763	140.414	22.759	1.00 77.16	O
ATOM	26513	P	U A1257	236.865	137.129	32.927	1.00187.03	P	ATOM	26563	C3*	C A1259	243.435	139.521	21.370	1.00 77.16	C
ATOM	26514	O1P	U A1257	236.009	135.915	32.941	1.00200.82	O	ATOM	26564	O3*	C A1259	243.674	138.893	20.118	1.00 77.16	O
ATOM	26515	O2P	U A1257	236.870	138.029	34.110	1.00200.82	O	ATOM	26565	C2*	C A1259	243.549	141.043	21.308	1.00 77.16	C
ATOM	26516	O5*	U A1257	238.357	136.643	32.632	1.00187.03	O	ATOM	26566	O2*	C A1259	243.037	141.615	20.115	1.00 77.16	O
ATOM	26517	C5*	U A1257	238.817	136.497	31.276	1.00187.03	C	ATOM	26567	C1*	C A1259	242.669	141.471	22.489	1.00 77.16	C
ATOM	26518	C4*	U A1257	240.324	136.578	31.200	1.00187.03	C	ATOM	26568	N1	C A1259	243.454	141.750	23.709	1.00 98.56	N
ATOM	26519	O4*	U A1257	240.807	137.706	31.979	1.00187.03	O	ATOM	26569	C2	C A1259	243.801	143.081	24.004	1.00 98.56	C
ATOM	26520	C3*	U A1257	241.112	135.396	31.737	1.00187.03	C	ATOM	26570	O2	C A1259	243.413	143.992	23.252	1.00 98.56	O
ATOM	26521	O3*	U A1257	241.065	134.272	30.846	1.00187.03	O	ATOM	26571	N3	C A1259	244.550	143.336	25.097	1.00 98.56	N
ATOM	26522	C2*	U A1257	242.479	136.007	32.058	1.00187.03	C	ATOM	26572	C4	C A1259	244.953	142.334	25.880	1.00 98.56	C
ATOM	26523	O2*	U A1257	243.372	136.169	30.978	1.00187.03	O	ATOM	26573	N4	C A1259	245.713	142.635	26.934	1.00 98.56	N
ATOM	26524	C1*	U A1257	242.086	137.407	32.521	1.00187.03	C	ATOM	26574	C5	C A1259	244.600	140.979	25.616	1.00 98.56	C
ATOM	26525	N1	U A1257	242.041	137.513	33.989	1.00200.82	N	ATOM	26575	C6	C A1259	243.857	140.734	24.533	1.00 98.56	C
ATOM	26526	C2	U A1257	243.230	137.812	34.647	1.00200.82	C	ATOM	26576	P	C A1260	245.089	138.194	19.841	1.00115.19	P
ATOM	26527	O2	U A1257	244.290	137.994	34.065	1.00200.82	O	ATOM	26577	O1P	C A1260	244.990	137.450	18.563	1.00101.91	O
ATOM	26528	N3	U A1257	243.130	137.886	36.014	1.00200.82	N	ATOM	26578	O2P	C A1260	245.495	137.475	21.079	1.00101.91	O
ATOM	26529	C4	U A1257	241.997	137.697	36.778	1.00200.82	C	ATOM	26579	O5*	C A1260	246.046	139.439	19.594	1.00115.19	O
ATOM	26530	O4	U A1257	242.071	137.798	38.002	1.00200.82	O	ATOM	26580	C5*	C A1260	247.414	139.432	20.024	1.00115.19	C
ATOM	26531	C5	U A1257	240.814	137.394	36.030	1.00200.82	C	ATOM	26581	C4*	C A1260	247.740	140.735	20.716	1.00115.19	C
ATOM	26532	C6	U A1257	240.874	137.315	34.697	1.00200.82	C	ATOM	26582	O4*	C A1260	246.933	140.857	21.916	1.00115.19	O
ATOM	26533	P	G A1258	241.840	134.299	29.434	1.00114.66	P	ATOM	26583	C3*	C A1260	249.171	140.882	21.198	1.00115.19	C
ATOM	26534	O1P	G A1258	241.312	133.119	28.693	1.00105.15	O	ATOM	26584	O3*	C A1260	249.992	141.361	20.145	1.00115.19	O
ATOM	26535	O2P	G A1258	243.309	134.426	29.636	1.00105.15	O	ATOM	26585	C2*	C A1260	249.035	141.876	22.346	1.00115.19	C
ATOM	26536	O5*	G A1258	241.278	135.606	28.707	1.00114.66	O	ATOM	26586	O2*	C A1260	248.923	143.212	21.894	1.00115.19	O
ATOM	26537	C5*	G A1258	240.018	135.568	28.004	1.00114.66	C	ATOM	26587	C1*	C A1260	247.692	141.467	22.948	1.00115.19	C
ATOM	26538	C4*	G A1258	239.870	136.762	27.086	1.00114.66	C	ATOM	26588	N1	C A1260	247.810	140.508	24.070	1.00101.91	N
ATOM	26539	O4*	G A1258	239.628	137.963	27.864	1.00114.66	O	ATOM	26589	C2	C A1260	248.273	140.966	25.317	1.00101.91	C
ATOM	26540	C3*	G A1258	241.048	137.129	26.197	1.00114.66	C	ATOM	26590	O2	C A1260	248.578	142.162	25.448	1.00101.91	O
ATOM	26541	O3*	G A1258	241.166	136.333	25.025	1.00114.66	O	ATOM	26591	N3	C A1260	248.372	140.090	26.346	1.00101.91	N
ATOM	26542	C2*	G A1258	240.752	138.585	25.862	1.00114.66	C	ATOM	26592	C4	C A1260	248.025	138.811	26.172	1.00101.91	C
ATOM	26543	O2*	G A1258	239.808	138.716	24.822	1.00114.66	O	ATOM	26593	N4	C A1260	248.126	137.984	27.220	1.00101.91	N
ATOM	26544	C1*	G A1258	240.149	139.090	27.174	1.00114.66	C	ATOM	26594	C5	C A1260	247.557	138.320	24.917	1.00101.91	C
ATOM	26545	N9	G A1258	241.176	139.730	27.998	1.00105.15	N	ATOM	26595	C6	C A1260	247.469	139.191	23.905	1.00101.91	C
ATOM	26546	C8	G A1258	241.948	139.150	28.978	1.00105.15	C	ATOM	26596	P	A A1261	251.565	141.555	20.386	1.00 88.54	P
ATOM	26547	N7	G A1258	242.941	139.464	29.475	1.00105.15	N	ATOM	26597	O1P	A A1261	252.269	140.985	19.208	1.00 99.78	O



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ATOM	26598	O2P	A A1261	251.892	141.055	21.745	1.00	99.78	O	ATOM	26648	O2*	C A1263	263.870	143.612	24.393	1.00100.94	O
ATOM	26599	O5*	A A1261	251.740	143.139	20.337	1.00	88.54	O	ATOM	26649	C1*	C A1263	261.512	143.976	24.082	1.00100.94	C
ATOM	26600	C5*	A A1261	251.016	143.926	19.362	1.00	88.54	C	ATOM	26650	N1	C A1263	260.347	143.102	23.860	1.00103.08	N
ATOM	26601	C4*	A A1261	251.227	145.407	19.599	1.00	88.54	C	ATOM	26651	O2	C A1263	260.136	142.035	24.748	1.00103.08	C
ATOM	26602	O4*	A A1261	250.725	145.761	20.911	1.00	88.54	O	ATOM	26652	C2	C A1263	260.940	141.855	25.680	1.00103.08	O
ATOM	26603	C3*	A A1261	252.671	145.878	19.585	1.00	88.54	C	ATOM	26653	N3	C A1263	259.073	141.224	24.564	1.00103.08	N
ATOM	26604	O3*	A A1261	253.102	146.165	18.259	1.00	88.54	O	ATOM	26654	C4	C A1263	258.243	141.435	23.545	1.00103.08	C
ATOM	26605	C2*	A A1261	252.629	147.121	20.470	1.00	88.54	C	ATOM	26655	N4	C A1263	257.206	140.611	23.413	1.00103.08	N
ATOM	26606	O2*	A A1261	252.193	148.286	19.795	1.00	88.54	O	ATOM	26656	C5	C A1263	258.439	142.504	22.617	1.00103.08	C
ATOM	26607	C1*	A A1261	251.574	146.727	21.507	1.00	88.54	C	ATOM	26657	C6	C A1263	259.490	143.308	22.814	1.00103.08	C
ATOM	26608	N9	A A1261	252.144	146.140	22.722	1.00	99.78	N	ATOM	26658	P	C A1264	264.811	142.873	20.856	1.00 82.49	P
ATOM	26609	C8	A A1261	251.915	144.881	23.228	1.00	99.78	C	ATOM	26659	O1P	C A1264	266.164	143.234	20.359	1.00100.06	O
ATOM	26610	N7	A A1261	252.565	144.628	24.335	1.00	99.78	N	ATOM	26660	O2P	C A1264	263.739	142.522	19.884	1.00100.06	O
ATOM	26611	C5	A A1261	253.269	145.796	24.582	1.00	99.78	C	ATOM	26661	O5*	C A1264	264.957	141.677	21.903	1.00 82.49	O
ATOM	26612	C6	A A1261	254.147	146.167	25.616	1.00	99.78	C	ATOM	26662	C5*	C A1264	265.927	141.745	22.955	1.00 82.49	C
ATOM	26613	N6	A A1261	254.470	145.368	26.637	1.00	99.78	N	ATOM	26663	C4*	C A1264	265.732	140.613	23.929	1.00 82.49	C
ATOM	26614	N1	A A1261	254.687	147.405	25.564	1.00	99.78	N	ATOM	26664	O4*	C A1264	264.392	140.666	24.475	1.00 82.49	O
ATOM	26615	C2	A A1261	254.355	148.208	24.539	1.00	99.78	C	ATOM	26665	C3*	C A1264	265.864	139.207	23.374	1.00 82.49	C
ATOM	26616	N3	A A1261	253.540	147.974	23.513	1.00	99.78	N	ATOM	26666	O3*	C A1264	267.226	138.804	23.322	1.00 82.49	O
ATOM	26617	C4	A A1261	253.022	146.737	23.595	1.00	99.78	C	ATOM	26667	C2*	C A1264	265.061	138.376	24.370	1.00 82.49	C
ATOM	26618	P	C A1262	254.478	145.536	17.717	1.00115.77	P	ATOM	26668	O2*	C A1264	265.793	137.994	25.518	1.00 82.49	O	
ATOM	26619	O1P	C A1262	254.787	146.207	16.423	1.00	84.20	O	ATOM	26669	C1*	C A1264	263.946	139.350	24.766	1.00 82.49	C
ATOM	26620	O2P	C A1262	254.382	144.055	17.776	1.00	84.20	O	ATOM	26670	N1	C A1264	262.674	139.098	24.053	1.00100.06	N
ATOM	26621	O5*	C A1262	255.559	145.972	18.803	1.00115.77	O	ATOM	26671	C2	C A1264	261.908	137.968	24.409	1.00100.06	C	
ATOM	26622	C5*	C A1262	256.039	147.331	18.886	1.00115.77	C	ATOM	26672	O2	C A1264	262.300	137.233	25.335	1.00100.06	O	
ATOM	26623	C4*	C A1262	256.946	147.486	20.085	1.00115.77	C	ATOM	26673	N3	C A1264	260.762	137.709	23.735	1.00100.06	N	
ATOM	26624	O4*	C A1262	256.172	147.264	21.290	1.00115.77	O	ATOM	26674	C4	C A1264	260.366	138.523	22.755	1.00100.06	C	
ATOM	26625	C3*	C A1262	258.099	146.491	20.166	1.00115.77	C	ATOM	26675	N4	C A1264	259.240	138.217	22.111	1.00100.06	N	
ATOM	26626	O3*	C A1262	259.241	146.953	19.442	1.00115.77	O	ATOM	26676	C5	C A1264	261.109	139.685	22.388	1.00100.06	C	
ATOM	26627	C2*	C A1262	258.368	146.390	21.664	1.00115.77	C	ATOM	26677	C6	C A1264	262.245	139.932	23.056	1.00100.06	C	
ATOM	26628	O2*	C A1262	259.236	147.391	22.157	1.00115.77	O	ATOM	26678	P	G A1265	267.700	137.724	22.225	1.00103.14	P	
ATOM	26629	C1*	C A1262	256.971	146.597	22.252	1.00115.77	C	ATOM	26679	O1P	G A1265	269.194	137.658	22.282	1.00 85.95	O	
ATOM	26630	N1	C A1262	256.307	145.340	22.634	1.00	84.20	N	ATOM	26680	O2P	G A1265	267.028	138.028	20.927	1.00 85.95	O
ATOM	26631	C2	C A1262	256.672	144.725	23.845	1.00	84.20	C	ATOM	26681	O5*	G A1265	267.138	136.344	22.789	1.00103.14	O
ATOM	26632	O2	C A1262	257.563	145.241	24.546	1.00	84.20	O	ATOM	26682	C5*	G A1265	267.823	135.665	23.850	1.00103.14	C
ATOM	26633	N3	C A1262	256.054	143.582	24.213	1.00	84.20	N	ATOM	26683	C4*	G A1265	267.195	134.325	24.106	1.00103.14	C
ATOM	26634	C4	C A1262	255.123	143.041	23.424	1.00	84.20	C	ATOM	26684	O4*	G A1265	265.880	134.516	24.684	1.00103.14	O
ATOM	26635	N4	C A1262	254.545	141.912	23.828	1.00	84.20	N	ATOM	26685	C3*	G A1265	266.942	133.463	22.883	1.00103.14	C
ATOM	26636	C5	C A1262	254.744	143.636	22.185	1.00	84.20	C	ATOM	26686	O3*	G A1265	268.087	132.763	22.426	1.00103.14	O
ATOM	26637	C6	C A1262	255.352	144.774	21.834	1.00	84.20	C	ATOM	26687	C2*	G A1265	265.831	132.543	23.368	1.00103.14	C
ATOM	26638	P	C A1263	260.425	145.929	19.073	1.00100.94	P	ATOM	26688	O2*	G A1265	266.307	131.477	24.169	1.00103.14	O	
ATOM	26639	O1P	C A1263	261.492	146.730	18.416	1.00103.08	O	ATOM	26689	Cl*	G A1265	265.002	133.501	24.222	1.00103.14	C	
ATOM	26640	O2P	C A1263	259.843	144.768	18.363	1.00103.08	O	ATOM	26690	N9	G A1265	263.943	134.132	23.433	1.00 85.95	N	
ATOM	26641	O5*	C A1263	260.958	145.415	20.487	1.00100.94	O	ATOM	26691	C8	G A1265	263.956	135.396	22.887	1.00 85.95	C	
ATOM	26642	C5*	C A1263	261.848	146.229	21.283	1.00100.94	C	ATOM	26692	N7	G A1265	262.871	135.678	22.217	1.00 85.95	N	
ATOM	26643	C4*	C A1263	262.366	145.452	22.477	1.00100.94	C	ATOM	26693	C5	G A1265	262.089	134.537	22.328	1.00 85.95	C	
ATOM	26644	O4*	C A1263	261.299	145.218	23.431	1.00100.94	O	ATOM	26694	C6	G A1265	260.802	134.256	21.811	1.00 85.95	C	
ATOM	26645	C3*	C A1263	262.917	144.068	22.184	1.00100.94	C	ATOM	26695	O6	G A1265	260.068	134.988	21.136	1.00 85.95	O	
ATOM	26646	O3*	C A1263	264.258	144.094	21.736	1.00100.94	O	ATOM	26696	N1	G A1265	260.384	132.973	22.154	1.00 85.95	N	
ATOM	26647	C2*	C A1263	262.791	143.356	23.522	1.00100.94	C	ATOM	26697	C2	G A1265	261.110	132.078	22.903	1.00 85.95	C	



Table 1: Sheet 269/521

ATOM	26698	N2	G A1265	260.539	130.889	23.127	1.00	85.95	N	ATOM	26748	C5*	A A1268	260.418	131.540	13.732	1.00	86.15	C
ATOM	26699	N3	G A1265	262.308	132.329	23.396	1.00	85.95	N	ATOM	26749	C4*	A A1268	259.415	130.399	13.712	1.00	86.15	C
ATOM	26700	C4	G A1265	262.736	133.570	23.073	1.00	85.95	C	ATOM	26750	O4*	A A1268	260.125	129.137	13.708	1.00	86.15	O
ATOM	26701	P	G A1266	268.300	132.550	20.842	1.00	10123.21	P	ATOM	26751	C3*	A A1268	258.445	130.315	14.885	1.00	86.15	O
ATOM	26702	O1P	G A1266	269.560	131.787	20.662	1.00	80.60	O	ATOM	26752	O3*	A A1268	257.288	131.110	14.601	1.00	86.15	O
ATOM	26703	O2P	G A1266	268.128	133.861	20.152	1.00	80.60	O	ATOM	26753	C2*	A A1268	258.103	128.826	14.953	1.00	86.15	C
ATOM	26704	O5*	G A1266	267.103	131.585	20.416	1.00	10123.21	O	ATOM	26754	O2*	A A1268	257.044	128.460	14.095	1.00	86.15	O
ATOM	26705	C5*	G A1266	267.099	130.201	20.827	1.00	10123.21	C	ATOM	26755	C1*	A A1268	259.390	128.174	14.436	1.00	86.15	O
ATOM	26706	C4*	G A1266	265.861	129.488	20.324	1.00	10123.21	C	ATOM	26756	N9	A A1268	260.272	127.621	15.457	1.00	72.13	N
ATOM	26707	O4*	G A1266	264.677	130.084	20.913	1.00	10123.21	O	ATOM	26757	C8	A A1268	261.237	128.280	16.175	1.00	72.13	C
ATOM	26708	C3*	G A1266	265.580	129.513	18.828	1.00	10123.21	C	ATOM	26758	N7	A A1268	261.908	127.504	16.991	1.00	72.13	N
ATOM	26709	O3*	G A1266	266.315	128.537	18.106	1.00	10123.21	O	ATOM	26759	C5	A A1268	261.339	126.250	16.806	1.00	72.13	C
ATOM	26710	C2*	G A1266	264.089	129.214	18.780	1.00	10123.21	C	ATOM	26760	C6	A A1268	261.613	124.986	17.374	1.00	72.13	C
ATOM	26711	O2*	G A1266	263.809	127.836	18.917	1.00	10123.21	O	ATOM	26761	N6	A A1268	262.571	124.767	18.280	1.00	72.13	N
ATOM	26712	C1*	G A1266	263.589	129.960	20.015	1.00	10123.21	C	ATOM	26762	N1	A A1268	260.861	123.940	16.968	1.00	72.13	N
ATOM	26713	N9	G A1266	263.135	131.291	19.627	1.00	80.60	N	ATOM	26763	C2	A A1268	259.907	124.158	16.054	1.00	72.13	C
ATOM	26714	C8	G A1266	263.875	132.449	19.543	1.00	80.60	C	ATOM	26764	N3	A A1268	259.558	125.293	15.449	1.00	72.13	N
ATOM	26715	N7	G A1266	263.191	133.460	19.077	1.00	80.60	N	ATOM	26765	C4	A A1268	260.322	126.312	15.872	1.00	72.13	C
ATOM	26716	C5	G A1266	261.920	132.942	18.859	1.00	80.60	C	ATOM	26766	P	A A1269	256.409	131.723	15.803	1.00	63.83	P
ATOM	26717	C6	G A1266	260.747	133.559	18.345	1.00	80.60	C	ATOM	26767	O1P	A A1269	255.579	132.818	15.229	1.00	88.37	O
ATOM	26718	O6	G A1266	260.594	134.727	17.966	1.00	80.60	O	ATOM	26768	O2P	A A1269	257.311	132.019	16.936	1.00	88.37	O
ATOM	26719	N1	G A1266	259.680	132.663	18.290	1.00	80.60	N	ATOM	26769	O5*	A A1269	255.451	130.524	16.246	1.00	63.83	O
ATOM	26720	C2	G A1266	259.733	131.340	18.675	1.00	80.60	C	ATOM	26770	C5*	A A1269	254.321	130.128	15.437	1.00	63.83	C
ATOM	26721	N2	G A1266	258.602	130.622	18.544	1.00	80.60	N	ATOM	26771	C4*	A A1269	253.803	128.784	15.887	1.00	63.83	C
ATOM	26722	N3	G A1266	260.819	130.758	19.153	1.00	80.60	N	ATOM	26772	O4*	A A1269	254.883	127.826	15.809	1.00	63.83	O
ATOM	26723	C4	G A1266	261.866	131.610	19.214	1.00	80.60	C	ATOM	26773	C3*	A A1269	253.328	128.728	17.330	1.00	63.83	C
ATOM	26724	P	C A1267	267.150	128.976	16.802	1.00	10105.71	P	ATOM	26774	O3*	A A1269	251.946	129.064	17.409	1.00	63.83	O
ATOM	26725	O1P	C A1267	267.832	127.741	16.333	1.00	69.21	O	ATOM	26775	C2*	A A1269	253.580	127.276	17.737	1.00	63.83	C
ATOM	26726	O2P	C A1267	267.950	130.187	17.122	1.00	69.21	O	ATOM	26776	O2*	A A1269	252.523	126.372	17.488	1.00	63.83	O
ATOM	26727	O5*	C A1267	266.058	129.425	15.726	1.00	10105.71	O	ATOM	26777	C1*	A A1269	254.793	126.911	16.880	1.00	63.83	C
ATOM	26728	C5*	C A1267	266.379	130.420	14.712	1.00	10105.71	C	ATOM	26778	N9	A A1269	256.051	126.947	17.618	1.00	88.37	N
ATOM	26729	C4*	C A1267	265.442	130.297	13.529	1.00	10105.71	C	ATOM	26779	C8	A A1269	256.818	128.034	17.953	1.00	88.37	C
ATOM	26730	O4*	C A1267	265.629	129.003	12.909	1.00	10105.71	O	ATOM	26780	N7	A A1269	257.897	127.727	18.627	1.00	88.37	N
ATOM	26731	C3*	C A1267	263.963	130.374	13.870	1.00	10105.71	C	ATOM	26781	C5	A A1269	257.835	126.343	18.743	1.00	88.37	C
ATOM	26732	O3*	C A1267	263.521	131.724	13.834	1.00	10105.71	O	ATOM	26782	C6	A A1269	258.686	125.403	19.351	1.00	88.37	C
ATOM	26733	C2*	C A1267	263.311	129.537	12.777	1.00	10105.71	C	ATOM	26783	N6	A A1269	259.815	125.723	19.990	1.00	88.37	N
ATOM	26734	O2*	C A1267	263.109	130.272	11.587	1.00	10105.71	O	ATOM	26784	N1	A A1269	258.335	124.102	19.278	1.00	88.37	N
ATOM	26735	C1*	C A1267	264.377	128.472	12.521	1.00	10105.71	C	ATOM	26785	C2	A A1269	257.205	123.778	18.639	1.00	88.37	C
ATOM	26736	N1	C A1267	264.186	127.204	13.249	1.00	69.21	N	ATOM	26786	N3	A A1269	256.325	124.567	18.035	1.00	88.37	N
ATOM	26737	C2	C A1267	263.725	126.082	12.548	1.00	69.21	C	ATOM	26787	C4	A A1269	256.705	125.853	18.124	1.00	88.37	C
ATOM	26738	O2	C A1267	263.411	126.204	11.347	1.00	69.21	O	ATOM	26788	P	C A1270	251.479	130.343	18.252	1.00	87.82	P
ATOM	26739	N3	C A1267	263.630	124.894	13.196	1.00	69.21	N	ATOM	26789	O1P	C A1270	250.009	130.223	18.412	1.00	70.52	O
ATOM	26740	C4	C A1267	263.961	124.808	14.486	1.00	69.21	C	ATOM	26790	O2P	C A1270	252.051	131.549	17.598	1.00	70.52	O
ATOM	26741	N4	C A1267	263.887	123.613	15.070	1.00	69.21	N	ATOM	26791	O5*	C A1270	252.165	130.140	19.679	1.00	87.82	O
ATOM	26742	C5	C A1267	264.391	125.942	15.231	1.00	69.21	C	ATOM	26792	C5*	C A1270	252.007	128.903	20.403	1.00	87.82	C
ATOM	26743	C6	C A1267	264.484	127.109	14.582	1.00	69.21	C	ATOM	26793	C4*	C A1270	253.227	128.621	21.257	1.00	87.82	C
ATOM	26744	P	A A1268	262.616	132.298	15.029	1.00	86.15	P	ATOM	26794	O4*	C A1270	254.420	128.806	20.442	1.00	87.82	O
ATOM	26745	O1P	A A1268	262.344	133.729	14.727	1.00	72.13	O	ATOM	26795	C3*	C A1270	253.492	129.505	22.472	1.00	87.82	C
ATOM	26746	O2P	A A1268	263.274	131.929	16.309	1.00	72.13	O	ATOM	26796	O3*	C A1270	252.749	129.147	23.632	1.00	87.82	O
ATOM	26747	O5*	A A1268	261.252	131.472	14.920	1.00	86.15	O	ATOM	26797	C2*	C A1270	254.983	129.294	22.689	1.00	87.82	C



Table 1: Sheet 270/521

ATOM	26798	O2*	C A1270	255.267	128.050	23.305	1.00	87.82	O	ATOM	26848	O6	G A1272	257.080	138.362	24.998	1.00	71.89	O
ATOM	26799	Cl*	C A1270	255.490	129.267	21.251	1.00	87.82	C	ATOM	26849	N1	G A1272	259.014	138.845	26.083	1.00	71.89	N
ATOM	26800	N1	C A1270	255.865	130.631	20.827	1.00	70.52	N	ATOM	26850	C2	G A1272	259.990	138.599	27.016	1.00	71.89	C
ATOM	26801	C2	C A1270	257.142	131.116	21.165	1.00	70.52	C	ATOM	26851	N2	G A1272	260.999	139.476	27.045	1.00	71.89	N
ATOM	26802	O2	C A1270	257.931	130.365	21.770	1.00	70.52	O	ATOM	26852	N3	G A1272	259.977	137.569	27.852	1.00	71.89	N
ATOM	26803	N3	C A1270	257.482	132.387	20.825	1.00	70.52	N	ATOM	26853	C4	G A1272	258.883	136.795	27.676	1.00	71.89	C
ATOM	26804	C4	C A1270	256.610	133.159	20.168	1.00	70.52	C	ATOM	26854	P	G A1273	256.838	135.976	33.477	1.00111.13	P	
ATOM	26805	N4	C A1270	256.984	134.405	19.855	1.00	70.52	N	ATOM	26855	O1P	G A1273	257.150	135.935	34.929	1.00	83.00	O
ATOM	26806	C5	C A1270	255.312	132.686	19.801	1.00	70.52	C	ATOM	26856	O2P	G A1273	255.449	135.709	33.024	1.00	83.00	O
ATOM	26807	C6	C A1270	254.987	131.428	20.143	1.00	70.52	C	ATOM	26857	O5*	G A1273	257.286	137.385	32.869	1.00111.13	O	
ATOM	26808	P	G A1271	252.460	130.257	24.768	1.00	99.20	P	ATOM	26858	C5*	G A1273	258.521	137.994	33.278	1.00111.13	C	
ATOM	26809	O1P	G A1271	251.448	129.661	25.678	1.00	75.24	O	ATOM	26859	C4*	G A1273	258.797	139.258	32.495	1.00111.13	C	
ATOM	26810	O2P	G A1271	252.197	131.577	24.131	1.00	75.24	O	ATOM	26860	O4*	G A1273	258.923	138.959	31.080	1.00111.13	O	
ATOM	26811	O5*	G A1271	253.836	130.380	25.565	1.00	99.20	O	ATOM	26861	C3*	G A1273	257.774	140.383	32.533	1.00111.13	C	
ATOM	26812	C5*	G A1271	254.379	129.252	26.279	1.00	99.20	C	ATOM	26862	O3*	G A1273	257.823	141.163	33.725	1.00111.13	O	
ATOM	26813	C4*	G A1271	255.773	129.553	26.789	1.00	99.20	C	ATOM	26863	C2*	G A1273	258.151	141.206	31.299	1.00111.13	C	
ATOM	26814	O4*	G A1271	256.666	129.823	25.676	1.00	99.20	O	ATOM	26864	O2*	G A1273	259.190	142.150	31.483	1.00111.13	O	
ATOM	26815	C3*	G A1271	255.936	130.769	27.683	1.00	99.20	C	ATOM	26865	Cl*	G A1273	258.613	140.122	30.326	1.00111.13	C	
ATOM	26816	O3*	G A1271	255.574	130.517	29.028	1.00	99.20	O	ATOM	26866	N9	G A1273	257.542	139.834	29.377	1.00	83.00	N
ATOM	26817	C2*	G A1271	257.420	131.075	27.538	1.00	99.20	C	ATOM	26867	C8	G A1273	256.665	138.775	29.373	1.00	83.00	C
ATOM	26818	O2*	G A1271	258.239	130.207	28.301	1.00	99.20	O	ATOM	26868	N7	G A1273	255.782	138.848	28.413	1.00	83.00	N
ATOM	26819	Cl*	G A1271	257.642	130.778	26.061	1.00	99.20	C	ATOM	26869	C5	G A1273	256.105	140.018	27.737	1.00	83.00	C
ATOM	26820	N9	G A1271	257.434	131.990	25.279	1.00	75.24	N	ATOM	26870	C6	G A1273	255.499	140.631	26.602	1.00	83.00	C
ATOM	26821	C8	G A1271	256.326	132.317	24.535	1.00	75.24	C	ATOM	26871	O6	G A1273	254.527	140.244	25.941	1.00	83.00	O
ATOM	26822	N7	G A1271	256.417	133.486	23.965	1.00	75.24	N	ATOM	26872	N1	G A1273	256.145	141.814	26.255	1.00	83.00	N
ATOM	26823	C5	G A1271	257.662	133.961	24.350	1.00	75.24	C	ATOM	26873	C2	G A1273	257.231	142.341	26.906	1.00	83.00	C
ATOM	26824	C6	G A1271	258.310	135.185	24.044	1.00	75.24	C	ATOM	26874	N2	G A1273	257.709	143.490	26.421	1.00	83.00	N
ATOM	26825	O6	G A1271	257.899	136.121	23.349	1.00	75.24	O	ATOM	26875	N3	G A1273	257.806	141.781	27.955	1.00	83.00	N
ATOM	26826	N1	G A1271	259.561	135.268	24.648	1.00	75.24	N	ATOM	26876	C4	G A1273	257.194	140.631	28.314	1.00	83.00	C
ATOM	26827	C2	G A1271	260.117	134.300	25.451	1.00	75.24	C	ATOM	26877	P	G A1274	256.457	141.742	34.359	1.00102.66	P	
ATOM	26828	N2	G A1271	261.334	134.577	25.963	1.00	75.24	N	ATOM	26878	O1P	G A1274	256.825	142.385	35.645	1.00110.15	O	
ATOM	26829	N3	G A1271	259.522	133.147	25.738	1.00	75.24	N	ATOM	26879	O2P	G A1274	255.429	140.664	34.346	1.00110.15	O	
ATOM	26830	C4	G A1271	258.305	133.048	25.158	1.00	75.24	C	ATOM	26880	O5*	G A1274	255.998	142.891	33.354	1.00102.66	O	
ATOM	26831	P	G A1272	255.058	131.732	29.946	1.00117.00	P	ATOM	26881	C5*	G A1274	256.800	144.071	33.161	1.00102.66	C		
ATOM	26832	O1P	G A1272	254.751	131.118	31.266	1.00	71.89	O	ATOM	26882	C4*	G A1274	256.379	144.784	31.898	1.00102.66	C	
ATOM	26833	O2P	G A1272	254.004	132.506	29.228	1.00	71.89	O	ATOM	26883	O4*	G A1274	256.546	143.874	30.776	1.00102.66	O	
ATOM	26834	O5*	G A1272	256.328	132.692	30.063	1.00117.00	O	ATOM	26884	C3*	G A1274	254.916	145.205	31.837	1.00102.66	C		
ATOM	26835	C5*	G A1272	257.475	132.320	30.852	1.00117.00	C	ATOM	26885	O3*	G A1274	254.668	146.466	32.464	1.00102.66	O		
ATOM	26836	C4*	G A1272	258.464	133.465	30.931	1.00117.00	C	ATOM	26886	C2*	G A1274	254.636	145.225	30.338	1.00102.66	O		
ATOM	26837	O4*	G A1272	259.020	133.731	29.618	1.00117.00	O	ATOM	26887	O2*	G A1274	255.067	146.423	29.714	1.00102.66	O		
ATOM	26838	C3*	G A1272	257.930	134.814	31.391	1.00117.00	C	ATOM	26888	Cl*	G A1274	255.474	144.036	29.856	1.00102.66	C		
ATOM	26839	O3*	G A1272	257.846	134.912	32.809	1.00117.00	O	ATOM	26889	N9	G A1274	254.698	142.793	29.833	1.00110.15	N		
ATOM	26840	C2*	G A1272	258.953	135.789	30.815	1.00117.00	C	ATOM	26890	C8	G A1274	254.839	141.713	30.678	1.00110.15	C		
ATOM	26841	O2*	G A1272	260.109	135.925	31.612	1.00117.00	O	ATOM	26891	N7	G A1274	253.981	140.757	30.441	1.00110.15	N		
ATOM	26842	Cl*	G A1272	259.330	135.108	29.501	1.00117.00	C	ATOM	26892	C5	G A1274	253.229	141.225	29.372	1.00110.15	C		
ATOM	26843	N9	G A1272	258.566	135.667	28.395	1.00	71.89	N	ATOM	26893	C6	G A1274	252.141	140.627	28.683	1.00110.15	C	
ATOM	26844	C8	G A1272	257.380	135.199	27.881	1.00	71.89	C	ATOM	26894	O6	G A1274	251.605	139.531	28.893	1.00110.15	O	
ATOM	26845	N7	G A1272	256.913	135.942	26.913	1.00	71.89	N	ATOM	26895	N1	G A1274	251.672	141.445	27.660	1.00110.15	N	
ATOM	26846	C5	G A1272	257.852	136.954	26.772	1.00	71.89	C	ATOM	26896	C2	G A1274	252.177	142.681	27.343	1.00110.15	C	
ATOM	26847	C6	G A1272	257.888	138.058	25.878	1.00	71.89	C	ATOM	26897	N2	G A1274	251.584	143.312	26.329	1.00110.15	N	



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ATOM	26898	N3	G A1274	253.188	143.255	27.976	1.00110.15	N	ATOM	26948	O5*	C A1277	243.995	152.351	27.720	1.00176.34	O
ATOM	26899	C4	G A1274	253.663	142.477	28.975	1.00110.15	C	ATOM	26949	C5*	C A1277	243.693	152.733	26.368	1.00176.34	C
ATOM	26900	P	A A1275	253.150	146.971	32.680	1.00101.59	P	ATOM	26950	C4*	C A1277	242.772	151.720	25.742	1.00176.34	C
ATOM	26901	O1P	A A1275	253.128	147.813	33.905	1.00110.67	O	ATOM	26951	O4*	C A1277	243.456	150.445	25.644	1.00176.34	C
ATOM	26902	O2P	A A1275	252.226	145.809	32.578	1.00110.67	O	ATOM	26952	C3*	C A1277	241.508	151.422	26.531	1.00176.34	C
ATOM	26903	O5*	A A1275	252.899	147.925	31.430	1.00101.59	O	ATOM	26953	O3*	C A1277	240.484	152.369	26.233	1.00176.34	O
ATOM	26904	C4*	A A1275	253.778	149.031	31.186	1.00101.59	C	ATOM	26954	C2*	C A1277	241.149	150.016	26.063	1.00176.34	C
ATOM	26905	C5*	A A1275	253.361	149.774	29.947	1.00101.59	C	ATOM	26955	O2*	C A1277	240.466	150.019	24.829	1.00176.34	O
ATOM	26906	O4*	A A1275	253.611	148.955	28.777	1.00101.59	O	ATOM	26956	C1*	C A1277	242.527	149.394	25.836	1.00176.34	C
ATOM	26907	C3*	A A1275	251.890	150.131	29.845	1.00101.59	C	ATOM	26957	N1	C A1277	242.991	148.522	26.933	1.00 86.36	N
ATOM	26908	O3*	A A1275	251.542	151.293	30.581	1.00101.59	O	ATOM	26958	C2	C A1277	242.530	147.197	26.979	1.00 86.36	C
ATOM	26909	C2*	A A1275	251.703	150.310	28.345	1.00101.59	C	ATOM	26959	O2	C A1277	241.716	146.810	26.125	1.00 86.36	O
ATOM	26910	O2*	A A1275	252.124	151.579	27.885	1.00101.59	O	ATOM	26960	N3	C A1277	242.974	146.373	27.954	1.00 86.36	N
ATOM	26911	C1*	A A1275	252.625	149.222	27.789	1.00101.59	C	ATOM	26961	C4	C A1277	243.833	146.824	28.865	1.00 86.36	C
ATOM	26912	N9	A A1275	251.888	147.985	27.500	1.00110.67	N	ATOM	26962	N4	C A1277	244.258	145.966	29.798	1.00 86.36	N
ATOM	26913	C8	A A1275	251.817	146.833	28.250	1.00110.67	C	ATOM	26963	C5	C A1277	244.301	148.171	28.858	1.00 86.36	C
ATOM	26914	N7	A A1275	251.030	145.918	27.739	1.00110.67	N	ATOM	26964	C6	C A1277	243.859	148.978	27.883	1.00 86.36	C
ATOM	26915	C5	A A1275	250.557	146.499	26.570	1.00110.67	C	ATOM	26965	P	U A1278	239.498	152.882	27.399	1.00131.74	P
ATOM	26916	C6	A A1275	249.669	146.042	25.578	1.00110.67	C	ATOM	26966	O1P	U A1278	238.557	153.852	26.780	1.00200.93	O
ATOM	26917	N6	A A1275	249.065	144.853	25.621	1.00110.67	N	ATOM	26967	O2P	U A1278	240.324	153.301	28.557	1.00200.93	O
ATOM	26918	N1	A A1275	249.413	146.862	24.533	1.00110.67	N	ATOM	26968	O5*	U A1278	238.676	151.582	27.822	1.00131.74	O
ATOM	26919	C2	A A1275	250.006	148.061	24.502	1.00110.67	C	ATOM	26969	C5*	U A1278	238.078	150.723	26.822	1.00131.74	C
ATOM	26920	N3	A A1275	250.849	148.607	25.377	1.00110.67	N	ATOM	26970	C4*	U A1278	237.242	149.648	27.473	1.00131.74	C
ATOM	26921	C4	A A1275	251.087	147.765	26.401	1.00110.67	C	ATOM	26971	O4*	U A1278	238.128	148.866	28.305	1.00131.74	O
ATOM	26922	P	G A1276	250.081	151.395	31.244	1.00115.50	P	ATOM	26972	C3*	U A1278	236.155	150.213	28.376	1.00131.74	C
ATOM	26923	O1P	G A1276	250.022	152.634	32.061	1.00 87.86	O	ATOM	26973	O3*	U A1278	234.882	150.031	27.748	1.00131.74	O
ATOM	26924	O2P	G A1276	249.795	150.082	31.885	1.00 87.86	O	ATOM	26974	C2*	U A1278	236.281	149.381	29.652	1.00131.74	C
ATOM	26925	O5*	G A1276	249.116	151.599	29.990	1.00115.50	O	ATOM	26975	O2*	U A1278	235.535	148.180	29.588	1.00131.74	O
ATOM	26926	C5*	G A1276	249.279	152.739	29.110	1.00115.50	C	ATOM	26976	C1*	U A1278	237.777	149.034	29.654	1.00131.74	C
ATOM	26927	O4*	G A1276	248.526	152.534	27.806	1.00115.50	C	ATOM	26977	N1	U A1278	238.733	150.016	30.205	1.00200.93	N
ATOM	26928	O4*	G A1276	249.048	151.366	27.114	1.00115.50	O	ATOM	26978	C2	U A1278	240.099	149.710	30.108	1.00200.93	C
ATOM	26929	C3*	G A1276	247.030	152.269	27.899	1.00115.50	C	ATOM	26979	O2	U A1278	240.524	148.660	29.642	1.00200.93	O
ATOM	26930	O3*	G A1276	246.243	153.442	28.031	1.00115.50	O	ATOM	26980	N3	U A1278	240.947	150.681	30.578	1.00200.93	N
ATOM	26931	C2*	G A1276	246.748	151.556	26.586	1.00115.50	C	ATOM	26981	C4	U A1278	240.598	151.894	31.134	1.00200.93	C
ATOM	26932	O2*	G A1276	246.673	152.463	25.503	1.00115.50	O	ATOM	26982	O4	U A1278	241.487	152.683	31.466	1.00200.93	O
ATOM	26933	C1*	G A1276	247.996	150.693	26.439	1.00115.50	C	ATOM	26983	C5	U A1278	239.185	152.127	31.228	1.00200.93	C
ATOM	26934	N9	G A1276	247.809	149.386	27.070	1.00 87.86	N	ATOM	26984	C6	U A1278	238.323	151.206	30.775	1.00200.93	C
ATOM	26935	C8	G A1276	248.264	148.989	28.307	1.00 87.86	C	ATOM	26985	P	A A1279	234.322	151.136	26.712	1.00117.07	P
ATOM	26936	N7	G A1276	247.948	147.758	28.600	1.00 87.86	N	ATOM	26986	O1P	A A1279	234.442	152.487	27.324	1.00 96.29	O
ATOM	26937	C5	G A1276	247.239	147.308	27.494	1.00 87.86	C	ATOM	26987	O2P	A A1279	232.994	150.647	26.258	1.00 96.29	O
ATOM	26938	C6	G A1276	246.649	146.042	27.231	1.00 87.86	C	ATOM	26988	O5*	A A1279	235.299	151.062	25.452	1.00117.07	O
ATOM	26939	O6	G A1276	246.645	145.030	27.943	1.00 87.86	O	ATOM	26989	C5*	A A1279	236.017	152.230	24.979	1.00117.07	C
ATOM	26940	N1	G A1276	246.019	146.021	25.992	1.00 87.86	N	ATOM	26990	C4*	A A1279	236.941	151.842	23.846	1.00117.07	C
ATOM	26941	C2	G A1276	245.965	147.075	25.115	1.00 87.86	C	ATOM	26991	O4*	A A1279	237.770	150.758	24.313	1.00117.07	O
ATOM	26942	N2	G A1276	245.304	146.859	23.971	1.00 87.86	N	ATOM	26992	C3*	A A1279	236.227	151.315	22.612	1.00117.07	C
ATOM	26943	N3	G A1276	246.516	148.256	25.341	1.00 87.86	N	ATOM	26993	O3*	A A1279	236.139	152.379	21.664	1.00117.07	O
ATOM	26944	C4	G A1276	247.135	148.302	26.542	1.00 87.86	C	ATOM	26994	C2*	A A1279	237.196	150.271	22.049	1.00117.07	C
ATOM	26945	P	C A1277	244.780	153.335	28.692	1.00176.34	P	ATOM	26995	O2*	A A1279	238.128	150.830	21.154	1.00117.07	O
ATOM	26946	O1P	C A1277	244.139	154.671	28.592	1.00 86.36	O	ATOM	26996	C1*	A A1279	237.968	149.818	23.289	1.00117.07	C
ATOM	26947	O2P	C A1277	244.883	152.657	30.016	1.00 86.36	O	ATOM	26997	N9	A A1279	237.746	148.479	23.840	1.00 96.29	N



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ATOM	26998	C8	A A1279	238.680	147.727	24.511	1.00	96.29	C	ATOM	27048	C6	U A1281	239.925	157.136	22.765	1.00	94.55	C
ATOM	26999	N7	A A1279	238.234	146.572	24.932	1.00	96.29	N	ATOM	27049	P	C A1282	244.766	154.750	19.946	1.00	92.49	P
ATOM	27000	C5	A A1279	236.916	146.554	24.506	1.00	96.29	C	ATOM	27050	O1P	C A1282	245.687	155.881	20.228	1.00122.08	O	
ATOM	27001	C6	A A1279	235.897	145.594	24.640	1.00	96.29	C	ATOM	27051	O2P	C A1282	244.087	154.685	18.630	1.00122.08	O	
ATOM	27002	N6	A A1279	236.061	144.423	25.267	1.00	96.29	N	ATOM	27052	O5*	C A1282	245.622	153.416	20.080	1.00	92.49	O
ATOM	27003	N1	A A1279	234.688	145.881	24.098	1.00	96.29	N	ATOM	27053	C5*	C A1282	246.674	153.325	21.047	1.00	92.49	C
ATOM	27004	C2	A A1279	234.533	147.060	23.464	1.00	96.29	C	ATOM	27054	C4*	C A1282	246.587	152.026	21.806	1.00	92.49	C
ATOM	27005	N3	A A1279	235.419	148.042	23.273	1.00	96.29	N	ATOM	27055	O4*	C A1282	245.362	151.980	22.586	1.00	92.49	O
ATOM	27006	C4	A A1279	236.602	147.722	23.826	1.00	96.29	C	ATOM	27056	C3*	C A1282	246.532	150.762	20.970	1.00	92.49	C
ATOM	27007	P	A A1280	234.990	153.500	21.789	1.00	92.49	P	ATOM	27057	O3*	C A1282	247.802	150.369	20.469	1.00	92.49	O
ATOM	27008	O1P	A A1280	234.945	153.983	23.200	1.00	90.72	O	ATOM	27058	C2*	C A1282	245.920	149.763	21.944	1.00	92.49	C
ATOM	27009	O2P	A A1280	233.748	152.976	21.150	1.00	90.72	O	ATOM	27059	O2*	C A1282	246.851	149.239	22.870	1.00	92.49	O
ATOM	27010	O5*	A A1280	235.561	154.695	20.895	1.00	92.49	O	ATOM	27060	C1*	C A1282	244.900	150.638	22.674	1.00	92.49	C
ATOM	27011	C5*	A A1280	234.868	155.175	19.722	1.00	92.49	C	ATOM	27061	N1	C A1282	243.584	150.540	22.007	1.00122.08	N	
ATOM	27012	C4*	A A1280	235.566	154.697	18.469	1.00	92.49	C	ATOM	27062	C2	C A1282	242.800	149.384	22.212	1.00122.08	C	
ATOM	27013	O4*	A A1280	234.924	155.307	17.323	1.00	92.49	O	ATOM	27063	O2	C A1282	243.187	148.523	23.020	1.00122.08	O	
ATOM	27014	C3*	A A1280	237.054	155.018	18.347	1.00	92.49	C	ATOM	27064	N3	C A1282	241.643	149.243	21.524	1.00122.08	N	
ATOM	27015	O3*	A A1280	237.713	153.938	17.700	1.00	92.49	O	ATOM	27065	C4	C A1282	241.253	150.196	20.672	1.00122.08	C	
ATOM	27016	C2*	A A1280	237.083	156.232	17.428	1.00	92.49	C	ATOM	27066	N4	C A1282	240.137	149.991	19.972	1.00122.08	N	
ATOM	27017	O2*	A A1280	238.262	156.329	16.657	1.00	92.49	O	ATOM	27067	C5	C A1282	241.999	151.397	20.489	1.00122.08	C	
ATOM	27018	C1*	A A1280	235.886	155.962	16.525	1.00	92.49	C	ATOM	27068	C6	C A1282	243.143	151.528	21.171	1.00122.08	C	
ATOM	27019	N9	A A1280	235.284	157.181	15.995	1.00	90.72	N	ATOM	27069	P	G A1283	247.901	149.721	18.998	1.00112.90	P	
ATOM	27020	C8	A A1280	234.795	158.253	16.696	1.00	90.72	C	ATOM	27070	O1P	G A1283	249.336	149.595	18.640	1.00	70.11	O
ATOM	27021	N7	A A1280	234.312	159.204	15.938	1.00	90.72	N	ATOM	27071	O2P	G A1283	246.993	150.478	18.102	1.00	70.11	O
ATOM	27022	C5	A A1280	234.493	158.727	14.650	1.00	90.72	C	ATOM	27072	O5*	G A1283	247.322	148.255	19.218	1.00112.90	O	
ATOM	27023	C6	A A1280	234.184	159.267	13.392	1.00	90.72	C	ATOM	27073	C5*	G A1283	247.937	147.380	20.173	1.00112.90	C	
ATOM	27024	N6	A A1280	233.611	160.463	13.216	1.00	90.72	N	ATOM	27074	C4*	G A1283	247.181	146.082	20.268	1.00112.90	C	
ATOM	27025	N1	A A1280	234.488	158.530	12.305	1.00	90.72	N	ATOM	27075	O4*	G A1283	245.908	146.290	20.937	1.00112.90	O	
ATOM	27026	C2	A A1280	235.070	157.336	12.481	1.00	90.72	C	ATOM	27076	C3*	G A1283	246.796	145.418	18.958	1.00112.90	C	
ATOM	27027	N3	A A1280	235.413	156.725	13.611	1.00	90.72	N	ATOM	27077	O3*	G A1283	247.860	144.732	18.321	1.00112.90	O	
ATOM	27028	C4	A A1280	235.092	157.482	14.671	1.00	90.72	C	ATOM	27078	C2*	G A1283	245.662	144.504	19.402	1.00112.90	C	
ATOM	27029	P	U A1281	238.917	153.181	18.440	1.00139.59	P	ATOM	27079	O2*	G A1283	246.127	143.346	20.068	1.00112.90	O		
ATOM	27030	O1P	U A1281	239.593	152.265	17.484	1.00	94.55	O	ATOM	27080	C1*	G A1283	244.936	145.400	20.403	1.00112.90	C	
ATOM	27031	O2P	U A1281	238.414	152.659	19.729	1.00	94.55	O	ATOM	27081	N9	G A1283	243.919	146.178	19.695	1.00	70.11	N
ATOM	27032	O5*	U A1281	239.941	154.342	18.770	1.00139.59	O	ATOM	27082	C8	G A1283	244.050	147.446	19.173	1.00	70.11	C	
ATOM	27033	C5*	U A1281	240.813	154.223	19.887	1.00139.59	C	ATOM	27083	N7	G A1283	242.988	147.850	18.527	1.00	70.11	N	
ATOM	27034	C4*	U A1281	241.744	155.392	19.937	1.00139.59	C	ATOM	27084	C5	G A1283	242.096	146.793	18.639	1.00	70.11	C	
ATOM	27035	O4*	U A1281	240.980	156.617	19.846	1.00139.59	O	ATOM	27085	C6	G A1283	240.781	146.647	18.126	1.00	70.11	C	
ATOM	27036	C3*	U A1281	242.531	155.471	21.227	1.00139.59	O	ATOM	27086	O6	G A1283	240.132	147.445	17.437	1.00	70.11	O	
ATOM	27037	O3*	U A1281	243.698	154.621	21.165	1.00139.59	O	ATOM	27087	N1	G A1283	240.228	145.418	18.482	1.00	70.11	N	
ATOM	27038	C2*	U A1281	242.717	156.973	21.442	1.00139.59	C	ATOM	27088	C2	G A1283	240.865	144.450	19.229	1.00	70.11	C	
ATOM	27039	O2*	U A1281	243.837	157.512	20.767	1.00139.59	O	ATOM	27089	N2	G A1283	240.170	143.336	19.474	1.00	70.11	N	
ATOM	27040	C1*	U A1281	241.441	157.546	20.804	1.00139.59	C	ATOM	27090	N3	G A1283	242.095	144.570	19.703	1.00	70.11	N	
ATOM	27041	N1	U A1281	240.282	157.884	21.652	1.00	94.55	N	ATOM	27091	C4	G A1283	242.647	145.759	19.373	1.00	70.11	C
ATOM	27042	C2	U A1281	239.504	158.969	21.245	1.00	94.55	C	ATOM	27092	P	C A1284	247.776	144.447	16.737	1.00	86.59	P
ATOM	27043	O2	U A1281	239.826	159.713	20.327	1.00	94.55	O	ATOM	27093	O1P	C A1284	249.074	143.870	16.329	1.00	67.76	O
ATOM	27044	N3	U A1281	238.343	159.152	21.957	1.00	94.55	N	ATOM	27094	O2P	C A1284	247.255	145.658	16.038	1.00	67.76	O
ATOM	27045	C4	U A1281	237.893	158.404	23.029	1.00	94.55	C	ATOM	27095	O5*	C A1284	246.722	143.259	16.647	1.00	86.59	O
ATOM	27046	O4	U A1281	236.743	158.590	23.446	1.00	94.55	O	ATOM	27096	C5*	C A1284	246.881	142.086	17.484	1.00	86.59	C
ATOM	27047	C5	U A1281	238.789	157.353	23.447	1.00	94.55	C	ATOM	27097	C4*	C A1284	245.697	141.159	17.335	1.00	86.59	C



Table 1: Sheet 273/521

ATOM	27098	O4*	C A1284	244.495	141.799	17.831	1.00	86.59	O	ATOM	27148	N7	A A1286	245.585	141.519	8.762	1.00	113.14	N
ATOM	27099	C3*	C A1284	245.370	140.758	15.909	1.00	86.59	C	ATOM	27149	C5	A A1286	245.811	140.217	9.172	1.00	113.14	C
ATOM	27100	O3*	C A1284	246.177	139.661	15.512	1.00	86.59	O	ATOM	27150	C6	A A1286	244.971	139.266	9.762	1.00	113.14	C
ATOM	27101	C2*	C A1284	243.888	140.418	15.993	1.00	86.59	C	ATOM	27151	N6	A A1286	243.689	139.494	10.047	1.00	113.14	N
ATOM	27102	O2*	C A1284	243.654	139.123	16.504	1.00	86.59	O	ATOM	27152	N1	A A1286	245.498	138.058	10.056	1.00	113.14	N
ATOM	27103	C1*	C A1284	243.395	141.438	17.020	1.00	86.59	C	ATOM	27153	C2	A A1286	246.789	137.835	9.766	1.00	113.14	C
ATOM	27104	N1	C A1284	242.866	142.661	16.394	1.00	67.76	N	ATOM	27154	N3	A A1286	247.685	138.654	9.210	1.00	113.14	N
ATOM	27105	C2	C A1284	241.493	142.747	16.132	1.00	67.76	C	ATOM	27155	C4	A A1286	247.128	139.844	8.935	1.00	113.14	C
ATOM	27106	O2	C A1284	240.760	141.777	16.417	1.00	67.76	O	ATOM	27156	P	A A1287	249.596	144.966	5.530	1.00	115.80	P
ATOM	27107	N3	C A1284	240.999	143.879	15.568	1.00	67.76	N	ATOM	27157	O1P	A A1287	250.351	144.056	4.634	1.00	73.47	O
ATOM	27108	C4	C A1284	241.818	144.886	15.259	1.00	67.76	C	ATOM	27158	O2P	A A1287	249.834	146.434	5.439	1.00	73.47	O
ATOM	27109	N4	C A1284	241.287	145.981	14.709	1.00	67.76	N	ATOM	27159	O5*	A A1287	248.011	144.777	5.296	1.00	115.80	O
ATOM	27110	C5	C A1284	243.219	144.817	15.501	1.00	67.76	C	ATOM	27160	C5*	A A1287	247.179	143.918	6.103	1.00	115.80	C
ATOM	27111	C6	C A1284	243.695	143.700	16.068	1.00	67.76	C	ATOM	27161	C4*	A A1287	246.407	142.900	5.255	1.00	115.80	C
ATOM	27112	P	A A1285	246.888	139.680	14.073	1.00	97.31	P	ATOM	27162	O4*	A A1287	245.054	143.333	4.982	1.00	115.80	O
ATOM	27113	O1P	A A1285	245.804	139.765	13.072	1.00	70.03	O	ATOM	27163	C3*	A A1287	246.914	142.443	3.893	1.00	115.80	C
ATOM	27114	O2P	A A1285	247.875	138.563	14.014	1.00	70.03	O	ATOM	27164	O3*	A A1287	247.954	141.480	4.004	1.00	115.80	O
ATOM	27115	O5*	A A1285	247.670	141.063	14.012	1.00	97.31	O	ATOM	27165	C2*	A A1287	245.678	141.773	3.287	1.00	115.80	C
ATOM	27116	C5*	A A1285	248.409	141.428	12.837	1.00	97.31	C	ATOM	27166	O2*	A A1287	245.550	140.415	3.660	1.00	115.80	O
ATOM	27117	C4*	A A1285	247.763	142.613	12.170	1.00	97.31	C	ATOM	27167	C1*	A A1287	244.528	142.543	3.933	1.00	115.80	C
ATOM	27118	O4*	A A1285	246.420	142.260	11.791	1.00	97.31	O	ATOM	27168	N9	A A1287	243.760	143.382	3.012	1.00	73.47	N
ATOM	27119	C3*	A A1285	247.607	143.851	13.039	1.00	97.31	C	ATOM	27169	C8	A A1287	243.910	144.717	2.736	1.00	73.47	C
ATOM	27120	O3*	A A1285	248.834	144.613	13.083	1.00	97.31	O	ATOM	27170	N7	A A1287	243.034	145.181	1.877	1.00	73.47	N
ATOM	27121	C2*	A A1285	246.351	144.555	12.505	1.00	97.31	O	ATOM	27171	C5	A A1287	242.259	144.074	1.558	1.00	73.47	C
ATOM	27122	O2*	A A1285	245.613	143.417	11.792	1.00	97.31	O	ATOM	27172	C6	A A1287	241.157	143.903	0.700	1.00	73.47	C
ATOM	27123	C1*	A A1285	244.273	143.061	12.258	1.00	70.03	N	ATOM	27173	N6	A A1287	240.624	144.885	-0.036	1.00	73.47	N
ATOM	27124	N9	A A1285	243.889	142.026	13.080	1.00	70.03	C	ATOM	27174	N1	A A1287	240.617	142.671	0.615	1.00	73.47	N
ATOM	27125	C8	A A1285	242.591	141.928	13.235	1.00	70.03	N	ATOM	27175	C2	A A1287	241.158	141.684	1.334	1.00	73.47	C
ATOM	27126	N7	A A1285	242.087	142.980	12.482	1.00	70.03	C	ATOM	27176	N3	A A1287	242.190	141.717	2.168	1.00	73.47	N
ATOM	27127	C5	A A1285	240.778	143.414	12.221	1.00	70.03	C	ATOM	27177	C4	A A1287	242.701	142.957	2.241	1.00	73.47	C
ATOM	27128	C6	A A1285	239.686	142.800	12.689	1.00	70.03	N	ATOM	27178	P	A A1288	248.854	141.117	2.718	1.00	82.35	P
ATOM	27129	N6	A A1285	240.623	144.506	11.439	1.00	70.03	N	ATOM	27179	O1P	A A1288	249.986	140.279	3.232	1.00	57.06	O
ATOM	27130	N1	A A1285	241.713	145.102	10.947	1.00	70.03	C	ATOM	27180	O2P	A A1288	249.130	142.357	1.932	1.00	57.06	O
ATOM	27131	C2	A A1285	242.989	144.781	11.106	1.00	70.03	N	ATOM	27181	O5*	A A1288	247.904	140.229	1.800	1.00	82.35	O
ATOM	27132	N3	A A1285	243.111	143.698	11.894	1.00	70.03	C	ATOM	27182	C5*	A A1288	247.999	138.793	1.773	1.00	82.35	C
ATOM	27133	C4	A A1285	249.518	145.198	11.725	1.00	109.93	P	ATOM	27183	C4*	A A1288	247.088	138.250	0.705	1.00	82.35	C
ATOM	27134	P	A A1286	250.946	145.404	12.074	1.00	113.14	O	ATOM	27184	O4*	A A1288	245.769	138.826	0.919	1.00	82.35	O
ATOM	27135	O1P	A A1286	248.737	146.339	11.170	1.00	113.14	O	ATOM	27185	C3*	A A1288	247.431	138.650	-0.726	1.00	82.35	C
ATOM	27136	O2P	A A1286	249.494	144.001	10.671	1.00	109.93	O	ATOM	27186	O3*	A A1288	248.392	137.803	-1.353	1.00	82.35	O
ATOM	27137	O5*	A A1286	250.714	143.562	10.059	1.00	109.93	C	ATOM	27187	C2*	A A1288	246.082	138.561	-1.419	1.00	82.35	C
ATOM	27138	C5*	A A1286	250.456	142.822	8.763	1.00	109.93	C	ATOM	27188	O2*	A A1288	245.757	137.229	-1.766	1.00	82.35	O
ATOM	27139	C4*	A A1286	249.919	141.495	9.028	1.00	109.93	O	ATOM	27189	C1*	A A1288	245.142	139.066	-0.327	1.00	82.35	C
ATOM	27140	O4*	A A1286	250.052	144.549	7.706	1.00	109.93	C	ATOM	27190	N9	A A1288	244.917	140.503	-0.477	1.00	57.06	N
ATOM	27141	C3*	A A1286	249.518	143.396	7.041	1.00	109.93	O	ATOM	27191	C8	A A1288	245.745	141.530	-0.114	1.00	57.06	C
ATOM	27142	O3*	A A1286	250.276	142.155	6.850	1.00	109.93	C	ATOM	27192	N7	A A1288	245.301	142.715	-0.457	1.00	57.06	N
ATOM	27143	C2*	A A1286	250.373	141.848	6.012	1.00	109.93	O	ATOM	27193	C5	A A1288	244.089	142.452	-1.070	1.00	57.06	C
ATOM	27144	O2*	A A1286	249.129	141.073	7.924	1.00	109.93	C	ATOM	27194	C6	A A1288	243.127	143.290	-1.671	1.00	57.06	C
ATOM	27145	C1*	A A1286	247.731	140.942	8.370	1.00	113.14	N	ATOM	27195	N6	A A1288	243.228	144.618	-1.746	1.00	57.06	N
ATOM	27146	N9	A A1286	246.745	141.906	8.302	1.00	113.14	C	ATOM	27196	N1	A A1288	242.038	142.707	-2.200	1.00	57.06	N
ATOM	27147	C8	A A1286							ATOM	27197	C2	A A1288	241.926	141.377	-2.122	1.00	57.06	C



ATOM	27198	N3	A A1288	242.754	140.487	-1.583	1.00	57.06	N	ATOM	27248	O5*	G A1291	250.841	144.988	-10.669	1.00	87.92	O
ATOM	27199	C4	A A1288	243.831	141.096	-1.072	1.00	57.06	C	ATOM	27249	C5*	G A1291	250.595	146.360	-11.055	1.00	87.92	C
ATOM	27200	P	A A1289	249.233	138.355	-2.615	1.00	84.94	P	ATOM	27250	C4*	G A1291	251.604	147.270	-10.399	1.00	87.92	C
ATOM	27201	O1P	A A1289	250.163	137.275	-3.029	1.00	81.32	O	ATOM	27251	O4*	G A1291	251.448	147.165	-8.963	1.00	87.92	O
ATOM	27202	O2P	A A1289	249.769	139.707	-2.286	1.00	81.32	O	ATOM	27252	C3*	G A1291	253.058	146.906	-10.660	1.00	87.92	C
ATOM	27203	O5*	A A1289	248.153	138.571	-3.770	1.00	84.94	O	ATOM	27253	O3*	G A1291	253.541	147.512	-11.856	1.00	87.92	O
ATOM	27204	C5*	A A1289	247.569	137.452	-4.461	1.00	84.94	C	ATOM	27254	C2*	G A1291	253.770	147.429	-9.420	1.00	87.92	C
ATOM	27205	C4*	A A1289	246.408	137.900	-5.322	1.00	84.94	C	ATOM	27255	O2*	G A1291	254.057	148.811	-9.487	1.00	87.92	O
ATOM	27206	O4*	A A1289	245.412	138.566	-4.501	1.00	84.94	O	ATOM	27256	C1*	G A1291	252.716	147.203	-8.337	1.00	87.92	C
ATOM	27207	C3*	A A1289	246.688	138.913	-6.420	1.00	84.94	C	ATOM	27257	N9	G A1291	252.904	145.960	-7.597	1.00	78.04	N
ATOM	27208	O3*	A A1289	247.229	138.337	-7.596	1.00	84.94	O	ATOM	27258	C8	G A1291	252.132	144.826	-7.674	1.00	78.04	C
ATOM	27209	C2*	A A1289	245.299	139.476	-6.690	1.00	84.94	C	ATOM	27259	N7	G A1291	252.537	143.875	-6.879	1.00	78.04	N
ATOM	27210	O2*	A A1289	244.509	138.647	-7.525	1.00	84.94	O	ATOM	27260	C5	G A1291	253.645	144.409	-6.241	1.00	78.04	C
ATOM	27211	C1*	A A1289	244.705	139.512	-5.284	1.00	84.94	C	ATOM	27261	C6	G A1291	254.502	143.840	-5.263	1.00	78.04	C
ATOM	27212	N9	A A1289	244.898	140.852	-4.731	1.00	81.32	N	ATOM	27262	O6	G A1291	254.443	142.719	-4.742	1.00	78.04	O
ATOM	27213	C8	A A1289	245.892	141.324	-3.915	1.00	81.32	C	ATOM	27263	N1	G A1291	255.509	144.725	-4.892	1.00	78.04	N
ATOM	27214	N7	A A1289	245.840	142.622	-3.718	1.00	81.32	N	ATOM	27264	C2	G A1291	255.665	145.997	-5.391	1.00	78.04	C
ATOM	27215	C5	A A1289	244.720	143.023	-4.434	1.00	81.32	C	ATOM	27265	N2	G A1291	256.703	146.695	-4.907	1.00	78.04	N
ATOM	27216	C6	A A1289	244.133	144.284	-4.656	1.00	81.32	C	ATOM	27266	N3	G A1291	254.867	146.541	-6.297	1.00	78.04	N
ATOM	27217	N6	A A1289	244.621	145.427	-4.181	1.00	81.32	N	ATOM	27267	C4	G A1291	253.887	145.695	-6.675	1.00	78.04	C
ATOM	27218	N1	A A1289	243.015	144.333	-5.404	1.00	81.32	N	ATOM	27268	P	U A1292	254.798	146.866	-12.628	1.00	90.03	P
ATOM	27219	C2	A A1289	242.529	143.194	-5.899	1.00	81.32	C	ATOM	27269	O1P	U A1292	255.091	147.754	-13.787	1.00	93.48	O
ATOM	27220	N3	A A1289	242.994	141.956	-5.776	1.00	81.32	N	ATOM	27270	O2P	U A1292	254.530	145.426	-12.857	1.00	93.48	O
ATOM	27221	C4	A A1289	244.108	141.939	-5.027	1.00	81.32	C	ATOM	27271	O5*	U A1292	255.995	146.962	-11.579	1.00	90.03	O
ATOM	27222	P	G A1290	248.498	139.023	-8.302	1.00	68.11	P	ATOM	27272	C5*	U A1292	256.708	148.199	-11.380	1.00	90.03	C
ATOM	27223	O1P	G A1290	248.482	138.693	-9.750	1.00	83.03	O	ATOM	27273	C4*	U A1292	257.898	147.989	-10.471	1.00	90.03	C
ATOM	27224	O2P	G A1290	249.678	138.661	-7.479	1.00	83.03	O	ATOM	27274	O4*	U A1292	257.453	147.639	-9.134	1.00	90.03	O
ATOM	27225	O5*	G A1290	248.240	140.589	-8.174	1.00	68.11	O	ATOM	27275	C3*	U A1292	258.836	146.859	-10.853	1.00	90.03	C
ATOM	27226	C5*	G A1290	247.235	141.245	-8.967	1.00	68.11	C	ATOM	27276	O3*	U A1292	259.755	147.219	-11.872	1.00	90.03	O
ATOM	27227	C4*	G A1290	247.252	142.735	-8.706	1.00	68.11	C	ATOM	27277	C2*	U A1292	259.519	146.528	-9.533	1.00	90.03	C
ATOM	27228	O4*	G A1290	247.081	142.953	-7.283	1.00	68.11	O	ATOM	27278	O2*	U A1292	260.587	147.401	-9.230	1.00	90.03	O
ATOM	27229	C3*	G A1290	248.548	143.458	-9.056	1.00	68.11	C	ATOM	27279	C1*	U A1292	258.381	146.745	-8.537	1.00	90.03	C
ATOM	27230	O3*	G A1290	248.583	143.862	-10.428	1.00	68.11	O	ATOM	27280	N1	U A1292	257.693	145.479	-8.243	1.00	93.48	N
ATOM	27231	C2*	G A1290	248.532	144.652	-8.108	1.00	68.11	C	ATOM	27281	C2	U A1292	258.189	144.685	-7.213	1.00	93.48	C
ATOM	27232	O2*	G A1290	247.763	145.747	-8.576	1.00	68.11	O	ATOM	27282	O2	U A1292	259.144	145.001	-6.521	1.00	93.48	O
ATOM	27233	C1*	G A1290	247.870	144.051	-6.867	1.00	68.11	C	ATOM	27283	N3	U A1292	257.520	143.502	-7.026	1.00	93.48	N
ATOM	27234	N9	G A1290	248.846	143.575	-5.889	1.00	83.03	N	ATOM	27284	C4	U A1292	256.433	143.040	-7.742	1.00	93.48	C
ATOM	27235	C8	G A1290	249.030	142.287	-5.436	1.00	83.03	C	ATOM	27285	O4	U A1292	255.956	141.939	-7.471	1.00	93.48	O
ATOM	27236	N7	G A1290	249.983	142.187	-4.547	1.00	83.03	N	ATOM	27286	C5	U A1292	255.973	143.919	-8.772	1.00	93.48	C
ATOM	27237	C5	G A1290	250.458	143.486	-4.408	1.00	83.03	C	ATOM	27287	C6	U A1292	256.598	145.079	-8.980	1.00	93.48	C
ATOM	27238	C6	G A1290	251.487	144.005	-3.583	1.00	83.03	C	ATOM	27288	P	G A1293	260.312	146.078	-12.860	1.00	87.31	P
ATOM	27239	O6	G A1290	252.205	143.402	-2.772	1.00	83.03	O	ATOM	27289	O1P	G A1293	261.015	146.764	-13.980	1.00	87.02	O
ATOM	27240	N1	G A1290	251.641	145.378	-3.767	1.00	83.03	N	ATOM	27290	O2P	G A1293	259.187	145.152	-13.164	1.00	87.02	O
ATOM	27241	C2	G A1290	250.895	146.150	-4.630	1.00	83.03	C	ATOM	27291	O5*	G A1293	261.373	145.290	-11.964	1.00	87.31	O
ATOM	27242	N2	G A1290	251.186	147.458	-4.679	1.00	83.03	N	ATOM	27292	C5*	G A1293	262.570	145.942	-11.515	1.00	87.31	C
ATOM	27243	N3	G A1290	249.934	145.678	-5.394	1.00	83.03	N	ATOM	27293	C4*	G A1293	263.325	145.069	-10.543	1.00	87.31	C
ATOM	27244	C4	G A1290	249.769	144.351	-5.234	1.00	83.03	C	ATOM	27294	O4*	G A1293	262.576	144.935	-9.305	1.00	87.31	O
ATOM	27245	P	G A1291	249.967	143.791	-11.254	1.00	87.92	P	ATOM	27295	C3*	G A1293	263.589	143.637	-10.974	1.00	87.31	C
ATOM	27246	O1P	G A1291	249.607	144.108	-12.665	1.00	78.04	O	ATOM	27296	O3*	G A1293	264.678	143.496	-11.877	1.00	87.31	O
ATOM	27247	O2P	G A1291	250.684	142.524	-10.940	1.00	78.04	O	ATOM	27297	C2*	G A1293	263.825	142.942	-9.640	1.00	87.31	C



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ATOM	27298	O2*	G A1293	265.138	143.126	-9.153	1.00	87.31	O	ATOM	27348	N7	G A1295	262.202	135.020	-11.358	1.00	70.90	N
ATOM	27299	C1*	G A1293	262.809	143.653	-8.738	1.00	87.31	C	ATOM	27349	C5	G A1295	261.473	134.007	-10.749	1.00	70.90	C
ATOM	27300	N9	G A1293	261.551	142.905	-8.743	1.00	87.02	N	ATOM	27350	C6	G A1295	260.112	133.654	-10.880	1.00	70.90	C
ATOM	27301	C8	G A1293	260.458	143.139	-9.543	1.00	87.02	C	ATOM	27351	O6	G A1295	259.245	134.181	-11.579	1.00	70.90	O
ATOM	27302	N7	G A1293	259.531	142.230	-9.420	1.00	87.02	N	ATOM	27352	N1	G A1295	259.792	132.559	-10.093	1.00	70.90	N
ATOM	27303	C5	G A1293	260.026	141.356	-8.462	1.00	87.02	C	ATOM	27353	C2	G A1295	260.670	131.882	-9.286	1.00	70.90	C
ATOM	27304	O6	G A1293	259.471	140.162	-7.939	1.00	87.02	O	ATOM	27354	N2	G A1295	260.178	130.831	-8.617	1.00	70.90	N
ATOM	27305	C6	G A1293	258.409	139.610	-8.245	1.00	87.02	C	ATOM	27355	N3	G A1295	261.940	132.204	-9.148	1.00	70.90	N
ATOM	27306	N1	G A1293	260.294	139.593	-6.974	1.00	87.02	N	ATOM	27356	C4	G A1295	262.273	133.268	-9.905	1.00	70.90	C
ATOM	27307	C2	G A1293	261.501	140.098	-6.574	1.00	87.02	C	ATOM	27357	P	C A1296	267.034	131.125	-12.920	1.00	90.00	P
ATOM	27308	N2	G A1293	262.140	139.405	-5.621	1.00	87.02	N	ATOM	27358	O1P	C A1296	268.217	130.260	-13.145	1.00	54.76	O
ATOM	27309	N3	G A1293	262.041	141.202	-7.069	1.00	87.02	N	ATOM	27359	O2P	C A1296	266.695	132.202	-13.894	1.00	54.76	O
ATOM	27310	C4	G A1293	261.254	141.776	-8.004	1.00	87.02	C	ATOM	27360	O5*	C A1296	265.765	130.176	-12.784	1.00	90.00	O
ATOM	27311	P	G A1294	264.683	142.270	-12.925	1.00	95.08	P	ATOM	27361	C5*	C A1296	265.758	129.109	-11.820	1.00	90.00	C
ATOM	27312	O1P	G A1294	265.827	142.489	-13.850	1.00	77.46	O	ATOM	27362	C4*	C A1296	264.460	128.336	-11.887	1.00	90.00	C
ATOM	27313	O2P	G A1294	263.319	142.111	-13.489	1.00	95.08	O	ATOM	27363	O4*	C A1296	263.365	129.148	-11.408	1.00	90.00	O
ATOM	27314	O5*	G A1294	265.002	141.007	-12.002	1.00	95.08	O	ATOM	27364	C3*	C A1296	264.040	127.858	-13.265	1.00	90.00	C
ATOM	27315	C5*	G A1294	266.186	141.002	-11.188	1.00	95.08	C	ATOM	27365	O3*	C A1296	264.668	126.611	-13.532	1.00	90.00	O
ATOM	27316	C4*	G A1294	266.247	139.779	-10.301	1.00	95.08	C	ATOM	27366	C2*	C A1296	262.530	127.704	-13.117	1.00	90.00	C
ATOM	27317	O4*	G A1294	265.258	139.848	-9.240	1.00	95.08	O	ATOM	27367	O2*	C A1296	262.180	126.460	-12.543	1.00	90.00	O
ATOM	27318	C3*	G A1294	266.018	138.410	-10.915	1.00	95.08	C	ATOM	27368	C1*	C A1296	262.192	128.818	-12.120	1.00	90.00	C
ATOM	27319	O3*	G A1294	267.124	137.914	-11.647	1.00	95.08	O	ATOM	27369	N1	C A1296	261.657	130.048	-12.728	1.00	54.76	N
ATOM	27320	C2*	G A1294	265.741	137.559	-9.680	1.00	95.08	C	ATOM	27370	C2	C A1296	260.281	130.127	-13.005	1.00	54.76	C
ATOM	27321	O2*	G A1294	266.916	137.162	-9.001	1.00	95.08	O	ATOM	27371	O2	C A1296	259.555	129.154	-12.740	1.00	54.76	O
ATOM	27322	C1*	G A1294	264.942	138.529	-8.808	1.00	95.08	C	ATOM	27372	N3	C A1296	259.779	131.261	-13.551	1.00	54.76	N
ATOM	27323	N9	G A1294	263.509	138.275	-8.974	1.00	77.46	N	ATOM	27373	C4	C A1296	260.589	132.286	-13.817	1.00	54.76	C
ATOM	27324	C8	G A1294	262.620	138.915	-9.813	1.00	77.46	C	ATOM	27374	N4	C A1296	260.049	133.392	-14.341	1.00	54.76	N
ATOM	27325	N7	G A1294	261.424	138.387	-9.791	1.00	77.46	N	ATOM	27375	C5	C A1296	261.989	132.229	-13.554	1.00	54.76	C
ATOM	27326	C5	G A1294	261.524	137.345	-8.874	1.00	77.46	C	ATOM	27376	C6	C A1296	262.476	131.103	-13.015	1.00	54.76	C
ATOM	27327	O6	G A1294	260.559	136.395	-8.450	1.00	77.46	O	ATOM	27377	P	C A1297	265.654	126.458	-14.793	1.00	55.59	P
ATOM	27328	C6	G A1294	259.392	136.269	-8.823	1.00	77.46	C	ATOM	27378	O1P	C A1297	266.338	125.156	-14.599	1.00	66.12	O
ATOM	27329	N1	G A1294	261.080	135.524	-7.498	1.00	77.46	N	ATOM	27379	O2P	C A1297	266.463	127.695	-14.971	1.00	66.12	O
ATOM	27330	C2	G A1294	262.363	135.556	-7.015	1.00	77.46	C	ATOM	27380	O5*	C A1297	264.660	126.338	-16.024	1.00	55.59	O
ATOM	27331	N2	G A1294	262.668	134.644	-6.083	1.00	77.46	N	ATOM	27381	C5*	C A1297	263.727	125.263	-16.092	1.00	55.59	C
ATOM	27332	N3	G A1294	263.277	136.422	-7.412	1.00	77.46	N	ATOM	27382	C4*	C A1297	262.733	125.536	-17.170	1.00	55.59	C
ATOM	27333	C4	G A1294	262.793	137.281	-8.339	1.00	77.46	C	ATOM	27383	O4*	C A1297	262.142	126.830	-16.898	1.00	55.59	O
ATOM	27334	P	G A1295	266.879	136.813	-12.798	1.00	80.34	P	ATOM	27384	C3*	C A1297	263.297	125.595	-18.589	1.00	55.59	C
ATOM	27335	O1P	G A1295	268.199	136.596	-13.456	1.00	70.90	O	ATOM	27385	O3*	C A1297	262.359	125.041	-19.490	1.00	55.59	O
ATOM	27336	O2P	G A1295	265.702	137.223	-13.623	1.00	70.90	O	ATOM	27386	C2*	C A1297	263.412	127.088	-18.875	1.00	55.59	C
ATOM	27337	O5*	G A1295	266.521	135.487	-11.989	1.00	80.34	O	ATOM	27387	O2*	C A1297	263.208	127.361	-20.249	1.00	55.59	O
ATOM	27338	C5*	G A1295	267.460	134.954	-11.042	1.00	80.34	C	ATOM	27388	C1*	C A1297	262.267	127.656	-18.037	1.00	55.59	C
ATOM	27339	C4*	G A1295	266.840	133.845	-10.229	1.00	80.34	C	ATOM	27389	N1	C A1297	262.478	129.041	-17.588	1.00	66.12	N
ATOM	27340	O4*	G A1295	265.737	134.364	-9.445	1.00	80.34	O	ATOM	27390	C2	C A1297	261.690	130.065	-18.144	1.00	66.12	C
ATOM	27341	C3*	G A1295	266.232	132.687	-10.992	1.00	80.34	C	ATOM	27391	O2	C A1297	260.825	129.778	-18.991	1.00	66.12	O
ATOM	27342	O3*	G A1295	267.200	131.762	-11.454	1.00	80.34	O	ATOM	27392	N3	C A1297	261.886	131.335	-17.740	1.00	66.12	N
ATOM	27343	C2*	G A1295	265.274	132.104	-9.963	1.00	80.34	C	ATOM	27393	C4	C A1297	262.811	131.607	-16.818	1.00	66.12	C
ATOM	27344	O2*	G A1295	265.926	131.347	-8.964	1.00	80.34	O	ATOM	27394	N4	C A1297	262.968	132.879	-16.447	1.00	66.12	N
ATOM	27345	C1*	G A1295	264.733	133.371	-9.312	1.00	80.34	C	ATOM	27395	C5	C A1297	263.619	130.587	-16.234	1.00	66.12	C
ATOM	27346	N9	G A1295	263.526	133.830	-10.000	1.00	70.90	N	ATOM	27396	C6	C A1297	263.423	129.333	-16.644	1.00	66.12	C
ATOM	27347	C8	G A1295	263.410	134.881	-10.882	1.00	70.90	C	ATOM	27397	P	C A1298	262.755	123.764	-20.362	1.00	77.85	P



ATOM	27398	C A1298	263.737	122.959	-19.572	1.00	54.39	O	ATOM	27448	C2*	G A1300	256.407	115.539	-11.751	1.00	72.97	C
ATOM	27399	C A1298	263.106	124.256	-21.721	1.00	54.39	O	ATOM	27449	O2*	G A1300	256.870	116.840	-11.451	1.00	72.97	O
ATOM	27400	C A1298	261.396	122.943	-20.454	1.00	77.85	O	ATOM	27450	C1*	G A1300	255.513	115.645	-12.984	1.00	72.97	C
ATOM	27401	C A1298	260.974	122.074	-19.382	1.00	77.85	C	ATOM	27451	N9	G A1300	254.239	114.929	-12.990	1.00	65.72	N
ATOM	27402	C A1298	259.469	121.938	-19.382	1.00	77.85	C	ATOM	27452	C8	G A1300	254.008	113.577	-12.895	1.00	65.72	C
ATOM	27403	C A1298	258.862	123.088	-18.732	1.00	77.85	C	ATOM	27453	N7	G A1300	252.743	113.268	-13.008	1.00	65.72	N
ATOM	27404	C A1298	258.826	121.826	-20.766	1.00	77.85	C	ATOM	27454	C5	G A1300	252.105	114.491	-13.176	1.00	65.72	C
ATOM	27405	C A1298	257.710	120.950	-20.739	1.00	77.85	O	ATOM	27455	C6	G A1300	250.732	114.802	-13.371	1.00	65.72	C
ATOM	27406	C A1298	258.257	123.217	-20.983	1.00	77.85	C	ATOM	27456	O6	G A1300	249.767	114.027	-13.476	1.00	65.72	O
ATOM	27407	C A1298	257.146	123.228	-21.854	1.00	77.85	O	ATOM	27457	N1	G A1300	250.530	116.177	-13.460	1.00	65.72	N
ATOM	27408	C1*	257.842	123.587	-19.561	1.00	77.85	C	ATOM	27458	C2	G A1300	251.516	117.127	-13.385	1.00	65.72	C
ATOM	27409	N1	257.686	125.030	-19.364	1.00	54.39	N	ATOM	27459	N2	G A1300	251.134	118.405	-13.464	1.00	65.72	N
ATOM	27410	C2	256.411	125.571	-19.505	1.00	54.39	C	ATOM	27460	N3	G A1300	252.788	116.848	-13.236	1.00	65.72	N
ATOM	27411	O2	255.456	124.804	-19.670	1.00	54.39	O	ATOM	27461	C4	G A1300	253.011	115.522	-13.138	1.00	65.72	C
ATOM	27412	N3	256.242	126.907	-19.452	1.00	54.39	N	ATOM	27462	P	U A1301	258.995	115.645	-10.212	1.00	72.08	P
ATOM	27413	C4	257.289	127.697	-19.242	1.00	54.39	C	ATOM	27463	O1P	U A1301	260.203	115.020	-9.621	1.00	59.22	O
ATOM	27414	N4	257.083	129.015	-19.244	1.00	54.39	N	ATOM	27464	O2P	U A1301	257.741	115.666	-9.410	1.00	59.22	O
ATOM	27415	C5	258.600	127.169	-19.030	1.00	54.39	C	ATOM	27465	O5*	U A1301	259.377	117.147	-10.606	1.00	72.08	O
ATOM	27416	C6	258.750	125.839	-19.096	1.00	54.39	C	ATOM	27466	C5*	U A1301	260.639	117.438	-11.249	1.00	72.08	C
ATOM	27417	P	257.897	119.405	-21.113	1.00	56.73	P	ATOM	27467	C4*	U A1301	260.730	118.900	-11.622	1.00	72.08	C
ATOM	27418	O1P	258.896	119.282	-22.214	1.00	78.63	O	ATOM	27468	O4*	U A1301	259.721	119.176	-12.605	1.00	72.08	O
ATOM	27419	O2P	256.527	118.852	-21.294	1.00	78.63	O	ATOM	27469	C3*	U A1301	260.508	119.898	-10.491	1.00	72.08	C
ATOM	27420	O5*	258.496	118.795	-19.775	1.00	56.73	O	ATOM	27470	O3*	U A1301	261.748	120.054	-9.729	1.00	72.08	O
ATOM	27421	C5*	259.811	118.241	-19.735	1.00	56.73	C	ATOM	27471	C2*	U A1301	259.853	121.109	-11.171	1.00	72.08	C
ATOM	27422	C4*	260.189	117.965	-18.310	1.00	56.73	C	ATOM	27472	O2*	U A1301	260.697	122.169	-11.565	1.00	72.08	O
ATOM	27423	O4*	260.492	119.208	-17.654	1.00	56.73	O	ATOM	27473	C1*	U A1301	259.238	120.487	-12.429	1.00	72.08	C
ATOM	27424	C3*	259.090	117.312	-17.491	1.00	56.73	C	ATOM	27474	N1	U A1301	257.778	120.477	-12.589	1.00	59.22	N
ATOM	27425	O3*	259.235	115.904	-17.732	1.00	56.73	O	ATOM	27475	C2	U A1301	257.154	121.663	-12.904	1.00	59.22	C
ATOM	27426	C2*	259.372	117.802	-16.059	1.00	56.73	C	ATOM	27476	O2	U A1301	257.744	122.725	-12.955	1.00	59.22	O
ATOM	27427	O2*	260.281	116.972	-15.359	1.00	56.73	O	ATOM	27477	N3	U A1301	255.809	121.559	-13.155	1.00	59.22	N
ATOM	27428	C1*	260.074	119.151	-16.307	1.00	56.73	C	ATOM	27478	C4	U A1301	255.041	120.415	-13.112	1.00	59.22	C
ATOM	27429	N9	259.506	120.467	-15.975	1.00	78.63	N	ATOM	27479	O4	U A1301	253.884	120.443	-13.535	1.00	59.22	O
ATOM	27430	C8	260.254	121.510	-15.468	1.00	78.63	C	ATOM	27480	C5	U A1301	255.749	119.248	-12.718	1.00	59.22	C
ATOM	27431	N7	259.605	122.645	-15.387	1.00	78.63	N	ATOM	27481	C6	U A1301	257.058	119.317	-12.475	1.00	59.22	C
ATOM	27432	C5	258.335	122.331	-15.836	1.00	78.63	C	ATOM	27482	P	U A1302	262.655	121.402	-9.807	1.00	62.77	P
ATOM	27433	C6	257.190	123.117	-16.012	1.00	78.63	C	ATOM	27483	O1P	U A1302	262.918	121.757	-11.225	1.00	80.42	O
ATOM	27434	N6	257.147	124.428	-15.768	1.00	78.63	N	ATOM	27484	O2P	U A1302	263.800	121.142	-8.917	1.00	80.42	O
ATOM	27435	N1	256.078	122.505	-16.464	1.00	78.63	N	ATOM	27485	O5*	U A1302	261.778	122.536	-9.101	1.00	62.77	O
ATOM	27436	C2	256.133	121.186	-16.729	1.00	78.63	C	ATOM	27486	C5*	U A1302	261.147	122.323	-7.800	1.00	62.77	C
ATOM	27437	N3	257.159	120.340	-16.619	1.00	78.63	N	ATOM	27487	C4*	U A1302	260.518	123.614	-7.308	1.00	62.77	C
ATOM	27438	C4	258.244	120.981	-16.165	1.00	78.63	C	ATOM	27488	O4*	U A1302	261.575	124.545	-7.023	1.00	62.77	O
ATOM	27439	P	258.186	114.859	-17.132	1.00	72.97	P	ATOM	27489	C3*	U A1302	259.660	124.286	-8.370	1.00	62.77	C
ATOM	27440	O1P	258.187	113.674	-18.003	1.00	65.72	O	ATOM	27490	O3*	U A1302	258.248	123.981	-8.305	1.00	62.77	O
ATOM	27441	O2P	256.920	115.587	-16.891	1.00	65.72	O	ATOM	27491	C2*	U A1302	259.895	125.790	-8.205	1.00	62.77	C
ATOM	27442	O5*	258.859	114.451	-15.747	1.00	72.97	O	ATOM	27492	O2*	U A1302	258.797	126.509	-7.663	1.00	62.77	O
ATOM	27443	C5*	258.098	113.875	-14.658	1.00	72.97	C	ATOM	27493	C1*	U A1302	261.133	125.850	-7.303	1.00	62.77	C
ATOM	27444	C4*	257.604	114.967	-13.736	1.00	72.97	C	ATOM	27494	N1	U A1302	262.277	126.631	-7.791	1.00	80.42	N
ATOM	27445	O4*	256.253	115.287	-14.122	1.00	72.97	O	ATOM	27495	C2	U A1302	262.375	127.951	-7.378	1.00	80.42	C
ATOM	27446	C3*	257.534	114.642	-12.245	1.00	72.97	C	ATOM	27496	O2	U A1302	261.530	128.507	-6.694	1.00	80.42	O
ATOM	27447	O3*	258.835	114.912	-11.660	1.00	72.97	O	ATOM	27497	N3	U A1302	263.504	128.601	-7.796	1.00	80.42	N



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ATOM	27498	C4	U A1302	264.518	128.087	-8.572	1.00	80.42	C	ATOM	27548	O5*	G A1305	248.367	121.733	-1.975	1.00	48.66	O
ATOM	27499	O4	U A1302	265.522	128.770	-8.771	1.00	80.42	O	ATOM	27549	C5*	G A1305	248.816	121.275	-0.715	1.00	48.66	C
ATOM	27500	C5	U A1302	264.324	126.732	-8.993	1.00	80.42	C	ATOM	27550	C4*	G A1305	249.056	119.809	-0.779	1.00	48.66	C
ATOM	27501	C6	U A1302	263.236	126.069	-8.600	1.00	80.42	C	ATOM	27551	O4*	G A1305	249.951	119.588	-1.871	1.00	48.66	O
ATOM	27502	P	C A1303	257.484	123.671	-6.893	1.00	61.29	P	ATOM	27552	C3*	G A1305	249.704	119.251	0.476	1.00	48.66	C
ATOM	27503	O1P	C A1303	257.763	124.753	-5.910	1.00	44.46	O	ATOM	27553	O3*	G A1305	248.614	118.682	1.236	1.00	48.66	O
ATOM	27504	O2P	C A1303	257.599	122.230	-6.469	1.00	44.46	O	ATOM	27554	C2*	G A1305	250.625	118.174	-0.066	1.00	48.66	C
ATOM	27505	O5*	C A1303	255.983	123.920	-7.342	1.00	61.29	O	ATOM	27555	O2*	G A1305	249.870	116.996	-0.198	1.00	48.66	O
ATOM	27506	C5*	C A1303	255.722	124.890	-8.367	1.00	61.29	C	ATOM	27556	C1*	G A1305	250.947	118.682	-1.748	1.00	48.66	C
ATOM	27507	C4*	C A1303	254.623	124.422	-9.277	1.00	61.29	C	ATOM	27557	N9	G A1305	252.237	119.309	-1.478	1.00	82.62	N
ATOM	27508	O4*	C A1303	255.044	123.331	-10.135	1.00	61.29	O	ATOM	27558	C8	G A1305	252.558	120.627	-1.560	1.00	82.62	C
ATOM	27509	O3*	C A1303	253.402	123.879	-8.574	1.00	61.29	C	ATOM	27559	N7	G A1305	253.729	120.944	-2.040	1.00	82.62	N
ATOM	27510	O3*	C A1303	252.620	124.926	-8.028	1.00	61.29	O	ATOM	27560	C5	G A1305	254.232	119.754	-2.537	1.00	82.62	C
ATOM	27511	C2*	C A1303	252.722	123.082	-9.679	1.00	61.29	C	ATOM	27561	C6	G A1305	255.456	119.483	-3.183	1.00	82.62	C
ATOM	27512	O2*	C A1303	251.978	123.897	-10.565	1.00	61.29	O	ATOM	27562	O6	G A1305	256.365	120.271	-3.481	1.00	82.62	O
ATOM	27513	C1*	C A1303	253.926	122.506	-10.425	1.00	61.29	C	ATOM	27563	N1	G A1305	255.572	118.141	-3.504	1.00	82.62	N
ATOM	27514	N1	C A1303	254.245	121.109	-10.066	1.00	44.46	N	ATOM	27564	C2	G A1305	254.626	117.188	-3.249	1.00	82.62	C
ATOM	27515	C2	C A1303	253.283	120.101	-10.292	1.00	44.46	C	ATOM	27565	N2	G A1305	254.923	115.965	-3.646	1.00	82.62	N
ATOM	27516	O2	C A1303	252.165	120.412	-10.708	1.00	44.46	O	ATOM	27566	N3	G A1305	253.475	117.426	-2.655	1.00	82.62	N
ATOM	27517	N3	C A1303	253.596	118.814	-10.045	1.00	44.46	N	ATOM	27567	C4	G A1305	253.341	118.724	-2.330	1.00	82.62	C
ATOM	27518	C4	C A1303	254.794	118.505	-9.572	1.00	44.46	C	ATOM	27568	P	A A1306	248.890	117.748	2.530	1.00	47.84	P
ATOM	27519	N4	C A1303	255.062	117.218	-9.358	1.00	44.46	N	ATOM	27569	O1P	A A1306	247.881	118.164	3.550	1.00	47.92	O
ATOM	27520	C5	C A1303	255.777	119.501	-9.294	1.00	44.46	C	ATOM	27570	O2P	A A1306	250.341	117.763	2.875	1.00	47.92	O
ATOM	27521	C6	C A1303	255.461	120.779	-9.550	1.00	59.99	P	ATOM	27571	O5*	A A1306	248.519	116.260	2.075	1.00	47.84	O
ATOM	27522	P	G A1304	252.284	124.909	-6.456	1.00	68.87	O	ATOM	27572	C5*	A A1306	247.152	115.872	1.805	1.00	47.84	C
ATOM	27523	O1P	G A1304	251.218	125.933	-6.266	1.00	68.87	O	ATOM	27573	C4*	A A1306	247.109	114.489	1.191	1.00	47.84	C
ATOM	27524	O2P	G A1304	253.543	124.996	-5.661	1.00	68.87	O	ATOM	27574	O4*	A A1306	247.927	114.471	-0.006	1.00	47.84	O
ATOM	27525	O5*	G A1304	250.367	123.161	-6.843	1.00	59.99	C	ATOM	27575	C3*	A A1306	247.662	113.374	2.063	1.00	47.84	C
ATOM	27526	C5*	G A1304	249.997	121.733	-6.579	1.00	59.99	C	ATOM	27576	O3*	A A1306	246.641	112.865	2.907	1.00	47.84	O
ATOM	27527	C4*	G A1304	250.802	120.849	-7.389	1.00	59.99	O	ATOM	27577	C2*	A A1306	248.146	112.341	1.047	1.00	47.84	C
ATOM	27528	O4*	G A1304	250.208	121.242	-5.162	1.00	59.99	C	ATOM	27578	O2*	A A1306	247.149	111.464	0.568	1.00	47.84	O
ATOM	27529	C3*	G A1304	249.115	121.596	-4.344	1.00	59.99	O	ATOM	27579	C1*	A A1306	248.607	113.231	-0.109	1.00	47.84	C
ATOM	27530	O3*	G A1304	250.284	119.734	-5.352	1.00	59.99	C	ATOM	27580	N9	A A1306	250.043	113.498	-0.068	1.00	47.92	N
ATOM	27531	C2*	G A1304	248.999	119.170	-5.492	1.00	59.99	O	ATOM	27581	C8	A A1306	250.635	114.713	0.096	1.00	47.92	C
ATOM	27532	O2*	G A1304	250.989	119.621	-6.703	1.00	59.99	C	ATOM	27582	N7	A A1306	251.936	114.671	0.136	1.00	47.92	N
ATOM	27533	C1*	G A1304	248.999	119.170	-5.492	1.00	59.99	O	ATOM	27583	C5	A A1306	252.228	113.326	-0.020	1.00	47.92	C
ATOM	27534	N9	G A1304	252.420	119.350	-6.590	1.00	68.87	N	ATOM	27584	C6	A A1306	253.439	112.626	-0.046	1.00	47.92	C
ATOM	27535	C8	G A1304	253.434	120.273	-6.508	1.00	68.87	C	ATOM	27585	N6	A A1306	254.629	113.213	0.103	1.00	47.92	N
ATOM	27536	N7	G A1304	254.618	119.729	-6.425	1.00	68.87	N	ATOM	27586	N1	A A1306	253.387	111.289	-0.219	1.00	47.92	N
ATOM	27537	C5	G A1304	254.372	118.363	-6.454	1.00	68.87	C	ATOM	27587	C2	A A1306	252.188	110.709	-0.342	1.00	47.92	C
ATOM	27538	C6	G A1304	255.272	117.273	-6.408	1.00	68.87	C	ATOM	27588	N3	A A1306	250.980	111.260	-0.324	1.00	47.92	N
ATOM	27539	O6	G A1304	256.504	117.300	-6.344	1.00	68.87	O	ATOM	27589	C4	A A1306	251.071	112.590	-0.159	1.00	47.92	C
ATOM	27540	N1	G A1304	254.605	116.054	-6.447	1.00	68.87	N	ATOM	27590	P	U A1307	246.963	112.544	4.445	1.00	50.32	P
ATOM	27541	C2	G A1304	253.245	115.902	-6.528	1.00	68.87	C	ATOM	27591	O1P	U A1307	245.707	112.053	5.065	1.00	59.86	O
ATOM	27542	N2	G A1304	252.794	114.637	-6.532	1.00	68.87	N	ATOM	27592	O2P	U A1307	247.671	113.711	5.036	1.00	50.32	O
ATOM	27543	N3	G A1304	252.391	116.915	-6.594	1.00	68.87	N	ATOM	27593	O5*	U A1307	247.987	111.332	4.368	1.00	50.32	O
ATOM	27544	C4	G A1304	253.020	118.109	-6.549	1.00	68.87	C	ATOM	27594	C5*	U A1307	247.689	110.182	3.573	1.00	50.32	C
ATOM	27545	P	G A1305	249.358	122.434	-2.993	1.00	48.66	P	ATOM	27595	C4*	U A1307	248.947	109.410	3.282	1.00	50.32	C
ATOM	27546	O1P	G A1305	248.833	123.803	-3.211	1.00	82.62	O	ATOM	27596	O4*	U A1307	249.781	110.131	2.342	1.00	50.32	O
ATOM	27547	O2P	G A1305	250.732	122.252	-2.512	1.00	82.62	O	ATOM	27597	C3*	U A1307	249.844	109.178	4.479	1.00	50.32	C



ATOM	27598	O3*	U	Al307	249.402	108.102	5.289	1.00	50.32	O	ATOM	27648	N1	G	Al309	259.413	113.690	9.767	1.00	66.59	N
ATOM	27599	C2*	U	Al307	251.206	108.942	3.841	1.00	50.32	C	ATOM	27649	C2	G	Al309	260.466	112.820	9.855	1.00	66.59	C
ATOM	27600	O2*	U	Al307	251.398	107.609	3.423	1.00	50.32	O	ATOM	27650	N2	G	Al309	261.678	113.374	9.952	1.00	66.59	N
ATOM	27601	C1*	U	Al307	251.146	109.876	2.632	1.00	50.32	C	ATOM	27651	N3	G	Al309	260.339	111.504	9.846	1.00	66.59	N
ATOM	27602	N1	U	Al307	251.822	111.156	2.886	1.00	59.86	N	ATOM	27652	C4	G	Al309	259.051	111.128	9.737	1.00	66.59	C
ATOM	27603	C2	U	Al307	253.204	111.168	2.861	1.00	59.86	C	ATOM	27653	P	G	Al310	258.689	107.274	14.318	1.00	75.02	P
ATOM	27604	O2	U	Al307	253.870	110.170	2.625	1.00	59.86	O	ATOM	27654	OlP	G	Al310	259.184	106.247	15.284	1.00	67.22	O
ATOM	27605	N3	U	Al307	253.780	112.392	3.116	1.00	59.86	N	ATOM	27655	O2P	G	Al310	257.268	107.692	14.361	1.00	67.22	O
ATOM	27606	C4	U	Al307	253.131	113.575	3.383	1.00	59.86	C	ATOM	27656	O5*	G	Al310	259.570	108.604	14.429	1.00	75.02	O
ATOM	27607	O4	U	Al307	253.785	114.599	3.603	1.00	59.86	O	ATOM	27657	C5*	G	Al310	261.009	108.535	14.406	1.00	75.02	C
ATOM	27608	C5	U	Al307	251.706	113.477	3.386	1.00	59.86	C	ATOM	27658	C4*	G	Al310	261.633	109.915	14.504	1.00	75.02	C
ATOM	27609	C6	U	Al307	251.116	112.302	3.145	1.00	59.86	C	ATOM	27659	O4*	G	Al310	261.348	110.700	13.314	1.00	75.02	O
ATOM	27610	P	U	Al308	249.476	108.249	6.885	1.00	70.51	P	ATOM	27660	C3*	G	Al310	261.222	110.827	15.649	1.00	75.02	C
ATOM	27611	OlP	U	Al308	248.672	107.137	7.464	1.00	60.60	O	ATOM	27661	O3*	G	Al310	261.860	110.498	16.883	1.00	75.02	O
ATOM	27612	O2P	U	Al308	249.139	109.666	7.219	1.00	60.60	O	ATOM	27662	C2*	G	Al310	261.661	112.197	15.137	1.00	75.02	C
ATOM	27613	O5*	U	Al308	251.015	107.981	7.207	1.00	70.51	O	ATOM	27663	O2*	G	Al310	263.038	112.426	15.325	1.00	75.02	O
ATOM	27614	C5*	U	Al308	251.593	106.678	6.969	1.00	70.51	C	ATOM	27664	C1*	G	Al310	261.395	112.082	13.637	1.00	75.02	C
ATOM	27615	C4*	U	Al308	253.105	106.755	6.865	1.00	70.51	C	ATOM	27665	N9	G	Al310	260.129	112.714	13.277	1.00	67.22	N
ATOM	27616	O4*	U	Al308	253.496	107.658	5.794	1.00	70.51	O	ATOM	27666	C8	G	Al310	258.906	112.105	13.132	1.00	67.22	C
ATOM	27617	C3*	U	Al308	253.879	107.265	8.069	1.00	70.51	C	ATOM	27667	N7	G	Al310	257.945	112.944	12.859	1.00	67.22	N
ATOM	27618	O3*	U	Al308	254.072	106.271	9.065	1.00	70.51	O	ATOM	27668	C5	G	Al310	258.569	114.180	12.807	1.00	67.22	C
ATOM	27619	C2*	U	Al308	255.200	107.693	7.446	1.00	70.51	C	ATOM	27669	C6	G	Al310	258.032	115.464	12.549	1.00	67.22	C
ATOM	27620	O2*	U	Al308	256.043	106.590	7.190	1.00	70.51	O	ATOM	27670	O6	G	Al310	256.857	115.775	12.319	1.00	67.22	O
ATOM	27621	C1*	U	Al308	254.738	108.266	6.110	1.00	70.51	C	ATOM	27671	N1	G	Al310	259.018	116.445	12.578	1.00	67.22	N
ATOM	27622	N1	U	Al308	254.539	109.719	6.192	1.00	60.60	N	ATOM	27672	C2	G	Al310	260.349	116.219	12.830	1.00	67.22	C
ATOM	27623	O2	U	Al308	255.661	110.549	6.084	1.00	60.60	C	ATOM	27673	N2	G	Al310	261.136	117.299	12.817	1.00	67.22	N
ATOM	27624	C2	U	Al308	256.809	110.123	5.920	1.00	60.60	O	ATOM	27674	N3	G	Al310	260.864	115.024	13.076	1.00	67.22	N
ATOM	27625	N3	U	Al308	255.391	111.898	6.182	1.00	60.60	N	ATOM	27675	C4	G	Al310	259.922	114.056	13.049	1.00	67.22	C
ATOM	27626	C4	U	Al308	254.152	112.487	6.374	1.00	60.60	C	ATOM	27676	P	G	Al311	261.233	111.031	18.273	1.00	79.97	P
ATOM	27627	O4	U	Al308	254.072	113.711	6.477	1.00	60.60	O	ATOM	27677	OlP	G	Al311	262.096	110.502	19.365	1.00	68.98	O
ATOM	27628	C5	U	Al308	253.060	111.567	6.469	1.00	60.60	C	ATOM	27678	O2P	G	Al311	262.096	110.502	19.365	1.00	68.98	O
ATOM	27629	C6	U	Al308	253.284	110.251	6.378	1.00	60.60	C	ATOM	27679	O5*	G	Al311	259.777	110.730	18.288	1.00	68.98	O
ATOM	27630	P	G	Al309	254.426	106.726	10.565	1.00	88.75	P	ATOM	27680	C5*	G	Al311	261.426	112.617	18.198	1.00	79.97	O
ATOM	27631	OlP	G	Al309	254.221	105.538	11.429	1.00	66.59	O	ATOM	27681	C4*	G	Al311	262.750	113.182	18.127	1.00	79.97	C
ATOM	27632	O2P	G	Al309	253.706	107.993	10.873	1.00	66.59	O	ATOM	27682	O4*	G	Al311	262.708	114.688	17.962	1.00	79.97	C
ATOM	27633	O5*	G	Al309	255.980	107.077	10.499	1.00	88.75	O	ATOM	27683	C3*	G	Al311	262.110	115.062	16.691	1.00	79.97	O
ATOM	27634	C5*	G	Al309	256.976	106.041	10.373	1.00	88.75	C	ATOM	27684	O3*	G	Al311	262.573	115.662	20.208	1.00	79.97	O
ATOM	27635	C4*	G	Al309	258.368	106.628	10.473	1.00	88.75	C	ATOM	27685	C2*	G	Al311	261.694	116.809	18.256	1.00	79.97	C
ATOM	27636	O4*	G	Al309	258.584	107.537	9.363	1.00	88.75	O	ATOM	27686	O2*	G	Al311	262.804	117.679	18.347	1.00	79.97	O
ATOM	27637	C3*	G	Al309	258.664	107.472	11.704	1.00	88.75	C	ATOM	27687	C1*	G	Al311	261.499	116.343	16.813	1.00	79.97	C
ATOM	27638	O3*	G	Al309	259.019	106.703	12.848	1.00	88.75	O	ATOM	27688	N9	G	Al311	260.072	116.254	16.479	1.00	68.98	N
ATOM	27639	C2*	G	Al309	259.802	108.363	11.225	1.00	88.75	C	ATOM	27689	C8	G	Al311	259.251	115.145	16.499	1.00	68.98	C
ATOM	27640	O2*	G	Al309	261.059	107.719	11.229	1.00	88.75	O	ATOM	27690	N7	G	Al311	258.016	115.418	16.170	1.00	68.98	N
ATOM	27641	C1*	G	Al309	259.390	108.625	9.782	1.00	88.75	C	ATOM	27691	C5	G	Al311	258.023	116.783	15.907	1.00	68.98	C
ATOM	27642	N9	G	Al309	258.589	109.838	9.700	1.00	66.59	N	ATOM	27692	C6	G	Al311	256.976	117.654	15.497	1.00	68.98	C
ATOM	27643	C8	G	Al309	257.226	109.919	9.587	1.00	66.59	C	ATOM	27693	O6	G	Al311	255.795	117.389	15.271	1.00	68.98	O
ATOM	27644	N7	G	Al309	256.788	111.146	9.552	1.00	66.59	N	ATOM	27694	N1	G	Al311	257.422	118.960	15.359	1.00	68.98	N
ATOM	27645	C5	G	Al309	257.930	111.920	9.644	1.00	66.59	C	ATOM	27695	C2	G	Al311	258.706	119.385	15.584	1.00	68.98	C
ATOM	27646	C6	G	Al309	258.080	113.320	9.652	1.00	66.59	C	ATOM	27696	N2	G	Al311	258.939	120.699	15.420	1.00	68.98	N
ATOM	27647	O6	G	Al309	257.223	114.187	9.555	1.00	66.59	O	ATOM	27697	N3	G	Al311	259.690	118.588	15.951	1.00	68.98	N



Table 1: Sheet 279/521

ATOM	27698	C4	G A1311	259.281	117.311	16.094	1.00	68.98	C	ATOM	27748	O4*	C A1314	251.071	125.273	22.931	1.00106.43	O	
ATOM	27699	P	G A1312	261.704	115.696	21.556	1.00	95.51	P	ATOM	27749	C3*	C A1314	250.219	125.616	25.086	1.00106.43	C	
ATOM	27700	O1P	G A1312	262.670	116.014	22.636	1.00	58.95	O	ATOM	27750	O3*	C A1314	249.777	126.570	26.030	1.00106.43	O	
ATOM	27701	O2P	G A1312	260.901	114.440	21.640	1.00	58.95	O	ATOM	27751	C2*	C A1314	249.081	125.096	24.219	1.00106.43	C	
ATOM	27702	O5*	G A1312	260.740	116.956	21.344	1.00	95.51	O	ATOM	27752	O2*	C A1314	248.199	126.125	23.812	1.00106.43	O	
ATOM	27703	C5*	G A1312	261.318	118.269	21.284	1.00	95.51	C	ATOM	27753	C1*	C A1314	249.837	124.571	23.000	1.00106.43	C	
ATOM	27704	C4*	G A1312	260.340	119.314	20.788	1.00	95.51	C	ATOM	27754	N1	C A1314	250.100	123.123	23.138	1.00	52.30	N
ATOM	27705	O4*	G A1312	259.778	118.942	19.502	1.00	95.51	O	ATOM	27755	C2	C A1314	249.098	122.215	22.756	1.00	52.30	C
ATOM	27706	C3*	G A1312	259.111	119.716	21.595	1.00	95.51	C	ATOM	27756	O2	C A1314	248.039	122.653	22.268	1.00	52.30	O
ATOM	27707	O3*	G A1312	259.385	120.557	22.717	1.00	95.51	O	ATOM	27757	N3	C A1314	249.305	120.887	22.933	1.00	52.30	N
ATOM	27708	C2*	G A1312	258.334	120.513	20.551	1.00	95.51	C	ATOM	27758	C4	C A1314	250.450	120.454	23.464	1.00	52.30	C
ATOM	27709	O2*	G A1312	258.835	121.826	20.390	1.00	95.51	O	ATOM	27759	N4	C A1314	250.598	119.137	23.653	1.00	52.30	N
ATOM	27710	C1*	G A1312	258.615	119.725	19.272	1.00	95.51	C	ATOM	27760	C5	C A1314	251.493	121.349	23.835	1.00	52.30	C
ATOM	27711	N9	G A1312	257.467	118.877	18.939	1.00	58.95	N	ATOM	27761	C6	C A1314	251.280	122.662	23.653	1.00	52.30	C
ATOM	27712	C8	G A1312	257.334	117.509	19.037	1.00	58.95	C	ATOM	27762	P	U A1315	249.307	126.074	27.482	1.00	88.41	P
ATOM	27713	N7	G A1312	256.147	117.087	18.688	1.00	58.95	N	ATOM	27763	O1P	U A1315	249.368	127.265	28.357	1.00	69.27	O
ATOM	27714	C5	G A1312	255.459	118.245	18.332	1.00	58.95	C	ATOM	27764	O2P	U A1315	250.046	124.841	27.853	1.00	69.27	O
ATOM	27715	C6	G A1312	254.124	118.429	17.863	1.00	58.95	O	ATOM	27765	O5*	U A1315	247.784	125.649	27.284	1.00	88.41	O
ATOM	27716	O6	G A1312	253.254	117.575	17.651	1.00	58.95	O	ATOM	27766	C5*	U A1315	246.791	126.589	26.808	1.00	88.41	C
ATOM	27717	N1	G A1312	253.846	119.774	17.631	1.00	58.95	N	ATOM	27767	C4*	U A1315	245.508	125.865	26.447	1.00	88.41	C
ATOM	27718	C2	G A1312	254.734	120.807	17.811	1.00	58.95	C	ATOM	27768	O4*	U A1315	245.733	125.006	25.302	1.00	88.41	O
ATOM	27719	N2	G A1312	255.970	120.645	18.232	1.00	58.95	N	ATOM	27769	C3*	U A1315	244.931	124.947	27.517	1.00	88.41	C
ATOM	27720	N3	G A1312	256.262	119.351	18.474	1.00	58.95	C	ATOM	27770	O3*	U A1315	244.085	125.675	28.401	1.00	88.41	O
ATOM	27721	C4	G A1312	256.253	120.775	23.854	1.00	82.36	P	ATOM	27771	C2*	U A1315	244.114	123.949	26.705	1.00	88.41	C
ATOM	27722	P	U A1313	258.922	121.451	24.989	1.00	67.31	O	ATOM	27772	O2*	U A1315	242.820	124.433	26.417	1.00	88.41	O
ATOM	27723	O1P	U A1313	257.531	119.497	24.090	1.00	67.31	O	ATOM	27773	C1*	U A1315	244.912	123.859	25.402	1.00	88.41	C
ATOM	27724	O2P	U A1313	257.922	119.497	24.090	1.00	67.31	O	ATOM	27774	N1	U A1315	245.742	122.649	25.282	1.00	69.27	N
ATOM	27725	O5*	U A1313	257.243	121.832	23.220	1.00	82.36	O	ATOM	27775	C2	U A1315	245.143	121.514	24.745	1.00	69.27	C
ATOM	27726	C5*	U A1313	257.689	123.162	22.920	1.00	82.36	C	ATOM	27776	O2	U A1315	243.982	121.490	24.360	1.00	69.27	O
ATOM	27727	C4*	U A1313	256.564	123.997	22.351	1.00	82.36	O	ATOM	27777	N3	U A1315	245.951	120.408	24.668	1.00	69.27	N
ATOM	27728	O4*	U A1313	256.048	123.369	21.150	1.00	82.36	O	ATOM	27778	C4	U A1315	247.269	120.316	25.045	1.00	69.27	C
ATOM	27729	C3*	U A1313	255.327	124.214	23.208	1.00	82.36	C	ATOM	27779	O4	U A1315	247.877	119.257	24.861	1.00	69.27	O
ATOM	27730	O3*	U A1313	255.480	125.252	24.166	1.00	82.36	O	ATOM	27780	C5	U A1315	247.822	121.529	25.585	1.00	69.27	C
ATOM	27731	C2*	U A1313	255.327	124.214	23.208	1.00	82.36	O	ATOM	27781	C6	U A1315	247.058	122.624	25.681	1.00	69.27	C
ATOM	27732	O2*	U A1313	254.270	124.576	22.171	1.00	82.36	C	ATOM	27782	P	G A1316	244.199	125.458	29.993	1.00	89.20	P
ATOM	27733	C1*	U A1313	254.333	125.934	21.772	1.00	82.36	C	ATOM	27783	O1P	G A1316	243.290	126.476	30.583	1.00	90.25	O
ATOM	27734	N1	U A1313	253.895	122.430	20.951	1.00	67.31	N	ATOM	27784	O2P	G A1316	245.632	125.418	30.404	1.00	90.25	O
ATOM	27735	C2	U A1313	252.627	122.468	20.371	1.00	67.31	C	ATOM	27785	O5*	G A1316	243.588	124.014	30.264	1.00	89.20	O
ATOM	27736	O2	U A1313	252.120	123.492	19.923	1.00	67.31	C	ATOM	27786	C5*	G A1316	242.185	123.780	30.142	1.00	89.20	C
ATOM	27737	N3	U A1313	251.972	121.265	20.345	1.00	67.31	N	ATOM	27787	C4*	G A1316	241.945	122.336	29.836	1.00	89.20	C
ATOM	27738	C4	U A1313	252.426	120.059	20.832	1.00	67.31	C	ATOM	27788	O4*	G A1316	242.710	121.987	28.658	1.00	89.20	O
ATOM	27739	O4	U A1313	251.696	119.075	20.769	1.00	67.31	O	ATOM	27789	C3*	G A1316	242.418	121.363	30.901	1.00	89.20	C
ATOM	27740	C5	U A1313	253.727	120.099	21.421	1.00	67.31	C	ATOM	27790	O3*	G A1316	241.414	121.170	31.897	1.00	89.20	O
ATOM	27741	C6	U A1313	254.401	121.251	21.460	1.00	67.31	C	ATOM	27791	C2*	G A1316	242.674	120.088	30.103	1.00	89.20	C
ATOM	27742	P	C A1314	254.675	125.162	25.553	1.00106.43	P	ATOM	27792	O2*	G A1316	241.514	119.299	29.929	1.00	89.20	O	
ATOM	27743	O1P	C A1314	254.952	126.404	26.301	1.00	52.30	O	ATOM	27793	C1*	G A1316	243.146	120.645	28.756	1.00	89.20	C
ATOM	27744	O2P	C A1314	254.979	123.840	26.173	1.00	52.30	O	ATOM	27794	N9	G A1316	244.597	120.608	28.606	1.00	90.25	N
ATOM	27745	O5*	C A1314	253.147	125.214	25.105	1.00106.43	O	ATOM	27795	C8	G A1316	245.486	121.638	28.795	1.00	90.25	C	
ATOM	27746	C5*	C A1314	252.614	126.398	24.474	1.00106.43	C	ATOM	27796	N7	G A1316	246.729	121.275	28.638	1.00	90.25	N	
ATOM	27747	C4*	C A1314	251.170	126.194	24.054	1.00106.43	C	ATOM	27797	C5	G A1316	246.656	119.926	28.313	1.00	90.25	C	



ATOM	27798	C6	G A1316	247.685	118.987	28.035	1.00	90.25	C	ATOM	27848	O1P	A A1319	249.231	112.839	28.120	1.00	59.13	O
ATOM	27799	O6	G A1316	248.909	119.163	28.027	1.00	90.25	O	ATOM	27849	O2P	A A1319	248.153	115.159	27.891	1.00	59.13	O
ATOM	27800	N1	G A1316	247.166	117.730	27.748	1.00	90.25	N	ATOM	27850	O5*	A A1319	247.113	113.139	26.849	1.00	89.17	O
ATOM	27801	C2	G A1316	245.835	117.411	27.733	1.00	90.25	C	ATOM	27851	C5*	A A1319	247.655	112.940	25.526	1.00	89.17	C
ATOM	27802	N2	G A1316	245.539	116.144	27.438	1.00	90.25	N	ATOM	27852	C4*	A A1319	246.562	113.069	24.493	1.00	89.17	C
ATOM	27803	N3	G A1316	244.867	118.272	27.991	1.00	90.25	N	ATOM	27853	O4*	A A1319	245.937	114.353	24.602	1.00	89.17	O
ATOM	27804	C4	G A1316	245.347	119.503	28.273	1.00	90.25	C	ATOM	27854	C3*	A A1319	246.984	112.998	23.027	1.00	89.17	C
ATOM	27805	P	C A1317	241.816	121.178	33.457	1.00	76.91	P	ATOM	27855	O3*	A A1319	246.846	111.653	22.572	1.00	89.17	O
ATOM	27806	O1P	C A1317	240.568	121.122	34.269	1.00	66.89	O	ATOM	27856	C2*	A A1319	245.999	113.936	22.299	1.00	89.17	C
ATOM	27807	O2P	C A1317	242.765	122.316	33.635	1.00	66.89	O	ATOM	27857	O2*	A A1319	245.146	113.261	21.379	1.00	89.17	O
ATOM	27808	O5*	C A1317	242.574	119.796	33.689	1.00	76.91	O	ATOM	27858	C1*	A A1319	245.173	114.524	23.446	1.00	89.17	C
ATOM	27809	C5*	C A1317	243.431	119.636	34.817	1.00	76.91	C	ATOM	27859	N9	A A1319	244.807	115.929	23.331	1.00	59.13	N
ATOM	27810	C4*	C A1317	243.879	118.203	34.954	1.00	76.91	C	ATOM	27860	C8	A A1319	245.525	117.045	23.671	1.00	59.13	C
ATOM	27811	O4*	C A1317	242.756	117.363	35.317	1.00	76.91	O	ATOM	27861	N7	A A1319	244.879	118.170	23.468	1.00	59.13	N
ATOM	27812	C3*	C A1317	244.476	117.513	33.736	1.00	76.91	C	ATOM	27862	C5	A A1319	243.655	117.764	22.951	1.00	59.13	C
ATOM	27813	O3*	C A1317	245.847	117.856	33.522	1.00	76.91	O	ATOM	27863	C6	A A1319	242.518	118.478	22.517	1.00	59.13	C
ATOM	27814	C2*	C A1317	244.323	116.036	34.097	1.00	76.91	C	ATOM	27864	N6	A A1319	242.419	119.814	22.541	1.00	59.13	N
ATOM	27815	O2*	C A1317	245.387	115.554	34.892	1.00	76.91	O	ATOM	27865	N1	A A1319	241.471	117.762	22.049	1.00	59.13	N
ATOM	27816	C1*	C A1317	243.032	116.031	34.924	1.00	66.89	N	ATOM	27866	C2	A A1319	241.565	116.427	22.022	1.00	59.13	C
ATOM	27817	N1	C A1317	241.861	115.471	34.220	1.00	66.89	N	ATOM	27867	N3	A A1319	242.573	115.645	22.400	1.00	59.13	N
ATOM	27818	C2	C A1317	241.636	114.081	34.220	1.00	66.89	C	ATOM	27868	C4	A A1319	243.600	116.385	22.858	1.00	59.13	C
ATOM	27819	O2	C A1317	242.424	113.371	34.935	1.00	66.89	O	ATOM	27869	P	C A1320	247.992	110.578	22.897	1.00	77.05	P
ATOM	27820	N3	C A1317	240.568	113.551	33.653	1.00	66.89	N	ATOM	27870	O1P	C A1320	247.941	110.327	24.358	1.00	76.30	O
ATOM	27821	C4	C A1317	239.737	114.343	32.965	1.00	66.89	C	ATOM	27871	O2P	C A1320	249.257	111.034	22.269	1.00	76.30	O
ATOM	27822	N4	C A1317	238.686	113.769	32.353	1.00	66.89	N	ATOM	27872	O5*	C A1320	247.508	109.240	22.181	1.00	77.05	O
ATOM	27823	C5	C A1317	239.943	115.758	32.873	1.00	66.89	C	ATOM	27873	C5*	C A1320	248.454	108.382	21.524	1.00	77.05	C
ATOM	27824	C6	C A1317	241.008	116.273	33.508	1.00	66.89	C	ATOM	27874	C4*	C A1320	247.822	107.053	21.180	1.00	77.05	C
ATOM	27825	P	A A1318	246.372	118.171	32.027	1.00	91.54	P	ATOM	27875	O4*	C A1320	247.605	106.283	22.390	1.00	77.05	O
ATOM	27826	O1P	A A1318	247.847	118.370	32.105	1.00	72.79	O	ATOM	27876	C3*	C A1320	246.462	107.095	20.501	1.00	77.05	C
ATOM	27827	O2P	A A1318	245.527	119.246	31.443	1.00	72.79	O	ATOM	27877	O3*	C A1320	246.549	107.330	19.101	1.00	77.05	O
ATOM	27828	O5*	A A1318	246.117	116.810	31.232	1.00	91.54	O	ATOM	27878	C2*	C A1320	245.879	105.727	20.841	1.00	77.05	C
ATOM	27829	C5*	A A1318	246.784	115.608	31.642	1.00	91.54	C	ATOM	27879	O2*	C A1320	246.328	104.694	19.980	1.00	77.05	O
ATOM	27830	C4*	A A1318	246.032	114.378	31.184	1.00	91.54	C	ATOM	27880	C1*	C A1320	246.429	105.502	22.253	1.00	77.05	C
ATOM	27831	O4*	A A1318	244.642	114.479	31.565	1.00	91.54	O	ATOM	27881	N1	C A1320	245.481	105.909	23.310	1.00	76.30	N
ATOM	27832	C3*	A A1318	246.015	114.072	29.696	1.00	91.54	C	ATOM	27882	C2	C A1320	244.532	104.973	23.780	1.00	76.30	C
ATOM	27833	O3*	A A1318	247.181	113.326	29.362	1.00	91.54	O	ATOM	27883	O2	C A1320	244.512	103.829	23.295	1.00	76.30	O
ATOM	27834	C2*	A A1318	244.759	113.214	29.550	1.00	91.54	C	ATOM	27884	N3	C A1320	243.666	105.345	24.747	1.00	76.30	N
ATOM	27835	O2*	A A1318	244.990	111.856	29.895	1.00	91.54	O	ATOM	27885	C4	C A1320	243.712	106.586	25.245	1.00	76.30	C
ATOM	27836	C1*	A A1318	243.831	113.830	30.601	1.00	91.54	C	ATOM	27886	N4	C A1320	242.834	106.906	26.195	1.00	76.30	N
ATOM	27837	N9	A A1318	242.869	114.809	30.082	1.00	72.79	N	ATOM	27887	C5	C A1320	244.661	107.555	24.788	1.00	76.30	C
ATOM	27838	C8	A A1318	242.939	116.180	30.186	1.00	72.79	C	ATOM	27888	C6	C A1320	245.515	107.178	23.831	1.00	76.30	C
ATOM	27839	N7	A A1318	241.922	116.805	29.650	1.00	72.79	N	ATOM	27889	P	C A1321	245.431	108.235	18.384	1.00	82.17	P
ATOM	27840	C5	A A1318	241.128	115.782	29.151	1.00	72.79	C	ATOM	27890	O1P	C A1321	245.821	108.405	16.961	1.00	61.24	O
ATOM	27841	C6	A A1318	239.899	115.791	28.462	1.00	72.79	C	ATOM	27891	O2P	C A1321	245.175	109.438	19.219	1.00	61.24	O
ATOM	27842	N6	A A1318	239.229	116.907	28.155	1.00	72.79	N	ATOM	27892	O5*	C A1321	244.134	107.317	18.443	1.00	82.17	O
ATOM	27843	N1	A A1318	239.377	114.599	28.096	1.00	72.79	N	ATOM	27893	C5*	C A1321	244.157	105.998	17.885	1.00	82.17	C
ATOM	27844	C2	A A1318	240.048	113.481	28.413	1.00	72.79	C	ATOM	27894	C4*	C A1321	242.981	105.196	18.382	1.00	82.17	C
ATOM	27845	N3	A A1318	241.206	113.344	29.062	1.00	72.79	N	ATOM	27895	O4*	C A1321	243.108	104.990	19.811	1.00	82.17	O
ATOM	27846	C4	A A1318	241.701	114.546	29.406	1.00	72.79	C	ATOM	27896	C3*	C A1321	241.606	105.822	18.205	1.00	82.17	C
ATOM	27847	P	A A1319	248.019	113.685	28.040	1.00	89.17	P	ATOM	27897	O3*	C A1321	241.081	105.612	16.897	1.00	82.17	O



Table 1: Sheet 281/521

ATOM	27898	C A1321	240.790	105.114	19.281	1.00	82.17	C	ATOM	27948	C2	G A1323	245.824	120.536	20.624	1.00	81.42	C
ATOM	27899	O2*	240.349	103.832	18.875	1.00	82.17	O	ATOM	27949	N2	G A1323	245.704	121.867	20.719	1.00	81.42	N
ATOM	27900	Cl*	241.821	104.961	20.403	1.00	82.17	C	ATOM	27950	N3	G A1323	244.857	119.828	20.074	1.00	81.42	N
ATOM	27901	N1	241.736	106.044	21.404	1.00	61.24	N	ATOM	27951	C4	G A1323	245.156	118.510	20.036	1.00	81.42	C
ATOM	27902	C2	241.127	105.785	22.649	1.00	61.24	C	ATOM	27952	P	A A1324	243.448	117.722	14.049	1.00	72.93	P
ATOM	27903	O2	240.726	104.639	22.900	1.00	61.24	O	ATOM	27953	OlP	A A1324	242.575	117.627	12.843	1.00	57.01	O
ATOM	27904	N3	240.999	106.791	23.545	1.00	61.24	N	ATOM	27954	O2P	A A1324	244.507	116.694	14.271	1.00	57.01	O
ATOM	27905	C4	241.464	108.008	23.252	1.00	61.24	C	ATOM	27955	O5*	A A1324	244.078	119.180	14.035	1.00	72.93	O
ATOM	27906	N4	241.310	108.971	24.160	1.00	61.24	N	ATOM	27956	C5*	A A1324	243.226	120.312	13.825	1.00	72.93	C
ATOM	27907	C5	242.109	108.293	22.010	1.00	61.24	C	ATOM	27957	C4*	A A1324	243.823	121.543	14.442	1.00	72.93	C
ATOM	27908	C6	242.223	107.293	21.125	1.00	61.24	C	ATOM	27958	O4*	A A1324	243.995	121.342	15.869	1.00	72.93	O
ATOM	27909	P	240.413	106.840	16.097	1.00	74.01	P	ATOM	27959	C3*	A A1324	245.210	121.893	13.947	1.00	72.93	C
ATOM	27910	OlP	239.121	107.194	16.715	1.00	86.17	O	ATOM	27960	O3*	A A1324	245.186	122.596	12.723	1.00	72.93	O
ATOM	27911	O2P	240.459	106.486	14.655	1.00	86.17	O	ATOM	27961	C2*	A A1324	245.768	122.713	15.098	1.00	72.93	C
ATOM	27912	O5*	241.393	108.068	16.342	1.00	74.01	O	ATOM	27962	O2*	A A1324	245.279	124.043	15.090	1.00	72.93	O
ATOM	27913	C5*	241.233	109.273	15.586	1.00	74.01	C	ATOM	27963	Cl*	A A1324	245.197	121.959	16.296	1.00	72.93	C
ATOM	27914	C4*	241.276	110.479	16.494	1.00	74.01	C	ATOM	27964	N9	A A1324	246.101	120.901	16.745	1.00	57.01	N
ATOM	27915	O4*	240.215	110.377	17.479	1.00	74.01	O	ATOM	27965	C8	A A1324	245.996	119.559	16.482	1.00	57.01	C
ATOM	27916	C3*	242.568	110.729	17.271	1.00	74.01	C	ATOM	27966	N7	A A1324	246.937	118.836	17.034	1.00	57.01	N
ATOM	27917	O3*	242.728	112.142	17.378	1.00	74.01	O	ATOM	27967	C5	A A1324	247.726	119.763	17.703	1.00	57.01	C
ATOM	27918	C2*	242.234	110.200	18.665	1.00	74.01	C	ATOM	27968	C6	A A1324	248.886	119.628	18.497	1.00	57.01	C
ATOM	27919	O2*	242.970	110.831	19.595	1.00	74.01	O	ATOM	27969	N6	A A1324	249.472	118.458	18.764	1.00	57.01	N
ATOM	27920	Cl*	240.756	110.575	18.769	1.00	74.01	C	ATOM	27970	N1	A A1324	249.831	121.929	18.760	1.00	57.01	N
ATOM	27921	N1	239.953	109.828	19.757	1.00	86.17	N	ATOM	27971	C2	A A1324	248.423	120.753	19.017	1.00	57.01	C
ATOM	27922	C2	239.769	110.388	21.033	1.00	86.17	O	ATOM	27972	N3	A A1324	247.741	122.184	18.036	1.00	57.01	N
ATOM	27923	O2	240.320	111.472	21.312	1.00	86.17	O	ATOM	27973	C4	A A1324	247.228	121.043	17.527	1.00	57.01	C
ATOM	27924	N3	239.002	109.732	21.929	1.00	86.17	N	ATOM	27974	P	C A1325	246.452	122.495	11.749	1.00	68.36	P
ATOM	27925	C4	238.439	108.566	21.603	1.00	86.17	C	ATOM	27975	OlP	C A1325	246.139	123.265	10.522	1.00	53.38	O
ATOM	27926	N4	237.681	107.964	22.519	1.00	86.17	N	ATOM	27976	O2P	C A1325	246.870	121.062	11.655	1.00	53.38	O
ATOM	27927	C5	238.626	107.967	20.326	1.00	86.17	C	ATOM	27977	O5*	C A1325	247.583	123.284	12.540	1.00	68.36	O
ATOM	27928	C6	239.383	108.624	19.443	1.00	86.17	C	ATOM	27978	C5*	C A1325	247.421	124.675	12.873	1.00	68.36	C
ATOM	27929	P	243.701	112.704	15.127	1.00	62.60	P	ATOM	27979	C4*	C A1325	248.601	125.148	13.683	1.00	68.36	C
ATOM	27930	OlP	243.904	112.897	16.584	1.00	62.60	O	ATOM	27980	O4*	C A1325	248.619	124.458	14.960	1.00	68.36	O
ATOM	27931	O2P	245.199	112.510	17.205	1.00	81.42	O	ATOM	27981	C3*	C A1325	249.956	124.828	13.083	1.00	68.36	C
ATOM	27932	O5*	243.582	114.431	16.875	1.00	62.60	O	ATOM	27982	O3*	C A1325	250.364	125.758	12.102	1.00	68.36	C
ATOM	27933	C5*	242.225	114.895	16.809	1.00	62.60	C	ATOM	27983	C2*	C A1325	250.866	124.822	14.297	1.00	68.36	C
ATOM	27934	C4*	242.112	116.321	17.278	1.00	62.60	C	ATOM	27984	O2*	C A1325	251.199	126.128	14.704	1.00	68.36	O
ATOM	27935	O4*	242.456	116.415	18.681	1.00	62.60	O	ATOM	27985	Cl*	C A1325	249.955	124.207	15.352	1.00	68.36	C
ATOM	27936	C3*	243.009	117.341	16.601	1.00	62.60	C	ATOM	27986	N1	C A1325	250.156	122.754	15.459	1.00	53.38	N
ATOM	27937	O3*	242.494	117.748	15.344	1.00	62.60	O	ATOM	27987	C2	C A1325	251.226	122.281	16.225	1.00	53.38	C
ATOM	27938	C2*	243.057	118.473	17.624	1.00	62.60	C	ATOM	27988	O2	C A1325	251.965	123.097	16.800	1.00	53.38	O
ATOM	27939	O2*	241.958	119.366	17.562	1.00	62.60	O	ATOM	27989	N3	C A1325	251.432	120.949	16.323	1.00	53.38	N
ATOM	27940	Cl*	243.024	117.693	18.941	1.00	62.60	C	ATOM	27990	C4	C A1325	250.623	120.103	15.693	1.00	53.38	C
ATOM	27941	N9	244.355	117.513	19.523	1.00	81.42	N	ATOM	27991	N4	C A1325	250.869	118.796	15.818	1.00	53.38	N
ATOM	27942	C8	245.054	116.338	19.680	1.00	81.42	C	ATOM	27992	C5	C A1325	249.524	120.556	14.907	1.00	53.38	C
ATOM	27943	N7	246.215	116.505	20.254	1.00	81.42	N	ATOM	27993	C6	C A1325	249.328	121.877	14.820	1.00	53.38	C
ATOM	27944	C5	246.291	117.872	20.486	1.00	81.42	C	ATOM	27994	P	C A1326	251.365	125.271	10.949	1.00	69.26	P
ATOM	27945	C6	247.311	118.642	21.087	1.00	81.42	C	ATOM	27995	OlP	C A1326	251.304	126.274	9.862	1.00	48.54	O
ATOM	27946	O6	248.387	118.258	21.555	1.00	81.42	O	ATOM	27996	O2P	C A1326	251.086	123.842	10.661	1.00	48.54	O
ATOM	27947	N1	246.985	119.994	21.114	1.00	81.42	N	ATOM	27997	O5*	C A1326	252.794	125.298	11.639	1.00	69.26	O



ATOM	27998	C5*	C A1326	253.254	126.469	12.323	1.00	69.26	C	ATOM	28048	O2	C A1328	262.394	115.943	9.719	1.00	76.33	O
ATOM	27999	C4*	C A1326	254.548	126.179	13.038	1.00	69.26	C	ATOM	28049	N3	C A1328	260.179	116.410	9.665	1.00	76.33	N
ATOM	28000	O4*	C A1326	254.322	125.245	14.120	1.00	69.26	O	ATOM	28050	C4	C A1328	259.222	117.332	9.520	1.00	76.33	C
ATOM	28001	C3*	C A1326	255.637	125.538	12.197	1.00	69.26	C	ATOM	28051	N4	C A1328	257.946	116.932	9.590	1.00	76.33	N
ATOM	28002	C3*	C A1326	256.333	126.533	11.457	1.00	69.26	O	ATOM	28052	C5	C A1328	259.530	118.710	9.297	1.00	76.33	C
ATOM	28003	O2*	C A1326	256.504	124.848	13.246	1.00	69.26	C	ATOM	28053	C6	C A1328	260.823	119.055	9.236	1.00	76.33	C
ATOM	28004	O2*	C A1326	257.401	125.731	13.886	1.00	69.26	O	ATOM	28054	P	A A1329	264.204	119.662	4.720	1.00	64.25	P
ATOM	28005	C1*	C A1326	255.467	124.438	14.288	1.00	69.26	C	ATOM	28055	O1P	A A1329	265.359	120.025	3.861	1.00	70.78	O
ATOM	28006	N1	C A1326	255.070	123.026	14.230	1.00	69.26	C	ATOM	28056	O2P	A A1329	262.902	120.354	4.515	1.00	70.78	O
ATOM	28007	C2	C A1326	255.906	122.076	14.837	1.00	48.54	N	ATOM	28057	O5*	A A1329	263.963	118.085	4.646	1.00	64.25	O
ATOM	28008	O2	C A1326	256.974	122.453	15.348	1.00	48.54	O	ATOM	28058	C5*	A A1329	265.062	117.185	4.844	1.00	64.25	C
ATOM	28009	N3	C A1326	255.535	120.775	14.848	1.00	48.54	N	ATOM	28059	C4*	A A1329	264.587	115.760	5.031	1.00	64.25	C
ATOM	28010	C4	C A1326	254.391	120.405	14.277	1.00	48.54	C	ATOM	28060	O4*	A A1329	263.836	115.632	6.265	1.00	64.25	O
ATOM	28011	N4	C A1326	254.059	119.114	14.342	1.00	48.54	N	ATOM	28061	C3*	A A1329	263.684	115.130	3.982	1.00	64.25	C
ATOM	28012	C5	C A1326	253.533	121.347	13.620	1.00	48.54	C	ATOM	28062	O3*	A A1329	264.355	114.709	2.802	1.00	64.25	O
ATOM	28013	C6	C A1326	253.908	122.635	13.621	1.00	48.54	C	ATOM	28063	C2*	A A1329	263.082	113.957	4.747	1.00	64.25	C
ATOM	28014	P	C A1327	256.842	126.204	9.972	1.00	70.81	P	ATOM	28064	O2*	A A1329	263.906	112.806	4.785	1.00	64.25	O
ATOM	28015	O1P	C A1327	257.303	127.479	9.371	1.00	56.83	O	ATOM	28065	C1*	A A1329	262.919	114.551	6.149	1.00	64.25	C
ATOM	28016	O2P	C A1327	255.797	125.412	9.288	1.00	56.83	O	ATOM	28066	N9	A A1329	261.555	115.062	6.300	1.00	70.78	N
ATOM	28017	O5*	C A1327	258.108	125.268	10.219	1.00	70.81	O	ATOM	28067	C8	A A1329	261.113	116.364	6.267	1.00	70.78	C
ATOM	28018	C5*	C A1327	259.330	125.820	10.746	1.00	70.81	C	ATOM	28068	N7	A A1329	259.809	116.478	6.318	1.00	70.78	N
ATOM	28019	C4*	C A1327	260.313	124.724	11.085	1.00	70.81	C	ATOM	28069	C5	A A1329	259.363	115.167	6.413	1.00	70.78	C
ATOM	28020	O4*	C A1327	259.826	123.933	12.199	1.00	70.81	O	ATOM	28070	C6	A A1329	258.079	114.611	6.471	1.00	70.78	C
ATOM	28021	C3*	C A1327	260.598	123.698	10.005	1.00	70.81	C	ATOM	28071	N6	A A1329	256.965	115.340	6.425	1.00	70.78	N
ATOM	28022	O3*	C A1327	261.524	124.172	9.047	1.00	70.81	O	ATOM	28072	N1	A A1329	257.974	113.266	6.569	1.00	70.78	N
ATOM	28023	C2*	C A1327	261.141	122.514	10.798	1.00	70.81	C	ATOM	28073	C2	A A1329	259.097	112.540	6.595	1.00	70.78	C
ATOM	28024	O2*	C A1327	262.525	122.596	11.086	1.00	70.81	O	ATOM	28074	N3	A A1329	260.363	112.947	6.533	1.00	70.78	N
ATOM	28025	C1*	C A1327	260.338	122.614	12.096	1.00	70.81	C	ATOM	28075	C4	A A1329	260.427	114.288	6.438	1.00	70.78	C
ATOM	28026	N1	C A1327	259.228	121.649	12.116	1.00	56.83	N	ATOM	28076	P	U A1330	263.604	114.846	1.387	1.00	72.62	P
ATOM	28027	C2	C A1327	259.489	120.342	12.566	1.00	56.83	C	ATOM	28077	O1P	U A1330	264.517	114.459	0.269	1.00	69.15	O
ATOM	28028	O2	C A1327	260.620	120.065	12.985	1.00	56.83	O	ATOM	28078	O2P	U A1330	262.971	116.192	1.363	1.00	69.15	O
ATOM	28029	N3	C A1327	258.503	119.419	12.533	1.00	56.83	N	ATOM	28079	O5*	U A1330	262.446	113.758	1.506	1.00	72.62	O
ATOM	28030	C4	C A1327	257.295	119.753	12.076	1.00	56.83	C	ATOM	28080	C5*	U A1330	262.728	112.426	1.982	1.00	72.62	C
ATOM	28031	N4	C A1327	256.375	118.800	12.024	1.00	56.83	N	ATOM	28081	C4*	U A1330	261.446	111.636	2.149	1.00	72.62	C
ATOM	28032	C5	C A1327	256.987	121.082	11.641	1.00	56.83	C	ATOM	28082	O4*	U A1330	260.642	112.210	3.209	1.00	72.62	O
ATOM	28033	C6	C A1327	257.974	121.992	11.682	1.00	56.83	C	ATOM	28083	C3*	U A1330	260.514	111.593	0.950	1.00	72.62	C
ATOM	28034	P	C A1328	261.569	123.494	7.591	1.00	65.32	P	ATOM	28084	O3*	U A1330	260.899	110.580	0.044	1.00	72.62	O
ATOM	28035	O1P	C A1328	262.522	124.307	6.786	1.00	76.33	O	ATOM	28085	C2*	U A1330	259.165	111.292	1.586	1.00	72.62	C
ATOM	28036	O2P	C A1328	260.179	123.299	7.098	1.00	76.33	O	ATOM	28086	O2*	U A1330	259.026	109.918	1.890	1.00	72.62	O
ATOM	28037	O5*	C A1328	262.222	122.064	7.869	1.00	65.32	O	ATOM	28087	C1*	U A1330	259.265	112.067	2.898	1.00	72.62	C
ATOM	28038	C5*	C A1328	263.564	121.978	8.366	1.00	65.32	C	ATOM	28088	N1	U A1330	258.648	113.407	2.870	1.00	69.15	N
ATOM	28039	C4*	C A1328	264.012	120.544	8.475	1.00	65.32	C	ATOM	28089	C2	U A1330	257.290	113.507	3.138	1.00	69.15	C
ATOM	28040	O4*	C A1328	263.367	119.874	9.587	1.00	65.32	O	ATOM	28090	O2	U A1330	256.574	112.539	3.331	1.00	69.15	O
ATOM	28041	C3*	C A1328	263.735	119.655	7.285	1.00	65.32	C	ATOM	28091	N3	U A1330	256.800	114.788	3.168	1.00	69.15	N
ATOM	28042	O3*	C A1328	264.667	119.873	6.242	1.00	65.32	O	ATOM	28092	C4	U A1330	257.504	115.953	2.958	1.00	69.15	C
ATOM	28043	C2*	C A1328	263.803	118.253	7.892	1.00	65.32	C	ATOM	28093	O4	U A1330	256.952	117.034	3.152	1.00	69.15	O
ATOM	28044	O2*	C A1328	265.102	117.704	7.999	1.00	65.32	O	ATOM	28094	C5	U A1330	258.883	115.767	2.647	1.00	69.15	C
ATOM	28045	C1*	C A1328	263.234	118.492	9.293	1.00	65.32	C	ATOM	28095	C6	U A1330	259.396	114.534	2.612	1.00	69.15	C
ATOM	28046	N1	C A1328	261.811	118.119	9.378	1.00	76.33	N	ATOM	28096	P	G A1331	261.239	110.971	-1.470	1.00	79.34	P
ATOM	28047	C2	C A1328	261.481	116.771	9.598	1.00	76.33	C	ATOM	28097	O1P	G A1331	261.459	109.681	-2.174	1.00	66.45	O



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ATOM	28098	O2P	G A1331	262.273	112.033	-1.515	1.00	66.45	O	ATOM	28148	C3*	A A1333	248.124	109.765	-9.276	1.00	65.83	C
ATOM	28099	O5*	G A1331	259.913	111.651	-2.001	1.00	79.34	O	ATOM	28149	O3*	A A1333	247.604	109.048	-10.360	1.00	65.83	O
ATOM	28100	C5*	G A1331	258.684	110.943	-1.976	1.00	79.34	C	ATOM	28150	C2*	A A1333	247.043	110.633	-8.658	1.00	65.83	C
ATOM	28101	C4*	G A1331	257.550	111.885	-2.234	1.00	79.34	C	ATOM	28151	O2*	A A1333	245.809	109.953	-8.624	1.00	65.83	O
ATOM	28102	O4*	G A1331	257.545	112.892	-1.206	1.00	79.34	O	ATOM	28152	C1*	A A1333	247.556	110.804	-7.230	1.00	65.83	C
ATOM	28103	C3*	G A1331	257.608	112.687	-3.524	1.00	79.34	C	ATOM	28153	N9	A A1333	248.302	112.048	-7.051	1.00	47.34	N
ATOM	28104	O3*	G A1331	257.236	111.792	-4.602	1.00	79.34	O	ATOM	28154	C8	A A1333	249.657	112.219	-6.993	1.00	47.34	C
ATOM	28105	C2*	G A1331	256.726	113.897	-3.210	1.00	79.34	C	ATOM	28155	N7	A A1333	250.026	113.466	-6.826	1.00	47.34	N
ATOM	28106	O2*	G A1331	255.364	113.628	-3.430	1.00	79.34	O	ATOM	28156	C5	A A1333	248.830	114.163	-6.771	1.00	47.34	C
ATOM	28107	C1*	G A1331	256.862	114.016	-1.689	1.00	79.34	C	ATOM	28157	C6	A A1333	248.538	115.528	-6.612	1.00	47.34	C
ATOM	28108	N9	G A1331	257.427	115.234	-1.119	1.00	66.45	N	ATOM	28158	N6	A A1333	249.469	116.475	-6.479	1.00	47.34	N
ATOM	28109	C8	G A1331	258.725	115.672	-1.158	1.00	66.45	C	ATOM	28159	N1	A A1333	247.240	115.895	-6.602	1.00	47.34	N
ATOM	28110	N7	G A1331	258.888	116.841	-0.593	1.00	66.45	N	ATOM	28160	C2	A A1333	246.310	114.952	-6.748	1.00	47.34	C
ATOM	28111	C5	G A1331	257.620	117.191	-0.147	1.00	66.45	C	ATOM	28161	N3	A A1333	246.460	113.641	-6.907	1.00	47.34	N
ATOM	28112	C6	G A1331	257.164	118.363	0.516	1.00	66.45	C	ATOM	28162	C4	A A1333	247.761	113.305	-6.909	1.00	47.34	C
ATOM	28113	O6	G A1331	257.808	119.363	0.838	1.00	66.45	O	ATOM	28163	P	G A1334	247.821	109.621	-11.870	1.00	45.38	P
ATOM	28114	N1	G A1331	255.801	118.299	0.794	1.00	66.45	N	ATOM	28164	O1P	G A1334	246.960	108.812	-12.793	1.00	52.08	O
ATOM	28115	C2	G A1331	254.975	117.252	0.473	1.00	66.45	C	ATOM	28165	O2P	G A1334	249.291	109.704	-12.117	1.00	52.08	O
ATOM	28116	N2	G A1331	253.688	117.381	0.837	1.00	66.45	N	ATOM	28166	O5*	G A1334	247.285	111.125	-11.834	1.00	45.38	O
ATOM	28117	N3	G A1331	255.381	116.160	-0.156	1.00	66.45	N	ATOM	28167	C5*	G A1334	245.896	111.421	-11.640	1.00	45.38	C
ATOM	28118	C4	G A1331	256.710	116.199	-0.438	1.00	66.45	C	ATOM	28168	C4*	G A1334	245.715	112.885	-11.331	1.00	45.38	C
ATOM	28119	P	A A1332	256.062	112.145	-5.660	1.00	57.80	P	ATOM	28169	O4*	G A1334	246.465	113.215	-10.136	1.00	45.38	O
ATOM	28120	O1P	A A1332	256.463	111.465	-6.922	1.00	56.01	O	ATOM	28170	C3*	G A1334	246.235	113.828	-12.399	1.00	45.38	C
ATOM	28121	O2P	A A1332	255.723	113.592	-5.712	1.00	56.01	O	ATOM	28171	O3*	G A1334	245.236	114.068	-13.379	1.00	45.38	O
ATOM	28122	O5*	A A1332	254.828	111.320	-5.076	1.00	57.80	C	ATOM	28172	C2*	G A1334	246.567	115.087	-11.606	1.00	45.38	C
ATOM	28123	C5*	A A1332	254.957	109.906	-4.766	1.00	57.80	C	ATOM	28173	O2*	G A1334	245.439	115.906	-11.397	1.00	45.38	O
ATOM	28124	C4*	A A1332	253.590	109.288	-4.557	1.00	57.80	C	ATOM	28174	C1*	G A1334	247.033	114.507	-10.265	1.00	45.38	C
ATOM	28125	O4*	A A1332	252.997	109.839	-3.356	1.00	57.80	O	ATOM	28175	N9	G A1334	248.490	114.389	-10.166	1.00	52.08	N
ATOM	28126	C3*	A A1332	252.595	109.577	-3.669	1.00	57.80	C	ATOM	28176	C8	G A1334	249.236	113.236	-10.182	1.00	52.08	C
ATOM	28127	O3*	A A1332	252.686	108.574	-6.674	1.00	57.80	O	ATOM	28177	N7	G A1334	250.520	113.457	-10.139	1.00	52.08	N
ATOM	28128	C2*	A A1332	251.255	109.549	-4.947	1.00	57.80	C	ATOM	28178	C5	G A1334	250.631	114.838	-10.077	1.00	52.08	C
ATOM	28129	O2*	A A1332	250.788	108.228	-4.767	1.00	57.80	O	ATOM	28179	C6	G A1334	251.783	115.670	-10.039	1.00	52.08	C
ATOM	28130	C1*	A A1332	251.626	110.124	-3.577	1.00	57.80	C	ATOM	28180	O6	G A1334	252.983	115.340	-10.078	1.00	52.08	O
ATOM	28131	N9	A A1332	251.443	111.575	-3.445	1.00	56.01	N	ATOM	28181	N1	G A1334	251.438	117.014	-9.968	1.00	52.08	N
ATOM	28132	C8	A A1332	252.425	112.508	-3.238	1.00	56.01	C	ATOM	28182	C2	G A1334	250.159	117.499	-9.959	1.00	52.08	C
ATOM	28133	N7	A A1332	251.986	113.736	-3.170	1.00	56.01	N	ATOM	28183	N2	G A1334	250.032	118.828	-9.889	1.00	52.08	N
ATOM	28134	C5	A A1332	250.623	113.610	-3.344	1.00	56.01	C	ATOM	28184	N3	G A1334	249.083	116.740	-10.015	1.00	52.08	N
ATOM	28135	C6	A A1332	249.598	114.557	-3.384	1.00	56.01	C	ATOM	28185	C4	G A1334	249.390	115.428	-10.072	1.00	52.08	C
ATOM	28136	N6	A A1332	249.800	115.870	-3.261	1.00	56.01	N	ATOM	28186	P	C A1335	245.544	113.756	-14.921	1.00	57.38	P
ATOM	28137	N1	A A1332	248.338	114.109	-3.564	1.00	56.01	N	ATOM	28187	O1P	C A1335	244.335	114.086	-15.706	1.00	56.12	O
ATOM	28138	C2	A A1332	248.140	112.788	-3.703	1.00	56.01	C	ATOM	28188	O2P	C A1335	246.143	112.393	-15.010	1.00	56.12	O
ATOM	28139	N3	A A1332	249.030	111.798	-3.693	1.00	56.01	N	ATOM	28189	O5*	C A1335	246.632	114.839	-15.322	1.00	57.38	O
ATOM	28140	C4	A A1332	250.269	112.283	-3.507	1.00	56.01	C	ATOM	28190	C5*	C A1335	246.282	116.219	-15.418	1.00	57.38	C
ATOM	28141	P	A A1333	252.442	108.960	-8.214	1.00	65.83	P	ATOM	28191	C4*	C A1335	247.136	116.891	-16.460	1.00	57.38	C
ATOM	28142	O1P	A A1333	252.722	107.726	-8.999	1.00	47.34	O	ATOM	28192	O4*	C A1335	248.523	116.765	-16.109	1.00	57.38	O
ATOM	28143	O2P	A A1333	253.165	110.220	-8.540	1.00	47.34	O	ATOM	28193	C3*	C A1335	247.020	116.334	-17.867	1.00	57.38	C
ATOM	28144	O5*	A A1333	250.886	109.295	-8.281	1.00	65.83	O	ATOM	28194	O3*	C A1335	246.024	117.156	-18.447	1.00	57.38	O
ATOM	28145	C5*	A A1333	249.896	108.257	-8.176	1.00	65.83	C	ATOM	28195	C2*	C A1335	248.378	116.641	-18.501	1.00	57.38	C
ATOM	28146	C4*	A A1333	248.513	108.859	-8.120	1.00	65.83	C	ATOM	28196	O2*	C A1335	248.365	117.855	-19.222	1.00	57.38	O
ATOM	28147	O4*	A A1333	248.413	109.712	-6.952	1.00	65.83	O	ATOM	28197	C1*	C A1335	249.299	116.783	-17.283	1.00	57.38	C



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ATOM	28198	N1	C A1335	250.405	115.834	-17.107	1.00	56.12	N	ATOM	28248	C4	G A1337	239.566	116.431	-15.033	1.00	45.62	C
ATOM	28199	C2	C A1335	251.729	116.294	-17.257	1.00	56.12	C	ATOM	28249	P	G A1338	235.276	113.951	-20.100	1.00	42.82	P
ATOM	28200	O2	C A1335	251.935	117.466	-17.640	1.00	56.12	O	ATOM	28250	O1P	G A1338	236.262	114.148	-21.198	1.00	60.00	O
ATOM	28201	N3	C A1335	252.749	115.452	-16.984	1.00	56.12	N	ATOM	28251	O2P	G A1338	234.322	115.055	-19.767	1.00	60.00	O
ATOM	28202	C4	C A1335	252.495	114.199	-16.592	1.00	56.12	C	ATOM	28252	O5*	G A1338	234.407	112.659	-20.450	1.00	42.82	O
ATOM	28203	N4	C A1335	253.538	113.412	-16.285	1.00	56.12	N	ATOM	28253	C5*	G A1338	234.914	111.636	-21.328	1.00	42.82	C
ATOM	28204	C5	C A1335	251.164	113.695	-16.487	1.00	56.12	C	ATOM	28254	C4*	G A1338	234.025	110.410	-21.291	1.00	42.82	C
ATOM	28205	C6	C A1335	250.161	114.537	-16.756	1.00	56.12	C	ATOM	28255	O4*	G A1338	234.335	109.600	-20.134	1.00	42.82	O
ATOM	28206	P	C A1336	245.319	116.749	-19.822	1.00	49.43	P	ATOM	28256	C3*	G A1338	232.528	110.659	-21.230	1.00	42.82	C
ATOM	28207	O1P	C A1336	245.503	115.288	-20.074	1.00	69.85	O	ATOM	28257	O3*	G A1338	232.002	110.887	-22.533	1.00	42.82	O
ATOM	28208	O2P	C A1336	245.763	117.738	-20.838	1.00	69.85	O	ATOM	28258	C2*	G A1338	232.000	109.378	-20.585	1.00	42.82	C
ATOM	28209	O5*	C A1336	243.786	117.031	-19.491	1.00	49.43	O	ATOM	28259	O2*	G A1338	231.775	108.321	-21.496	1.00	42.82	O
ATOM	28210	C5*	C A1336	243.115	116.320	-18.415	1.00	49.43	C	ATOM	28260	C1*	G A1338	233.157	108.985	-19.659	1.00	42.82	C
ATOM	28211	C4*	C A1336	242.052	117.188	-17.774	1.00	49.43	C	ATOM	28261	N9	G A1338	232.973	109.377	-18.265	1.00	60.00	N
ATOM	28212	O4*	C A1336	242.609	118.023	-16.728	1.00	49.43	O	ATOM	28262	C8	G A1338	233.435	110.514	-17.652	1.00	60.00	C
ATOM	28213	C3*	C A1336	241.296	118.114	-18.707	1.00	49.43	C	ATOM	28263	N7	G A1338	233.123	110.575	-16.389	1.00	60.00	N
ATOM	28214	O3*	C A1336	239.945	118.141	-18.273	1.00	49.43	O	ATOM	28264	C5	G A1338	232.412	109.409	-16.157	1.00	60.00	C
ATOM	28215	C2*	C A1336	241.952	119.465	-18.441	1.00	49.43	C	ATOM	28265	C6	G A1338	231.821	108.913	-14.969	1.00	60.00	C
ATOM	28216	O2*	C A1336	241.103	120.554	-18.692	1.00	49.43	O	ATOM	28266	O6	G A1338	231.808	109.419	-13.846	1.00	60.00	O
ATOM	28217	C1*	C A1336	242.243	119.365	-16.950	1.00	49.43	C	ATOM	28267	N1	G A1338	231.196	107.693	-15.179	1.00	60.00	N
ATOM	28218	N1	C A1336	243.317	120.250	-16.453	1.00	69.85	N	ATOM	28268	C2	G A1338	231.147	107.032	-16.374	1.00	60.00	C
ATOM	28219	C2	C A1336	242.989	121.552	-16.038	1.00	69.85	C	ATOM	28269	N2	G A1338	230.499	105.860	-16.369	1.00	60.00	N
ATOM	28220	O2	C A1336	241.807	121.930	-16.099	1.00	69.85	O	ATOM	28270	N3	G A1338	231.693	107.482	-17.489	1.00	60.00	N
ATOM	28221	N3	C A1336	243.968	122.363	-15.581	1.00	69.85	N	ATOM	28271	C4	G A1338	232.306	108.665	-17.307	1.00	60.00	C
ATOM	28222	C4	C A1336	245.226	121.925	-15.526	1.00	69.85	C	ATOM	28272	P	A A1339	230.897	112.031	-22.759	1.00	47.33	P
ATOM	28223	N4	C A1336	246.161	122.762	-15.076	1.00	69.85	N	ATOM	28273	O1P	A A1339	230.762	112.317	-24.214	1.00	52.40	O
ATOM	28224	C5	C A1336	245.584	120.613	-15.932	1.00	69.85	C	ATOM	28274	O2P	A A1339	231.219	113.136	-21.833	1.00	52.40	O
ATOM	28225	C6	C A1336	244.611	119.818	-16.389	1.00	69.85	C	ATOM	28275	O5*	A A1339	229.552	111.336	-22.263	1.00	47.33	O
ATOM	28226	P	G A1337	238.747	118.123	-19.347	1.00	45.84	P	ATOM	28276	C5*	A A1339	229.047	110.177	-22.937	1.00	47.33	C
ATOM	28227	O1P	G A1337	239.286	118.100	-20.741	1.00	45.62	O	ATOM	28277	C4*	A A1339	228.094	109.421	-22.053	1.00	47.33	C
ATOM	28228	O2P	G A1337	237.824	119.217	-18.942	1.00	45.62	O	ATOM	28278	O4*	A A1339	228.803	108.980	-20.915	1.00	47.33	O
ATOM	28229	O5*	G A1337	238.019	116.740	-19.051	1.00	45.84	O	ATOM	28279	C3*	A A1339	226.957	110.223	-21.447	1.00	47.33	C
ATOM	28230	C5*	G A1337	238.508	115.506	-19.590	1.00	45.84	C	ATOM	28280	O3*	A A1339	225.873	110.402	-22.353	1.00	47.33	O
ATOM	28231	C4*	G A1337	238.282	114.414	-18.591	1.00	45.84	C	ATOM	28281	C2*	A A1339	226.576	109.378	-20.235	1.00	47.33	C
ATOM	28232	O4*	G A1337	239.146	114.686	-17.471	1.00	45.84	O	ATOM	28282	O2*	A A1339	225.671	108.321	-20.486	1.00	47.33	O
ATOM	28233	C3*	G A1337	236.867	114.407	-18.038	1.00	45.84	C	ATOM	28283	C1*	A A1339	227.930	108.816	-19.802	1.00	47.33	C
ATOM	28234	O3*	G A1337	236.066	113.479	-18.772	1.00	45.84	O	ATOM	28284	N9	A A1339	228.480	109.626	-18.716	1.00	52.40	N
ATOM	28235	C2*	G A1337	237.065	113.958	-16.593	1.00	45.84	C	ATOM	28285	C8	A A1339	229.141	110.818	-18.814	1.00	52.40	C
ATOM	28236	O2*	G A1337	237.151	112.558	-16.483	1.00	45.84	O	ATOM	28286	N7	A A1339	229.456	111.339	-17.660	1.00	52.40	N
ATOM	28237	C1*	G A1337	238.440	114.544	-16.263	1.00	45.84	C	ATOM	28287	C5	A A1339	228.986	110.420	-16.739	1.00	52.40	C
ATOM	28238	N9	G A1337	238.471	115.855	-15.625	1.00	45.62	N	ATOM	28288	C6	A A1339	229.012	110.393	-15.340	1.00	52.40	C
ATOM	28239	C8	G A1337	237.457	116.767	-15.527	1.00	45.62	C	ATOM	28289	N6	A A1339	229.540	111.365	-14.592	1.00	52.40	N
ATOM	28240	N7	G A1337	237.821	117.871	-14.940	1.00	45.62	N	ATOM	28290	N1	A A1339	228.467	109.325	-14.722	1.00	52.40	N
ATOM	28241	C5	G A1337	239.152	117.670	-14.627	1.00	45.62	C	ATOM	28291	C2	A A1339	227.925	108.370	-15.470	1.00	52.40	C
ATOM	28242	C6	G A1337	240.071	118.519	-13.995	1.00	45.62	C	ATOM	28292	N3	A A1339	227.832	108.288	-16.790	1.00	52.40	N
ATOM	28243	O6	G A1337	239.894	119.662	-13.571	1.00	45.62	O	ATOM	28293	C4	A A1339	228.392	109.357	-17.373	1.00	52.40	C
ATOM	28244	N1	G A1337	241.315	117.925	-13.873	1.00	45.62	N	ATOM	28294	P	A A1340	225.311	111.880	-22.643	1.00	50.45	P
ATOM	28245	C2	G A1337	241.633	116.673	-14.305	1.00	45.62	C	ATOM	28295	O1P	A A1340	224.144	111.739	-23.545	1.00	54.54	O
ATOM	28246	N2	G A1337	242.892	116.274	-14.083	1.00	45.62	N	ATOM	28296	O2P	A A1340	226.454	112.720	-23.064	1.00	54.54	O
ATOM	28247	N3	G A1337	240.783	115.869	-14.907	1.00	45.62	N	ATOM	28297	O5*	A A1340	224.811	112.388	-21.212	1.00	50.45	O



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ATOM	28298	C5*	A A1340	223.793	111.665	-20.490	1.00	50.45	C	ATOM	28348	N1	C A1342	225.549	122.405	-12.844	1.00	65.99	N
ATOM	28299	C4*	A A1340	223.946	111.840	-18.986	1.00	50.45	C	ATOM	28349	C2	C A1342	226.625	123.273	-13.052	1.00	65.99	C
ATOM	28300	O4*	A A1340	225.298	111.494	-18.572	1.00	50.45	O	ATOM	28350	O2	C A1342	227.154	123.820	-12.067	1.00	65.99	O
ATOM	28301	C3*	A A1340	223.714	113.219	-18.385	1.00	50.45	C	ATOM	28351	N3	C A1342	227.060	123.500	-14.312	1.00	65.99	N
ATOM	28302	O3*	A A1340	222.334	113.503	-18.182	1.00	50.45	O	ATOM	28352	C4	C A1342	226.466	122.898	-15.338	1.00	65.99	C
ATOM	28303	C2*	A A1340	224.446	113.103	-17.053	1.00	50.45	C	ATOM	28353	N4	C A1342	226.911	123.177	-16.558	1.00	65.99	N
ATOM	28304	O2*	A A1340	223.676	112.416	-16.081	1.00	50.45	O	ATOM	28354	C5	C A1342	225.386	121.988	-15.157	1.00	65.99	C
ATOM	28305	C1*	A A1340	225.671	112.267	-17.442	1.00	50.45	C	ATOM	28355	C6	C A1342	224.967	121.767	-13.904	1.00	65.99	C
ATOM	28306	N9	A A1340	226.781	113.154	-17.821	1.00	54.54	N	ATOM	28356	P	G A1343	221.051	124.797	-11.325	1.00	51.15	P
ATOM	28307	C8	A A1340	227.230	113.485	-19.082	1.00	54.54	C	ATOM	28357	O1P	G A1343	219.856	125.075	-10.513	1.00	65.00	O
ATOM	28308	N7	A A1340	228.160	114.410	-19.087	1.00	54.54	N	ATOM	28358	O2P	G A1343	220.931	124.763	-12.804	1.00	65.00	O
ATOM	28309	C5	A A1340	228.358	114.690	-17.740	1.00	54.54	C	ATOM	28359	O5*	G A1343	222.121	125.904	-10.929	1.00	51.15	O
ATOM	28310	C6	A A1340	229.203	115.594	-17.073	1.00	54.54	C	ATOM	28360	C5*	G A1343	222.548	126.068	-9.552	1.00	51.15	C
ATOM	28311	N6	A A1340	230.024	116.436	-17.691	1.00	54.54	N	ATOM	28361	C4*	G A1343	223.614	127.135	-9.456	1.00	51.15	C
ATOM	28312	N1	A A1340	229.171	115.609	-15.729	1.00	54.54	N	ATOM	28362	O4*	G A1343	224.823	126.678	-10.121	1.00	51.15	O
ATOM	28313	C2	A A1340	228.339	114.778	-15.100	1.00	54.54	C	ATOM	28363	C3*	G A1343	223.246	128.434	-10.153	1.00	51.15	C
ATOM	28314	N3	A A1340	227.489	113.893	-15.607	1.00	54.54	N	ATOM	28364	O3*	G A1343	222.502	129.285	-9.299	1.00	51.15	O
ATOM	28315	C4	A A1340	227.544	113.898	-16.950	1.00	54.54	C	ATOM	28365	C2*	G A1343	224.595	129.022	-10.538	1.00	51.15	C
ATOM	28316	P	U A1341	221.812	115.024	-18.267	1.00	52.58	P	ATOM	28366	O2*	G A1343	225.179	129.773	-9.494	1.00	51.15	O
ATOM	28317	O1P	U A1341	220.346	114.963	-18.084	1.00	57.10	O	ATOM	28367	C1*	G A1343	225.421	127.760	-10.818	1.00	51.15	C
ATOM	28318	O2P	U A1341	222.371	115.698	-19.469	1.00	57.10	O	ATOM	28368	N9	G A1343	225.474	127.420	-12.236	1.00	65.00	N
ATOM	28319	O5*	U A1341	222.466	115.732	-17.001	1.00	52.58	O	ATOM	28369	C8	G A1343	224.696	126.503	-12.890	1.00	65.00	C
ATOM	28320	C5*	U A1341	222.214	115.261	-15.670	1.00	52.58	C	ATOM	28370	N7	G A1343	224.955	126.427	-14.164	1.00	65.00	N
ATOM	28321	C4*	U A1341	223.009	116.072	-14.670	1.00	52.58	C	ATOM	28371	C5	G A1343	225.973	127.347	-14.364	1.00	65.00	C
ATOM	28322	O4*	U A1341	224.430	115.845	-14.877	1.00	52.58	O	ATOM	28372	C6	G A1343	226.665	127.706	-15.549	1.00	65.00	C
ATOM	28323	C3*	U A1341	222.856	117.585	-14.750	1.00	52.58	C	ATOM	28373	O6	G A1343	226.513	127.262	-16.700	1.00	65.00	O
ATOM	28324	O3*	U A1341	221.742	118.080	-14.038	1.00	52.58	O	ATOM	28374	N1	G A1343	227.621	128.685	-15.305	1.00	65.00	N
ATOM	28325	C2*	U A1341	224.141	118.083	-14.115	1.00	52.58	C	ATOM	28375	N2	G A1343	227.882	129.244	-14.081	1.00	65.00	N
ATOM	28326	O2*	U A1341	224.048	118.065	-12.703	1.00	52.58	O	ATOM	28376	C2	G A1343	228.848	130.176	-14.051	1.00	65.00	N
ATOM	28327	C1*	U A1341	225.149	117.041	-14.605	1.00	52.58	C	ATOM	28377	N3	G A1343	227.245	128.915	-12.968	1.00	65.00	N
ATOM	28328	N1	U A1341	225.817	117.477	-15.842	1.00	57.10	N	ATOM	28378	C4	G A1343	226.309	127.966	-13.184	1.00	65.00	C
ATOM	28329	C2	U A1341	226.962	118.244	-15.731	1.00	57.10	C	ATOM	28379	P	C A1344	221.287	130.138	-9.904	1.00	44.37	P
ATOM	28330	O2	U A1341	227.466	118.548	-14.661	1.00	57.10	O	ATOM	28380	O1P	C A1344	220.395	130.506	-8.772	1.00	72.20	O
ATOM	28331	N3	U A1341	227.046	118.641	-16.924	1.00	57.10	N	ATOM	28381	O2P	C A1344	220.733	129.402	-11.068	1.00	72.20	O
ATOM	28332	C4	U A1341	227.610	118.835	-19.151	1.00	57.10	C	ATOM	28382	O5*	C A1344	221.978	131.457	-10.472	1.00	44.37	O
ATOM	28333	O4	U A1341	225.881	117.541	-18.213	1.00	57.10	O	ATOM	28383	C5*	C A1344	222.725	132.349	-9.603	1.00	44.37	C
ATOM	28334	C5	U A1341	225.318	117.144	-17.074	1.00	57.10	C	ATOM	28384	C4*	C A1344	223.710	133.163	-10.410	1.00	44.37	C
ATOM	28335	C6	U A1341	225.881	117.541	-18.213	1.00	57.10	C	ATOM	28385	O4*	C A1344	224.682	132.268	-11.005	1.00	44.37	O
ATOM	28336	P	C A1342	219.897	119.753	-13.787	1.00	65.99	P	ATOM	28386	C3*	C A1344	223.106	133.911	-11.589	1.00	44.37	C
ATOM	28337	O1P	C A1342	221.317	119.618	-14.222	1.00	47.40	P	ATOM	28387	O3*	C A1344	222.576	135.169	-11.219	1.00	44.37	O
ATOM	28338	O2P	C A1342	221.710	120.057	-15.585	1.00	65.99	O	ATOM	28388	C2*	C A1344	224.277	134.038	-12.550	1.00	44.37	C
ATOM	28339	O5*	C A1342	222.248	120.400	-13.195	1.00	47.40	O	ATOM	28389	O2*	C A1344	225.122	135.136	-12.284	1.00	44.37	O
ATOM	28340	C5*	C A1342	222.053	120.305	-11.766	1.00	47.40	C	ATOM	28390	C1*	C A1344	225.018	132.722	-12.307	1.00	44.37	C
ATOM	28341	O4*	C A1342	222.928	121.317	-11.054	1.00	47.40	C	ATOM	28391	N1	C A1344	224.612	131.700	-13.294	1.00	72.20	N
ATOM	28342	C4*	C A1342	224.318	121.024	-11.365	1.00	47.40	O	ATOM	28392	C2	C A1344	225.215	131.707	-14.566	1.00	72.20	C
ATOM	28343	C3*	C A1342	222.749	122.782	-11.453	1.00	47.40	C	ATOM	28393	O2	C A1344	226.115	132.525	-14.806	1.00	72.20	O
ATOM	28344	O3*	C A1342	221.678	123.422	-10.759	1.00	47.40	O	ATOM	28394	N3	C A1344	224.800	130.825	-15.497	1.00	72.20	N
ATOM	28345	C2*	C A1342	224.107	123.378	-11.105	1.00	47.40	C	ATOM	28395	C4	C A1344	223.836	129.955	-15.205	1.00	72.20	C
ATOM	28346	O2*	C A1342	224.285	123.665	-9.736	1.00	47.40	O	ATOM	28396	N4	C A1344	223.436	129.128	-16.168	1.00	72.20	N
ATOM	28347	C1*	C A1342	225.049	122.234	-11.465	1.00	47.40	C	ATOM	28397	C5	C A1344	223.231	129.901	-13.914	1.00	72.20	C



ATOM	28398	C6	C A1344	223.646	130.780	-12.998	1.00	72.20	C	ATOM	28448	C3*	G A1347	227.931	144.408	-7.600	1.00	55.53	C
ATOM	28399	P	U A1345	221.367	135.797	-12.065	1.00	48.98	P	ATOM	28449	O3*	G A1347	227.398	143.236	-6.927	1.00	55.53	O
ATOM	28400	O1P	U A1345	220.901	136.986	-11.315	1.00	61.42	O	ATOM	28450	C2*	G A1347	229.276	144.151	-8.271	1.00	55.53	C
ATOM	28401	O2P	U A1345	220.402	134.726	-12.420	1.00	61.42	O	ATOM	28451	O2*	G A1347	229.285	142.839	-8.801	1.00	55.53	C
ATOM	28402	O5*	U A1345	222.055	136.301	-13.401	1.00	48.98	O	ATOM	28452	C1*	G A1347	229.207	145.045	-9.504	1.00	55.53	C
ATOM	28403	C5*	U A1345	223.118	137.249	-13.345	1.00	48.98	C	ATOM	28453	N9	G A1347	230.217	146.073	-9.703	1.00	73.66	N
ATOM	28404	C4*	U A1345	222.867	138.354	-14.329	1.00	48.98	C	ATOM	28454	C8	G A1347	230.448	147.205	-8.971	1.00	73.66	C
ATOM	28405	O4*	U A1345	223.056	137.847	-15.678	1.00	48.98	O	ATOM	28455	N7	G A1347	231.430	147.922	-9.444	1.00	73.66	N
ATOM	28406	C3*	U A1345	221.474	138.989	-14.278	1.00	48.98	C	ATOM	28456	C5	G A1347	231.871	147.213	-10.552	1.00	73.66	C
ATOM	28407	O2*	U A1345	221.595	140.389	-14.542	1.00	48.98	O	ATOM	28457	C6	G A1347	232.909	147.495	-11.479	1.00	73.66	C
ATOM	28408	C3*	U A1345	220.767	138.341	-15.471	1.00	48.98	C	ATOM	28458	O6	G A1347	233.672	148.465	-11.514	1.00	73.66	O
ATOM	28409	O2*	U A1345	219.763	139.136	-16.088	1.00	48.98	O	ATOM	28459	N1	G A1347	233.013	146.505	-12.446	1.00	73.66	N
ATOM	28410	C1*	U A1345	221.931	138.183	-16.447	1.00	48.98	C	ATOM	28460	C2	G A1347	232.223	145.390	-12.520	1.00	73.66	C
ATOM	28411	N1	U A1345	221.764	137.208	-17.533	1.00	61.42	N	ATOM	28461	N2	G A1347	232.481	144.544	-13.528	1.00	73.66	N
ATOM	28412	O2	U A1345	222.477	137.453	-18.683	1.00	61.42	C	ATOM	28462	N3	G A1347	231.254	145.121	-11.669	1.00	73.66	N
ATOM	28413	C2	U A1345	223.265	138.378	-18.780	1.00	61.42	O	ATOM	28463	C4	G A1347	231.137	146.069	-10.718	1.00	73.66	C
ATOM	28414	N3	U A1345	222.235	136.578	-19.713	1.00	61.42	N	ATOM	28464	P	U A1348	228.311	141.907	-6.616	1.00	55.68	P
ATOM	28415	C4	U A1345	221.376	135.498	-19.703	1.00	61.42	C	ATOM	28465	O1P	U A1348	227.865	141.387	-5.281	1.00	64.45	O
ATOM	28416	O4	U A1345	221.183	134.876	-20.745	1.00	61.42	O	ATOM	28466	O2P	U A1348	229.760	142.071	-6.850	1.00	64.45	O
ATOM	28417	C5	U A1345	220.914	136.120	-17.440	1.00	61.42	C	ATOM	28467	O5*	U A1348	227.743	140.853	-7.671	1.00	55.68	O
ATOM	28418	C6	U A1346	221.428	141.457	-13.363	1.00	66.71	P	ATOM	28468	C5*	U A1348	226.387	140.354	-7.504	1.00	55.68	C
ATOM	28419	P	A A1346	220.890	140.789	-12.156	1.00	55.49	O	ATOM	28469	C4*	U A1348	225.987	139.441	-8.632	1.00	55.68	C
ATOM	28420	O1P	A A1346	220.701	142.592	-13.965	1.00	55.49	O	ATOM	28470	C3*	U A1348	225.895	140.184	-9.869	1.00	55.68	C
ATOM	28421	O2P	A A1346	222.922	141.918	-13.073	1.00	66.71	O	ATOM	28471	O4*	U A1348	226.936	138.293	-8.903	1.00	55.68	C
ATOM	28422	O5*	A A1346	223.337	142.336	-11.765	1.00	66.71	C	ATOM	28472	O3*	U A1348	226.585	137.200	-8.073	1.00	55.68	O
ATOM	28423	C5*	A A1346	224.588	143.168	-11.869	1.00	66.71	C	ATOM	28473	C2*	U A1348	226.673	137.984	-10.367	1.00	55.68	C
ATOM	28424	C4*	A A1346	225.608	142.344	-12.475	1.00	66.71	C	ATOM	28474	O2*	U A1348	225.549	137.139	-10.501	1.00	55.68	C
ATOM	28425	O4*	A A1346	224.499	144.394	-12.780	1.00	66.71	O	ATOM	28475	C1*	U A1348	226.340	139.372	-10.935	1.00	55.68	C
ATOM	28426	C3*	A A1346	223.862	145.565	-12.185	1.00	66.71	C	ATOM	28476	N1	U A1348	227.462	140.065	-11.589	1.00	64.45	N
ATOM	28427	O3*	A A1346	225.908	144.568	-13.352	1.00	66.71	O	ATOM	28477	C2	U A1348	227.950	139.546	-12.761	1.00	64.45	C
ATOM	28428	C2*	A A1346	226.748	145.534	-12.745	1.00	66.71	C	ATOM	28478	O2	U A1348	227.544	138.517	-13.246	1.00	64.45	O
ATOM	28429	O2*	A A1346	226.515	143.174	-13.168	1.00	66.71	C	ATOM	28479	N3	U A1348	228.952	140.273	-13.343	1.00	64.45	N
ATOM	28430	C1*	A A1346	226.985	142.514	-14.385	1.00	55.49	N	ATOM	28480	C4	U A1348	229.521	141.427	-12.872	1.00	64.45	C
ATOM	28431	N9	A A1346	226.576	141.349	-14.975	1.00	55.49	C	ATOM	28481	O4	U A1348	230.383	141.992	-13.542	1.00	64.45	O
ATOM	28432	C8	A A1346	227.241	141.049	-16.066	1.00	55.49	N	ATOM	28482	C5	U A1348	228.989	141.886	-11.637	1.00	64.45	C
ATOM	28433	N7	A A1346	228.150	142.093	-16.201	1.00	55.49	C	ATOM	28483	C6	U A1348	228.001	141.211	-11.052	1.00	64.45	C
ATOM	28434	C5	A A1346	229.144	142.383	-17.165	1.00	55.49	C	ATOM	28484	P	A A1349	227.737	136.298	-7.426	1.00	52.87	P
ATOM	28435	C6	A A1346	229.419	141.619	-18.219	1.00	55.49	N	ATOM	28485	O1P	A A1349	227.133	135.259	-6.545	1.00	65.00	O
ATOM	28436	N6	A A1346	229.858	143.510	-17.003	1.00	55.49	N	ATOM	28486	O2P	A A1349	228.749	137.221	-6.867	1.00	65.00	O
ATOM	28437	N1	A A1346	229.594	144.289	-15.954	1.00	55.49	C	ATOM	28487	O5*	A A1349	228.368	135.580	-8.701	1.00	52.87	O
ATOM	28438	C2	A A1346	228.697	144.129	-14.990	1.00	55.49	N	ATOM	28488	C5*	A A1349	227.631	134.555	-9.393	1.00	52.87	C
ATOM	28439	N3	A A1346	227.999	142.999	-15.174	1.00	55.49	C	ATOM	28489	C4*	A A1349	228.333	134.137	-10.665	1.00	52.87	C
ATOM	28440	C4	A A1346	224.509	146.361	-10.913	1.00	55.53	P	ATOM	28490	O4*	A A1349	228.397	135.256	-11.580	1.00	52.87	O
ATOM	28441	P	G A1347	223.347	147.087	-10.337	1.00	73.66	O	ATOM	28491	C3*	A A1349	229.757	133.635	-10.556	1.00	52.87	C
ATOM	28442	O1P	G A1347	225.720	147.129	-11.286	1.00	73.66	O	ATOM	28492	O3*	A A1349	229.768	132.263	-10.202	1.00	52.87	O
ATOM	28443	O2P	G A1347	224.919	145.229	-9.860	1.00	55.53	O	ATOM	28493	C2*	A A1349	230.289	133.865	-11.967	1.00	52.87	C
ATOM	28444	O5*	G A1347	225.739	145.508	-8.677	1.00	55.53	C	ATOM	28494	O2*	A A1349	229.917	132.851	-12.876	1.00	52.87	O
ATOM	28445	C5*	G A1347	227.046	144.766	-8.799	1.00	55.53	C	ATOM	28495	C1*	A A1349	229.555	135.144	-12.381	1.00	52.87	C
ATOM	28446	C4*	G A1347	227.918	145.579	-9.602	1.00	55.53	O	ATOM	28496	N9	A A1349	230.349	136.366	-12.224	1.00	65.00	N
ATOM	28447	O4*	G A1347							ATOM	28497	C8	A A1349	230.094	137.457	-11.431	1.00	65.00	C



Table 1: Sheet 287/521

ATOM	28498	N7	A Al349	231.015	138.384	-11.502	1.00	65.00	N	ATOM	28548	P	C Al352	241.162	132.352	-5.658	1.00	49.47	P
ATOM	28499	C5	A Al349	231.939	137.871	-12.402	1.00	65.00	C	ATOM	28549	O1P	C Al352	242.408	131.535	-5.644	1.00	89.40	O
ATOM	28500	C6	A Al349	233.154	138.366	-12.898	1.00	65.00	C	ATOM	28550	O2P	C Al352	239.923	131.799	-5.065	1.00	89.40	O
ATOM	28501	N6	A Al349	233.693	139.526	-12.529	1.00	65.00	N	ATOM	28551	O5*	C Al352	241.438	133.758	-4.956	1.00	49.47	O
ATOM	28502	N1	A Al349	233.817	137.613	-13.795	1.00	65.00	N	ATOM	28552	C5*	C Al352	242.628	134.526	-5.261	1.00	49.47	C
ATOM	28503	C2	A Al349	233.299	136.437	-14.151	1.00	65.00	C	ATOM	28553	O4*	C Al352	242.726	135.746	-4.370	1.00	49.47	C
ATOM	28504	N3	A Al349	232.180	135.856	-13.747	1.00	65.00	N	ATOM	28554	C4*	C Al352	241.780	136.762	-4.795	1.00	49.47	O
ATOM	28505	C4	A Al349	231.536	136.637	-12.862	1.00	65.00	C	ATOM	28555	C3*	C Al352	242.424	135.511	-2.901	1.00	49.47	C
ATOM	28506	P	A Al350	230.855	131.726	-9.147	1.00	49.69	P	ATOM	28556	O3*	C Al352	243.564	135.030	-2.197	1.00	49.47	O
ATOM	28507	O1P	A Al350	230.740	130.250	-8.992	1.00	58.74	O	ATOM	28557	C2*	C Al352	241.993	136.894	-2.427	1.00	49.47	C
ATOM	28508	O2P	A Al350	230.770	132.587	-7.945	1.00	58.74	O	ATOM	28558	O2*	C Al352	243.081	137.733	-2.116	1.00	49.47	O
ATOM	28509	O5*	A Al350	232.247	132.059	-9.844	1.00	49.69	O	ATOM	28559	C1*	C Al352	241.277	137.451	-3.661	1.00	49.47	C
ATOM	28510	C5*	A Al350	232.635	131.452	-11.090	1.00	49.69	C	ATOM	28560	N1	C Al352	239.809	137.260	-3.587	1.00	89.40	N
ATOM	28511	C4*	A Al350	233.901	132.103	-11.609	1.00	49.69	C	ATOM	28561	C2	C Al352	239.081	137.943	-2.591	1.00	89.40	C
ATOM	28512	O4*	A Al350	233.599	133.429	-12.125	1.00	49.69	O	ATOM	28562	O2	C Al352	239.677	138.711	-1.820	1.00	89.40	O
ATOM	28513	C3*	A Al350	234.995	132.318	-10.569	1.00	49.69	C	ATOM	28563	N3	C Al352	237.748	137.744	-2.495	1.00	89.40	N
ATOM	28514	O3*	A Al350	235.817	131.173	-10.424	1.00	49.69	O	ATOM	28564	C4	C Al352	237.134	136.913	-3.337	1.00	89.40	C
ATOM	28515	C2*	A Al350	235.767	133.492	-11.143	1.00	49.69	C	ATOM	28565	N4	C Al352	235.818	136.742	-3.193	1.00	89.40	N
ATOM	28516	O2*	A Al350	236.660	133.063	-12.148	1.00	49.69	O	ATOM	28566	C5	C Al352	237.840	136.219	-4.364	1.00	89.40	C
ATOM	28517	C1*	A Al350	234.647	134.322	-11.780	1.00	49.69	C	ATOM	28567	C6	C Al352	239.160	136.422	-4.454	1.00	89.40	C
ATOM	28518	N9	A Al350	234.099	135.314	-10.852	1.00	58.74	N	ATOM	28568	P	G Al353	243.388	133.888	-1.080	1.00	53.54	P
ATOM	28519	C8	A Al350	232.897	135.251	-10.194	1.00	58.74	C	ATOM	28569	O1P	G Al353	244.682	133.171	-0.960	1.00	76.19	O
ATOM	28520	N7	A Al350	232.674	136.264	-9.400	1.00	58.74	N	ATOM	28570	O2P	G Al353	242.151	133.129	-1.392	1.00	76.19	O
ATOM	28521	C5	A Al350	233.803	137.056	-9.545	1.00	58.74	C	ATOM	28571	O5*	G Al353	243.133	134.676	0.278	1.00	53.54	C
ATOM	28522	C6	A Al350	234.143	138.275	-8.960	1.00	58.74	C	ATOM	28572	C5*	G Al353	244.204	135.379	0.926	1.00	53.54	C
ATOM	28523	N6	A Al350	233.445	138.935	-8.068	1.00	58.74	N	ATOM	28573	C4*	G Al353	243.707	136.691	1.496	1.00	53.54	C
ATOM	28524	N1	A Al350	235.368	138.798	-9.325	1.00	58.74	N	ATOM	28574	O4*	G Al353	242.777	137.291	0.554	1.00	53.54	O
ATOM	28525	C2	A Al350	236.115	138.135	-10.209	1.00	58.74	C	ATOM	28575	C3*	G Al353	242.943	136.655	2.810	1.00	53.54	C
ATOM	28526	N3	A Al350	235.873	136.985	-10.819	1.00	58.74	N	ATOM	28576	O3*	G Al353	243.832	136.725	3.904	1.00	53.54	O
ATOM	28527	C4	A Al350	234.686	136.488	-10.441	1.00	58.74	C	ATOM	28577	C2*	G Al353	242.138	137.939	2.745	1.00	53.54	C
ATOM	28528	P	U Al351	236.317	130.737	-8.962	1.00	50.14	P	ATOM	28578	O2*	G Al353	242.949	139.046	3.079	1.00	53.54	O
ATOM	28529	O1P	U Al351	236.940	129.389	-9.057	1.00	77.02	O	ATOM	28579	C1*	G Al353	241.789	138.016	1.258	1.00	53.54	C
ATOM	28530	O2P	U Al351	235.199	130.955	-8.017	1.00	77.02	O	ATOM	28580	N9	G Al353	240.480	137.445	0.945	1.00	76.19	N
ATOM	28531	O5*	U Al351	237.444	131.809	-8.606	1.00	50.14	O	ATOM	28581	C8	G Al353	240.214	136.259	0.303	1.00	76.19	C
ATOM	28532	C5*	U Al351	238.621	131.977	-9.437	1.00	50.14	C	ATOM	28582	N7	G Al353	238.938	136.025	0.171	1.00	76.19	N
ATOM	28533	C4*	U Al351	239.382	133.232	-9.046	1.00	50.14	C	ATOM	28583	C5	G Al353	238.323	137.120	0.764	1.00	76.19	C
ATOM	28534	O4*	U Al351	238.598	134.406	-9.398	1.00	50.14	O	ATOM	28584	C6	G Al353	236.948	137.430	0.931	1.00	76.19	C
ATOM	28535	C3*	U Al351	239.690	133.388	-7.562	1.00	50.14	C	ATOM	28585	O6	G Al353	235.962	136.786	0.571	1.00	76.19	O
ATOM	28536	O3*	U Al351	240.899	132.743	-7.198	1.00	50.14	O	ATOM	28586	N1	G Al353	236.773	138.631	1.596	1.00	76.19	N
ATOM	28537	C2*	U Al351	239.796	134.895	-7.403	1.00	50.14	C	ATOM	28587	C2	G Al353	237.781	139.435	2.047	1.00	76.19	C
ATOM	28538	O2*	U Al351	241.066	135.357	-7.812	1.00	50.14	O	ATOM	28588	N2	G Al353	237.408	140.546	2.688	1.00	76.19	N
ATOM	28539	C1*	U Al351	238.729	135.389	-8.384	1.00	50.14	C	ATOM	28589	N3	G Al353	239.061	139.169	1.890	1.00	76.19	N
ATOM	28540	N1	U Al351	237.403	135.593	-7.762	1.00	77.02	N	ATOM	28590	C4	G Al353	239.259	138.003	1.246	1.00	76.19	C
ATOM	28541	C2	U Al351	237.037	136.879	-7.416	1.00	77.02	C	ATOM	28591	P	C Al354	243.351	136.225	5.348	1.00	48.18	P
ATOM	28542	O2	U Al351	237.756	137.841	-7.587	1.00	77.02	O	ATOM	28592	O1P	C Al354	244.534	136.280	6.252	1.00	82.00	O
ATOM	28543	N3	U Al351	235.791	137.001	-6.857	1.00	77.02	N	ATOM	28593	O2P	C Al354	242.633	134.944	5.164	1.00	82.00	O
ATOM	28544	C4	U Al351	234.892	136.000	-6.609	1.00	77.02	C	ATOM	28594	O5*	C Al354	242.290	137.324	5.813	1.00	48.18	O
ATOM	28545	O4	U Al351	233.802	136.281	-6.126	1.00	77.02	O	ATOM	28595	C5*	C Al354	242.711	138.665	6.184	1.00	48.18	C
ATOM	28546	C5	U Al351	235.335	134.698	-6.981	1.00	77.02	C	ATOM	28596	C4*	C Al354	241.545	139.478	6.726	1.00	48.18	C
ATOM	28547	C6	U Al351	236.543	134.540	-7.530	1.00	77.02	C	ATOM	28597	O4*	C Al354	240.669	139.927	5.653	1.00	48.18	O



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ATOM	28598	C3*	C Al354	240.629	138.781	7.719	1.00	48.18	C	ATOM	28648	N7	G Al356	234.379	134.266	11.864	1.00	79.35	N
ATOM	28599	O3*	C Al354	241.142	138.803	9.033	1.00	48.18	O	ATOM	28649	C5	G Al356	233.170	133.650	11.576	1.00	79.35	C
ATOM	28600	C2*	C Al354	239.358	139.603	7.608	1.00	48.18	C	ATOM	28650	C6	G Al356	232.901	132.462	10.869	1.00	79.35	C
ATOM	28601	O2*	C Al354	239.422	140.812	8.339	1.00	48.18	O	ATOM	28651	O6	G Al356	233.700	131.692	10.333	1.00	79.35	O
ATOM	28602	C1*	C Al354	239.323	139.918	6.110	1.00	48.18	C	ATOM	28652	N1	G Al356	231.539	132.196	10.817	1.00	79.35	N
ATOM	28603	N1	C Al354	238.593	138.834	5.412	1.00	82.00	N	ATOM	28653	C2	G Al356	230.560	132.976	11.370	1.00	79.35	C
ATOM	28604	C2	C Al354	237.176	138.815	5.440	1.00	82.00	C	ATOM	28654	N2	G Al356	229.308	132.548	11.209	1.00	79.35	N
ATOM	28605	O2	C Al354	236.557	139.737	6.004	1.00	82.00	O	ATOM	28655	N3	G Al356	230.794	134.093	12.033	1.00	79.35	N
ATOM	28606	N3	C Al354	236.528	137.788	4.852	1.00	82.00	N	ATOM	28656	C4	G Al356	232.114	134.368	12.101	1.00	79.35	C
ATOM	28607	C4	C Al354	237.220	136.815	4.251	1.00	82.00	C	ATOM	28657	P	A Al357	232.701	135.748	18.234	1.00	62.93	P
ATOM	28608	N4	C Al354	236.539	135.815	3.697	1.00	82.00	N	ATOM	28658	O1P	A Al357	232.894	136.571	19.452	1.00	95.15	O
ATOM	28609	C5	C Al354	238.638	136.823	4.191	1.00	82.00	C	ATOM	28659	O2P	A Al357	233.799	134.868	17.756	1.00	95.15	O
ATOM	28610	C6	C Al354	239.277	137.838	4.772	1.00	82.00	C	ATOM	28660	O5*	A Al357	231.408	134.837	18.444	1.00	62.93	O
ATOM	28611	P	G Al355	240.707	137.661	10.075	1.00	67.10	P	ATOM	28661	C5*	A Al357	230.098	135.425	18.638	1.00	62.93	C
ATOM	28612	O1P	G Al355	241.644	137.690	11.234	1.00	76.76	O	ATOM	28662	C4*	A Al357	229.026	134.557	18.006	1.00	62.93	C
ATOM	28613	O2P	G Al355	240.521	136.401	9.319	1.00	76.76	O	ATOM	28663	O4*	A Al357	229.222	134.518	16.570	1.00	62.93	O
ATOM	28614	O5*	G Al355	239.281	138.139	10.589	1.00	67.10	O	ATOM	28664	C3*	A Al357	229.019	133.101	18.445	1.00	62.93	C
ATOM	28615	C5*	G Al355	239.131	139.389	11.275	1.00	67.10	C	ATOM	28665	O3*	A Al357	228.203	132.934	19.590	1.00	62.93	O
ATOM	28616	C4*	G Al355	237.674	139.651	11.568	1.00	67.10	C	ATOM	28666	C2*	A Al357	228.394	132.391	17.254	1.00	62.93	C
ATOM	28617	O4*	G Al355	236.938	139.685	10.316	1.00	67.10	O	ATOM	28667	O2*	A Al357	226.982	132.452	17.292	1.00	62.93	O
ATOM	28618	C3*	G Al355	237.140	138.796	13.795	1.00	67.10	C	ATOM	28668	C1*	A Al357	228.906	133.229	16.079	1.00	62.93	C
ATOM	28619	O3*	G Al355	235.509	138.810	11.993	1.00	67.10	O	ATOM	28669	N9	A Al357	230.104	132.664	15.451	1.00	95.15	N
ATOM	28620	C2*	G Al355	234.946	139.925	12.657	1.00	67.10	C	ATOM	28670	C8	A Al357	231.411	133.056	15.613	1.00	95.15	C
ATOM	28621	O2*	G Al355	235.652	139.115	10.499	1.00	67.10	O	ATOM	28671	N7	A Al357	232.267	132.340	14.928	1.00	95.15	N
ATOM	28622	C1*	G Al355	235.562	137.903	9.679	1.00	76.76	N	ATOM	28672	C5	A Al357	231.473	131.413	14.268	1.00	95.15	C
ATOM	28623	N9	G Al355	236.596	137.249	9.049	1.00	76.76	C	ATOM	28673	C6	A Al357	231.780	130.365	13.392	1.00	95.15	C
ATOM	28624	C8	G Al355	236.220	136.157	8.442	1.00	76.76	N	ATOM	28674	N6	A Al357	233.017	130.060	13.010	1.00	95.15	N
ATOM	28625	N7	G Al355	234.852	136.088	8.670	1.00	76.76	C	ATOM	28675	N1	A Al357	230.759	129.627	12.915	1.00	95.15	N
ATOM	28626	C5	G Al355	234.852	136.088	8.670	1.00	76.76	C	ATOM	28676	C2	A Al357	229.519	129.932	13.295	1.00	95.15	C
ATOM	28627	C6	G Al355	233.897	135.113	8.266	1.00	76.76	C	ATOM	28677	N3	A Al357	229.102	130.891	14.113	1.00	95.15	N
ATOM	28628	O6	G Al355	234.074	134.083	7.607	1.00	76.76	O	ATOM	28678	C4	A Al357	230.140	131.605	14.574	1.00	95.15	C
ATOM	28629	N1	G Al355	232.624	135.433	8.713	1.00	76.76	N	ATOM	28679	P	U Al358	228.872	132.631	21.012	1.00	57.50	P
ATOM	28630	C2	G Al355	232.303	136.538	9.449	1.00	76.76	N	ATOM	28680	O1P	U Al358	227.853	133.020	22.020	1.00	78.48	O
ATOM	28631	N2	G Al355	231.022	136.661	9.780	1.00	76.76	N	ATOM	28681	O2P	U Al358	230.222	133.247	21.046	1.00	78.48	O
ATOM	28632	N3	G Al355	233.174	137.453	9.833	1.00	76.76	N	ATOM	28682	O5*	U Al358	229.051	131.052	21.063	1.00	57.50	O
ATOM	28633	C4	G Al355	234.424	137.166	9.415	1.00	76.76	C	ATOM	28683	C5*	U Al358	227.924	130.179	20.906	1.00	57.50	C
ATOM	28634	P	G Al356	237.034	137.542	14.793	1.00	69.20	P	ATOM	28684	C4*	U Al358	228.362	128.888	20.269	1.00	57.50	C
ATOM	28635	O1P	G Al356	237.493	137.980	16.129	1.00	79.35	O	ATOM	28685	O4*	U Al358	228.928	129.157	18.969	1.00	57.50	O
ATOM	28636	O2P	G Al356	237.688	136.380	14.145	1.00	79.35	O	ATOM	28686	C3*	U Al358	229.484	128.185	21.004	1.00	57.50	C
ATOM	28637	O5*	G Al356	235.468	137.256	14.892	1.00	69.20	O	ATOM	28687	O3*	U Al358	228.933	127.344	21.995	1.00	57.50	O
ATOM	28638	C5*	G Al356	234.538	138.310	15.247	1.00	69.20	C	ATOM	28688	C2*	U Al358	230.168	127.349	19.928	1.00	57.50	C
ATOM	28639	C4*	G Al356	233.105	137.857	15.039	1.00	69.20	C	ATOM	28689	O2*	U Al358	229.675	126.027	19.892	1.00	57.50	O
ATOM	28640	O4*	G Al356	232.873	137.606	13.629	1.00	69.20	O	ATOM	28690	C1*	U Al358	229.823	128.113	18.645	1.00	57.50	C
ATOM	28641	C3*	G Al356	232.706	136.566	15.738	1.00	69.20	C	ATOM	28691	N1	U Al358	230.956	128.652	17.880	1.00	78.48	N
ATOM	28642	O3*	G Al356	232.293	136.796	17.081	1.00	69.20	O	ATOM	28692	C2	U Al358	231.541	127.820	16.942	1.00	78.48	C
ATOM	28643	C2*	G Al356	231.561	136.054	14.873	1.00	69.20	C	ATOM	28693	O2	U Al358	231.156	126.687	16.729	1.00	78.48	O
ATOM	28644	O2*	G Al356	230.321	136.645	15.199	1.00	69.20	O	ATOM	28694	N3	U Al358	232.593	128.364	16.260	1.00	78.48	N
ATOM	28645	C1*	G Al356	231.993	136.503	13.476	1.00	69.20	C	ATOM	28695	C4	U Al358	233.107	129.622	16.412	1.00	78.48	C
ATOM	28646	N9	G Al356	232.690	135.449	12.739	1.00	79.35	N	ATOM	28696	O4	U Al358	234.071	129.963	15.735	1.00	78.48	O
ATOM	28647	C8	G Al356	234.048	135.326	12.551	1.00	79.35	C	ATOM	28697	C5	U Al358	232.446	130.424	17.391	1.00	78.48	C



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ATOM	28698	C6	U A1358	231.419	129.922	18.075	1.00	78.48	C	ATOM	28748	C3*	G A1361	241.805	125.164	21.030	1.00	62.29	C
ATOM	28699	P	C A1359	229.435	127.484	23.503	1.00	70.09	P	ATOM	28749	O3*	G A1361	242.679	125.670	20.037	1.00	62.29	O
ATOM	28700	O1P	C A1359	228.886	126.348	24.300	1.00	53.01	O	ATOM	28750	C2*	G A1361	241.730	123.642	21.057	1.00	62.29	C
ATOM	28701	O2P	C A1359	229.146	128.890	23.904	1.00	53.01	O	ATOM	28751	O2*	G A1361	242.950	122.994	20.760	1.00	62.29	O
ATOM	28702	O5*	C A1359	231.008	127.312	23.379	1.00	70.09	O	ATOM	28752	C1*	G A1361	241.326	123.380	22.511	1.00	62.29	C
ATOM	28703	C5*	C A1359	231.587	126.065	22.969	1.00	70.09	O	ATOM	28753	N9	G A1361	239.878	123.259	22.648	1.00	76.04	N
ATOM	28704	C4*	C A1359	233.033	126.269	22.594	1.00	70.09	C	ATOM	28754	C8	G A1361	238.970	124.272	22.869	1.00	76.04	C
ATOM	28705	O4*	C A1359	233.106	127.095	21.409	1.00	70.09	O	ATOM	28755	N7	G A1361	237.735	123.852	22.899	1.00	76.04	N
ATOM	28706	C3*	C A1359	233.882	127.008	23.613	1.00	70.09	C	ATOM	28756	C5	G A1361	237.835	122.482	22.694	1.00	76.04	C
ATOM	28707	O3*	C A1359	234.353	126.129	24.631	1.00	70.09	O	ATOM	28757	C6	G A1361	237.829	121.492	22.609	1.00	76.04	C
ATOM	28708	O2*	C A1359	234.997	127.594	22.758	1.00	70.09	O	ATOM	28758	O6	G A1361	235.606	121.626	22.685	1.00	76.04	O
ATOM	28709	C5*	C A1359	235.981	126.636	22.442	1.00	70.09	O	ATOM	28759	N1	G A1361	237.371	120.232	22.404	1.00	76.04	N
ATOM	28710	C1*	C A1359	234.261	127.901	21.462	1.00	70.09	C	ATOM	28760	C2	G A1361	238.707	119.956	22.284	1.00	76.04	C
ATOM	28711	N1	C A1359	233.876	129.307	21.265	1.00	53.01	N	ATOM	28761	N2	G A1361	239.029	118.667	22.102	1.00	76.04	N
ATOM	28712	O2	C A1359	234.736	130.124	20.528	1.00	53.01	C	ATOM	28762	N3	G A1361	239.655	120.869	22.342	1.00	76.04	N
ATOM	28713	O2	C A1359	235.825	129.650	20.136	1.00	53.01	O	ATOM	28763	C4	G A1361	239.151	122.102	22.550	1.00	76.04	C
ATOM	28714	N3	C A1359	234.370	131.405	20.256	1.00	53.01	N	ATOM	28764	P	C A1361A	242.066	126.410	18.755	1.00	72.57	P
ATOM	28715	C4	C A1359	233.200	131.874	20.699	1.00	53.01	C	ATOM	28765	O1P	C A1361A	243.191	127.015	17.977	1.00	67.01	O
ATOM	28716	N4	C A1359	232.855	133.126	20.348	1.00	53.01	N	ATOM	28766	O2P	C A1361A	240.947	127.277	19.208	1.00	67.01	O
ATOM	28717	C5	C A1359	232.325	131.077	21.501	1.00	53.01	C	ATOM	28767	O5*	C A1361A	241.450	125.196	17.929	1.00	72.57	O
ATOM	28718	O6	C A1359	232.700	129.809	21.757	1.00	53.01	C	ATOM	28768	C5*	C A1361A	242.278	124.083	17.544	1.00	72.57	C
ATOM	28719	P	A A1360	234.906	126.739	26.019	1.00	64.37	P	ATOM	28769	C4*	C A1361A	241.439	122.953	16.995	1.00	72.57	C
ATOM	28720	O1P	A A1360	235.029	125.610	26.994	1.00	64.93	O	ATOM	28770	O4*	C A1361A	240.739	122.266	18.065	1.00	72.57	O
ATOM	28721	O2P	A A1360	234.090	127.938	26.369	1.00	64.93	O	ATOM	28771	C3*	C A1361A	240.354	123.324	16.001	1.00	72.57	C
ATOM	28722	O5*	A A1360	236.362	127.254	25.620	1.00	64.37	O	ATOM	28772	O3*	C A1361A	240.876	123.521	14.692	1.00	72.57	O
ATOM	28723	C5*	A A1360	237.162	128.025	26.527	1.00	64.37	C	ATOM	28773	C2*	C A1361A	239.417	122.127	16.094	1.00	72.57	C
ATOM	28724	C4*	A A1360	238.555	127.445	26.614	1.00	64.37	C	ATOM	28774	O2*	C A1361A	239.881	121.035	15.330	1.00	72.57	O
ATOM	28725	O4*	A A1360	238.530	126.171	27.304	1.00	64.37	O	ATOM	28775	C1*	C A1361A	239.497	121.784	17.583	1.00	72.57	C
ATOM	28726	C3*	A A1360	239.223	127.154	25.286	1.00	64.37	C	ATOM	28776	N1	C A1361A	238.412	122.425	18.352	1.00	67.01	N
ATOM	28727	O3*	A A1360	239.863	128.320	24.808	1.00	64.37	O	ATOM	28777	C2	C A1361A	237.291	121.659	18.722	1.00	67.01	C
ATOM	28728	C2*	A A1360	240.235	126.071	25.639	1.00	64.37	C	ATOM	28778	O2	C A1361A	237.248	120.453	18.409	1.00	67.01	O
ATOM	28729	O2*	A A1360	241.419	126.633	26.162	1.00	64.37	O	ATOM	28779	N3	C A1361A	236.280	122.253	19.409	1.00	67.01	N
ATOM	28730	C1*	A A1360	239.525	125.323	26.767	1.00	64.37	C	ATOM	28780	C4	C A1361A	236.359	123.549	19.725	1.00	67.01	C
ATOM	28731	N9	A A1360	238.909	124.034	26.444	1.00	64.93	N	ATOM	28781	N4	C A1361A	235.339	124.094	20.396	1.00	67.01	N
ATOM	28732	C8	A A1360	237.571	123.720	26.502	1.00	64.93	C	ATOM	28782	C5	C A1361A	237.487	124.346	19.367	1.00	67.01	C
ATOM	28733	N7	A A1360	237.314	122.452	26.284	1.00	64.93	N	ATOM	28783	C6	C A1361A	238.481	123.749	18.692	1.00	67.01	C
ATOM	28734	C5	A A1360	238.967	120.583	25.769	1.00	64.93	C	ATOM	28784	P	C A1362	239.877	123.821	13.463	1.00	61.07	P
ATOM	28735	C6	A A1360	238.560	121.899	26.038	1.00	64.93	C	ATOM	28785	O1P	C A1362	240.525	124.777	12.511	1.00	59.94	O
ATOM	28736	N6	A A1360	238.129	119.540	25.717	1.00	64.93	N	ATOM	28786	O2P	C A1362	238.540	124.152	14.008	1.00	59.94	O
ATOM	28737	N1	A A1360	240.281	120.366	25.564	1.00	64.93	N	ATOM	28787	O5*	C A1362	239.822	122.402	12.751	1.00	61.07	O
ATOM	28738	C2	A A1360	241.120	121.409	25.635	1.00	64.93	C	ATOM	28788	C5*	C A1362	238.596	121.690	12.632	1.00	61.07	C
ATOM	28739	N3	A A1360	240.859	122.687	25.894	1.00	64.93	N	ATOM	28789	C4*	C A1362	238.863	120.281	12.194	1.00	61.07	C
ATOM	28740	C4	A A1360	239.547	122.868	26.095	1.00	64.93	C	ATOM	28790	O4*	C A1362	239.556	119.571	13.246	1.00	61.07	O
ATOM	28741	P	G A1361	239.954	128.576	23.232	1.00	62.29	P	ATOM	28791	C3*	C A1362	237.612	119.459	11.941	1.00	61.07	C
ATOM	28742	O1P	G A1361	240.939	129.565	22.978	1.00	76.04	O	ATOM	28792	O3*	C A1362	237.137	119.673	10.605	1.00	61.07	O
ATOM	28743	O2P	G A1361	238.557	128.732	22.747	1.00	76.04	O	ATOM	28793	C2*	C A1362	238.106	118.025	12.140	1.00	61.07	C
ATOM	28744	O5*	G A1361	240.572	127.208	22.689	1.00	62.29	O	ATOM	28794	O2*	C A1362	238.636	117.425	10.971	1.00	61.07	O
ATOM	28745	C5*	G A1361	241.961	126.891	22.931	1.00	62.29	C	ATOM	28795	C1*	C A1362	239.236	118.205	13.159	1.00	61.07	C
ATOM	28746	C4*	G A1361	242.303	125.503	22.421	1.00	62.29	C	ATOM	28796	N1	C A1362	238.932	117.668	14.492	1.00	59.94	N
ATOM	28747	O4*	G A1361	241.739	124.489	23.286	1.00	62.29	O	ATOM	28797	C2	C A1362	239.240	116.331	14.733	1.00	59.94	C



Table 1: Sheet 290/521

ATOM	28798	O2	C A1362	239.808	115.676	13.827	1.00	59.94	O	ATOM	28848	O2P	G A1365	234.696	126.971	2.578	1.00	73.16	O
ATOM	28799	N3	C A1362	238.923	115.780	15.936	1.00	59.94	N	ATOM	28849	O5*	G A1365	233.110	125.201	3.268	1.00	43.73	O
ATOM	28800	C4	C A1362	238.335	116.522	16.876	1.00	59.94	C	ATOM	28850	C5*	G A1365	232.697	123.838	3.522	1.00	43.73	C
ATOM	28801	N4	C A1362	238.028	115.929	18.034	1.00	59.94	N	ATOM	28851	C4*	G A1365	231.593	123.786	4.554	1.00	43.73	C
ATOM	28802	C5	C A1362	238.034	117.900	16.667	1.00	59.94	C	ATOM	28852	O4*	G A1365	232.121	123.572	5.887	1.00	43.73	O
ATOM	28803	C6	C A1362	238.347	118.428	15.469	1.00	59.94	C	ATOM	28853	C3*	G A1365	230.699	125.004	4.680	1.00	43.73	C
ATOM	28804	P	A A1362	236.162	120.915	10.275	1.00	66.44	P	ATOM	28854	O3*	G A1365	229.690	125.041	3.695	1.00	43.73	O
ATOM	28805	O1P	A A1363	235.406	121.285	11.496	1.00	96.73	O	ATOM	28855	C2*	G A1365	230.099	124.821	6.064	1.00	43.73	C
ATOM	28806	O2P	A A1363	235.426	120.558	9.049	1.00	96.73	O	ATOM	28856	O2*	G A1365	228.994	123.942	6.046	1.00	43.73	O
ATOM	28807	O5*	A A1363	237.143	122.114	9.914	1.00	66.44	O	ATOM	28857	C1*	G A1365	231.264	124.190	6.837	1.00	43.73	C
ATOM	28808	C5*	A A1363	237.443	122.425	8.544	1.00	66.44	C	ATOM	28858	N9	G A1365	232.027	125.191	7.589	1.00	73.16	N
ATOM	28809	C4*	A A1363	237.265	123.905	8.297	1.00	66.44	C	ATOM	28859	C8	G A1365	233.298	125.638	7.318	1.00	73.16	C
ATOM	28810	O4*	A A1363	235.932	124.293	8.719	1.00	66.44	O	ATOM	28860	N7	G A1365	233.706	126.561	8.147	1.00	73.16	N
ATOM	28811	C3*	A A1363	238.229	124.821	9.037	1.00	66.44	C	ATOM	28861	C5	G A1365	232.646	126.734	9.024	1.00	73.16	C
ATOM	28812	O3*	A A1363	238.446	125.966	8.212	1.00	66.44	O	ATOM	28862	C6	G A1365	232.505	127.612	10.121	1.00	73.16	C
ATOM	28813	C2*	A A1363	237.427	125.243	10.266	1.00	66.44	C	ATOM	28863	O6	G A1365	233.315	128.443	10.547	1.00	73.16	O
ATOM	28814	O2*	A A1363	237.829	126.500	10.777	1.00	66.44	O	ATOM	28864	N1	G A1365	231.267	127.465	10.740	1.00	73.16	N
ATOM	28815	C1*	A A1363	236.010	125.311	9.693	1.00	66.44	C	ATOM	28865	C2	G A1365	230.288	126.591	10.350	1.00	73.16	C
ATOM	28816	N9	A A1363	234.923	125.101	10.651	1.00	96.73	N	ATOM	28866	N2	G A1365	229.164	126.599	11.079	1.00	73.16	N
ATOM	28817	C8	A A1363	233.926	124.158	10.577	1.00	96.73	C	ATOM	28867	N3	G A1365	230.404	125.768	9.320	1.00	73.16	N
ATOM	28818	N7	A A1363	233.077	124.205	11.570	1.00	96.73	N	ATOM	28868	C4	G A1365	231.603	125.892	8.705	1.00	73.16	C
ATOM	28819	C5	A A1363	233.546	125.245	12.359	1.00	96.73	C	ATOM	28869	P	C A1366	229.105	126.455	3.234	1.00	48.65	P
ATOM	28820	C6	A A1363	233.086	125.793	13.567	1.00	96.73	C	ATOM	28870	O1P	C A1366	228.020	126.234	2.245	1.00	78.05	O
ATOM	28821	N6	A A1363	232.010	125.345	14.218	1.00	96.73	N	ATOM	28871	O2P	C A1366	230.250	127.335	2.881	1.00	78.05	O
ATOM	28822	N1	A A1363	233.777	126.827	14.091	1.00	96.73	N	ATOM	28872	O5*	C A1366	228.434	127.001	4.569	1.00	48.65	O
ATOM	28823	C2	A A1363	234.859	127.268	13.438	1.00	96.73	C	ATOM	28873	C5*	C A1366	227.305	126.320	5.167	1.00	48.65	C
ATOM	28824	N3	A A1363	235.393	126.835	12.299	1.00	96.73	N	ATOM	28874	C4*	C A1366	226.783	127.108	6.344	1.00	48.65	C
ATOM	28825	C4	A A1363	234.681	125.808	11.804	1.00	96.73	C	ATOM	28875	O4*	C A1366	227.730	127.018	7.436	1.00	48.65	O
ATOM	28826	P	U A1364	239.549	125.918	7.045	1.00	62.10	P	ATOM	28876	C3*	C A1366	226.607	128.594	6.084	1.00	48.65	C
ATOM	28827	O1P	U A1364	240.585	124.944	7.493	1.00	65.42	O	ATOM	28877	O3*	C A1366	225.330	128.885	5.563	1.00	48.65	O
ATOM	28828	O2P	U A1364	239.931	127.326	6.700	1.00	65.42	O	ATOM	28878	C2*	C A1366	226.770	129.203	7.462	1.00	48.65	C
ATOM	28829	O5*	U A1364	238.798	125.274	5.798	1.00	62.10	O	ATOM	28879	O2*	C A1366	225.555	129.170	8.182	1.00	48.65	O
ATOM	28830	C5*	U A1364	238.477	126.039	4.609	1.00	62.10	C	ATOM	28880	C1*	C A1366	227.811	128.270	8.096	1.00	78.05	N
ATOM	28831	C4*	U A1364	237.684	125.167	3.674	1.00	62.10	C	ATOM	28881	N1	C A1366	229.206	128.771	7.984	1.00	78.05	N
ATOM	28832	O4*	U A1364	238.561	124.124	3.210	1.00	62.10	O	ATOM	28882	C2	C A1366	229.667	129.730	8.905	1.00	78.05	C
ATOM	28833	C3*	U A1364	236.558	124.485	4.429	1.00	62.10	C	ATOM	28883	O2	C A1366	228.895	130.155	9.780	1.00	78.05	C
ATOM	28834	O3*	U A1364	235.346	125.245	4.338	1.00	62.10	O	ATOM	28884	N3	C A1366	230.941	130.176	8.808	1.00	78.05	N
ATOM	28835	C2*	U A1364	236.577	123.014	4.022	1.00	62.10	C	ATOM	28885	C4	C A1366	231.740	129.713	7.850	1.00	78.05	C
ATOM	28836	O2*	U A1364	235.509	122.528	3.240	1.00	62.10	O	ATOM	28886	N4	C A1366	232.988	130.175	7.804	1.00	78.05	N
ATOM	28837	C1*	U A1364	237.946	122.865	3.351	1.00	62.10	C	ATOM	28887	C5	C A1366	231.298	128.752	6.899	1.00	78.05	C
ATOM	28838	N1	U A1364	238.913	121.971	3.996	1.00	65.42	N	ATOM	28888	C6	C A1366	230.040	128.311	7.001	1.00	78.05	C
ATOM	28839	C2	U A1364	239.011	120.682	3.516	1.00	65.42	C	ATOM	28889	P	C A1367	225.128	130.192	4.658	1.00	48.54	P
ATOM	28840	O2	U A1364	238.314	120.262	2.601	1.00	65.42	O	ATOM	28890	O1P	C A1367	223.750	130.150	4.110	1.00	75.09	O
ATOM	28841	N3	U A1364	239.955	119.901	4.141	1.00	65.42	N	ATOM	28891	O2P	C A1367	226.293	130.290	3.735	1.00	75.09	O
ATOM	28842	C4	U A1364	240.790	120.281	5.172	1.00	65.42	C	ATOM	28892	O5*	C A1367	225.201	131.401	5.690	1.00	48.54	O
ATOM	28843	O4	U A1364	241.611	119.477	5.623	1.00	65.42	O	ATOM	28893	C5*	C A1367	224.165	131.603	6.675	1.00	48.54	C
ATOM	28844	C5	U A1364	240.615	121.628	5.610	1.00	65.42	C	ATOM	28894	C4*	C A1367	224.515	132.767	7.575	1.00	48.54	C
ATOM	28845	C6	U A1364	239.705	122.404	5.026	1.00	65.42	C	ATOM	28895	O4*	C A1367	225.658	132.432	8.408	1.00	48.54	O
ATOM	28846	P	G A1365	234.627	125.524	2.913	1.00	43.73	P	ATOM	28896	C3*	C A1367	224.933	134.026	6.844	1.00	48.54	C
ATOM	28847	O1P	G A1365	235.082	124.545	1.918	1.00	73.16	O	ATOM	28897	O3*	C A1367	223.839	134.817	6.465	1.00	48.54	O



Table 1: Sheet 291/521

ATOM	28998	C2*	C Al367	225.800	134.749	7.859	1.00	48.54	C	ATOM	28948	C4	C Al369	233.081	138.521	2.386	1.00	76.09	C
ATOM	28999	O2*	C Al367	225.058	135.519	8.770	1.00	48.54	O	ATOM	28949	N4	C Al369	233.238	137.464	1.593	1.00	76.09	N
ATOM	28900	C1*	C Al367	226.463	133.585	8.595	1.00	48.54	C	ATOM	28950	C5	C Al369	231.835	138.750	3.034	1.00	76.09	C
ATOM	28901	N1	C Al367	227.818	133.326	8.069	1.00	75.09	N	ATOM	28951	C6	C Al369	231.731	139.837	3.814	1.00	76.09	C
ATOM	28902	C2	C Al367	228.810	134.302	8.261	1.00	75.09	C	ATOM	28952	P	G Al370	230.255	145.377	2.367	1.00	60.25	P
ATOM	28903	O2	C Al367	228.516	135.357	8.849	1.00	75.09	O	ATOM	28953	O1P	G Al370	229.645	146.708	2.639	1.00	90.88	O
ATOM	28904	N3	C Al367	230.057	134.076	7.791	1.00	75.09	N	ATOM	28954	O2P	G Al370	229.412	144.280	1.820	1.00	90.88	O
ATOM	28905	C4	C Al367	230.330	132.942	7.145	1.00	75.09	C	ATOM	28955	O5*	G Al370	231.506	145.609	1.406	1.00	60.25	O
ATOM	28906	N4	C Al367	231.576	132.762	6.704	1.00	75.09	N	ATOM	28956	C5*	G Al370	232.363	146.747	1.592	1.00	60.25	C
ATOM	28907	C5	C Al367	229.341	131.943	6.924	1.00	75.09	C	ATOM	28957	C4*	G Al370	233.812	146.393	1.314	1.00	60.25	C
ATOM	28908	C6	C Al367	228.113	132.169	7.403	1.00	75.09	C	ATOM	28958	O4*	G Al370	234.135	145.107	1.907	1.00	60.25	O
ATOM	28909	P	G Al368	223.958	135.704	5.148	1.00	56.24	P	ATOM	28959	C3*	G Al370	234.278	146.282	-0.133	1.00	60.25	C
ATOM	28910	O1P	G Al368	222.722	136.534	5.014	1.00	65.80	O	ATOM	28960	O3*	G Al370	234.632	147.571	-0.636	1.00	60.25	O
ATOM	28911	O2P	G Al368	224.310	134.749	4.081	1.00	65.80	O	ATOM	28961	C2*	G Al370	235.529	145.427	0.003	1.00	60.25	C
ATOM	28912	O5*	G Al368	225.225	135.648	5.416	1.00	56.24	O	ATOM	28962	O2*	G Al370	236.630	146.207	0.404	1.00	60.25	O
ATOM	28913	C5*	G Al368	225.079	137.850	6.202	1.00	56.24	C	ATOM	28963	C1*	G Al370	235.163	144.491	1.159	1.00	60.25	C
ATOM	28914	C4*	G Al368	226.413	138.524	6.501	1.00	56.24	C	ATOM	28964	N9	G Al370	234.702	143.186	0.693	1.00	90.88	N
ATOM	28915	O4*	G Al368	227.376	137.592	7.067	1.00	56.24	O	ATOM	28965	C8	G Al370	233.428	142.671	0.750	1.00	90.88	C
ATOM	28916	C3*	G Al368	227.204	139.253	5.422	1.00	56.24	C	ATOM	28966	N7	G Al370	233.333	141.480	0.222	1.00	90.88	N
ATOM	28917	O3*	G Al368	226.676	140.545	5.115	1.00	56.24	O	ATOM	28967	C5	G Al370	234.623	141.187	-0.205	1.00	90.88	C
ATOM	28918	O2*	G Al368	228.556	139.429	6.111	1.00	56.24	O	ATOM	28968	C6	G Al370	235.142	140.036	-0.859	1.00	90.88	C
ATOM	28919	C2*	G Al368	228.571	140.528	7.006	1.00	56.24	O	ATOM	28969	O6	G Al370	234.545	139.007	-1.206	1.00	90.88	O
ATOM	28920	C1*	G Al368	228.680	138.141	6.928	1.00	56.24	C	ATOM	28970	N1	G Al370	236.504	140.163	-1.110	1.00	90.88	N
ATOM	28921	N9	G Al368	229.572	137.186	6.268	1.00	65.80	N	ATOM	28971	C2	G Al370	237.268	141.251	-0.781	1.00	90.88	C
ATOM	28922	C8	G Al368	229.238	136.009	5.642	1.00	65.80	C	ATOM	28972	N2	G Al370	238.556	141.191	-1.118	1.00	90.88	N
ATOM	28923	N7	G Al368	230.267	135.397	5.121	1.00	65.80	N	ATOM	28973	N3	G Al370	236.803	142.323	-0.172	1.00	90.88	N
ATOM	28924	C5	G Al368	231.349	136.215	5.423	1.00	65.80	C	ATOM	28974	C4	G Al370	235.481	142.226	0.084	1.00	90.88	C
ATOM	28925	C6	G Al368	232.730	136.072	5.115	1.00	65.80	O	ATOM	28975	P	G Al371	234.862	147.791	-2.215	1.00	54.09	P
ATOM	28926	O6	G Al368	233.293	135.161	4.503	1.00	65.80	O	ATOM	28976	O1P	G Al371	235.260	149.200	-2.433	1.00	77.02	O
ATOM	28927	N1	G Al368	233.479	137.135	5.604	1.00	65.80	N	ATOM	28977	O2P	G Al371	233.690	147.251	-2.947	1.00	77.02	O
ATOM	28928	C2	G Al368	232.979	138.194	6.304	1.00	65.80	C	ATOM	28978	O5*	G Al371	236.143	146.895	-2.532	1.00	54.09	O
ATOM	28929	N2	G Al368	233.872	139.115	6.681	1.00	65.80	N	ATOM	28979	C5*	G Al371	237.451	147.297	-2.073	1.00	54.09	C
ATOM	28930	N3	G Al368	231.700	138.340	6.609	1.00	65.80	N	ATOM	28980	C4*	G Al371	238.544	146.466	-2.721	1.00	54.09	C
ATOM	28931	C4	G Al368	230.944	137.319	6.135	1.00	65.80	C	ATOM	28981	O4*	G Al371	238.539	145.105	-2.222	1.00	54.09	O
ATOM	28932	P	C Al369	227.274	141.389	3.870	1.00	51.95	P	ATOM	28982	C3*	G Al371	238.499	146.339	-4.231	1.00	54.09	C
ATOM	28933	O1P	C Al369	226.598	142.716	3.803	1.00	76.09	O	ATOM	28983	O3*	G Al371	239.148	147.435	-4.824	1.00	54.09	O
ATOM	28934	O2P	C Al369	227.259	140.502	2.678	1.00	76.09	O	ATOM	28984	C2*	G Al371	239.298	145.075	-4.489	1.00	54.09	C
ATOM	28935	O5*	C Al369	228.800	141.658	4.261	1.00	51.95	O	ATOM	28985	O2*	G Al371	240.677	145.353	-4.558	1.00	54.09	O
ATOM	28936	C5*	C Al369	229.149	142.608	5.297	1.00	51.95	C	ATOM	28986	C1*	G Al371	238.986	144.230	-3.246	1.00	54.09	C
ATOM	28937	C4*	C Al369	230.623	142.969	5.230	1.00	51.95	C	ATOM	28987	N9	G Al371	237.952	143.229	-3.499	1.00	77.02	N
ATOM	28938	O4*	C Al369	231.458	141.828	5.566	1.00	51.95	O	ATOM	28988	C8	G Al371	236.622	143.306	-3.171	1.00	77.02	C
ATOM	28939	C3*	C Al369	231.148	143.459	3.892	1.00	51.95	C	ATOM	28989	N7	G Al371	235.939	142.265	-3.558	1.00	77.02	N
ATOM	28940	O3*	C Al369	230.903	144.842	3.730	1.00	51.95	O	ATOM	28990	C5	G Al371	236.874	141.450	-4.177	1.00	77.02	C
ATOM	28941	C2*	C Al369	232.640	143.187	4.006	1.00	51.95	C	ATOM	28991	O6	G Al371	236.719	140.191	-4.808	1.00	77.02	O
ATOM	28942	O2*	C Al369	233.317	144.204	4.710	1.00	51.95	O	ATOM	28992	O6	G Al371	235.686	139.527	-4.963	1.00	77.02	O
ATOM	28943	C1*	C Al369	232.669	141.897	4.833	1.00	51.95	C	ATOM	28993	N1	G Al371	237.930	139.712	-5.293	1.00	77.02	N
ATOM	28944	N1	C Al369	232.789	140.691	3.983	1.00	76.09	N	ATOM	28994	C2	G Al371	239.133	140.362	-5.191	1.00	77.02	C
ATOM	28945	C2	C Al369	234.009	140.434	3.336	1.00	76.09	C	ATOM	28995	N2	G Al371	240.197	139.723	-5.693	1.00	77.02	N
ATOM	28946	O2	C Al369	234.958	141.215	3.503	1.00	76.09	O	ATOM	28996	N3	G Al371	239.285	141.545	-4.629	1.00	77.02	N
ATOM	28947	N3	C Al369	234.120	139.342	2.544	1.00	76.09	N	ATOM	28997	C4	G Al371	238.123	142.025	-4.141	1.00	77.02	C



ATOM	28998	P	U A1372	238.531	148.098	-6.139	1.00	59.27	P	ATOM	29048	C3*	A A1374	232.978	141.552	-18.917	1.00	48.03	C
ATOM	28999	O1P	U A1372	239.288	149.342	-6.410	1.00	91.98	O	ATOM	29049	O3*	A A1374	233.328	142.130	-20.158	1.00	48.03	O
ATOM	29000	O2P	U A1372	237.054	148.159	-5.984	1.00	91.98	O	ATOM	29050	C2*	A A1374	233.439	140.105	-18.824	1.00	48.03	C
ATOM	29001	O5*	U A1372	238.881	147.058	-7.283	1.00	59.27	O	ATOM	29051	O2*	A A1374	234.698	139.945	-19.439	1.00	48.03	O
ATOM	29002	C5*	U A1372	240.241	146.797	-7.631	1.00	59.27	C	ATOM	29052	C1*	A A1374	233.624	139.927	-17.313	1.00	48.03	C
ATOM	29003	C4*	U A1372	240.333	145.614	-8.564	1.00	59.27	C	ATOM	29053	N9	A A1374	232.455	139.387	-16.614	1.00	67.86	N
ATOM	29004	O4*	U A1372	240.061	144.374	-7.856	1.00	59.27	O	ATOM	29054	C8	A A1374	231.786	139.968	-15.569	1.00	67.86	C
ATOM	29005	C3*	U A1372	239.395	145.601	-9.758	1.00	59.27	C	ATOM	29055	N7	A A1374	230.781	139.259	-15.124	1.00	67.86	N
ATOM	29006	O3*	U A1372	239.920	146.377	-10.822	1.00	59.27	O	ATOM	29056	C5	A A1374	230.782	138.134	-15.932	1.00	67.86	C
ATOM	29007	C2*	U A1372	239.372	144.124	-10.127	1.00	59.27	C	ATOM	29057	C6	A A1374	229.959	136.997	-15.967	1.00	67.86	C
ATOM	29008	O2*	U A1372	240.484	143.781	-10.931	1.00	59.27	O	ATOM	29058	N6	A A1374	228.937	136.787	-15.135	1.00	67.86	N
ATOM	29009	C1*	U A1372	239.496	143.436	-8.757	1.00	59.27	C	ATOM	29059	N1	A A1374	230.225	136.065	-16.899	1.00	67.86	N
ATOM	29010	N1	U A1372	238.208	142.956	-8.223	1.00	91.98	N	ATOM	29060	C2	A A1374	231.250	136.268	-17.730	1.00	67.86	C
ATOM	29011	C2	U A1372	237.645	141.838	-8.817	1.00	91.98	C	ATOM	29061	N3	A A1374	232.094	137.289	-17.796	1.00	67.86	N
ATOM	29012	O2	U A1372	238.197	141.210	-9.704	1.00	91.98	O	ATOM	29062	C4	A A1374	231.804	138.200	-16.857	1.00	67.86	C
ATOM	29013	N3	U A1372	235.696	142.106	-7.338	1.00	91.98	N	ATOM	29063	P	A A1375	232.240	142.200	-21.331	1.00	52.53	P
ATOM	29014	C4	U A1372	234.544	141.742	-7.101	1.00	91.98	C	ATOM	29064	O1P	A A1375	232.904	142.809	-22.514	1.00	63.05	O
ATOM	29015	O4	U A1372	236.358	143.224	-6.747	1.00	91.98	O	ATOM	29065	O2P	A A1375	231.000	142.811	-20.794	1.00	63.05	O
ATOM	29016	C5	U A1372	237.561	143.599	-7.194	1.00	91.98	C	ATOM	29066	O5*	A A1375	231.931	140.667	-21.650	1.00	52.53	O
ATOM	29017	C6	U A1372	238.932	146.973	-11.938	1.00	50.96	P	ATOM	29067	C5*	A A1375	232.946	139.795	-22.202	1.00	52.53	C
ATOM	29018	P	G A1373	239.715	147.373	-13.142	1.00	80.43	O	ATOM	29068	C4*	A A1375	232.393	138.403	-22.412	1.00	52.53	C
ATOM	29019	O1P	G A1373	238.043	147.969	-11.288	1.00	80.43	O	ATOM	29069	O4*	A A1375	232.121	137.778	-21.131	1.00	52.53	O
ATOM	29020	O2P	G A1373	238.037	145.721	-12.349	1.00	50.96	O	ATOM	29070	C3*	A A1375	231.071	138.346	-23.152	1.00	52.53	C
ATOM	29021	O5*	G A1373	238.571	144.639	-13.148	1.00	50.96	C	ATOM	29071	O3*	A A1375	231.241	138.385	-24.552	1.00	52.53	O
ATOM	29022	C5*	G A1373	237.501	143.600	-13.409	1.00	50.96	C	ATOM	29072	C2*	A A1375	230.469	137.035	-22.672	1.00	52.53	C
ATOM	29023	C4*	G A1373	237.161	142.900	-12.178	1.00	50.96	O	ATOM	29073	O2*	A A1375	230.981	135.913	-23.363	1.00	52.53	O
ATOM	29024	O4*	G A1373	236.176	144.146	-13.909	1.00	50.96	C	ATOM	29074	C1*	A A1375	230.935	136.999	-21.218	1.00	52.53	C
ATOM	29025	C3*	G A1373	236.160	144.382	-15.300	1.00	50.96	O	ATOM	29075	N8	A A1375	229.945	137.577	-20.306	1.00	63.05	N
ATOM	29026	O3*	G A1373	235.224	141.994	-14.442	1.00	50.96	C	ATOM	29076	C8	A A1375	229.970	138.838	-19.775	1.00	63.05	C
ATOM	29027	C2*	G A1373	235.775	142.613	-12.162	1.00	50.96	C	ATOM	29077	N7	A A1375	228.973	139.091	-18.968	1.00	63.05	N
ATOM	29028	O2*	G A1373	235.166	143.388	-11.086	1.00	80.43	N	ATOM	29078	C5	A A1375	228.232	137.921	-18.969	1.00	63.05	C
ATOM	29029	C1*	G A1373	235.583	144.606	-10.609	1.00	80.43	C	ATOM	29079	C6	A A1375	227.058	137.553	-18.298	1.00	63.05	C
ATOM	29030	N9	G A1373	234.814	145.079	-9.568	1.00	80.43	N	ATOM	29080	N6	A A1375	226.393	138.366	-17.482	1.00	63.05	N
ATOM	29031	C8	G A1373	233.835	144.111	-9.504	1.00	80.43	C	ATOM	29081	N1	A A1375	226.581	136.308	-18.500	1.00	63.05	N
ATOM	29032	N7	G A1373	232.719	144.065	-8.622	1.00	80.43	C	ATOM	29082	C2	A A1375	227.239	135.502	-19.337	1.00	63.05	C
ATOM	29033	C5	G A1373	232.352	144.900	-7.783	1.00	80.43	O	ATOM	29083	N3	A A1375	228.351	135.737	-20.035	1.00	63.05	N
ATOM	29034	C6	G A1373	231.991	142.897	-8.791	1.00	80.43	N	ATOM	29084	C4	A A1375	228.809	136.981	-19.798	1.00	63.05	C
ATOM	29035	O6	G A1373	232.279	141.907	-9.691	1.00	80.43	C	ATOM	29085	P	U A1376	230.236	139.270	-25.437	1.00	56.93	P
ATOM	29036	N1	G A1373	232.440	140.864	-9.704	1.00	80.43	N	ATOM	29086	O1P	U A1376	230.656	139.166	-26.863	1.00	59.86	O
ATOM	29037	C2	G A1373	233.308	141.936	-10.516	1.00	80.43	N	ATOM	29087	O2P	U A1376	230.117	140.609	-24.794	1.00	59.86	O
ATOM	29038	N2	G A1373	234.040	143.058	-10.369	1.00	80.43	C	ATOM	29088	O5*	U A1376	228.851	138.505	-25.294	1.00	56.93	O
ATOM	29039	N3	G A1373	234.865	145.052	-15.965	1.00	48.03	P	ATOM	29089	C5*	U A1376	228.767	137.124	-25.641	1.00	56.93	C
ATOM	29040	C4	G A1374	235.192	145.498	-17.359	1.00	67.86	O	ATOM	29090	C4*	U A1376	227.494	136.523	-25.119	1.00	56.93	C
ATOM	29041	P	A A1374	234.320	146.029	-14.997	1.00	67.86	O	ATOM	29091	O4*	U A1376	227.524	136.439	-23.671	1.00	56.93	O
ATOM	29042	O1P	A A1374	233.831	143.843	-16.011	1.00	48.03	O	ATOM	29092	C3*	U A1376	226.224	137.284	-25.432	1.00	56.93	C
ATOM	29043	O2P	A A1374	233.152	143.474	-17.235	1.00	48.03	C	ATOM	29093	O3*	U A1376	225.758	137.012	-26.733	1.00	56.93	O
ATOM	29044	O5*	A A1374	233.763	142.213	-17.804	1.00	48.03	C	ATOM	29094	C2*	U A1376	225.267	136.767	-24.369	1.00	56.93	C
ATOM	29045	C5*	A A1374	233.892	141.204	-16.769	1.00	48.03	O	ATOM	29095	O2*	U A1376	224.673	135.535	-24.735	1.00	56.93	O
ATOM	29046	C4*	A A1374							ATOM	29096	C1*	U A1376	226.207	136.578	-23.171	1.00	56.93	C
ATOM	29047	O4*	A A1374							ATOM	29097	N1	U A1376	226.154	137.732	-22.261	1.00	59.86	N



ATOM	29098	C2	U A1376	225.340	137.628	-21.163	1.00	59.86	C	ATOM	29148	OlP	G A1379	214.496	139.812	-33.144	1.00	47.58	O
ATOM	29099	O3	U A1376	224.724	136.618	-20.893	1.00	59.86	O	ATOM	29149	O2P	G A1379	214.864	139.547	-30.608	1.00	47.58	O
ATOM	29100	N2	U A1376	225.266	138.749	-20.384	1.00	59.86	N	ATOM	29150	O5*	G A1379	214.410	137.576	-32.057	1.00	67.14	O
ATOM	29101	C4	U A1376	225.910	139.933	-20.581	1.00	59.86	C	ATOM	29151	C5*	G A1379	213.702	137.023	-30.938	1.00	67.14	C
ATOM	29102	O4	U A1376	225.678	140.875	-19.824	1.00	59.86	O	ATOM	29152	C4*	G A1379	213.870	135.530	-30.927	1.00	67.14	C
ATOM	29103	C5	U A1376	226.764	139.960	-21.725	1.00	59.86	C	ATOM	29153	O4*	G A1379	215.128	135.187	-30.292	1.00	67.14	O
ATOM	29104	C6	U A1376	226.858	138.883	-22.503	1.00	59.86	C	ATOM	29154	C3*	G A1379	212.833	134.762	-30.139	1.00	67.14	C
ATOM	29105	P	A A1377	224.764	138.046	-27.436	1.00	52.10	P	ATOM	29155	O3*	G A1379	211.657	134.575	-30.911	1.00	67.14	O
ATOM	29106	OlP	A A1377	224.751	137.728	-28.891	1.00	60.08	O	ATOM	29156	C2*	G A1379	213.560	133.463	-29.807	1.00	67.14	C
ATOM	29107	O2P	A A1377	225.119	139.416	-26.979	1.00	60.08	O	ATOM	29157	O2*	G A1379	213.559	132.513	-30.854	1.00	67.14	O
ATOM	29108	O5*	A A1377	223.342	137.680	-26.825	1.00	52.10	O	ATOM	29158	C1*	G A1379	214.990	133.956	-29.606	1.00	67.14	C
ATOM	29109	C5*	A A1377	222.646	136.500	-27.242	1.00	52.10	C	ATOM	29159	N9	G A1379	215.324	134.151	-28.199	1.00	47.58	N
ATOM	29110	C4*	A A1377	221.421	136.285	-26.388	1.00	52.10	C	ATOM	29160	C8	G A1379	215.606	135.332	-27.551	1.00	47.58	C
ATOM	29111	O4*	A A1377	221.830	136.056	-25.015	1.00	52.10	O	ATOM	29161	N7	G A1379	215.908	135.165	-26.291	1.00	47.58	N
ATOM	29112	C3*	A A1377	220.447	137.445	-26.292	1.00	52.10	C	ATOM	29162	C5	G A1379	215.811	133.796	-26.098	1.00	47.58	C
ATOM	29113	O2*	A A1377	219.558	137.521	-27.385	1.00	52.10	O	ATOM	29163	C6	G A1379	216.033	133.022	-24.944	1.00	47.58	C
ATOM	29114	C3*	A A1377	219.726	137.168	-24.977	1.00	52.10	C	ATOM	29164	O6	G A1379	216.375	133.399	-23.820	1.00	47.58	O
ATOM	29115	O2*	A A1377	218.671	136.227	-25.059	1.00	52.10	O	ATOM	29165	N1	G A1379	215.818	131.671	-25.186	1.00	47.58	N
ATOM	29116	C1*	A A1377	220.849	136.582	-24.126	1.00	52.10	C	ATOM	29166	C2	G A1379	215.435	131.138	-26.388	1.00	47.58	C
ATOM	29117	N9	A A1377	221.452	137.635	-23.305	1.00	60.08	N	ATOM	29167	N2	G A1379	215.280	129.814	-26.422	1.00	47.58	N
ATOM	29118	C8	A A1377	222.543	138.412	-23.586	1.00	60.08	C	ATOM	29168	N3	G A1379	215.223	131.850	-27.475	1.00	47.58	N
ATOM	29119	N7	A A1377	222.784	139.328	-22.684	1.00	60.08	N	ATOM	29169	C4	G A1379	215.434	133.161	-27.261	1.00	47.58	C
ATOM	29120	C5	A A1377	221.793	139.133	-21.738	1.00	60.08	C	ATOM	29170	P	U A1380	210.220	134.651	-30.194	1.00	81.19	P
ATOM	29121	C6	A A1377	221.492	139.796	-20.544	1.00	60.08	C	ATOM	29171	OlP	U A1380	209.191	134.681	-31.268	1.00	57.66	O
ATOM	29122	N6	A A1377	222.181	140.837	-20.086	1.00	60.08	N	ATOM	29172	O2P	U A1380	210.238	135.734	-29.178	1.00	57.66	O
ATOM	29123	N1	A A1377	220.446	139.351	-19.826	1.00	60.08	N	ATOM	29173	O5*	U A1380	210.124	133.264	-29.417	1.00	81.19	O
ATOM	29124	C2	A A1377	219.755	138.310	-20.290	1.00	60.08	C	ATOM	29174	C5*	U A1380	210.117	132.014	-30.130	1.00	81.19	C
ATOM	29125	N3	A A1377	219.936	137.605	-21.402	1.00	60.08	N	ATOM	29175	O4*	U A1380	209.918	130.880	-29.165	1.00	81.19	O
ATOM	29126	C4	A A1377	220.982	138.078	-22.092	1.00	60.08	C	ATOM	29176	C4*	U A1380	211.085	130.787	-28.322	1.00	81.19	C
ATOM	29127	P	C A1378	218.584	138.790	-27.512	1.00	50.79	P	ATOM	29177	C3*	U A1380	208.757	131.103	-28.220	1.00	81.19	C
ATOM	29128	OlP	C A1378	219.401	140.019	-27.401	1.00	46.68	O	ATOM	29178	O3*	U A1380	207.504	130.814	-28.888	1.00	81.19	O
ATOM	29129	O2P	C A1378	217.426	138.588	-26.592	1.00	46.68	O	ATOM	29179	C2*	U A1380	209.173	130.426	-26.909	1.00	81.19	C
ATOM	29130	O5*	C A1378	218.056	138.735	-29.007	1.00	50.79	O	ATOM	29180	O2*	U A1380	208.765	129.088	-26.722	1.00	81.19	O
ATOM	29131	C5*	C A1378	218.880	139.174	-30.095	1.00	50.79	C	ATOM	29181	C1*	U A1380	210.704	130.470	-27.000	1.00	81.19	C
ATOM	29132	C4*	C A1378	219.443	137.004	-31.030	1.00	50.79	C	ATOM	29182	N1	U A1380	211.455	131.338	-26.079	1.00	57.66	N
ATOM	29133	O4*	C A1378	218.720	138.238	-31.263	1.00	50.79	O	ATOM	29183	C2	U A1380	211.872	130.802	-24.865	1.00	57.66	C
ATOM	29134	C3*	C A1378	217.285	137.815	-31.496	1.00	50.79	C	ATOM	29184	O2	U A1380	211.634	129.659	-24.513	1.00	57.66	O
ATOM	29135	O3*	C A1378	216.593	138.772	-32.279	1.00	50.79	O	ATOM	29185	N3	U A1380	212.582	131.657	-24.070	1.00	57.66	N
ATOM	29136	C2*	C A1378	217.427	136.479	-32.206	1.00	50.79	C	ATOM	29186	C4	U A1380	212.905	132.964	-24.338	1.00	57.66	C
ATOM	29137	O2*	C A1378	217.614	136.679	-33.590	1.00	50.79	O	ATOM	29187	O4	U A1380	213.450	133.637	-23.460	1.00	57.66	O
ATOM	29138	C1*	C A1378	218.717	135.923	-31.588	1.00	50.79	C	ATOM	29188	C5	U A1380	212.451	133.444	-25.611	1.00	57.66	C
ATOM	29139	N1	C A1378	218.572	134.854	-30.571	1.00	46.68	N	ATOM	29189	C6	U A1380	211.756	132.636	-26.414	1.00	57.66	C
ATOM	29140	C2	C A1378	218.310	133.530	-30.998	1.00	46.68	C	ATOM	29190	P	U A1381	206.940	129.298	-29.079	1.00	64.05	P
ATOM	29141	O2	C A1378	218.084	133.308	-32.202	1.00	46.68	O	ATOM	29191	OlP	U A1381	205.788	129.549	-29.986	1.00	74.98	O
ATOM	29142	N3	C A1378	218.298	132.529	-30.076	1.00	46.68	N	ATOM	29192	O2P	U A1381	206.712	128.584	-27.798	1.00	74.98	O
ATOM	29143	C4	C A1378	218.507	132.804	-28.783	1.00	46.68	C	ATOM	29193	O5*	U A1381	208.013	128.463	-29.919	1.00	64.05	O
ATOM	29144	N4	C A1378	218.538	131.783	-27.922	1.00	46.68	N	ATOM	29194	C5*	U A1381	207.562	127.543	-30.955	1.00	64.05	C
ATOM	29145	C5	C A1378	218.707	134.139	-28.319	1.00	46.68	C	ATOM	29195	C4*	U A1381	208.409	126.278	-31.019	1.00	64.05	C
ATOM	29146	C6	C A1378	218.729	135.123	-29.237	1.00	46.68	C	ATOM	29196	O4*	U A1381	209.754	126.588	-31.465	1.00	64.05	O
ATOM	29147	P	G A1379	215.036	139.035	-31.999	1.00	67.14	P	ATOM	29197	C3*	U A1381	208.599	125.437	-29.764	1.00	64.05	C



ATOM	29198	O3*	U A1381	207.521	124.528	-29.554	1.00	64.05	O	ATOM	29248	C5	C A1383	211.592	123.675	-22.980	1.00	47.93	C
ATOM	29199	C2*	U A1381	209.863	124.644	-30.080	1.00	64.05	C	ATOM	29249	C6	C A1383	211.898	122.378	-22.858	1.00	47.93	C
ATOM	29200	O2*	U A1381	209.588	123.480	-30.821	1.00	64.05	O	ATOM	29250	P	C A1384	209.553	118.215	-19.640	1.00	58.38	P
ATOM	29201	Cl*	U A1381	210.653	125.611	-30.965	1.00	64.05	C	ATOM	29251	O1P	C A1384	209.151	116.919	-19.058	1.00	33.48	O
ATOM	29202	N1	U A1381	211.787	126.272	-30.292	1.00	74.98	N	ATOM	29252	O2P	C A1384	208.638	118.939	-20.549	1.00	33.48	O
ATOM	29203	C2	U A1381	212.785	125.460	-29.774	1.00	74.98	C	ATOM	29253	O5*	C A1384	209.954	119.156	-18.422	1.00	58.38	O
ATOM	29204	O2	U A1381	212.752	124.242	-29.838	1.00	74.98	O	ATOM	29254	C5*	C A1384	210.794	118.646	-17.376	1.00	58.38	C
ATOM	29205	N3	U A1381	213.824	126.127	-29.173	1.00	74.98	N	ATOM	29255	C4*	C A1384	211.069	119.708	-16.345	1.00	58.38	C
ATOM	29206	C4	U A1381	213.968	127.489	-29.034	1.00	74.98	C	ATOM	29256	O4*	C A1384	209.861	120.403	-15.755	1.00	58.38	O
ATOM	29207	O4	U A1381	214.980	127.939	-29.494	1.00	74.98	O	ATOM	29257	C3*	C A1384	209.244	119.643	-14.745	1.00	58.38	O
ATOM	29208	C5	U A1381	212.896	128.259	-28.583	1.00	74.98	C	ATOM	29258	O3*	C A1384	210.454	121.699	-15.231	1.00	58.38	C
ATOM	29209	C6	U A1381	211.869	127.641	-30.179	1.00	74.98	C	ATOM	29259	C2*	C A1384	211.130	121.533	-14.001	1.00	58.38	O
ATOM	29210	P	C A1382	207.274	123.903	-28.084	1.00	50.59	P	ATOM	29260	O2*	C A1384	211.472	122.012	-16.319	1.00	58.38	C
ATOM	29211	O1P	C A1382	206.128	122.953	-28.170	1.00	79.97	O	ATOM	29261	Cl*	C A1384	210.896	122.905	-17.333	1.00	33.48	N
ATOM	29212	O2P	C A1382	207.206	125.056	-27.139	1.00	79.97	O	ATOM	29262	N1	C A1384	210.790	124.266	-17.034	1.00	33.48	C
ATOM	29213	O5*	C A1382	208.587	123.053	-27.760	1.00	50.59	O	ATOM	29263	C2	C A1384	211.178	124.665	-15.922	1.00	33.48	O
ATOM	29214	C5*	C A1382	208.912	121.886	-28.525	1.00	50.59	C	ATOM	29264	O2	C A1384	210.860	124.635	-19.128	1.00	33.48	N
ATOM	29215	C4*	C A1382	210.206	121.276	-28.046	1.00	50.59	C	ATOM	29265	N3	C A1384	210.267	125.109	-17.953	1.00	33.48	C
ATOM	29216	O4*	C A1382	211.321	122.153	-28.328	1.00	50.59	O	ATOM	29266	C4	C A1384	209.860	124.635	-19.128	1.00	33.48	N
ATOM	29217	C3*	C A1382	210.285	120.997	-26.561	1.00	50.59	C	ATOM	29267	N4	C A1384	209.371	125.501	-20.010	1.00	33.48	N
ATOM	29218	O3*	C A1382	209.718	119.733	-26.287	1.00	50.59	O	ATOM	29268	C5	C A1384	209.945	123.249	-19.456	1.00	33.48	C
ATOM	29219	C2*	C A1382	211.783	121.010	-26.281	1.00	50.59	C	ATOM	29269	C6	C A1384	210.467	122.428	-18.539	1.00	33.48	C
ATOM	29220	O2*	C A1382	212.405	119.770	-26.524	1.00	50.59	O	ATOM	29270	P	G A1385	207.645	119.653	-14.636	1.00	54.72	P
ATOM	29221	Cl*	C A1382	212.289	122.033	-27.301	1.00	50.59	C	ATOM	29271	O1P	G A1385	207.328	118.529	-13.715	1.00	33.69	O
ATOM	29222	N1	C A1382	212.546	123.369	-26.733	1.00	79.97	N	ATOM	29272	O2P	G A1385	207.058	119.693	-16.000	1.00	33.69	O
ATOM	29223	C2	C A1382	213.758	123.600	-26.070	1.00	79.97	C	ATOM	29273	O5*	G A1385	207.324	121.034	-13.917	1.00	54.72	O
ATOM	29224	O2	C A1382	214.571	122.664	-25.942	1.00	79.97	O	ATOM	29274	C5*	G A1385	207.718	121.229	-12.561	1.00	54.72	C
ATOM	29225	N3	C A1382	214.012	124.832	-25.579	1.00	79.97	N	ATOM	29275	C4*	G A1385	207.581	122.670	-12.177	1.00	54.72	C
ATOM	29226	C4	C A1382	213.110	125.805	-25.717	1.00	79.97	C	ATOM	29276	O4*	G A1385	208.499	123.490	-12.943	1.00	54.72	O
ATOM	29227	N4	C A1382	213.406	127.003	-25.217	1.00	79.97	N	ATOM	29277	C3*	G A1385	206.243	123.316	-12.448	1.00	54.72	C
ATOM	29228	C5	C A1382	211.867	125.594	-26.372	1.00	79.97	C	ATOM	29278	O3*	G A1385	205.257	122.968	-11.517	1.00	54.72	O
ATOM	29229	C6	C A1382	211.627	124.374	-26.857	1.00	79.97	C	ATOM	29279	C2*	G A1385	206.592	124.795	-12.419	1.00	54.72	C
ATOM	29230	P	C A1383	208.900	119.514	-24.930	1.00	48.11	P	ATOM	29280	O2*	G A1385	206.724	125.322	-11.109	1.00	54.72	C
ATOM	29231	O1P	C A1383	208.328	118.141	-24.961	1.00	47.93	O	ATOM	29281	Cl*	G A1385	207.948	124.786	-13.115	1.00	54.72	C
ATOM	29232	O2P	C A1383	207.979	120.690	-24.793	1.00	47.93	O	ATOM	29282	N9	G A1385	207.734	125.010	-14.536	1.00	33.69	N
ATOM	29233	O5*	C A1383	210.040	119.537	-23.811	1.00	48.11	O	ATOM	29283	C8	G A1385	207.645	124.058	-15.518	1.00	33.69	C
ATOM	29234	C5*	C A1383	210.959	118.443	-23.698	1.00	48.11	C	ATOM	29284	N7	G A1385	207.386	124.562	-16.694	1.00	33.69	N
ATOM	29235	C4*	C A1383	211.953	118.693	-22.600	1.00	48.11	C	ATOM	29285	C5	G A1385	207.307	125.928	-16.470	1.00	33.69	C
ATOM	29236	O4*	C A1383	212.779	119.820	-22.962	1.00	48.11	O	ATOM	29286	C6	G A1385	207.019	126.980	-17.364	1.00	33.69	C
ATOM	29237	C3*	C A1383	211.378	119.090	-21.257	1.00	48.11	C	ATOM	29287	O6	G A1385	206.712	126.908	-18.554	1.00	33.69	O
ATOM	29238	O3*	C A1383	210.911	118.018	-20.471	1.00	48.11	O	ATOM	29288	N1	G A1385	207.081	128.218	-16.736	1.00	33.69	N
ATOM	29239	C2*	C A1383	212.523	119.835	-20.592	1.00	48.11	C	ATOM	29289	C2	G A1385	207.353	128.408	-15.405	1.00	33.69	C
ATOM	29240	O2*	C A1383	213.458	119.003	-19.944	1.00	48.11	O	ATOM	29290	N2	G A1385	207.415	129.681	-14.995	1.00	33.69	N
ATOM	29241	Cl*	C A1383	213.166	120.524	-21.789	1.00	48.11	C	ATOM	29291	N3	G A1385	207.566	127.424	-14.546	1.00	33.69	N
ATOM	29242	N1	C A1383	212.778	121.948	-21.902	1.00	47.93	N	ATOM	29292	C4	G A1385	207.540	126.221	-15.148	1.00	33.69	C
ATOM	29243	C2	C A1383	213.350	122.865	-21.009	1.00	47.93	C	ATOM	29293	P	G A1386	203.738	122.878	-12.008	1.00	63.01	P
ATOM	29244	O2	C A1383	214.117	122.444	-20.121	1.00	47.93	O	ATOM	29294	O1P	G A1386	203.038	122.261	-10.853	1.00	41.32	O
ATOM	29245	N3	C A1383	213.052	124.178	-20.129	1.00	47.93	N	ATOM	29295	O2P	G A1386	203.665	122.231	-13.355	1.00	41.32	O
ATOM	29246	C4	C A1383	212.217	124.588	-22.078	1.00	47.93	C	ATOM	29296	O5*	G A1386	203.317	124.406	-12.204	1.00	63.01	O
ATOM	29247	N4	C A1383	211.978	125.896	-22.172	1.00	47.93	N	ATOM	29297	C5*	G A1386	203.518	125.350	-11.145	1.00	63.01	C



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ATOM	29298	C4*	G A1386	203.350	126.765	-11.639	1.00	63.01	C	ATOM	29348	C2*	C A1388	193.599	133.252	-18.064	1.00	40.01	C
ATOM	29299	O4*	G A1386	204.347	127.072	-12.645	1.00	63.01	O	ATOM	29349	O2*	C A1388	193.031	134.505	-18.408	1.00	40.01	O
ATOM	29300	C3*	G A1386	202.054	127.148	-12.326	1.00	63.01	C	ATOM	29350	C1*	C A1388	195.128	133.342	-18.001	1.00	40.01	C
ATOM	29301	O3*	G A1386	200.978	127.380	-11.436	1.00	63.01	O	ATOM	29351	N1	C A1388	195.749	132.069	-18.428	1.00	54.73	N
ATOM	29302	C2*	G A1386	202.445	128.440	-13.031	1.00	63.01	C	ATOM	29352	C2	C A1388	195.930	131.832	-19.790	1.00	54.73	C
ATOM	29303	O2*	G A1386	202.398	129.585	-12.195	1.00	63.01	O	ATOM	29353	O2	C A1388	195.607	132.712	-20.594	1.00	54.73	O
ATOM	29304	C1*	G A1386	203.889	128.152	-13.436	1.00	63.01	C	ATOM	29354	N3	C A1388	196.446	130.649	-20.194	1.00	54.73	N
ATOM	29305	N9	G A1386	203.935	127.799	-14.851	1.00	41.32	N	ATOM	29355	C4	C A1388	196.776	129.725	-19.292	1.00	54.73	C
ATOM	29306	C8	G A1386	204.106	126.562	-15.424	1.00	41.32	C	ATOM	29356	N4	C A1388	197.247	128.561	-19.730	1.00	54.73	N
ATOM	29307	N7	G A1386	204.024	126.589	-16.730	1.00	41.32	N	ATOM	29357	C5	C A1388	196.629	129.950	-17.898	1.00	54.73	C
ATOM	29308	C5	G A1386	203.800	127.928	-17.034	1.00	41.32	C	ATOM	29358	C6	C A1388	196.119	131.124	-17.512	1.00	54.73	C
ATOM	29309	C6	G A1386	203.612	128.581	-18.289	1.00	41.32	C	ATOM	29359	P	C A1389	190.799	131.922	-16.394	1.00	53.16	P
ATOM	29310	O6	G A1386	203.596	128.093	-19.417	1.00	41.32	O	ATOM	29360	O1P	C A1389	189.604	132.390	-15.657	1.00	50.23	O
ATOM	29311	N1	G A1386	203.416	129.947	-18.130	1.00	41.32	N	ATOM	29361	O2P	C A1389	191.417	130.612	-16.024	1.00	50.23	O
ATOM	29312	C2	G A1386	203.392	130.605	-16.931	1.00	41.32	C	ATOM	29362	O5*	C A1389	190.409	131.919	-17.938	1.00	53.16	O
ATOM	29313	N2	G A1386	203.172	131.923	-16.981	1.00	41.32	N	ATOM	29363	C5*	C A1389	189.808	133.071	-18.528	1.00	53.16	C
ATOM	29314	N3	G A1386	203.563	130.016	-15.764	1.00	41.32	N	ATOM	29364	C4*	C A1389	189.795	132.945	-20.025	1.00	53.16	C
ATOM	29315	C4	G A1386	203.760	128.687	-15.888	1.00	41.32	C	ATOM	29365	O4*	C A1389	191.159	132.923	-20.516	1.00	53.16	O
ATOM	29316	P	G A1387	199.464	127.300	-11.984	1.00	56.29	P	ATOM	29366	C3*	C A1389	189.198	131.669	-20.580	1.00	53.16	C
ATOM	29317	O1P	G A1387	198.643	127.064	-10.771	1.00	42.18	O	ATOM	29367	O3*	C A1389	187.788	131.655	-20.596	1.00	53.16	O
ATOM	29318	O2P	G A1387	199.383	126.346	-13.111	1.00	42.18	O	ATOM	29368	C2*	C A1389	189.835	131.589	-21.959	1.00	53.16	C
ATOM	29319	O5*	G A1387	199.172	128.744	-12.592	1.00	56.29	O	ATOM	29369	O2*	C A1389	189.238	132.443	-22.912	1.00	53.16	O
ATOM	29320	C5*	G A1387	199.300	129.909	-11.777	1.00	56.29	C	ATOM	29370	C1*	C A1389	191.250	132.071	-21.653	1.00	53.16	C
ATOM	29321	O4*	G A1387	199.102	131.153	-12.597	1.00	56.29	O	ATOM	29371	N1	C A1389	192.114	130.917	-21.317	1.00	50.23	N
ATOM	29322	C4*	G A1387	200.198	131.318	-13.528	1.00	56.29	O	ATOM	29372	C2	C A1389	192.632	130.125	-22.358	1.00	50.23	C
ATOM	29323	C3*	G A1387	197.867	131.176	-13.474	1.00	56.29	C	ATOM	29373	O2	C A1389	192.425	130.457	-23.534	1.00	50.23	O
ATOM	29324	O3*	G A1387	196.688	131.521	-12.776	1.00	56.29	O	ATOM	29374	N3	C A1389	193.346	129.024	-22.053	1.00	50.23	N
ATOM	29325	C2*	G A1387	198.232	132.205	-14.530	1.00	56.29	C	ATOM	29375	C4	C A1389	193.570	128.708	-20.777	1.00	50.23	C
ATOM	29326	O2*	G A1387	198.043	133.536	-14.085	1.00	56.29	O	ATOM	29376	N4	C A1389	194.260	127.595	-20.519	1.00	50.23	N
ATOM	29327	C1*	G A1387	199.717	131.913	-14.726	1.00	56.29	C	ATOM	29377	C5	C A1389	193.093	129.515	-19.705	1.00	50.23	C
ATOM	29328	N9	G A1387	199.922	130.971	-15.822	1.00	42.18	N	ATOM	29378	C6	C A1389	192.380	130.598	-20.017	1.00	50.23	C
ATOM	29329	C8	G A1387	200.252	129.641	-15.723	1.00	42.18	C	ATOM	29379	P	U A1390	187.024	130.292	-20.222	1.00	51.46	P
ATOM	29330	N7	G A1387	200.394	129.061	-16.882	1.00	42.18	N	ATOM	29380	O1P	U A1390	185.588	130.629	-20.104	1.00	45.35	O
ATOM	29331	C5	G A1387	200.140	130.068	-17.801	1.00	42.18	C	ATOM	29381	O2P	U A1390	187.722	129.607	-19.099	1.00	45.35	O
ATOM	29332	C6	G A1387	200.165	130.040	-19.207	1.00	42.18	C	ATOM	29382	O5*	U A1390	187.206	129.389	-21.515	1.00	51.46	O
ATOM	29333	O6	G A1387	200.460	129.102	-19.949	1.00	42.18	O	ATOM	29383	C5*	U A1390	186.836	129.890	-22.809	1.00	51.46	C
ATOM	29334	N1	G A1387	199.818	131.266	-19.747	1.00	42.18	N	ATOM	29384	C4*	U A1390	187.414	129.017	-23.893	1.00	51.46	C
ATOM	29335	C2	G A1387	199.509	132.382	-19.021	1.00	42.18	C	ATOM	29385	O4*	U A1390	188.857	129.005	-23.771	1.00	51.46	O
ATOM	29336	N2	G A1387	199.188	133.465	-19.722	1.00	42.18	N	ATOM	29386	C3*	U A1390	187.022	127.546	-23.860	1.00	51.46	C
ATOM	29337	N3	G A1387	199.510	132.433	-17.703	1.00	42.18	N	ATOM	29387	O3*	U A1390	185.765	127.328	-24.483	1.00	51.46	O
ATOM	29338	C4	G A1387	199.830	131.247	-17.163	1.00	40.01	C	ATOM	29388	C2*	U A1390	188.166	126.897	-24.625	1.00	51.46	C
ATOM	29339	P	C A1388	195.306	130.832	-13.200	1.00	40.01	P	ATOM	29389	O2*	U A1390	188.042	127.055	-26.024	1.00	51.46	O
ATOM	29340	O1P	C A1388	194.326	131.101	-12.121	1.00	54.73	O	ATOM	29390	C1*	U A1390	189.354	127.737	-24.163	1.00	51.46	C
ATOM	29341	O2P	C A1388	195.626	129.417	-13.552	1.00	54.73	O	ATOM	29391	N1	U A1390	190.074	127.118	-23.036	1.00	45.35	N
ATOM	29342	O5*	C A1388	194.889	131.629	-14.515	1.00	40.01	O	ATOM	29392	C2	U A1390	190.942	126.086	-23.339	1.00	45.35	C
ATOM	29343	C5*	C A1388	194.643	133.029	-14.455	1.00	40.01	C	ATOM	29393	O2	U A1390	191.128	125.699	-24.473	1.00	45.35	O
ATOM	29344	C4*	C A1388	194.296	133.566	-15.870	1.00	40.01	C	ATOM	29394	N3	U A1390	191.576	125.518	-22.268	1.00	45.35	N
ATOM	29345	O4*	C A1388	195.486	133.586	-16.647	1.00	40.01	O	ATOM	29395	C4	U A1390	191.429	125.853	-20.953	1.00	45.35	C
ATOM	29346	C3*	C A1388	193.267	132.803	-16.646	1.00	40.01	C	ATOM	29396	O4	U A1390	191.959	125.149	-20.095	1.00	45.35	O
ATOM	29347	O3*	C A1388	191.915	131.637	-16.237	1.00	40.01	O	ATOM	29397	C5	U A1390	190.527	126.940	-20.715	1.00	45.35	C



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ATOM	29398	C6	U A1390	189.897	127.522	-21.739	1.00	45.35	C	ATOM	29448	O4*	U A1393	186.805	113.376	-22.223	1.00	36.07	O
ATOM	29399	P	U A1391	184.836	126.098	-24.014	1.00	53.90	P	ATOM	29449	C3*	U A1393	185.042	112.387	-21.063	1.00	36.07	C
ATOM	29400	O1P	U A1391	183.535	126.334	-24.690	1.00	44.90	O	ATOM	29450	O3*	U A1393	184.268	111.214	-20.955	1.00	36.07	O
ATOM	29401	O2P	U A1391	184.878	125.925	-22.533	1.00	44.90	O	ATOM	29451	C2*	U A1393	186.257	112.380	-20.141	1.00	36.07	C
ATOM	29402	O5*	U A1391	185.527	124.818	-24.663	1.00	53.90	O	ATOM	29452	O2*	U A1393	186.872	111.110	-20.072	1.00	36.07	O
ATOM	29403	C5*	U A1391	185.582	124.639	-26.090	1.00	53.90	C	ATOM	29453	C1*	U A1393	187.199	113.349	-20.860	1.00	36.07	C
ATOM	29404	C4*	U A1391	186.398	123.420	-26.425	1.00	53.90	C	ATOM	29454	N1	U A1393	187.139	114.717	-20.312	1.00	45.56	N
ATOM	29405	O4*	U A1391	187.762	123.633	-25.994	1.00	53.90	O	ATOM	29455	C2	U A1393	187.795	114.966	-19.114	1.00	45.56	C
ATOM	29406	C3*	U A1391	185.961	122.147	-25.720	1.00	53.90	C	ATOM	29456	O2	U A1393	188.450	114.129	-18.525	1.00	45.56	O
ATOM	29407	O3*	U A1391	184.919	121.492	-26.440	1.00	53.90	O	ATOM	29457	N3	U A1393	187.655	116.237	-18.630	1.00	45.56	N
ATOM	29408	C2*	U A1391	187.245	121.330	-25.657	1.00	53.90	C	ATOM	29458	C4	U A1393	186.954	117.266	-19.200	1.00	45.56	C
ATOM	29409	O2*	U A1391	187.500	120.586	-26.826	1.00	53.90	O	ATOM	29459	O4	U A1393	186.852	118.335	-18.594	1.00	45.56	O
ATOM	29410	C1*	U A1391	188.310	122.418	-25.514	1.00	53.90	C	ATOM	29460	C5	U A1393	186.331	116.944	-20.445	1.00	45.56	C
ATOM	29411	N1	U A1391	188.769	122.618	-24.130	1.00	44.90	N	ATOM	29461	C6	U A1393	186.443	115.715	-20.947	1.00	45.56	C
ATOM	29412	C2	U A1391	189.651	121.689	-23.592	1.00	44.90	C	ATOM	29462	P	A A1394	183.104	111.130	-19.851	1.00	35.59	P
ATOM	29413	O2	U A1391	190.094	120.742	-24.230	1.00	44.90	O	ATOM	29463	O1P	A A1394	181.787	111.218	-20.532	1.00	50.32	O
ATOM	29414	N3	U A1391	190.002	121.917	-22.285	1.00	44.90	N	ATOM	29464	O2P	A A1394	183.427	112.072	-18.759	1.00	50.32	O
ATOM	29415	C4	U A1391	189.595	122.967	-21.487	1.00	44.90	C	ATOM	29465	O5*	A A1394	183.255	109.656	-19.308	1.00	35.59	O
ATOM	29416	O4	U A1391	190.044	123.075	-20.347	1.00	44.90	O	ATOM	29466	C5*	A A1394	182.995	109.336	-17.960	1.00	35.59	C
ATOM	29417	C5	U A1391	188.710	123.884	-22.120	1.00	44.90	C	ATOM	29467	C4*	A A1394	183.723	108.079	-17.634	1.00	35.59	C
ATOM	29418	C6	U A1391	188.335	123.684	-23.384	1.00	44.90	C	ATOM	29468	O4*	A A1394	183.560	107.194	-18.771	1.00	35.59	O
ATOM	29419	P	G A1392	183.927	120.485	-25.671	1.00	43.05	P	ATOM	29469	C3*	A A1394	185.219	108.264	-17.466	1.00	35.59	C
ATOM	29420	O1P	G A1392	182.803	120.235	-26.610	1.00	40.77	O	ATOM	29470	O3*	A A1394	185.618	107.278	-16.540	1.00	35.59	O
ATOM	29421	O2P	G A1392	183.641	120.987	-24.305	1.00	40.77	O	ATOM	29471	C2*	A A1394	185.789	107.959	-18.848	1.00	35.59	C
ATOM	29422	O5*	G A1392	184.783	119.152	-25.515	1.00	43.05	O	ATOM	29472	O2*	A A1394	187.089	107.405	-18.816	1.00	35.59	O
ATOM	29423	C5*	G A1392	185.100	118.352	-26.669	1.00	43.05	C	ATOM	29473	C1*	A A1394	184.813	106.911	-19.356	1.00	35.59	C
ATOM	29424	C4*	G A1392	185.908	117.145	-26.266	1.00	43.05	C	ATOM	29474	N9	A A1394	184.653	106.941	-20.805	1.00	50.32	N
ATOM	29425	O3*	G A1392	187.255	117.551	-25.929	1.00	43.05	O	ATOM	29475	C8	A A1394	184.040	107.891	-21.575	1.00	50.32	C
ATOM	29426	C4*	G A1392	185.399	116.429	-25.030	1.00	43.05	C	ATOM	29476	N7	A A1394	184.025	107.604	-22.852	1.00	50.32	N
ATOM	29427	O3*	G A1392	184.410	115.470	-25.306	1.00	43.05	O	ATOM	29477	C5	A A1394	184.681	106.387	-22.924	1.00	50.32	C
ATOM	29428	C2*	G A1392	186.644	115.766	-24.483	1.00	43.05	C	ATOM	29478	C6	A A1394	184.994	105.546	-23.999	1.00	50.32	C
ATOM	29429	O2*	G A1392	186.885	114.561	-25.171	1.00	43.05	O	ATOM	29479	N6	A A1394	184.686	105.811	-25.270	1.00	50.32	N
ATOM	29430	C1*	G A1392	187.712	116.810	-24.808	1.00	43.05	C	ATOM	29480	N1	A A1394	185.651	104.405	-23.724	1.00	50.32	N
ATOM	29431	N9	G A1392	187.898	117.759	-23.717	1.00	40.77	N	ATOM	29481	C2	A A1394	185.978	104.142	-22.454	1.00	50.32	C
ATOM	29432	C8	G A1392	187.241	118.957	-23.572	1.00	40.77	C	ATOM	29482	N3	A A1394	185.747	104.855	-21.364	1.00	50.32	N
ATOM	29433	N7	G A1392	187.622	119.627	-22.522	1.00	40.77	N	ATOM	29483	C4	A A1394	185.083	105.976	-21.672	1.00	50.32	C
ATOM	29434	C5	G A1392	188.583	118.820	-21.933	1.00	40.77	C	ATOM	29484	P	A A1394	185.726	107.659	-14.997	1.00	36.45	P
ATOM	29435	C6	G A1392	189.351	119.027	-20.770	1.00	40.77	C	ATOM	29485	O1P	C A1395	185.822	106.392	-14.202	1.00	37.53	O
ATOM	29436	O6	G A1392	189.341	119.999	-20.005	1.00	40.77	O	ATOM	29486	O2P	C A1395	184.624	108.625	-14.720	1.00	37.53	O
ATOM	29437	N1	G A1392	190.200	117.957	-20.528	1.00	40.77	N	ATOM	29487	O5*	C A1395	187.105	108.446	-14.935	1.00	36.45	O
ATOM	29438	C2	G A1392	190.294	116.839	-21.307	1.00	40.77	C	ATOM	29488	C5*	C A1395	188.358	107.750	-14.909	1.00	36.45	C
ATOM	29439	N2	G A1392	191.177	115.937	-20.912	1.00	40.77	N	ATOM	29489	C4*	C A1395	189.405	108.658	-14.349	1.00	36.45	C
ATOM	29440	N3	G A1392	189.578	116.630	-22.394	1.00	40.77	N	ATOM	29490	O4*	C A1395	189.521	109.795	-15.228	1.00	36.45	O
ATOM	29441	C4	G A1392	188.754	117.655	-22.650	1.00	40.77	C	ATOM	29491	C3*	C A1395	189.010	109.227	-13.001	1.00	36.45	C
ATOM	29442	P	U A1393	183.367	115.094	-24.158	1.00	36.07	P	ATOM	29492	O3*	C A1395	189.490	108.353	-11.989	1.00	36.45	O
ATOM	29443	O1P	U A1393	182.345	114.195	-24.746	1.00	45.56	O	ATOM	29493	C2*	C A1395	189.659	110.610	-12.989	1.00	36.45	C
ATOM	29444	O2P	U A1393	182.946	116.383	-23.516	1.00	45.56	O	ATOM	29494	O2*	C A1395	191.004	110.634	-12.561	1.00	36.45	O
ATOM	29445	O5*	U A1393	184.226	114.250	-23.118	1.00	36.07	O	ATOM	29495	C1*	C A1395	189.653	110.973	-14.472	1.00	36.45	C
ATOM	29446	C5*	U A1393	184.799	113.016	-23.509	1.00	36.07	C	ATOM	29496	N1	C A1395	188.630	111.926	-14.913	1.00	37.53	N
ATOM	29447	C4*	U A1393	185.680	112.489	-22.426	1.00	36.07	C	ATOM	29497	C2	C A1395	188.748	113.252	-14.523	1.00	37.53	C



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ATOM	29498	O2	C A1395	189.668	113.571	-13.755	1.00	37.53	O	ATOM	29548	O2P	A A1398	195.319	110.569	-6.494	1.00	53.31	O
ATOM	29499	N3	C A1395	187.864	114.158	-14.987	1.00	37.53	N	ATOM	29549	O5*	A A1398	194.465	109.841	-8.708	1.00	52.71	O
ATOM	29500	C4	C A1395	186.890	113.775	-15.803	1.00	37.53	C	ATOM	29550	C5*	A A1398	194.823	111.137	-9.133	1.00	52.71	C
ATOM	29501	N4	C A1395	186.073	114.709	-16.270	1.00	37.53	N	ATOM	29551	C4*	A A1398	193.765	111.682	-10.027	1.00	52.71	C
ATOM	29502	C5	C A1395	186.719	112.419	-16.184	1.00	37.53	C	ATOM	29552	O4*	A A1398	192.625	112.118	-9.254	1.00	52.71	O
ATOM	29503	C6	C A1395	187.599	111.535	-15.717	1.00	37.53	C	ATOM	29553	C3*	A A1398	194.217	112.929	-10.729	1.00	52.71	C
ATOM	29504	P	A A1396	188.643	108.148	-10.645	1.00	46.96	P	ATOM	29554	O3*	A A1398	194.966	112.574	-11.836	1.00	52.71	O
ATOM	29505	O1P	A A1396	189.456	107.306	-9.733	1.00	35.20	O	ATOM	29555	C2*	A A1398	192.919	113.632	-11.064	1.00	52.71	C
ATOM	29506	O2P	A A1396	187.259	107.723	-11.003	1.00	35.20	O	ATOM	29556	O2*	A A1398	192.297	113.133	-12.235	1.00	52.71	O
ATOM	29507	O5*	A A1396	188.610	109.604	-10.010	1.00	46.96	O	ATOM	29557	C1*	A A1398	192.097	113.312	-9.819	1.00	52.71	C
ATOM	29508	C5*	A A1396	189.799	110.173	-9.457	1.00	46.96	C	ATOM	29558	N9	A A1398	192.242	114.383	-8.836	1.00	53.31	N
ATOM	29509	C4*	A A1396	189.460	111.371	-8.620	1.00	46.96	C	ATOM	29559	C8	A A1398	193.015	114.389	-7.697	1.00	53.31	C
ATOM	29510	O4*	A A1396	188.962	112.427	-9.476	1.00	46.96	O	ATOM	29560	N7	A A1398	192.952	115.512	-7.022	1.00	53.31	N
ATOM	29511	C3*	A A1396	188.411	111.156	-7.537	1.00	46.96	C	ATOM	29561	C5	A A1398	192.079	116.297	-7.765	1.00	53.31	C
ATOM	29512	O3*	A A1396	188.788	111.947	-6.419	1.00	46.96	O	ATOM	29562	C6	A A1398	191.603	117.598	-7.585	1.00	53.31	C
ATOM	29513	O2*	A A1396	187.148	111.749	-8.160	1.00	46.96	C	ATOM	29563	N6	A A1398	191.960	118.378	-6.565	1.00	53.31	N
ATOM	29514	C2*	A A1396	186.262	112.271	-7.201	1.00	46.96	O	ATOM	29564	N1	A A1398	190.741	118.082	-8.500	1.00	53.31	N
ATOM	29515	C1*	A A1396	187.729	112.894	-8.979	1.00	46.96	C	ATOM	29565	C2	A A1398	190.395	117.305	-9.526	1.00	53.31	C
ATOM	29516	N9	A A1396	186.933	113.365	-10.107	1.00	35.20	N	ATOM	29566	N3	A A1398	190.781	116.070	-9.813	1.00	53.31	N
ATOM	29517	C8	A A1396	186.527	112.683	-11.223	1.00	35.20	C	ATOM	29567	C4	A A1398	191.632	115.614	-8.881	1.00	53.31	C
ATOM	29518	N7	A A1396	185.863	114.680	-11.500	1.00	35.20	N	ATOM	29568	P	C A1399	196.200	113.478	-12.237	1.00	36.77	P
ATOM	29519	C5	A A1396	185.341	115.909	-11.920	1.00	35.20	C	ATOM	29569	O1P	C A1399	196.999	113.794	-11.020	1.00	58.05	O
ATOM	29520	C6	A A1396	185.724	116.088	-13.086	1.00	35.20	N	ATOM	29570	O2P	C A1399	195.652	114.572	-13.069	1.00	58.05	O
ATOM	29521	N6	A A1396	184.724	116.088	-13.086	1.00	35.20	N	ATOM	29571	O5*	C A1399	197.050	112.514	-13.164	1.00	36.77	O
ATOM	29522	N1	A A1396	185.478	116.963	-11.093	1.00	35.20	C	ATOM	29572	C5*	C A1399	197.629	111.287	-12.662	1.00	36.77	C
ATOM	29523	C2	A A1396	186.097	116.779	-9.924	1.00	35.20	C	ATOM	29573	C4*	C A1399	198.273	110.541	-13.805	1.00	36.77	C
ATOM	29524	N3	A A1396	186.629	115.673	-9.418	1.00	35.20	N	ATOM	29574	O4*	C A1399	197.220	110.023	-14.655	1.00	36.77	O
ATOM	29525	C4	A A1396	186.481	114.649	-10.268	1.00	59.84	P	ATOM	29575	C3*	C A1399	199.130	111.452	-14.681	1.00	36.77	O
ATOM	29526	P	C A1397	188.970	111.268	-4.983	1.00	66.16	O	ATOM	29576	O3*	C A1399	200.199	110.726	-15.271	1.00	36.77	O
ATOM	29527	O1P	C A1397	188.019	110.140	-4.850	1.00	66.16	O	ATOM	29577	C2*	C A1399	198.159	111.866	-15.778	1.00	36.77	C
ATOM	29528	O2P	C A1397	188.926	112.396	-4.018	1.00	66.16	O	ATOM	29578	O2*	C A1399	198.831	112.244	-16.953	1.00	36.77	O
ATOM	29529	O5*	C A1397	190.438	110.662	-5.013	1.00	65.07	O	ATOM	29579	C1*	C A1399	197.327	110.593	-15.939	1.00	36.77	C
ATOM	29530	C5*	C A1397	191.557	111.409	-5.531	1.00	65.07	C	ATOM	29580	N1	C A1399	195.966	110.757	-16.470	1.00	58.05	N
ATOM	29531	C4*	C A1397	192.842	110.745	-5.110	1.00	65.07	C	ATOM	29581	C2	C A1399	195.567	109.962	-17.545	1.00	58.05	C
ATOM	29532	O4*	C A1397	192.987	110.887	-3.680	1.00	65.07	O	ATOM	29582	O2	C A1399	196.362	109.142	-18.009	1.00	58.05	O
ATOM	29533	C3*	C A1397	192.894	109.241	-5.361	1.00	65.07	C	ATOM	29583	N3	C A1399	194.327	110.106	-18.053	1.00	58.05	N
ATOM	29534	O3*	C A1397	193.316	108.930	-6.698	1.00	65.07	O	ATOM	29584	C4	C A1399	193.497	111.005	-17.532	1.00	58.05	C
ATOM	29535	C2*	C A1397	193.793	108.699	-4.257	1.00	65.07	O	ATOM	29585	N4	C A1399	192.291	111.143	-18.090	1.00	58.05	N
ATOM	29536	O2*	C A1397	195.169	108.646	-4.563	1.00	65.07	O	ATOM	29586	C5	C A1399	193.867	111.814	-16.422	1.00	58.05	C
ATOM	29537	C1*	C A1397	193.562	109.712	-3.135	1.00	65.07	C	ATOM	29587	C6	C A1399	195.100	111.662	-15.929	1.00	58.05	C
ATOM	29538	N1	C A1397	192.731	109.239	-2.011	1.00	101.11.10	N	ATOM	29588	P	C A1400	201.609	110.599	-14.515	1.00	37.57	P
ATOM	29539	C2	C A1397	193.070	109.647	-0.702	1.00	101.11.10	O	ATOM	29589	O1P	C A1400	201.893	111.872	-13.809	1.00	57.74	O
ATOM	29540	N3	C A1397	194.057	110.395	-0.530	1.00	101.11.10	N	ATOM	29590	O2P	C A1400	202.565	110.093	-15.530	1.00	57.74	O
ATOM	29541	O2	C A1397	192.314	109.218	0.335	1.00	101.11.10	O	ATOM	29591	O5*	C A1400	201.374	109.450	-13.445	1.00	37.57	O
ATOM	29542	C4	C A1397	191.263	108.422	0.115	1.00	101.11.10	C	ATOM	29592	C5*	C A1400	200.997	108.134	-13.862	1.00	37.57	C
ATOM	29543	N4	C A1397	190.542	108.035	1.170	1.00	101.11.10	N	ATOM	29593	C4*	C A1400	201.042	107.197	-12.686	1.00	37.57	C
ATOM	29544	C5	C A1397	190.902	107.991	-1.198	1.00	101.11.10	C	ATOM	29594	O4*	C A1400	202.356	107.324	-12.085	1.00	37.57	O
ATOM	29545	C6	C A1397	190.654	108.419	-2.220	1.00	101.11.10	C	ATOM	29595	C3*	C A1400	200.030	107.485	-11.581	1.00	37.57	C
ATOM	29546	P	A A1398	194.789	109.365	-7.231	1.00	52.71	P	ATOM	29596	O3*	C A1400	199.631	106.260	-10.969	1.00	37.57	O
ATOM	29547	O1P	A A1398	195.625	108.124	-7.321	1.00	53.31	O	ATOM	29597	C2*	C A1400	200.836	108.307	-10.576	1.00	37.57	C



Table 1: Sheet 298/521

ATOM	29598	O2*	C A1400	200.378	108.122	-9.251	1.00	37.57	O	ATOM	29648	N4	C A1402	195.854	102.566	-17.571	1.00	44.97	N
ATOM	29599	Cl*	C A1400	202.238	107.722	-10.741	1.00	37.57	C	ATOM	29649	C5	C A1402	194.685	103.535	-15.699	1.00	44.97	C
ATOM	29600	N1	C A1400	203.330	108.663	-10.460	1.00	57.74	N	ATOM	29650	C6	C A1402	193.538	104.079	-15.260	1.00	44.97	C
ATOM	29601	C2	C A1400	204.186	108.407	-9.380	1.00	57.74	C	ATOM	29651	P	C A1403	188.768	101.364	-13.242	1.00	63.28	P
ATOM	29602	O2	C A1400	203.991	107.405	-8.674	1.00	57.74	O	ATOM	29652	O1P	C A1403	187.438	101.087	-12.659	1.00	60.68	O
ATOM	29603	N3	C A1400	205.208	109.256	-9.137	1.00	57.74	N	ATOM	29653	O2P	C A1403	189.985	100.926	-12.512	1.00	60.68	O
ATOM	29604	C4	C A1400	205.396	110.320	-9.925	1.00	57.74	C	ATOM	29654	O5*	C A1403	188.808	100.730	-14.706	1.00	63.28	O
ATOM	29605	N4	C A1400	206.436	111.117	-9.665	1.00	57.74	N	ATOM	29655	C5*	C A1403	187.984	101.246	-15.770	1.00	63.28	C
ATOM	29606	C5	C A1400	204.531	110.610	-11.018	1.00	57.74	C	ATOM	29656	C4*	C A1403	188.562	100.867	-17.120	1.00	63.28	C
ATOM	29607	C6	C A1400	203.520	109.766	-11.245	1.00	57.74	C	ATOM	29657	O4*	C A1403	189.849	101.510	-17.302	1.00	63.28	O
ATOM	29608	P	G A1401	198.421	105.415	-11.592	1.00	51.68	P	ATOM	29658	C3*	C A1403	188.825	99.383	-17.344	1.00	63.28	C
ATOM	29609	O1P	G A1401	197.947	104.428	-10.579	1.00	52.96	O	ATOM	29659	O3*	C A1403	187.647	98.710	-17.802	1.00	63.28	O
ATOM	29610	O2P	G A1401	198.876	104.933	-12.927	1.00	52.96	O	ATOM	29660	C2*	C A1403	189.949	99.379	-18.379	1.00	63.28	C
ATOM	29611	O5*	G A1401	197.281	106.505	-11.837	1.00	51.68	O	ATOM	29661	O2*	C A1403	189.517	99.482	-19.720	1.00	63.28	O
ATOM	29612	C5*	G A1401	196.619	107.167	-10.749	1.00	51.68	C	ATOM	29662	Cl*	C A1403	190.724	100.646	-18.008	1.00	63.28	C
ATOM	29613	C4*	G A1401	195.236	107.631	-11.173	1.00	51.68	C	ATOM	29663	N1	C A1403	191.911	100.392	-17.167	1.00	60.68	N
ATOM	29614	O4*	G A1401	195.340	108.576	-12.278	1.00	51.68	O	ATOM	29664	C2	C A1403	192.887	99.511	-17.627	1.00	60.68	C
ATOM	29615	C3*	G A1401	194.286	106.557	-11.678	1.00	51.68	C	ATOM	29665	O2	C A1403	192.716	98.951	-18.716	1.00	60.68	O
ATOM	29616	O3*	G A1401	193.588	105.916	-10.630	1.00	51.68	O	ATOM	29666	N3	C A1403	193.986	99.286	-16.871	1.00	60.68	N
ATOM	29617	C2*	G A1401	193.324	107.357	-12.533	1.00	51.68	C	ATOM	29667	C4	C A1403	194.121	99.896	-15.692	1.00	60.68	C
ATOM	29618	O2*	G A1401	192.362	107.998	-11.722	1.00	51.68	O	ATOM	29668	N4	C A1403	195.219	99.644	-14.971	1.00	60.68	N
ATOM	29619	Cl*	G A1401	194.262	108.381	-13.181	1.00	51.68	C	ATOM	29669	C5	C A1403	193.138	100.791	-15.194	1.00	60.68	C
ATOM	29620	N9	G A1401	194.804	107.825	-14.422	1.00	52.96	N	ATOM	29670	C6	C A1403	192.061	101.011	-15.956	1.00	60.68	C
ATOM	29621	C8	G A1401	196.070	107.330	-14.618	1.00	52.96	C	ATOM	29671	P	C A1404	187.429	97.152	-17.452	1.00	53.55	P
ATOM	29622	N7	G A1401	196.232	106.784	-15.789	1.00	52.96	N	ATOM	29672	O1P	C A1404	185.966	96.928	-17.227	1.00	56.62	O
ATOM	29623	C5	G A1401	195.009	106.953	-16.417	1.00	52.96	C	ATOM	29673	O2P	C A1404	188.403	96.765	-16.384	1.00	53.55	O
ATOM	29624	C6	G A1401	194.582	106.553	-17.698	1.00	52.96	C	ATOM	29674	O5*	C A1404	187.866	96.417	-18.796	1.00	53.55	O
ATOM	29625	O6	G A1401	195.213	105.938	-18.557	1.00	52.96	O	ATOM	29675	C5*	C A1404	187.241	96.745	-20.042	1.00	53.55	C
ATOM	29626	N1	G A1401	193.270	106.932	-17.940	1.00	52.96	N	ATOM	29676	C4*	C A1404	187.990	96.110	-21.183	1.00	53.55	C
ATOM	29627	C2	G A1401	192.473	107.606	-17.058	1.00	52.96	C	ATOM	29677	O4*	C A1404	189.298	96.724	-21.297	1.00	53.55	O
ATOM	29628	N2	G A1401	191.240	107.884	-17.471	1.00	52.96	N	ATOM	29678	C3*	C A1404	188.288	94.632	-21.030	1.00	53.55	C
ATOM	29629	N3	G A1401	192.857	107.981	-15.857	1.00	52.96	N	ATOM	29679	O3*	C A1404	187.197	93.797	-21.365	1.00	53.55	O
ATOM	29630	C4	G A1401	194.127	107.622	-15.601	1.00	52.96	C	ATOM	29680	C2*	C A1404	189.505	94.443	-21.926	1.00	53.55	C
ATOM	29631	P	C A1402	193.269	104.346	-10.737	1.00	43.91	P	ATOM	29681	O2*	C A1404	189.194	94.304	-23.302	1.00	53.55	O
ATOM	29632	O1P	C A1402	192.439	103.996	-9.563	1.00	44.97	O	ATOM	29682	Cl*	C A1404	190.253	95.753	-21.692	1.00	53.55	C
ATOM	29633	O2P	C A1402	194.543	103.630	-10.983	1.00	44.97	O	ATOM	29683	N1	C A1404	191.266	95.638	-20.624	1.00	56.62	N
ATOM	29634	O5*	C A1402	192.332	104.209	-12.014	1.00	43.91	O	ATOM	29684	C2	C A1404	192.569	95.208	-20.957	1.00	56.62	C
ATOM	29635	C5*	C A1402	191.047	104.828	-12.021	1.00	43.91	C	ATOM	29685	O2	C A1404	192.832	94.902	-22.139	1.00	56.62	O
ATOM	29636	C4*	C A1402	190.448	104.809	-13.400	1.00	43.91	C	ATOM	29686	N3	C A1404	193.501	95.134	-19.980	1.00	56.62	N
ATOM	29637	O4*	C A1402	191.372	105.405	-14.349	1.00	43.91	O	ATOM	29687	C4	C A1404	193.180	95.455	-18.724	1.00	56.62	C
ATOM	29638	C3*	C A1402	190.129	103.455	-13.996	1.00	43.91	C	ATOM	29688	N4	C A1404	194.134	95.384	-17.807	1.00	56.62	N
ATOM	29639	O3*	C A1402	188.904	102.940	-13.507	1.00	43.91	O	ATOM	29689	C5	C A1404	191.867	95.867	-18.357	1.00	56.62	C
ATOM	29640	C2*	C A1402	190.080	103.766	-15.491	1.00	43.91	C	ATOM	29690	C6	C A1404	190.952	95.947	-19.326	1.00	56.62	C
ATOM	29641	O2*	C A1402	188.842	104.316	-15.921	1.00	43.91	O	ATOM	29691	P	G A1405	186.982	92.430	-20.552	1.00	59.94	P
ATOM	29642	Cl*	C A1402	191.188	104.817	-15.627	1.00	43.91	C	ATOM	29692	O1P	G A1405	185.567	92.023	-20.764	1.00	66.99	O
ATOM	29643	N1	C A1402	192.473	104.249	-16.100	1.00	44.97	N	ATOM	29693	O2P	G A1405	187.497	92.585	-19.167	1.00	66.99	O
ATOM	29644	C2	C A1402	192.572	103.873	-17.441	1.00	44.97	C	ATOM	29694	O5*	G A1405	187.928	91.407	-21.314	1.00	59.94	O
ATOM	29645	O2	C A1402	191.603	104.051	-18.179	1.00	44.97	O	ATOM	29695	C5*	G A1405	187.689	91.123	-22.692	1.00	59.94	C
ATOM	29646	N3	C A1402	193.718	103.323	-17.899	1.00	44.97	N	ATOM	29696	C4*	G A1405	188.895	90.492	-23.330	1.00	59.94	C
ATOM	29647	C4	C A1402	194.746	103.142	-17.073	1.00	44.97	C	ATOM	29697	O4*	G A1405	189.999	91.436	-23.363	1.00	59.94	O



Table 1: Sheet 299/521

ATOM	29698	C3*	G A1405	189.479	89.267	-22.654	1.00	59.94	C	ATOM	29748	O2	C A1407	196.737	83.826	-18.028	1.00	86.08	O
ATOM	29699	O3*	G A1405	188.767	88.066	-22.926	1.00	59.94	O	ATOM	29749	N3	C A1407	194.780	84.914	-17.676	1.00	86.08	N
ATOM	29700	C2*	G A1405	190.880	89.241	-23.246	1.00	59.94	C	ATOM	29750	C4	C A1407	193.505	85.089	-18.031	1.00	86.08	C
ATOM	29701	O2*	G A1405	190.877	88.717	-24.567	1.00	59.94	O	ATOM	29751	N4	C A1407	192.782	85.972	-17.339	1.00	86.08	N
ATOM	29702	C1*	G A1405	191.224	90.731	-23.278	1.00	59.94	C	ATOM	29752	C5	C A1407	192.915	84.363	-19.106	1.00	86.08	C
ATOM	29703	N9	G A1405	191.903	91.102	-22.040	1.00	66.99	N	ATOM	29753	C6	C A1407	193.681	83.474	-19.741	1.00	86.08	C
ATOM	29704	C8	G A1405	191.328	91.528	-20.868	1.00	66.99	C	ATOM	29754	P	A A1408	194.277	77.907	-18.836	1.00	81.58	P
ATOM	29705	N7	G A1405	192.194	91.718	-19.909	1.00	66.99	N	ATOM	29755	O1P	A A1408	194.695	76.497	-19.067	1.00	86.86	O
ATOM	29706	C5	G A1405	193.421	91.410	-20.486	1.00	66.99	C	ATOM	29756	O2P	A A1408	192.832	78.222	-18.662	1.00	86.86	O
ATOM	29707	C6	G A1405	194.738	91.413	-19.927	1.00	66.99	C	ATOM	29757	O5*	A A1408	195.081	78.476	-17.579	1.00	81.58	O
ATOM	29708	O6	G A1405	195.089	91.694	-18.771	1.00	66.99	O	ATOM	29758	C5*	A A1408	196.375	77.947	-17.233	1.00	81.58	C
ATOM	29709	N1	G A1405	195.692	91.032	-20.868	1.00	66.99	N	ATOM	29759	C4*	A A1408	196.772	78.386	-15.845	1.00	81.58	C
ATOM	29710	C2	G A1405	195.424	90.689	-22.175	1.00	66.99	C	ATOM	29760	O4*	A A1408	196.965	79.819	-15.844	1.00	81.58	O
ATOM	29711	N2	G A1405	196.479	90.357	-22.933	1.00	66.99	N	ATOM	29761	C3*	A A1408	195.765	78.138	-14.732	1.00	81.58	C
ATOM	29712	N3	G A1405	194.208	90.674	-22.701	1.00	66.99	N	ATOM	29762	O3*	A A1408	195.837	76.826	-14.193	1.00	81.58	O
ATOM	29713	C4	G A1405	193.261	91.043	-21.806	1.00	66.99	C	ATOM	29763	C2*	A A1408	196.134	79.191	-13.694	1.00	81.58	C
ATOM	29714	P	U A1406	188.916	86.814	-21.924	1.00	73.43	P	ATOM	29764	O2*	A A1408	197.156	78.800	-12.803	1.00	81.58	O
ATOM	29715	O1P	U A1406	187.728	85.948	-22.091	1.00	62.30	O	ATOM	29765	C1*	A A1408	196.611	80.345	-14.576	1.00	81.58	C
ATOM	29716	O2P	U A1406	189.273	87.322	-20.578	1.00	62.30	O	ATOM	29766	N9	A A1408	195.558	81.339	-14.758	1.00	86.86	N
ATOM	29717	O5*	U A1406	190.193	86.026	-22.458	1.00	73.43	O	ATOM	29767	C8	A A1408	194.714	81.515	-15.827	1.00	86.86	C
ATOM	29718	C5*	U A1406	190.398	85.774	-23.867	1.00	73.43	C	ATOM	29768	N7	A A1408	193.850	82.484	-15.660	1.00	86.86	N
ATOM	29719	C4*	U A1406	191.824	85.320	-24.115	1.00	73.43	C	ATOM	29769	C5	A A1408	194.151	82.985	-14.402	1.00	86.86	C
ATOM	29720	O4*	U A1406	192.751	86.412	-23.865	1.00	73.43	O	ATOM	29770	C6	A A1408	193.590	84.020	-13.639	1.00	86.86	C
ATOM	29721	C3*	U A1406	192.318	84.194	-23.219	1.00	73.43	C	ATOM	29771	N6	A A1408	192.555	84.761	-14.046	1.00	86.86	N
ATOM	29722	O3*	U A1406	191.917	82.927	-23.706	1.00	73.43	O	ATOM	29772	N1	A A1408	194.132	84.268	-12.425	1.00	86.86	N
ATOM	29723	C2*	U A1406	193.831	84.377	-23.236	1.00	73.43	C	ATOM	29773	C2	A A1408	195.161	83.510	-12.014	1.00	86.86	C
ATOM	29724	O2*	U A1406	194.444	83.802	-24.379	1.00	73.43	O	ATOM	29774	N3	A A1408	195.765	82.505	-12.636	1.00	86.86	N
ATOM	29725	C1*	U A1406	193.956	85.900	-23.311	1.00	73.43	C	ATOM	29775	C4	A A1408	195.206	82.293	-13.839	1.00	86.86	C
ATOM	29726	N1	U A1406	194.198	86.550	-22.010	1.00	62.30	N	ATOM	29776	P	C A1409	194.595	76.249	-13.347	1.00	86.68	P
ATOM	29727	C2	U A1406	195.497	86.532	-21.505	1.00	62.30	C	ATOM	29777	O1P	C A1409	194.953	74.861	-12.947	1.00	100.13	O
ATOM	29728	O2	U A1406	196.424	85.988	-22.076	1.00	62.30	O	ATOM	29778	O2P	C A1409	193.347	76.490	-14.118	1.00	100.13	O
ATOM	29729	N3	U A1406	195.666	87.182	-20.306	1.00	62.30	N	ATOM	29779	O5*	C A1409	194.558	77.166	-12.042	1.00	86.68	O
ATOM	29730	C4	U A1406	194.691	87.840	-19.571	1.00	62.30	C	ATOM	29780	C5*	C A1409	195.535	76.996	-10.998	1.00	86.68	C
ATOM	29731	O4	U A1406	195.005	88.427	-18.524	1.00	62.30	O	ATOM	29781	C4*	C A1409	195.110	77.726	-9.748	1.00	86.68	C
ATOM	29732	C5	U A1406	193.374	87.799	-20.153	1.00	62.30	C	ATOM	29782	O4*	C A1409	195.159	79.156	-9.983	1.00	86.68	O
ATOM	29733	C6	U A1406	193.180	87.170	-21.317	1.00	62.30	C	ATOM	29783	C3*	C A1409	193.689	77.466	-9.270	1.00	86.68	C
ATOM	29734	P	C A1407	191.344	81.838	-22.681	1.00	76.27	P	ATOM	29784	O3*	C A1409	193.559	76.273	-8.507	1.00	86.68	O
ATOM	29735	O1P	C A1407	190.907	80.679	-23.506	1.00	86.08	O	ATOM	29785	C2*	C A1409	193.372	78.720	-8.462	1.00	86.68	C
ATOM	29736	O2P	C A1407	190.371	82.501	-21.769	1.00	76.27	O	ATOM	29786	O2*	C A1409	193.836	78.674	-7.125	1.00	86.68	O
ATOM	29737	O5*	C A1407	192.619	81.413	-21.827	1.00	76.27	O	ATOM	29787	C1*	C A1409	194.119	79.795	-9.257	1.00	86.68	C
ATOM	29738	C5*	C A1407	193.686	80.658	-22.423	1.00	76.27	C	ATOM	29788	N1	C A1409	193.233	80.499	-10.208	1.00	100.13	N
ATOM	29739	C4*	C A1407	194.904	80.683	-21.533	1.00	76.27	C	ATOM	29789	C2	C A1409	192.423	81.543	-9.732	1.00	100.13	C
ATOM	29740	O4*	C A1407	195.321	82.059	-21.351	1.00	76.27	O	ATOM	29790	O2	C A1409	192.485	81.854	-8.531	1.00	100.13	O
ATOM	29741	C3*	C A1407	194.700	80.149	-20.124	1.00	76.27	C	ATOM	29791	N3	C A1409	191.593	82.183	-10.591	1.00	100.13	N
ATOM	29742	O3*	C A1407	194.872	78.740	-20.076	1.00	76.27	O	ATOM	29792	C4	C A1409	191.551	81.821	-11.875	1.00	100.13	C
ATOM	29743	C2*	C A1407	195.760	80.890	-19.315	1.00	76.27	C	ATOM	29793	N4	C A1409	190.714	82.483	-12.685	1.00	100.13	N
ATOM	29744	O2*	C A1407	197.029	80.265	-19.339	1.00	76.27	O	ATOM	29794	C5	C A1409	192.364	80.766	-12.387	1.00	100.13	C
ATOM	29745	C1*	C A1407	195.810	82.243	-20.033	1.00	76.27	C	ATOM	29795	C6	C A1409	193.184	80.142	-11.529	1.00	100.13	C
ATOM	29746	N1	C A1407	194.982	83.266	-19.368	1.00	86.08	N	ATOM	29796	P	G A1410	192.138	75.518	-8.456	1.00	95.83	P
ATOM	29747	C2	C A1407	195.545	84.012	-18.328	1.00	86.08	C	ATOM	29797	O1P	G A1410	192.325	74.309	-7.613	1.00	104.98	O



ATOM	29798	O2P	G A1410	191.632	75.364	-9.845	1.00104.98	O	ATOM	29848	C2*	C A1412	177.198	78.086	-8.375	1.00170.59	C
ATOM	29799	O5*	G A1410	191.195	76.543	-7.675	1.00 95.83	O	ATOM	29849	O2*	C A1412	176.067	78.880	-8.074	1.00170.59	O
ATOM	29800	C5*	G A1410	191.402	76.803	-6.267	1.00 95.83	C	ATOM	29850	C1*	C A1412	178.480	78.901	-8.192	1.00170.59	C
ATOM	29801	C4*	G A1410	190.294	77.672	-5.696	1.00 95.83	C	ATOM	29851	N1	C A1412	179.534	78.510	-9.155	1.00119.77	N
ATOM	29802	O4*	G A1410	190.424	79.037	-6.176	1.00 95.83	O	ATOM	29852	C2	C A1412	179.558	79.120	-10.419	1.00119.77	C
ATOM	29803	C3*	G A1410	188.853	77.287	-6.007	1.00 95.83	C	ATOM	29853	O2	C A1412	180.706	79.984	-10.688	1.00119.77	O
ATOM	29804	O3*	G A1410	188.354	76.247	-5.169	1.00 95.83	O	ATOM	29854	N3	C A1412	180.508	78.750	-11.313	1.00119.77	N
ATOM	29805	C2*	G A1410	188.113	78.603	-5.792	1.00 95.83	C	ATOM	29855	C4	C A1412	181.409	77.819	-10.986	1.00119.77	C
ATOM	29806	O2*	G A1410	187.818	78.863	-4.434	1.00 95.83	O	ATOM	29856	N4	C A1412	182.319	77.482	-11.898	1.00119.77	N
ATOM	29807	C1*	G A1410	189.137	79.625	-6.289	1.00 95.83	C	ATOM	29857	C5	C A1412	181.413	77.191	-9.708	1.00119.77	C
ATOM	29808	N9	G A1410	188.909	79.980	-7.688	1.00104.98	N	ATOM	29858	C6	C A1412	180.470	77.562	-8.833	1.00119.77	C
ATOM	29809	C8	G A1410	189.621	79.548	-8.783	1.00104.98	C	ATOM	29859	P	A A1413	175.715	74.986	-7.712	1.00107.44	P
ATOM	29810	N7	G A1410	189.167	80.024	-9.910	1.00104.98	N	ATOM	29860	O1P	A A1413	174.719	74.343	-6.815	1.00123.70	O
ATOM	29811	C5	G A1410	188.093	80.821	-9.540	1.00104.98	C	ATOM	29861	O2P	A A1413	176.901	74.208	-8.171	1.00123.70	O
ATOM	29812	C6	G A1410	187.213	81.591	-10.332	1.00104.98	C	ATOM	29862	O5*	A A1413	174.944	75.505	-9.007	1.00107.44	O
ATOM	29813	O6	G A1410	187.203	81.725	-11.558	1.00104.98	O	ATOM	29863	C5*	A A1413	173.720	76.254	-8.883	1.00107.44	C
ATOM	29814	N1	G A1410	186.268	82.247	-9.554	1.00104.98	N	ATOM	29864	C4*	A A1413	173.425	76.988	-10.165	1.00107.44	C
ATOM	29815	C2	G A1410	186.178	82.169	-8.188	1.00104.98	C	ATOM	29865	O4*	A A1413	174.523	77.882	-10.463	1.00107.44	O
ATOM	29816	N2	G A1410	185.192	82.880	-7.617	1.00104.98	N	ATOM	29866	C3*	A A1413	173.285	76.115	-11.398	1.00107.44	C
ATOM	29817	N3	G A1410	186.992	81.451	-7.435	1.00104.98	N	ATOM	29867	O3*	A A1413	171.951	75.645	-11.514	1.00107.44	O
ATOM	29818	C4	G A1410	187.920	80.807	-8.172	1.00104.98	C	ATOM	29868	O2*	A A1413	173.664	77.065	-12.527	1.00107.44	O
ATOM	29819	P	C A1411	187.219	75.252	-5.730	1.00163.78	P	ATOM	29869	C2*	A A1413	172.603	77.899	-12.938	1.00107.44	C
ATOM	29820	O1P	C A1411	186.998	74.200	-4.712	1.00108.44	O	ATOM	29870	C1*	A A1413	174.729	77.935	-11.860	1.00107.44	C
ATOM	29821	O2P	C A1411	187.578	74.859	-7.117	1.00108.44	O	ATOM	29871	N9	A A1413	176.085	77.476	-12.144	1.00123.70	N
ATOM	29822	O5*	C A1411	185.908	76.159	-5.778	1.00163.78	O	ATOM	29872	C8	A A1413	178.131	76.503	-11.852	1.00123.70	C
ATOM	29823	C5*	C A1411	185.334	76.688	-4.560	1.00163.78	C	ATOM	29873	N7	A A1413	176.963	76.996	-13.170	1.00123.70	N
ATOM	29824	C4*	C A1411	184.145	77.582	-4.860	1.00163.78	C	ATOM	29874	C5	A A1413	177.963	76.996	-13.170	1.00123.70	C
ATOM	29825	O4*	C A1411	184.583	78.755	-5.596	1.00163.78	O	ATOM	29875	C6	A A1413	178.808	76.940	-14.286	1.00123.70	C
ATOM	29826	C3*	C A1411	183.023	76.989	-5.703	1.00163.78	C	ATOM	29876	N6	A A1413	180.053	76.459	-14.252	1.00123.70	N
ATOM	29827	O3*	C A1411	182.104	76.230	-4.916	1.00163.78	O	ATOM	29877	N1	A A1413	178.327	77.407	-15.457	1.00123.70	N
ATOM	29828	C2*	C A1411	182.366	78.229	-6.299	1.00163.78	C	ATOM	29878	C2	A A1413	177.085	77.901	-15.488	1.00123.70	C
ATOM	29829	O2*	C A1411	181.445	78.835	-5.414	1.00163.78	O	ATOM	29879	N3	A A1413	176.200	78.011	-14.508	1.00123.70	N
ATOM	29830	C1*	C A1411	183.566	79.158	-6.499	1.00163.78	C	ATOM	29880	C4	A A1413	176.707	77.534	-13.362	1.00123.70	C
ATOM	29831	N1	C A1411	184.104	79.114	-7.875	1.00108.44	N	ATOM	29881	P	U A1414	171.644	74.302	-12.340	1.00 85.87	P
ATOM	29832	C2	C A1411	183.529	79.937	-8.854	1.00108.44	C	ATOM	29882	O1P	U A1414	170.185	74.037	-12.218	1.00114.68	O
ATOM	29833	O2	C A1411	182.589	80.688	-8.537	1.00108.44	O	ATOM	29883	O2P	U A1414	172.619	73.262	-11.922	1.00114.68	O
ATOM	29834	N3	C A1411	184.012	79.894	-10.121	1.00108.44	N	ATOM	29884	O5*	U A1414	171.932	74.701	-13.854	1.00 85.87	O
ATOM	29835	C4	C A1411	185.025	79.077	-10.422	1.00108.44	C	ATOM	29885	C5*	U A1414	171.227	75.787	-14.456	1.00 85.87	C
ATOM	29836	N4	C A1411	185.471	79.067	-11.682	1.00108.44	N	ATOM	29886	C4*	U A1414	173.851	76.157	-15.773	1.00 85.87	C
ATOM	29837	C5	C A1411	185.627	78.234	-9.447	1.00108.44	C	ATOM	29887	O4*	U A1414	173.229	76.580	-15.587	1.00 85.87	O
ATOM	29838	C6	C A1411	185.142	78.284	-8.199	1.00108.44	C	ATOM	29888	C3*	U A1414	171.953	75.053	-16.806	1.00 85.87	C
ATOM	29839	P	C A1412	181.122	75.170	-5.630	1.00170.59	P	ATOM	29889	O3*	U A1414	170.727	74.848	-17.490	1.00 85.87	O
ATOM	29840	O1P	C A1412	180.517	74.333	-4.558	1.00119.77	O	ATOM	29890	C2*	U A1414	173.035	75.581	-17.742	1.00 85.87	C
ATOM	29841	O2P	C A1412	181.840	74.513	-6.756	1.00119.77	O	ATOM	29891	O1*	U A1414	172.525	76.509	-18.679	1.00 85.87	O
ATOM	29842	O5*	C A1412	179.971	76.078	-6.250	1.00170.59	O	ATOM	29892	C1*	U A1414	173.968	76.310	-16.772	1.00 85.87	C
ATOM	29843	C5*	C A1412	179.028	76.764	-5.402	1.00170.59	C	ATOM	29893	N1	U A1414	175.175	75.521	-16.457	1.00114.68	N
ATOM	29844	C4*	C A1412	178.135	77.652	-6.233	1.00170.59	C	ATOM	29894	C2	U A1414	176.218	75.544	-17.381	1.00114.68	C
ATOM	29845	O4*	C A1412	178.957	78.659	-6.878	1.00170.59	O	ATOM	29895	O2	U A1414	176.205	76.233	-18.389	1.00114.68	O
ATOM	29846	C3*	C A1412	177.414	76.956	-7.379	1.00170.59	C	ATOM	29896	N3	U A1414	177.280	74.736	-17.076	1.00114.68	N
ATOM	29847	O3*	C A1412	176.200	76.335	-6.977	1.00170.59	O	ATOM	29897	C4	U A1414	177.423	73.934	-15.967	1.00114.68	C



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ATOM	28988	O4	U A1414	178.398	73.183	-15.890	1.00114.68	O	ATOM	29948	O1P	G A1417	170.528	67.411	-28.437	1.00103.42	O
ATOM	28989	C5	U A1414	176.334	73.994	-15.042	1.00114.68	C	ATOM	29949	O2P	G A1417	170.327	67.974	-25.941	1.00103.42	O
ATOM	29900	P	U A1414	175.274	74.765	-15.311	1.00114.68	C	ATOM	29950	O5*	G A1417	172.229	66.627	-26.772	1.00124.72	O
ATOM	29901	C6	G A1415	170.534	73.525	-18.380	1.00 84.46	P	ATOM	29951	C5*	G A1417	173.245	66.221	-27.710	1.00124.72	C
ATOM	29902	O1P	G A1415	169.093	73.420	-18.739	1.00 92.23	O	ATOM	29952	C4*	G A1417	174.291	65.385	-27.010	1.00124.72	C
ATOM	29903	O2P	G A1415	171.207	72.397	-17.682	1.00 92.23	O	ATOM	29953	O4*	G A1417	174.965	66.203	-26.023	1.00124.72	O
ATOM	29904	O5*	G A1415	171.363	73.846	-19.697	1.00 84.46	O	ATOM	29954	C3*	G A1417	173.751	64.194	-26.234	1.00124.72	C
ATOM	29905	C5*	G A1415	171.814	74.959	-20.511	1.00 84.46	C	ATOM	29955	O3*	G A1417	173.649	63.057	-27.085	1.00124.72	O
ATOM	29906	C4*	G A1415	171.814	74.959	-20.511	1.00 84.46	C	ATOM	29956	O2*	G A1417	174.791	63.996	-25.139	1.00124.72	O
ATOM	29907	O4*	G A1415	173.190	75.358	-21.565	1.00 84.46	O	ATOM	29957	O2*	G A1417	175.902	63.247	-25.584	1.00124.72	O
ATOM	29908	C3*	G A1415	171.924	73.610	-22.476	1.00 84.46	C	ATOM	29958	Cl*	G A1417	175.239	65.433	-24.870	1.00124.72	C
ATOM	29909	O3*	G A1415	170.766	73.284	-23.212	1.00 84.46	O	ATOM	29959	N9	G A1417	174.564	66.060	-23.739	1.00103.42	N
ATOM	29910	C2*	G A1415	173.156	73.780	-23.351	1.00 84.46	C	ATOM	29960	C8	G A1417	173.496	66.928	-23.779	1.00103.42	C
ATOM	29911	O2*	G A1415	172.864	74.442	-24.565	1.00 84.46	O	ATOM	29961	N7	G A1417	173.130	67.344	-22.597	1.00103.42	N
ATOM	29912	Cl*	G A1415	174.038	74.672	-22.473	1.00 84.46	C	ATOM	29962	C5	G A1417	174.005	66.708	-21.724	1.00103.42	C
ATOM	29913	N9	G A1415	175.021	73.905	-21.710	1.00 92.23	N	ATOM	29963	C6	G A1417	174.106	66.774	-20.304	1.00103.42	C
ATOM	29914	C8	G A1415	175.044	73.690	-20.351	1.00 92.23	C	ATOM	29964	O6	G A1417	173.426	67.438	-19.507	1.00103.42	O
ATOM	29915	N7	G A1415	176.042	72.941	-19.967	1.00 92.23	N	ATOM	29965	N1	G A1417	175.131	65.960	-19.830	1.00103.42	N
ATOM	29916	C5	G A1415	176.725	72.648	-21.142	1.00 92.23	C	ATOM	29966	C2	G A1417	175.956	65.189	-20.614	1.00103.42	C
ATOM	29917	C6	G A1415	177.896	71.876	-21.356	1.00 92.23	C	ATOM	29967	N2	G A1417	176.877	64.463	-19.970	1.00103.42	N
ATOM	29918	O6	G A1415	178.596	71.286	-20.519	1.00 92.23	O	ATOM	29968	N3	G A1417	175.880	65.129	-21.932	1.00103.42	N
ATOM	29919	N1	G A1415	178.238	71.831	-22.707	1.00 92.23	N	ATOM	29969	C4	G A1417	174.889	65.906	-22.416	1.00103.42	C
ATOM	29920	C2	G A1415	177.551	72.450	-23.722	1.00 92.23	C	ATOM	29970	P	A A1418	172.739	61.805	-26.652	1.00150.89	P
ATOM	29921	N2	G A1415	178.036	72.273	-24.964	1.00 92.23	N	ATOM	29971	O1P	A A1418	171.652	61.678	-27.658	1.00135.22	O
ATOM	29922	N3	G A1415	176.467	73.184	-23.533	1.00 92.23	N	ATOM	29972	O2P	A A1418	172.392	61.918	-25.207	1.00135.22	O
ATOM	29923	C4	G A1415	176.111	73.237	-22.227	1.00 92.23	C	ATOM	29973	O5*	A A1418	173.722	60.564	-26.825	1.00150.89	O
ATOM	29924	P	G A1416	170.363	71.748	-23.377	1.00 85.98	P	ATOM	29974	C5*	A A1418	174.443	60.340	-28.059	1.00150.89	C
ATOM	29925	O1P	G A1416	169.055	71.672	-24.068	1.00 87.92	O	ATOM	29975	C4*	A A1418	175.414	59.196	-27.886	1.00150.89	C
ATOM	29926	O2P	G A1416	170.524	71.096	-22.059	1.00 87.92	O	ATOM	29976	O4*	A A1418	176.438	59.585	-26.935	1.00150.89	O
ATOM	29927	O5*	G A1416	171.500	71.205	-24.348	1.00 85.98	O	ATOM	29977	C3*	A A1418	174.791	57.935	-27.302	1.00150.89	C
ATOM	29928	C5*	G A1416	171.692	71.786	-25.652	1.00 85.98	C	ATOM	29978	O3*	A A1418	174.232	57.105	-28.317	1.00150.89	O
ATOM	29929	C4*	G A1416	172.854	71.125	-26.357	1.00 85.98	C	ATOM	29979	C2*	A A1418	175.961	57.272	-26.584	1.00150.89	C
ATOM	29930	O4*	G A1416	174.096	71.498	-25.703	1.00 85.98	O	ATOM	29980	O2*	A A1418	176.756	56.474	-27.435	1.00150.89	C
ATOM	29931	C3*	G A1416	172.862	69.601	-26.362	1.00 85.98	C	ATOM	29981	Cl*	A A1418	176.765	58.484	-26.105	1.00150.89	C
ATOM	29932	O3*	G A1416	172.064	69.061	-27.413	1.00 85.98	O	ATOM	29982	N9	A A1418	176.464	58.845	-24.718	1.00135.22	N
ATOM	29933	C2*	G A1416	174.343	69.278	-26.537	1.00 85.98	C	ATOM	29983	C8	A A1418	175.549	59.762	-24.263	1.00135.22	C
ATOM	29934	O2*	G A1416	174.758	69.347	-27.888	1.00 85.98	O	ATOM	29984	N7	A A1418	175.499	59.857	-22.957	1.00135.22	N
ATOM	29935	Cl*	G A1416	175.007	70.410	-25.747	1.00 85.98	C	ATOM	29985	C5	A A1418	176.446	58.943	-22.520	1.00135.22	C
ATOM	29936	N9	G A1416	175.358	70.037	-24.376	1.00 87.92	N	ATOM	29986	C6	A A1418	176.877	58.568	-21.234	1.00135.22	C
ATOM	29937	C8	G A1416	174.765	70.473	-23.210	1.00 87.92	C	ATOM	29987	N6	A A1418	176.392	59.092	-20.106	1.00135.22	N
ATOM	29938	N7	G A1416	175.312	69.973	-22.136	1.00 87.92	N	ATOM	29988	N1	A A1418	177.839	57.624	-22.146	1.00135.22	N
ATOM	29939	C5	G A1416	176.323	69.153	-22.618	1.00 87.92	C	ATOM	29989	C2	A A1418	178.330	57.103	-22.276	1.00135.22	C
ATOM	29940	C6	G A1416	177.258	68.347	-21.923	1.00 87.92	C	ATOM	29990	N3	A A1418	178.009	57.374	-23.539	1.00135.22	N
ATOM	29941	O6	G A1416	177.390	68.202	-20.701	1.00 87.92	O	ATOM	29991	C4	A A1418	177.049	58.313	-23.594	1.00135.22	C
ATOM	29942	N1	G A1416	178.102	67.670	-22.802	1.00 87.92	N	ATOM	29992	P	G A1419	172.803	56.400	-28.081	1.00182.21	P
ATOM	29943	C2	G A1416	178.058	67.765	-24.174	1.00 87.92	C	ATOM	29993	O1P	G A1419	172.570	55.516	-29.253	1.00127.58	O
ATOM	29944	N2	G A1416	178.955	67.043	-24.847	1.00 87.92	N	ATOM	29994	O2P	G A1419	171.802	57.446	-27.745	1.00127.58	O
ATOM	29945	N3	G A1416	177.195	68.517	-24.833	1.00 87.92	N	ATOM	29995	O5*	G A1419	173.014	55.491	-26.787	1.00182.21	O
ATOM	29946	C4	G A1416	176.362	69.178	-23.999	1.00 87.92	C	ATOM	29996	C5*	G A1419	173.872	54.332	-26.819	1.00182.21	C
ATOM	29947	P	G A1417	171.169	67.754	-27.142	1.00124.72	P	ATOM	29997	C4*	G A1419	174.201	53.882	-25.414	1.00182.21	C



Table 1: Sheet 302/521

ATOM	29998	O4*	G A1419	174.856	54.974	-24.716	1.00182.21	O	ATOM	30048	C8	G A1421	167.280	54.251	-18.528	1.00168.21	C
ATOM	29999	C3*	G A1419	173.016	53.523	-24.528	1.00182.21	C	ATOM	30049	N7	G A1421	167.047	55.159	-19.438	1.00168.21	N
ATOM	30000	O3*	G A1419	172.584	52.177	-24.699	1.00182.21	O	ATOM	30050	C5	G A1421	166.376	56.166	-18.756	1.00168.21	C
ATOM	30001	C2*	G A1419	173.557	53.767	-23.125	1.00182.21	C	ATOM	30051	C6	G A1421	165.856	57.405	-19.221	1.00168.21	C
ATOM	30002	O2*	G A1419	174.305	52.678	-22.622	1.00182.21	O	ATOM	30052	O6	G A1421	165.883	57.872	-20.366	1.00168.21	O
ATOM	30003	C1*	G A1419	174.469	54.975	-23.351	1.00182.21	C	ATOM	30053	N1	G A1421	165.252	58.124	-18.194	1.00168.21	N
ATOM	30004	N8	G A1419	173.770	56.226	-23.068	1.00127.58	N	ATOM	30054	C2	G A1421	165.155	57.708	-16.888	1.00168.21	C
ATOM	30005	C9	G A1419	173.088	57.018	-23.964	1.00127.58	C	ATOM	30055	N2	G A1421	164.538	58.547	-16.041	1.00168.21	N
ATOM	30006	N7	G A1419	172.518	58.049	-23.405	1.00127.58	N	ATOM	30056	N3	G A1421	165.629	56.555	-16.443	1.00168.21	N
ATOM	30007	C5	G A1419	172.852	57.941	-22.062	1.00127.58	C	ATOM	30057	C4	G A1421	166.222	55.839	-17.424	1.00168.21	C
ATOM	30008	C6	G A1419	172.509	58.768	-20.960	1.00127.58	C	ATOM	30058	P	G A1422	163.218	50.646	-16.525	1.00160.00	P
ATOM	30009	O6	G A1419	171.813	59.795	-20.952	1.00127.58	O	ATOM	30059	O1P	G A1422	162.588	49.476	-15.859	1.00150.69	O
ATOM	30010	N1	G A1419	173.058	58.292	-19.773	1.00127.58	N	ATOM	30060	O2P	G A1422	163.424	50.628	-17.998	1.00150.69	O
ATOM	30011	C2	G A1419	173.834	57.165	-19.656	1.00127.58	C	ATOM	30061	O5*	G A1422	162.365	51.940	-16.154	1.00160.00	O
ATOM	30012	N2	G A1419	174.271	56.872	-18.419	1.00127.58	N	ATOM	30062	C5*	G A1422	161.880	52.131	-14.813	1.00160.00	C
ATOM	30013	N3	G A1419	174.158	56.383	-20.675	1.00127.58	N	ATOM	30063	O4*	G A1422	161.088	53.413	-14.703	1.00160.00	C
ATOM	30014	C4	G A1419	173.635	56.828	-21.839	1.00127.58	C	ATOM	30064	O4*	G A1422	161.963	54.560	-14.879	1.00160.00	O
ATOM	30015	P	C A1420	171.080	51.769	-24.294	1.00149.75	P	ATOM	30065	C3*	G A1422	159.987	53.639	-15.725	1.00160.00	C
ATOM	30016	O1P	C A1420	170.861	50.368	-24.741	1.00182.27	O	ATOM	30066	O3*	G A1422	158.784	52.935	-15.465	1.00160.00	O
ATOM	30017	O2P	C A1420	170.163	52.840	-24.766	1.00182.27	O	ATOM	30067	C2*	G A1422	159.801	55.149	-15.664	1.00160.00	C
ATOM	30018	O5*	C A1420	171.080	51.792	-22.700	1.00149.75	O	ATOM	30068	O2*	G A1422	159.021	55.574	-14.563	1.00160.00	O
ATOM	30019	C5*	C A1420	171.653	50.711	-21.939	1.00149.75	C	ATOM	30069	C1*	G A1422	161.242	55.621	-15.491	1.00160.00	C
ATOM	30020	C4*	C A1420	171.515	50.980	-20.459	1.00149.75	C	ATOM	30070	N9	G A1422	161.809	55.878	-16.811	1.00150.69	N
ATOM	30021	O4*	C A1420	172.201	52.222	-20.149	1.00149.75	O	ATOM	30071	C8	G A1422	162.672	55.080	-17.525	1.00150.69	C
ATOM	30022	C3*	C A1420	170.096	51.188	-19.941	1.00149.75	C	ATOM	30072	N7	G A1422	162.945	55.553	-18.711	1.00150.69	N
ATOM	30023	O3*	C A1420	169.419	49.966	-19.642	1.00149.75	O	ATOM	30073	C5	G A1422	162.230	56.742	-18.780	1.00150.69	C
ATOM	30024	C2*	C A1420	170.317	52.050	-18.702	1.00149.75	C	ATOM	30074	C6	G A1422	162.124	57.697	-19.831	1.00150.69	C
ATOM	30025	O2*	C A1420	170.672	51.305	-17.552	1.00149.75	O	ATOM	30075	O6	G A1422	162.655	57.679	-20.950	1.00150.69	O
ATOM	30026	C1*	C A1420	171.492	52.927	-19.142	1.00149.75	C	ATOM	30076	N1	G A1422	161.294	58.755	-19.475	1.00150.69	N
ATOM	30027	N1	C A1420	171.033	54.216	-19.703	1.00182.27	N	ATOM	30077	C2	G A1422	160.648	58.882	-18.269	1.00150.69	C
ATOM	30028	C2	C A1420	171.015	55.354	-18.878	1.00182.27	C	ATOM	30078	N2	G A1422	159.894	59.977	-18.111	1.00150.69	N
ATOM	30029	O2	C A1420	171.427	55.264	-17.709	1.00182.27	O	ATOM	30079	N3	G A1422	160.735	58.000	-17.287	1.00150.69	N
ATOM	30030	N3	C A1420	170.549	56.522	-19.378	1.00182.27	N	ATOM	30080	C4	G A1422	161.537	56.964	-17.609	1.00150.69	C
ATOM	30031	C4	C A1420	170.120	56.586	-20.642	1.00182.27	C	ATOM	30081	P	G A1423	157.767	52.645	-16.680	1.00150.68	P
ATOM	30032	N4	C A1420	169.653	57.755	-21.086	1.00182.27	N	ATOM	30082	O1P	G A1423	156.808	51.599	-16.238	1.00133.92	O
ATOM	30033	C5	C A1420	170.148	55.455	-21.506	1.00182.27	C	ATOM	30083	O2P	G A1423	158.571	52.430	-17.917	1.00133.92	O
ATOM	30034	C6	C A1420	170.609	54.303	-21.003	1.00182.27	C	ATOM	30084	O5*	G A1423	156.971	54.016	-16.848	1.00150.68	O
ATOM	30035	P	G A1421	167.806	49.913	-19.691	1.00161.80	P	ATOM	30085	C5*	G A1423	156.338	54.646	-15.716	1.00150.68	C
ATOM	30036	O1P	G A1421	167.394	48.515	-19.390	1.00168.21	O	ATOM	30086	C4*	G A1423	155.913	56.052	-16.066	1.00150.68	C
ATOM	30037	O2P	G A1421	167.343	50.555	-20.950	1.00168.21	O	ATOM	30087	O4*	G A1423	157.081	56.816	-16.469	1.00150.68	O
ATOM	30038	O5*	G A1421	167.349	50.838	-18.475	1.00161.80	O	ATOM	30088	C3*	G A1423	154.963	56.184	-17.244	1.00150.68	C
ATOM	30039	C5*	G A1421	167.589	50.436	-17.110	1.00161.80	C	ATOM	30089	O3*	G A1423	153.608	55.966	-16.892	1.00150.68	O
ATOM	30040	C4*	G A1421	167.009	51.449	-16.149	1.00161.80	C	ATOM	30090	C2*	G A1423	155.225	57.605	-17.726	1.00150.68	C
ATOM	30041	O4*	G A1421	167.731	52.703	-16.265	1.00161.80	O	ATOM	30091	O2*	G A1423	154.552	58.587	-16.964	1.00150.68	O
ATOM	30042	C3*	G A1421	165.554	51.827	-16.377	1.00161.80	C	ATOM	30092	C1*	G A1423	156.730	57.729	-17.498	1.00150.68	C
ATOM	30043	O3*	G A1421	164.640	50.895	-15.811	1.00161.80	O	ATOM	30093	N9	G A1423	157.479	57.388	-18.708	1.00133.92	N
ATOM	30044	C2*	G A1421	165.465	53.205	-15.733	1.00161.80	C	ATOM	30094	C8	G A1423	158.183	56.232	-18.963	1.00133.92	C
ATOM	30045	O2*	G A1421	165.283	53.162	-14.331	1.00161.80	O	ATOM	30095	N7	G A1423	158.728	56.215	-20.149	1.00133.92	N
ATOM	30046	C1*	G A1421	166.840	53.790	-16.064	1.00161.80	C	ATOM	30096	C5	G A1423	158.369	57.433	-20.710	1.00133.92	C
ATOM	30047	N9	G A1421	166.795	54.592	-17.286	1.00168.21	N	ATOM	30097	C6	G A1423	158.668	57.980	-21.983	1.00133.92	C



ATOM	30098	O6	G A1423	159.329	57.479	-22.901	1.00133.92	O	ATOM	30148	C5*	C A1426	146.891	60.059	-28.699	1.00	85.88	C	
ATOM	30099	N1	G A1423	158.107	59.245	-22.140	1.00133.92	N	ATOM	30149	C4*	C A1426	147.637	59.833	-29.983	1.00	85.88	C	
ATOM	30100	C2	G A1423	157.351	59.900	-21.194	1.00133.92	C	ATOM	30150	O4*	C A1426	149.028	59.531	-29.707	1.00	85.88	O	
ATOM	30101	N2	G A1423	156.897	61.118	-21.529	1.00133.92	N	ATOM	30151	C3*	C A1426	147.157	58.666	-30.824	1.00	85.88	C	
ATOM	30102	N3	G A1423	157.062	59.398	-20.006	1.00133.92	N	ATOM	30152	O3*	C A1426	146.008	58.991	-31.593	1.00	85.88	O	
ATOM	30103	C4	G A1423	157.600	58.170	-19.832	1.00133.92	C	ATOM	30153	C2*	C A1426	148.382	58.344	-31.672	1.00	85.88	C	
ATOM	30104	P	C A1424	152.550	55.570	-18.037	1.00173.65	P	ATOM	30154	O2*	C A1426	148.515	59.166	-32.818	1.00	85.88	O	
ATOM	30105	O1P	C A1424	151.268	55.227	-17.367	1.00142.76	O	ATOM	30155	C1*	C A1426	149.520	58.636	-30.692	1.00	85.88	C	
ATOM	30106	O2P	C A1424	153.182	54.588	-18.962	1.00142.76	O	ATOM	30156	N1	C A1426	150.000	57.412	-30.026	1.00116.98	N		
ATOM	30107	O5*	C A1424	152.345	56.930	-18.838	1.00173.65	O	ATOM	30157	C2	C A1426	150.877	56.560	-30.722	1.00116.98	C		
ATOM	30108	C5*	C A1424	151.912	58.120	-18.158	1.00173.65	C	ATOM	30158	O2	C A1426	151.225	56.860	-31.876	1.00116.98	O		
ATOM	30109	C4*	C A1424	151.830	59.272	-19.124	1.00173.65	C	ATOM	30159	N3	C A1426	151.317	55.434	-30.121	1.00116.98	N		
ATOM	30110	O4*	C A1424	153.160	59.631	-19.583	1.00173.65	O	ATOM	30160	C4	C A1426	150.917	55.140	-28.881	1.00116.98	C		
ATOM	30111	C3*	C A1424	151.054	58.991	-20.397	1.00173.65	C	ATOM	30161	N4	C A1426	151.379	54.014	-28.325	1.00116.98	N		
ATOM	30112	O3*	C A1424	149.649	59.117	-20.220	1.00173.65	O	ATOM	30162	C5	C A1426	150.027	55.985	-28.153	1.00116.98	C		
ATOM	30113	C2*	C A1424	151.634	60.011	-21.369	1.00173.65	C	ATOM	30163	C6	C A1426	149.599	57.098	-28.757	1.00116.98	C		
ATOM	30114	O2*	C A1424	151.067	61.299	-21.227	1.00173.65	O	ATOM	30164	P	U A1427	144.924	57.850	-31.914	1.00109.74	P		
ATOM	30115	C1*	C A1424	153.100	60.049	-20.938	1.00173.65	C	ATOM	30165	O1P	U A1427	143.687	58.531	-32.372	1.00	92.42	O	
ATOM	30116	N1	C A1424	153.934	59.146	-21.758	1.00142.76	N	ATOM	30166	O2P	U A1427	144.865	56.922	-30.750	1.00	92.42	O	
ATOM	30117	C2	C A1424	154.291	59.547	-23.060	1.00142.76	C	ATOM	30167	O5*	U A1427	145.566	57.064	-33.142	1.00109.74	O		
ATOM	30118	O2	C A1424	153.915	60.656	-23.478	1.00142.76	O	ATOM	30168	C5*	U A1427	145.924	57.757	-34.354	1.00109.74	C		
ATOM	30119	N3	C A1424	155.034	58.713	-23.826	1.00142.76	N	ATOM	30169	C4*	U A1427	146.712	56.847	-35.266	1.00109.74	C		
ATOM	30120	C4	C A1424	155.421	57.528	-23.345	1.00142.76	C	ATOM	30170	O4*	U A1427	148.061	56.667	-34.763	1.00109.74	O		
ATOM	30121	N4	C A1424	156.144	56.736	-24.142	1.00142.76	N	ATOM	30171	C3*	U A1427	146.171	55.436	-35.381	1.00109.74	C		
ATOM	30122	C5	C A1424	155.082	57.102	-22.027	1.00142.76	C	ATOM	30172	O3*	U A1427	145.091	55.329	-36.281	1.00109.74	O		
ATOM	30123	C6	C A1424	154.347	57.933	-21.275	1.00142.76	C	ATOM	30173	C2*	U A1427	147.391	54.634	-35.807	1.00109.74	C		
ATOM	30124	P	U A1425	148.660	58.203	-21.099	1.00120.65	P	ATOM	30174	O2*	U A1427	147.647	54.691	-37.196	1.00109.74	O		
ATOM	30125	O1P	U A1425	147.267	58.576	-20.747	1.00142.50	O	ATOM	30175	C1*	U A1427	148.503	55.345	-35.039	1.00109.74	C		
ATOM	30126	O2P	U A1425	149.093	56.791	-20.977	1.00142.50	O	ATOM	30176	N1	U A1427	148.808	54.666	-33.769	1.00	92.42	N	
ATOM	30127	O5*	U A1425	148.943	58.678	-22.591	1.00120.65	O	ATOM	30177	C2	U A1427	149.674	53.583	-33.808	1.00	92.42	C	
ATOM	30128	C5*	U A1425	148.881	60.073	-22.928	1.00120.65	C	ATOM	30178	O2	U A1427	150.196	53.183	-34.839	1.00	92.42	O	
ATOM	30129	C4*	U A1425	149.331	60.300	-24.348	1.00120.65	C	ATOM	30179	N3	U A1427	149.907	52.983	-32.596	1.00	92.42	N	
ATOM	30130	O4*	U A1425	150.750	60.042	-24.491	1.00120.65	O	ATOM	30180	C4	U A1427	149.381	53.342	-31.376	1.00	92.42	C	
ATOM	30131	C3*	U A1425	148.686	59.417	-25.397	1.00120.65	C	ATOM	30181	O4	U A1427	149.697	52.705	-30.372	1.00	92.42	O	
ATOM	30132	O3*	U A1425	147.396	59.893	-25.746	1.00120.65	O	ATOM	30182	C5	U A1427	148.500	54.468	-31.414	1.00	92.42	C	
ATOM	30133	C2*	U A1425	149.680	59.486	-26.552	1.00120.65	C	ATOM	30183	C6	U A1427	148.250	55.077	-32.577	1.00	92.42	C	
ATOM	30134	O2*	U A1425	149.510	60.628	-27.366	1.00120.65	O	ATOM	30184	P	A A1428	144.005	54.174	-36.052	1.00121.27	P		
ATOM	30135	C1*	U A1425	151.014	59.602	-25.813	1.00120.65	C	ATOM	30185	O1P	A A1428	142.853	54.451	-36.944	1.00	91.84	O	
ATOM	30136	N1	U A1425	151.775	58.342	-25.776	1.00142.50	N	ATOM	30186	O2P	A A1428	143.784	54.058	-34.582	1.00	91.84	O	
ATOM	30137	C2	U A1425	152.591	58.068	-26.864	1.00142.50	C	ATOM	30187	O5*	A A1428	144.755	52.862	-36.560	1.00121.27	O		
ATOM	30138	O2	U A1425	152.696	58.823	-27.819	1.00142.50	O	ATOM	30188	C5*	A A1428	145.261	52.775	-37.906	1.00121.27	C		
ATOM	30139	N3	U A1425	153.278	56.880	-26.794	1.00142.50	N	ATOM	30189	C4*	A A1428	146.019	51.484	-38.098	1.00121.27	C		
ATOM	30140	C4	U A1425	153.238	55.954	-25.774	1.00142.50	C	ATOM	30190	O4*	A A1428	147.285	51.533	-37.393	1.00121.27	O		
ATOM	30141	O4	U A1425	153.907	54.921	-25.869	1.00142.50	O	ATOM	30191	C3*	A A1428	145.330	50.238	-37.567	1.00121.27	C		
ATOM	30142	C5	U A1425	152.376	56.306	-24.682	1.00142.50	C	ATOM	30192	O3*	A A1428	144.389	49.723	-38.500	1.00121.27	O		
ATOM	30143	C6	U A1425	151.690	57.459	-24.719	1.00142.50	C	ATOM	30193	C2*	A A1428	146.491	49.281	-37.322	1.00121.27	C		
ATOM	30144	P	C A1426	146.343	58.890	-26.422	1.00	85.88	P	ATOM	30194	O2*	A A1428	146.879	48.579	-38.485	1.00121.27	O	
ATOM	30145	O1P	C A1426	145.012	59.549	-26.372	1.00116.98	O	ATOM	30195	C1*	A A1428	147.611	50.239	-36.908	1.00121.27	C		
ATOM	30146	O2P	C A1426	146.519	57.538	-25.830	1.00116.98	O	ATOM	30196	N9	A A1428	147.830	50.318	-35.460	1.00	91.84	N	
ATOM	30147	O5*	C A1426	146.817	58.845	-27.939	1.00	85.88	O	ATOM	30197	C8	A A1428	147.311	51.234	-34.574	1.00	91.84	C



Table 1: Sheet 304/521

ATOM	30198	N7	A A1428	147.722	51.068	-33.340	1.00	91.84	N	ATOM	30248	O2P	C A1431	141.014	40.020	-32.456	1.00	58.77	O
ATOM	30199	C5	A A1428	148.560	49.964	-33.412	1.00	91.84	C	ATOM	30249	O5*	C A1431	142.193	38.788	-30.607	1.00	89.17	O
ATOM	30200	C6	A A1428	149.314	49.282	-32.437	1.00	91.84	C	ATOM	30250	C5*	C A1431	142.974	37.716	-30.052	1.00	89.17	C
ATOM	30201	N6	A A1428	149.351	49.633	-31.152	1.00	91.84	N	ATOM	30251	C4*	C A1431	143.131	37.899	-28.563	1.00	89.17	C
ATOM	30202	N1	A A1428	150.038	48.215	-32.835	1.00	91.84	N	ATOM	30252	O4*	C A1431	143.948	39.069	-28.296	1.00	89.17	O
ATOM	30203	C2	A A1428	150.001	47.863	-34.125	1.00	91.84	C	ATOM	30253	C3*	C A1431	141.852	38.165	-27.794	1.00	89.17	C
ATOM	30204	N3	A A1428	149.335	48.423	-35.136	1.00	91.84	N	ATOM	30254	O3*	C A1431	141.125	36.994	-27.498	1.00	89.17	O
ATOM	30205	C4	A A1428	148.626	49.483	-34.708	1.00	91.84	C	ATOM	30255	C2*	C A1431	142.357	38.872	-26.547	1.00	89.17	C
ATOM	30206	P	A A1429	143.046	49.025	-37.963	1.00	104.12	P	ATOM	30256	O2*	C A1431	142.885	37.980	-25.587	1.00	89.17	O
ATOM	30207	O1P	C A1429	142.176	48.759	-39.146	1.00	85.10	O	ATOM	30257	C1*	C A1431	143.485	39.718	-27.123	1.00	89.17	C
ATOM	30208	O2P	C A1429	142.524	49.856	-36.841	1.00	85.10	O	ATOM	30258	N1	C A1431	143.014	41.069	-27.485	1.00	58.77	N
ATOM	30209	O5*	C A1429	143.557	47.628	-37.384	1.00	104.12	O	ATOM	30259	C2	C A1431	143.003	42.060	-26.499	1.00	58.77	C
ATOM	30210	C5*	C A1429	144.012	46.602	-38.280	1.00	104.12	C	ATOM	30260	O2	C A1431	143.380	41.769	-25.353	1.00	58.77	O
ATOM	30211	C4*	C A1429	144.960	45.652	-37.587	1.00	104.12	C	ATOM	30261	N3	C A1431	142.581	43.306	-26.816	1.00	58.77	N
ATOM	30212	O4*	C A1429	146.035	46.395	-36.958	1.00	104.12	O	ATOM	30262	C4	C A1431	142.176	43.577	-28.058	1.00	58.77	C
ATOM	30213	C3*	C A1429	144.418	44.789	-36.461	1.00	104.12	C	ATOM	30263	N4	C A1431	141.767	44.818	-28.326	1.00	58.77	N
ATOM	30214	O3*	C A1429	143.733	43.641	-36.924	1.00	104.12	O	ATOM	30264	C5	C A1431	142.170	42.585	-29.081	1.00	58.77	C
ATOM	30215	C2*	C A1429	145.687	44.396	-35.718	1.00	85.10	C	ATOM	30265	C6	C A1431	142.592	41.357	-28.754	1.00	58.77	C
ATOM	30216	O2*	C A1429	146.377	43.331	-36.346	1.00	104.12	O	ATOM	30266	P	G A1432	139.527	37.079	-27.393	1.00	82.30	P
ATOM	30217	C1*	C A1429	146.515	45.674	-35.834	1.00	104.12	C	ATOM	30267	O1P	G A1432	139.042	35.709	-27.066	1.00	62.47	O
ATOM	30218	N1	C A1429	146.391	46.508	-34.620	1.00	85.10	N	ATOM	30268	O2P	G A1432	139.004	37.790	-28.595	1.00	62.47	O
ATOM	30219	O2	C A1429	147.161	46.166	-33.490	1.00	85.10	O	ATOM	30269	O5*	G A1432	139.282	38.022	-26.133	1.00	82.30	O
ATOM	30220	C2	C A1429	147.934	45.189	-33.555	1.00	85.10	C	ATOM	30270	C5*	G A1432	139.818	37.672	-24.846	1.00	82.30	C
ATOM	30221	N3	C A1429	147.040	46.905	-32.361	1.00	85.10	N	ATOM	30271	C4*	G A1432	139.683	38.828	-23.888	1.00	82.30	C
ATOM	30222	C4	C A1429	146.205	47.948	-32.330	1.00	85.10	C	ATOM	30272	O4*	G A1432	140.455	39.953	-24.375	1.00	82.30	O
ATOM	30223	N4	C A1429	146.122	48.646	-31.193	1.00	85.10	N	ATOM	30273	C3*	G A1432	138.280	39.372	-23.714	1.00	82.30	C
ATOM	30224	C5	C A1429	145.418	48.322	-33.463	1.00	85.10	C	ATOM	30274	O3*	G A1432	137.577	38.612	-22.744	1.00	82.30	O
ATOM	30225	C6	C A1429	145.541	47.583	-34.575	1.00	85.10	C	ATOM	30275	C2*	G A1432	138.542	40.805	-23.268	1.00	82.30	C
ATOM	30226	P	C A1430	142.606	42.972	-35.995	1.00	100.56	P	ATOM	30276	O2*	G A1432	138.884	40.865	-21.898	1.00	82.30	O
ATOM	30227	O1P	C A1430	141.906	41.943	-36.806	1.00	82.40	O	ATOM	30277	C1*	G A1432	139.779	41.163	-24.093	1.00	82.30	C
ATOM	30228	O2P	C A1430	141.826	44.078	-35.381	1.00	82.40	O	ATOM	30278	N9	G A1432	139.437	41.782	-25.369	1.00	62.47	N
ATOM	30229	O5*	C A1430	143.426	42.235	-34.844	1.00	100.56	O	ATOM	30279	C8	G A1432	139.267	41.132	-26.567	1.00	62.47	C
ATOM	30230	C5*	C A1430	144.242	41.092	-35.145	1.00	100.56	C	ATOM	30280	N7	G A1432	138.923	41.929	-27.538	1.00	62.47	N
ATOM	30231	C4*	C A1430	144.873	40.547	-33.888	1.00	100.56	C	ATOM	30281	C5	G A1432	138.869	43.182	-26.952	1.00	62.47	C
ATOM	30232	O4*	C A1430	145.794	41.524	-33.338	1.00	100.56	O	ATOM	30282	C6	G A1432	138.534	44.433	-27.513	1.00	62.47	C
ATOM	30233	C3*	C A1430	143.925	40.250	-32.742	1.00	100.56	C	ATOM	30283	O6	G A1432	138.201	44.690	-28.681	1.00	62.47	O
ATOM	30234	O3*	C A1430	143.264	39.004	-32.864	1.00	100.56	O	ATOM	30284	N1	G A1432	138.606	45.450	-26.569	1.00	62.47	N
ATOM	30235	C2*	C A1430	144.839	40.316	-31.527	1.00	100.56	C	ATOM	30285	C2	G A1432	138.953	45.283	-25.251	1.00	62.47	C
ATOM	30236	O2*	C A1430	145.587	39.135	-31.306	1.00	100.56	O	ATOM	30286	N2	G A1432	138.969	46.396	-24.503	1.00	62.47	N
ATOM	30237	C1*	C A1430	145.779	41.453	-31.919	1.00	100.56	O	ATOM	30287	N3	G A1432	139.260	44.113	-24.711	1.00	62.47	N
ATOM	30238	N1	C A1430	145.305	42.744	-31.378	1.00	82.40	N	ATOM	30288	C4	G A1432	139.197	43.113	-25.614	1.00	62.47	C
ATOM	30239	C2	C A1430	145.618	43.076	-30.052	1.00	82.40	C	ATOM	30289	P	A A1433	136.005	38.861	-22.514	1.00	63.36	P
ATOM	30240	O2	C A1430	146.304	42.291	-29.379	1.00	82.40	O	ATOM	30290	O1P	A A1433	135.257	37.614	-22.815	1.00	56.12	O
ATOM	30241	N3	C A1430	145.163	44.240	-29.539	1.00	82.40	N	ATOM	30291	O2P	A A1433	135.619	40.128	-23.195	1.00	56.12	O
ATOM	30242	C4	C A1430	144.429	45.061	-30.296	1.00	82.40	C	ATOM	30292	O5*	A A1433	135.918	39.063	-20.938	1.00	63.36	O
ATOM	30243	N4	C A1430	143.990	46.195	-29.745	1.00	82.40	N	ATOM	30293	C5*	A A1433	136.504	38.091	-20.046	1.00	63.36	C
ATOM	30244	C5	C A1430	144.108	44.756	-31.649	1.00	82.40	C	ATOM	30294	C4*	A A1433	136.456	38.589	-18.626	1.00	63.36	C
ATOM	30245	C6	C A1430	144.562	43.600	-32.145	1.00	82.40	C	ATOM	30295	O4*	A A1433	137.331	39.736	-18.486	1.00	63.36	O
ATOM	30246	P	C A1431	141.834	38.808	-32.159	1.00	89.17	P	ATOM	30296	C3*	A A1433	135.096	39.091	-18.195	1.00	63.36	C
ATOM	30247	O1P	C A1431	141.306	37.463	-32.511	1.00	58.77	O	ATOM	30297	O3*	A A1433	134.249	38.033	-17.779	1.00	63.36	O



ATOM	30298	C2*	A A1433	135.440	40.085	-17.094	1.00	63.36	C	ATOM	30348	C5	G A1435	129.378	43.162	-20.544	1.00	55.78	C
ATOM	30299	O2*	A A1433	135.691	39.461	-15.851	1.00	63.36	O	ATOM	30349	C6	G A1435	129.817	43.201	-21.896	1.00	55.78	C
ATOM	30300	C1*	A A1433	136.735	40.698	-17.630	1.00	63.36	C	ATOM	30350	O6	G A1435	130.253	42.274	-22.597	1.00	55.78	O
ATOM	30301	N9	A A1433	136.495	41.916	-18.412	1.00	56.12	N	ATOM	30351	N1	G A1435	129.711	44.481	-22.425	1.00	55.78	N
ATOM	30302	C7	A A1433	136.422	42.013	-19.781	1.00	56.12	C	ATOM	30352	C2	G A1435	129.248	45.581	-21.749	1.00	55.78	C
ATOM	30303	N8	A A1433	136.157	43.221	-20.211	1.00	56.12	N	ATOM	30353	N2	G A1435	129.227	46.733	-22.435	1.00	55.78	N
ATOM	30304	C5	A A1433	136.050	43.976	-19.052	1.00	56.12	C	ATOM	30354	N3	G A1435	128.838	45.558	-20.494	1.00	55.78	N
ATOM	30305	C6	A A1433	135.764	45.335	-18.836	1.00	56.12	C	ATOM	30355	C4	G A1435	128.928	44.326	-19.957	1.00	55.78	C
ATOM	30306	N6	A A1433	135.510	46.198	-19.817	1.00	56.12	N	ATOM	30356	P	U A1436	123.513	43.101	-16.882	1.00	55.27	P
ATOM	30307	N1	A A1433	135.741	45.779	-17.562	1.00	56.12	N	ATOM	30357	O1P	U A1436	122.575	42.869	-15.738	1.00	63.96	O
ATOM	30308	C2	A A1433	135.985	44.905	-16.580	1.00	56.12	C	ATOM	30358	O2P	U A1436	124.043	41.945	-17.648	1.00	63.96	O
ATOM	30309	N3	A A1433	136.256	43.602	-16.655	1.00	56.12	N	ATOM	30359	O5*	U A1436	122.786	44.063	-17.918	1.00	55.27	O
ATOM	30310	C4	A A1433	136.273	43.192	-17.935	1.00	56.12	C	ATOM	30360	C5*	U A1436	122.235	45.296	-17.470	1.00	55.27	C
ATOM	30311	P	A A1434	132.662	38.170	-17.990	1.00	51.92	P	ATOM	30361	C4*	U A1436	122.286	46.321	-18.565	1.00	55.27	C
ATOM	30312	O1P	A A1434	131.996	36.985	-17.401	1.00	55.98	O	ATOM	30362	O4*	U A1436	123.662	46.559	-18.960	1.00	55.27	O
ATOM	30313	O2P	A A1434	132.393	38.535	-19.405	1.00	55.98	O	ATOM	30363	C3*	U A1436	121.581	45.952	-19.855	1.00	55.27	C
ATOM	30314	O5*	A A1434	132.276	39.400	-17.060	1.00	51.92	O	ATOM	30364	O3*	U A1436	120.190	46.205	-19.790	1.00	55.27	O
ATOM	30315	C5*	A A1434	132.481	39.325	-15.633	1.00	51.92	C	ATOM	30365	C2*	U A1436	122.266	46.857	-20.868	1.00	55.27	C
ATOM	30316	C4*	A A1434	132.045	40.607	-14.975	1.00	51.92	C	ATOM	30366	O2*	U A1436	121.713	48.160	-20.834	1.00	55.27	O
ATOM	30317	O4*	A A1434	132.946	41.680	-15.355	1.00	51.92	O	ATOM	30367	C1*	U A1436	123.709	46.874	-20.344	1.00	55.27	C
ATOM	30318	C3*	A A1434	130.672	41.084	-15.405	1.00	51.92	C	ATOM	30368	N1	U A1436	124.600	45.913	-21.028	1.00	63.96	N
ATOM	30319	O3*	A A1434	129.619	40.455	-14.693	1.00	51.92	O	ATOM	30369	C2	U A1436	125.048	46.237	-22.304	1.00	63.96	C
ATOM	30320	C2*	A A1434	130.747	42.583	-15.167	1.00	51.92	C	ATOM	30370	O2	U A1436	124.757	47.272	-22.868	1.00	63.96	O
ATOM	30321	O2*	A A1434	130.452	42.945	-13.832	1.00	51.92	O	ATOM	30371	N3	U A1436	125.852	45.298	-22.895	1.00	63.96	N
ATOM	30322	C1*	A A1434	132.211	42.879	-15.514	1.00	51.92	C	ATOM	30372	C4	U A1436	126.253	44.099	-22.362	1.00	63.96	C
ATOM	30323	N9	A A1434	132.332	43.320	-16.903	1.00	55.98	N	ATOM	30373	O4	U A1436	126.966	43.351	-23.032	1.00	63.96	O
ATOM	30324	C8	A A1434	132.505	42.560	-18.034	1.00	55.98	C	ATOM	30374	C5	U A1436	125.762	43.836	-21.043	1.00	63.96	C
ATOM	30325	N7	A A1434	132.488	43.255	-19.145	1.00	55.98	N	ATOM	30375	C6	U A1436	124.974	44.727	-20.437	1.00	63.96	C
ATOM	30326	C5	A A1434	132.306	44.563	-18.717	1.00	55.98	C	ATOM	30376	P	C A1437	119.194	45.325	-20.682	1.00	52.41	P
ATOM	30327	C6	A A1434	132.181	45.785	-19.414	1.00	55.98	C	ATOM	30377	O1P	C A1437	117.824	45.874	-20.525	1.00	71.14	O
ATOM	30328	N6	A A1434	132.200	45.890	-20.744	1.00	55.98	N	ATOM	30378	O2P	C A1437	119.456	43.897	-20.376	1.00	71.14	O
ATOM	30329	N1	A A1434	132.025	46.911	-18.682	1.00	55.98	N	ATOM	30379	O5*	C A1437	119.678	45.610	-22.170	1.00	52.41	O
ATOM	30330	C2	A A1434	131.988	46.806	-17.345	1.00	55.98	C	ATOM	30380	C5*	C A1437	119.516	46.916	-22.766	1.00	52.41	C
ATOM	30331	N3	A A1434	132.080	45.718	-16.580	1.00	55.98	N	ATOM	30381	C4*	C A1437	120.064	46.919	-24.171	1.00	52.41	C
ATOM	30332	C4	A A1434	132.237	44.619	-17.337	1.00	55.98	C	ATOM	30382	O4*	C A1437	121.498	46.727	-24.117	1.00	52.41	O
ATOM	30333	P	G A1435	128.232	40.162	-15.450	1.00	51.10	P	ATOM	30383	C3*	C A1437	119.567	45.793	-25.061	1.00	52.41	C
ATOM	30334	O1P	G A1435	127.243	39.665	-14.454	1.00	55.78	O	ATOM	30384	O3*	C A1437	118.343	46.091	-25.701	1.00	52.41	O
ATOM	30335	O2P	G A1435	128.511	39.361	-16.667	1.00	55.78	O	ATOM	30385	C2*	C A1437	120.687	45.630	-26.072	1.00	52.41	C
ATOM	30336	O5*	G A1435	127.765	41.603	-15.935	1.00	51.10	O	ATOM	30386	O2*	C A1437	120.585	46.542	-27.145	1.00	52.41	O
ATOM	30337	C5*	G A1435	127.390	42.623	-14.985	1.00	51.10	C	ATOM	30387	C1*	C A1437	121.918	45.950	-25.225	1.00	52.41	C
ATOM	30338	C4*	G A1435	127.103	43.911	-15.704	1.00	51.10	C	ATOM	30388	N1	C A1437	122.600	44.735	-24.735	1.00	71.14	N
ATOM	30339	O3*	G A1435	128.314	44.313	-16.387	1.00	51.10	O	ATOM	30389	C2	C A1437	123.409	44.018	-25.622	1.00	71.14	C
ATOM	30340	C4*	G A1435	126.052	43.806	-16.800	1.00	51.10	C	ATOM	30390	O2	C A1437	123.547	44.432	-26.780	1.00	71.14	O
ATOM	30341	O3*	G A1435	124.730	43.991	-16.301	1.00	51.10	O	ATOM	30391	N3	C A1437	124.020	42.897	-25.197	1.00	71.14	N
ATOM	30342	C2*	G A1435	126.467	44.909	-17.759	1.00	51.10	C	ATOM	30392	C4	C A1437	123.860	42.487	-23.942	1.00	71.14	C
ATOM	30343	O2*	G A1435	126.015	46.181	-17.349	1.00	51.10	O	ATOM	30393	N4	C A1437	124.490	41.378	-23.568	1.00	71.14	N
ATOM	30344	C1*	G A1435	127.992	44.847	-17.657	1.00	51.10	C	ATOM	30394	C5	C A1437	123.052	43.198	-23.015	1.00	71.14	C
ATOM	30345	N9	G A1435	128.565	43.972	-18.676	1.00	55.78	N	ATOM	30395	C6	C A1437	122.445	44.306	-23.448	1.00	71.14	C
ATOM	30346	C8	G A1435	128.829	42.628	-18.557	1.00	55.78	C	ATOM	30396	P	G A1438	117.415	44.885	-26.195	1.00	55.45	P
ATOM	30347	N7	G A1435	129.312	42.101	-19.650	1.00	55.78	N	ATOM	30397	O1P	G A1438	116.117	45.446	-26.682	1.00	65.67	O



ATOM	30398	O2P	G A1438	117.422	43.874	-25.105	1.00	65.67	O	ATOM	30448	C2*	C A1440	118.061	31.191	-31.138	1.00	72.57	C
ATOM	30399	O5*	G A1438	118.204	44.258	-27.428	1.00	55.45	O	ATOM	30449	O2*	C A1440	118.689	30.202	-31.930	1.00	72.57	O
ATOM	30400	C5*	G A1438	118.234	44.926	-28.690	1.00	55.45	C	ATOM	30450	C1*	C A1440	119.014	32.366	-30.978	1.00	72.57	C
ATOM	30401	C4*	G A1438	119.016	44.117	-29.689	1.00	55.45	C	ATOM	30451	N1	C A1440	118.768	33.033	-29.690	1.00	61.07	N
ATOM	30402	O4*	G A1438	120.377	43.964	-29.216	1.00	55.45	O	ATOM	30452	C2	C A1440	119.318	32.473	-28.535	1.00	61.07	C
ATOM	30403	C3*	G A1438	118.548	42.691	-29.933	1.00	55.45	C	ATOM	30453	O2	C A1440	119.973	31.421	-28.629	1.00	61.07	O
ATOM	30404	O3*	G A1438	117.454	42.621	-30.847	1.00	55.45	O	ATOM	30454	N3	C A1440	119.121	33.081	-27.349	1.00	61.07	N
ATOM	30405	C2*	G A1438	119.809	42.020	-30.467	1.00	55.45	C	ATOM	30455	C4	C A1440	118.398	34.198	-27.286	1.00	61.07	C
ATOM	30406	O2*	G A1438	120.026	42.263	-31.839	1.00	55.45	O	ATOM	30456	N4	C A1440	118.238	34.765	-26.095	1.00	61.07	N
ATOM	30407	C1*	G A1438	120.899	42.727	-29.664	1.00	55.45	C	ATOM	30457	C5	C A1440	117.811	34.784	-28.442	1.00	61.07	C
ATOM	30408	N9	G A1438	121.330	41.951	-28.507	1.00	65.67	N	ATOM	30458	C6	C A1440	118.019	34.176	-29.612	1.00	61.07	C
ATOM	30409	C8	G A1438	121.043	42.192	-27.185	1.00	65.67	C	ATOM	30459	P	G A1441	114.712	30.435	-31.751	1.00	70.40	P
ATOM	30410	N7	G A1438	121.567	41.308	-26.378	1.00	65.67	N	ATOM	30460	O1P	G A1441	114.256	29.199	-32.435	1.00	67.20	O
ATOM	30411	C5	G A1438	122.240	40.433	-27.220	1.00	65.67	C	ATOM	30461	O2P	G A1441	113.790	31.599	-31.643	1.00	67.20	O
ATOM	30412	C6	G A1438	122.997	39.272	-26.922	1.00	65.67	C	ATOM	30462	O5*	G A1441	115.214	30.037	-30.292	1.00	70.40	O
ATOM	30413	O6	G A1438	123.227	38.766	-25.827	1.00	65.67	O	ATOM	30463	C5*	G A1441	116.113	28.929	-30.104	1.00	70.40	C
ATOM	30414	N1	G A1438	123.507	38.688	-28.068	1.00	65.67	N	ATOM	30464	C4*	G A1441	116.334	28.666	-28.633	1.00	70.40	C
ATOM	30415	C2	G A1438	123.318	39.154	-29.341	1.00	65.67	C	ATOM	30465	O4*	G A1441	117.018	29.794	-28.031	1.00	70.40	O
ATOM	30416	N2	G A1438	123.898	38.439	-30.324	1.00	65.67	N	ATOM	30466	C3*	G A1441	115.069	28.493	-27.814	1.00	70.40	C
ATOM	30417	N3	G A1438	122.614	40.237	-29.636	1.00	65.67	N	ATOM	30467	O3*	G A1441	114.591	27.156	-27.889	1.00	70.40	O
ATOM	30418	C4	G A1438	122.107	40.820	-28.535	1.00	65.67	C	ATOM	30468	C2*	G A1441	115.524	28.896	-26.414	1.00	70.40	C
ATOM	30419	P	G A1439	116.315	41.493	-30.648	1.00	63.39	P	ATOM	30469	O2*	G A1441	116.198	27.850	-25.740	1.00	70.40	O
ATOM	30420	O1P	C A1439	115.154	41.872	-31.495	1.00	66.21	O	ATOM	30470	C1*	G A1441	116.515	30.021	-26.724	1.00	70.40	C
ATOM	30421	O2P	C A1439	116.117	41.244	-29.195	1.00	66.21	O	ATOM	30471	N9	G A1441	115.918	31.356	-26.699	1.00	67.20	N
ATOM	30422	O5*	C A1439	116.971	40.189	-31.271	1.00	63.39	O	ATOM	30472	C8	G A1441	115.281	31.992	-27.740	1.00	67.20	C
ATOM	30423	C5*	C A1439	117.210	40.106	-32.674	1.00	63.39	C	ATOM	30473	N7	G A1441	114.879	33.197	-27.440	1.00	67.20	N
ATOM	30424	O4*	C A1439	118.057	38.906	-32.979	1.00	63.39	C	ATOM	30474	C5	G A1441	115.267	33.369	-26.119	1.00	67.20	C
ATOM	30425	C4*	C A1439	119.337	39.053	-32.313	1.00	63.39	C	ATOM	30475	C6	G A1441	115.118	34.490	-25.255	1.00	67.20	C
ATOM	30426	C3*	C A1439	117.534	37.583	-32.452	1.00	63.39	C	ATOM	30476	O6	G A1441	114.604	35.597	-25.498	1.00	67.20	O
ATOM	30427	O3*	C A1439	116.530	36.991	-33.251	1.00	63.39	O	ATOM	30477	N1	G A1441	115.651	34.233	-23.997	1.00	67.20	N
ATOM	30428	C2*	C A1439	118.796	36.742	-32.365	1.00	63.39	C	ATOM	30478	C2	G A1441	116.252	33.058	-23.619	1.00	67.20	C
ATOM	30429	O2*	C A1439	119.208	36.221	-33.613	1.00	63.39	O	ATOM	30479	N2	G A1441	116.695	33.008	-22.360	1.00	67.20	N
ATOM	30430	C1*	C A1439	119.805	37.782	-31.894	1.00	63.39	C	ATOM	30480	N3	G A1441	116.407	32.013	-24.413	1.00	67.20	N
ATOM	30431	N1	C A1439	119.929	37.771	-30.422	1.00	66.21	N	ATOM	30481	C4	G A1441	115.897	32.236	-25.640	1.00	67.20	C
ATOM	30432	C2	C A1439	120.726	36.781	-29.831	1.00	66.21	C	ATOM	30482	P	G A1442	113.088	26.867	-28.389	1.00	109.49	P
ATOM	30433	O2	C A1439	121.286	35.942	-30.566	1.00	66.21	O	ATOM	30483	O1P	G A1442	112.729	27.834	-29.459	1.00	122.18	O
ATOM	30434	N3	C A1439	120.866	36.760	-28.483	1.00	66.21	N	ATOM	30484	O2P	G A1442	112.228	26.753	-27.188	1.00	122.18	O
ATOM	30435	C4	C A1439	120.248	37.673	-27.735	1.00	66.21	C	ATOM	30485	O5*	G A1442	113.215	25.418	-29.032	1.00	109.49	O
ATOM	30436	N4	C A1439	120.430	37.620	-26.417	1.00	66.21	N	ATOM	30486	C5*	G A1442	112.727	25.130	-30.354	1.00	109.49	C
ATOM	30437	C5	C A1439	119.419	38.686	-28.306	1.00	66.21	C	ATOM	30487	C4*	G A1442	113.704	24.234	-31.084	1.00	109.49	C
ATOM	30438	C6	C A1439	119.288	38.698	-29.641	1.00	66.21	C	ATOM	30488	O4*	G A1442	114.833	25.017	-31.551	1.00	109.49	O
ATOM	30439	P	C A1440	115.443	36.044	-32.546	1.00	72.57	P	ATOM	30489	C3*	G A1442	114.318	23.103	-30.267	1.00	109.49	C
ATOM	30440	O1P	C A1440	114.369	35.754	-33.536	1.00	61.07	O	ATOM	30490	O3*	G A1442	113.468	21.949	-30.208	1.00	109.49	O
ATOM	30441	O2P	C A1440	115.092	36.648	-31.232	1.00	61.07	O	ATOM	30491	C2*	G A1442	115.626	22.833	-31.012	1.00	109.49	C
ATOM	30442	O5*	C A1440	116.249	34.703	-32.254	1.00	72.57	O	ATOM	30492	O2*	G A1442	115.467	21.987	-32.132	1.00	109.49	O
ATOM	30443	C5*	C A1440	116.820	33.958	-33.331	1.00	72.57	C	ATOM	30493	C1*	G A1442	116.012	24.233	-31.509	1.00	109.49	C
ATOM	30444	C4*	C A1440	117.614	32.794	-32.804	1.00	72.57	C	ATOM	30494	N9	G A1442	117.007	24.950	-30.710	1.00	122.18	N
ATOM	30445	O4*	C A1440	118.738	33.277	-32.027	1.00	72.57	O	ATOM	30495	C8	G A1442	117.479	26.215	-30.951	1.00	122.18	C
ATOM	30446	C3*	C A1440	116.897	31.856	-31.851	1.00	72.57	C	ATOM	30496	N7	G A1442	118.322	26.631	-30.047	1.00	122.18	N
ATOM	30447	O3*	C A1440	116.054	30.919	-32.494	1.00	72.57	O	ATOM	30497	C5	G A1442	118.424	25.573	-29.157	1.00	122.18	C



Table 1: Sheet 307/521

ATOM	30498	C6	G A1442	119.179	25.448	-27.967	1.00122.18	C	ATOM	30548	N3	A A1446	122.096	19.870	-28.634	1.00200.93	N
ATOM	30499	O6	G A1442	119.912	26.287	-27.428	1.00122.18	O	ATOM	30549	C4	A A1446	121.665	20.705	-27.669	1.00200.93	C
ATOM	30500	N1	G A1442	119.010	24.193	-27.384	1.00122.18	N	ATOM	30550	P	G A1447	115.588	19.080	-24.582	1.00 75.70	P
ATOM	30501	C2	G A1442	118.203	23.194	-27.880	1.00122.18	C	ATOM	30551	O1P	G A1447	114.393	18.201	-24.449	1.00 76.59	O
ATOM	30502	N2	G A1442	118.165	22.042	-27.188	1.00122.18	N	ATOM	30552	O2P	G A1447	115.401	20.517	-24.955	1.00 76.59	O
ATOM	30503	N3	G A1442	117.481	23.311	-28.978	1.00122.18	N	ATOM	30553	O5*	G A1447	116.391	18.994	-23.206	1.00 75.70	O
ATOM	30504	C4	G A1442	117.637	24.517	-29.562	1.00122.18	C	ATOM	30554	C5*	G A1447	115.697	19.132	-21.962	1.00 75.70	C
ATOM	30505	P	G A1443	113.209	21.204	-28.798	1.00113.54	P	ATOM	30555	C4*	G A1447	116.610	19.680	-20.900	1.00 75.70	C
ATOM	30506	O1P	G A1443	111.818	21.420	-28.383	1.00 90.87	O	ATOM	30556	O4*	G A1447	117.500	20.668	-21.470	1.00 75.70	O
ATOM	30507	O2P	G A1443	114.338	21.475	-27.860	1.00 90.87	O	ATOM	30557	C3*	G A1447	115.836	20.411	-19.823	1.00 75.70	C
ATOM	30508	O5*	G A1443	113.215	19.658	-29.181	1.00113.54	O	ATOM	30558	O3*	G A1447	115.359	19.510	-18.840	1.00 75.70	O
ATOM	30509	C5*	G A1443	114.121	18.730	-28.553	1.00113.54	C	ATOM	30559	C2*	G A1447	116.835	21.445	-19.323	1.00 75.70	C
ATOM	30510	C4*	G A1443	114.069	17.401	-29.264	1.00113.54	C	ATOM	30560	O2*	G A1447	117.743	20.922	-18.381	1.00 75.70	O
ATOM	30511	O4*	G A1443	112.713	16.917	-29.188	1.00113.54	O	ATOM	30561	C1*	G A1447	117.578	21.799	-20.615	1.00 75.70	C
ATOM	30512	C3*	G A1443	114.399	17.460	-30.748	1.00113.54	C	ATOM	30562	N9	G A1447	116.992	22.931	-21.334	1.00 76.59	N
ATOM	30513	O3*	G A1443	115.790	17.197	-30.932	1.00113.54	O	ATOM	30563	C8	G A1447	116.698	22.982	-22.676	1.00 76.59	C
ATOM	30514	C2*	G A1443	113.556	16.334	-31.347	1.00113.54	C	ATOM	30564	N7	G A1447	116.153	24.108	-23.043	1.00 76.59	N
ATOM	30515	O1*	G A1443	114.190	15.073	-31.323	1.00113.54	O	ATOM	30565	C5	G A1447	116.092	24.854	-21.879	1.00 76.59	C
ATOM	30516	C1*	G A1443	112.363	16.281	-30.393	1.00113.54	C	ATOM	30566	C6	G A1447	115.598	26.157	-21.662	1.00 76.59	C
ATOM	30517	N9	G A1443	111.114	16.865	-30.865	1.00 90.87	N	ATOM	30567	O6	G A1447	115.114	26.944	-22.484	1.00 76.59	O
ATOM	30518	C8	G A1443	110.737	18.190	-30.838	1.00 90.87	C	ATOM	30568	N1	G A1447	115.712	26.526	-20.326	1.00 76.59	N
ATOM	30519	N7	G A1443	109.519	18.383	-31.262	1.00 90.87	N	ATOM	30569	C2	G A1447	116.243	25.739	-19.330	1.00 76.59	C
ATOM	30520	C5	G A1443	109.074	17.113	-31.601	1.00 90.87	C	ATOM	30570	N2	G A1447	116.264	26.270	-18.102	1.00 76.59	N
ATOM	30521	C6	G A1443	107.820	16.682	-32.106	1.00 90.87	C	ATOM	30571	N3	G A1447	116.717	24.522	-19.525	1.00 76.59	N
ATOM	30522	O6	G A1443	106.807	17.359	-32.340	1.00 90.87	O	ATOM	30572	C4	G A1447	116.609	24.144	-20.813	1.00 76.59	C
ATOM	30523	N1	G A1443	107.805	15.306	-32.330	1.00 90.87	N	ATOM	30573	P	C A1448	113.778	19.268	-18.697	1.00 70.82	P
ATOM	30524	C2	G A1443	108.859	14.451	-32.086	1.00 90.87	C	ATOM	30574	O1P	C A1448	113.587	17.939	-18.073	1.00 64.59	O
ATOM	30525	N2	G A1443	108.657	13.150	-32.378	1.00 90.87	N	ATOM	30575	O2P	C A1448	113.138	19.558	-20.006	1.00 64.59	O
ATOM	30526	N3	G A1443	110.025	14.841	-31.596	1.00 90.87	N	ATOM	30576	O5*	C A1448	113.322	20.382	-17.657	1.00 70.82	O
ATOM	30527	C4	G A1443	110.060	16.172	-31.382	1.00 90.87	C	ATOM	30577	C5*	C A1448	113.953	20.480	-16.367	1.00 70.82	C
ATOM	30528	P	A A1446	116.803	18.397	-31.279	1.00128.42	P	ATOM	30578	C4*	C A1448	113.624	21.804	-15.710	1.00 70.82	C
ATOM	30529	O1P	A A1446	116.020	19.649	-31.399	1.00200.93	O	ATOM	30579	O4*	C A1448	114.357	22.886	-16.347	1.00 70.82	O
ATOM	30530	O2P	A A1446	117.666	17.962	-32.406	1.00200.93	O	ATOM	30580	C3*	C A1448	112.171	22.235	-15.783	1.00 70.82	C
ATOM	30531	O5*	A A1446	117.710	18.514	-29.978	1.00128.42	O	ATOM	30581	O3*	C A1448	111.358	21.631	-14.791	1.00 70.82	O
ATOM	30532	C5*	A A1446	117.180	19.053	-28.762	1.00128.42	C	ATOM	30582	C2*	C A1448	112.269	23.740	-15.608	1.00 70.82	C
ATOM	30533	C4*	A A1446	117.980	18.560	-27.593	1.00128.42	C	ATOM	30583	O2*	C A1448	112.416	24.082	-14.244	1.00 70.82	O
ATOM	30534	O4*	A A1446	119.368	18.890	-27.809	1.00128.42	O	ATOM	30584	C1*	C A1448	113.556	24.056	-16.375	1.00 70.82	C
ATOM	30535	C3*	A A1446	117.618	19.177	-26.254	1.00128.42	C	ATOM	30585	N1	C A1448	113.290	24.401	-17.789	1.00 64.59	N
ATOM	30536	O3*	A A1446	116.576	18.407	-25.657	1.00128.42	O	ATOM	30586	C2	C A1448	112.917	25.715	-18.124	1.00 64.59	C
ATOM	30537	C2*	A A1446	118.923	19.088	-25.463	1.00128.42	C	ATOM	30587	O2	C A1448	112.828	26.567	-17.228	1.00 64.59	O
ATOM	30538	O2*	A A1446	119.075	17.860	-24.775	1.00128.42	O	ATOM	30588	N3	C A1448	112.659	26.018	-19.421	1.00 64.59	N
ATOM	30539	C1*	A A1446	119.982	19.186	-26.571	1.00128.42	C	ATOM	30589	C4	C A1448	112.760	25.072	-20.361	1.00 64.59	C
ATOM	30540	N9	A A1446	120.711	20.451	-26.709	1.00200.93	N	ATOM	30590	N4	C A1448	112.494	25.406	-21.629	1.00 64.59	N
ATOM	30541	C8	A A1446	120.626	21.601	-25.956	1.00200.93	C	ATOM	30591	C5	C A1448	113.139	23.737	-20.047	1.00 64.59	C
ATOM	30542	N7	A A1446	121.435	22.554	-26.353	1.00200.93	N	ATOM	30592	C6	C A1448	113.395	23.450	-18.765	1.00 64.59	C
ATOM	30543	C5	A A1446	122.101	21.997	-27.438	1.00200.93	C	ATOM	30593	P	C A1449	109.833	21.271	-15.144	1.00 67.46	P
ATOM	30544	C6	A A1446	123.100	22.497	-28.296	1.00200.93	C	ATOM	30594	O1P	C A1449	109.298	20.405	-14.057	1.00 73.63	O
ATOM	30545	N6	A A1446	123.620	23.723	-28.194	1.00200.93	N	ATOM	30595	O2P	C A1449	109.779	20.799	-16.556	1.00 73.63	O
ATOM	30546	N1	A A1446	123.554	21.682	-29.275	1.00200.93	N	ATOM	30596	O5*	C A1449	109.090	22.679	-15.088	1.00 67.46	O
ATOM	30547	C2	A A1446	123.035	20.452	-29.377	1.00200.93	C	ATOM	30597	C5*	C A1449	109.083	23.482	-13.889	1.00 67.46	C



ATOM	30598	C4*	C A1449	108.320	24.769	-14.125	1.00	67.46	C	ATOM	30648	C5	A A1451	98.409	29.732	-15.490	1.00	98.66	C
ATOM	30599	O4*	C A1449	109.119	25.693	-14.908	1.00	67.46	O	ATOM	30649	C6	A A1451	98.392	30.601	-14.384	1.00	98.66	C
ATOM	30600	C3*	C A1449	107.037	24.626	-14.922	1.00	67.46	C	ATOM	30650	N6	A A1451	99.260	30.532	-13.369	1.00	98.66	N
ATOM	30601	O3*	C A1449	105.944	24.178	-14.140	1.00	67.46	O	ATOM	30651	N1	A A1451	97.441	31.559	-14.355	1.00	98.66	N
ATOM	30602	C2*	C A1449	106.842	26.021	-15.499	1.00	67.46	C	ATOM	30652	C2	A A1451	96.572	31.630	-15.371	1.00	98.66	C
ATOM	30603	O2*	C A1449	106.272	26.929	-14.588	1.00	67.46	O	ATOM	30653	N3	A A1451	96.487	30.872	-16.461	1.00	98.66	N
ATOM	30604	C1*	C A1449	108.282	26.439	-15.775	1.00	67.46	C	ATOM	30654	P4	A A1451	97.445	29.932	-16.459	1.00	98.66	C
ATOM	30605	N1	C A1449	108.652	26.140	-17.167	1.00	73.63	N	ATOM	30655	P	C A1452	96.755	27.497	-22.798	1.00	61.15	P
ATOM	30606	C2	C A1449	108.243	27.019	-18.175	1.00	73.63	C	ATOM	30656	O1P	C A1452	95.781	28.575	-22.490	1.00	58.83	O
ATOM	30607	O2	C A1449	107.613	28.035	-17.863	1.00	73.63	O	ATOM	30657	O2P	C A1452	96.292	26.084	-22.810	1.00	58.83	O
ATOM	30608	N3	C A1449	108.541	26.735	-19.464	1.00	73.63	N	ATOM	30658	O5*	C A1452	97.360	27.802	-24.243	1.00	61.15	O
ATOM	30609	C4	C A1449	109.220	25.623	-19.760	1.00	73.63	C	ATOM	30659	C5*	C A1452	98.088	29.027	-24.487	1.00	61.15	C
ATOM	30610	N4	C A1449	109.477	25.367	-21.043	1.00	73.63	N	ATOM	30660	C4*	C A1452	99.390	28.757	-25.213	1.00	61.15	C
ATOM	30611	C5	C A1449	109.663	24.720	-18.752	1.00	73.63	C	ATOM	30661	O4*	C A1452	100.388	28.217	-24.317	1.00	61.15	O
ATOM	30612	C6	C A1449	109.364	25.016	-17.482	1.00	73.63	C	ATOM	30662	C3*	C A1452	99.334	27.827	-26.417	1.00	61.15	C
ATOM	30613	P	U A1450	104.814	23.260	-14.824	1.00	59.89	P	ATOM	30663	O3*	C A1452	100.228	28.326	-27.397	1.00	61.15	O
ATOM	30614	O1P	U A1450	103.822	22.901	-13.772	1.00	59.75	O	ATOM	30664	C2*	C A1452	99.932	26.536	-25.881	1.00	61.15	C
ATOM	30615	O2P	U A1450	105.494	22.186	-15.606	1.00	59.75	O	ATOM	30665	O2*	C A1452	100.550	25.759	-26.889	1.00	61.15	O
ATOM	30616	O5*	U A1450	104.104	24.258	-15.840	1.00	59.89	O	ATOM	30666	C1*	C A1452	100.977	27.084	-24.913	1.00	61.15	C
ATOM	30617	C5*	U A1450	103.465	25.446	-15.353	1.00	59.89	C	ATOM	30667	N1	C A1452	101.397	26.146	-23.863	1.00	58.83	N
ATOM	30618	C4*	U A1450	102.970	26.291	-16.498	1.00	59.89	C	ATOM	30668	C2	C A1452	102.534	25.352	-24.084	1.00	58.83	C
ATOM	30619	O4*	U A1450	104.092	26.831	-17.242	1.00	59.89	O	ATOM	30669	O2	C A1452	103.143	25.449	-25.166	1.00	58.83	O
ATOM	30620	C3*	U A1450	102.101	25.624	-17.554	1.00	59.89	C	ATOM	30670	N3	C A1452	102.936	24.498	-23.113	1.00	58.83	N
ATOM	30621	O3*	U A1450	100.746	25.488	-17.110	1.00	59.89	O	ATOM	30671	C4	C A1452	102.251	24.416	-21.969	1.00	58.83	C
ATOM	30622	C2*	U A1450	102.252	26.592	-18.722	1.00	59.89	C	ATOM	30672	N4	C A1452	102.685	23.569	-21.041	1.00	58.83	N
ATOM	30623	O2*	U A1450	101.450	27.074	-18.567	1.00	59.89	O	ATOM	30673	C5	C A1452	101.091	25.200	-21.726	1.00	58.83	C
ATOM	30624	C1*	U A1450	103.712	27.427	-18.591	1.00	59.89	C	ATOM	30674	C6	C A1452	100.702	26.043	-22.688	1.00	58.83	C
ATOM	30625	N1	U A1450	104.593	26.235	-19.465	1.00	59.75	N	ATOM	30675	P	G A1453	99.668	29.175	-28.635	1.00	53.65	P
ATOM	30626	C2	U A1450	104.670	26.600	-20.801	1.00	59.75	C	ATOM	30676	O1P	G A1453	98.180	29.048	-28.712	1.00	59.26	O
ATOM	30627	O2	U A1450	104.122	27.593	-21.254	1.00	59.75	O	ATOM	30677	O2P	G A1453	100.503	28.832	-29.819	1.00	59.26	O
ATOM	30628	N3	U A1450	105.423	25.763	-21.585	1.00	59.75	N	ATOM	30678	O5*	G A1453	99.967	30.675	-28.216	1.00	53.65	O
ATOM	30629	C4	U A1450	106.110	24.635	-21.182	1.00	59.75	C	ATOM	30679	C5*	G A1453	101.276	31.092	-27.837	1.00	53.65	C
ATOM	30630	O4	U A1450	106.643	23.915	-22.030	1.00	59.75	O	ATOM	30680	C4*	G A1453	101.180	32.429	-27.173	1.00	53.65	C
ATOM	30631	C5	U A1450	106.030	24.358	-19.783	1.00	59.75	C	ATOM	30681	O4*	G A1453	100.241	32.310	-26.082	1.00	53.65	O
ATOM	30632	C6	U A1450	105.294	25.146	-18.992	1.00	59.75	C	ATOM	30682	C3*	G A1453	102.457	32.982	-26.562	1.00	53.65	C
ATOM	30633	P	A A1451	99.689	24.618	-17.966	1.00	52.76	P	ATOM	30683	O3*	G A1453	103.180	33.728	-27.545	1.00	53.65	O
ATOM	30634	O1P	A A1451	98.936	23.749	-17.025	1.00	98.66	O	ATOM	30684	C2*	G A1453	101.933	33.882	-25.439	1.00	53.65	C
ATOM	30635	O2P	A A1451	100.378	24.011	-19.132	1.00	98.66	O	ATOM	30685	O2*	G A1453	101.652	35.205	-25.860	1.00	53.65	O
ATOM	30636	O5*	A A1451	98.685	25.737	-18.482	1.00	52.76	O	ATOM	30686	C1*	G A1453	100.618	33.189	-25.048	1.00	53.65	C
ATOM	30637	C5*	A A1451	97.640	25.458	-19.429	1.00	52.76	C	ATOM	30687	N9	G A1453	100.586	32.457	-23.786	1.00	59.26	N
ATOM	30638	C4*	A A1451	96.990	26.758	-19.839	1.00	52.76	C	ATOM	30688	C8	G A1453	99.752	32.716	-22.729	1.00	59.26	C
ATOM	30639	O4*	A A1451	96.493	27.405	-18.643	1.00	52.76	O	ATOM	30689	N7	G A1453	99.910	31.887	-21.737	1.00	59.26	N
ATOM	30640	C3*	A A1451	97.990	27.728	-20.442	1.00	52.76	C	ATOM	30690	C5	G A1453	100.913	31.028	-22.162	1.00	59.26	C
ATOM	30641	O3*	A A1451	98.086	27.558	-21.863	1.00	52.76	O	ATOM	30691	C6	G A1453	101.496	29.908	-21.514	1.00	59.26	C
ATOM	30642	C2*	A A1451	97.574	29.104	-19.941	1.00	52.76	C	ATOM	30692	O6	G A1453	101.220	29.427	-20.410	1.00	59.26	O
ATOM	30643	O2*	A A1451	96.711	29.816	-20.795	1.00	52.76	O	ATOM	30693	N1	G A1453	102.483	29.325	-22.294	1.00	59.26	N
ATOM	30644	C1*	A A1451	96.877	28.763	-18.622	1.00	52.76	C	ATOM	30694	C2	G A1453	102.851	29.749	-23.542	1.00	59.26	C
ATOM	30645	N9	A A1451	97.668	28.972	-17.413	1.00	98.66	N	ATOM	30695	N2	G A1453	103.816	29.043	-24.134	1.00	59.26	N
ATOM	30646	C8	A A1451	98.754	28.256	-16.977	1.00	98.66	C	ATOM	30696	N3	G A1453	102.309	30.783	-24.165	1.00	59.26	N
ATOM	30647	N7	A A1451	99.232	28.668	-15.829	1.00	98.66	N	ATOM	30697	C4	G A1453	101.352	31.372	-23.420	1.00	59.26	C



ATOM	30698	P	G A1454	104.719	33.368	-27.867	1.00	62.84	P	ATOM	30748	C5*	C A1459	113.693	35.005	-17.153	1.00	56.29	C
ATOM	30699	O1P	G A1454	105.111	34.274	-28.976	1.00	55.81	O	ATOM	30749	C4*	C A1459	114.175	33.739	-16.514	1.00	56.29	C
ATOM	30700	O2P	G A1454	104.874	31.898	-28.038	1.00	55.81	O	ATOM	30750	O4*	C A1459	113.319	32.640	-16.928	1.00	56.29	O
ATOM	30701	O5*	G A1454	105.523	33.790	-26.553	1.00	62.84	O	ATOM	30751	C3*	C A1459	115.556	33.283	-16.938	1.00	56.29	C
ATOM	30702	C5*	G A1454	105.362	35.094	-25.978	1.00	62.84	C	ATOM	30752	O3*	C A1459	116.609	33.932	-16.265	1.00	56.29	O
ATOM	30703	C4*	G A1454	105.466	35.030	-24.470	1.00	62.84	C	ATOM	30753	C2*	C A1459	115.514	31.797	-16.637	1.00	56.29	C
ATOM	30704	O4*	G A1454	104.669	33.910	-23.988	1.00	62.84	O	ATOM	30754	O2*	C A1459	115.697	31.518	-15.263	1.00	56.29	O
ATOM	30705	C3*	G A1454	106.835	34.768	-23.859	1.00	62.84	C	ATOM	30755	C1*	C A1459	114.087	31.452	-17.050	1.00	56.29	C
ATOM	30706	O3*	G A1454	107.681	35.902	-23.791	1.00	62.84	O	ATOM	30756	N1	C A1459	114.050	30.985	-18.452	1.00	56.11	N
ATOM	30707	C2*	G A1454	106.463	34.235	-22.480	1.00	62.84	C	ATOM	30757	C2	C A1459	114.630	29.749	-18.759	1.00	56.11	C
ATOM	30708	O2*	G A1454	106.060	35.230	-21.557	1.00	62.84	O	ATOM	30758	O2	C A1459	115.134	29.076	-17.840	1.00	56.11	O
ATOM	30709	C1*	G A1454	105.269	33.351	-22.824	1.00	62.84	C	ATOM	30759	N3	C A1459	114.632	29.318	-20.042	1.00	56.11	N
ATOM	30710	N9	G A1454	105.774	32.008	-23.127	1.00	55.81	N	ATOM	30760	C4	C A1459	114.078	30.061	-20.994	1.00	56.11	C
ATOM	30711	C8	G A1454	105.942	31.420	-24.359	1.00	55.81	C	ATOM	30761	N4	C A1459	114.099	29.594	-22.241	1.00	56.11	N
ATOM	30712	N7	G A1454	106.510	30.247	-24.291	1.00	55.81	N	ATOM	30762	C5	C A1459	113.475	31.317	-20.711	1.00	56.11	C
ATOM	30713	C5	G A1454	106.709	30.038	-22.934	1.00	55.81	C	ATOM	30763	C6	C A1459	113.480	31.737	-19.439	1.00	56.11	C
ATOM	30714	C6	G A1454	107.295	28.940	-22.241	1.00	55.81	C	ATOM	30764	P	A A1460	118.054	34.000	-16.966	1.00	76.35	P
ATOM	30715	O6	G A1454	107.785	27.902	-22.704	1.00	55.81	O	ATOM	30765	O1P	A A1460	118.909	34.829	-16.075	1.00	51.99	O
ATOM	30716	N1	G A1454	107.282	29.139	-20.866	1.00	55.81	N	ATOM	30766	O2P	A A1460	117.875	34.382	-18.406	1.00	51.99	O
ATOM	30717	C2	G A1454	106.779	30.248	-20.236	1.00	55.81	C	ATOM	30767	O5*	A A1460	118.584	32.494	-16.961	1.00	76.35	O
ATOM	30718	N2	G A1454	106.856	30.263	-18.896	1.00	55.81	N	ATOM	30768	C5*	A A1460	118.814	31.779	-15.729	1.00	76.35	C
ATOM	30719	N3	G A1454	106.241	31.273	-20.868	1.00	55.81	N	ATOM	30769	C4*	A A1460	119.302	30.382	-16.024	1.00	76.35	C
ATOM	30720	C4	G A1454	106.240	31.102	-22.203	1.00	55.81	C	ATOM	30770	O4*	A A1460	118.280	29.661	-16.751	1.00	76.35	O
ATOM	30721	P	G A1455	109.274	35.693	-23.674	1.00	57.91	P	ATOM	30771	C3*	A A1460	120.515	30.316	-16.929	1.00	76.35	C
ATOM	30722	O1P	G A1455	109.904	37.024	-23.839	1.00	69.05	O	ATOM	30772	O3*	A A1460	121.718	30.450	-16.209	1.00	76.35	O
ATOM	30723	O2P	G A1455	109.703	34.567	-24.553	1.00	69.05	O	ATOM	30773	C2*	A A1460	120.392	28.949	-17.579	1.00	76.35	C
ATOM	30724	O5*	G A1455	109.487	35.285	-22.153	1.00	57.91	O	ATOM	30774	O2*	A A1460	120.901	27.899	-16.786	1.00	76.35	O
ATOM	30725	C5	G A1455	109.130	36.204	-21.109	1.00	57.91	C	ATOM	30775	C1*	A A1460	118.881	28.811	-17.710	1.00	76.35	C
ATOM	30726	C4*	G A1455	109.320	35.564	-19.764	1.00	57.91	C	ATOM	30776	N9	A A1460	118.422	29.224	-19.028	1.00	51.99	N
ATOM	30727	O4*	G A1455	108.501	34.366	-19.692	1.00	57.91	O	ATOM	30777	C8	A A1460	117.812	30.400	-19.370	1.00	51.99	C
ATOM	30728	C3*	G A1455	110.722	35.061	-19.490	1.00	57.91	C	ATOM	30778	N7	A A1460	117.494	30.484	-20.639	1.00	51.99	N
ATOM	30729	O3*	G A1455	111.617	36.070	-19.068	1.00	57.91	O	ATOM	30779	C5	A A1460	117.933	29.283	-21.171	1.00	51.99	C
ATOM	30730	C2*	G A1455	110.478	33.975	-18.454	1.00	57.91	C	ATOM	30780	C6	A A1460	117.880	28.754	-22.469	1.00	51.99	C
ATOM	30731	O2*	G A1455	110.237	34.482	-17.152	1.00	57.91	O	ATOM	30781	N6	A A1460	117.341	29.403	-23.506	1.00	51.99	N
ATOM	30732	C1*	G A1455	109.201	33.341	-18.999	1.00	57.91	C	ATOM	30782	N1	A A1460	118.401	27.521	-22.667	1.00	51.99	N
ATOM	30733	N9	G A1455	109.529	32.281	-19.955	1.00	69.05	N	ATOM	30783	C2	A A1460	118.937	26.876	-21.619	1.00	51.99	C
ATOM	30734	C8	G A1455	109.328	32.308	-21.316	1.00	69.05	C	ATOM	30784	N3	A A1460	119.042	27.269	-20.351	1.00	51.99	N
ATOM	30735	N7	G A1455	109.761	31.234	-21.920	1.00	69.05	N	ATOM	30785	C4	A A1460	118.513	28.497	-20.191	1.00	51.99	C
ATOM	30736	C5	G A1455	110.278	30.446	-20.901	1.00	69.05	C	ATOM	30786	P	G A1461	122.939	31.233	-16.879	1.00	69.22	P
ATOM	30737	C6	G A1455	110.890	29.185	-20.958	1.00	69.05	C	ATOM	30787	O1P	G A1461	124.122	31.044	-15.995	1.00	62.44	O
ATOM	30738	O6	G A1455	111.124	28.496	-21.954	1.00	69.05	O	ATOM	30788	O2P	G A1461	122.460	32.608	-17.204	1.00	62.44	O
ATOM	30739	N1	G A1455	111.254	28.733	-19.695	1.00	69.05	N	ATOM	30789	O5*	G A1461	123.181	30.457	-18.250	1.00	69.22	O
ATOM	30740	C2	G A1455	111.055	29.418	-18.528	1.00	69.05	C	ATOM	30790	C5*	G A1461	123.553	29.071	-18.255	1.00	69.22	C
ATOM	30741	N2	G A1455	111.454	28.811	-17.407	1.00	69.05	N	ATOM	30791	C4*	G A1461	123.435	28.497	-19.646	1.00	69.22	C
ATOM	30742	N3	G A1455	110.499	30.611	-18.462	1.00	69.05	N	ATOM	30792	O4*	G A1461	122.050	28.546	-20.082	1.00	69.22	O
ATOM	30743	C4	G A1455	110.132	31.064	-19.680	1.00	69.05	C	ATOM	30793	C3*	G A1461	124.185	29.222	-20.749	1.00	69.22	C
ATOM	30744	P	C A1459	113.150	35.989	-19.533	1.00	56.29	P	ATOM	30794	O3*	G A1461	125.565	28.905	-20.815	1.00	69.22	O
ATOM	30745	O1P	C A1459	113.798	37.284	-19.221	1.00	56.11	O	ATOM	30795	C2*	G A1461	123.436	28.781	-21.996	1.00	69.22	C
ATOM	30746	O2P	C A1459	113.207	35.442	-20.919	1.00	56.11	O	ATOM	30796	O2*	G A1461	123.839	27.513	-22.458	1.00	69.22	O
ATOM	30747	O5*	C A1459	113.780	34.883	-18.585	1.00	56.29	O	ATOM	30797	C1*	G A1461	121.998	28.729	-21.488	1.00	69.22	C



ATOM	30798	N9	G A1461	121.368	30.012	-21.767	1.00	62.44	N	ATOM	30848	C4	C A1463	125.273	36.040	-26.595	1.00	68.19	C
ATOM	30799	C8	G A1461	121.151	31.050	-20.890	1.00	62.44	C	ATOM	30849	N4	C A1463	125.028	36.866	-25.580	1.00	68.19	N
ATOM	30800	N7	G A1461	120.653	32.110	-21.467	1.00	62.44	N	ATOM	30850	C5	C A1463	125.993	34.834	-26.372	1.00	68.19	C
ATOM	30801	C5	G A1461	120.513	31.741	-22.801	1.00	62.44	C	ATOM	30851	C6	C A1463	126.257	34.065	-27.432	1.00	68.19	C
ATOM	30802	C6	G A1461	120.044	32.483	-23.922	1.00	62.44	C	ATOM	30852	P	G A1464	130.830	34.851	-30.389	1.00	76.92	P
ATOM	30803	O6	G A1461	119.648	33.656	-23.964	1.00	62.44	O	ATOM	30853	O1P	G A1464	131.931	34.656	-31.369	1.00	65.08	O
ATOM	30804	N1	G A1461	120.076	31.723	-25.085	1.00	62.44	N	ATOM	30854	O2P	G A1464	131.144	34.892	-28.934	1.00	65.08	O
ATOM	30805	C2	G A1461	120.507	30.425	-25.169	1.00	62.44	C	ATOM	30855	O5*	G A1464	130.056	36.195	-30.762	1.00	76.92	O
ATOM	30806	N2	G A1461	120.461	29.865	-26.391	1.00	62.44	N	ATOM	30856	C5*	G A1464	129.738	36.489	-32.130	1.00	76.92	C
ATOM	30807	N3	G A1461	120.951	29.726	-24.137	1.00	62.44	N	ATOM	30857	C4*	G A1464	128.986	37.795	-32.242	1.00	76.92	C
ATOM	30808	C4	G A1461	120.928	30.441	-22.995	1.00	62.44	C	ATOM	30858	O4*	G A1464	127.726	37.710	-31.528	1.00	76.92	O
ATOM	30809	P	G A1462	126.580	29.970	-21.465	1.00	79.57	P	ATOM	30859	C3*	G A1464	129.645	39.044	-31.686	1.00	76.92	C
ATOM	30810	O1P	G A1462	127.977	29.497	-21.240	1.00	63.80	O	ATOM	30860	O3*	G A1464	130.577	39.595	-32.598	1.00	76.92	O
ATOM	30811	O2P	G A1462	126.183	31.332	-21.003	1.00	63.80	O	ATOM	30861	C2*	G A1464	128.453	39.971	-31.487	1.00	76.92	C
ATOM	30812	O5*	G A1462	126.234	29.892	-23.014	1.00	79.57	O	ATOM	30862	O2*	G A1464	128.043	40.591	-32.688	1.00	76.92	O
ATOM	30813	C5*	G A1462	126.341	28.659	-23.730	1.00	79.57	C	ATOM	30863	C1*	G A1464	127.367	38.992	-31.045	1.00	76.92	C
ATOM	30814	C4*	G A1462	126.042	28.888	-25.188	1.00	79.57	C	ATOM	30864	N9	G A1464	127.289	38.939	-29.591	1.00	65.08	N
ATOM	30815	O4*	G A1462	124.633	29.193	-25.356	1.00	79.57	O	ATOM	30865	C8	G A1464	127.850	38.004	-28.755	1.00	65.08	C
ATOM	30816	C3*	G A1462	126.761	30.080	-25.791	1.00	79.57	C	ATOM	30866	N7	G A1464	127.650	38.264	-27.492	1.00	65.08	N
ATOM	30817	O3*	G A1462	128.081	29.772	-26.190	1.00	79.57	O	ATOM	30867	C5	G A1464	126.899	39.434	-27.496	1.00	65.08	C
ATOM	30818	C2*	G A1462	125.854	30.473	-26.948	1.00	79.57	C	ATOM	30868	C6	G A1464	126.386	40.207	-26.421	1.00	65.08	C
ATOM	30819	O2*	G A1462	126.075	29.718	-28.122	1.00	79.57	O	ATOM	30869	O6	G A1464	126.495	40.011	-25.207	1.00	65.08	O
ATOM	30820	C1*	G A1462	124.471	30.175	-26.365	1.00	79.57	C	ATOM	30870	N1	G A1464	125.685	41.312	-26.879	1.00	65.08	N
ATOM	30821	N9	G A1462	123.908	31.372	-25.748	1.00	63.80	N	ATOM	30871	C2	G A1464	125.500	41.635	-28.195	1.00	65.08	C
ATOM	30822	C8	G A1462	123.955	31.729	-24.421	1.00	63.80	C	ATOM	30872	N2	G A1464	124.792	42.734	-28.435	1.00	65.08	N
ATOM	30823	N7	G A1462	123.402	32.888	-24.184	1.00	63.80	N	ATOM	30873	N3	G A1464	125.972	40.931	-29.203	1.00	65.08	N
ATOM	30824	C5	G A1462	122.955	33.317	-25.428	1.00	63.80	C	ATOM	30874	C4	G A1464	126.658	39.853	-28.785	1.00	65.08	C
ATOM	30825	C6	G A1462	122.275	34.510	-25.808	1.00	63.80	C	ATOM	30875	P	C A1465	131.643	40.684	-32.087	1.00	69.48	P
ATOM	30826	O6	G A1462	121.925	35.459	-25.100	1.00	63.80	O	ATOM	30876	O1P	C A1465	132.557	40.928	-33.233	1.00	72.15	O
ATOM	30827	N1	G A1462	122.009	34.532	-27.170	1.00	63.80	N	ATOM	30877	O2P	C A1465	132.206	40.254	-30.778	1.00	72.15	O
ATOM	30828	C2	G A1462	122.348	33.540	-28.057	1.00	63.80	C	ATOM	30878	O5*	C A1465	130.776	42.007	-31.887	1.00	69.48	O
ATOM	30829	N2	G A1462	122.001	33.734	-29.336	1.00	63.80	N	ATOM	30879	C5*	C A1465	130.236	42.707	-33.028	1.00	69.48	C
ATOM	30830	N3	G A1462	122.981	32.431	-27.719	1.00	63.80	N	ATOM	30880	C4*	C A1465	129.616	44.018	-32.610	1.00	69.48	C
ATOM	30831	C4	G A1462	123.251	32.386	-26.400	1.00	63.80	C	ATOM	30881	O4*	C A1465	128.423	43.770	-31.820	1.00	69.48	O
ATOM	30832	P	C A1463	129.177	30.941	-26.239	1.00	64.81	P	ATOM	30882	C3*	C A1465	130.468	44.912	-31.727	1.00	69.48	C
ATOM	30833	O1P	C A1463	130.468	30.291	-26.600	1.00	68.19	O	ATOM	30883	O3*	C A1465	131.410	45.692	-32.438	1.00	69.48	O
ATOM	30834	O2P	C A1463	129.084	31.752	-24.995	1.00	68.19	O	ATOM	30884	C2*	C A1465	129.426	45.779	-31.043	1.00	69.48	C
ATOM	30835	O5*	C A1463	128.714	31.828	-27.477	1.00	64.81	O	ATOM	30885	O2*	C A1465	129.010	46.839	-31.885	1.00	69.48	O
ATOM	30836	C5*	C A1463	128.734	31.267	-28.785	1.00	64.81	C	ATOM	30886	C1*	C A1465	128.289	44.776	-30.824	1.00	69.48	C
ATOM	30837	C4*	C A1463	128.064	32.177	-29.773	1.00	64.81	C	ATOM	30887	N1	C A1465	128.357	44.142	-29.480	1.00	72.15	N
ATOM	30838	O4*	C A1463	126.666	32.351	-29.428	1.00	64.81	O	ATOM	30888	C2	C A1465	127.595	44.690	-28.414	1.00	72.15	C
ATOM	30839	C3*	C A1463	128.590	33.593	-29.899	1.00	64.81	C	ATOM	30889	O2	C A1465	126.841	45.662	-28.629	1.00	72.15	O
ATOM	30840	O3*	C A1463	129.764	33.680	-30.684	1.00	64.81	O	ATOM	30890	N3	C A1465	127.701	44.140	-27.179	1.00	72.15	N
ATOM	30841	O2*	C A1463	127.416	34.296	-30.563	1.00	64.81	C	ATOM	30891	C4	C A1465	128.503	43.091	-26.979	1.00	72.15	C
ATOM	30842	C2*	C A1463	127.353	34.051	-31.956	1.00	64.81	O	ATOM	30892	N4	C A1465	128.585	42.597	-25.740	1.00	72.15	N
ATOM	30843	C1*	C A1463	126.230	33.629	-29.865	1.00	64.81	C	ATOM	30893	C5	C A1465	129.261	42.505	-28.038	1.00	72.15	C
ATOM	30844	N1	C A1463	125.855	34.430	-28.688	1.00	68.19	N	ATOM	30894	C6	C A1465	129.159	43.054	-29.257	1.00	72.15	C
ATOM	30845	C2	C A1463	125.108	35.605	-28.879	1.00	68.19	C	ATOM	30895	P	C A1466	132.815	46.050	-31.742	1.00	67.72	P
ATOM	30846	O2	C A1463	124.718	35.898	-30.029	1.00	68.19	O	ATOM	30896	O1P	C A1466	133.597	46.850	-32.717	1.00	74.91	O
ATOM	30847	N3	C A1463	124.835	36.388	-27.808	1.00	68.19	N	ATOM	30897	O2P	C A1466	133.395	44.799	-31.176	1.00	74.91	O



ATOM	30898	O5*	C A1466	132.415	47.015	-30.539	1.00	67.72	O	ATOM	30948	O2*	A A1468	139.456	49.904	-16.860	1.00	66.27	O
ATOM	30899	C5*	C A1466	131.751	48.265	-30.797	1.00	67.72	C	ATOM	30949	C1*	A A1468	138.237	48.736	-18.522	1.00	66.27	C
ATOM	30900	C4*	C A1466	131.194	48.853	-29.519	1.00	67.72	C	ATOM	30950	N9	A A1468	138.482	47.606	-19.409	1.00	59.46	N
ATOM	30901	O4*	C A1466	130.246	47.931	-28.920	1.00	67.72	O	ATOM	30951	C8	A A1468	138.375	47.565	-20.777	1.00	59.46	C
ATOM	30902	C3*	C A1466	132.183	49.135	-28.404	1.00	67.72	C	ATOM	30952	N7	A A1468	138.626	46.385	-21.292	1.00	59.46	N
ATOM	30903	O3*	C A1466	132.836	50.379	-28.579	1.00	67.72	O	ATOM	30953	C5	A A1468	138.928	45.600	-20.189	1.00	59.46	C
ATOM	30904	C2*	C A1466	131.297	49.144	-27.166	1.00	67.72	C	ATOM	30954	C6	A A1468	139.258	44.247	-20.066	1.00	59.46	C
ATOM	30905	O2*	C A1466	130.625	50.374	-26.996	1.00	67.72	O	ATOM	30955	N6	A A1468	139.338	43.418	-21.106	1.00	59.46	N
ATOM	30906	C1*	C A1466	130.271	48.066	-27.509	1.00	67.72	C	ATOM	30956	N1	A A1468	139.498	43.769	-18.824	1.00	59.46	N
ATOM	30907	N1	C A1466	130.594	46.761	-26.900	1.00	74.91	N	ATOM	30957	C2	A A1468	139.401	44.613	-17.781	1.00	59.46	C
ATOM	30908	C2	C A1466	130.040	46.441	-25.646	1.00	74.91	C	ATOM	30958	N3	A A1468	139.090	45.906	-17.770	1.00	59.46	N
ATOM	30909	O2	C A1466	129.256	47.240	-25.104	1.00	74.91	O	ATOM	30959	C4	A A1468	138.859	46.343	-19.022	1.00	59.46	C
ATOM	30910	N3	C A1466	130.367	45.266	-25.061	1.00	74.91	N	ATOM	30960	P	G A1469	141.742	51.909	-19.619	1.00	68.31	P
ATOM	30911	C4	C A1466	131.195	44.421	-25.677	1.00	74.91	C	ATOM	30961	O1P	G A1469	142.437	52.983	-18.865	1.00	63.84	O
ATOM	30912	N4	C A1466	131.493	43.281	-25.055	1.00	74.91	N	ATOM	30962	O2P	G A1469	141.441	52.090	-21.063	1.00	63.84	O
ATOM	30913	C5	C A1466	131.754	44.708	-26.957	1.00	74.91	C	ATOM	30963	O5*	G A1469	142.550	50.546	-19.428	1.00	68.31	O
ATOM	30914	C6	C A1466	131.430	45.876	-27.527	1.00	74.91	C	ATOM	30964	C5*	G A1469	142.860	50.056	-18.115	1.00	68.31	C
ATOM	30915	P	G A1467	134.404	50.494	-28.261	1.00	72.96	P	ATOM	30965	C4*	G A1469	143.159	48.577	-18.161	1.00	68.31	C
ATOM	30916	O1P	G A1467	134.746	51.939	-28.352	1.00	92.76	O	ATOM	30966	O4*	G A1469	142.044	47.892	-18.786	1.00	68.31	O
ATOM	30917	O2P	G A1467	135.120	49.504	-29.115	1.00	92.76	O	ATOM	30967	C3*	G A1469	144.347	48.149	-19.007	1.00	68.31	C
ATOM	30918	O5*	G A1467	134.542	50.011	-26.746	1.00	72.96	O	ATOM	30968	O3*	G A1469	145.605	48.274	-18.374	1.00	68.31	O
ATOM	30919	C5*	G A1467	133.904	50.739	-25.679	1.00	72.96	C	ATOM	30969	O2*	G A1469	144.024	46.702	-19.337	1.00	68.31	O
ATOM	30920	O4*	G A1467	133.948	49.951	-24.390	1.00	72.96	C	ATOM	30970	C2*	G A1469	144.358	45.793	-19.311	1.00	68.31	C
ATOM	30921	C4*	G A1467	133.268	48.684	-24.581	1.00	72.96	O	ATOM	30971	C1*	G A1469	142.516	46.774	-19.523	1.00	68.31	C
ATOM	30922	C3*	G A1467	135.322	49.565	-23.862	1.00	72.96	C	ATOM	30972	N9	G A1469	142.244	46.990	-20.938	1.00	63.84	N
ATOM	30923	O3*	G A1467	135.934	50.605	-23.107	1.00	72.96	O	ATOM	30973	C8	G A1469	141.850	48.151	-21.559	1.00	63.84	C
ATOM	30924	C2*	G A1467	135.009	48.356	-22.992	1.00	72.96	C	ATOM	30974	N7	G A1469	141.746	48.025	-22.855	1.00	63.84	N
ATOM	30925	O2*	G A1467	134.529	48.731	-21.718	1.00	72.96	O	ATOM	30975	C5	G A1469	142.082	46.639	-23.099	1.00	63.84	C
ATOM	30926	C1*	G A1467	133.882	47.687	-23.781	1.00	72.96	C	ATOM	30976	C6	G A1469	142.158	45.980	-24.314	1.00	63.84	C
ATOM	30927	N9	G A1467	134.379	46.626	-24.654	1.00	92.76	N	ATOM	30977	O6	G A1469	141.941	46.387	-25.464	1.00	63.84	O
ATOM	30928	C8	G A1467	134.820	46.753	-25.950	1.00	92.76	C	ATOM	30978	N1	G A1469	142.537	44.656	-24.101	1.00	63.84	N
ATOM	30929	N7	G A1467	135.245	45.630	-26.460	1.00	92.76	N	ATOM	30979	C2	G A1469	142.819	44.101	-22.872	1.00	63.84	C
ATOM	30930	C5	G A1467	135.069	44.701	-25.445	1.00	92.76	C	ATOM	30980	N2	G A1469	143.181	42.808	-22.853	1.00	63.84	N
ATOM	30931	C6	G A1467	135.358	43.310	-25.409	1.00	92.76	C	ATOM	30981	N3	G A1469	142.754	44.765	-21.737	1.00	63.84	N
ATOM	30932	O6	G A1467	135.847	42.598	-26.296	1.00	92.76	O	ATOM	30982	C4	G A1469	142.381	46.048	-21.923	1.00	63.84	C
ATOM	30933	N1	G A1467	135.018	42.751	-24.183	1.00	92.76	N	ATOM	30983	P	G A1470	146.894	48.557	-19.276	1.00	82.26	P
ATOM	30934	C2	G A1467	134.463	43.436	-23.130	1.00	92.76	C	ATOM	30984	O1P	G A1470	147.962	49.013	-18.364	1.00	57.16	O
ATOM	30935	N2	G A1467	134.180	42.714	-22.038	1.00	92.76	N	ATOM	30985	O2P	G A1470	146.477	49.417	-20.407	1.00	57.16	O
ATOM	30936	N3	G A1467	134.199	44.732	-23.147	1.00	92.76	N	ATOM	30986	O5*	G A1470	147.247	47.132	-19.891	1.00	82.26	O
ATOM	30937	C4	G A1467	134.524	45.297	-24.327	1.00	92.76	C	ATOM	30987	C5*	G A1470	147.688	46.053	-19.048	1.00	82.26	C
ATOM	30938	P	A A1468	137.516	50.868	-23.251	1.00	66.27	P	ATOM	30988	C4*	G A1470	147.898	44.794	-19.862	1.00	82.26	C
ATOM	30939	O1P	A A1468	137.690	52.297	-23.629	1.00	59.46	O	ATOM	30989	O4*	G A1470	146.628	44.365	-20.436	1.00	82.26	O
ATOM	30940	O2P	A A1468	138.110	49.803	-24.103	1.00	59.46	O	ATOM	30990	C3*	G A1470	148.813	44.900	-21.071	1.00	82.26	C
ATOM	30941	O5*	A A1468	138.091	50.663	-21.779	1.00	66.27	O	ATOM	30991	O3*	G A1470	150.201	44.852	-20.799	1.00	82.26	O
ATOM	30942	C5*	A A1468	137.685	51.517	-20.698	1.00	66.27	C	ATOM	30992	C2*	G A1470	148.356	43.726	-21.923	1.00	82.26	C
ATOM	30943	C4*	A A1468	138.083	50.912	-19.376	1.00	66.27	C	ATOM	30993	O2*	G A1470	148.884	42.490	-21.482	1.00	82.26	O
ATOM	30944	O4*	A A1468	137.391	49.655	-19.191	1.00	66.27	O	ATOM	30994	C1*	G A1470	146.848	43.779	-21.711	1.00	82.26	C
ATOM	30945	C3*	A A1468	139.549	50.551	-19.247	1.00	66.27	C	ATOM	30995	N9	G A1470	146.293	44.664	-22.728	1.00	57.16	N
ATOM	30946	O3*	A A1468	140.342	51.663	-18.877	1.00	66.27	O	ATOM	30996	C8	G A1470	145.931	45.984	-22.585	1.00	57.16	C
ATOM	30947	C2*	A A1468	139.535	49.452	-18.193	1.00	66.27	C	ATOM	30997	N7	G A1470	145.526	46.527	-23.701	1.00	57.16	N



ATOM	30998	C5	G A1470	145.616	45.503	-24.632	1.00	57.16	C	ATOM	31048	C6	U A1472	152.527	45.143	-29.162	1.00	87.41	C
ATOM	30999	C6	G A1470	145.320	45.494	-26.023	1.00	57.16	C	ATOM	31049	P	A A1473	157.591	44.528	-30.636	1.00	126.95	P
ATOM	31000	O6	G A1470	144.908	46.426	-26.727	1.00	57.16	O	ATOM	31050	O1P	A A1473	158.923	43.944	-30.945	1.00	104.71	O
ATOM	31001	N1	G A1470	145.551	44.240	-26.591	1.00	57.16	N	ATOM	31051	O2P	A A1473	157.431	45.388	-29.429	1.00	104.71	O
ATOM	31002	C2	G A1470	146.013	43.137	-25.906	1.00	57.16	C	ATOM	31052	O5*	A A1473	157.081	45.357	-31.899	1.00	126.95	O
ATOM	31003	N2	G A1470	146.169	42.007	-26.620	1.00	57.16	N	ATOM	31053	C5*	A A1473	157.205	44.821	-33.229	1.00	126.95	C
ATOM	31004	N3	G A1470	146.299	43.137	-24.609	1.00	57.16	N	ATOM	31054	C4*	A A1473	156.713	45.816	-34.255	1.00	126.95	C
ATOM	31005	C4	G A1470	146.077	44.344	-24.042	1.00	57.16	C	ATOM	31055	O4*	A A1473	155.272	45.966	-34.151	1.00	126.95	O
ATOM	31006	P	G A1471	151.226	45.429	-21.899	1.00	90.42	P	ATOM	31056	C3*	A A1473	157.241	47.236	-34.133	1.00	126.95	C
ATOM	31007	O1P	G A1471	152.586	45.282	-21.330	1.00	78.35	O	ATOM	31057	O3*	A A1473	158.537	47.421	-34.675	1.00	126.95	O
ATOM	31008	O2P	G A1471	150.765	46.764	-22.366	1.00	78.35	O	ATOM	31058	C2*	A A1473	156.180	48.044	-34.866	1.00	126.95	C
ATOM	31009	O5*	G A1471	151.067	44.432	-23.134	1.00	90.42	O	ATOM	31059	O2*	A A1473	156.332	48.031	-36.271	1.00	126.95	O
ATOM	31010	C5*	G A1471	151.297	43.016	-22.980	1.00	90.42	C	ATOM	31060	C1*	A A1473	154.907	47.302	-34.462	1.00	126.95	C
ATOM	31011	C4*	G A1471	151.209	42.317	-24.318	1.00	90.42	C	ATOM	31061	N9	A A1473	154.346	47.920	-33.262	1.00	104.71	N
ATOM	31012	O4*	G A1471	149.864	42.443	-24.851	1.00	90.42	O	ATOM	31062	C8	A A1473	154.565	47.581	-31.946	1.00	104.71	C
ATOM	31013	C3*	G A1471	152.091	42.883	-25.415	1.00	90.42	C	ATOM	31063	N7	A A1473	153.946	48.358	-31.092	1.00	104.71	N
ATOM	31014	O3*	G A1471	153.425	42.421	-25.356	1.00	90.42	O	ATOM	31064	C5	A A1473	153.266	49.263	-31.897	1.00	104.71	C
ATOM	31015	C2*	G A1471	151.381	42.430	-26.679	1.00	90.42	C	ATOM	31065	C6	A A1473	152.424	50.348	-31.599	1.00	104.71	C
ATOM	31016	O2*	G A1471	151.680	41.086	-26.995	1.00	90.42	O	ATOM	31066	N6	A A1473	152.108	50.723	-30.358	1.00	104.71	N
ATOM	31017	C1*	G A1471	149.917	42.555	-26.264	1.00	90.42	C	ATOM	31067	N1	A A1473	151.911	51.047	-32.634	1.00	104.71	N
ATOM	31018	N9	G A1471	149.335	43.838	-26.657	1.00	78.35	N	ATOM	31068	C2	A A1473	152.230	50.675	-33.879	1.00	104.71	C
ATOM	31019	C8	G A1471	149.054	44.916	-25.846	1.00	78.35	C	ATOM	31069	N3	A A1473	153.007	49.677	-34.286	1.00	104.71	N
ATOM	31020	N7	G A1471	148.516	45.918	-26.491	1.00	78.35	N	ATOM	31070	C4	A A1473	153.499	49.001	-33.234	1.00	104.71	C
ATOM	31021	C5	G A1471	148.439	45.480	-27.806	1.00	78.35	C	ATOM	31071	P	G A1474	159.485	48.568	-34.066	1.00	148.06	P
ATOM	31022	C6	G A1471	147.934	46.129	-28.964	1.00	78.35	C	ATOM	31072	O1P	G A1474	160.837	48.339	-34.628	1.00	127.19	O
ATOM	31023	O6	G A1471	147.428	47.255	-29.061	1.00	78.35	O	ATOM	31073	O2P	G A1474	159.303	48.611	-32.592	1.00	127.19	O
ATOM	31024	N1	G A1471	148.059	45.328	-30.093	1.00	78.35	N	ATOM	31074	O5*	G A1474	158.894	49.918	-34.674	1.00	148.06	O
ATOM	31025	C2	G A1471	148.600	44.064	-30.113	1.00	78.35	C	ATOM	31075	C5*	G A1474	158.962	50.173	-36.088	1.00	148.06	C
ATOM	31026	N2	G A1471	148.649	43.455	-31.312	1.00	78.35	N	ATOM	31076	C4*	G A1474	158.168	51.407	-36.451	1.00	148.06	C
ATOM	31027	N3	G A1471	149.061	43.442	-29.039	1.00	78.35	N	ATOM	31077	O4*	G A1474	156.760	51.190	-36.159	1.00	148.06	O
ATOM	31028	C4	G A1471	148.950	44.203	-27.929	1.00	78.35	C	ATOM	31078	C3*	G A1474	158.498	52.698	-35.715	1.00	148.06	C
ATOM	31029	P	U A1472	154.597	43.351	-25.941	1.00	114.08	P	ATOM	31079	O3*	G A1474	159.639	53.378	-36.224	1.00	148.06	O
ATOM	31030	O1P	U A1472	155.883	42.706	-25.576	1.00	87.41	O	ATOM	31080	C2*	G A1474	157.220	53.509	-35.899	1.00	148.06	C
ATOM	31031	O2P	U A1472	154.344	44.759	-25.543	1.00	87.41	O	ATOM	31081	O2*	G A1474	157.139	54.154	-37.157	1.00	148.06	O
ATOM	31032	O5*	U A1472	154.386	43.284	-27.517	1.00	114.08	O	ATOM	31082	C1*	G A1474	156.151	52.422	-35.800	1.00	148.06	C
ATOM	31033	C5*	U A1472	154.614	42.069	-28.252	1.00	114.08	C	ATOM	31083	N9	G A1474	155.667	52.333	-34.424	1.00	127.19	N
ATOM	31034	C4*	U A1472	154.453	42.322	-29.731	1.00	114.08	C	ATOM	31084	C8	G A1474	156.138	51.518	-33.420	1.00	127.19	C
ATOM	31035	O4*	U A1472	153.058	42.599	-30.025	1.00	114.08	O	ATOM	31085	N7	G A1474	155.547	51.723	-32.275	1.00	127.19	N
ATOM	31036	C3*	U A1472	155.197	43.538	-30.266	1.00	114.08	C	ATOM	31086	C5	G A1474	154.619	52.720	-32.540	1.00	127.19	C
ATOM	31037	O3*	U A1472	156.565	43.290	-30.554	1.00	114.08	O	ATOM	31087	C6	G A1474	153.693	53.362	-31.684	1.00	127.19	C
ATOM	31038	C2*	U A1472	154.388	43.914	-31.501	1.00	114.08	C	ATOM	31088	O6	G A1474	153.500	53.172	-30.479	1.00	127.19	O
ATOM	31039	O2*	U A1472	154.723	43.165	-32.652	1.00	114.08	O	ATOM	31089	N1	G A1474	152.946	54.318	-32.363	1.00	127.19	N
ATOM	31040	C1*	U A1472	152.966	43.584	-31.045	1.00	114.08	C	ATOM	31090	C2	G A1474	153.076	54.622	-33.695	1.00	127.19	C
ATOM	31041	N1	U A1472	152.325	44.782	-30.481	1.00	87.41	N	ATOM	31091	N2	G A1474	152.274	55.587	-34.165	1.00	127.19	N
ATOM	31042	C2	U A1472	151.533	45.554	-31.316	1.00	87.41	C	ATOM	31092	N3	G A1474	153.933	54.028	-34.507	1.00	127.19	N
ATOM	31043	O2	U A1472	151.304	45.258	-32.479	1.00	87.41	O	ATOM	31093	C4	G A1474	154.669	53.096	-33.866	1.00	127.19	C
ATOM	31044	N3	U A1472	151.015	46.686	-30.732	1.00	87.41	N	ATOM	31094	P	G A1475	160.404	54.445	-35.289	1.00	149.41	P
ATOM	31045	C4	U A1472	151.194	47.109	-29.424	1.00	87.41	C	ATOM	31095	O1P	G A1475	161.569	54.941	-36.063	1.00	136.86	O
ATOM	31046	O4	U A1472	150.668	48.157	-29.045	1.00	87.41	O	ATOM	31096	O2P	G A1475	160.620	53.843	-33.945	1.00	136.86	O
ATOM	31047	C5	U A1472	152.005	46.247	-28.624	1.00	87.41	C	ATOM	31097	O5*	G A1475	159.359	55.641	-35.140	1.00	149.41	O



ATOM	31098	C5*	G A1475	158.929	56.392	-36.295	1.00149.41	C	ATOM	31148	O3*	C A1477	159.148	66.701	-25.708	1.00133.87	O
ATOM	31099	C4*	G A1475	157.924	57.454	-35.902	1.00149.41	C	ATOM	31149	O2*	C A1477	158.066	64.578	-25.178	1.00133.87	C
ATOM	31100	O4*	G A1475	156.700	56.830	-35.429	1.00149.41	O	ATOM	31150	C2*	C A1477	157.163	65.323	-24.383	1.00133.87	O
ATOM	31101	C3*	G A1475	158.335	58.395	-34.780	1.00149.41	C	ATOM	31151	C1*	C A1477	157.281	63.608	-26.061	1.00133.87	C
ATOM	31102	O3*	G A1475	159.146	59.468	-35.249	1.00149.41	O	ATOM	31152	N1	C A1477	157.992	62.327	-26.232	1.00156.56	N
ATOM	31103	C2*	G A1475	156.994	58.877	-34.235	1.00149.41	C	ATOM	31153	C2	C A1477	157.825	61.327	-25.260	1.00156.56	C
ATOM	31104	O2*	G A1475	156.457	59.964	-34.965	1.00149.41	O	ATOM	31154	O2	C A1477	157.071	61.540	-24.294	1.00156.56	O
ATOM	31105	C1*	G A1475	156.116	57.634	-34.414	1.00149.41	C	ATOM	31155	N3	C A1477	158.489	60.155	-25.397	1.00156.56	N
ATOM	31106	N9	G A1475	156.009	56.842	-33.188	1.00136.86	N	ATOM	31156	C4	C A1477	159.289	59.960	-26.449	1.00156.56	C
ATOM	31107	C8	G A1475	156.680	55.680	-32.882	1.00136.86	C	ATOM	31157	N4	C A1477	159.925	58.790	-26.541	1.00156.56	N
ATOM	31108	N7	G A1475	156.400	55.222	-31.691	1.00136.86	N	ATOM	31158	C5	C A1477	159.472	60.956	-27.453	1.00156.56	C
ATOM	31109	C5	G A1475	155.484	56.131	-31.179	1.00136.86	C	ATOM	31159	C6	C A1477	158.811	62.111	-27.308	1.00156.56	C
ATOM	31110	C6	G A1475	154.829	56.163	-29.919	1.00136.86	C	ATOM	31160	P	C A1478	160.560	66.905	-24.960	1.00144.90	P
ATOM	31111	O6	G A1475	154.937	55.372	-28.969	1.00136.86	O	ATOM	31161	O1P	C A1478	160.900	68.348	-25.081	1.00127.08	O
ATOM	31112	N1	G A1475	153.976	57.260	-29.819	1.00136.86	N	ATOM	31162	O2P	C A1478	161.519	65.880	-25.457	1.00127.08	O
ATOM	31113	C2	G A1475	153.782	58.206	-30.800	1.00136.86	C	ATOM	31163	O5*	C A1478	160.246	66.595	-23.426	1.00144.90	O
ATOM	31114	N2	G A1475	152.917	59.190	-30.515	1.00136.86	N	ATOM	31164	C5*	C A1478	159.382	67.460	-22.659	1.00144.90	C
ATOM	31115	N3	G A1475	154.391	58.189	-31.972	1.00136.86	N	ATOM	31165	C4*	C A1478	159.036	66.822	-21.333	1.00144.90	C
ATOM	31116	C4	G A1475	155.222	57.131	-32.094	1.00136.86	C	ATOM	31166	O4*	C A1478	158.405	65.540	-21.577	1.00144.90	O
ATOM	31117	P	G A1476	160.146	60.212	-34.231	1.00150.94	P	ATOM	31167	C3*	C A1478	160.197	66.498	-20.405	1.00144.90	C
ATOM	31118	O1P	G A1476	160.994	61.123	-35.042	1.00150.44	O	ATOM	31168	O3*	C A1478	160.580	67.602	-19.600	1.00144.90	O
ATOM	31119	O2P	G A1476	160.791	59.193	-33.357	1.00150.44	O	ATOM	31169	C2*	C A1478	159.639	65.374	-19.544	1.00144.90	C
ATOM	31120	O5*	G A1476	159.176	61.100	-33.330	1.00150.94	O	ATOM	31170	O2*	C A1478	158.866	65.835	-18.454	1.00144.90	O
ATOM	31121	C5*	G A1476	158.454	62.213	-33.895	1.00150.94	C	ATOM	31171	C1*	C A1478	158.748	64.634	-20.540	1.00144.90	C
ATOM	31122	C4*	G A1476	157.509	62.801	-32.873	1.00150.94	C	ATOM	31172	N1	C A1478	159.438	63.467	-21.120	1.00127.08	N
ATOM	31123	O4*	G A1476	156.487	61.825	-32.544	1.00150.94	O	ATOM	31173	C2	C A1478	159.565	62.312	-20.338	1.00127.08	C
ATOM	31124	C3*	G A1476	158.123	63.176	-31.532	1.00150.94	C	ATOM	31174	O2	C A1478	159.072	62.301	-19.197	1.00127.08	O
ATOM	31125	O3*	G A1476	158.727	64.464	-31.541	1.00150.94	O	ATOM	31175	N3	C A1478	160.221	61.240	-20.842	1.00127.08	N
ATOM	31126	C2*	G A1476	156.930	63.113	-30.588	1.00150.94	C	ATOM	31176	C4	C A1478	160.732	61.289	-22.075	1.00127.08	C
ATOM	31127	O2*	G A1476	156.149	64.292	-30.606	1.00150.94	O	ATOM	31177	N4	C A1478	161.378	60.212	-22.527	1.00127.08	N
ATOM	31128	C1*	G A1476	156.129	61.951	-31.177	1.00150.94	C	ATOM	31178	C5	C A1478	160.606	62.447	-22.898	1.00127.08	C
ATOM	31129	N9	G A1476	156.418	60.688	-30.500	1.00150.44	N	ATOM	31179	C6	C A1478	159.957	63.502	-22.387	1.00127.08	C
ATOM	31130	C8	G A1476	157.096	59.605	-31.007	1.00150.44	C	ATOM	31180	P	C A1479	162.033	67.611	-18.915	1.00181.02	P
ATOM	31131	N7	G A1476	157.204	58.621	-30.154	1.00150.44	N	ATOM	31181	O1P	C A1479	162.180	68.904	-18.206	1.00113.42	O
ATOM	31132	C5	G A1476	156.556	59.080	-29.014	1.00150.44	C	ATOM	31182	O2P	C A1479	163.026	67.220	-19.947	1.00113.42	O
ATOM	31133	C6	G A1476	156.348	58.451	-27.757	1.00150.44	C	ATOM	31183	O5*	C A1479	161.962	66.463	-17.813	1.00181.02	O
ATOM	31134	O6	G A1476	156.701	57.320	-27.391	1.00150.44	O	ATOM	31184	C5*	C A1479	161.254	66.673	-16.576	1.00181.02	C
ATOM	31135	N1	G A1476	155.647	59.278	-26.882	1.00150.44	N	ATOM	31185	C4*	C A1479	161.438	65.489	-15.655	1.00181.02	C
ATOM	31136	C2	G A1476	155.200	60.544	-27.177	1.00150.44	C	ATOM	31186	O4*	C A1479	160.946	64.297	-16.322	1.00181.02	O
ATOM	31137	N2	G A1476	154.542	61.186	-26.198	1.00150.44	N	ATOM	31187	C3*	C A1479	162.870	65.140	-15.274	1.00181.02	C
ATOM	31138	N3	G A1476	155.385	61.139	-28.344	1.00150.44	N	ATOM	31188	O3*	C A1479	163.360	65.893	-14.174	1.00181.02	O
ATOM	31139	C4	G A1476	156.065	60.355	-29.210	1.00150.44	C	ATOM	31189	C2*	C A1479	162.770	63.660	-14.934	1.00181.02	C
ATOM	31140	P	C A1477	159.965	64.769	-30.555	1.00133.87	P	ATOM	31190	O2*	C A1479	162.287	63.428	-13.625	1.00181.02	O
ATOM	31141	O1P	C A1477	160.448	66.140	-30.864	1.00156.56	O	ATOM	31191	C1*	C A1479	161.744	63.182	-15.961	1.00181.02	C
ATOM	31142	O2P	C A1477	160.912	63.625	-30.624	1.00156.56	O	ATOM	31192	N1	C A1479	162.413	62.669	-17.171	1.00113.42	N
ATOM	31143	O5*	C A1477	159.312	64.781	-29.098	1.00133.87	O	ATOM	31193	C2	C A1479	162.778	61.316	-17.219	1.00113.42	C
ATOM	31144	C5*	C A1477	158.330	65.773	-28.734	1.00133.87	C	ATOM	31194	O2	C A1479	162.495	60.580	-16.259	1.00113.42	O
ATOM	31145	C4*	C A1477	157.785	65.503	-27.349	1.00133.87	C	ATOM	31195	N3	C A1479	163.428	60.846	-18.308	1.00113.42	N
ATOM	31146	O4*	C A1477	157.116	64.216	-27.333	1.00133.87	O	ATOM	31196	C4	C A1479	163.710	61.667	-19.324	1.00113.42	C
ATOM	31147	C3*	C A1477	158.798	65.419	-26.217	1.00133.87	C	ATOM	31197	N4	C A1479	164.367	61.162	-20.373	1.00113.42	N



Table 1: Sheet 314/521

ATOM	31198	C5	C A1479	163.334	63.042	-19.308	1.00113.42	C	ATOM	31248	C4*	G A1482	176.594	60.036	-15.001	1.00126.17	C
ATOM	31199	C6	C A1479	162.693	63.496	-18.224	1.00113.42	C	ATOM	31249	O4*	G A1482	175.341	59.992	-15.728	1.00126.17	O
ATOM	31200	P	C A1480	164.948	66.044	-13.966	1.00134.12	P	ATOM	31250	C3*	G A1482	177.406	61.120	-15.694	1.00126.17	C
ATOM	31201	O1P	G A1480	165.151	66.900	-12.769	1.00124.53	O	ATOM	31251	O3*	G A1482	178.803	60.920	-15.530	1.00126.17	O
ATOM	31202	O2P	G A1480	165.547	66.446	-15.268	1.00124.53	O	ATOM	31252	C2*	G A1482	176.982	60.986	-17.153	1.00126.17	C
ATOM	31203	O5*	G A1480	165.444	64.565	-13.623	1.00134.12	O	ATOM	31253	O2*	G A1482	177.715	60.005	-17.864	1.00126.17	O
ATOM	31204	C5*	G A1480	165.170	63.964	-12.335	1.00134.12	C	ATOM	31254	C1*	G A1482	175.514	60.569	-17.016	1.00126.17	C
ATOM	31205	C4*	G A1480	165.914	62.649	-12.186	1.00134.12	C	ATOM	31255	N9	G A1482	174.597	61.700	-17.143	1.00149.84	N
ATOM	31206	O4*	G A1480	165.421	61.694	-13.162	1.00134.12	O	ATOM	31256	C8	G A1482	174.021	62.416	-16.119	1.00149.84	C
ATOM	31207	C3*	G A1480	167.421	62.683	-12.408	1.00134.12	C	ATOM	31257	N7	G A1482	173.250	63.382	-16.539	1.00149.84	N
ATOM	31208	O3*	G A1480	168.132	63.079	-11.236	1.00134.12	O	ATOM	31258	C5	G A1482	173.316	63.301	-17.924	1.00149.84	C
ATOM	31209	C2*	G A1480	167.739	61.245	-12.806	1.00134.12	C	ATOM	31259	C6	G A1482	172.684	64.090	-18.920	1.00149.84	C
ATOM	31210	O2*	G A1480	167.923	60.380	-11.703	1.00134.12	O	ATOM	31260	O6	G A1482	171.918	65.053	-18.770	1.00149.84	O
ATOM	31211	C1*	G A1480	166.478	60.840	-13.572	1.00134.12	C	ATOM	31261	N1	G A1482	173.021	63.663	-20.202	1.00149.84	N
ATOM	31212	N9	G A1480	166.651	60.960	-15.017	1.00124.53	N	ATOM	31262	C2	G A1482	173.860	62.615	-20.492	1.00149.84	C
ATOM	31213	C8	G A1480	166.196	61.966	-15.836	1.00124.53	C	ATOM	31263	N2	G A1482	174.058	62.362	-21.795	1.00149.84	N
ATOM	31214	N7	G A1480	166.533	61.802	-17.086	1.00124.53	N	ATOM	31264	N3	G A1482	174.459	61.872	-19.572	1.00149.84	N
ATOM	31215	C5	G A1480	167.250	60.614	-17.095	1.00124.53	C	ATOM	31265	C4	G A1482	174.143	62.268	-18.316	1.00149.84	C
ATOM	31216	C6	G A1480	167.879	59.923	-18.169	1.00124.53	C	ATOM	31266	P	A A1483	179.826	62.117	-15.857	1.00131.52	P
ATOM	31217	O6	G A1480	167.935	60.242	-19.366	1.00124.53	O	ATOM	31267	O1P	A A1483	180.601	62.383	-14.618	1.00150.81	O
ATOM	31218	N1	G A1480	168.495	58.752	-17.732	1.00124.53	N	ATOM	31268	O2P	A A1483	179.088	63.229	-16.515	1.00150.81	O
ATOM	31219	C2	G A1480	168.511	58.303	-16.431	1.00124.53	C	ATOM	31269	O5*	A A1483	180.808	61.478	-16.933	1.00131.52	O
ATOM	31220	N2	G A1480	169.159	57.148	-16.209	1.00124.53	N	ATOM	31270	C5*	A A1483	181.522	60.269	-16.643	1.00131.52	C
ATOM	31221	N3	G A1480	167.936	58.940	-15.423	1.00124.53	N	ATOM	31271	C4*	A A1483	182.009	59.635	-17.918	1.00131.52	C
ATOM	31222	C4	G A1480	167.327	60.079	-15.825	1.00124.53	C	ATOM	31272	O4*	A A1483	180.877	59.219	-18.721	1.00131.52	O
ATOM	31223	P	U A1481	169.615	63.702	-11.371	1.00133.09	P	ATOM	31273	C3*	A A1483	182.806	60.541	-18.840	1.00131.52	C
ATOM	31224	O1P	U A1481	170.078	64.021	-9.994	1.00135.45	O	ATOM	31274	O3*	A A1483	184.165	60.629	-18.454	1.00131.52	O
ATOM	31225	O2P	U A1481	169.604	64.770	-12.407	1.00135.45	O	ATOM	31275	C2*	A A1483	182.627	59.884	-20.205	1.00131.52	C
ATOM	31226	O5*	U A1481	170.496	62.496	-11.930	1.00133.09	O	ATOM	31276	O2*	A A1483	183.538	58.834	-20.472	1.00131.52	O
ATOM	31227	C5*	U A1481	170.754	61.329	-11.124	1.00133.09	C	ATOM	31277	C1*	A A1483	181.206	59.328	-20.097	1.00131.52	C
ATOM	31228	C4*	U A1481	171.580	60.331	-11.897	1.00133.09	C	ATOM	31278	N9	A A1483	180.229	60.194	-20.755	1.00150.81	N
ATOM	31229	O4*	U A1481	170.814	59.818	-13.016	1.00133.09	O	ATOM	31279	C8	A A1483	179.323	61.061	-20.194	1.00150.81	C
ATOM	31230	C3*	U A1481	172.850	60.877	-12.529	1.00133.09	C	ATOM	31280	N7	A A1483	178.602	61.710	-21.075	1.00150.81	N
ATOM	31231	O3*	U A1481	173.930	60.902	-11.612	1.00133.09	O	ATOM	31281	C5	A A1483	179.061	61.236	-22.298	1.00150.81	C
ATOM	31232	C2*	U A1481	173.107	59.906	-13.673	1.00133.09	C	ATOM	31282	C6	A A1483	178.704	61.533	-23.624	1.00150.81	C
ATOM	31233	O2*	U A1481	173.803	58.745	-13.274	1.00133.09	O	ATOM	31283	N6	A A1483	177.769	62.422	-23.956	1.00150.81	N
ATOM	31234	C1*	U A1481	171.687	59.535	-14.098	1.00133.09	C	ATOM	31284	N1	A A1483	179.353	60.878	-24.612	1.00150.81	N
ATOM	31235	N1	U A1481	171.246	60.275	-15.292	1.00135.45	N	ATOM	31285	C2	A A1483	180.299	59.993	-24.279	1.00150.81	C
ATOM	31236	C2	U A1481	171.595	59.753	-16.534	1.00135.45	C	ATOM	31286	N3	A A1483	180.726	59.632	-23.073	1.00150.81	N
ATOM	31237	O2	U A1481	172.233	58.717	-16.670	1.00135.45	O	ATOM	31287	C4	A A1483	180.058	60.298	-22.114	1.00150.81	C
ATOM	31238	N3	U A1481	171.172	60.491	-17.612	1.00135.45	N	ATOM	31288	P	C A1484	184.870	62.068	-18.385	1.00124.28	P
ATOM	31239	C4	U A1481	170.451	61.667	-17.585	1.00135.45	C	ATOM	31289	O1P	C A1484	186.329	61.843	-18.234	1.00142.39	O
ATOM	31240	O4	U A1481	170.124	62.196	-18.649	1.00135.45	O	ATOM	31290	O2P	C A1484	184.143	62.869	-17.367	1.00142.39	O
ATOM	31241	C5	U A1481	170.125	62.141	-16.270	1.00135.45	C	ATOM	31291	O5*	C A1484	184.607	62.700	-19.829	1.00124.28	O
ATOM	31242	C6	U A1481	170.521	61.447	-15.196	1.00135.45	C	ATOM	31292	C5*	C A1484	185.086	62.046	-21.028	1.00124.28	C
ATOM	31243	P	G A1482	175.150	61.919	-11.855	1.00126.17	P	ATOM	31293	C4*	C A1484	184.392	62.601	-22.254	1.00124.28	C
ATOM	31244	O1P	G A1482	176.189	61.594	-10.839	1.00149.84	O	ATOM	31294	O4*	C A1484	182.969	62.329	-22.174	1.00124.28	O
ATOM	31245	O2P	G A1482	174.603	63.300	-11.930	1.00149.84	O	ATOM	31295	C3*	C A1484	184.487	64.106	-22.442	1.00124.28	C
ATOM	31246	O5*	G A1482	175.703	61.521	-13.298	1.00126.17	O	ATOM	31296	O3*	C A1484	185.678	64.482	-23.114	1.00124.28	O
ATOM	31247	C5*	G A1482	176.327	60.242	-13.527	1.00126.17	C	ATOM	31297	C2*	C A1484	183.253	64.424	-23.276	1.00124.28	C



Table 1: Sheet 31/5/521

ATOM	31298	O2*	C A1484	183.453	64.209	-24.658	1.00124.28	O	ATOM	31348	N2	G A1486	177.182	76.776	-21.640	1.00102.18	N
ATOM	31299	C1*	C A1484	182.241	63.415	-22.730	1.00124.28	C	ATOM	31349	N3	G A1486	178.917	75.723	-22.722	1.00102.18	N
ATOM	31300	N1	C A1484	181.379	63.999	-21.679	1.00142.39	N	ATOM	31350	C4	G A1486	179.918	74.837	-22.525	1.00102.18	C
ATOM	31301	O2	C A1484	180.366	64.904	-22.051	1.00142.39	C	ATOM	31351	P	G A1487	185.023	77.375	-24.634	1.00119.99	P
ATOM	31302	C2	C A1484	180.208	65.178	-23.255	1.00142.39	O	ATOM	31352	O1P	G A1487	186.045	78.098	-25.433	1.00101.98	O
ATOM	31303	N3	C A1484	179.591	65.459	-21.087	1.00142.39	N	ATOM	31353	O2P	G A1487	185.457	76.419	-23.576	1.00101.98	O
ATOM	31304	C4	C A1484	179.793	65.146	-19.804	1.00142.39	C	ATOM	31354	O5*	G A1487	184.046	78.448	-23.959	1.00119.99	O
ATOM	31305	N4	C A1484	179.018	65.730	-18.887	1.00142.39	N	ATOM	31355	C5*	G A1487	183.436	79.500	-24.745	1.00119.99	C
ATOM	31306	C5	C A1484	180.802	64.225	-19.402	1.00142.39	C	ATOM	31356	C4*	G A1487	182.154	79.993	-24.098	1.00119.99	C
ATOM	31307	C6	C A1484	181.563	63.680	-20.360	1.00142.39	C	ATOM	31357	O4*	G A1487	181.359	78.848	-23.682	1.00119.99	O
ATOM	31308	P	U A1485	186.332	65.919	-22.819	1.00116.70	P	ATOM	31358	C3*	G A1487	182.261	80.835	-22.834	1.00119.99	C
ATOM	31309	O1P	U A1485	187.600	65.991	-23.597	1.00128.02	O	ATOM	31359	O3*	G A1487	182.495	82.214	-23.088	1.00119.99	O
ATOM	31310	O2P	U A1485	186.363	66.106	-21.341	1.00128.02	O	ATOM	31360	C2*	G A1487	180.892	80.641	-22.197	1.00119.99	C
ATOM	31311	O5*	U A1485	185.289	66.964	-23.431	1.00116.70	O	ATOM	31361	O2*	G A1487	179.894	81.462	-22.770	1.00119.99	O
ATOM	31312	C5*	U A1485	185.147	67.138	-24.862	1.00116.70	C	ATOM	31362	C1*	G A1487	180.602	79.182	-22.529	1.00119.99	C
ATOM	31313	C4*	U A1485	184.003	68.085	-25.176	1.00116.70	C	ATOM	31363	N9	G A1487	181.013	78.329	-21.416	1.00101.98	N
ATOM	31314	O4*	U A1485	182.780	67.546	-24.606	1.00116.70	O	ATOM	31364	C8	G A1487	182.100	77.491	-21.354	1.00101.98	C
ATOM	31315	C3*	U A1485	184.087	69.501	-24.613	1.00116.70	C	ATOM	31365	N7	G A1487	182.226	76.901	-20.195	1.00101.98	N
ATOM	31316	O3*	U A1485	184.850	70.406	-25.411	1.00116.70	O	ATOM	31366	C5	G A1487	181.153	77.372	-19.451	1.00101.98	C
ATOM	31317	C2*	U A1485	182.626	69.918	-24.552	1.00116.70	C	ATOM	31367	C6	G A1487	180.770	77.098	-18.115	1.00101.98	C
ATOM	31318	O2*	U A1485	182.118	70.375	-25.792	1.00116.70	O	ATOM	31368	O6	G A1487	181.326	76.369	-17.287	1.00101.98	O
ATOM	31319	C1*	U A1485	181.948	68.606	-24.161	1.00118.02	N	ATOM	31369	N1	G A1487	179.614	77.783	-17.767	1.00101.98	N
ATOM	31320	N1	U A1485	181.777	68.494	-22.701	1.00118.02	N	ATOM	31370	C2	G A1487	178.919	78.628	-18.593	1.00101.98	C
ATOM	31321	C2	U A1485	181.042	69.481	-22.056	1.00128.02	C	ATOM	31371	N2	G A1487	177.821	79.185	-18.078	1.00101.98	N
ATOM	31322	O2	U A1485	180.541	70.424	-22.639	1.00128.02	O	ATOM	31372	N3	G A1487	179.271	78.903	-19.832	1.00101.98	N
ATOM	31323	N3	U A1485	180.921	69.324	-20.700	1.00128.02	N	ATOM	31373	C4	G A1487	180.388	78.243	-20.195	1.00101.98	C
ATOM	31324	C4	U A1485	181.444	68.311	-19.933	1.00128.02	C	ATOM	31374	P	G A1488	182.983	83.168	-21.885	1.0073.32	P
ATOM	31325	O4	U A1485	181.230	68.300	-18.720	1.00128.02	O	ATOM	31375	O1P	G A1488	183.093	84.565	-22.394	1.00102.28	O
ATOM	31326	C5	U A1485	182.194	67.334	-20.664	1.00128.02	C	ATOM	31376	O2P	G A1488	184.153	82.525	-21.241	1.00102.28	O
ATOM	31327	C6	U A1485	182.329	67.455	-21.989	1.00128.02	C	ATOM	31377	O5*	G A1488	181.793	83.121	-20.834	1.0073.32	O
ATOM	31328	P	G A1486	185.405	71.777	-24.757	1.00108.72	P	ATOM	31378	C5*	G A1488	180.515	83.681	-21.148	1.0073.32	C
ATOM	31329	O1P	G A1486	186.546	72.241	-25.591	1.00102.18	O	ATOM	31379	C4*	G A1488	179.612	83.615	-19.947	1.0073.32	C
ATOM	31330	O2P	G A1486	185.605	71.563	-23.295	1.00102.18	O	ATOM	31380	O4*	G A1488	179.425	82.230	-19.549	1.0073.32	O
ATOM	31331	O5*	G A1486	184.210	72.820	-24.941	1.00108.72	O	ATOM	31381	C3*	G A1488	180.135	84.288	-18.691	1.0073.32	C
ATOM	31332	C5*	G A1486	183.888	73.357	-26.243	1.00108.72	C	ATOM	31382	O3*	G A1488	179.921	85.687	-18.706	1.0073.32	O
ATOM	31333	C4*	G A1486	182.868	74.469	-26.128	1.00108.72	C	ATOM	31383	C2*	G A1488	179.352	83.587	-17.591	1.0073.32	C
ATOM	31334	O4*	G A1486	181.607	73.939	-25.632	1.00108.72	O	ATOM	31384	O2*	G A1488	178.055	84.120	-17.412	1.0073.32	O
ATOM	31335	C3*	G A1486	183.188	75.595	-25.161	1.00108.72	C	ATOM	31385	C1*	G A1488	179.255	82.162	-18.142	1.0073.32	C
ATOM	31336	O3*	G A1486	184.091	76.563	-25.666	1.00108.72	O	ATOM	31386	N9	G A1488	180.300	81.317	-17.573	1.00102.28	N
ATOM	31337	C2*	G A1486	181.812	76.180	-24.873	1.00108.72	C	ATOM	31387	C8	G A1488	181.505	80.979	-18.137	1.00102.28	C
ATOM	31338	O2*	G A1486	181.348	77.061	-25.880	1.00108.72	O	ATOM	31388	N7	G A1488	182.255	80.260	-17.348	1.00102.28	N
ATOM	31339	C1*	G A1486	180.950	74.922	-24.840	1.00108.72	C	ATOM	31389	C5	G A1488	181.492	80.102	-16.200	1.00102.28	C
ATOM	31340	N9	G A1486	180.843	74.436	-23.466	1.00102.18	N	ATOM	31390	C6	G A1488	181.783	79.422	-14.986	1.00102.28	C
ATOM	31341	C8	G A1486	181.662	73.524	-22.836	1.00102.18	C	ATOM	31391	O6	G A1488	182.817	78.818	-14.668	1.00102.28	O
ATOM	31342	N7	G A1486	181.351	73.335	-22.581	1.00102.18	N	ATOM	31392	C1	G A1488	180.721	79.500	-14.090	1.00102.28	C
ATOM	31343	C5	G A1486	180.255	74.161	-21.368	1.00102.18	C	ATOM	31393	N2	G A1488	179.535	80.153	-14.325	1.00102.28	N
ATOM	31344	C6	G A1486	179.490	74.389	-20.195	1.00102.18	C	ATOM	31394	N2	G A1488	178.622	80.101	-13.346	1.00102.28	N
ATOM	31345	O6	G A1486	179.632	73.885	-19.071	1.00102.18	O	ATOM	31395	N3	G A1488	179.262	80.804	-15.442	1.00102.28	N
ATOM	31346	N1	G A1486	178.470	75.307	-20.422	1.00102.18	N	ATOM	31396	C4	G A1488	180.277	80.735	-16.330	1.00102.28	C
ATOM	31347	C2	G A1486	178.214	75.925	-21.622	1.00102.18	C	ATOM	31397	P	G A1489	180.970	86.657	-17.973	1.0089.26	P



Table 1: Sheet 316/521

ATOM	31398	O1P	G A1489	180.898	87.978	-18.648	1.00117.86	O	ATOM	31448	O3*	G A1491	186.284	89.187	-4.086	1.00184.39	O
ATOM	31399	O2P	G A1489	182.276	85.960	-17.876	1.00117.86	O	ATOM	31449	O2*	G A1491	186.875	87.121	-5.263	1.00184.39	C
ATOM	31400	O5*	G A1489	180.374	86.800	-16.506	1.00 89.26	O	ATOM	31450	O2*	G A1491	187.125	86.572	-3.984	1.00184.39	O
ATOM	31401	C5*	G A1489	179.037	87.295	-16.302	1.00 89.26	C	ATOM	31451	C1*	G A1491	185.996	86.169	-6.080	1.00184.39	C
ATOM	31402	C4*	G A1489	178.555	86.942	-14.916	1.00 89.26	C	ATOM	31452	N9	G A1491	186.359	86.146	-7.494	1.00108.06	N
ATOM	31403	O4*	G A1489	178.444	85.499	-14.796	1.00 89.26	O	ATOM	31453	C8	G A1491	185.794	86.876	-8.514	1.00108.06	C
ATOM	31404	C3*	G A1489	179.496	87.352	-13.796	1.00 89.26	C	ATOM	31454	N7	G A1491	186.349	86.651	-9.673	1.00108.06	N
ATOM	31405	O3*	G A1489	179.301	88.702	-13.410	1.00 89.26	O	ATOM	31455	C5	G A1491	187.339	85.715	-9.405	1.00108.06	C
ATOM	31406	C2*	G A1489	179.169	86.354	-12.693	1.00 89.26	C	ATOM	31456	C6	G A1491	188.277	85.091	-10.271	1.00108.06	C
ATOM	31407	O2*	G A1489	178.043	86.725	-11.923	1.00 89.26	O	ATOM	31457	O6	G A1491	188.429	85.250	-11.489	1.00108.06	O
ATOM	31408	C1*	G A1489	178.854	85.092	-13.503	1.00 89.26	C	ATOM	31458	N1	G A1491	189.095	84.203	-9.582	1.00108.06	N
ATOM	31409	N8	G A1489	180.011	84.212	-13.647	1.00117.86	N	ATOM	31459	C2	G A1491	189.028	83.949	-8.234	1.00108.06	C
ATOM	31410	C9	G A1489	180.828	84.079	-14.747	1.00117.86	C	ATOM	31460	N2	G A1491	189.908	83.064	-7.751	1.00108.06	N
ATOM	31411	N7	G A1489	181.786	83.209	-14.573	1.00117.86	N	ATOM	31461	N3	G A1491	188.163	84.523	-7.418	1.00108.06	N
ATOM	31412	C5	G A1489	181.592	82.741	-13.280	1.00117.86	C	ATOM	31462	C4	G A1491	187.355	85.390	-8.066	1.00108.06	C
ATOM	31413	C6	G A1489	182.322	81.781	-12.530	1.00117.86	C	ATOM	31463	P	A A1492	187.213	90.485	-4.252	1.00160.38	P
ATOM	31414	O6	G A1489	183.319	81.132	-12.868	1.00117.86	O	ATOM	31464	O1P	A A1492	186.785	91.456	-3.216	1.00174.10	O
ATOM	31415	N1	G A1489	181.780	81.608	-11.259	1.00117.86	N	ATOM	31465	O2P	A A1492	187.218	90.892	-5.685	1.00174.10	O
ATOM	31416	C2	G A1489	180.681	82.272	-10.770	1.00117.86	C	ATOM	31466	O5*	A A1492	188.662	89.957	-3.858	1.00160.38	O
ATOM	31417	N2	G A1489	180.312	81.970	-9.519	1.00117.86	N	ATOM	31467	C5*	A A1492	189.777	90.088	-4.761	1.00160.38	C
ATOM	31418	N3	G A1489	179.995	83.167	-11.457	1.00117.86	N	ATOM	31468	C4*	A A1492	191.069	89.768	-4.045	1.00160.38	C
ATOM	31419	C4	G A1489	180.501	83.351	-12.696	1.00117.86	C	ATOM	31469	O4*	A A1492	190.970	88.460	-3.430	1.00160.38	O
ATOM	31420	P	C A1490	180.543	89.541	-12.843	1.00139.41	P	ATOM	31470	C3*	A A1492	192.295	89.694	-4.938	1.00160.38	C
ATOM	31421	O1P	C A1490	180.095	90.939	-12.666	1.00107.18	O	ATOM	31471	O3*	A A1492	192.862	90.985	-5.110	1.00160.38	O
ATOM	31422	O2P	C A1490	181.732	89.255	-13.681	1.00107.18	O	ATOM	31472	C2*	A A1492	193.217	88.742	-4.184	1.00160.38	C
ATOM	31423	O5*	C A1490	180.778	88.901	-11.405	1.00139.41	O	ATOM	31473	O1*	A A1492	193.978	87.388	-3.181	1.00160.38	O
ATOM	31424	C5*	C A1490	179.704	88.859	-10.444	1.00139.41	C	ATOM	31474	C1*	A A1492	192.212	87.788	-3.529	1.00160.38	C
ATOM	31425	C4*	C A1490	180.093	88.026	-9.245	1.00139.41	C	ATOM	31475	N9	A A1492	191.987	86.536	-4.256	1.00174.10	N
ATOM	31426	O4*	C A1490	180.113	86.616	-9.596	1.00139.41	O	ATOM	31476	C8	A A1492	190.864	86.164	-4.960	1.00174.10	C
ATOM	31427	C3*	C A1490	181.479	88.295	-8.687	1.00139.41	C	ATOM	31477	N7	A A1492	190.934	84.959	-5.470	1.00174.10	N
ATOM	31428	O3*	C A1490	181.535	89.431	-7.850	1.00139.41	O	ATOM	31478	C5	A A1492	192.190	84.507	-5.086	1.00174.10	C
ATOM	31429	C2*	C A1490	181.799	86.997	-7.961	1.00139.41	C	ATOM	31479	C6	A A1492	192.865	83.290	-5.303	1.00174.10	C
ATOM	31430	O2*	C A1490	181.199	86.932	-6.678	1.00139.41	O	ATOM	31480	N6	A A1492	192.341	82.258	-5.968	1.00174.10	N
ATOM	31431	C1*	C A1490	181.167	85.966	-8.899	1.00139.41	C	ATOM	31481	N1	A A1492	194.112	83.166	-4.797	1.00174.10	N
ATOM	31432	N1	C A1490	182.139	85.459	-9.893	1.00107.18	N	ATOM	31482	C2	A A1492	194.630	84.194	-4.109	1.00174.10	C
ATOM	31433	C2	C A1490	182.814	84.253	-9.639	1.00107.18	C	ATOM	31483	N3	A A1492	194.091	85.379	-3.827	1.00174.10	N
ATOM	31434	O2	C A1490	182.584	83.636	-8.585	1.00107.18	O	ATOM	31484	C4	A A1492	192.855	85.474	-4.350	1.00174.10	C
ATOM	31435	N3	C A1490	183.701	83.790	-10.551	1.00107.18	N	ATOM	31485	P	A A1493	193.776	91.286	-6.394	1.00200.93	P
ATOM	31436	C4	C A1490	183.930	84.479	-11.672	1.00107.18	C	ATOM	31486	O1P	A A1493	194.109	92.732	-6.378	1.00200.85	O
ATOM	31437	N4	C A1490	184.808	83.979	-12.543	1.00107.18	N	ATOM	31487	O2P	A A1493	193.138	90.692	-7.599	1.00200.85	O
ATOM	31438	C5	C A1490	183.266	85.708	-11.951	1.00107.18	C	ATOM	31488	O5*	A A1493	195.107	90.474	-6.092	1.00200.93	O
ATOM	31439	C6	C A1490	182.388	86.155	-11.046	1.00107.18	C	ATOM	31489	C5*	A A1493	195.941	90.810	-4.968	1.00200.93	C
ATOM	31440	P	G A1491	182.906	90.254	-7.750	1.00184.39	P	ATOM	31490	C4*	A A1493	197.151	89.911	-4.947	1.00200.93	C
ATOM	31441	O1P	G A1491	182.645	91.423	-6.880	1.00108.06	O	ATOM	31491	O4*	A A1493	196.701	88.549	-4.695	1.00200.93	O
ATOM	31442	O2P	G A1491	183.434	90.459	-9.125	1.00108.06	O	ATOM	31492	C3*	A A1493	197.893	89.827	-6.274	1.00200.93	C
ATOM	31443	O5*	G A1491	183.881	89.259	-6.979	1.00184.39	O	ATOM	31493	O3*	A A1493	197.487	90.618	-7.397	1.00200.93	O
ATOM	31444	C5*	G A1491	183.519	88.732	-5.685	1.00184.39	C	ATOM	31494	C2*	A A1493	198.448	88.411	-6.325	1.00200.93	C
ATOM	31445	C4*	G A1491	184.599	87.813	-5.166	1.00184.39	C	ATOM	31495	O2*	A A1493	199.700	88.279	-5.679	1.00200.93	O
ATOM	31446	O4*	G A1491	184.653	86.608	-5.969	1.00184.39	O	ATOM	31496	C1*	A A1493	197.378	87.637	-5.554	1.00200.93	C
ATOM	31447	C3*	G A1491	186.010	88.374	-5.215	1.00184.39	C	ATOM	31497	N9	A A1493	196.386	87.012	-6.435	1.00200.85	N



Table 1: Sheet 317/521

ATOM	31498	C8	A	A1493	195.1148	87.497	-6.787	1.00200.85	C	ATOM	31548	C5	U	A1495	198.306	88.685	-14.993	1.00	84.31	C
ATOM	31499	N7	A	A1493	194.484	86.715	-7.601	1.00200.85	N	ATOM	31549	C6	U	A1495	199.373	87.889	-15.136	1.00	84.31	C
ATOM	31500	C5	A	A1493	195.339	85.640	-7.800	1.00200.85	C	ATOM	31550	P	C	A1496	204.608	89.078	-17.064	1.00	76.77	P
ATOM	31501	C6	A	A1493	195.216	84.468	-8.561	1.00200.85	C	ATOM	31551	O1P	C	A1496	206.092	89.022	-17.173	1.00	66.70	O
ATOM	31502	N6	A	A1493	194.136	84.171	-9.286	1.00200.85	N	ATOM	31552	O2P	C	A1496	203.969	90.109	-16.188	1.00	66.70	O
ATOM	31503	N1	A	A1493	196.250	83.598	-8.549	1.00200.85	N	ATOM	31553	O5*	C	A1496	204.030	89.196	-18.542	1.00	76.77	O
ATOM	31504	C2	A	A1493	197.329	83.897	-7.815	1.00200.85	C	ATOM	31554	C5*	C	A1496	204.539	88.333	-19.575	1.00	76.77	C
ATOM	31505	N3	A	A1493	197.562	84.965	-7.054	1.00200.85	N	ATOM	31555	O4*	C	A1496	203.699	88.440	-20.815	1.00	76.77	C
ATOM	31506	C4	A	A1493	196.515	85.809	-7.090	1.00200.85	C	ATOM	31556	O4*	C	A1496	202.377	87.917	-20.543	1.00	76.77	C
ATOM	31507	P	G	A1494	198.531	90.963	-8.574	1.00118.15	P	ATOM	31557	C3*	C	A1496	203.463	89.852	-21.311	1.00	76.77	C
ATOM	31508	O1P	G	A1494	199.757	91.501	-7.924	1.00	89.71	ATOM	31558	O3*	C	A1496	204.547	90.328	-22.097	1.00	76.77	O
ATOM	31509	O2P	G	A1494	197.827	91.781	-9.598	1.00	89.71	ATOM	31559	C2*	C	A1496	202.161	89.706	-22.081	1.00	76.77	C
ATOM	31510	O5*	G	A1494	198.899	89.554	-9.220	1.00118.15	O	ATOM	31560	O2*	C	A1496	202.370	89.148	-23.366	1.00	76.77	O
ATOM	31511	C5*	G	A1494	199.975	88.769	-8.684	1.00118.15	C	ATOM	31561	C1*	C	A1496	201.405	88.705	-21.203	1.00	76.77	C
ATOM	31512	C4*	G	A1494	200.254	87.584	-9.562	1.00118.15	C	ATOM	31562	N1	C	A1496	200.574	89.359	-20.168	1.00	66.70	N
ATOM	31513	O4*	G	A1494	199.047	86.798	-9.738	1.00118.15	O	ATOM	31563	C2	C	A1496	199.314	89.879	-20.521	1.00	66.70	C
ATOM	31514	C3*	G	A1494	200.695	87.912	-10.973	1.00118.15	C	ATOM	31564	O2	C	A1496	198.921	89.781	-21.696	1.00	66.70	O
ATOM	31515	O3*	G	A1494	202.081	88.214	-11.019	1.00118.15	O	ATOM	31565	N3	C	A1496	198.560	90.480	-19.571	1.00	66.70	N
ATOM	31516	C2*	G	A1494	200.344	86.637	-11.728	1.00118.15	C	ATOM	31566	C4	C	A1496	199.013	90.576	-18.318	1.00	66.70	C
ATOM	31517	O2*	G	A1494	201.329	85.633	-11.578	1.00118.15	O	ATOM	31567	N4	C	A1496	198.233	91.182	-17.414	1.00	66.70	N
ATOM	31518	C1*	G	A1494	199.056	86.200	-11.024	1.00118.15	C	ATOM	31568	C5	C	A1496	200.285	90.056	-17.933	1.00	66.70	C
ATOM	31519	N9	G	A1494	197.857	86.610	-11.755	1.00	89.71	ATOM	31569	C6	C	A1496	201.023	89.464	-18.878	1.00	66.70	C
ATOM	31520	C8	G	A1494	196.963	87.602	-11.421	1.00	89.71	ATOM	31570	P	G	A1497	205.222	91.743	-21.730	1.00	65.71	P
ATOM	31521	N7	G	A1494	196.014	87.755	-12.306	1.00	89.71	ATOM	31571	O1P	G	A1497	206.553	91.763	-22.378	1.00	65.99	O
ATOM	31522	C5	G	A1494	196.289	86.802	-13.281	1.00	89.71	ATOM	31572	O2P	G	A1497	205.115	91.972	-20.262	1.00	65.99	O
ATOM	31523	C6	G	A1494	195.611	86.495	-14.509	1.00	89.71	ATOM	31573	O5*	G	A1497	204.292	92.810	-22.458	1.00	65.71	O
ATOM	31524	O6	G	A1494	194.610	87.032	-14.999	1.00	89.71	ATOM	31574	C5*	C	A1497	204.168	92.782	-23.879	1.00	65.71	C
ATOM	31525	N1	G	A1494	196.231	85.452	-15.188	1.00	89.71	ATOM	31575	C4*	G	A1497	202.737	93.017	-24.314	1.00	65.71	C
ATOM	31526	C2	G	A1494	197.354	84.790	-14.764	1.00	89.71	ATOM	31576	O4*	G	A1497	201.790	92.331	-23.444	1.00	65.71	O
ATOM	31527	N2	G	A1494	197.795	83.809	-15.563	1.00	89.71	ATOM	31577	C3*	G	A1497	202.192	94.429	-24.301	1.00	65.71	C
ATOM	31528	N3	G	A1494	197.999	85.067	-13.638	1.00	89.71	ATOM	31578	O3*	G	A1497	202.658	95.201	-25.392	1.00	65.71	O
ATOM	31529	C4	G	A1494	197.415	86.077	-12.951	1.00	89.71	ATOM	31579	C2*	G	A1497	200.701	94.170	-24.454	1.00	65.71	C
ATOM	31530	P	U	A1495	202.645	89.172	-12.179	1.00	79.93	ATOM	31580	O2*	G	A1497	200.371	93.903	-25.800	1.00	65.71	O
ATOM	31531	O1P	U	A1495	204.111	89.294	-11.975	1.00	84.31	ATOM	31581	C1*	G	A1497	200.506	92.886	-23.650	1.00	65.71	C
ATOM	31532	O2P	U	A1495	201.814	90.398	-12.244	1.00	84.31	ATOM	31582	N9	G	A1497	199.862	93.173	-22.374	1.00	65.99	N
ATOM	31533	O5*	U	A1495	202.403	88.325	-13.506	1.00	79.93	ATOM	31583	C8	ATOM	A1497	200.426	93.212	-21.127	1.00	65.99	C
ATOM	31534	C5*	U	A1495	203.000	87.024	-13.665	1.00	79.93	ATOM	31584	N7	G	A1497	199.578	93.555	-20.194	1.00	65.99	N
ATOM	31535	C4*	U	A1495	202.670	86.459	-15.022	1.00	79.93	ATOM	31585	C5	G	A1497	198.378	93.741	-20.866	1.00	65.99	C
ATOM	31536	O4*	U	A1495	201.293	86.003	-15.069	1.00	79.93	ATOM	31586	C6	G	A1497	197.092	94.127	-20.384	1.00	65.99	C
ATOM	31537	C3*	U	A1495	202.781	87.441	-16.172	1.00	79.93	ATOM	31587	O6	G	A1497	196.749	94.393	-19.230	1.00	65.99	O
ATOM	31538	O3*	U	A1495	204.119	87.619	-16.598	1.00	79.93	ATOM	31588	N1	G	A1497	196.158	94.193	-21.412	1.00	65.99	N
ATOM	31539	C2*	U	A1495	201.873	86.823	-17.230	1.00	79.93	ATOM	31589	C2	G	A1497	196.421	93.929	-22.734	1.00	65.99	C
ATOM	31540	O2*	U	A1495	202.501	85.800	-17.984	1.00	79.93	ATOM	31590	N2	G	A1497	195.391	94.053	-23.586	1.00	65.99	N
ATOM	31541	C1*	U	A1495	200.759	86.223	-16.368	1.00	79.93	ATOM	31591	N3	G	A1497	197.607	93.571	-23.192	1.00	65.99	N
ATOM	31542	N1	U	A1495	199.577	87.097	-16.256	1.00	84.31	ATOM	31592	C4	ATOM	A1497	198.533	93.498	-22.209	1.00	65.99	C
ATOM	31543	C2	U	A1495	198.659	87.106	-17.311	1.00	84.31	ATOM	31593	P	U	A1498	202.631	96.802	-25.287	1.00	53.61	P
ATOM	31544	O2	U	A1495	198.798	86.446	-18.336	1.00	84.31	ATOM	31594	O1P	U	A1498	203.060	97.407	-26.586	1.00	44.58	O
ATOM	31545	N3	U	A1495	197.573	87.930	-17.122	1.00	84.31	ATOM	31595	O2P	U	A1498	203.343	97.181	-24.040	1.00	44.58	O
ATOM	31546	C4	U	A1495	197.312	88.738	-16.025	1.00	84.31	ATOM	31596	O5*	U	A1498	201.085	97.106	-25.067	1.00	53.61	O
ATOM	31547	O4	U	A1495	196.277	89.412	-16.001	1.00	84.31	ATOM	31597	C5*	U	A1498	200.087	96.560	-25.948	1.00	53.61	C



ATOM	31598	C4*	U A1498	198.760	97.236	-25.710	1.00	53.61	C	ATOM	31648	C8	A A1500	191.620	101.675	-24.473	1.00	52.87	C
ATOM	31599	O4*	U A1498	198.236	96.913	-24.392	1.00	53.61	O	ATOM	31649	N7	A A1500	192.498	101.771	-23.507	1.00	52.87	N
ATOM	31600	C3*	U A1498	198.845	98.742	-25.763	1.00	53.61	C	ATOM	31650	C5	A A1500	191.762	102.742	-22.434	1.00	52.87	C
ATOM	31601	O3*	U A1498	198.554	99.387	-27.014	1.00	53.61	O	ATOM	31651	C6	A A1500	192.118	102.551	-21.115	1.00	52.87	C
ATOM	31602	C2*	U A1498	198.750	99.241	-24.315	1.00	53.61	C	ATOM	31652	N6	A A1500	193.356	102.421	-20.632	1.00	52.87	N
ATOM	31603	O2*	U A1498	198.045	100.447	-24.112	1.00	53.61	O	ATOM	31653	N1	A A1500	191.150	102.999	-20.294	1.00	52.87	N
ATOM	31604	C1*	U A1498	197.976	98.097	-23.656	1.00	53.61	C	ATOM	31654	C2	A A1500	189.910	103.120	-20.770	1.00	52.87	C
ATOM	31605	N1	U A1498	198.319	97.824	-22.250	1.00	44.58	N	ATOM	31655	N3	A A1500	189.447	102.858	-21.990	1.00	52.87	N
ATOM	31606	C2	U A1498	197.359	98.069	-21.296	1.00	44.58	C	ATOM	31656	C4	A A1500	190.435	102.417	-22.788	1.00	52.87	C
ATOM	31607	O2	U A1498	196.275	98.538	-21.559	1.00	44.58	O	ATOM	31657	P	C A1501	189.490	106.192	-27.392	1.00	28.55	P
ATOM	31608	N3	U A1498	197.714	97.741	-20.015	1.00	44.58	N	ATOM	31658	O1P	C A1501	188.733	107.039	-28.351	1.00	47.34	O
ATOM	31609	C4	U A1498	198.911	97.207	-19.597	1.00	44.58	C	ATOM	31659	O2P	C A1501	190.971	106.098	-27.500	1.00	47.34	O
ATOM	31610	O4	U A1498	199.063	96.913	-18.405	1.00	44.58	O	ATOM	31660	O5*	C A1501	189.136	106.674	-25.924	1.00	28.55	C
ATOM	31611	C5	U A1498	199.866	97.003	-20.639	1.00	44.58	C	ATOM	31661	C5*	C A1501	187.781	106.668	-25.481	1.00	28.55	C
ATOM	31612	C6	U A1498	199.547	97.314	-21.896	1.00	44.58	C	ATOM	31662	C4*	C A1501	187.684	107.207	-24.081	1.00	28.55	C
ATOM	31613	P	A A1499	197.068	99.884	-27.352	1.00	39.64	P	ATOM	31663	O4*	C A1501	188.253	106.279	-23.136	1.00	28.55	O
ATOM	31614	O1P	A A1499	197.194	100.788	-28.543	1.00	48.36	O	ATOM	31664	C3*	C A1501	188.387	108.518	-23.815	1.00	28.55	C
ATOM	31615	O2P	A A1499	196.449	100.407	-26.090	1.00	48.36	O	ATOM	31665	O3*	C A1501	187.530	109.562	-24.206	1.00	28.55	C
ATOM	31616	O5*	A A1499	196.262	98.575	-27.770	1.00	39.64	O	ATOM	31666	C2*	C A1501	188.578	108.496	-22.306	1.00	28.55	C
ATOM	31617	C5*	A A1499	195.529	98.536	-29.017	1.00	39.64	C	ATOM	31667	O2*	C A1501	187.446	108.966	-21.604	1.00	28.55	O
ATOM	31618	O4*	A A1499	194.027	98.536	-28.778	1.00	39.64	C	ATOM	31668	C1*	C A1501	188.751	106.999	-22.031	1.00	28.55	C
ATOM	31619	C4*	A A1499	193.689	97.453	-27.874	1.00	39.64	O	ATOM	31669	N1	C A1501	190.136	106.588	-21.782	1.00	47.34	N
ATOM	31620	C3*	A A1499	193.404	99.768	-28.140	1.00	39.64	C	ATOM	31670	C2	C A1501	190.662	106.786	-20.515	1.00	47.34	C
ATOM	31621	O3*	A A1499	193.116	100.794	-29.079	1.00	39.64	O	ATOM	31671	O2	C A1501	189.942	107.287	-19.638	1.00	47.34	O
ATOM	31622	C2*	A A1499	192.134	99.206	-27.519	1.00	39.64	C	ATOM	31672	N3	C A1501	191.937	106.438	-20.272	1.00	47.34	N
ATOM	31623	O2*	A A1499	191.082	99.025	-28.446	1.00	39.64	O	ATOM	31673	C4	C A1501	192.678	105.916	-21.241	1.00	47.34	C
ATOM	31624	C1*	A A1499	192.605	97.833	-27.052	1.00	39.64	C	ATOM	31674	N4	C A1501	193.937	105.626	-20.963	1.00	47.34	N
ATOM	31625	N9	A A1499	193.083	97.877	-25.675	1.00	48.36	N	ATOM	31675	C5	C A1501	192.162	105.683	-22.540	1.00	47.34	C
ATOM	31626	C8	A A1499	194.361	97.685	-25.225	1.00	48.36	C	ATOM	31676	C6	C A1501	190.898	106.032	-22.767	1.00	47.34	C
ATOM	31627	N7	A A1499	194.487	97.815	-23.930	1.00	48.36	N	ATOM	31677	P	A A1502	187.997	110.568	-25.339	1.00	38.86	P
ATOM	31628	C5	A A1499	193.203	98.110	-23.497	1.00	48.36	C	ATOM	31678	O1P	A A1502	186.886	111.487	-25.653	1.00	60.35	O
ATOM	31629	C6	A A1499	192.672	98.375	-22.226	1.00	48.36	C	ATOM	31679	O2P	A A1502	188.628	109.789	-26.421	1.00	60.35	O
ATOM	31630	N6	A A1499	193.395	98.369	-21.112	1.00	48.36	N	ATOM	31680	O5*	A A1502	189.133	111.380	-24.602	1.00	38.86	O
ATOM	31631	N1	A A1499	191.356	98.646	-22.138	1.00	48.36	N	ATOM	31681	C5*	A A1502	188.919	112.739	-24.296	1.00	38.86	C
ATOM	31632	C2	A A1499	190.632	98.639	-23.258	1.00	48.36	C	ATOM	31682	C4*	A A1502	190.190	113.528	-24.444	1.00	38.86	C
ATOM	31633	N3	A A1499	191.012	98.399	-24.509	1.00	48.36	N	ATOM	31683	O4*	A A1502	190.958	113.453	-23.230	1.00	38.86	O
ATOM	31634	C4	A A1499	192.328	98.143	-24.560	1.00	48.36	C	ATOM	31684	C3*	A A1502	191.146	113.257	-25.602	1.00	38.86	C
ATOM	31635	P	A A1500	193.105	102.326	-28.589	1.00	36.81	P	ATOM	31685	O3*	A A1502	191.403	114.515	-26.209	1.00	38.86	O
ATOM	31636	O1P	A A1500	193.011	103.252	-29.792	1.00	52.87	O	ATOM	31686	C2*	A A1502	192.412	112.766	-24.881	1.00	38.86	C
ATOM	31637	O2P	A A1500	194.222	102.501	-27.621	1.00	52.87	O	ATOM	31687	O1*	A A1502	192.307	113.523	-23.559	1.00	38.86	O
ATOM	31638	O5*	A A1500	191.782	102.392	-27.710	1.00	36.81	O	ATOM	31688	C2*	A A1502	193.581	113.190	-25.548	1.00	38.86	C
ATOM	31639	C5*	A A1500	190.513	102.036	-28.266	1.00	36.81	C	ATOM	31689	N9	A A1502	193.076	113.145	-22.375	1.00	60.35	N
ATOM	31640	C4*	A A1500	189.416	102.329	-27.287	1.00	36.81	C	ATOM	31690	C8	A A1502	192.713	113.402	-21.067	1.00	60.35	C
ATOM	31641	O4*	A A1500	189.501	101.400	-26.185	1.00	36.81	O	ATOM	31691	N7	A A1502	193.624	113.077	-20.187	1.00	60.35	N
ATOM	31642	C3*	A A1500	189.467	103.694	-26.636	1.00	36.81	C	ATOM	31692	C5	A A1502	194.639	112.546	-20.957	1.00	60.35	C
ATOM	31643	O3*	A A1500	188.881	104.705	-27.439	1.00	36.81	O	ATOM	31693	C6	A A1502	195.876	112.041	-20.621	1.00	60.35	C
ATOM	31644	C2*	A A1500	188.684	103.453	-25.364	1.00	36.81	C	ATOM	31694	N6	A A1502	196.349	112.015	-19.379	1.00	60.35	N
ATOM	31645	O2*	A A1500	187.309	103.401	-25.690	1.00	36.81	O	ATOM	31695	N1	A A1502	196.641	111.565	-21.618	1.00	60.35	N
ATOM	31646	C1*	A A1500	189.158	102.053	-24.977	1.00	36.81	C	ATOM	31696	C2	A A1502	196.168	111.623	-22.878	1.00	60.35	C
ATOM	31647	N9	A A1500	190.349	102.050	-24.113	1.00	52.87	N	ATOM	31697	N3	A A1502	195.025	112.095	-23.322	1.00	60.35	N



ATOM	31698	C4	A A1502	194.298	112.549	-22.304	1.00	60.35	C	ATOM	31748	C5*	G A1505	197.445	106.456	-30.523	1.00	46.45	C
ATOM	31699	P	A A1503	190.469	115.035	-27.406	1.00	58.25	P	ATOM	31749	C4*	G A1505	198.554	107.488	-30.560	1.00	46.45	C
ATOM	31700	O1P	A A1503	190.634	116.498	-27.513	1.00	71.43	O	ATOM	31750	O4*	G A1505	198.322	108.455	-29.515	1.00	46.45	C
ATOM	31701	O2P	A A1503	189.111	114.461	-27.269	1.00	71.43	O	ATOM	31751	C3*	G A1505	199.956	106.933	-30.343	1.00	46.45	O
ATOM	31702	O5*	A A1503	191.158	114.424	-28.696	1.00	58.25	O	ATOM	31752	O3*	G A1505	200.617	106.778	-31.614	1.00	46.45	O
ATOM	31703	C5*	A A1503	190.531	113.385	-29.477	1.00	58.25	C	ATOM	31753	C2*	G A1505	200.665	108.055	-29.580	1.00	46.45	C
ATOM	31704	C4*	A A1503	191.541	112.808	-30.431	1.00	58.25	C	ATOM	31754	O2*	G A1505	201.198	109.049	-30.428	1.00	46.45	O
ATOM	31705	O4*	A A1503	192.072	113.904	-31.191	1.00	58.25	C	ATOM	31755	C1*	G A1505	199.517	108.708	-28.822	1.00	46.45	O
ATOM	31706	C3*	A A1503	192.705	112.162	-29.704	1.00	58.25	C	ATOM	31756	N9	G A1505	199.300	108.257	-27.461	1.00	33.93	N
ATOM	31707	O3*	A A1503	192.313	110.767	-29.604	1.00	58.25	O	ATOM	31757	C8	G A1505	199.474	107.000	-26.937	1.00	33.93	C
ATOM	31708	C2*	A A1503	193.959	112.603	-30.469	1.00	58.25	C	ATOM	31758	N7	G A1505	199.105	106.914	-25.684	1.00	33.93	N
ATOM	31709	O2*	A A1503	194.594	111.637	-31.267	1.00	58.25	O	ATOM	31759	C5	G A1505	198.683	108.196	-25.370	1.00	33.93	C
ATOM	31710	C1*	A A1503	193.452	113.753	-31.348	1.00	58.25	C	ATOM	31760	C6	G A1505	198.188	108.723	-24.168	1.00	33.93	C
ATOM	31711	N9	A A1503	194.050	115.077	-31.216	1.00	71.43	N	ATOM	31761	O6	G A1505	197.997	108.148	-23.098	1.00	33.93	O
ATOM	31712	C8	A A1503	193.981	115.943	-30.159	1.00	71.43	C	ATOM	31762	N1	G A1505	197.902	110.072	-24.287	1.00	33.93	N
ATOM	31713	N7	A A1503	194.565	117.094	-30.380	1.00	71.43	N	ATOM	31763	C2	G A1505	198.064	110.821	-25.421	1.00	33.93	C
ATOM	31714	C5	A A1503	195.066	116.972	-31.666	1.00	71.43	C	ATOM	31764	N2	G A1505	197.727	112.118	-25.345	1.00	33.93	N
ATOM	31715	C6	A A1503	195.791	117.852	-32.486	1.00	71.43	C	ATOM	31765	N3	G A1505	198.523	110.341	-26.550	1.00	33.93	N
ATOM	31716	N6	A A1503	196.138	119.090	-32.122	1.00	71.43	N	ATOM	31766	C4	G A1505	198.813	109.033	-26.454	1.00	33.93	C
ATOM	31717	N1	A A1503	196.150	117.413	-33.712	1.00	71.43	N	ATOM	31767	P	U A1506	200.265	105.539	-32.587	1.00	45.98	P
ATOM	31718	C2	A A1503	195.791	116.177	-34.080	1.00	71.43	C	ATOM	31768	O1P	U A1506	200.043	104.275	-31.770	1.00	39.72	O
ATOM	31719	N3	A A1503	195.105	115.263	-33.404	1.00	71.43	N	ATOM	31769	O2P	U A1506	201.323	105.564	-33.648	1.00	39.72	O
ATOM	31720	C4	A A1503	194.769	115.728	-32.188	1.00	71.43	C	ATOM	31770	O5*	U A1506	198.922	106.002	-33.307	1.00	45.98	O
ATOM	31721	P	G A1504	193.241	109.564	-30.164	1.00	39.66	P	ATOM	31771	C5*	U A1506	198.914	107.184	-34.125	1.00	45.98	C
ATOM	31722	O1P	G A1504	193.427	109.738	-31.622	1.00	52.80	O	ATOM	31772	C4*	U A1506	197.936	107.019	-35.259	1.00	45.98	C
ATOM	31723	O2P	G A1504	192.612	108.311	-29.664	1.00	52.80	O	ATOM	31773	O4*	U A1506	198.131	105.692	-35.812	1.00	45.98	O
ATOM	31724	O5*	G A1504	194.632	109.745	-29.414	1.00	39.66	O	ATOM	31774	C3*	U A1506	196.457	107.117	-34.902	1.00	45.98	C
ATOM	31725	C5*	G A1504	194.663	109.980	-28.006	1.00	39.66	C	ATOM	31775	O3*	U A1506	195.762	107.637	-36.036	1.00	45.98	O
ATOM	31726	C4*	G A1504	195.284	108.813	-27.298	1.00	39.66	C	ATOM	31776	C2*	U A1506	196.065	105.655	-34.723	1.00	45.98	C
ATOM	31727	O4*	G A1504	195.053	108.973	-25.882	1.00	39.66	O	ATOM	31777	O2*	U A1506	194.688	105.385	-34.908	1.00	45.98	O
ATOM	31728	C3*	G A1504	194.685	107.471	-27.840	1.00	39.66	C	ATOM	31778	C1*	U A1506	196.915	104.999	-35.806	1.00	45.98	C
ATOM	31729	O3*	G A1504	195.165	106.724	-28.757	1.00	39.66	O	ATOM	31779	N1	U A1506	197.187	103.568	-35.630	1.00	39.72	N
ATOM	31730	C2*	G A1504	193.760	107.068	-26.504	1.00	39.66	C	ATOM	31780	C2	U A1506	196.814	102.734	-36.664	1.00	39.72	C
ATOM	31731	O2*	G A1504	193.818	105.694	-26.195	1.00	39.66	O	ATOM	31781	O2	U A1506	196.368	103.154	-37.719	1.00	39.72	O
ATOM	31732	C1*	G A1504	194.384	107.845	-25.350	1.00	39.66	C	ATOM	31782	N3	U A1506	196.999	101.395	-36.427	1.00	39.72	N
ATOM	31733	N9	G A1504	193.471	108.334	-24.320	1.00	52.80	N	ATOM	31783	C4	U A1506	197.536	100.823	-35.300	1.00	39.72	C
ATOM	31734	C8	G A1504	192.154	108.700	-24.453	1.00	52.80	C	ATOM	31784	O4	U A1506	197.494	99.599	-35.166	1.00	39.72	O
ATOM	31735	N7	G A1504	191.627	109.118	-23.336	1.00	52.80	N	ATOM	31785	C5	U A1506	197.956	101.761	-34.301	1.00	39.72	C
ATOM	31736	C5	G A1504	192.659	109.023	-22.413	1.00	52.80	C	ATOM	31786	C6	U A1506	197.765	103.070	-34.492	1.00	39.72	C
ATOM	31737	C6	G A1504	192.693	109.337	-21.034	1.00	52.80	C	ATOM	31787	P	A A1507	195.216	109.149	-36.033	1.00	42.53	P
ATOM	31738	O6	G A1504	191.789	109.786	-20.320	1.00	52.80	O	ATOM	31788	O1P	A A1507	194.557	109.409	-37.352	1.00	39.21	O
ATOM	31739	N1	G A1504	193.939	109.078	-20.486	1.00	52.80	N	ATOM	31789	O2P	A A1507	196.292	110.067	-35.548	1.00	39.21	O
ATOM	31740	C2	G A1504	195.011	108.586	-21.170	1.00	52.80	C	ATOM	31790	O5*	A A1507	194.075	109.153	-34.921	1.00	42.53	O
ATOM	31741	N2	G A1504	196.120	108.398	-20.466	1.00	52.80	N	ATOM	31791	C5*	A A1507	192.995	108.199	-34.944	1.00	42.53	C
ATOM	31742	N3	G A1504	194.998	108.297	-22.448	1.00	52.80	N	ATOM	31792	C4*	A A1507	191.955	108.565	-33.912	1.00	42.53	C
ATOM	31743	C4	G A1504	193.798	108.536	-23.005	1.00	52.80	C	ATOM	31793	O4*	A A1507	191.200	109.714	-34.357	1.00	42.53	O
ATOM	31744	P	G A1505	196.023	105.382	-28.559	1.00	46.45	P	ATOM	31794	C3*	A A1507	190.908	107.501	-33.681	1.00	42.53	C
ATOM	31745	O1P	G A1505	195.249	104.399	-29.393	1.00	33.93	O	ATOM	31795	O3*	A A1507	191.385	106.582	-32.736	1.00	42.53	O
ATOM	31746	O2P	G A1505	196.214	105.136	-27.120	1.00	33.93	O	ATOM	31796	C2*	A A1507	189.728	108.298	-33.162	1.00	42.53	C
ATOM	31747	O5*	G A1505	197.419	105.756	-29.246	1.00	46.45	O	ATOM	31797	O2*	A A1507	189.886	108.638	-31.801	1.00	42.53	O



ATOM	31798	C1*	A A1507	189.843	109.568	-33.993	1.00	42.53	C	ATOM	31848	C4	C A1509	184.075	103.257	-36.609	1.00	32.86	C
ATOM	31799	N9	A A1507	189.061	109.485	-35.219	1.00	39.21	N	ATOM	31849	N4	C A1509	184.760	103.230	-37.740	1.00	32.86	N
ATOM	31800	C8	A A1507	189.533	109.330	-36.497	1.00	39.21	C	ATOM	31850	C5	C A1509	184.742	103.068	-35.371	1.00	32.86	C
ATOM	31801	N7	A A1507	188.591	109.298	-37.410	1.00	39.21	N	ATOM	31851	C6	C A1509	184.015	103.148	-34.262	1.00	32.86	C
ATOM	31802	C5	A A1507	187.420	109.437	-36.682	1.00	39.21	C	ATOM	31852	P	U A1510	181.297	98.985	-31.636	1.00	28.92	P
ATOM	31803	C6	A A1507	186.072	109.484	-37.068	1.00	39.21	C	ATOM	31853	O1P	U A1510	180.503	98.255	-30.597	1.00	44.72	O
ATOM	31804	N6	A A1507	185.667	109.366	-38.327	1.00	39.21	N	ATOM	31854	O2P	U A1510	182.715	98.590	-31.888	1.00	44.72	O
ATOM	31805	N1	A A1507	185.146	109.651	-36.103	1.00	39.21	N	ATOM	31855	O5*	U A1510	180.510	98.975	-33.017	1.00	28.92	O
ATOM	31806	C2	A A1507	185.559	109.744	-34.835	1.00	39.21	C	ATOM	31856	C5*	U A1510	179.174	99.442	-33.050	1.00	28.92	C
ATOM	31807	N3	A A1507	186.799	109.700	-34.342	1.00	39.21	N	ATOM	31857	C4*	U A1510	178.719	99.650	-34.456	1.00	28.92	C
ATOM	31808	C4	A A1507	187.695	109.550	-35.330	1.00	39.21	C	ATOM	31858	O4*	U A1510	179.541	100.647	-35.102	1.00	28.92	O
ATOM	31809	P	G A1508	191.148	105.025	-32.975	1.00	44.02	P	ATOM	31859	O3*	U A1510	178.769	98.467	-35.392	1.00	28.92	O
ATOM	31810	O1P	G A1508	192.140	104.294	-32.084	1.00	38.11	O	ATOM	31860	O3*	U A1510	177.659	97.630	-35.183	1.00	28.92	O
ATOM	31811	O2P	G A1508	191.161	104.799	-34.442	1.00	38.11	O	ATOM	31861	C2*	U A1510	178.720	99.149	-36.751	1.00	28.92	C
ATOM	31812	O5*	G A1508	189.662	104.815	-32.442	1.00	44.02	O	ATOM	31862	O2*	U A1510	177.404	99.528	-37.109	1.00	28.92	O
ATOM	31813	C5*	G A1508	189.306	105.233	-31.114	1.00	44.02	C	ATOM	31863	C1*	U A1510	179.556	100.407	-36.497	1.00	28.92	C
ATOM	31814	C4*	G A1508	187.817	105.460	-30.997	1.00	44.02	C	ATOM	31864	N1	U A1510	180.955	100.257	-36.921	1.00	44.72	N
ATOM	31815	O4*	G A1508	187.403	106.592	-31.805	1.00	44.02	O	ATOM	31865	C2	U A1510	181.229	100.306	-38.276	1.00	44.72	C
ATOM	31816	C3*	G A1508	186.910	104.329	-31.438	1.00	44.02	C	ATOM	31866	O2	U A1510	180.373	100.498	-39.116	1.00	44.72	O
ATOM	31817	O3*	G A1508	186.745	103.343	-30.436	1.00	44.02	O	ATOM	31867	N3	U A1510	182.545	100.122	-38.603	1.00	44.72	N
ATOM	31818	C2*	G A1508	185.601	105.052	-31.681	1.00	44.02	C	ATOM	31868	C4	U A1510	183.595	99.900	-37.728	1.00	44.72	C
ATOM	31819	O2*	G A1508	184.923	105.256	-30.457	1.00	44.02	O	ATOM	31869	O4	U A1510	184.712	99.632	-38.176	1.00	44.72	O
ATOM	31820	C1*	G A1508	186.084	106.386	-32.256	1.00	44.02	C	ATOM	31870	C5	U A1510	183.230	99.892	-36.344	1.00	44.72	C
ATOM	31821	N9	G A1508	186.096	106.361	-33.714	1.00	38.11	N	ATOM	31871	C6	U A1510	181.959	100.064	-35.997	1.00	44.72	C
ATOM	31822	C8	G A1508	187.173	106.156	-34.533	1.00	38.11	C	ATOM	31872	P	G A1511	177.880	96.053	-34.999	1.00	31.17	P
ATOM	31823	N7	G A1508	186.863	106.169	-35.800	1.00	38.11	N	ATOM	31873	O1P	G A1511	176.868	95.581	-34.023	1.00	41.36	O
ATOM	31824	C5	G A1508	185.496	106.394	-35.818	1.00	38.11	C	ATOM	31874	O2P	G A1511	179.310	95.770	-34.735	1.00	41.36	O
ATOM	31825	C6	G A1508	184.592	106.494	-36.910	1.00	38.11	C	ATOM	31875	O5*	G A1511	177.506	95.494	-36.441	1.00	31.17	O
ATOM	31826	O6	G A1508	184.822	106.391	-38.116	1.00	38.11	O	ATOM	31876	C5*	G A1511	176.149	95.551	-36.907	1.00	31.17	C
ATOM	31827	N1	G A1508	183.295	106.729	-36.477	1.00	38.11	N	ATOM	31877	O4*	G A1511	176.077	95.246	-38.380	1.00	31.17	C
ATOM	31828	C2	G A1508	182.913	106.843	-35.169	1.00	38.11	C	ATOM	31878	O4*	G A1511	176.612	96.362	-39.126	1.00	31.17	C
ATOM	31829	N2	G A1508	181.626	107.060	-34.960	1.00	38.11	N	ATOM	31879	C3*	G A1511	176.889	94.051	-38.836	1.00	31.17	C
ATOM	31830	N3	G A1508	183.737	106.748	-34.144	1.00	38.11	N	ATOM	31880	O3*	G A1511	176.199	92.828	-38.664	1.00	31.17	O
ATOM	31831	C4	G A1508	185.008	106.524	-34.540	1.00	38.11	C	ATOM	31881	C2*	G A1511	177.151	94.372	-40.293	1.00	31.17	C
ATOM	31832	P	G A1509	186.429	101.833	-30.874	1.00	31.50	P	ATOM	31882	O2*	G A1511	176.043	94.046	-41.124	1.00	31.17	O
ATOM	31833	O1P	C A1509	186.528	100.943	-29.672	1.00	32.86	O	ATOM	31883	C1*	G A1511	177.343	95.889	-40.236	1.00	31.17	C
ATOM	31834	O2P	C A1509	187.266	101.547	-32.057	1.00	32.86	O	ATOM	31884	N9	G A1511	178.738	96.268	-40.029	1.00	41.36	N
ATOM	31835	O5*	C A1509	184.917	101.896	-31.364	1.00	31.50	O	ATOM	31885	C8	G A1511	179.356	96.487	-38.822	1.00	41.36	C
ATOM	31836	C5*	C A1509	183.886	102.152	-30.421	1.00	31.50	C	ATOM	31886	N7	G A1511	180.606	96.836	-38.942	1.00	41.36	N
ATOM	31837	C4*	C A1509	182.597	102.507	-31.112	1.00	31.50	C	ATOM	31887	C5	G A1511	180.830	96.846	-40.313	1.00	41.36	C
ATOM	31838	O4*	C A1509	182.792	103.633	-32.000	1.00	31.50	O	ATOM	31888	C6	G A1511	182.002	97.148	-41.049	1.00	41.36	C
ATOM	31839	C3*	C A1509	181.951	101.465	-31.992	1.00	31.50	C	ATOM	31889	O6	G A1511	183.125	97.481	-40.623	1.00	41.36	O
ATOM	31840	O3*	C A1509	181.243	100.534	-31.226	1.00	31.50	O	ATOM	31890	N1	G A1511	181.786	97.022	-42.414	1.00	41.36	N
ATOM	31841	C2*	C A1509	181.020	102.312	-32.833	1.00	31.50	C	ATOM	31891	C2	G A1511	180.608	96.643	-42.994	1.00	41.36	C
ATOM	31842	O2*	C A1509	179.896	102.725	-32.078	1.00	31.50	O	ATOM	31892	N2	G A1511	180.606	96.556	-44.319	1.00	41.36	N
ATOM	31843	C1*	C A1509	181.890	103.539	-33.084	1.00	31.50	C	ATOM	31893	N3	G A1511	179.514	96.364	-42.326	1.00	41.36	N
ATOM	31844	N1	C A1509	182.676	103.406	-34.315	1.00	32.86	N	ATOM	31894	C4	G A1511	179.691	96.486	-40.997	1.00	41.36	C
ATOM	31845	C2	C A1509	182.036	103.556	-35.545	1.00	32.86	C	ATOM	31895	P	U A1512	177.037	91.504	-38.326	1.00	37.18	P
ATOM	31846	O2	C A1509	180.808	103.758	-35.568	1.00	32.86	O	ATOM	31896	O1P	U A1512	176.097	90.353	-38.153	1.00	38.80	O
ATOM	31847	N3	C A1509	182.766	103.476	-36.678	1.00	32.86	N	ATOM	31897	O2P	U A1512	177.991	91.844	-37.232	1.00	38.80	O



ATOM	31898	O5*	U A1512	177.884	91.292	-39.661	1.00	37.18	O	ATOM	31948	CI*	C A1514	189.344	87.592	-43.589	1.00	39.38	C
ATOM	31899	C5*	U A1512	177.215	91.148	-40.931	1.00	37.18	C	ATOM	31949	N1	C A1514	188.781	88.240	-42.381	1.00	46.68	N
ATOM	31900	C4*	U A1512	178.193	91.282	-42.072	1.00	37.18	C	ATOM	31950	C2	C A1514	189.464	89.327	-41.808	1.00	46.68	C
ATOM	31901	O4*	U A1512	178.728	92.625	-42.129	1.00	37.18	O	ATOM	31951	O2	C A1514	190.508	89.734	-42.333	1.00	46.68	O
ATOM	31902	C3*	U A1512	179.407	90.376	-42.051	1.00	37.18	C	ATOM	31952	N3	C A1514	188.969	89.904	-40.694	1.00	46.68	N
ATOM	31903	O3*	U A1512	179.043	89.132	-42.610	1.00	37.18	O	ATOM	31953	C4	C A1514	187.848	89.443	-40.152	1.00	46.68	C
ATOM	31904	C2*	U A1512	180.383	91.127	-42.949	1.00	37.18	C	ATOM	31954	N4	C A1514	187.403	90.045	-39.060	1.00	46.68	N
ATOM	31905	O2*	U A1512	180.109	90.918	-44.319	1.00	37.18	O	ATOM	31955	C5	C A1514	187.134	88.347	-40.710	1.00	46.68	C
ATOM	31906	CI*	U A1512	180.050	92.586	-42.627	1.00	37.18	C	ATOM	31956	C6	C A1514	187.627	87.784	-41.814	1.00	46.68	C
ATOM	31907	N1	U A1512	180.950	93.194	-41.632	1.00	38.80	N	ATOM	31957	P	C A1515	190.377	83.153	-42.212	1.00	41.34	P
ATOM	31908	C2	U A1512	182.142	93.693	-42.093	1.00	38.80	C	ATOM	31958	O1P	C A1515	190.943	81.900	-42.764	1.00	53.99	O
ATOM	31909	O2	U A1512	182.457	93.667	-43.266	1.00	38.80	O	ATOM	31959	O2P	C A1515	189.215	83.091	-41.289	1.00	53.99	O
ATOM	31910	N3	U A1512	182.959	94.228	-41.133	1.00	38.80	N	ATOM	31960	O5*	C A1515	191.541	83.998	-41.521	1.00	41.34	O
ATOM	31911	C4	U A1512	182.713	94.324	-39.785	1.00	38.80	C	ATOM	31961	C5*	C A1515	192.837	84.114	-42.147	1.00	41.34	C
ATOM	31912	O4	U A1512	183.535	94.908	-39.055	1.00	38.80	O	ATOM	31962	C4*	C A1515	193.762	85.001	-41.332	1.00	41.34	C
ATOM	31913	C5	U A1512	181.453	93.791	-39.381	1.00	38.80	C	ATOM	31963	O4*	C A1515	193.236	86.355	-41.306	1.00	41.34	O
ATOM	31914	C6	U A1512	180.633	93.259	-40.294	1.00	38.80	C	ATOM	31964	C3*	C A1515	193.971	84.629	-39.868	1.00	41.34	C
ATOM	31915	P	A A1513	179.836	87.801	-42.195	1.00	43.77	P	ATOM	31965	O3*	C A1515	194.980	83.621	-39.723	1.00	41.34	O
ATOM	31916	O1P	A A1513	179.144	86.702	-42.912	1.00	44.45	O	ATOM	31966	C2*	C A1515	194.369	85.970	-39.258	1.00	41.34	C
ATOM	31917	O2P	A A1513	180.014	87.722	-40.721	1.00	44.45	O	ATOM	31967	O2*	C A1515	195.710	86.293	-39.523	1.00	41.34	O
ATOM	31918	O5*	A A1513	181.254	87.998	-42.875	1.00	43.77	O	ATOM	31968	CI*	C A1515	193.501	86.951	-40.050	1.00	41.34	C
ATOM	31919	C5*	A A1513	181.390	87.918	-44.297	1.00	43.77	C	ATOM	31969	N1	C A1515	192.207	87.238	-39.389	1.00	53.99	N
ATOM	31920	C4*	A A1513	183.164	89.539	-44.564	1.00	43.77	O	ATOM	31970	C2	C A1515	192.171	88.119	-38.292	1.00	53.99	C
ATOM	31921	O4*	A A1513	183.861	87.411	-43.851	1.00	43.77	C	ATOM	31971	O2	C A1515	193.217	88.672	-37.923	1.00	53.99	O
ATOM	31922	C3*	A A1513	184.021	86.077	-44.301	1.00	43.77	O	ATOM	31972	N3	C A1515	190.996	88.342	-37.665	1.00	53.99	N
ATOM	31923	O3*	A A1513	185.104	88.246	-44.098	1.00	43.77	C	ATOM	31973	C4	C A1515	189.889	87.736	-38.088	1.00	53.99	C
ATOM	31924	C2*	A A1513	185.709	87.919	-45.329	1.00	43.77	C	ATOM	31974	N4	C A1515	188.758	87.969	-37.427	1.00	53.99	N
ATOM	31925	O1*	A A1513	184.523	89.659	-44.209	1.00	43.77	C	ATOM	31975	C5	C A1515	189.890	86.858	-39.208	1.00	53.99	C
ATOM	31926	CI*	A A1513	184.626	90.397	-42.952	1.00	44.45	N	ATOM	31976	C6	C A1515	191.056	86.641	-39.825	1.00	53.99	C
ATOM	31927	N9	A A1513	183.786	90.398	-41.872	1.00	44.45	C	ATOM	31977	P	G A1516	195.034	82.701	-38.396	1.00	61.78	P
ATOM	31928	C8	A A1513	184.217	91.122	-40.872	1.00	44.45	C	ATOM	31978	O1P	G A1516	196.060	81.666	-38.650	1.00	69.53	O
ATOM	31929	N7	A A1513	185.415	91.644	-41.332	1.00	44.45	N	ATOM	31979	O2P	G A1516	193.671	82.285	-37.977	1.00	69.53	O
ATOM	31930	C5	A A1513	186.373	92.484	-40.740	1.00	44.45	C	ATOM	31980	O5*	G A1516	195.658	83.680	-37.309	1.00	61.78	O
ATOM	31931	C6	A A1513	186.270	92.966	-39.501	1.00	44.45	N	ATOM	31981	C5*	G A1516	196.909	84.364	-37.579	1.00	61.78	C
ATOM	31932	N6	A A1513	187.461	92.816	-41.473	1.00	44.45	N	ATOM	31982	C4*	G A1516	197.206	85.393	-36.507	1.00	61.78	C
ATOM	31933	N1	A A1513	187.568	92.323	-42.713	1.00	44.45	C	ATOM	31983	O4*	G A1516	196.304	86.523	-36.618	1.00	61.78	O
ATOM	31934	C2	A A1513	186.737	91.524	-43.374	1.00	44.45	N	ATOM	31984	C3*	G A1516	197.053	84.891	-35.083	1.00	61.78	C
ATOM	31935	N3	A A1513	185.668	91.219	-42.617	1.00	44.45	C	ATOM	31985	O3*	G A1516	198.245	84.255	-34.650	1.00	61.78	O
ATOM	31936	C4	A A1513	184.666	84.976	-43.330	1.00	39.38	P	ATOM	31986	C2*	G A1516	196.765	86.167	-34.309	1.00	61.78	C
ATOM	31937	P	C A1514	184.446	83.646	-43.961	1.00	46.68	O	ATOM	31987	O2*	G A1516	197.944	86.873	-33.996	1.00	61.78	O
ATOM	31938	O1P	C A1514	184.191	85.206	-41.958	1.00	46.68	O	ATOM	31988	CI*	G A1516	195.947	86.970	-35.323	1.00	61.78	C
ATOM	31939	O2P	C A1514	186.225	85.313	-43.367	1.00	39.38	O	ATOM	31989	N9	G A1516	194.508	86.775	-35.145	1.00	69.53	N
ATOM	31940	O5*	C A1514	187.018	84.998	-44.533	1.00	39.38	C	ATOM	31990	C8	G A1516	193.669	85.955	-35.867	1.00	69.53	C
ATOM	31941	C5*	C A1514	188.392	85.632	-44.451	1.00	39.38	C	ATOM	31991	N7	G A1516	192.431	85.989	-35.452	1.00	69.53	N
ATOM	31942	C4*	C A1514	189.276	87.076	-44.363	1.00	39.38	O	ATOM	31992	C5	G A1516	192.452	86.886	-34.393	1.00	69.53	C
ATOM	31943	O4*	C A1514	189.273	85.255	-43.273	1.00	39.38	C	ATOM	31993	C6	G A1516	191.406	87.331	-33.542	1.00	69.53	C
ATOM	31944	C3*	C A1514	189.960	84.038	-43.477	1.00	39.38	O	ATOM	31994	O6	G A1516	190.209	86.997	-33.548	1.00	69.53	O
ATOM	31945	O3*	C A1514	190.253	86.412	-43.230	1.00	39.38	C	ATOM	31995	N1	G A1516	191.870	88.256	-32.605	1.00	69.53	N
ATOM	31946	C2*	C A1514	191.252	86.238	-44.220	1.00	39.38	O	ATOM	31996	C2	G A1516	193.178	88.687	-32.493	1.00	69.53	C
ATOM	31947	O2*	C A1514							ATOM	31997	N2	G A1516	193.443	89.580	-31.522	1.00	69.53	N



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ATOM	31998	N3	G A1516	194.157	88.272	-33.273	1.00	69.53	N	ATOM	32048	O5*	A A1519	190.959	90.469	-28.201	1.00	64.48	O
ATOM	31999	C4	G A1516	193.728	87.383	-34.195	1.00	69.53	C	ATOM	32049	C5*	A A1519	190.171	90.974	-27.117	1.00	64.48	C
ATOM	32000	P	G A1517	198.156	82.968	-33.696	1.00	64.46	P	ATOM	32050	C4*	A A1519	190.942	92.010	-26.351	1.00	64.48	C
ATOM	32001	O1P	G A1517	199.510	82.353	-33.566	1.00	81.78	O	ATOM	32051	O4*	A A1519	192.316	91.564	-26.183	1.00	64.48	O
ATOM	32002	O2P	G A1517	197.017	82.140	-34.179	1.00	81.78	O	ATOM	32052	C3*	A A1519	191.099	93.364	-27.008	1.00	64.48	C
ATOM	32003	O5*	G A1517	197.752	83.594	-32.292	1.00	64.46	O	ATOM	32053	O2*	A A1519	189.970	94.180	-26.807	1.00	64.48	O
ATOM	32004	C5*	G A1517	198.749	84.039	-31.362	1.00	64.46	C	ATOM	32054	C3*	A A1519	192.286	93.921	-26.247	1.00	64.48	C
ATOM	32005	C4*	G A1517	198.253	83.835	-29.955	1.00	64.46	C	ATOM	32055	O2*	A A1519	191.896	94.323	-24.948	1.00	64.48	O
ATOM	32006	O4*	G A1517	199.333	84.064	-29.025	1.00	64.46	O	ATOM	32056	C1*	A A1519	193.176	92.688	-26.123	1.00	64.48	C
ATOM	32007	C3*	G A1517	197.158	84.779	-29.499	1.00	64.46	C	ATOM	32057	N9	A A1519	194.122	92.657	-27.245	1.00	65.02	N
ATOM	32008	O3*	G A1517	195.870	84.383	-29.929	1.00	64.46	O	ATOM	32058	C8	A A1519	194.135	91.869	-28.375	1.00	65.02	C
ATOM	32009	O2*	G A1517	197.313	84.753	-27.990	1.00	64.46	O	ATOM	32059	N7	A A1519	195.080	92.190	-29.232	1.00	65.02	N
ATOM	32010	C2*	G A1517	196.704	83.614	-27.407	1.00	64.46	C	ATOM	32060	C5	A A1519	195.745	93.249	-28.619	1.00	65.02	C
ATOM	32011	C1*	G A1517	198.833	84.676	-27.854	1.00	64.46	C	ATOM	32061	C6	A A1519	196.843	94.064	-29.020	1.00	65.02	C
ATOM	32012	N9	G A1517	199.465	85.988	-27.737	1.00	81.78	N	ATOM	32062	N6	A A1519	197.476	93.955	-30.193	1.00	65.02	N
ATOM	32013	C8	G A1517	200.181	86.657	-28.701	1.00	81.78	C	ATOM	32063	N1	A A1519	197.264	95.015	-28.157	1.00	65.02	N
ATOM	32014	N7	G A1517	200.649	87.801	-28.290	1.00	81.78	N	ATOM	32064	C2	A A1519	196.625	95.144	-26.983	1.00	65.02	C
ATOM	32015	C5	G A1517	200.212	87.897	-26.975	1.00	81.78	C	ATOM	32065	N3	A A1519	195.587	94.460	-26.503	1.00	65.02	N
ATOM	32016	C6	G A1517	200.422	88.917	-26.004	1.00	81.78	C	ATOM	32066	C4	A A1519	195.187	93.520	-27.379	1.00	65.02	C
ATOM	32017	O6	G A1517	201.066	89.975	-26.116	1.00	81.78	O	ATOM	32067	P	G A1520	189.197	94.811	-28.071	1.00	46.11	P
ATOM	32018	N1	G A1517	199.796	88.608	-24.797	1.00	81.78	N	ATOM	32068	O1P	G A1520	188.807	96.194	-27.681	1.00	49.53	O
ATOM	32019	C2	G A1517	199.067	87.468	-24.552	1.00	81.78	C	ATOM	32069	O2P	G A1520	188.154	93.836	-28.489	1.00	49.53	O
ATOM	32020	N2	G A1517	198.538	87.346	-23.324	1.00	81.78	N	ATOM	32070	O5*	G A1520	190.234	94.898	-29.276	1.00	46.11	O
ATOM	32021	N3	G A1517	198.870	86.514	-25.444	1.00	81.78	N	ATOM	32071	C5*	G A1520	191.381	95.763	-29.237	1.00	46.11	C
ATOM	32022	C4	G A1517	199.469	86.791	-26.624	1.00	81.78	C	ATOM	32072	C4*	G A1520	192.449	95.260	-30.199	1.00	46.11	C
ATOM	32023	P	A A1518	194.897	85.479	-30.591	1.00	61.15	P	ATOM	32073	O4*	G A1520	192.398	93.802	-30.254	1.00	46.11	O
ATOM	32024	O1P	A A1518	193.699	84.760	-31.115	1.00	69.06	O	ATOM	32074	C3*	G A1520	192.365	95.689	-31.657	1.00	46.11	C
ATOM	32025	O2P	A A1518	195.700	86.349	-31.505	1.00	69.06	O	ATOM	32075	O3*	G A1520	192.983	96.959	-31.833	1.00	46.11	O
ATOM	32026	O5*	A A1518	194.470	86.402	-29.368	1.00	61.15	O	ATOM	32076	C2*	G A1520	193.146	94.583	-32.361	1.00	46.11	C
ATOM	32027	C5*	A A1518	193.736	85.872	-28.264	1.00	61.15	C	ATOM	32077	O2*	G A1520	194.543	94.728	-32.223	1.00	46.11	O
ATOM	32028	C4*	A A1518	193.828	86.816	-27.110	1.00	61.15	C	ATOM	32078	C1*	G A1520	192.768	93.354	-31.540	1.00	46.11	C
ATOM	32029	O4*	A A1518	195.230	86.970	-26.771	1.00	61.15	O	ATOM	32079	N9	G A1520	191.664	92.587	-32.109	1.00	49.53	N
ATOM	32030	C3*	A A1518	193.350	88.218	-27.440	1.00	61.15	C	ATOM	32080	C8	G A1520	190.392	92.472	-31.614	1.00	49.53	C
ATOM	32031	O3*	A A1518	191.942	88.335	-27.269	1.00	61.15	O	ATOM	32081	N7	G A1520	189.623	91.717	-32.348	1.00	49.53	N
ATOM	32032	C2*	A A1518	194.171	89.083	-26.489	1.00	61.15	C	ATOM	32082	C5	G A1520	190.436	91.301	-33.393	1.00	49.53	C
ATOM	32033	O2*	A A1518	193.634	89.173	-25.181	1.00	61.15	O	ATOM	32083	C6	G A1520	190.155	90.454	-34.507	1.00	49.53	C
ATOM	32034	C1*	A A1518	195.501	88.322	-26.452	1.00	61.15	C	ATOM	32084	O6	G A1520	189.104	89.871	-34.794	1.00	49.53	O
ATOM	32035	N9	A A1518	196.469	88.839	-27.423	1.00	69.06	N	ATOM	32085	N1	G A1520	191.261	90.310	-35.326	1.00	49.53	N
ATOM	32036	C8	A A1518	196.781	88.347	-28.669	1.00	69.06	C	ATOM	32086	C2	G A1520	192.484	90.887	-35.110	1.00	49.53	C
ATOM	32037	N7	A A1518	197.677	89.056	-29.308	1.00	69.06	N	ATOM	32087	N2	G A1520	193.423	90.626	-36.027	1.00	49.53	N
ATOM	32038	C5	A A1518	197.984	90.083	-28.422	1.00	69.06	C	ATOM	32088	N3	G A1520	192.767	91.662	-34.077	1.00	49.53	N
ATOM	32039	C6	A A1518	198.882	91.179	-28.497	1.00	69.06	C	ATOM	32089	C4	G A1520	191.700	91.829	-33.264	1.00	49.53	C
ATOM	32040	N6	A A1518	199.659	91.443	-29.552	1.00	69.06	N	ATOM	32090	P	G A1521	192.688	97.824	-33.161	1.00	41.19	P
ATOM	32041	N1	A A1518	198.949	92.007	-27.428	1.00	69.06	N	ATOM	32091	O1P	G A1521	193.460	99.094	-33.061	1.00	52.93	O
ATOM	32042	C2	A A1518	198.165	91.755	-26.369	1.00	69.06	C	ATOM	32092	O2P	G A1521	191.222	97.870	-33.422	1.00	52.93	O
ATOM	32043	N3	A A1518	197.288	90.771	-26.185	1.00	69.06	N	ATOM	32093	O5*	G A1521	193.358	96.981	-34.329	1.00	41.19	O
ATOM	32044	C4	A A1518	197.248	89.959	-27.258	1.00	69.06	C	ATOM	32094	C5*	G A1521	194.783	96.878	-34.438	1.00	41.19	C
ATOM	32045	P	A A1519	191.034	88.903	-28.472	1.00	64.48	P	ATOM	32095	C4*	G A1521	195.149	96.190	-35.721	1.00	41.19	C
ATOM	32046	O1P	A A1519	189.664	88.322	-28.308	1.00	65.02	O	ATOM	32096	O4*	G A1521	194.713	94.807	-35.690	1.00	41.19	O
ATOM	32047	O2P	A A1519	191.760	88.727	-29.744	1.00	65.02	O	ATOM	32097	C3*	G A1521	194.461	96.775	-36.931	1.00	41.19	C



ATOM	32098	O3*	G A1521	195.149	97.903	-37.425	1.00	41.19	O	ATOM	32148	C5	G A1523	187.017	95.364	-43.339	1.00	40.09	C
ATOM	32099	C2*	G A1521	194.457	95.615	-37.910	1.00	41.19	C	ATOM	32149	C6	G A1523	185.791	94.948	-42.789	1.00	40.09	C
ATOM	32100	O2*	G A1521	195.702	95.527	-38.570	1.00	41.19	O	ATOM	32150	O6	G A1523	185.356	95.143	-41.649	1.00	40.09	O
ATOM	32101	C1*	G A1521	194.268	94.415	-36.977	1.00	41.19	C	ATOM	32151	N1	G A1523	185.036	94.236	-43.704	1.00	40.09	N
ATOM	32102	N9	G A1521	192.885	93.946	-36.867	1.00	52.93	N	ATOM	32152	C2	G A1523	185.410	93.969	-44.991	1.00	40.09	C
ATOM	32103	C8	G A1521	191.984	94.280	-35.886	1.00	52.93	C	ATOM	32153	N2	G A1523	184.547	93.235	-45.719	1.00	40.09	N
ATOM	32104	N7	G A1521	190.818	93.713	-36.038	1.00	52.93	N	ATOM	32154	N3	G A1523	186.546	94.376	-45.527	1.00	40.09	N
ATOM	32105	C5	G A1521	190.947	92.957	-37.193	1.00	52.93	C	ATOM	32155	C4	G A1523	187.301	95.054	-44.646	1.00	40.09	C
ATOM	32106	C6	G A1521	190.002	92.129	-37.857	1.00	52.93	C	ATOM	32156	P	C A1524	189.503	95.848	-48.255	1.00	32.60	P
ATOM	32107	O6	G A1521	188.829	91.896	-37.544	1.00	52.93	O	ATOM	32157	O1P	C A1524	190.055	100.506	-49.467	1.00	53.02	O
ATOM	32108	N1	G A1521	190.543	91.543	-38.994	1.00	52.93	N	ATOM	32158	O2P	C A1524	189.735	100.449	-46.912	1.00	53.02	O
ATOM	32109	C2	G A1521	191.824	91.726	-39.436	1.00	52.93	C	ATOM	32159	O5*	C A1524	187.947	99.650	-48.480	1.00	32.60	O
ATOM	32110	N2	G A1521	192.143	91.071	-40.545	1.00	52.93	N	ATOM	32160	C5*	C A1524	187.501	98.915	-49.603	1.00	32.60	C
ATOM	32111	N3	G A1521	192.722	92.495	-38.832	1.00	52.93	N	ATOM	32161	C4*	C A1524	186.045	98.578	-49.472	1.00	32.60	C
ATOM	32112	C4	G A1521	192.217	93.081	-37.722	1.00	52.93	C	ATOM	32162	O4*	C A1524	185.851	97.561	-48.466	1.00	32.60	O
ATOM	32113	P	U A1522	194.341	98.984	-38.280	1.00	42.37	P	ATOM	32163	C3*	C A1524	185.102	99.694	-49.074	1.00	32.60	C
ATOM	32114	O1P	U A1522	195.204	100.173	-38.512	1.00	44.73	O	ATOM	32164	O3*	C A1524	184.794	100.555	-50.161	1.00	32.60	O
ATOM	32115	O2P	U A1522	193.035	99.148	-37.609	1.00	44.73	O	ATOM	32165	C2*	C A1524	183.896	98.912	-48.575	1.00	32.60	C
ATOM	32116	O5*	U A1522	194.054	98.241	-39.660	1.00	42.37	O	ATOM	32166	O2*	C A1524	183.105	98.461	-49.656	1.00	32.60	O
ATOM	32117	C5*	U A1522	195.124	97.969	-40.581	1.00	42.37	C	ATOM	32167	C1*	C A1524	184.562	97.700	-47.915	1.00	32.60	C
ATOM	32118	C4*	U A1522	194.647	97.078	-41.699	1.00	42.37	C	ATOM	32168	N1	C A1524	184.691	97.817	-46.459	1.00	53.02	N
ATOM	32119	O4*	U A1522	194.244	95.791	-41.158	1.00	42.37	O	ATOM	32169	C2	C A1524	183.657	97.348	-45.650	1.00	53.02	C
ATOM	32120	C3*	U A1522	193.426	97.557	-42.467	1.00	42.37	O	ATOM	32170	O2	C A1524	182.654	96.860	-46.180	1.00	53.02	O
ATOM	32121	O3*	U A1522	193.742	98.483	-43.485	1.00	42.37	O	ATOM	32171	N3	C A1524	183.769	97.441	-44.314	1.00	53.02	N
ATOM	32122	C2*	U A1522	192.865	96.265	-43.042	1.00	42.37	C	ATOM	32172	C4	C A1524	184.854	97.987	-43.777	1.00	53.02	C
ATOM	32123	O2*	U A1522	193.533	95.855	-44.219	1.00	42.37	O	ATOM	32173	N4	C A1524	184.921	98.065	-42.450	1.00	53.02	N
ATOM	32124	C1*	U A1522	193.156	95.280	-41.910	1.00	42.37	C	ATOM	32174	C5	C A1524	185.922	98.478	-44.576	1.00	53.02	C
ATOM	32125	N1	U A1522	191.989	95.179	-41.029	1.00	44.73	N	ATOM	32175	C6	C A1524	185.802	98.373	-45.900	1.00	53.02	C
ATOM	32126	C2	U A1522	191.023	94.273	-41.371	1.00	44.73	C	ATOM	32176	P	G A1525	184.624	102.130	-49.886	1.00	41.84	P
ATOM	32127	O2	U A1522	191.145	93.509	-42.299	1.00	44.73	O	ATOM	32177	O1P	G A1525	184.418	102.840	-51.171	1.00	37.31	O
ATOM	32128	N3	U A1522	189.908	94.283	-40.578	1.00	44.73	N	ATOM	32178	O2P	G A1525	185.703	102.587	-48.974	1.00	37.31	O
ATOM	32129	C4	U A1522	189.685	95.074	-39.488	1.00	44.73	C	ATOM	32179	O5*	G A1525	183.254	102.192	-49.088	1.00	41.84	O
ATOM	32130	O4	U A1522	188.598	95.031	-38.934	1.00	44.73	O	ATOM	32180	C5*	G A1525	182.035	102.031	-49.799	1.00	41.84	C
ATOM	32131	C5	U A1522	190.757	95.952	-39.160	1.00	44.73	C	ATOM	32181	C4*	G A1525	180.874	101.921	-48.861	1.00	41.84	C
ATOM	32132	C6	U A1522	191.846	95.977	-39.926	1.00	44.73	C	ATOM	32182	O3*	G A1525	181.005	100.731	-48.048	1.00	41.84	O
ATOM	32133	P	G A1523	192.600	99.468	-44.010	1.00	36.12	P	ATOM	32183	C3*	G A1525	180.674	103.015	-47.841	1.00	41.84	C
ATOM	32134	O1P	G A1523	193.166	100.510	-44.914	1.00	40.09	O	ATOM	32184	O3*	G A1525	180.147	104.199	-48.401	1.00	41.84	O
ATOM	32135	O2P	G A1523	191.881	99.873	-42.787	1.00	40.09	O	ATOM	32185	C2*	G A1525	179.729	102.327	-46.868	1.00	41.84	C
ATOM	32136	O5*	G A1523	191.646	98.512	-44.855	1.00	36.12	O	ATOM	32186	O2*	G A1525	178.389	102.240	-47.336	1.00	41.84	O
ATOM	32137	C5*	G A1523	192.191	97.707	-45.910	1.00	36.12	C	ATOM	32187	C1*	G A1525	180.321	100.921	-46.829	1.00	41.84	C
ATOM	32138	C4*	G A1523	191.113	96.904	-46.602	1.00	36.12	C	ATOM	32188	N9	G A1525	181.279	100.859	-45.736	1.00	37.31	N
ATOM	32139	O4*	G A1523	190.671	95.780	-45.806	1.00	36.12	O	ATOM	32189	C8	G A1525	182.616	101.140	-45.779	1.00	37.31	C
ATOM	32140	C3*	G A1523	189.844	97.625	-46.978	1.00	36.12	C	ATOM	32190	N7	G A1525	183.181	101.111	-44.603	1.00	37.31	N
ATOM	32141	O3*	G A1523	190.037	98.348	-48.164	1.00	36.12	O	ATOM	32191	C5	G A1525	182.155	100.769	-43.742	1.00	37.31	C
ATOM	32142	C2*	G A1523	188.876	96.477	-47.189	1.00	36.12	C	ATOM	32192	C6	G A1525	182.153	100.619	-42.347	1.00	37.31	C
ATOM	32143	O2*	G A1523	189.078	95.886	-48.458	1.00	36.12	O	ATOM	32193	O6	G A1525	183.079	100.799	-41.547	1.00	37.31	O
ATOM	32144	C1*	G A1523	189.325	95.486	-46.114	1.00	36.12	C	ATOM	32194	N1	G A1525	180.903	100.237	-41.886	1.00	37.31	N
ATOM	32145	N9	G A1523	188.551	95.573	-44.881	1.00	40.09	N	ATOM	32195	C2	G A1525	179.794	100.052	-42.671	1.00	37.31	C
ATOM	32146	C8	G A1523	188.939	96.180	-43.715	1.00	40.09	C	ATOM	32196	N2	G A1525	178.682	99.673	-42.050	1.00	37.31	N
ATOM	32147	N7	G A1523	188.058	96.072	-42.762	1.00	40.09	N	ATOM	32197	N3	G A1525	179.780	100.223	-43.963	1.00	37.31	N



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ATOM	32198	C4	G A1525	180.985	100.575	-44.432	1.00	37.31	C	ATOM	32248	O4*	U A1528	178.309	111.125	-35.236	1.00	42.99	O
ATOM	32199	P	G A1526	180.452	105.610	-47.687	1.00	38.97	P	ATOM	32249	C3*	U A1528	177.820	113.439	-35.208	1.00	42.99	C
ATOM	32200	O1P	G A1526	179.841	106.641	-48.561	1.00	45.14	O	ATOM	32250	O3*	U A1528	177.182	114.621	-34.699	1.00	42.99	O
ATOM	32201	O2P	G A1526	181.885	105.715	-47.307	1.00	45.14	O	ATOM	32251	C2*	U A1528	179.270	113.293	-35.619	1.00	42.99	C
ATOM	32202	O5*	G A1526	179.602	105.520	-46.352	1.00	38.97	O	ATOM	32252	O2*	U A1528	180.124	114.154	-34.901	1.00	42.99	O
ATOM	32203	C5*	G A1526	178.220	105.200	-46.436	1.00	38.97	C	ATOM	32253	C1*	U A1528	179.545	111.833	-35.241	1.00	42.99	C
ATOM	32204	C4*	G A1526	177.657	104.904	-45.078	1.00	38.97	C	ATOM	32254	N1	U A1528	180.435	111.192	-36.225	1.00	37.64	N
ATOM	32205	O4*	G A1526	178.334	103.771	-44.485	1.00	38.97	O	ATOM	32255	C2	U A1528	181.650	110.684	-35.780	1.00	37.64	C
ATOM	32206	C3*	G A1526	177.769	105.980	-44.021	1.00	38.97	C	ATOM	32256	O2	U A1528	181.987	110.680	-34.607	1.00	37.64	O
ATOM	32207	O3*	G A1526	176.788	106.977	-44.162	1.00	38.97	O	ATOM	32257	N3	U A1528	182.451	110.167	-36.765	1.00	37.64	N
ATOM	32208	C2*	G A1526	177.551	105.179	-42.753	1.00	38.97	C	ATOM	32258	C4	U A1528	182.164	110.088	-38.116	1.00	37.64	C
ATOM	32209	O2*	G A1526	176.178	104.863	-42.597	1.00	38.97	O	ATOM	32259	O4	U A1528	183.012	109.635	-38.887	1.00	37.64	O
ATOM	32210	C1*	G A1526	178.312	103.896	-43.076	1.00	38.97	C	ATOM	32260	C5	U A1528	180.878	110.597	-38.488	1.00	37.64	C
ATOM	32211	N9	G A1526	179.688	103.941	-42.589	1.00	45.14	N	ATOM	32261	C6	U A1528	180.081	111.116	-37.561	1.00	37.64	C
ATOM	32212	C8	G A1526	180.828	104.120	-43.332	1.00	45.14	C	ATOM	32262	P	G A1529	176.955	114.824	-33.117	1.00	41.42	P
ATOM	32213	N7	G A1526	181.914	104.100	-42.612	1.00	45.14	N	ATOM	32263	O1P	G A1529	175.506	115.066	-33.015	1.00	33.65	O
ATOM	32214	C5	G A1526	181.464	103.896	-41.319	1.00	45.14	C	ATOM	32264	O2P	G A1529	177.905	115.819	-32.573	1.00	33.65	O
ATOM	32215	C6	G A1526	182.181	103.778	-40.126	1.00	45.14	C	ATOM	32265	O5*	G A1529	177.235	113.409	-32.449	1.00	41.42	O
ATOM	32216	O6	G A1526	183.398	103.816	-39.961	1.00	45.14	O	ATOM	32266	C5*	G A1529	176.892	113.185	-31.093	1.00	41.42	C
ATOM	32217	N1	G A1526	181.341	103.597	-39.040	1.00	45.14	N	ATOM	32267	C4*	G A1529	177.922	112.316	-30.441	1.00	41.42	C
ATOM	32218	C2	G A1526	179.980	103.533	-39.103	1.00	45.14	C	ATOM	32268	O4*	G A1529	177.310	111.068	-30.040	1.00	41.42	O
ATOM	32219	N2	G A1526	179.347	103.379	-37.938	1.00	45.14	N	ATOM	32269	C3*	G A1529	179.155	111.981	-31.279	1.00	41.42	C
ATOM	32220	N3	G A1526	179.294	103.622	-40.221	1.00	45.14	N	ATOM	32270	O3*	G A1529	180.353	112.013	-30.477	1.00	41.42	O
ATOM	32221	C4	G A1526	180.095	103.805	-41.285	1.00	45.14	C	ATOM	32271	C2*	G A1529	178.875	110.534	-31.703	1.00	41.42	C
ATOM	32222	P	C A1527	177.111	108.463	-43.658	1.00	38.90	P	ATOM	32272	O2*	G A1529	180.057	109.767	-31.900	1.00	41.42	O
ATOM	32223	O1P	C A1527	175.989	109.309	-44.163	1.00	31.96	O	ATOM	32273	C1*	G A1529	178.099	110.003	-30.495	1.00	41.42	C
ATOM	32224	O2P	C A1527	178.512	108.802	-44.014	1.00	31.96	O	ATOM	32274	N9	G A1529	177.244	108.837	-30.715	1.00	33.65	N
ATOM	32225	O5*	C A1527	177.051	108.339	-42.072	1.00	38.90	O	ATOM	32275	C8	G A1529	177.359	107.625	-30.079	1.00	33.65	C
ATOM	32226	C5*	C A1527	175.808	108.086	-41.412	1.00	38.90	C	ATOM	32276	N7	G A1529	176.485	106.747	-30.481	1.00	33.65	N
ATOM	32227	C4*	C A1527	175.999	108.111	-39.927	1.00	38.90	C	ATOM	32277	C5	G A1529	175.744	107.416	-31.444	1.00	33.65	C
ATOM	32228	O4*	C A1527	176.834	106.992	-39.553	1.00	38.90	O	ATOM	32278	C6	G A1529	174.678	106.964	-32.249	1.00	33.65	C
ATOM	32229	C3*	C A1527	176.706	109.337	-39.361	1.00	38.90	C	ATOM	32279	O6	G A1529	174.171	105.836	-32.296	1.00	33.65	O
ATOM	32230	O3*	C A1527	175.808	110.423	-39.142	1.00	38.90	O	ATOM	32280	N1	G A1529	174.205	107.968	-33.077	1.00	33.65	N
ATOM	32231	C2*	C A1527	177.299	108.789	-38.071	1.00	38.90	C	ATOM	32281	C2	G A1529	174.709	109.232	-33.136	1.00	33.65	C
ATOM	32232	O2*	C A1527	176.318	108.656	-37.061	1.00	38.90	O	ATOM	32282	N2	G A1529	174.108	110.060	-33.995	1.00	33.65	N
ATOM	32233	C1*	C A1527	177.705	107.380	-38.503	1.00	31.96	C	ATOM	32283	N3	G A1529	175.721	109.662	-32.411	1.00	33.65	N
ATOM	32234	N1	C A1527	179.101	107.290	-38.995	1.00	31.96	N	ATOM	32284	C4	G A1529	176.186	108.711	-31.589	1.00	33.65	C
ATOM	32235	C2	C A1527	180.128	107.105	-38.063	1.00	31.96	C	ATOM	32285	P	G A1530	181.025	113.419	-30.054	1.00	49.85	P
ATOM	32236	O2	C A1527	179.842	107.064	-36.862	1.00	31.96	O	ATOM	32286	O1P	G A1530	182.341	113.070	-29.439	1.00	72.67	O
ATOM	32237	N3	C A1527	181.404	106.978	-38.497	1.00	31.96	N	ATOM	32287	O2P	G A1530	180.054	114.225	-29.282	1.00	72.67	O
ATOM	32238	C4	C A1527	181.671	107.034	-39.799	1.00	31.96	C	ATOM	32288	O5*	G A1530	181.256	114.209	-31.411	1.00	49.85	O
ATOM	32239	N4	C A1527	182.926	106.885	-40.170	1.00	31.96	N	ATOM	32289	C5*	G A1530	181.973	113.612	-32.478	1.00	49.85	C
ATOM	32240	C5	C A1527	180.652	107.242	-40.774	1.00	31.96	C	ATOM	32290	C4*	G A1530	183.463	113.740	-32.256	1.00	49.85	C
ATOM	32241	C6	C A1527	179.394	107.369	-40.334	1.00	31.96	C	ATOM	32291	O4*	G A1530	184.082	112.734	-33.079	1.00	49.85	O
ATOM	32242	P	U A1528	176.369	111.930	-39.121	1.00	42.99	P	ATOM	32292	C3*	G A1530	184.132	115.066	-32.632	1.00	49.85	C
ATOM	32243	O1P	U A1528	175.204	112.831	-39.136	1.00	37.64	O	ATOM	32293	O3*	G A1530	184.244	115.958	-31.508	1.00	49.85	O
ATOM	32244	O2P	U A1528	177.395	112.089	-40.165	1.00	37.64	O	ATOM	32294	C2*	G A1530	185.522	114.631	-33.071	1.00	49.85	C
ATOM	32245	O5*	U A1528	177.071	112.030	-37.692	1.00	42.99	O	ATOM	32295	O2*	G A1530	186.385	114.443	-31.968	1.00	49.85	O
ATOM	32246	C5*	U A1528	176.332	111.765	-36.473	1.00	42.99	C	ATOM	32296	C1*	G A1530	185.250	113.254	-33.665	1.00	49.85	C
ATOM	32247	C4*	U A1528	177.190	112.053	-35.258	1.00	42.99	C	ATOM	32297	N9	G A1530	185.073	113.235	-35.109	1.00	72.67	N



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ATOM	32298	C8	G A1530	183.905	113.387	-35.826	1.00	72.67	C	ATOM	32348	C5	U A1532	188.483	119.985	-34.476	1.00	97.25	C	
ATOM	32299	N7	G A1530	184.081	113.281	-37.114	1.00	72.67	N	ATOM	32349	C6	U A1532	189.700	120.355	-34.092	1.00	97.25	C	
ATOM	32300	C5	G A1530	185.448	113.057	-37.251	1.00	72.67	C	ATOM	32350	P	C A1533	191.658	125.330	-33.275	1.00	122.84	P	
ATOM	32301	C6	G A1530	186.239	112.869	-38.412	1.00	72.67	C	ATOM	32351	O1P	C A1533	192.374	126.492	-32.691	1.00	199.94	O	
ATOM	32302	O6	G A1530	185.877	112.863	-39.608	1.00	72.67	O	ATOM	32352	O2P	C A1533	190.193	125.194	-33.069	1.00	199.94	O	
ATOM	32303	N1	G A1530	187.585	112.678	-38.080	1.00	72.67	N	ATOM	32353	O5*	C A1533	191.965	125.291	-34.840	1.00	122.84	O	
ATOM	32304	C2	G A1530	188.098	112.677	-36.798	1.00	72.67	C	ATOM	32354	C5*	C A1533	190.943	125.568	-35.833	1.00	122.84	C	
ATOM	32305	N2	G A1530	189.416	112.484	-36.672	1.00	72.67	N	ATOM	32355	C4*	C A1533	191.586	125.846	-37.181	1.00	122.84	C	
ATOM	32306	N3	G A1530	187.370	112.854	-35.721	1.00	72.67	N	ATOM	32356	O4*	C A1533	192.432	127.021	-37.042	1.00	122.84	O	
ATOM	32307	C4	G A1530	186.067	113.035	-36.017	1.00	72.67	C	ATOM	32357	C3*	C A1533	192.505	124.742	-37.704	1.00	122.84	C	
ATOM	32308	P	A A1531	184.710	117.487	-31.736	1.00	92.13	P	ATOM	32358	O3*	C A1533	191.825	123.767	-38.499	1.00	122.84	O	
ATOM	32309	O1P	A A1531	183.907	118.327	-30.813	1.00	79.90	O	ATOM	32359	C2*	C A1533	193.555	125.509	-38.500	1.00	122.84	C	
ATOM	32310	O2P	A A1531	184.709	117.784	-33.198	1.00	79.90	O	ATOM	32360	O2*	C A1533	193.175	125.797	-39.833	1.00	122.84	C	
ATOM	32311	O5*	A A1531	186.223	117.528	-31.237	1.00	92.13	O	ATOM	32361	CI*	C A1533	193.683	126.800	-37.682	1.00	122.84	C	
ATOM	32312	C5*	A A1531	186.573	117.511	-29.827	1.00	92.13	C	ATOM	32362	N1	C A1533	194.724	126.743	-36.624	1.00	199.94	N	
ATOM	32313	C4*	A A1531	188.085	117.477	-29.665	1.00	92.13	C	ATOM	32363	C2	C A1533	196.001	126.206	-36.921	1.00	199.94	C	
ATOM	32314	O4*	A A1531	188.589	116.274	-30.312	1.00	92.13	O	ATOM	32364	O2	C A1533	196.249	125.813	-38.076	1.00	199.94	O	
ATOM	32315	C3*	A A1531	188.834	118.622	-30.342	1.00	92.13	C	ATOM	32365	N3	C A1533	196.926	126.133	-35.936	1.00	199.94	N	
ATOM	32316	O3*	A A1531	188.959	119.788	-29.532	1.00	92.13	O	ATOM	32366	C4	C A1533	196.633	126.567	-34.707	1.00	199.94	C	
ATOM	32317	C2*	A A1531	190.181	117.998	-30.690	1.00	92.13	C	ATOM	32367	N4	C A1533	197.571	126.459	-33.771	1.00	199.94	N	
ATOM	32318	O2*	A A1531	191.100	117.987	-29.616	1.00	92.13	O	ATOM	32368	C5	C A1533	195.363	127.126	-34.385	1.00	199.94	C	
ATOM	32319	CI*	A A1531	189.770	116.570	-31.049	1.00	92.13	C	ATOM	32369	C6	C A1533	194.451	127.196	-35.361	1.00	199.94	C	
ATOM	32320	N9	A A1531	189.461	116.443	-32.481	1.00	79.90	N	ATOM	32370	P	A A1534	192.516	122.341	-38.775	0.00	103.67	P	
ATOM	32321	C8	A A1531	188.215	116.432	-33.075	1.00	79.90	C	ATOM	32371	O1P	A A1534	191.512	121.478	-39.447	0.00	103.67	O	
ATOM	32322	N7	A A1531	188.245	116.345	-34.380	1.00	79.90	N	ATOM	32372	O2P	A A1534	193.154	121.881	-37.514	0.00	103.67	O	
ATOM	32323	C5	A A1531	189.600	116.289	-34.674	1.00	79.90	C	ATOM	32373	O5*	A A1534	193.683	122.660	-39.813	0.00	103.67	O	
ATOM	32324	C6	A A1531	190.294	116.205	-35.890	1.00	79.90	C	ATOM	32374	C5*	A A1534	193.392	123.143	-41.139	0.00	103.67	C	
ATOM	32325	N6	A A1531	189.687	116.157	-37.086	1.00	79.90	N	ATOM	32375	C4*	A A1534	194.672	123.316	-41.923	0.00	103.67	C	
ATOM	32326	N1	A A1531	191.648	116.174	-35.839	1.00	79.90	N	ATOM	32376	O4*	A A1534	195.532	124.266	-41.241	0.00	103.67	O	
ATOM	32327	C2	A A1531	192.250	116.229	-34.638	1.00	79.90	C	ATOM	32377	C3*	A A1534	195.532	122.070	-42.062	0.00	103.67	C	
ATOM	32328	N3	A A1531	191.707	116.312	-33.429	1.00	79.90	N	ATOM	32378	O3*	A A1534	195.038	121.014	-42.894	0.00	103.67	O	
ATOM	32329	C4	A A1531	190.363	116.339	-33.514	1.00	79.90	C	ATOM	32379	C2*	A A1534	196.927	122.637	-42.292	0.00	103.67	C	
ATOM	32330	P	U A1532	188.995	121.235	-30.234	1.00	84.33	P	ATOM	32380	O2*	A A1534	197.147	123.020	-43.635	0.00	103.67	O	
ATOM	32331	O1P	U A1532	189.407	122.229	-29.213	1.00	97.25	O	ATOM	32381	CI*	A A1534	196.890	123.895	-41.418	0.00	103.67	C	
ATOM	32332	O2P	U A1532	187.712	121.419	-30.955	1.00	97.25	O	ATOM	32382	N9	A A1534	197.490	123.708	-40.095	0.00	103.67	N	
ATOM	32333	O5*	U A1532	190.150	121.101	-31.327	1.00	84.33	O	ATOM	32383	C8	A A1534	197.033	122.922	-39.063	0.00	103.67	C	
ATOM	32334	C5*	U A1532	191.543	121.289	-30.991	1.00	84.33	C	ATOM	32384	N7	A A1534	197.790	122.960	-37.994	0.00	103.67	N	
ATOM	32335	C4*	U A1532	192.348	121.552	-32.247	1.00	84.33	C	ATOM	32385	C5	A A1534	198.816	123.828	-38.342	0.00	103.67	C	
ATOM	32336	O4*	U A1532	192.244	120.382	-33.104	1.00	84.33	O	ATOM	32386	C6	A A1534	199.943	124.289	-37.640	0.00	103.67	C	
ATOM	32337	C3*	U A1532	191.855	122.712	-33.112	1.00	84.33	C	ATOM	32387	N6	A A1534	200.237	123.925	-36.390	0.00	103.67	N	
ATOM	32338	O3*	U A1532	192.364	123.991	-32.723	1.00	84.33	O	ATOM	32388	N1	A A1534	200.769	125.149	-38.274	0.00	103.67	N	
ATOM	32339	C2*	U A1532	192.297	122.303	-34.514	1.00	84.33	C	ATOM	32389	C2	A A1534	200.474	125.514	-39.528	0.00	103.67	C	
ATOM	32340	O2*	U A1532	193.645	122.629	-34.797	1.00	84.33	O	ATOM	32390	N3	A A1534	199.446	125.151	-40.292	0.00	103.67	N	
ATOM	32341	CI*	U A1532	192.117	120.784	-34.464	1.00	84.33	C	ATOM	32391	C4	A A1534	198.644	124.296	-39.633	0.00	103.67	C	
ATOM	32342	N1	U A1532	190.786	120.365	-34.944	1.00	97.25	N	TER	32392		A A1534							
ATOM	32343	C2	U A1532	190.645	119.986	-36.274	1.00	97.25	C	ATOM	32393	O5*	N X	1	209.848	110.670	-35.055	1.00	129.34	O
ATOM	32344	O2	U A1532	191.562	119.981	-37.073	1.00	97.25	O	ATOM	32394	C5*	N X	1	208.794	111.074	-35.939	1.00	129.34	C
ATOM	32345	N3	U A1532	189.379	119.610	-36.631	1.00	97.25	N	ATOM	32395	C4*	N X	1	207.979	109.909	-36.454	1.00	129.34	C
ATOM	32346	C4	U A1532	188.263	119.573	-35.822	1.00	97.25	C	ATOM	32396	O4*	N X	1	208.842	109.024	-37.217	1.00	129.34	O
ATOM	32347	O4	U A1532	187.203	119.153	-36.280	1.00	97.25	O	ATOM	32397	C3*	N X	1	207.370	109.011	-35.387	1.00	129.34	C



ATOM	32398	O3*	N X	1	206.140	109.499	-34.861	1.00129.34	O	ATOM	32448	O4	N X	3	208.941	109.932	-30.412	1.00	79.05	O	
ATOM	32399	O2*	N X	1	207.212	107.682	-36.118	1.00129.34	C	ATOM	32449	C5	N X	3	207.352	108.303	-29.698	1.00	79.05	C	
ATOM	32400	O2*	N X	1	206.054	107.604	-36.927	1.00129.34	O	ATOM	32450	P	U X	4	203.832	104.699	-25.114	1.00	68.70	P	
ATOM	32401	C1*	N X	1	208.460	107.671	-37.002	1.00129.34	C	ATOM	32451	O1P	U X	4	202.982	104.849	-26.311	1.00	55.23	O	
ATOM	32402	N1	N X	1	209.587	106.946	-36.365	1.00	85.56	N	ATOM	32452	O2P	U X	4	203.974	105.839	-24.184	1.00	55.23	O
ATOM	32403	C6	N X	1	210.757	107.590	-36.053	1.00	85.56	C	ATOM	32453	O5*	U X	4	203.321	103.450	-24.266	1.00	68.70	O
ATOM	32404	C2	N X	1	209.437	105.569	-36.076	1.00	85.56	C	ATOM	32454	C5*	U X	4	202.913	102.236	-24.920	1.00	68.70	C
ATOM	32405	O2	N X	1	208.366	105.000	-36.366	1.00	85.56	O	ATOM	32455	C4*	U X	4	203.156	101.044	-24.028	1.00	68.70	C
ATOM	32406	N3	N X	1	210.465	104.902	-35.489	1.00	85.56	N	ATOM	32456	O4*	U X	4	204.577	100.777	-23.928	1.00	68.70	O
ATOM	32407	C4	N X	1	211.601	105.546	-35.193	1.00	85.56	C	ATOM	32457	C3*	U X	4	202.703	101.183	-22.586	1.00	68.70	C
ATOM	32408	N4	N X	1	212.588	104.846	-34.620	1.00	85.56	N	ATOM	32458	O3*	U X	4	201.313	100.955	-22.418	1.00	68.70	O
ATOM	32409	C5	N X	1	211.778	106.937	-35.473	1.00	85.56	C	ATOM	32459	C2*	U X	4	203.559	100.145	-21.872	1.00	68.70	C
ATOM	32410	P	N X	2	205.783	109.239	-33.310	1.00125.65	P	ATOM	32460	O2*	U X	4	203.056	98.826	-21.981	1.00	68.70	O	
ATOM	32411	O1P	N X	2	204.377	109.673	-33.102	1.00	91.08	O	ATOM	32461	C1*	U X	4	204.876	100.258	-22.639	1.00	68.70	C
ATOM	32412	O2P	N X	2	206.866	109.820	-32.463	1.00	91.08	O	ATOM	32462	N1	U X	4	205.813	101.168	-21.955	1.00	55.23	N
ATOM	32413	O5*	N X	2	205.843	107.652	-33.160	1.00125.65	O	ATOM	32463	C2	U X	4	206.421	100.711	-20.781	1.00	55.23	C	
ATOM	32414	C5*	N X	2	204.964	106.793	-33.922	1.00125.65	C	ATOM	32464	O2	U X	4	206.237	99.588	-20.319	1.00	55.23	O	
ATOM	32415	C4*	N X	2	205.264	105.340	-33.624	1.00125.65	C	ATOM	32465	N3	U X	4	207.249	101.619	-20.168	1.00	55.23	N	
ATOM	32416	O4*	N X	2	206.619	105.037	-34.048	1.00125.65	O	ATOM	32466	C4	U X	4	207.533	102.902	-20.587	1.00	55.23	C	
ATOM	32417	C3*	N X	2	205.238	104.980	-32.147	1.00125.65	C	ATOM	32467	O4	U X	4	208.248	103.620	-19.882	1.00	55.23	O	
ATOM	32418	O3*	N X	2	203.932	104.689	-31.680	1.00125.65	O	ATOM	32468	C5	U X	4	206.887	103.293	-21.811	1.00	55.23	C	
ATOM	32419	C2*	N X	2	206.187	103.790	-32.062	1.00125.65	C	ATOM	32469	C6	U X	4	206.073	102.438	-22.436	1.00	55.23	C	
ATOM	32420	O2*	N X	2	205.585	102.556	-32.424	1.00125.65	O	ATOM	32470	P	C X	5	200.504	101.801	-21.317	1.00	60.97	P	
ATOM	32421	C1*	N X	2	207.241	104.174	-33.102	1.00125.65	C	ATOM	32471	O1P	C X	5	199.095	101.329	-21.371	1.00	49.31	O	
ATOM	32422	N1	N X	2	208.415	104.868	-32.535	1.00	91.08	N	ATOM	32472	O2P	C X	5	200.813	103.245	-21.519	1.00	49.31	O
ATOM	32423	C6	N X	2	208.661	106.204	-32.807	1.00	91.08	C	ATOM	32473	O5*	C X	5	201.115	101.296	-19.942	1.00	60.97	O
ATOM	32424	C2	N X	2	209.288	104.136	-31.730	1.00	91.08	C	ATOM	32474	C5*	C X	5	200.984	99.917	-19.582	1.00	60.97	C
ATOM	32425	O2	N X	2	209.091	102.970	-31.413	1.00	91.08	O	ATOM	32475	C4*	C X	5	201.777	99.611	-18.340	1.00	60.97	C
ATOM	32426	N3	N X	2	210.397	104.831	-31.299	1.00	91.08	N	ATOM	32476	O4*	C X	5	203.175	99.942	-18.553	1.00	60.97	O
ATOM	32427	C4	N X	2	210.710	106.156	-31.561	1.00	91.08	C	ATOM	32477	C3*	C X	5	201.398	100.371	-17.084	1.00	60.97	C
ATOM	32428	O4	N X	2	211.764	106.628	-31.129	1.00	91.08	O	ATOM	32478	O3*	C X	5	200.285	99.776	-16.437	1.00	60.97	O
ATOM	32429	C5	N X	2	209.746	106.851	-32.360	1.00	91.08	C	ATOM	32479	C2*	C X	5	202.669	100.267	-16.253	1.00	60.97	C
ATOM	32430	P	N X	3	203.397	105.414	-30.352	1.00134.98	P	ATOM	32480	O2*	C X	5	202.785	99.014	-15.612	1.00	60.97	O	
ATOM	32431	O1P	N X	3	202.164	104.696	-29.907	1.00	79.05	O	ATOM	32481	C1*	C X	5	203.755	100.342	-17.326	1.00	60.97	C
ATOM	32432	O2P	N X	3	203.341	106.873	-30.635	1.00	79.05	O	ATOM	32482	N1	C X	5	204.350	101.687	-17.472	1.00	49.31	N
ATOM	32433	O5*	N X	3	204.567	105.194	-29.287	1.00134.98	O	ATOM	32483	C2	C X	5	205.211	102.150	-16.458	1.00	49.31	C	
ATOM	32434	C5*	N X	3	204.926	103.873	-28.821	1.00134.98	C	ATOM	32484	O2	C X	5	205.415	101.430	-15.457	1.00	49.31	O	
ATOM	32435	C4*	N X	3	206.099	103.948	-27.862	1.00134.98	C	ATOM	32485	N3	C X	5	205.790	103.363	-16.587	1.00	49.31	N	
ATOM	32436	O4*	N X	3	207.275	104.409	-28.571	1.00134.98	O	ATOM	32486	C4	C X	5	205.536	104.112	-17.656	1.00	49.31	C	
ATOM	32437	C3*	N X	3	205.937	104.902	-26.685	1.00134.98	C	ATOM	32487	N4	C X	5	206.140	105.294	-17.735	1.00	49.31	N	
ATOM	32438	O3*	N X	3	205.297	104.237	-25.596	1.00134.98	O	ATOM	32488	C5	C X	5	204.652	103.680	-18.692	1.00	49.31	C	
ATOM	32439	C2*	N X	3	207.380	105.270	-26.345	1.00134.98	C	ATOM	32489	C6	C X	5	204.087	102.474	-18.562	1.00	49.31	C	
ATOM	32440	O2*	N X	3	208.003	104.315	-25.508	1.00134.98	O	ATOM	32490	P	U X	6	199.315	100.680	-15.524	1.00	84.77	P	
ATOM	32441	C1*	N X	3	208.055	105.225	-27.719	1.00134.98	C	ATOM	32491	O1P	U X	6	198.336	99.735	-14.939	1.00	53.12	O	
ATOM	32442	N1	N X	3	208.241	106.528	-28.377	1.00	79.05	N	ATOM	32492	O2P	U X	6	198.826	101.863	-16.286	1.00	53.12	O
ATOM	32443	C6	N X	3	207.201	107.150	-29.040	1.00	79.05	C	ATOM	32493	O5*	U X	6	200.256	101.197	-14.346	1.00	84.77	O
ATOM	32444	C2	N X	3	209.513	107.107	-28.334	1.00	79.05	C	ATOM	32494	C5*	U X	6	200.701	100.302	-13.305	1.00	84.77	C
ATOM	32445	O2	N X	3	210.464	106.606	-27.740	1.00	79.05	O	ATOM	32495	C4*	U X	6	201.623	101.022	-12.350	1.00	84.77	C
ATOM	32446	N3	N X	3	209.631	108.293	-29.018	1.00	79.05	N	ATOM	32496	O4*	U X	6	202.781	101.513	-13.072	1.00	84.77	O
ATOM	32447	C4	N X	3	208.640	108.947	-29.730	1.00	79.05	C	ATOM	32497	C3*	U X	6	201.046	102.258	-11.680	1.00	84.77	C



ATOM	32498	O3*	U X	6	200.027	102.069	-10.691	1.00	84.77	O	ATOM	32548	CB	LEU B	11	149.736	169.859	-35.310	1.00	140.77	C
ATOM	32499	C2*	U X	6	202.286	103.064	-11.327	1.00	84.77	C	ATOM	32549	CG	LEU B	11	148.351	170.280	-35.797	1.00	140.77	C
ATOM	32500	O2*	U X	6	202.913	102.587	-10.153	1.00	84.77	O	ATOM	32550	CD1	LEU B	11	148.400	171.741	-36.223	1.00	140.77	C
ATOM	32501	C1*	U X	6	203.196	102.752	-12.519	1.00	84.77	C	ATOM	32551	CD2	LEU B	11	147.913	169.397	-36.958	1.00	140.77	C
ATOM	32502	N1	U X	6	203.170	103.774	-13.581	1.00	53.12	N	ATOM	32552	N	GLU B	12	151.631	167.153	-33.739	1.00	115.76	N
ATOM	32503	C2	U X	6	204.026	104.864	-13.455	1.00	53.12	C	ATOM	32553	CA	GLU B	12	152.982	166.842	-33.346	1.00	115.76	C
ATOM	32504	O2	U X	6	204.754	105.039	-12.488	1.00	53.12	O	ATOM	32554	C	GLU B	12	153.603	165.883	-34.343	1.00	115.76	C
ATOM	32505	N3	U X	6	203.991	105.753	-14.502	1.00	53.12	N	ATOM	32555	O	GLU B	12	154.618	165.238	-34.070	1.00	115.76	O
ATOM	32506	C4	U X	6	203.197	105.685	-15.626	1.00	53.12	C	ATOM	32556	CB	GLU B	12	153.037	166.244	-31.950	1.00	125.87	C
ATOM	32507	O4	U X	6	203.295	106.564	-16.494	1.00	53.12	O	ATOM	32557	CG	GLU B	12	154.420	166.402	-31.388	1.00	125.87	C
ATOM	32508	C5	U X	6	202.322	104.547	-15.667	1.00	53.12	C	ATOM	32558	CD	GLU B	12	155.189	167.518	-32.102	1.00	125.87	C
ATOM	32509	C6	U X	6	202.340	103.655	-14.671	1.00	53.12	C	ATOM	32559	OE1	GLU B	12	155.789	167.250	-33.167	1.00	125.87	O
TER	32510		U X	6							ATOM	32560	OE2	GLU B	12	155.172	168.667	-31.615	1.00	125.87	O
ATOM	32511	N	VAL B	7	150.392	172.382	-22.424	1.00	139.50	N	ATOM	32561	N	ALA B	13	152.968	165.793	-35.506	1.00	123.15	N
ATOM	32512	CA	VAL B	7	150.529	170.908	-22.228	1.00	139.50	C	ATOM	32562	CA	ALA B	13	153.469	164.955	-36.579	1.00	123.15	C
ATOM	32513	C	VAL B	7	149.567	170.122	-23.135	1.00	139.50	C	ATOM	32563	C	ALA B	13	154.751	165.677	-36.956	1.00	123.15	C
ATOM	32514	O	VAL B	7	148.442	169.813	-22.735	1.00	139.50	O	ATOM	32564	O	ALA B	13	155.529	165.216	-37.790	1.00	123.15	O
ATOM	32515	CB	VAL B	7	150.277	170.509	-20.726	1.00	98.92	C	ATOM	32565	CB	ALA B	13	152.482	164.945	-37.755	1.00	23.87	C
ATOM	32516	CG1	VAL B	7	151.366	171.088	-19.834	1.00	98.92	C	ATOM	32566	N	GLY B	14	154.944	166.828	-36.312	1.00	84.11	N
ATOM	32517	CG2	VAL B	7	148.923	171.015	-20.257	1.00	98.92	C	ATOM	32567	CA	GLY B	14	156.117	167.645	-36.539	1.00	84.11	C
ATOM	32518	N	LVS B	8	150.010	169.805	-24.355	1.00	100.33	N	ATOM	32568	C	GLY B	14	157.384	166.960	-36.069	1.00	84.11	C
ATOM	32519	CA	LVS B	8	149.175	169.051	-25.299	1.00	100.33	C	ATOM	32569	O	GLY B	14	158.470	167.521	-36.216	1.00	84.11	O
ATOM	32520	C	LVS B	8	149.786	168.820	-26.694	1.00	100.33	C	ATOM	32570	N	VAL B	15	157.253	165.759	-35.498	1.00	115.80	N
ATOM	32521	O	LVS B	8	150.956	168.455	-26.818	1.00	100.33	O	ATOM	32571	CA	VAL B	15	158.415	164.996	-35.026	1.00	115.80	C
ATOM	32522	CB	LVS B	8	147.803	169.735	-25.439	1.00	146.94	C	ATOM	32572	C	VAL B	15	158.197	163.476	-34.862	1.00	115.80	C
ATOM	32523	CG	LVS B	8	147.842	171.264	-25.559	1.00	146.94	C	ATOM	32573	O	VAL B	15	158.430	162.691	-35.781	1.00	115.80	O
ATOM	32524	CD	LVS B	8	148.572	171.729	-26.814	1.00	146.94	C	ATOM	32574	CB	VAL B	15	158.938	165.515	-33.661	1.00	55.30	C
ATOM	32525	CE	LVS B	8	148.556	173.244	-26.955	1.00	146.94	C	ATOM	32575	CG1	VAL B	15	160.309	164.892	-33.376	1.00	55.30	C
ATOM	32526	NZ	LVS B	8	149.232	173.690	-28.208	1.00	146.94	N	ATOM	32576	CG2	VAL B	15	159.003	167.036	-33.640	1.00	55.30	C
ATOM	32527	N	GLU B	9	148.953	169.009	-27.720	1.00	141.00	N	ATOM	32577	N	HIS B	16	157.758	163.083	-33.671	1.00	123.81	N
ATOM	32528	CA	GLU B	9	149.308	168.870	-29.137	1.00	141.00	C	ATOM	32578	CA	HIS B	16	157.529	161.686	-33.308	1.00	123.81	C
ATOM	32529	C	GLU B	9	148.886	167.596	-29.844	1.00	141.00	C	ATOM	32579	C	HIS B	16	157.073	160.698	-34.360	1.00	123.81	C
ATOM	32530	O	GLU B	9	148.826	166.524	-29.250	1.00	141.00	O	ATOM	32580	O	HIS B	16	157.883	160.192	-35.131	1.00	123.81	O
ATOM	32531	CB	GLU B	9	150.801	169.067	-29.360	1.00	120.07	C	ATOM	32581	CB	HIS B	16	156.564	161.613	-32.129	1.00	200.93	C
ATOM	32532	CG	GLU B	9	151.213	170.509	-29.422	1.00	120.07	C	ATOM	32582	CG	HIS B	16	157.129	162.176	-30.868	1.00	200.93	C
ATOM	32533	CD	GLU B	9	152.583	170.564	-30.018	1.00	120.07	C	ATOM	32583	ND1	HIS B	16	157.497	163.498	-30.745	1.00	200.93	N
ATOM	32534	OE1	GLU B	9	152.789	170.160	-31.143	1.00	120.07	O	ATOM	32584	CD2	HIS B	16	157.439	161.588	-29.689	1.00	200.93	C
ATOM	32535	OE2	GLU B	9	153.448	171.284	-29.365	1.00	120.07	O	ATOM	32585	CE1	HIS B	16	158.012	163.700	-29.546	1.00	200.93	C
ATOM	32536	N	LEU B	10	148.609	167.746	-31.137	1.00	75.68	N	ATOM	32586	NE2	HIS B	16	157.990	162.556	-28.887	1.00	200.93	N
ATOM	32537	CA	LEU B	10	148.183	166.660	-32.027	1.00	75.68	C	ATOM	32587	N	PHE B	17	155.769	160.435	-34.374	1.00	113.13	N
ATOM	32538	C	LEU B	10	148.984	166.817	-33.310	1.00	75.68	C	ATOM	32588	CA	PHE B	17	155.148	159.461	-35.266	1.00	113.13	C
ATOM	32539	O	LEU B	10	149.403	165.839	-33.926	1.00	75.68	O	ATOM	32589	C	PHE B	17	156.076	158.294	-35.583	1.00	113.13	C
ATOM	32540	CB	LEU B	10	146.692	166.785	-32.356	1.00	158.15	C	ATOM	32590	O	PHE B	17	157.004	158.013	-34.818	1.00	113.13	O
ATOM	32541	CG	LEU B	10	145.647	166.364	-31.322	1.00	158.15	C	ATOM	32591	CB	PHE B	17	154.576	160.110	-36.558	1.00	90.31	C
ATOM	32542	CD1	LEU B	10	144.293	166.942	-31.694	1.00	158.15	C	ATOM	32592	CG	PHE B	17	155.606	160.597	-37.569	1.00	90.31	C
ATOM	32543	CD2	LEU B	10	145.581	164.849	-31.256	1.00	158.15	C	ATOM	32593	CD1	PHE B	17	156.846	159.963	-37.743	1.00	90.31	C
ATOM	32544	N	LEU B	11	149.172	168.072	-33.710	1.00	104.86	N	ATOM	32594	CD2	PHE B	17	155.278	161.640	-38.431	1.00	90.31	C
ATOM	32545	CA	LEU B	11	149.941	168.400	-34.900	1.00	104.86	C	ATOM	32595	CE1	PHE B	17	157.735	160.355	-38.762	1.00	90.31	C
ATOM	32546	C	LEU B	11	151.392	168.185	-34.537	1.00	104.86	C	ATOM	32596	CE2	PHE B	17	156.154	162.038	-39.448	1.00	90.31	C
ATOM	32547	O	LEU B	11	152.273	168.947	-34.941	1.00	104.86	O	ATOM	32597	C2	PHE B	17	157.386	161.391	-39.614	1.00	90.31	C



ATOM	32598	N	GLY B	18	155.819	157.609	-36.694	1.00	78.39	N	ATOM	32648	NE	ARG B	23	164.609	146.399	-36.037	1.00	87.20	N
ATOM	32599	CA	GLY B	18	156.635	156.471	-37.087	1.00	78.39	C	ATOM	32649	CZ	ARG B	23	163.853	146.211	-34.956	1.00	87.20	C
ATOM	32600	C	GLY B	18	158.133	156.499	-36.797	1.00	78.39	C	ATOM	32650	NH1	ARG B	23	162.557	145.983	-35.072	1.00	87.20	N
ATOM	32601	O	GLY B	18	158.758	157.562	-36.668	1.00	78.39	O	ATOM	32651	NH2	ARG B	23	164.402	146.223	-33.750	1.00	87.20	N
ATOM	32602	N	HIS B	19	158.701	155.299	-36.703	1.00	82.98	N	ATOM	32652	N	TRP B	24	160.579	145.061	-36.003	1.00	96.34	N
ATOM	32603	CA	HIS B	19	160.122	155.113	-36.449	1.00	82.98	C	ATOM	32653	CA	TRP B	24	159.719	145.428	-34.881	1.00	96.34	C
ATOM	32604	C	HIS B	19	160.453	153.629	-36.655	1.00	82.98	C	ATOM	32654	O	TRP B	24	159.684	144.479	-33.679	1.00	96.34	C
ATOM	32605	O	HIS B	19	159.553	152.834	-36.917	1.00	82.98	C	ATOM	32655	O	TRP B	24	160.687	143.900	-33.261	1.00	96.34	C
ATOM	32606	CB	HIS B	19	160.458	155.552	-35.022	1.00	144.50	C	ATOM	32656	CB	TRP B	24	158.289	145.598	-35.422	1.00	53.21	C
ATOM	32607	CG	HIS B	19	161.922	155.736	-34.778	1.00	144.50	C	ATOM	32657	CG	TRP B	24	157.667	144.294	-35.871	1.00	53.21	C
ATOM	32608	ND1	HIS B	19	162.712	156.539	-35.572	1.00	144.50	N	ATOM	32658	CD1	TRP B	24	158.319	143.118	-36.133	1.00	53.21	C
ATOM	32609	CD2	HIS B	19	162.742	155.223	-33.831	1.00	144.50	C	ATOM	32659	CD2	TRP B	24	156.277	144.032	-36.098	1.00	53.21	C
ATOM	32610	CE1	HIS B	19	163.956	156.511	-35.126	1.00	144.50	C	ATOM	32660	NE1	TRP B	24	157.425	142.143	-36.507	1.00	53.21	N
ATOM	32611	NE2	HIS B	19	164.001	155.719	-34.070	1.00	144.50	N	ATOM	32661	CE2	TRP B	24	156.164	142.675	-36.498	1.00	53.21	C
ATOM	32612	N	GLU B	20	161.738	153.273	-36.548	1.00	72.01	N	ATOM	32662	CE3	TRP B	24	155.113	144.808	-36.005	1.00	53.21	C
ATOM	32613	CA	GLU B	20	162.243	151.892	-36.711	1.00	72.01	C	ATOM	32663	CZ2	TRP B	24	154.933	142.080	-36.805	1.00	53.21	C
ATOM	32614	C	GLU B	20	161.876	151.212	-38.035	1.00	72.01	C	ATOM	32664	CZ3	TRP B	24	153.885	144.212	-36.311	1.00	53.21	C
ATOM	32615	O	GLU B	20	160.698	151.087	-38.381	1.00	72.01	O	ATOM	32665	CH2	TRP B	24	153.810	142.859	-36.707	1.00	53.21	C
ATOM	32616	CB	GLU B	20	161.782	151.008	-35.549	1.00	62.22	C	ATOM	32666	N	ASN B	25	158.486	144.380	-33.116	1.00	52.37	N
ATOM	32617	CG	GLU B	20	162.222	151.476	-34.167	1.00	62.22	C	ATOM	32667	CA	ASN B	25	158.159	143.511	-32.000	1.00	52.37	C
ATOM	32618	CD	GLU B	20	163.682	151.894	-34.110	1.00	62.22	C	ATOM	32668	C	ASN B	25	156.651	143.385	-32.125	1.00	52.37	C
ATOM	32619	OE1	GLU B	20	164.486	151.338	-34.887	1.00	62.22	O	ATOM	32669	O	ASN B	25	155.907	144.217	-31.631	1.00	52.37	O
ATOM	32620	OE2	GLU B	20	164.026	152.768	-33.279	1.00	62.22	O	ATOM	32670	CB	ASN B	25	158.525	144.144	-30.667	1.00	40.86	C
ATOM	32621	N	ARG B	21	162.885	150.750	-38.769	1.00	92.71	N	ATOM	32671	CG	ASN B	25	158.151	143.266	-29.503	1.00	40.86	C
ATOM	32622	CA	ARG B	21	162.618	150.122	-40.053	1.00	92.71	C	ATOM	32672	OD1	ASN B	25	158.785	143.314	-28.450	1.00	40.86	O
ATOM	32623	O	ARG B	21	161.586	149.004	-40.015	1.00	92.71	C	ATOM	32673	ND2	ASN B	25	157.112	142.449	-29.685	1.00	40.86	N
ATOM	32624	C	ARG B	21	160.395	149.281	-40.135	1.00	92.71	O	ATOM	32674	N	PRO B	26	156.189	142.335	-32.801	1.00	53.07	N
ATOM	32625	CB	ARG B	21	163.916	149.645	-40.714	1.00	143.63	C	ATOM	32675	CA	PRO B	26	154.770	142.075	-33.026	1.00	53.07	C
ATOM	32626	CG	ARG B	21	165.008	149.150	-39.787	1.00	143.63	C	ATOM	32676	C	PRO B	26	153.821	142.591	-31.953	1.00	53.07	C
ATOM	32627	CD	ARG B	21	166.319	149.086	-40.569	1.00	143.63	C	ATOM	32677	O	PRO B	26	152.688	142.961	-32.265	1.00	53.07	O
ATOM	32628	NE	ARG B	21	167.461	148.667	-39.761	1.00	143.63	N	ATOM	32678	CB	PRO B	26	154.726	140.562	-33.171	1.00	62.56	C
ATOM	32629	CZ	ARG B	21	167.746	147.405	-39.456	1.00	143.63	C	ATOM	32679	CG	PRO B	26	156.020	140.280	-33.862	1.00	62.56	C
ATOM	32630	NH1	ARG B	21	166.971	146.421	-39.893	1.00	143.63	N	ATOM	32680	CD	PRO B	26	156.991	141.134	-33.091	1.00	62.56	C
ATOM	32631	NH2	ARG B	21	168.810	147.128	-38.713	1.00	143.63	N	ATOM	32681	N	LYS B	27	154.278	142.615	-30.699	1.00	50.34	N
ATOM	32632	N	LYS B	22	162.013	147.754	-39.846	1.00	72.41	N	ATOM	32682	CA	LYS B	27	153.451	143.079	-29.581	1.00	50.34	C
ATOM	32633	CA	LYS B	22	161.056	146.642	-39.825	1.00	72.41	C	ATOM	32683	C	LYS B	27	153.075	144.558	-29.657	1.00	50.34	C
ATOM	32634	O	LYS B	22	161.656	145.313	-39.362	1.00	72.41	C	ATOM	32684	O	LYS B	27	151.999	144.964	-29.219	1.00	50.34	O
ATOM	32635	O	LYS B	22	162.186	144.525	-40.144	1.00	72.41	O	ATOM	32685	CB	LYS B	27	154.158	142.808	-28.252	1.00	56.69	C
ATOM	32636	CB	LYS B	22	160.437	146.480	-41.218	1.00	112.17	C	ATOM	32686	CG	LYS B	27	154.169	141.340	-27.831	1.00	56.69	C
ATOM	32637	CG	LYS B	22	159.287	145.491	-41.323	1.00	112.17	C	ATOM	32687	CD	LYS B	27	154.802	141.171	-26.452	1.00	56.69	C
ATOM	32638	CD	LYS B	22	158.878	145.339	-42.793	1.00	112.17	C	ATOM	32688	CE	LYS B	27	154.721	139.737	-25.971	1.00	56.69	C
ATOM	32639	CE	LYS B	22	157.693	144.401	-42.995	1.00	112.17	C	ATOM	32689	NZ	LYS B	27	155.217	139.563	-24.580	1.00	56.69	N
ATOM	32640	NZ	LYS B	22	157.288	144.341	-44.432	1.00	112.17	N	ATOM	32690	N	PHE B	28	153.975	145.352	-30.218	1.00	48.54	N
ATOM	32641	N	ARG B	23	161.585	145.095	-38.062	1.00	136.03	N	ATOM	32691	CA	PHE B	28	153.776	146.783	-30.371	1.00	48.54	C
ATOM	32642	CA	ARG B	23	162.067	143.878	-37.433	1.00	136.03	C	ATOM	32692	O	PHE B	28	152.818	147.018	-31.536	1.00	48.54	O
ATOM	32643	C	ARG B	23	161.328	143.963	-36.108	1.00	136.03	C	ATOM	32693	C	PHE B	28	152.555	148.156	-31.930	1.00	48.54	C
ATOM	32644	O	ARG B	23	161.431	143.095	-35.243	1.00	136.03	O	ATOM	32694	CB	PHE B	28	155.119	147.444	-30.667	1.00	58.42	C
ATOM	32645	CB	ARG B	23	163.584	143.914	-37.228	1.00	87.20	C	ATOM	32695	CG	PHE B	28	155.115	148.925	-30.508	1.00	58.42	C
ATOM	32646	CG	ARG B	23	164.306	144.971	-38.038	1.00	87.20	C	ATOM	32696	CD1	PHE B	28	155.335	149.499	-29.263	1.00	58.42	C
ATOM	32647	CD	ARG B	23	164.121	146.361	-37.417	1.00	87.20	C	ATOM	32697	CD2	PHE B	28	154.899	149.752	-31.605	1.00	58.42	C



ATOM	32698	CE1	PHE	B	28	155.343	150.875	-29.107	1.00	58.42	C	ATOM	32748	OH	TYR	B	33	145.713	156.515	-41.513	1.00	94.52	O
ATOM	32699	CE2	PHE	B	28	154.903	151.131	-31.467	1.00	58.42	C	ATOM	32749	N	ALA	B	34	151.046	151.984	-39.815	1.00	75.37	N
ATOM	32700	C2	PHE	B	28	155.127	151.698	-30.212	1.00	58.42	C	ATOM	32750	CA	ALA	B	34	151.385	151.440	-41.131	1.00	75.37	C
ATOM	32701	N	ALA	B	29	152.301	145.926	-32.083	1.00	68.80	N	ATOM	32751	C	ALA	B	34	152.873	151.551	-41.498	1.00	75.37	C
ATOM	32702	CA	ALA	B	29	151.383	145.983	-33.211	1.00	68.80	C	ATOM	32752	O	ALA	B	34	153.642	152.261	-40.849	1.00	75.37	O
ATOM	32703	C	ALA	B	29	150.280	147.022	-33.035	1.00	68.80	C	ATOM	32753	CB	ALA	B	34	150.523	152.105	-42.214	1.00	31.72	C
ATOM	32704	O	ALA	B	29	150.004	147.809	-33.944	1.00	68.80	O	ATOM	32754	N	GLU	B	35	153.274	150.826	-42.537	1.00	90.87	N
ATOM	32705	CB	ALA	B	29	150.760	144.603	-33.434	1.00	55.45	C	ATOM	32755	CA	GLU	B	35	154.656	150.854	-42.991	1.00	90.87	C
ATOM	32706	N	ARG	B	30	149.655	147.017	-31.862	1.00	76.46	N	ATOM	32756	C	GLU	B	35	154.737	151.614	-44.298	1.00	90.87	C
ATOM	32707	CA	ARG	B	30	148.554	147.924	-31.564	1.00	76.46	C	ATOM	32757	O	GLU	B	35	153.900	151.428	-45.178	1.00	90.87	O
ATOM	32708	C	ARG	B	30	148.867	149.398	-31.817	1.00	76.46	C	ATOM	32758	CB	GLU	B	35	155.186	149.439	-43.212	1.00	167.01	C
ATOM	32709	O	ARG	B	30	148.062	150.109	-32.418	1.00	76.46	O	ATOM	32759	CD	GLU	B	35	155.333	148.617	-41.952	1.00	167.01	C
ATOM	32710	CB	ARG	B	30	148.098	147.720	-30.114	1.00	93.20	C	ATOM	32760	CG	GLU	B	35	156.172	147.379	-42.178	1.00	167.01	C
ATOM	32711	CG	ARG	B	30	149.080	148.221	-29.076	1.00	93.20	C	ATOM	32761	OE1	GLU	B	35	157.344	147.533	-42.574	1.00	167.01	O
ATOM	32712	CD	ARG	B	30	148.759	147.721	-27.668	1.00	93.20	C	ATOM	32762	OE2	GLU	B	35	155.665	146.258	-41.965	1.00	167.01	O
ATOM	32713	NE	ARG	B	30	149.303	146.387	-27.429	1.00	93.20	N	ATOM	32763	N	ARG	B	36	155.744	152.472	-44.419	1.00	136.70	N
ATOM	32714	CZ	ARG	B	30	149.773	145.965	-26.256	1.00	93.20	C	ATOM	32764	CA	ARG	B	36	155.950	153.257	-45.628	1.00	136.70	C
ATOM	32715	NH1	ARG	B	30	149.763	146.779	-25.203	1.00	93.20	N	ATOM	32765	C	ARG	B	36	157.442	153.408	-45.866	1.00	136.70	C
ATOM	32716	NH2	ARG	B	30	150.271	144.735	-26.142	1.00	93.20	N	ATOM	32766	O	ARG	B	36	158.168	153.906	-45.005	1.00	136.70	O
ATOM	32717	N	TYR	B	31	150.040	149.849	-31.378	1.00	66.15	N	ATOM	32767	CB	ARG	B	36	155.284	154.623	-45.491	1.00	138.44	C
ATOM	32718	CA	TYR	B	31	150.442	151.245	-31.537	1.00	66.15	C	ATOM	32768	CG	ARG	B	36	153.771	154.532	-45.447	1.00	138.44	C
ATOM	32719	C	TYR	B	31	151.004	151.612	-32.903	1.00	66.15	C	ATOM	32769	CD	ARG	B	36	153.126	155.898	-45.447	1.00	138.44	C
ATOM	32720	O	TYR	B	31	151.540	152.702	-33.075	1.00	66.15	O	ATOM	32770	NE	ARG	B	36	151.680	155.801	-45.612	1.00	138.44	N
ATOM	32721	CB	TYR	B	31	151.472	151.605	-30.472	1.00	73.20	C	ATOM	32771	CZ	ARG	B	36	150.871	156.849	-45.716	1.00	138.44	C
ATOM	32722	CG	TYR	B	31	150.983	151.366	-29.075	1.00	73.20	C	ATOM	32772	NH1	ARG	B	36	151.369	158.079	-45.670	1.00	138.44	N
ATOM	32723	CD1	TYR	B	31	151.840	150.887	-28.092	1.00	73.20	C	ATOM	32773	NH2	ARG	B	36	149.566	156.668	-45.870	1.00	138.44	N
ATOM	32724	CD2	TYR	B	31	149.656	151.594	-28.737	1.00	73.20	C	ATOM	32774	N	ASN	B	37	157.892	152.976	-47.042	1.00	130.09	N
ATOM	32725	CE1	TYR	B	31	151.385	150.633	-26.804	1.00	73.20	C	ATOM	32775	CA	ASN	B	37	159.309	153.020	-47.379	1.00	130.09	C
ATOM	32726	CE2	TYR	B	31	149.185	151.345	-27.455	1.00	73.20	C	ATOM	32776	C	ASN	B	37	159.999	152.148	-46.349	1.00	130.09	C
ATOM	32727	CZ	TYR	B	31	150.053	150.860	-26.493	1.00	73.20	C	ATOM	32777	O	ASN	B	37	161.137	152.407	-45.958	1.00	130.09	O
ATOM	32728	OH	TYR	B	31	149.575	150.563	-25.234	1.00	73.20	O	ATOM	32778	CB	ASN	B	37	159.858	154.446	-47.293	1.00	128.26	C
ATOM	32729	N	ILE	B	32	150.899	150.712	-33.873	1.00	80.41	N	ATOM	32779	CG	ASN	B	37	159.369	155.326	-48.419	1.00	128.26	C
ATOM	32730	CA	ILE	B	32	151.410	151.005	-35.206	1.00	80.41	C	ATOM	32780	OD1	ASN	B	37	159.578	155.022	-49.595	1.00	128.26	O
ATOM	32731	C	ILE	B	32	150.260	151.397	-36.113	1.00	80.41	C	ATOM	32781	ND2	ASN	B	37	158.715	156.427	-48.069	1.00	128.26	N
ATOM	32732	O	ILE	B	32	149.123	150.966	-35.913	1.00	80.41	O	ATOM	32782	N	GLY	B	38	159.285	151.114	-45.911	1.00	116.03	N
ATOM	32733	CB	ILE	B	32	152.170	149.797	-35.804	1.00	46.67	C	ATOM	32783	CA	GLY	B	38	159.814	150.207	-44.912	1.00	116.03	C
ATOM	32734	CG1	ILE	B	32	153.479	149.577	-35.029	1.00	46.67	C	ATOM	32784	C	GLY	B	38	159.316	150.594	-43.533	1.00	116.03	C
ATOM	32735	CG2	ILE	B	32	152.474	150.042	-37.274	1.00	46.67	C	ATOM	32785	O	GLY	B	38	158.362	150.011	-43.028	1.00	116.03	O
ATOM	32736	CD1	ILE	B	32	154.188	148.268	-35.335	1.00	46.67	C	ATOM	32786	N	ILE	B	39	159.961	151.590	-42.935	1.00	92.11	N
ATOM	32737	N	TYR	B	33	150.564	152.231	-37.101	1.00	74.90	N	ATOM	32787	CA	ILE	B	39	159.618	152.089	-41.605	1.00	92.11	C
ATOM	32738	CA	TYR	B	33	149.562	152.713	-38.035	1.00	74.90	C	ATOM	32788	C	ILE	B	39	158.131	152.021	-41.239	1.00	92.11	C
ATOM	32739	C	TYR	B	33	149.781	152.161	-39.437	1.00	74.90	C	ATOM	32789	O	ILE	B	39	157.262	152.328	-42.058	1.00	92.11	O
ATOM	32740	O	TYR	B	33	148.815	151.903	-40.164	1.00	74.90	O	ATOM	32790	CB	ILE	B	39	160.043	153.556	-41.451	1.00	102.72	C
ATOM	32741	CB	TYR	B	33	149.575	154.244	-38.053	1.00	94.52	C	ATOM	32791	CG1	ILE	B	39	161.453	153.756	-41.999	1.00	102.72	C
ATOM	32742	CG	TYR	B	33	148.550	154.853	-38.975	1.00	94.52	C	ATOM	32792	CG2	ILE	B	39	159.995	153.955	-39.989	1.00	102.72	C
ATOM	32743	CD1	TYR	B	33	147.264	154.324	-39.059	1.00	94.52	C	ATOM	32793	CD1	ILE	B	39	161.902	155.207	-42.000	1.00	102.72	C
ATOM	32744	CD2	TYR	B	33	148.860	155.961	-39.760	1.00	94.52	C	ATOM	32794	N	HIS	B	40	157.845	151.618	-40.004	1.00	84.82	N
ATOM	32745	CE1	TYR	B	33	146.317	154.877	-39.902	1.00	94.52	C	ATOM	32795	CA	HIS	B	40	156.467	151.565	-39.538	1.00	84.82	C
ATOM	32746	CE2	TYR	B	33	147.920	156.525	-40.605	1.00	94.52	C	ATOM	32796	C	HIS	B	40	156.103	153.002	-39.232	1.00	84.82	C
ATOM	32747	CZ	TYR	B	33	146.652	155.976	-40.671	1.00	94.52	C	ATOM	32797	O	HIS	B	40	156.972	153.861	-39.139	1.00	84.82	O



Table 1: Sheet 330/521

ATOM	32798	CB	HIS B	40	156.333	150.769	-38.237	1.00	84.56	C	ATOM	32848	O	LVS B	46	147.864	157.153	-27.728	1.00	75.73	O
ATOM	32799	CG	HIS B	40	156.323	149.283	-38.415	1.00	84.56	C	ATOM	32849	CB	LVS B	46	147.364	155.140	-30.314	1.00	1010.36	C
ATOM	32800	ND1	HIS B	40	157.474	148.525	-38.441	1.00	84.56	C	ATOM	32850	CG	LVS B	46	146.255	154.434	-31.077	1.00	1010.36	C
ATOM	32801	CD2	HIS B	40	155.296	148.411	-38.551	1.00	84.56	C	ATOM	32851	CD	LVS B	46	146.733	153.170	-31.764	1.00	1010.36	C
ATOM	32802	CE1	HIS B	40	157.157	147.251	-38.583	1.00	84.56	C	ATOM	32852	CE	LVS B	46	145.663	152.631	-32.716	1.00	1010.36	C
ATOM	32803	NE2	HIS B	40	155.841	147.154	-38.652	1.00	84.56	N	ATOM	32853	NZ	LVS B	46	146.135	151.480	-33.551	1.00	1010.36	N
ATOM	32804	N	ILE B	41	154.817	153.262	-39.061	1.00	98.44	N	ATOM	32854	N	THR B	47	149.073	157.669	-29.559	1.00	70.93	N
ATOM	32805	CA	ILE B	41	154.361	154.600	-38.735	1.00	98.44	C	ATOM	32855	CA	THR B	47	150.148	158.308	-28.799	1.00	70.93	C
ATOM	32806	C	ILE B	41	153.452	154.524	-37.523	1.00	98.44	C	ATOM	32856	C	THR B	47	149.495	159.317	-27.863	1.00	70.93	C
ATOM	32807	O	ILE B	41	152.392	153.904	-37.565	1.00	98.44	O	ATOM	32857	O	THR B	47	149.955	159.560	-26.740	1.00	70.93	O
ATOM	32808	CB	ILE B	41	153.620	155.250	-39.923	1.00	78.49	C	ATOM	32858	CB	THR B	47	151.126	159.082	-29.711	1.00	72.33	C
ATOM	32809	CG1	ILE B	41	154.582	156.184	-40.661	1.00	78.49	C	ATOM	32859	OG1	THR B	47	151.652	158.206	-30.715	1.00	72.33	O
ATOM	32810	CG2	ILE B	41	152.379	155.996	-39.440	1.00	78.49	C	ATOM	32860	CG2	THR B	47	152.275	159.650	-28.887	1.00	72.33	C
ATOM	32811	CD1	ILE B	41	153.958	156.931	-41.835	1.00	78.49	C	ATOM	32861	N	MET B	48	148.410	159.903	-28.355	1.00	92.49	N
ATOM	32812	N	ILE B	42	153.884	155.152	-36.438	1.00	73.66	N	ATOM	32862	CA	MET B	48	147.648	160.879	-27.601	1.00	92.49	C
ATOM	32813	CA	ILE B	42	153.111	155.138	-35.213	1.00	73.66	C	ATOM	32863	C	MET B	48	146.961	160.205	-26.425	1.00	92.49	C
ATOM	32814	C	ILE B	42	151.868	156.008	-35.312	1.00	73.66	C	ATOM	32864	O	MET B	48	147.257	160.499	-25.264	1.00	92.49	O
ATOM	32815	O	ILE B	42	151.908	157.130	-35.820	1.00	73.66	O	ATOM	32865	CB	MET B	48	146.598	161.526	-28.504	1.00	100.63	C
ATOM	32816	CB	ILE B	42	153.947	155.615	-34.024	1.00	47.81	C	ATOM	32866	CG	MET B	48	147.141	162.609	-29.412	1.00	100.63	C
ATOM	32817	CG1	ILE B	42	155.221	154.791	-33.925	1.00	47.81	C	ATOM	32867	SD	MET B	48	147.789	164.004	-28.457	1.00	100.63	S
ATOM	32818	CG2	ILE B	42	153.148	155.473	-32.740	1.00	47.81	C	ATOM	32868	CE	MET B	48	146.263	164.867	-28.005	1.00	100.63	C
ATOM	32819	CD1	ILE B	42	156.101	155.187	-32.766	1.00	47.81	C	ATOM	32869	N	GLU B	49	146.048	159.292	-26.742	1.00	69.85	N
ATOM	32820	N	ASP B	43	150.764	155.471	-34.811	1.00	63.31	N	ATOM	32870	CA	GLU B	49	145.295	158.579	-25.724	1.00	69.85	C
ATOM	32821	CA	ASP B	43	149.480	156.148	-34.816	1.00	63.31	C	ATOM	32871	C	GLU B	49	146.196	158.087	-24.611	1.00	69.85	C
ATOM	32822	C	ASP B	43	149.422	157.111	-33.634	1.00	63.31	C	ATOM	32872	O	GLU B	49	145.800	158.067	-23.445	1.00	69.85	O
ATOM	32823	O	ASP B	43	149.145	156.705	-32.507	1.00	63.31	O	ATOM	32873	CB	GLU B	49	144.524	157.420	-26.358	1.00	128.01	C
ATOM	32824	CB	ASP B	43	148.373	155.108	-34.697	1.00	72.86	C	ATOM	32874	CG	GLU B	49	143.390	157.905	-27.257	1.00	128.01	C
ATOM	32825	CG	ASP B	43	147.008	155.712	-34.766	1.00	72.86	C	ATOM	32875	CD	GLU B	49	142.541	156.785	-27.828	1.00	128.01	C
ATOM	32826	OD1	ASP B	43	146.825	156.817	-34.223	1.00	72.86	O	ATOM	32876	OE1	GLU B	49	142.110	155.905	-27.052	1.00	128.01	O
ATOM	32827	OD2	ASP B	43	146.112	155.078	-35.352	1.00	72.86	O	ATOM	32877	OE2	GLU B	49	142.291	156.794	-29.053	1.00	128.01	O
ATOM	32828	N	LEU B	44	149.670	158.389	-33.895	1.00	62.78	N	ATOM	32878	N	GLU B	50	147.421	157.715	-24.964	1.00	67.86	N
ATOM	32829	CA	LEU B	44	149.664	159.404	-32.840	1.00	62.78	C	ATOM	32879	CA	GLU B	50	148.362	157.228	-23.965	1.00	67.86	C
ATOM	32830	C	LEU B	44	148.317	159.582	-32.124	1.00	62.78	C	ATOM	32880	C	GLU B	50	148.988	158.350	-23.151	1.00	67.86	C
ATOM	32831	O	LEU B	44	148.266	160.067	-30.990	1.00	62.78	O	ATOM	32881	O	GLU B	50	149.246	158.185	-21.959	1.00	67.86	O
ATOM	32832	CB	LEU B	44	150.112	160.738	-33.423	1.00	49.38	C	ATOM	32882	CB	GLU B	50	149.454	156.388	-24.623	1.00	93.67	C
ATOM	32833	CG	LEU B	44	151.424	160.709	-34.196	1.00	49.38	C	ATOM	32883	CG	GLU B	50	149.017	154.973	-24.969	1.00	93.67	C
ATOM	32834	CD1	LEU B	44	151.544	162.009	-34.954	1.00	49.38	C	ATOM	32884	CD	GLU B	50	148.449	154.233	-23.771	1.00	93.67	C
ATOM	32835	CD2	LEU B	44	152.597	160.508	-33.261	1.00	49.38	C	ATOM	32885	OE1	GLU B	50	149.018	154.363	-22.662	1.00	93.67	O
ATOM	32836	N	GLN B	45	147.232	159.208	-32.795	1.00	70.13	N	ATOM	32886	OE2	GLU B	50	147.440	153.515	-23.945	1.00	93.67	O
ATOM	32837	CA	GLN B	45	145.906	159.306	-32.201	1.00	70.13	C	ATOM	32887	N	LEU B	51	149.237	159.485	-23.795	1.00	59.19	N
ATOM	32838	C	GLN B	45	145.936	158.431	-30.951	1.00	70.13	C	ATOM	32888	CA	LEU B	51	149.818	160.633	-23.107	1.00	59.19	C
ATOM	32839	O	GLN B	45	145.195	158.648	-29.994	1.00	70.13	O	ATOM	32889	C	LEU B	51	148.876	161.111	-22.008	1.00	59.19	C
ATOM	32840	CB	GLN B	45	144.852	158.784	-33.175	1.00	62.86	C	ATOM	32890	O	LEU B	51	149.292	161.356	-20.874	1.00	59.19	O
ATOM	32841	CG	GLN B	45	144.880	159.451	-34.538	1.00	62.86	C	ATOM	32891	CB	LEU B	51	150.061	161.771	-24.095	1.00	39.58	C
ATOM	32842	CD	GLN B	45	144.083	158.679	-35.572	1.00	62.86	C	ATOM	32892	CG	LEU B	51	151.397	161.758	-24.826	1.00	39.58	C
ATOM	32843	OE1	GLN B	45	142.887	158.452	-35.406	1.00	62.86	O	ATOM	32893	CD1	LEU B	51	151.296	162.633	-26.064	1.00	39.58	C
ATOM	32844	NE2	GLN B	45	144.748	158.267	-36.647	1.00	62.86	N	ATOM	32894	CD2	LEU B	51	152.509	162.231	-23.890	1.00	39.58	C
ATOM	32845	N	LVS B	46	146.806	157.429	-30.974	1.00	75.73	N	ATOM	32895	N	GLU B	52	147.602	161.250	-22.370	1.00	1010.77	N
ATOM	32846	CA	LVS B	46	146.955	156.536	-29.843	1.00	75.73	C	ATOM	32896	CA	GLU B	52	146.569	161.700	-21.444	1.00	1010.77	C
ATOM	32847	C	LVS B	46	148.014	157.143	-28.949	1.00	75.73	C	ATOM	32897	C	GLU B	52	146.611	160.836	-20.199	1.00	1010.77	C



ATOM	32898	O	GLU B	52	146.743	161.332	-19.077	1.00104.77	O	ATOM	32948	CB	PHE B	57	150.089	158.209	-14.247	1.00	42.68	C	
ATOM	32899	CB	GLU B	52	145.195	161.582	-22.102	1.00145.90	C	ATOM	32949	CG	PHE B	57	151.092	157.524	-13.340	1.00	42.68	C	
ATOM	32900	CG	GLU B	52	144.036	161.894	-21.177	1.00145.90	C	ATOM	32950	CD1	PHE B	57	150.680	156.835	-12.211	1.00	42.68	C	
ATOM	32901	CD	GLU B	52	142.691	161.618	-21.823	1.00145.90	C	ATOM	32951	CD2	PHE B	57	152.452	157.629	-13.583	1.00	42.68	C	
ATOM	32902	OE1	GLU B	52	141.652	161.842	-21.163	1.00145.90	O	ATOM	32952	CE1	PHE B	57	151.608	156.267	-11.334	1.00	42.68	C	
ATOM	32903	OE2	GLU B	52	142.673	161.174	-22.991	1.00145.90	O	ATOM	32953	CE2	PHE B	57	153.382	157.064	-12.707	1.00	42.68	C	
ATOM	32904	N	ARG B	53	146.502	159.531	-20.423	1.00	76.33	N	ATOM	32954	CZ	PHE B	57	152.954	156.384	-11.583	1.00	42.68	C
ATOM	32905	CA	ARG B	53	146.523	158.543	-19.358	1.00	76.33	C	ATOM	32955	N	ILE B	58	151.209	161.267	-13.886	1.00	52.89	N
ATOM	32906	C	ARG B	53	147.838	158.603	-18.578	1.00	76.33	C	ATOM	32956	CA	ILE B	58	152.319	162.089	-13.440	1.00	52.89	C
ATOM	32907	O	ARG B	53	147.851	158.635	-17.347	1.00	76.33	O	ATOM	32957	C	ILE B	58	151.910	163.232	-12.488	1.00	52.89	C
ATOM	32908	CB	ARG B	53	146.327	157.155	-19.965	1.00	84.20	C	ATOM	32958	O	ILE B	58	152.592	163.460	-11.484	1.00	52.89	O
ATOM	32909	CG	ARG B	53	146.385	156.034	-18.962	1.00	84.20	C	ATOM	32959	CB	ILE B	58	153.103	162.624	-14.658	1.00	65.24	C
ATOM	32910	CD	ARG B	53	146.019	154.700	-19.585	1.00	84.20	C	ATOM	32960	CG1	ILE B	58	153.471	161.448	-15.569	1.00	65.24	C
ATOM	32911	NE	ARG B	53	146.295	153.616	-18.652	1.00	84.20	N	ATOM	32961	CG2	ILE B	58	154.382	163.326	-14.201	1.00	65.24	C
ATOM	32912	CZ	ARG B	53	147.507	153.346	-18.183	1.00	84.20	C	ATOM	32962	CD1	ILE B	58	154.313	161.821	-16.760	1.00	65.24	C
ATOM	32913	NH1	ARG B	53	148.542	154.080	-18.572	1.00	84.20	N	ATOM	32963	N	GLU B	59	150.821	163.948	-12.783	1.00	60.29	N
ATOM	32914	NH2	ARG B	53	147.686	152.360	-17.313	1.00	84.20	N	ATOM	32964	CA	GLU B	59	150.369	165.013	-11.877	1.00	60.29	C
ATOM	32915	N	THR B	54	148.944	158.629	-19.308	1.00	58.68	N	ATOM	32965	C	GLU B	59	150.230	164.287	-10.559	1.00	60.29	C
ATOM	32916	CA	THR B	54	150.267	158.674	-18.700	1.00	58.68	C	ATOM	32966	O	GLU B	59	150.705	164.740	-9.517	1.00	60.29	O
ATOM	32917	C	THR B	54	150.477	159.943	-17.880	1.00	58.68	C	ATOM	32967	CB	GLU B	59	148.996	165.545	-12.266	1.00	97.28	C
ATOM	32918	O	THR B	54	150.682	159.887	-16.665	1.00	58.68	O	ATOM	32968	CG	GLU B	59	148.865	165.957	-13.700	1.00	97.28	C
ATOM	32919	CB	THR B	54	151.368	158.569	-19.792	1.00	59.37	C	ATOM	32969	CD	GLU B	59	147.667	166.849	-13.922	1.00	97.28	C
ATOM	32920	OG1	THR B	54	151.268	157.294	-20.442	1.00	59.37	O	ATOM	32970	OE1	GLU B	59	147.668	167.969	-13.362	1.00	97.28	O
ATOM	32921	CG2	THR B	54	152.756	158.714	-19.182	1.00	59.37	C	ATOM	32971	OE2	GLU B	59	146.731	166.435	-14.646	1.00	97.28	O
ATOM	32922	N	PHE B	55	150.431	161.084	-18.563	1.00	64.76	N	ATOM	32972	N	ASP B	60	149.552	163.148	-10.643	1.00	53.54	N
ATOM	32923	CA	PHE B	55	150.619	162.384	-17.933	1.00	64.76	C	ATOM	32973	CA	ASP B	60	149.335	162.258	-9.519	1.00	53.54	C
ATOM	32924	C	PHE B	55	149.761	162.521	-16.688	1.00	64.76	C	ATOM	32974	C	ASP B	60	150.555	162.315	-8.588	1.00	53.54	C
ATOM	32925	O	PHE B	55	150.224	162.993	-15.649	1.00	64.76	O	ATOM	32975	O	ASP B	60	150.522	162.984	-7.553	1.00	53.54	O
ATOM	32926	CB	PHE B	55	150.307	163.489	-18.949	1.00	72.54	C	ATOM	32976	CB	ASP B	60	149.127	160.837	-10.069	1.00	169.38	C
ATOM	32927	CG	PHE B	55	151.495	163.884	-19.781	1.00	72.54	C	ATOM	32977	CG	ASP B	60	149.127	159.766	-8.992	1.00	169.38	C
ATOM	32928	CD1	PHE B	55	152.332	162.914	-20.325	1.00	72.54	C	ATOM	32978	OD1	ASP B	60	150.140	159.623	-8.274	1.00	169.38	O
ATOM	32929	CD2	PHE B	55	151.830	165.221	-19.952	1.00	72.54	C	ATOM	32979	OD2	ASP B	60	148.112	159.050	-8.876	1.00	169.38	O
ATOM	32930	CE1	PHE B	55	153.492	163.272	-21.016	1.00	72.54	C	ATOM	32980	N	LEU B	61	151.630	161.624	-8.968	1.00	56.20	N
ATOM	32931	CE2	PHE B	55	152.988	165.585	-20.644	1.00	72.54	C	ATOM	32981	CA	LEU B	61	152.853	161.594	-8.169	1.00	56.20	C
ATOM	32932	CZ	PHE B	55	153.820	164.609	-21.173	1.00	72.54	C	ATOM	32982	C	LEU B	61	153.425	162.979	-8.031	1.00	56.20	C
ATOM	32933	N	ARG B	56	148.512	162.086	-16.807	1.00	68.74	N	ATOM	32983	O	LEU B	61	154.056	163.296	-7.026	1.00	56.20	O
ATOM	32934	CA	ARG B	56	147.563	162.121	-15.709	1.00	68.74	C	ATOM	32984	CB	LEU B	61	153.928	160.720	-8.821	1.00	131.17	C
ATOM	32935	C	ARG B	56	148.191	161.428	-14.492	1.00	68.74	C	ATOM	32985	CG	LEU B	61	153.854	159.196	-8.844	1.00	131.17	C
ATOM	32936	O	ARG B	56	148.060	161.896	-13.360	1.00	68.74	O	ATOM	32986	CD1	LEU B	61	155.108	158.683	-9.532	1.00	131.17	C
ATOM	32937	CB	ARG B	56	146.288	161.391	-16.129	1.00	113.05	C	ATOM	32987	CD2	LEU B	61	153.755	158.628	-7.431	1.00	131.17	C
ATOM	32938	CG	ARG B	56	145.082	161.630	-15.244	1.00	113.05	C	ATOM	32988	N	ALA B	62	153.220	163.794	-9.059	1.00	60.40	N
ATOM	32939	CD	ARG B	56	144.065	160.517	-15.436	1.00	113.05	C	ATOM	32989	CA	ALA B	62	153.737	165.156	-9.080	1.00	60.40	C
ATOM	32940	NE	ARG B	56	143.775	160.267	-16.845	1.00	113.05	N	ATOM	32990	C	ALA B	62	153.355	165.970	-7.845	1.00	60.40	C
ATOM	32941	CZ	ARG B	56	143.272	159.127	-17.312	1.00	113.05	C	ATOM	32991	O	ALA B	62	154.176	166.171	-6.944	1.00	60.40	O
ATOM	32942	NH1	ARG B	56	143.001	158.127	-16.483	1.00	113.05	N	ATOM	32992	CB	ALA B	62	153.263	165.871	-10.340	1.00	131.17	C
ATOM	32943	NH2	ARG B	56	143.042	158.982	-18.610	1.00	113.05	N	ATOM	32993	N	MET B	63	152.109	166.435	-7.816	1.00	99.59	N
ATOM	32944	N	PHE B	57	148.872	160.308	-14.737	1.00	47.68	N	ATOM	32994	CA	MET B	63	151.606	167.241	-6.711	1.00	99.59	C
ATOM	32945	CA	PHE B	57	149.534	159.536	-13.681	1.00	47.68	C	ATOM	32995	C	MET B	63	151.604	166.475	-5.405	1.00	99.59	C
ATOM	32946	C	PHE B	57	150.676	160.348	-13.091	1.00	47.68	C	ATOM	32996	O	MET B	63	151.386	167.048	-4.340	1.00	99.59	O
ATOM	32947	O	PHE B	57	151.066	160.146	-11.945	1.00	47.68	O	ATOM	32997	CB	MET B	63	150.189	167.713	-7.010	1.00	113.84	C



Table 1: Sheet 332/521

ATOM	32998	CG	MET B	63	149.230	166.582	-7.271	1.00113.84	C	ATOM	33048	CG	PHE B	70	163.442	161.663	-15.816	1.00	55.55	C
ATOM	32999	SD	MET B	63	147.563	167.183	-7.504	1.00113.84	S	ATOM	33049	CD1	PHE B	70	162.964	162.141	-14.603	1.00	55.55	C
ATOM	33000	CE	MET B	63	146.858	166.833	-5.882	1.00113.84	C	ATOM	33050	CD2	PHE B	70	162.757	161.991	-16.988	1.00	55.55	C
ATOM	33001	N	ARG B	64	151.846	165.174	-5.492	1.00 46.86	N	ATOM	33051	CE1	PHE B	70	161.819	162.939	-14.558	1.00	55.55	C
ATOM	33002	CA	ARG B	64	151.868	164.320	-4.313	1.00 46.86	C	ATOM	33052	CE2	PHE B	70	161.619	162.783	-16.953	1.00	55.55	C
ATOM	33003	C	ARG B	64	153.247	164.345	-3.662	1.00 46.86	C	ATOM	33053	C2	PHE B	70	161.148	163.260	-15.735	1.00	55.55	C
ATOM	33004	O	ARG B	64	153.430	163.833	-2.554	1.00 46.86	O	ATOM	33054	N	VAL B	71	165.560	157.724	-16.716	1.00	71.24	N
ATOM	33005	CB	ARG B	64	151.500	162.898	-4.710	1.00 90.59	C	ATOM	33055	CA	VAL B	71	166.656	156.917	-17.231	1.00	71.24	C
ATOM	33006	CG	ARG B	64	150.982	162.038	-3.586	1.00 90.59	C	ATOM	33056	C	VAL B	71	166.775	157.057	-18.744	1.00	71.24	C
ATOM	33007	CD	ARG B	64	150.156	160.942	-4.199	1.00 90.59	C	ATOM	33057	O	VAL B	71	165.821	156.797	-19.490	1.00	71.24	O
ATOM	33008	NE	ARG B	64	149.277	161.524	-5.211	1.00 90.59	N	ATOM	33058	CB	VAL B	71	166.483	155.428	-16.877	1.00	57.68	C
ATOM	33009	CZ	ARG B	64	148.516	160.827	-6.049	1.00 90.59	C	ATOM	33059	CG1	VAL B	71	167.763	154.681	-17.186	1.00	57.68	C
ATOM	33010	NH1	ARG B	64	148.521	159.500	-6.003	1.00 90.59	N	ATOM	33060	CG2	VAL B	71	166.153	155.272	-15.409	1.00	57.68	C
ATOM	33011	NH2	ARG B	64	147.751	161.461	-6.934	1.00 90.59	N	ATOM	33061	N	GLY B	72	167.962	157.488	-19.170	1.00	59.47	N
ATOM	33012	N	GLY B	65	154.211	164.948	-4.356	1.00 77.86	N	ATOM	33062	CA	GLY B	72	168.274	157.674	-20.578	1.00	59.47	C
ATOM	33013	CA	GLY B	65	155.567	165.033	-3.839	1.00 77.86	C	ATOM	33063	C	GLY B	72	169.767	157.468	-20.801	1.00	59.47	C
ATOM	33014	C	GLY B	65	156.338	163.745	-4.046	1.00 77.86	C	ATOM	33064	O	GLY B	72	170.573	158.376	-20.574	1.00	59.47	O
ATOM	33015	O	GLY B	65	157.207	163.380	-3.247	1.00 77.86	O	ATOM	33065	N	THR B	73	170.145	156.261	-21.212	1.00	56.86	N
ATOM	33016	N	GLY B	66	156.016	163.049	-5.128	1.00 74.07	N	ATOM	33066	CA	THR B	73	171.544	155.945	-21.476	1.00	56.86	C
ATOM	33017	CA	GLY B	66	156.687	161.801	-5.419	1.00 74.07	C	ATOM	33067	C	THR B	73	171.790	156.124	-22.973	1.00	56.86	C
ATOM	33018	C	GLY B	66	157.852	162.018	-6.352	1.00 74.07	C	ATOM	33068	O	THR B	73	172.882	156.500	-23.391	1.00	56.86	O
ATOM	33019	O	GLY B	66	157.907	163.016	-7.067	1.00 74.07	O	ATOM	33069	CB	THR B	73	171.878	154.506	-21.051	1.00	90.35	C
ATOM	33020	N	THR B	67	158.789	161.079	-6.338	1.00 69.37	N	ATOM	33070	OG1	THR B	73	171.811	154.410	-19.623	1.00	90.35	O
ATOM	33021	CA	THR B	67	159.967	161.143	-7.189	1.00 69.37	C	ATOM	33071	CG2	THR B	73	173.271	154.108	-21.522	1.00	90.35	C
ATOM	33022	C	THR B	67	159.768	160.363	-8.490	1.00 69.37	C	ATOM	33072	N	LYS B	74	170.756	155.848	-23.766	1.00	58.31	N
ATOM	33023	O	THR B	67	158.918	159.479	-8.581	1.00 69.37	O	ATOM	33073	CA	LYS B	74	170.774	156.011	-25.222	1.00	58.31	C
ATOM	33024	CB	THR B	67	161.176	160.548	-6.480	1.00 47.50	C	ATOM	33074	C	LYS B	74	171.558	157.302	-25.483	1.00	58.31	O
ATOM	33025	OG1	THR B	67	161.353	161.186	-5.213	1.00 47.50	O	ATOM	33075	O	LYS B	74	171.506	158.222	-24.672	1.00	58.31	O
ATOM	33026	CG2	THR B	67	162.414	160.743	-7.314	1.00 47.50	C	ATOM	33076	CB	LYS B	74	169.319	156.160	-25.690	1.00	65.56	C
ATOM	33027	N	ILE B	68	160.562	160.703	-9.497	1.00 54.61	N	ATOM	33077	CG	LYS B	74	169.001	155.926	-27.154	1.00	65.56	C
ATOM	33028	CA	ILE B	68	160.523	160.036	-10.792	1.00 54.61	C	ATOM	33078	CD	LYS B	74	167.506	155.628	-27.264	1.00	65.56	C
ATOM	33029	C	ILE B	68	161.957	159.953	-11.291	1.00 54.61	C	ATOM	33079	CE	LYS B	74	167.041	155.331	-28.679	1.00	65.56	C
ATOM	33030	O	ILE B	68	162.524	160.948	-11.735	1.00 54.61	O	ATOM	33080	NZ	LYS B	74	166.895	156.553	-29.521	1.00	65.56	N
ATOM	33031	CB	ILE B	68	159.686	160.820	-11.818	1.00 32.98	C	ATOM	33081	N	LYS B	75	172.279	157.394	-26.596	1.00	85.56	N
ATOM	33032	CG1	ILE B	68	158.207	160.767	-11.438	1.00 32.98	C	ATOM	33082	CA	LYS B	75	173.059	158.607	-26.845	1.00	85.56	C
ATOM	33033	CG2	ILE B	68	159.883	160.243	-13.206	1.00 32.98	C	ATOM	33083	C	LYS B	75	172.231	159.777	-27.362	1.00	85.56	C
ATOM	33034	CD1	ILE B	68	157.285	161.428	-12.471	1.00 32.98	C	ATOM	33084	O	LYS B	75	172.455	160.919	-26.971	1.00	85.56	O
ATOM	33035	N	LEU B	69	162.557	158.773	-11.195	1.00 61.09	N	ATOM	33085	CB	LYS B	75	174.213	158.319	-27.811	1.00	115.83	C
ATOM	33036	CA	LEU B	69	163.923	158.608	-11.657	1.00 61.09	C	ATOM	33086	CG	LYS B	75	175.523	158.979	-27.393	1.00	115.83	C
ATOM	33037	C	LEU B	69	163.885	158.466	-13.172	1.00 61.09	C	ATOM	33087	CD	LYS B	75	175.376	160.492	-27.276	1.00	115.83	C
ATOM	33038	O	LEU B	69	163.300	157.519	-13.696	1.00 61.09	O	ATOM	33088	CE	LYS B	75	176.564	161.134	-26.561	1.00	115.83	C
ATOM	33039	CB	LEU B	69	164.562	157.372	-11.017	1.00 53.17	C	ATOM	33089	NZ	LYS B	75	177.868	160.880	-27.238	1.00	115.83	N
ATOM	33040	CG	LEU B	69	166.094	157.290	-11.083	1.00 53.17	C	ATOM	33090	N	GLN B	76	171.273	159.491	-28.236	1.00	89.05	N
ATOM	33041	CD1	LEU B	69	166.618	156.099	-10.277	1.00 53.17	C	ATOM	33091	CA	GLN B	76	170.415	160.531	-28.792	1.00	89.05	C
ATOM	33042	CD2	LEU B	69	166.515	157.181	-12.533	1.00 53.17	C	ATOM	33092	C	GLN B	76	169.617	161.290	-27.724	1.00	89.05	C
ATOM	33043	N	PHE B	70	164.485	159.434	-13.864	1.00 67.44	N	ATOM	33093	O	GLN B	76	169.045	162.346	-28.003	1.00	89.05	O
ATOM	33044	CA	PHE B	70	164.547	159.427	-15.322	1.00 67.44	C	ATOM	33094	CB	GLN B	76	169.444	159.918	-29.807	1.00	123.20	C
ATOM	33045	C	PHE B	70	165.765	158.634	-15.768	1.00 67.44	C	ATOM	33095	CG	GLN B	76	169.950	159.883	-31.238	1.00	123.20	C
ATOM	33046	O	PHE B	70	166.875	158.852	-15.267	1.00 67.44	O	ATOM	33096	CD	GLN B	76	170.148	161.274	-31.820	1.00	123.20	C
ATOM	33047	CB	PHE B	70	164.691	160.841	-15.878	1.00 55.55	C	ATOM	33097	OE1	GLN B	76	171.124	161.957	-31.509	1.00	123.20	O



Table 1: Sheet 333/521

ATOM	33098	NE2	GLN	B	76	169.212	161.704	-32.662	1.00123.20	N	ATOM	33148	CA	MET	B	83	168.479	168.980	-18.615	1.00	80.47	C	
ATOM	33099	N	ALA	B	77	169.579	160.756	-26.505	1.00	76.77	N	ATOM	33149	C	MET	B	83	167.136	168.794	-17.919	1.00	80.47	C
ATOM	33100	CA	ALA	B	77	168.827	161.387	-25.424	1.00	76.77	C	ATOM	33150	O	MET	B	83	166.965	169.157	-16.756	1.00	80.47	O
ATOM	33101	C	ALA	B	77	169.676	161.700	-24.208	1.00	76.77	C	ATOM	33151	CB	MET	B	83	168.239	169.453	-20.047	1.00	115.68	C
ATOM	33102	O	ALA	B	77	169.243	162.419	-23.311	1.00	76.77	O	ATOM	33152	CG	MET	B	83	169.498	169.807	-20.805	1.00	115.68	C
ATOM	33103	CB	ALA	B	77	167.682	160.493	-25.011	1.00	95.82	C	ATOM	33153	SD	MET	B	83	170.142	171.412	-20.325	1.00	115.68	S
ATOM	33104	N	GLN	B	78	170.884	161.155	-24.184	1.00	56.66	N	ATOM	33154	CE	MET	B	83	169.204	172.483	-21.429	1.00	115.68	C
ATOM	33105	CA	GLN	B	78	171.798	161.343	-23.069	1.00	56.66	C	ATOM	33155	N	GLU	B	84	166.192	168.214	-18.649	1.00	53.18	N
ATOM	33106	C	GLN	B	78	171.757	162.750	-22.466	1.00	56.66	C	ATOM	33156	CA	GLU	B	84	164.857	167.963	-18.147	1.00	53.18	C
ATOM	33107	O	GLN	B	78	171.406	162.922	-21.302	1.00	56.66	O	ATOM	33157	C	GLU	B	84	164.810	167.346	-16.755	1.00	53.18	C
ATOM	33108	CB	GLN	B	78	173.211	160.999	-23.518	1.00	110.65	C	ATOM	33158	O	GLU	B	84	163.848	167.556	-16.012	1.00	53.18	O
ATOM	33109	CG	GLN	B	78	174.047	160.386	-22.431	1.00	110.65	C	ATOM	33159	CB	GLU	B	84	164.125	167.068	-19.133	1.00	81.05	C
ATOM	33110	CD	GLN	B	78	175.280	159.724	-22.985	1.00	110.65	C	ATOM	33160	CG	GLU	B	84	164.076	167.671	-20.499	1.00	81.05	C
ATOM	33111	OE1	GLN	B	78	176.089	160.365	-23.653	1.00	110.65	O	ATOM	33161	CD	GLU	B	84	163.658	169.115	-20.432	1.00	81.05	C
ATOM	33112	NE2	GLN	B	78	175.431	158.428	-22.720	1.00	110.65	N	ATOM	33162	OE1	GLU	B	84	162.540	169.385	-19.942	1.00	81.05	O
ATOM	33113	N	ASP	B	79	172.097	163.760	-23.257	1.00	102.64	N	ATOM	33163	OE2	GLU	B	84	164.451	169.980	-20.856	1.00	81.05	O
ATOM	33114	CA	ASP	B	79	172.097	165.132	-22.762	1.00	102.64	C	ATOM	33164	N	ALA	B	85	165.837	166.586	-16.393	1.00	73.77	N
ATOM	33115	C	ASP	B	79	170.743	165.567	-22.218	1.00	102.64	C	ATOM	33165	CA	ALA	B	85	165.855	165.957	-15.078	1.00	73.77	C
ATOM	33116	O	ASP	B	79	170.640	166.030	-21.079	1.00	102.64	O	ATOM	33166	C	ALA	B	85	166.287	166.918	-13.971	1.00	73.77	C
ATOM	33117	CB	ASP	B	79	172.538	166.083	-23.870	1.00	92.08	C	ATOM	33167	O	ALA	B	85	165.818	166.813	-12.837	1.00	73.77	O
ATOM	33118	CG	ASP	B	79	173.976	165.861	-24.278	1.00	92.08	C	ATOM	33168	CB	ALA	B	85	166.757	164.740	-15.092	1.00	114.53	C
ATOM	33119	OD1	ASP	B	79	174.879	166.100	-23.445	1.00	92.08	O	ATOM	33169	N	GLU	B	86	167.190	167.841	-14.295	1.00	81.36	N
ATOM	33120	OD2	ASP	B	79	174.202	165.435	-25.430	1.00	92.08	O	ATOM	33170	CA	GLU	B	86	167.665	168.817	-13.320	1.00	81.36	C
ATOM	33121	N	ILE	B	80	169.704	165.415	-23.032	1.00	69.03	N	ATOM	33171	C	GLU	B	86	166.650	169.943	-13.295	1.00	81.36	C
ATOM	33122	CA	ILE	B	80	168.362	165.805	-22.623	1.00	69.03	C	ATOM	33172	O	GLU	B	86	166.557	170.691	-12.327	1.00	81.36	O
ATOM	33123	C	ILE	B	80	167.934	165.255	-21.257	1.00	69.03	C	ATOM	33173	CB	GLU	B	86	169.030	169.365	-13.728	1.00	89.17	C
ATOM	33124	O	ILE	B	80	167.441	165.998	-20.412	1.00	69.03	O	ATOM	33174	CG	GLU	B	86	170.046	168.289	-14.048	1.00	89.17	C
ATOM	33125	CB	ILE	B	80	167.338	165.387	-23.682	1.00	65.74	C	ATOM	33175	CD	GLU	B	86	171.425	168.846	-14.343	1.00	89.17	C
ATOM	33126	CG1	ILE	B	80	167.596	166.175	-24.962	1.00	65.74	C	ATOM	33176	OE1	GLU	B	86	171.532	169.799	-15.145	1.00	89.17	O
ATOM	33127	CG2	ILE	B	80	165.929	165.642	-23.187	1.00	65.74	C	ATOM	33177	OE2	GLU	B	86	172.405	168.319	-13.775	1.00	89.17	O
ATOM	33128	CD1	ILE	B	80	166.660	165.817	-26.095	1.00	65.74	C	ATOM	33178	N	ARG	B	87	165.887	170.048	-14.377	1.00	61.22	N
ATOM	33129	N	VAL	B	81	168.119	163.961	-21.034	1.00	77.39	N	ATOM	33179	CA	ARG	B	87	164.859	171.070	-14.507	1.00	61.22	C
ATOM	33130	CA	VAL	B	81	167.731	163.374	-19.760	1.00	77.39	C	ATOM	33180	C	ARG	B	87	163.750	170.814	-13.488	1.00	61.22	C
ATOM	33131	C	VAL	B	81	168.352	164.112	-18.580	1.00	77.39	C	ATOM	33181	O	ARG	B	87	162.855	171.633	-13.314	1.00	61.22	O
ATOM	33132	O	VAL	B	81	167.876	163.990	-17.458	1.00	77.39	C	ATOM	33182	CB	ARG	B	87	164.290	171.060	-15.928	1.00	72.39	C
ATOM	33133	CB	VAL	B	81	168.112	161.878	-19.688	1.00	67.03	C	ATOM	33183	CG	ARG	B	87	164.314	172.411	-16.611	1.00	72.39	C
ATOM	33134	CG1	VAL	B	81	167.859	161.331	-18.284	1.00	67.03	C	ATOM	33184	CD	ARG	B	87	162.912	172.927	-16.874	1.00	72.39	C
ATOM	33135	CG2	VAL	B	81	167.296	161.095	-20.711	1.00	67.03	C	ATOM	33185	NE	ARG	B	87	162.224	172.137	-17.888	1.00	72.39	N
ATOM	33136	N	ARG	B	82	169.416	164.873	-18.919	1.00	69.48	N	ATOM	33186	CZ	ARG	B	87	161.051	172.468	-18.420	1.00	72.39	C
ATOM	33137	CA	ARG	B	82	170.034	165.628	-17.730	1.00	69.48	C	ATOM	33187	NH1	ARG	B	87	160.439	173.574	-18.030	1.00	72.39	N
ATOM	33138	C	ARG	B	82	169.269	166.933	-17.553	1.00	69.48	C	ATOM	33188	NH2	ARG	B	87	160.494	171.699	-19.347	1.00	72.39	N
ATOM	33139	O	ARG	B	82	168.766	167.231	-16.469	1.00	69.48	O	ATOM	33189	N	ALA	B	88	163.814	169.658	-12.836	1.00	62.28	N
ATOM	33140	CB	ARG	B	82	171.501	165.938	-18.025	1.00	106.76	C	ATOM	33190	CA	ALA	B	88	162.863	169.273	-11.796	1.00	62.28	C
ATOM	33141	CG	ARG	B	82	171.941	167.279	-17.455	1.00	106.76	C	ATOM	33191	C	ALA	B	88	163.712	168.621	-10.710	1.00	62.28	O
ATOM	33142	CD	ARG	B	82	173.432	167.372	-17.275	1.00	106.76	C	ATOM	33192	O	ALA	B	88	164.781	168.093	-10.997	1.00	62.28	O
ATOM	33143	NE	ARG	B	82	173.896	166.389	-16.308	1.00	106.76	N	ATOM	33193	CB	ALA	B	88	161.864	168.300	-12.338	1.00	26.21	C
ATOM	33144	CZ	ARG	B	82	175.105	166.395	-15.760	1.00	106.76	C	ATOM	33194	N	GLY	B	89	163.262	168.657	-9.465	1.00	81.64	N
ATOM	33145	NH1	ARG	B	82	175.975	167.340	-16.085	1.00	106.76	N	ATOM	33195	CA	GLY	B	89	164.069	168.074	-8.404	1.00	81.64	C
ATOM	33146	NH2	ARG	B	82	175.448	165.453	-14.893	1.00	106.76	N	ATOM	33196	C	GLY	B	89	164.380	166.604	-8.603	1.00	81.64	C
ATOM	33147	N	MET	B	83	169.195	167.711	-18.629	1.00	80.47	N	ATOM	33197	O	GLY	B	89	164.960	165.956	-7.726	1.00	81.64	O



ATOM	33198	N	MET B	90	164.018	166.088	-9.775	1.00	62.17	N	ATOM	33248	NE2	GLN B	95	179.424	158.704	-19.963	1.00	128.15	N
ATOM	33199	CA	MET B	90	164.196	164.678	-10.109	1.00	62.17	C	ATOM	33249	N	ARG B	96	175.795	155.221	-17.541	1.00	76.44	N
ATOM	33200	C	MET B	90	165.607	164.194	-10.442	1.00	62.17	C	ATOM	33250	CA	ARG B	96	175.499	153.797	-17.613	1.00	76.44	C
ATOM	33201	O	MET B	90	166.417	164.922	-11.022	1.00	62.17	O	ATOM	33251	C	ARG B	96	174.799	153.258	-16.389	1.00	76.44	C
ATOM	33202	CB	MET B	90	163.254	164.325	-11.258	1.00	74.62	C	ATOM	33252	O	ARG B	96	175.358	153.216	-15.303	1.00	76.44	O
ATOM	33203	CD	MET B	90	161.846	164.845	-11.038	1.00	74.62	C	ATOM	33253	CB	ARG B	96	176.778	152.996	-17.879	1.00	195.93	C
ATOM	33204	SE	MET B	90	161.173	164.313	-9.446	1.00	74.62	S	ATOM	33254	CG	ARG B	96	176.883	152.492	-19.315	1.00	195.93	C
ATOM	33205	CD	MET B	90	159.543	163.794	-9.960	1.00	74.62	C	ATOM	33255	CD	ARG B	96	176.792	153.638	-20.318	1.00	195.93	C
ATOM	33206	N	PRO B	91	165.915	162.942	-10.056	1.00	77.54	N	ATOM	33256	NE	ARG B	96	176.479	153.180	-21.670	1.00	195.93	N
ATOM	33207	CA	PRO B	91	167.205	162.288	-10.286	1.00	77.54	C	ATOM	33257	CZ	ARG B	96	176.259	153.990	-22.702	1.00	195.93	C
ATOM	33208	C	PRO B	91	167.200	161.653	-11.671	1.00	77.54	C	ATOM	33258	NH1	ARG B	96	176.320	155.305	-22.541	1.00	195.93	N
ATOM	33209	O	PRO B	91	166.141	161.504	-12.294	1.00	77.54	O	ATOM	33259	NH2	ARG B	96	175.970	153.485	-23.894	1.00	195.93	N
ATOM	33210	CB	PRO B	91	167.263	161.224	-9.185	1.00	72.16	C	ATOM	33260	N	TRP B	97	173.565	152.822	-16.586	1.00	37.78	N
ATOM	33211	CG	PRO B	91	166.266	161.675	-8.178	1.00	72.16	C	ATOM	33261	CA	TRP B	97	172.765	152.285	-15.502	1.00	37.78	C
ATOM	33212	CD	PRO B	91	165.157	162.193	-9.044	1.00	72.16	C	ATOM	33262	C	TRP B	97	173.379	151.075	-14.800	1.00	37.78	C
ATOM	33213	N	TYR B	92	168.379	161.269	-12.149	1.00	45.66	N	ATOM	33263	O	TRP B	97	173.173	149.949	-15.234	1.00	37.78	O
ATOM	33214	CA	TYR B	92	168.482	160.649	-13.463	1.00	45.66	C	ATOM	33264	CB	TRP B	97	171.388	151.900	-16.035	1.00	68.12	C
ATOM	33215	C	TYR B	92	169.713	159.756	-13.567	1.00	45.66	C	ATOM	33265	CG	TRP B	97	170.318	151.897	-14.995	1.00	68.12	C
ATOM	33216	O	TYR B	92	170.655	159.877	-12.777	1.00	45.66	O	ATOM	33266	CD1	TRP B	97	169.644	152.983	-14.485	1.00	68.12	C
ATOM	33217	CB	TYR B	92	168.544	161.739	-14.548	1.00	89.01	C	ATOM	33267	CD2	TRP B	97	169.775	150.759	-14.357	1.00	68.12	C
ATOM	33218	CG	TYR B	92	169.711	162.688	-14.377	1.00	89.01	C	ATOM	33268	NE1	TRP B	97	168.705	152.577	-13.569	1.00	68.12	N
ATOM	33219	CD1	TYR B	92	171.011	162.289	-14.684	1.00	89.01	C	ATOM	33269	CE2	TRP B	97	168.765	151.214	-13.473	1.00	68.12	C
ATOM	33220	CD2	TYR B	92	169.532	163.947	-13.815	1.00	89.01	C	ATOM	33270	CE3	TRP B	97	170.037	149.390	-14.445	1.00	68.12	C
ATOM	33221	CE1	TYR B	92	172.106	163.112	-14.424	1.00	89.01	C	ATOM	33271	CZ2	TRP B	97	168.023	150.350	-12.692	1.00	68.12	C
ATOM	33222	CE2	TYR B	92	170.619	164.780	-13.549	1.00	89.01	C	ATOM	33272	CZ3	TRP B	97	169.300	148.530	-13.673	1.00	68.12	C
ATOM	33223	CZ	TYR B	92	171.906	164.352	-13.849	1.00	89.01	C	ATOM	33273	CH2	TRP B	97	168.301	149.012	-12.805	1.00	68.12	C
ATOM	33224	OH	TYR B	92	172.989	165.137	-13.516	1.00	89.01	O	ATOM	33274	N	LEU B	98	174.109	151.298	-13.709	1.00	38.64	N
ATOM	33225	N	VAL B	93	169.671	158.828	-14.518	1.00	52.02	N	ATOM	33275	CA	LEU B	98	174.713	150.190	-12.960	1.00	38.64	C
ATOM	33226	CA	VAL B	93	170.812	157.962	-14.803	1.00	52.02	C	ATOM	33276	C	LEU B	98	173.676	149.135	-12.541	1.00	38.64	C
ATOM	33227	O	VAL B	93	171.077	158.252	-16.277	1.00	52.02	C	ATOM	33277	O	LEU B	98	172.561	149.457	-12.134	1.00	38.64	O
ATOM	33228	C	VAL B	93	170.283	157.888	-17.155	1.00	52.02	O	ATOM	33278	CB	LEU B	98	175.436	150.714	-11.719	1.00	36.12	C
ATOM	33229	CB	VAL B	93	170.514	156.471	-14.584	1.00	57.64	C	ATOM	33279	CG	LEU B	98	176.204	152.031	-11.899	1.00	36.12	C
ATOM	33230	CG1	VAL B	93	171.663	155.643	-15.144	1.00	57.64	C	ATOM	33280	CD1	LEU B	98	177.138	152.217	-10.718	1.00	36.12	C
ATOM	33231	CG2	VAL B	93	170.378	156.183	-13.090	1.00	57.64	C	ATOM	33281	CD2	LEU B	98	176.990	152.034	-13.187	1.00	36.12	C
ATOM	33232	N	ASN B	94	172.197	158.931	-16.520	1.00	55.43	N	ATOM	33282	N	GLY B	99	174.057	147.867	-12.645	1.00	45.61	N
ATOM	33233	CA	ASN B	94	172.580	159.382	-17.852	1.00	55.43	C	ATOM	33283	CA	GLY B	99	173.146	146.792	-12.309	1.00	45.61	C
ATOM	33234	C	ASN B	94	173.707	158.637	-18.563	1.00	55.43	C	ATOM	33284	C	GLY B	99	172.860	146.707	-10.837	1.00	45.61	C
ATOM	33235	O	ASN B	94	173.670	158.464	-19.779	1.00	55.43	O	ATOM	33285	O	GLY B	99	173.774	146.492	-10.037	1.00	45.61	O
ATOM	33236	CB	ASN B	94	172.927	160.864	-17.770	1.00	76.23	C	ATOM	33286	N	GLY B	100	171.589	146.880	-10.484	1.00	52.71	N
ATOM	33237	CG	ASN B	94	172.584	161.586	-19.026	1.00	76.23	C	ATOM	33287	CA	GLY B	100	171.172	146.822	-9.091	1.00	52.71	C
ATOM	33238	OD1	ASN B	94	171.702	161.151	-19.768	1.00	76.23	O	ATOM	33288	C	GLY B	100	170.935	148.178	-8.441	1.00	52.71	C
ATOM	33239	ND2	ASN B	94	173.259	162.701	-19.280	1.00	76.23	N	ATOM	33289	O	GLY B	100	170.785	148.268	-7.217	1.00	52.71	O
ATOM	33240	N	GLN B	95	174.720	158.225	-17.815	1.00	84.19	N	ATOM	33290	N	MET B	101	170.904	149.236	-9.248	1.00	57.25	N
ATOM	33241	CA	GLN B	95	175.812	157.494	-18.419	1.00	84.19	C	ATOM	33291	CA	MET B	101	170.679	150.570	-8.710	1.00	57.25	C
ATOM	33242	C	GLN B	95	175.471	156.021	-18.552	1.00	84.19	C	ATOM	33292	C	MET B	101	169.364	150.613	-7.940	1.00	57.25	C
ATOM	33243	O	GLN B	95	174.911	155.611	-19.567	1.00	84.19	O	ATOM	33293	O	MET B	101	169.251	151.313	-6.942	1.00	57.25	O
ATOM	33244	CB	GLN B	95	177.095	157.675	-17.614	1.00	128.15	C	ATOM	33294	CB	MET B	101	170.691	151.612	-9.828	1.00	43.88	C
ATOM	33245	CG	GLN B	95	177.912	158.866	-18.076	1.00	128.15	C	ATOM	33295	CG	MET B	101	172.075	151.832	-10.437	1.00	43.88	C
ATOM	33246	CD	GLN B	95	178.162	158.840	-19.575	1.00	128.15	C	ATOM	33296	SD	MET B	101	172.148	153.190	-11.644	1.00	43.88	S
ATOM	33247	OE1	GLN B	95	177.229	158.935	-20.373	1.00	128.15	O	ATOM	33297	CE	MET B	101	173.450	154.181	-10.950	1.00	43.88	C



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ATOM	33298	N	LEU B 102	168.370	149.861	-8.398	1.00	39.78	N	ATOM	33348	N	ILE B 108	174.453	150.464	-3.757	1.00	50.93	N
ATOM	33299	CA	LEU B 102	167.094	149.808	-7.702	1.00	39.78	C	ATOM	33349	CA	ILE B 108	174.811	151.515	-4.689	1.00	50.93	C
ATOM	33300	C	LEU B 102	167.046	148.537	-6.861	1.00	39.78	C	ATOM	33350	C	ILE B 108	174.585	152.868	-4.037	1.00	50.93	C
ATOM	33301	O	LEU B 102	166.790	148.557	-5.660	1.00	39.78	O	ATOM	33351	O	ILE B 108	174.905	153.904	-4.610	1.00	50.93	O
ATOM	33302	CB	LEU B 102	165.946	149.789	-8.700	1.00	34.30	C	ATOM	33352	CB	ILE B 108	173.993	151.396	-5.988	1.00	77.12	C
ATOM	33303	CG	LEU B 102	165.558	151.121	-9.326	1.00	34.30	C	ATOM	33353	CG1	ILE B 108	174.400	150.114	-6.708	1.00	77.12	C
ATOM	33304	CD1	LEU B 102	166.800	151.802	-9.858	1.00	34.30	C	ATOM	33354	CG2	ILE B 108	174.222	152.604	-6.896	1.00	77.12	C
ATOM	33305	CD2	LEU B 102	164.539	150.893	-10.441	1.00	34.30	C	ATOM	33355	CD1	ILE B 108	173.776	149.963	-8.071	1.00	77.12	C
ATOM	33306	N	THR B 103	167.312	147.420	-7.507	1.00	38.96	N	ATOM	33356	N	SER B 109	174.029	152.859	-2.832	1.00103.51	N	
ATOM	33307	CA	THR B 103	167.274	146.150	-6.836	1.00	38.96	C	ATOM	33357	CA	SER B 109	173.798	154.100	-2.105	1.00103.51	C	
ATOM	33308	C	THR B 103	168.355	146.007	-5.780	1.00	38.96	C	ATOM	33358	C	SER B 109	175.132	154.440	-1.466	1.00103.51	C	
ATOM	33309	O	THR B 103	168.206	145.221	-4.848	1.00	38.96	O	ATOM	33359	O	SER B 109	175.571	155.590	-1.478	1.00103.51	O	
ATOM	33310	CB	THR B 103	167.361	145.028	-7.860	1.00	43.70	C	ATOM	33360	CB	SER B 109	172.769	153.897	-1.001	1.00101.03	C	
ATOM	33311	OG1	THR B 103	166.186	145.065	-8.681	1.00	43.70	O	ATOM	33361	OG	SER B 109	173.368	153.244	0.108	1.00101.03	O	
ATOM	33312	CG2	THR B 103	167.422	143.704	-7.192	1.00	43.70	C	ATOM	33362	N	GLN B 110	175.764	153.416	-0.902	1.00	63.82	N
ATOM	33313	N	ASN B 104	169.443	146.758	-5.905	1.00	54.74	N	ATOM	33363	CA	GLN B 110	177.054	153.569	-0.255	1.00	63.82	C
ATOM	33314	CA	ASN B 104	170.498	146.673	-4.899	1.00	54.74	C	ATOM	33364	C	GLN B 110	178.032	154.226	-1.206	1.00	63.82	C
ATOM	33315	C	ASN B 104	170.802	148.074	-4.411	1.00	54.74	C	ATOM	33365	O	GLN B 110	178.997	154.870	-0.785	1.00	63.82	O
ATOM	33316	O	ASN B 104	171.953	148.418	-4.152	1.00	54.74	O	ATOM	33366	CB	GLN B 110	177.589	152.213	0.171	1.00	91.26	C
ATOM	33317	CB	ASN B 104	171.762	146.024	-5.474	1.00	51.95	C	ATOM	33367	CG	GLN B 110	176.746	151.552	1.220	1.00	91.26	C
ATOM	33318	CG	ASN B 104	172.759	145.619	-4.391	1.00	51.95	C	ATOM	33368	CD	GLN B 110	177.319	150.231	1.649	1.00	91.26	C
ATOM	33319	OD1	ASN B 104	172.470	145.708	-3.199	1.00	51.95	O	ATOM	33369	OE1	GLN B 110	177.509	149.335	0.831	1.00	91.26	O
ATOM	33320	ND2	ASN B 104	173.935	145.163	-4.807	1.00	51.95	N	ATOM	33370	NE2	GLN B 110	177.603	150.099	2.940	1.00	91.26	N
ATOM	33321	N	PHE B 105	169.739	148.862	-4.268	1.00	66.81	N	ATOM	33371	N	ARG B 111	177.788	154.058	-2.497	1.00	78.94	N
ATOM	33322	CA	PHE B 105	169.806	150.258	-3.831	1.00	66.81	C	ATOM	33372	CA	ARG B 111	178.651	154.663	-3.490	1.00	78.94	C
ATOM	33323	C	PHE B 105	170.596	150.608	-2.572	1.00	66.81	O	ATOM	33373	C	ARG B 111	178.389	156.164	-3.587	1.00	78.94	C
ATOM	33324	O	PHE B 105	171.317	151.600	-2.559	1.00	66.81	O	ATOM	33374	O	ARG B 111	179.201	156.906	-4.134	1.00	78.94	O
ATOM	33325	CB	PHE B 105	168.397	150.821	-3.661	1.00	57.17	C	ATOM	33375	CB	ARG B 111	178.452	153.980	-4.839	1.00	68.56	C
ATOM	33326	CG	PHE B 105	168.367	152.307	-3.432	1.00	57.17	C	ATOM	33376	CG	ARG B 111	179.159	152.645	-4.936	1.00	68.56	C
ATOM	33327	CD1	PHE B 105	168.624	153.191	-4.478	1.00	57.17	C	ATOM	33377	CD	ARG B 111	180.657	152.856	-4.953	1.00	68.56	C
ATOM	33328	CD2	PHE B 105	168.065	152.828	-2.182	1.00	57.17	C	ATOM	33378	NE	ARG B 111	181.306	152.545	-3.681	1.00	68.56	N
ATOM	33329	CE1	PHE B 105	168.575	154.572	-4.284	1.00	57.17	C	ATOM	33379	CZ	ARG B 111	182.582	152.823	-3.422	1.00	68.56	C
ATOM	33330	CE2	PHE B 105	168.016	154.205	-1.982	1.00	57.17	C	ATOM	33380	NH1	ARG B 111	183.332	153.423	-4.343	1.00	68.56	N
ATOM	33331	CZ	PHE B 105	168.271	155.078	-3.040	1.00	57.17	C	ATOM	33381	NH2	ARG B 111	183.117	152.486	-2.253	1.00	68.56	N
ATOM	33332	N	LYS B 106	170.462	149.828	-1.509	1.00	64.26	N	ATOM	33382	N	VAL B 112	177.254	156.613	-3.057	1.00	66.27	N
ATOM	33333	CA	LYS B 106	171.185	150.188	-0.304	1.00	64.26	C	ATOM	33383	CA	VAL B 112	176.951	158.041	-3.070	1.00	66.27	C
ATOM	33334	C	LYS B 106	172.691	150.084	-0.471	1.00	64.26	C	ATOM	33384	C	VAL B 112	177.452	158.622	-1.753	1.00	66.27	C
ATOM	33335	O	LYS B 106	173.442	150.667	0.314	1.00	64.26	O	ATOM	33385	O	VAL B 112	177.859	159.775	-1.697	1.00	66.27	O
ATOM	33336	CB	LYS B 106	170.756	149.345	0.901	1.00101.67	C	ATOM	33386	CB	VAL B 112	175.444	158.332	-3.221	1.00	46.72	C	
ATOM	33337	CG	LYS B 106	171.243	149.953	2.219	1.00101.67	C	ATOM	33387	CG1	VAL B 112	175.231	159.814	-3.517	1.00	46.72	C	
ATOM	33338	CD	LYS B 106	171.314	148.950	3.359	1.00101.67	C	ATOM	33388	CG2	VAL B 112	174.861	157.489	-4.347	1.00	46.72	C	
ATOM	33339	CE	LYS B 106	169.940	148.560	3.891	1.00101.67	C	ATOM	33389	N	HIS B 113	177.434	157.817	-0.694	1.00	67.02	N	
ATOM	33340	NZ	LYS B 106	170.047	147.599	5.037	1.00101.67	N	ATOM	33390	CA	HIS B 113	177.934	158.277	0.597	1.00	67.02	C	
ATOM	33341	N	THR B 107	173.142	149.342	-1.475	1.00	63.06	N	ATOM	33391	C	HIS B 113	179.426	158.489	0.459	1.00	67.02	C
ATOM	33342	CA	THR B 107	174.576	149.204	-1.699	1.00	63.06	C	ATOM	33392	O	HIS B 113	180.028	159.273	1.183	1.00	67.02	O
ATOM	33343	C	THR B 107	175.060	150.342	-2.581	1.00	63.06	C	ATOM	33393	CB	HIS B 113	177.659	157.251	1.693	1.00115.79	C	
ATOM	33344	O	THR B 107	175.959	151.099	-2.200	1.00	63.06	O	ATOM	33394	CG	HIS B 113	176.220	157.173	2.088	1.00115.79	C	
ATOM	33345	CB	THR B 107	174.915	147.961	-2.365	1.00	51.50	C	ATOM	33395	ND1	HIS B 113	175.474	158.292	2.388	1.00115.79	N	
ATOM	33346	OG1	THR B 107	174.879	146.821	-1.393	1.00	51.50	O	ATOM	33396	CD2	HIS B 113	175.387	156.116	2.227	1.00115.79	C	
ATOM	33347	CG2	THR B 107	176.223	147.573	-2.073	1.00	51.50	C	ATOM	33397	CE1	HIS B 113	174.242	157.928	2.694	1.00115.79	C	



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ATOM	33398	NE2	HIS	B	113	174.162	156.612	2.604	1.00115.79	N	ATOM	33448	CB	GLU	B	119	182.694	166.251	-2.514	1.00112.27	C
ATOM	33399	N	ARG	B	114	180.022	157.771	-0.481	1.00 90.29	N	ATOM	33449	CG	GLU	B	119	182.222	165.464	-3.714	1.00112.27	C
ATOM	33400	CA	ARG	B	114	181.442	157.904	-0.733	1.00 90.29	C	ATOM	33450	CD	GLU	B	119	180.849	165.898	-4.164	1.00112.27	C
ATOM	33401	C	ARG	B	114	181.634	159.229	-1.454	1.00 90.29	C	ATOM	33451	OE1	GLU	B	119	179.974	166.051	-3.287	1.00112.27	O
ATOM	33402	O	ARG	B	114	182.437	160.059	-1.040	1.00 90.29	O	ATOM	33452	OE2	GLU	B	119	180.644	166.083	-5.384	1.00112.27	O
ATOM	33403	CB	ARG	B	114	181.932	156.762	-1.619	1.00 83.70	C	ATOM	33453	N	ALA	B	120	184.333	166.191	0.350	1.00123.76	N
ATOM	33404	CG	ARG	B	114	183.055	155.929	-1.019	1.00 83.70	C	ATOM	33454	CA	ALA	B	120	184.641	166.885	1.591	1.00123.76	C
ATOM	33405	CD	ARG	B	114	184.327	156.730	-0.775	1.00 83.70	C	ATOM	33455	C	ALA	B	120	186.147	166.999	1.780	1.00123.76	C
ATOM	33406	NE	ARG	B	114	185.465	155.841	-0.547	1.00 83.70	N	ATOM	33456	O	ALA	B	120	186.646	168.037	2.204	1.00123.76	O
ATOM	33407	CZ	ARG	B	114	186.674	156.245	-0.171	1.00 83.70	C	ATOM	33457	CB	ALA	B	120	184.027	166.147	2.763	1.00 67.56	C
ATOM	33408	NH1	ARG	B	114	186.911	157.535	0.028	1.00 83.70	N	ATOM	33458	N	LEU	B	121	186.870	165.930	1.468	1.00102.74	N
ATOM	33409	NH2	ARG	B	114	187.649	155.358	-0.003	1.00 83.70	N	ATOM	33459	CA	LEU	B	121	188.320	165.938	1.607	1.00102.74	C
ATOM	33410	N	LEU	B	115	180.877	159.421	-2.530	1.00 76.29	N	ATOM	33460	C	LEU	B	121	189.026	166.761	0.532	1.00102.74	C
ATOM	33411	CA	LEU	B	115	180.907	161.877	-2.441	1.00 76.29	C	ATOM	33461	O	LEU	B	121	190.173	167.168	0.713	1.00102.74	O
ATOM	33412	C	LEU	B	115	180.907	161.877	-2.441	1.00 76.29	C	ATOM	33462	CB	LEU	B	121	188.868	164.512	1.593	1.00 93.34	C
ATOM	33413	O	LEU	B	115	181.678	162.818	-2.634	1.00 76.29	O	ATOM	33463	CG	LEU	B	121	188.758	163.737	2.905	1.00 93.34	C
ATOM	33414	CB	LEU	B	115	179.830	160.685	-4.346	1.00 59.76	C	ATOM	33464	CD1	LEU	B	121	189.417	162.373	2.737	1.00 93.34	C
ATOM	33415	CG	LEU	B	115	179.657	162.022	-5.081	1.00 59.76	C	ATOM	33465	CD2	LEU	B	121	189.427	164.528	4.028	1.00 93.34	C
ATOM	33416	CD1	LEU	B	115	181.001	162.518	-5.582	1.00 59.76	C	ATOM	33466	N	PHE	B	122	188.351	167.090	-0.586	1.00124.38	N
ATOM	33417	CD2	LEU	B	115	178.688	161.861	-6.250	1.00 59.76	C	ATOM	33467	CA	PHE	B	122	188.943	167.792	-1.662	1.00124.38	C
ATOM	33418	N	GLU	B	116	179.999	161.877	-1.471	1.00 76.46	N	ATOM	33468	C	PHE	B	122	188.481	169.238	-1.568	1.00124.38	C
ATOM	33419	CA	GLU	B	116	179.864	163.010	-0.570	1.00 76.46	C	ATOM	33469	O	PHE	B	122	188.314	169.924	-2.576	1.00124.38	O
ATOM	33420	C	GLU	B	116	181.106	163.094	0.293	1.00 76.46	C	ATOM	33470	CB	PHE	B	122	188.573	167.195	-3.024	1.00141.27	C
ATOM	33421	O	GLU	B	116	181.737	164.142	0.389	1.00 76.46	O	ATOM	33471	CG	PHE	B	122	189.343	165.948	-3.369	1.00141.27	C
ATOM	33422	CB	GLU	B	116	178.606	162.850	0.285	1.00 79.55	C	ATOM	33472	CD1	PHE	B	122	189.440	164.897	-2.458	1.00141.27	C
ATOM	33423	CG	GLU	B	116	177.347	162.833	-0.576	1.00 79.55	C	ATOM	33473	CD2	PHE	B	122	189.970	165.821	-4.605	1.00141.27	C
ATOM	33424	CD	GLU	B	116	176.052	162.709	0.207	1.00 79.55	C	ATOM	33474	CE1	PHE	B	122	190.150	163.737	-2.776	1.00141.27	C
ATOM	33425	OE1	GLU	B	116	175.941	161.784	1.045	1.00 79.55	O	ATOM	33475	CE2	PHE	B	122	190.582	164.666	-4.933	1.00141.27	C
ATOM	33426	OE2	GLU	B	116	175.139	163.532	-0.032	1.00 79.55	O	ATOM	33476	CZ	PHE	B	122	190.772	163.622	-4.017	1.00141.27	C
ATOM	33427	N	GLU	B	117	181.473	161.972	0.893	1.00 74.21	N	ATOM	33477	N	ALA	B	123	188.283	169.686	-0.335	1.00171.14	N
ATOM	33428	CA	GLU	B	117	182.646	161.922	1.744	1.00 74.21	C	ATOM	33478	CA	ALA	B	123	187.846	171.044	-0.039	1.00171.14	C
ATOM	33429	C	GLU	B	117	183.909	162.414	1.051	1.00 74.21	C	ATOM	33479	C	ALA	B	123	188.068	171.243	1.461	1.00171.14	C
ATOM	33430	O	GLU	B	117	184.704	163.129	1.655	1.00 74.21	O	ATOM	33480	O	ALA	B	123	187.672	172.257	2.038	1.00171.14	O
ATOM	33431	CB	GLU	B	117	182.873	160.503	2.247	1.00 98.56	C	ATOM	33481	CB	ALA	B	123	186.351	171.216	-0.402	1.00 36.98	C
ATOM	33432	CG	GLU	B	117	184.088	160.382	3.128	1.00 98.56	C	ATOM	33482	N	SER	B	124	188.723	170.257	2.072	1.00104.76	N
ATOM	33433	CD	GLU	B	117	184.269	158.986	3.659	1.00 98.56	C	ATOM	33483	CA	SER	B	124	189.014	170.254	3.505	1.00104.76	C
ATOM	33434	OE1	GLU	B	117	184.395	158.057	2.833	1.00 98.56	O	ATOM	33484	C	SER	B	124	190.501	170.521	3.784	1.00104.76	C
ATOM	33435	OE2	GLU	B	117	184.283	158.817	4.899	1.00 98.56	O	ATOM	33485	O	SER	B	124	191.215	171.039	2.923	1.00104.76	O
ATOM	33436	N	LEU	B	118	184.107	162.032	-0.207	1.00116.25	N	ATOM	33486	CB	SER	B	124	188.595	168.904	4.106	1.00150.16	C
ATOM	33437	CA	LEU	B	118	185.301	162.465	-0.926	1.00116.25	C	ATOM	33487	OG	SER	B	124	189.452	167.855	3.685	1.00150.16	O
ATOM	33438	C	LEU	B	118	185.302	163.957	-1.209	1.00116.25	C	ATOM	33488	N	PRO	B	125	190.984	170.191	5.000	1.00179.86	N
ATOM	33439	O	LEU	B	118	186.297	164.635	-0.953	1.00116.25	O	ATOM	33489	CA	PRO	B	125	192.401	170.439	5.277	1.00179.86	C
ATOM	33440	CB	LEU	B	118	185.465	161.707	-2.247	1.00 73.23	C	ATOM	33490	C	PRO	B	125	193.311	169.315	4.793	1.00179.86	C
ATOM	33441	CG	LEU	B	118	185.989	160.267	-2.200	1.00 73.23	C	ATOM	33491	O	PRO	B	125	194.295	169.552	4.094	1.00179.86	O
ATOM	33442	CD1	LEU	B	118	186.495	159.866	-3.587	1.00 73.23	C	ATOM	33492	CB	PRO	B	125	192.427	170.576	6.794	1.00170.60	C
ATOM	33443	CD2	LEU	B	118	187.116	160.158	-1.190	1.00 73.23	C	ATOM	33493	CG	PRO	B	125	191.405	169.575	7.214	1.00170.60	C
ATOM	33444	N	GLU	B	119	184.195	164.471	-1.734	1.00 63.04	N	ATOM	33494	CD	PRO	B	125	190.271	169.862	6.251	1.00170.60	C
ATOM	33445	CA	GLU	B	119	184.104	165.899	-2.046	1.00 63.04	C	ATOM	33495	N	GLU	B	126	192.964	168.091	5.174	1.00145.67	N
ATOM	33446	C	GLU	B	119	184.469	166.769	-0.941	1.00 63.04	C	ATOM	33496	CA	GLU	B	126	193.733	166.904	4.826	1.00145.67	C
ATOM	33447	O	GLU	B	119	184.555	167.932	-0.393	1.00 63.04	O	ATOM	33497	C	GLU	B	126	194.021	166.739	3.336	1.00145.67	C



ATOM	33498	O	GLU	B	126	194.658	165.763	2.932	1.00145.67	O	ATOM	33548	N	LYS	B	132	200.888	161.353	-2.864	1.00180.59
ATOM	33499	CB	GLU	B	126	193.004	165.673	5.352	1.00181.84	C	ATOM	33549	CA	LYS	B	132	199.792	161.800	-3.919	1.00180.59
ATOM	33500	CG	GLU	B	126	192.617	165.803	6.811	1.00181.84	C	ATOM	33550	C	LYS	B	132	199.244	160.606	-4.683	1.00180.59
ATOM	33501	CD	GLU	B	126	191.747	164.664	7.293	1.00181.84	C	ATOM	33551	O	LYS	B	132	198.347	160.752	-5.509	1.00180.59
ATOM	33502	OE1	GLU	B	126	190.670	164.460	6.685	1.00181.84	O	ATOM	33552	CB	LYS	B	132	200.508	162.750	-4.877	1.00107.82
ATOM	33503	OE2	GLU	B	126	192.139	163.977	8.250	1.00181.84	O	ATOM	33553	CG	LYS	B	132	200.868	164.083	-4.254	1.00107.82
ATOM	33504	N	ILE	B	127	193.552	167.687	2.526	1.00200.89	N	ATOM	33554	CE	LYS	B	132	201.332	165.070	-5.304	1.00107.82
ATOM	33505	CA	ILE	B	127	193.769	167.643	1.082	1.00200.89	C	ATOM	33555	CD	LYS	B	132	201.661	166.410	-4.674	1.00107.82
ATOM	33506	C	ILE	B	127	195.230	167.315	0.796	1.00200.89	C	ATOM	33556	NZ	LYS	B	132	202.031	167.433	-5.692	1.00107.82
ATOM	33507	O	ILE	B	127	195.547	166.249	0.269	1.00200.89	O	ATOM	33557	N	LYS	B	133	199.786	159.422	-4.404	1.00200.93
ATOM	33508	CB	ILE	B	127	193.440	168.998	0.405	1.00101.21	C	ATOM	33558	CA	LYS	B	133	199.312	158.211	-5.062	1.00200.93
ATOM	33509	CG1	ILE	B	127	192.000	169.412	0.711	1.00101.21	C	ATOM	33559	C	LYS	B	133	197.864	158.007	-4.642	1.00200.93
ATOM	33510	CG2	ILE	B	127	193.614	168.879	-1.098	1.00101.21	C	ATOM	33560	O	LYS	B	133	197.141	157.192	-5.212	1.00200.93
ATOM	33511	CD1	ILE	B	127	191.583	170.719	0.055	1.00101.21	C	ATOM	33561	CB	LYS	B	133	200.171	157.006	-4.663	1.00189.05
ATOM	33512	N	GLU	B	128	196.115	168.242	1.152	1.00159.40	N	ATOM	33562	CG	LYS	B	133	201.594	157.087	-5.200	1.00189.05
ATOM	33513	CA	GLU	B	128	197.544	168.059	0.943	1.00159.40	C	ATOM	33563	CE	LYS	B	133	202.362	155.790	-5.018	1.00189.05
ATOM	33514	C	GLU	B	128	198.186	167.216	2.045	1.00159.40	C	ATOM	33564	CD	LYS	B	133	203.733	155.896	-5.675	1.00189.05
ATOM	33515	O	GLU	B	128	199.112	167.662	2.721	1.00159.40	O	ATOM	33565	NZ	LYS	B	133	204.506	154.619	-5.574	1.00189.05
ATOM	33516	CB	GLU	B	128	198.250	169.418	0.852	1.00125.52	C	ATOM	33566	N	GLU	B	134	197.458	158.768	-3.632	1.00156.19
ATOM	33517	CG	GLU	B	128	198.079	170.150	-0.480	1.00125.52	C	ATOM	33567	CA	GLU	B	134	196.098	158.743	-3.121	1.00156.19
ATOM	33518	CD	GLU	B	128	196.655	170.611	-0.745	1.00125.52	C	ATOM	33568	C	GLU	B	134	195.449	160.031	-3.610	1.00156.19
ATOM	33519	OE1	GLU	B	128	196.126	171.425	0.041	1.00125.52	O	ATOM	33569	O	GLU	B	134	194.302	160.034	-4.051	1.00156.19
ATOM	33520	OE2	GLU	B	128	196.065	170.163	-1.749	1.00125.52	O	ATOM	33570	CB	GLU	B	134	196.103	158.708	-1.595	1.00154.52
ATOM	33521	N	GLU	B	129	197.681	166.000	2.227	1.00139.33	N	ATOM	33571	CG	GLU	B	134	196.637	157.419	-1.007	1.00154.52
ATOM	33522	CA	GLU	B	129	198.390	163.703	2.588	1.00139.33	C	ATOM	33572	CD	GLU	B	134	196.718	157.470	0.504	1.00154.52
ATOM	33523	C	GLU	B	129	197.744	163.392	1.589	1.00139.33	C	ATOM	33573	OE1	GLU	B	134	197.527	158.264	1.026	1.00154.52
ATOM	33524	O	GLU	B	129	197.279	164.957	4.421	1.00189.24	C	ATOM	33574	OE2	GLU	B	134	195.970	156.725	1.170	1.00154.52
ATOM	33525	CB	GLU	B	129	197.459	166.040	5.459	1.00189.24	C	ATOM	33575	N	GLN	B	135	196.206	161.123	-3.537	1.00126.94
ATOM	33526	CG	GLU	B	129	196.862	165.648	6.794	1.00189.24	C	ATOM	33576	CA	GLN	B	135	195.736	162.429	-3.992	1.00126.94
ATOM	33527	CD	GLU	B	129	195.633	165.439	6.858	1.00189.24	C	ATOM	33577	C	GLN	B	135	195.541	162.347	-5.502	1.00126.94
ATOM	33528	OE1	GLU	B	129	195.633	165.439	6.858	1.00189.24	O	ATOM	33578	O	GLN	B	135	195.253	163.343	-6.169	1.00126.94
ATOM	33529	OE2	GLU	B	129	197.626	165.541	7.779	1.00189.24	O	ATOM	33579	CB	GLN	B	135	196.766	163.512	-3.649	1.00148.02
ATOM	33530	N	ARG	B	130	199.259	162.883	3.174	1.00148.23	N	ATOM	33580	CG	GLN	B	135	196.346	164.929	-4.023	1.00148.02
ATOM	33531	CA	ARG	B	130	199.511	161.547	2.644	1.00148.23	C	ATOM	33581	CD	GLN	B	135	197.351	165.973	-3.571	1.00148.02
ATOM	33532	C	ARG	B	130	200.102	161.648	1.240	1.00148.23	C	ATOM	33582	OE1	GLN	B	135	198.531	165.896	-3.904	1.00148.02
ATOM	33533	O	ARG	B	130	200.062	162.709	0.615	1.00148.23	C	ATOM	33583	NE2	GLN	B	135	196.885	166.959	-2.811	1.00148.02
ATOM	33534	CB	ARG	B	130	198.209	160.742	2.596	1.00200.93	C	ATOM	33584	N	VAL	B	136	195.714	161.136	-6.025	1.00106.00
ATOM	33535	CG	ARG	B	130	197.755	160.168	3.929	1.00200.93	C	ATOM	33585	CA	VAL	B	136	195.556	160.849	-7.443	1.00106.00
ATOM	33536	CD	ARG	B	130	198.696	159.073	4.407	1.00200.93	C	ATOM	33586	C	VAL	B	136	194.471	159.793	-7.605	1.00106.00
ATOM	33537	NE	ARG	B	130	198.048	158.185	5.369	1.00200.93	N	ATOM	33587	O	VAL	B	136	193.500	160.009	-8.327	1.00106.00
ATOM	33538	CZ	ARG	B	130	198.626	157.120	5.915	1.00200.93	C	ATOM	33588	CB	VAL	B	136	196.870	160.320	-8.064	1.00140.83
ATOM	33539	NH1	ARG	B	130	199.875	156.805	5.599	1.00200.93	N	ATOM	33589	CG1	VAL	B	136	196.597	159.725	-9.439	1.00140.83
ATOM	33540	NH2	ARG	B	130	197.950	156.361	6.766	1.00200.93	N	ATOM	33590	CG2	VAL	B	136	197.880	161.452	-8.176	1.00140.83
ATOM	33541	N	PRO	B	131	200.656	160.541	0.719	1.00148.72	N	ATOM	33591	N	ARG	B	137	194.640	158.656	-6.931	1.00157.73
ATOM	33542	CA	PRO	B	131	201.236	160.594	-0.626	1.00148.72	C	ATOM	33592	CA	ARG	B	137	193.656	157.579	-6.997	1.00157.73
ATOM	33543	C	PRO	B	131	200.220	161.071	-1.653	1.00148.72	C	ATOM	33593	C	ARG	B	137	192.305	158.110	-6.552	1.00157.73
ATOM	33544	O	PRO	B	131	199.033	161.193	-1.351	1.00148.72	O	ATOM	33594	O	ARG	B	137	191.286	157.874	-7.202	1.00157.73
ATOM	33545	CB	PRO	B	131	201.676	159.152	-0.868	1.00163.20	C	ATOM	33595	CB	ARG	B	137	194.052	156.409	-6.095	1.00125.63
ATOM	33546	CG	PRO	B	131	200.689	158.359	-0.059	1.00163.20	C	ATOM	33596	CG	ARG	B	137	195.218	155.579	-6.597	1.00125.63
ATOM	33547	CD	PRO	B	131	200.629	159.155	1.220	1.00163.20	C	ATOM	33597	CD	ARG	B	137	195.395	154.306	-5.766	1.00125.63



Table 1: Sheet 338/521

ATOM	33598	NE	ARG B 137	195.468	154.570	-4.328	1.00125.63	N	33648	C	GLU B 143	184.847	160.519	-11.782	1.00	87.67	C
ATOM	33599	CZ	ARG B 137	194.415	154.660	-3.518	1.00125.63	C	33649	O	GLU B 143	183.848	161.011	-12.315	1.00	87.67	O
ATOM	33600	NH1	ARG B 137	193.186	154.503	-3.995	1.00125.63	N	33650	CB	GLU B 143	187.278	160.964	-12.060	1.00162.62	C	
ATOM	33601	NH2	ARG B 137	194.591	154.916	-2.229	1.00125.63	N	33651	CG	GLU B 143	188.438	161.932	-11.927	1.00162.62	C	
ATOM	33602	N	LEU B 138	192.297	158.819	-5.429	1.00	94.70	33652	CD	GLU B 143	188.138	163.282	-12.543	1.00162.62	C	
ATOM	33603	CA	LEU B 138	191.061	159.390	-4.928	1.00	94.70	33653	OE1	GLU B 143	187.958	163.348	-13.778	1.00162.62	O	
ATOM	33604	C	LEU B 138	190.535	160.322	-6.009	1.00	94.70	33654	OE2	GLU B 143	188.077	164.278	-11.792	1.00162.62	O	
ATOM	33605	O	LEU B 138	189.381	160.215	-6.415	1.00	94.70	33655	N	ARG B 144	184.986	159.216	-11.540	1.00	75.55	N
ATOM	33606	CB	LEU B 138	191.304	160.155	-3.624	1.00	81.70	33656	CA	ARG B 144	183.954	158.266	-11.930	1.00	75.55	C
ATOM	33607	CG	LEU B 138	191.954	159.374	-2.472	1.00	81.70	33657	O	ARG B 144	182.648	158.440	-11.163	1.00	75.55	C
ATOM	33608	CD1	LEU B 138	191.658	160.106	-1.170	1.00	81.70	33658	C	ARG B 144	181.583	158.531	-11.781	1.00	75.55	O
ATOM	33609	CD2	LEU B 138	191.422	157.947	-2.397	1.00	81.70	33659	CB	ARG B 144	184.448	156.819	-11.787	1.00101.16	C	
ATOM	33610	N	LYS B 139	191.391	161.222	-6.485	1.00103.86	N	33660	CG	ARG B 144	184.752	156.355	-10.370	1.00101.16	C	
ATOM	33611	CA	LYS B 139	191.011	162.151	-7.546	1.00103.86	C	33661	CD	ARG B 144	184.430	154.870	-10.216	1.00101.16	C	
ATOM	33612	C	LYS B 139	190.247	161.407	-8.634	1.00103.86	C	33662	NE	ARG B 144	184.711	154.118	-11.438	1.00101.16	C	
ATOM	33613	O	LYS B 139	189.372	161.975	-9.283	1.00103.86	O	33663	CZ	ARG B 144	184.437	152.828	-11.611	1.00101.16	N	
ATOM	33614	CB	LYS B 139	192.252	162.792	-8.168	1.00160.52	C	33664	NH1	ARG B 144	183.874	152.123	-10.637	1.00101.16	N	
ATOM	33615	CG	LYS B 139	192.528	164.210	-7.716	1.00160.52	C	33665	NH2	ARG B 144	184.713	152.244	-12.768	1.00101.16	N	
ATOM	33616	CD	LYS B 139	191.390	165.141	-8.091	1.00160.52	C	33666	N	LEU B 145	182.718	158.483	-9.831	1.00	57.14	N
ATOM	33617	CE	LYS B 139	191.797	166.588	-7.889	1.00160.52	C	33667	CA	LEU B 145	181.514	158.646	-9.029	1.00	57.14	C
ATOM	33618	NZ	LYS B 140	192.371	166.817	-6.536	1.00160.52	N	33668	C	LEU B 145	180.692	159.774	-9.595	1.00	57.14	C
ATOM	33619	N	HIS B 140	190.594	160.136	-8.830	1.00175.20	N	33669	O	LEU B 145	179.481	159.645	-9.754	1.00	57.14	O
ATOM	33620	CA	HIS B 140	189.937	159.304	-9.831	1.00175.20	C	33670	CB	LEU B 145	181.859	158.932	-7.580	1.00	38.51	C
ATOM	33621	C	HIS B 140	188.563	158.869	-9.333	1.00175.20	C	33671	CG	LEU B 145	182.451	157.700	-6.898	1.00	38.51	C
ATOM	33622	O	HIS B 140	187.574	159.011	-10.047	1.00175.20	O	33672	CD1	LEU B 145	182.751	157.959	-5.410	1.00	38.51	C
ATOM	33623	CB	HIS B 140	190.778	158.062	-10.157	1.00149.25	C	33673	CD2	LEU B 145	181.462	156.561	-7.055	1.00	38.51	C
ATOM	33624	CG	HIS B 140	192.135	158.370	-10.715	1.00149.25	C	33674	N	GLN B 146	181.351	160.877	-9.917	1.00	47.95	N
ATOM	33625	ND1	HIS B 140	192.339	159.300	-11.712	1.00149.25	N	33675	CA	GLN B 146	180.657	162.014	-10.496	1.00	47.95	C
ATOM	33626	CD2	HIS B 140	193.354	157.849	-10.433	1.00149.25	C	33676	C	GLN B 146	180.133	161.662	-11.885	1.00	47.95	C
ATOM	33627	CEL	HIS B 140	193.624	159.340	-12.018	1.00149.25	C	33677	O	GLN B 146	179.161	162.249	-12.354	1.00	47.95	O
ATOM	33628	NE2	HIS B 140	194.261	158.469	-11.257	1.00149.25	N	33678	CB	GLN R 146	181.596	163.222	-10.591	1.00103.08	C	
ATOM	33629	N	GLU B 141	188.499	158.336	-8.113	1.00	90.27	33679	CG	GLN B 146	181.726	164.038	-9.306	1.00103.08	C	
ATOM	33630	CA	GLU B 141	186.157	158.958	-7.824	1.00	90.27	33680	CD	GLN B 146	183.165	164.170	-8.838	1.00103.08	C	
ATOM	33631	C	GLU B 141	187.218	157.905	-7.556	1.00	90.27	33681	OE1	GLN B 146	184.088	164.270	-9.648	1.00103.08	O	
ATOM	33632	O	GLU B 141	185.126	158.669	-8.425	1.00	90.27	33682	NE2	GLN B 146	183.361	164.186	-7.525	1.00103.08	N	
ATOM	33633	CB	GLU B 141	187.313	157.684	-6.052	1.00	85.10	33683	N	LYS B 147	180.773	160.699	-12.542	1.00	70.90	N
ATOM	33634	CG	GLU B 141	188.040	156.430	-5.645	1.00	85.10	33684	CA	LYS B 147	180.367	160.299	-13.888	1.00	70.90	C
ATOM	33635	CD	GLU B 141	187.673	156.008	-4.236	1.00	85.10	33685	C	LYS B 147	179.077	159.500	-13.942	1.00	70.90	C
ATOM	33636	OE1	GLU B 141	187.788	156.838	-3.312	1.00	85.10	33686	O	LYS B 147	178.244	159.727	-14.820	1.00	70.90	O
ATOM	33637	OE2	GLU B 141	187.263	154.847	-4.047	1.00	85.10	33687	CB	LYS B 147	181.469	159.475	-14.567	1.00114.55	C	
ATOM	33638	N	LEU B 142	186.410	160.180	-7.369	1.00	77.28	33688	CG	LYS B 147	182.717	160.255	-14.923	1.00114.55	C	
ATOM	33639	CA	LEU B 142	185.465	161.260	-7.589	1.00	77.28	33689	CD	LYS B 147	183.800	159.341	-15.489	1.00114.55	C	
ATOM	33640	C	LEU B 142	185.130	161.314	-9.064	1.00	77.28	33690	CE	LYS B 147	185.125	160.089	-15.673	1.00114.55	C	
ATOM	33641	O	LEU B 142	183.958	161.320	-9.437	1.00	77.28	33691	NZ	LYS B 147	186.247	159.185	-16.058	1.00114.55	N	
ATOM	33642	CB	LEU B 142	186.049	162.606	-7.155	1.00	86.81	33692	N	TYR B 148	178.918	158.569	-13.005	1.00	87.54	N
ATOM	33643	CG	LEU B 142	186.034	162.949	-5.665	1.00	86.81	33693	CA	TYR B 148	177.750	157.689	-12.969	1.00	87.54	C
ATOM	33644	CD1	LEU B 142	186.589	164.347	-5.480	1.00	86.81	33694	C	TYR B 148	176.710	158.042	-11.907	1.00	87.54	C
ATOM	33645	CD2	LEU B 142	184.617	162.880	-5.117	1.00	86.81	33695	O	TYR B 148	175.515	157.799	-12.082	1.00	87.54	O
ATOM	33646	N	GLU B 143	186.168	161.346	-9.896	1.00	87.67	33696	CB	TYR B 148	178.229	156.248	-12.765	1.00109.33	C	
ATOM	33647	CA	GLU B 143	185.997	161.405	-11.343	1.00	87.67	33697	CG	TYR B 148	179.293	155.827	-13.759	1.00109.33	C	



Table 1: Sheet 339/521

ATOM	33698	CD1 TYR B 148	180.308	154.939	-13.399	1.00109.33	C	ATOM	33748	CB LEU B 154	168.378	163.470	-6.070	1.00	77.17	C
ATOM	33699	CD2 TYR B 148	179.300	156.342	-15.057	1.00109.33	C	ATOM	33749	CG LEU B 154	168.950	164.552	-6.986	1.00	77.17	C
ATOM	33700	CE1 TYR B 148	181.308	154.583	-14.309	1.00109.33	C	ATOM	33750	CD1 LEU B 154	167.801	165.328	-7.621	1.00	77.17	C
ATOM	33701	CE2 TYR B 148	180.290	155.994	-15.969	1.00109.33	C	ATOM	33751	CD2 LEU B 154	169.855	165.483	-6.193	1.00	77.17	C
ATOM	33702	CZ TYR B 148	181.289	155.120	-15.590	1.00109.33	C	ATOM	33752	N LEU B 155	168.341	160.499	-5.275	1.00	67.38	N
ATOM	33703	OH TYR B 148	182.274	154.810	-16.495	1.00109.33	O	ATOM	33753	CA LEU B 155	167.628	159.352	-4.726	1.00	67.38	C
ATOM	33704	N LEU B 149	177.169	158.627	-10.811	1.00 74.49	N	ATOM	33754	C LEU B 155	167.983	159.011	-3.284	1.00	67.38	C
ATOM	33705	CA LEU B 149	176.281	158.982	-9.725	1.00 74.49	C	ATOM	33755	O LEU B 155	169.051	158.454	-3.030	1.00	67.38	O
ATOM	33706	C LEU B 149	175.960	160.477	-9.622	1.00 74.49	C	ATOM	33756	CB LEU B 155	167.884	158.108	-5.576	1.00	36.66	C
ATOM	33707	O LEU B 149	175.683	160.981	-8.536	1.00 74.49	O	ATOM	33757	CG LEU B 155	167.004	157.823	-6.790	1.00	36.66	C
ATOM	33708	CB LEU B 149	176.886	158.479	-8.417	1.00 48.22	C	ATOM	33758	CD1 LEU B 155	166.625	156.359	-6.719	1.00	36.66	C
ATOM	33709	CG LEU B 149	177.257	156.990	-8.418	1.00 48.22	C	ATOM	33759	CD2 LEU B 155	165.746	158.688	-6.812	1.00	36.66	C
ATOM	33710	CD1 LEU B 149	177.717	156.567	-7.028	1.00 48.22	C	ATOM	33760	N LYS B 156	167.098	159.325	-2.338	1.00	68.53	N
ATOM	33711	CD2 LEU B 149	176.051	156.162	-8.840	1.00 48.22	C	ATOM	33761	CA LYS B 156	167.373	158.993	-0.939	1.00	68.53	C
ATOM	33712	N SER B 150	175.982	161.186	-10.747	1.00 71.60	N	ATOM	33762	C LYS B 156	166.723	157.641	-0.588	1.00	68.53	C
ATOM	33713	CA SER B 150	175.682	162.615	-10.739	1.00 71.60	C	ATOM	33763	O LYS B 156	167.132	156.967	0.364	1.00	68.53	O
ATOM	33714	C SER B 150	174.175	162.836	-10.636	1.00 71.60	C	ATOM	33764	CB LYS B 156	166.866	160.104	-0.011	1.00	139.80	C
ATOM	33715	O SER B 150	173.721	163.713	-9.903	1.00 71.60	O	ATOM	33765	CG LYS B 156	167.383	159.999	1.427	1.00	139.80	C
ATOM	33716	CB SER B 150	176.191	163.273	-12.015	1.00 69.65	C	ATOM	33766	CD LYS B 156	166.543	159.046	2.273	1.00	139.80	C
ATOM	33717	OG SER B 150	175.336	162.974	-13.105	1.00 69.65	O	ATOM	33767	CE LYS B 156	167.205	158.731	3.609	1.00	139.80	C
ATOM	33718	N GLY B 151	173.409	162.044	-11.387	1.00 62.61	N	ATOM	33768	NZ LYS B 156	168.386	157.835	3.453	1.00	139.80	N
ATOM	33719	CA GLY B 151	171.956	162.145	-11.369	1.00 62.61	C	ATOM	33769	N ARG B 157	165.719	157.251	-1.374	1.00	45.33	N
ATOM	33720	C GLY B 151	171.326	161.223	-10.335	1.00 62.61	C	ATOM	33770	CA ARG B 157	165.010	155.978	-1.197	1.00	45.33	C
ATOM	33721	O GLY B 151	170.241	161.488	-9.815	1.00 62.61	O	ATOM	33771	C ARG B 157	164.579	155.543	-2.599	1.00	45.33	C
ATOM	33722	N PHE B 152	172.017	160.130	-10.041	1.00 69.51	N	ATOM	33772	O ARG B 157	164.637	156.342	-3.533	1.00	45.33	O
ATOM	33723	CA PHE B 152	171.544	159.177	-9.056	1.00 69.51	C	ATOM	33773	CB ARG B 157	163.768	156.168	-0.317	1.00	63.97	C
ATOM	33724	C PHE B 152	171.838	159.760	-7.677	1.00 69.51	C	ATOM	33774	CG ARG B 157	162.618	156.892	-1.021	1.00	63.97	C
ATOM	33725	O PHE B 152	171.529	159.169	-6.642	1.00 69.51	O	ATOM	33775	CD ARG B 157	162.095	158.048	-0.197	1.00	63.97	C
ATOM	33726	CB PHE B 152	172.279	157.855	-9.221	1.00 68.62	C	ATOM	33776	NE ARG B 157	161.365	157.618	0.993	1.00	63.97	N
ATOM	33727	CG PHE B 152	171.638	156.720	-8.491	1.00 68.62	C	ATOM	33777	CZ ARG B 157	160.040	157.618	1.097	1.00	63.97	C
ATOM	33728	CD1 PHE B 152	170.438	156.179	-8.946	1.00 68.62	C	ATOM	33778	NH1 ARG B 157	159.286	158.027	0.085	1.00	63.97	N
ATOM	33729	CD2 PHE B 152	172.225	156.195	-7.344	1.00 68.62	C	ATOM	33779	NH2 ARG B 157	159.465	157.212	2.216	1.00	63.97	N
ATOM	33730	CE1 PHE B 152	169.834	155.133	-8.275	1.00 68.62	C	ATOM	33780	N LEU B 158	164.150	154.297	-2.766	1.00	28.21	N
ATOM	33731	CE2 PHE B 152	171.626	155.142	-6.661	1.00 68.62	C	ATOM	33781	CA LEU B 158	163.716	153.876	-4.095	1.00	28.21	C
ATOM	33732	CZ PHE B 152	170.427	154.610	-7.130	1.00 68.62	C	ATOM	33782	C LEU B 158	162.722	154.887	-4.626	1.00	28.21	C
ATOM	33733	N ARG B 153	172.454	160.933	-7.693	1.00 85.29	N	ATOM	33783	O LEU B 158	161.894	155.380	-3.879	1.00	28.21	O
ATOM	33734	CA ARG B 153	172.828	161.675	-6.495	1.00 85.29	C	ATOM	33784	CB LEU B 158	163.043	152.512	-4.054	1.00	46.73	C
ATOM	33735	C ARG B 153	171.677	161.851	-5.492	1.00 85.29	C	ATOM	33785	CG LEU B 158	163.930	151.287	-3.879	1.00	46.73	C
ATOM	33736	O ARG B 153	171.798	161.498	-4.315	1.00 85.29	O	ATOM	33786	CD1 LEU B 158	163.061	150.064	-4.067	1.00	46.73	C
ATOM	33737	CB ARG B 153	173.336	163.058	-6.927	1.00108.88	C	ATOM	33787	CD2 LEU B 158	165.060	151.286	-4.898	1.00	46.73	C
ATOM	33738	CG ARG B 153	174.807	163.327	-6.688	1.00108.88	C	ATOM	33788	N PRO B 159	162.777	155.194	-5.928	1.00	34.11	N
ATOM	33739	CD ARG B 153	175.036	163.705	-5.247	1.00108.88	C	ATOM	33789	CA PRO B 159	161.859	156.162	-6.538	1.00	34.11	C
ATOM	33740	NE ARG B 153	176.445	163.925	-4.948	1.00108.88	N	ATOM	33790	C PRO B 159	160.412	155.667	-6.550	1.00	34.11	C
ATOM	33741	CZ ARG B 153	176.910	164.160	-3.726	1.00108.88	C	ATOM	33791	O PRO B 159	160.124	154.532	-6.170	1.00	34.11	O
ATOM	33742	NH1 ARG B 153	176.075	164.207	-2.696	1.00108.88	N	ATOM	33792	CB PRO B 159	162.411	156.299	-7.944	1.00	68.68	C
ATOM	33743	NH2 ARG B 153	178.210	164.330	-3.530	1.00108.88	N	ATOM	33793	CG PRO B 159	162.811	154.891	-8.234	1.00	68.68	C
ATOM	33744	N LEU B 154	170.568	162.402	-5.987	1.00 77.42	N	ATOM	33794	CD PRO B 159	163.550	154.497	-6.967	1.00	68.68	C
ATOM	33745	CA LEU B 154	169.375	162.706	-5.198	1.00 77.42	C	ATOM	33795	N ASP B 160	159.502	156.516	-7.010	1.00	40.88	N
ATOM	33746	C LEU B 154	168.637	161.551	-4.522	1.00 77.42	C	ATOM	33796	CA ASP B 160	158.094	156.147	-7.058	1.00	40.88	C
ATOM	33747	O LEU B 154	168.314	161.630	-3.337	1.00 77.42	O	ATOM	33797	C ASP B 160	157.681	155.782	-8.463	1.00	40.88	C



ATOM	33798	O	ASP B 160	156.543	155.415	-8.722	1.00	40.88	O	ATOM	33848	OD2 ASP B 166	166.119	151.489	-27.278	1.00	110.19	O	
ATOM	33799	CB	ASP B 160	157.244	157.296	-6.519	1.00	72.74	C	ATOM	33849	N	PRO B 167	163.080	151.643	-23.553	1.00	65.45	N
ATOM	33800	CG	ASP B 160	157.579	157.622	-5.075	1.00	72.74	C	ATOM	33850	CA	PRO B 167	162.941	150.528	-22.617	1.00	65.45	C
ATOM	33801	OD1	ASP B 160	157.180	156.843	-4.178	1.00	72.74	O	ATOM	33851	C	PRO B 167	163.677	149.286	-23.075	1.00	65.45	C
ATOM	33802	OD2	ASP B 160	158.263	158.642	-4.836	1.00	72.74	O	ATOM	33852	O	PRO B 167	164.138	148.499	-22.255	1.00	65.45	O
ATOM	33803	N	ALA B 161	158.629	155.871	-9.373	1.00	52.67	N	ATOM	33853	CB	PRO B 167	161.447	150.306	-22.582	1.00	36.74	C
ATOM	33804	CA	ALA B 161	158.365	155.547	-10.752	1.00	52.67	C	ATOM	33854	CG	PRO B 167	161.083	150.531	-23.995	1.00	36.74	C
ATOM	33805	C	ALA B 161	159.655	155.735	-11.510	1.00	52.67	C	ATOM	33855	CD	PRO B 167	161.829	151.821	-24.308	1.00	36.74	C
ATOM	33806	O	ALA B 161	160.664	156.159	-10.953	1.00	52.67	O	ATOM	33856	N	THR B 168	163.772	149.093	-24.385	1.00	78.19	N
ATOM	33807	CB	ALA B 161	157.280	156.463	-11.326	1.00	21.10	C	ATOM	33857	CA	THR B 168	164.478	147.929	-24.888	1.00	78.19	C
ATOM	33808	N	ILE B 162	159.604	155.411	-12.790	1.00	59.72	N	ATOM	33858	C	THR B 168	165.943	148.122	-24.573	1.00	78.19	C
ATOM	33809	CA	ILE B 162	160.752	155.527	-13.654	1.00	59.72	C	ATOM	33859	O	THR B 168	166.611	147.206	-24.105	1.00	78.19	O
ATOM	33810	C	ILE B 162	160.260	156.048	-14.985	1.00	59.72	C	ATOM	33860	CB	THR B 168	164.340	147.771	-26.394	1.00	47.32	C
ATOM	33811	O	ILE B 162	159.252	155.565	-15.521	1.00	59.72	O	ATOM	33861	OG1	THR B 168	162.952	147.713	-26.749	1.00	47.32	O
ATOM	33812	CB	ILE B 162	161.414	154.147	-13.880	1.00	54.96	C	ATOM	33862	CG2	THR B 168	165.028	146.494	-26.835	1.00	47.32	C
ATOM	33813	CG1	ILE B 162	162.191	153.723	-12.649	1.00	54.96	C	ATOM	33863	N	LYS B 169	166.436	149.327	-24.832	1.00	56.28	N
ATOM	33814	CG2	ILE B 162	162.366	154.192	-15.054	1.00	54.96	C	ATOM	33864	CA	LYS B 169	167.831	149.651	-24.567	1.00	56.28	C
ATOM	33815	CD1	ILE B 162	162.865	152.398	-12.854	1.00	54.96	C	ATOM	33865	C	LYS B 169	168.012	149.620	-23.053	1.00	56.28	C
ATOM	33816	N	PHE B 163	160.946	157.064	-15.495	1.00	89.88	N	ATOM	33866	O	LYS B 169	168.949	149.010	-22.539	1.00	56.28	O
ATOM	33817	CA	PHE B 163	160.608	157.586	-16.800	1.00	89.88	C	ATOM	33867	CB	LYS B 169	168.153	151.042	-25.134	1.00	66.08	C
ATOM	33818	C	PHE B 163	161.779	157.135	-17.640	1.00	89.88	C	ATOM	33868	CG	LYS B 169	169.637	151.363	-25.305	1.00	66.08	C
ATOM	33819	O	PHE B 163	162.833	157.769	-17.655	1.00	89.88	O	ATOM	33869	CD	LYS B 169	170.270	151.764	-23.986	1.00	66.08	C
ATOM	33820	CB	PHE B 163	160.516	159.111	-16.838	1.00	66.11	C	ATOM	33870	CE	LYS B 169	171.635	152.439	-24.163	1.00	66.08	C
ATOM	33821	CG	PHE B 163	159.765	159.613	-18.031	1.00	66.11	C	ATOM	33871	NZ	LYS B 169	172.778	151.490	-24.275	1.00	66.08	N
ATOM	33822	CD1	PHE B 163	162.436	160.005	-17.916	1.00	66.11	C	ATOM	33872	N	GLU B 170	167.076	150.253	-22.350	1.00	58.48	N
ATOM	33823	CD2	PHE B 163	160.338	159.560	-19.293	1.00	66.11	C	ATOM	33873	CA	GLU B 170	167.097	150.339	-20.891	1.00	58.48	C
ATOM	33824	CE1	PHE B 163	157.683	160.328	-19.044	1.00	66.11	C	ATOM	33874	C	GLU B 170	166.316	149.224	-20.195	1.00	58.48	C
ATOM	33825	CE2	PHE B 163	159.597	159.878	-20.428	1.00	66.11	C	ATOM	33875	O	GLU B 170	165.753	149.434	-19.117	1.00	58.48	O
ATOM	33826	CZ	PHE B 163	158.266	160.262	-20.305	1.00	66.11	C	ATOM	33876	CB	GLU B 170	166.533	151.691	-20.459	1.00	60.39	C
ATOM	33827	N	VAL B 164	161.596	156.012	-18.315	1.00	59.73	N	ATOM	33877	CG	GLU B 170	167.576	152.682	-19.972	1.00	60.39	C
ATOM	33828	CA	VAL B 164	162.644	155.452	-19.145	1.00	59.73	C	ATOM	33878	CD	GLU B 170	168.575	153.095	-21.042	1.00	60.39	C
ATOM	33829	C	VAL B 164	162.439	155.865	-20.598	1.00	59.73	C	ATOM	33879	OE1	GLU B 170	168.202	153.845	-21.991	1.00	60.39	O
ATOM	33830	O	VAL B 164	161.307	156.007	-21.063	1.00	59.73	O	ATOM	33880	OE2	GLU B 170	169.744	152.658	-20.918	1.00	60.39	O
ATOM	33831	CB	VAL B 164	162.644	153.910	-19.007	1.00	32.98	C	ATOM	33881	N	ALA B 171	166.311	148.035	-20.794	1.00	54.31	N
ATOM	33832	CG1	VAL B 164	162.282	153.238	-20.343	1.00	32.98	C	ATOM	33882	CA	ALA B 171	165.571	146.899	-20.249	1.00	54.31	C
ATOM	33833	CG2	VAL B 164	163.985	153.450	-18.485	1.00	32.98	C	ATOM	33883	C	ALA B 171	165.998	146.398	-18.870	1.00	54.31	C
ATOM	33834	N	VAL B 165	163.532	156.075	-21.317	1.00	117.35	N	ATOM	33884	O	ALA B 171	165.175	145.876	-18.122	1.00	54.31	O
ATOM	33835	CA	VAL B 165	163.404	156.455	-22.709	1.00	117.35	C	ATOM	33885	CB	ALA B 171	165.592	145.761	-21.241	1.00	42.54	C
ATOM	33836	C	VAL B 165	163.258	155.187	-23.540	1.00	117.35	C	ATOM	33886	N	ILE B 172	167.273	146.539	-18.533	1.00	47.70	N
ATOM	33837	O	VAL B 165	162.145	154.699	-23.705	1.00	117.35	O	ATOM	33887	CA	ILE B 172	167.743	146.099	-17.227	1.00	47.70	C
ATOM	33838	CB	VAL B 165	164.602	157.253	-23.165	1.00	55.83	C	ATOM	33888	C	ILE B 172	167.127	146.991	-16.160	1.00	47.70	C
ATOM	33839	CG1	VAL B 165	164.202	158.125	-24.337	1.00	55.83	C	ATOM	33889	O	ILE B 172	166.853	146.543	-15.051	1.00	47.70	O
ATOM	33840	CG2	VAL B 165	165.118	158.097	-22.013	1.00	55.83	C	ATOM	33890	CB	ILE B 172	169.261	146.212	-17.101	1.00	38.23	C
ATOM	33841	N	ASP B 166	164.353	154.638	-24.061	1.00	61.33	N	ATOM	33891	CG1	ILE B 172	169.924	145.577	-18.318	1.00	38.23	C
ATOM	33842	CA	ASP B 166	164.240	153.398	-24.835	1.00	61.33	C	ATOM	33892	CG2	ILE B 172	169.730	145.523	-15.838	1.00	38.23	C
ATOM	33843	C	ASP B 166	164.259	152.229	-23.833	1.00	61.33	C	ATOM	33893	CD1	ILE B 172	171.432	145.586	-18.266	1.00	38.23	C
ATOM	33844	O	ASP B 166	165.314	151.855	-23.307	1.00	61.33	O	ATOM	33894	N	ALA B 173	166.922	148.264	-16.491	1.00	58.10	N
ATOM	33845	CB	ASP B 166	165.398	153.276	-25.846	1.00	110.19	C	ATOM	33895	CA	ALA B 173	166.330	149.202	-15.543	1.00	58.10	C
ATOM	33846	CG	ASP B 166	165.157	152.191	-26.904	1.00	110.19	C	ATOM	33896	C	ALA B 173	164.853	148.854	-15.358	1.00	58.10	C
ATOM	33847	OD1	ASP B 166	164.011	152.051	-27.380	1.00	110.19	O	ATOM	33897	O	ALA B 173	164.357	148.739	-14.234	1.00	58.10	O



ATOM	33898	CB	ALA B 173	166.484	150.629	-16.053	1.00	51.45	C	ATOM	33948	CD	LYS B 179	163.759	141.137	-8.300	1.00	60.75	C
ATOM	33899	N	VAL B 174	164.155	148.685	-16.474	1.00	48.35	N	ATOM	33949	CE	LYS B 179	163.901	140.320	-9.559	1.00	60.75	C
ATOM	33900	CA	VAL B 174	162.748	148.330	-16.437	1.00	48.35	C	ATOM	33950	NZ	LYS B 179	165.230	139.680	-9.618	1.00	60.75	N
ATOM	33901	C	VAL B 174	162.535	147.062	-15.616	1.00	48.35	C	ATOM	33951	N	LEU B 180	160.507	145.324	-8.155	1.00	36.65	N
ATOM	33902	O	VAL B 174	161.628	147.006	-14.788	1.00	48.35	O	ATOM	33952	CA	LEU B 180	160.301	146.152	-6.983	1.00	36.65	C
ATOM	33903	CB	VAL B 174	162.203	148.084	-17.846	1.00	29.45	C	ATOM	33953	C	LEU B 180	158.912	146.791	-6.962	1.00	36.65	C
ATOM	33904	CG1	VAL B 174	160.777	147.557	-17.771	1.00	29.45	C	ATOM	33954	O	LEU B 180	158.546	147.472	-6.004	1.00	36.65	O
ATOM	33905	CG2	VAL B 174	162.260	149.365	-18.648	1.00	29.45	C	ATOM	33955	CB	LEU B 180	161.387	147.222	-6.914	1.00	38.26	C
ATOM	33906	N	ARG B 175	163.363	146.043	-15.850	1.00	40.60	N	ATOM	33956	CG	LEU B 180	162.753	146.682	-6.499	1.00	38.26	C
ATOM	33907	CA	ARG B 175	163.241	144.793	-15.113	1.00	40.60	C	ATOM	33957	CD1	LEU B 180	163.797	147.755	-6.726	1.00	38.26	C
ATOM	33908	C	ARG B 175	163.349	145.023	-13.614	1.00	40.60	C	ATOM	33958	CD2	LEU B 180	162.731	146.246	-5.035	1.00	38.26	C
ATOM	33909	O	ARG B 175	162.547	144.495	-12.856	1.00	40.60	O	ATOM	33959	N	PHE B 181	158.143	146.544	-8.021	1.00	66.38	N
ATOM	33910	CB	ARG B 175	164.316	143.798	-15.540	1.00	79.67	C	ATOM	33960	CA	PHE B 181	156.791	147.072	-8.168	1.00	66.38	C
ATOM	33911	CG	ARG B 175	164.181	142.424	-14.888	1.00	79.67	C	ATOM	33961	C	PHE B 181	156.798	148.571	-8.283	1.00	66.38	C
ATOM	33912	CD	ARG B 175	165.350	141.535	-15.257	1.00	79.67	C	ATOM	33962	O	PHE B 181	155.911	149.255	-7.789	1.00	66.38	O
ATOM	33913	NE	ARG B 175	165.562	141.532	-16.702	1.00	79.67	N	ATOM	33963	CB	PHE B 181	155.918	146.669	-6.996	1.00	65.32	C
ATOM	33914	CZ	ARG B 175	166.754	141.413	-17.282	1.00	79.67	C	ATOM	33964	CG	PHE B 181	155.746	145.202	-6.862	1.00	65.32	C
ATOM	33915	NH1	ARG B 175	167.844	141.281	-16.529	1.00	79.67	N	ATOM	33965	CD1	PHE B 181	156.756	144.423	-6.318	1.00	65.32	C
ATOM	33916	NH2	ARG B 175	166.861	141.449	-18.608	1.00	79.67	N	ATOM	33966	CD2	PHE B 181	154.578	144.592	-7.293	1.00	65.32	C
ATOM	33917	N	GLU B 176	164.329	145.807	-13.178	1.00	46.34	N	ATOM	33967	CE1	PHE B 181	156.606	143.055	-6.206	1.00	65.32	C
ATOM	33918	CA	GLU B 176	164.485	146.050	-11.748	1.00	46.34	C	ATOM	33968	CE2	PHE B 181	154.417	143.227	-7.185	1.00	65.32	C
ATOM	33919	C	GLU B 176	163.261	146.704	-11.135	1.00	46.34	C	ATOM	33969	CZ	PHE B 181	155.434	142.454	-6.639	1.00	65.32	C
ATOM	33920	O	GLU B 176	162.937	146.452	-9.970	1.00	46.34	O	ATOM	33970	N	ILE B 182	157.822	149.074	-8.942	1.00	40.04	N
ATOM	33921	CB	GLU B 176	165.722	146.906	-11.468	1.00	48.97	C	ATOM	33971	CA	ILE B 182	157.968	150.489	-9.161	1.00	40.04	C
ATOM	33922	CD	GLU B 176	167.014	146.134	-11.617	1.00	48.97	C	ATOM	33972	C	ILE B 182	157.361	150.799	-10.533	1.00	40.04	C
ATOM	33923	CD	GLU B 176	168.196	146.812	-10.951	1.00	48.97	C	ATOM	33973	O	ILE B 182	157.820	150.294	-11.547	1.00	40.04	O
ATOM	33924	OE1	GLU B 176	168.032	147.332	-9.827	1.00	48.97	O	ATOM	33974	CB	ILE B 182	159.458	150.847	-9.124	1.00	21.04	C
ATOM	33925	OE2	GLU B 176	169.296	146.811	-11.550	1.00	48.97	O	ATOM	33975	CG1	ILE B 182	160.019	150.463	-7.756	1.00	21.04	C
ATOM	33926	N	ALA B 177	162.586	147.542	-11.921	1.00	43.41	N	ATOM	33976	CG2	ILE B 182	159.659	152.325	-9.464	1.00	21.04	C
ATOM	33927	CA	ALA B 177	161.382	148.234	-11.464	1.00	43.41	C	ATOM	33977	CD1	ILE B 182	161.407	150.970	-7.499	1.00	21.04	C
ATOM	33928	C	ALA B 177	160.322	147.180	-11.158	1.00	43.41	C	ATOM	33978	N	PRO B 183	156.309	151.624	-10.583	1.00	55.93	N
ATOM	33929	O	ALA B 177	159.837	147.070	-10.035	1.00	43.41	O	ATOM	33979	CA	PRO B 183	155.700	151.941	-11.881	1.00	55.93	C
ATOM	33930	CB	ALA B 177	160.894	149.181	-12.540	1.00	51.70	C	ATOM	33980	C	PRO B 183	156.725	152.260	-12.964	1.00	55.93	C
ATOM	33931	N	ARG B 178	159.971	146.412	-12.178	1.00	37.54	N	ATOM	33981	O	PRO B 183	157.809	152.774	-12.683	1.00	55.93	O
ATOM	33932	CA	ARG B 178	159.010	145.325	-12.052	1.00	37.54	C	ATOM	33982	CB	PRO B 183	154.806	153.126	-11.557	1.00	47.26	C
ATOM	33933	C	ARG B 178	159.162	144.516	-10.742	1.00	37.54	C	ATOM	33983	CG	PRO B 183	154.375	152.817	-10.160	1.00	47.26	C
ATOM	33934	O	ARG B 178	158.207	144.336	-9.985	1.00	37.54	O	ATOM	33984	CD	PRO B 183	155.651	152.367	-9.499	1.00	47.26	C
ATOM	33935	CB	ARG B 178	159.200	144.366	-13.221	1.00	44.16	C	ATOM	33985	N	VAL B 184	156.373	151.950	-14.205	1.00	40.37	N
ATOM	33936	CG	ARG B 178	158.194	144.477	-14.305	1.00	44.16	C	ATOM	33986	CA	VAL B 184	157.274	152.184	-15.318	1.00	40.37	C
ATOM	33937	CD	ARG B 178	158.203	145.817	-14.919	1.00	44.16	C	ATOM	33987	C	VAL B 184	156.638	152.992	-16.444	1.00	40.37	C
ATOM	33938	NE	ARG B 178	157.084	145.962	-15.839	1.00	44.16	N	ATOM	33988	O	VAL B 184	155.697	152.541	-17.098	1.00	40.37	O
ATOM	33939	CZ	ARG B 178	155.855	145.491	-15.623	1.00	44.16	C	ATOM	33989	CB	VAL B 184	157.814	150.835	-15.893	1.00	44.53	C
ATOM	33940	NH1	ARG B 178	155.552	144.813	-14.517	1.00	44.16	N	ATOM	33990	CG1	VAL B 184	158.484	151.062	-17.233	1.00	44.53	C
ATOM	33941	NH2	ARG B 178	154.901	145.744	-16.507	1.00	44.16	N	ATOM	33991	CG2	VAL B 184	158.820	150.221	-14.936	1.00	44.53	C
ATOM	33942	N	LYS B 179	160.366	144.007	-10.502	1.00	39.07	N	ATOM	33992	N	ILE B 185	157.179	154.193	-16.646	1.00	53.61	N
ATOM	33943	CA	LYS B 179	160.621	143.206	-9.324	1.00	39.07	C	ATOM	33993	CA	ILE B 185	156.745	155.112	-17.694	1.00	53.61	C
ATOM	33944	C	LYS B 179	160.396	144.011	-8.052	1.00	39.07	O	ATOM	33994	C	ILE B 185	157.804	154.986	-18.775	1.00	53.61	C
ATOM	33945	O	LYS B 179	160.123	143.458	-6.985	1.00	39.07	O	ATOM	33995	O	ILE B 185	158.980	154.774	-18.466	1.00	53.61	O
ATOM	33946	CB	LYS B 179	162.051	142.664	-9.362	1.00	60.75	C	ATOM	33996	CB	ILE B 185	156.790	156.560	-17.220	1.00	49.91	C
ATOM	33947	CG	LYS B 179	162.369	141.729	-8.204	1.00	60.75	C	ATOM	33997	CG1	ILE B 185	156.366	156.630	-15.757	1.00	49.91	C



ATOM	33998	CG2 ILE B 185	155.917	157.427	-18.114	1.00	49.91	C	ATOM	34048	CA	ASP B 193	157.673	145.336	-25.548	1.00	52.24	C
ATOM	33999	CD1 ILE B 185	156.518	158.004	-15.139	1.00	49.91	C	ATOM	34049	C	ASP B 193	156.727	146.237	-24.766	1.00	52.24	C
ATOM	34000	N ALA B 186	157.412	155.139	-20.035	1.00	52.12	N	ATOM	34050	O	ASP B 193	156.999	146.590	-23.623	1.00	52.24	O
ATOM	34001	CA ALA B 186	158.389	155.018	-21.107	1.00	52.12	C	ATOM	34051	CB	ASP B 193	158.222	144.264	-24.602	1.00	77.25	C
ATOM	34002	C ALA B 186	157.997	155.570	-22.474	1.00	52.12	C	ATOM	34052	CG	ASP B 193	157.181	143.219	-24.226	1.00	77.25	C
ATOM	34003	O ALA B 186	156.882	155.365	-22.954	1.00	52.12	O	ATOM	34053	OD1	ASP B 193	155.973	143.543	-24.224	1.00	77.25	O
ATOM	34004	CB ALA B 186	158.790	153.557	-21.252	1.00	23.05	C	ATOM	34054	OD2	ASP B 193	157.581	142.075	-23.919	1.00	77.25	O
ATOM	34005	N LEU B 187	158.928	156.289	-23.089	1.00	64.68	N	ATOM	34055	N	PRO B 194	155.590	146.600	-25.365	1.00	52.49	N
ATOM	34006	CA LEU B 187	158.723	156.809	-24.431	1.00	64.68	C	ATOM	34056	CA	PRO B 194	154.613	147.467	-24.699	1.00	52.49	C
ATOM	34007	C LEU B 187	159.213	155.581	-25.162	1.00	64.68	C	ATOM	34057	C	PRO B 194	154.067	146.914	-23.375	1.00	52.49	C
ATOM	34008	O LEU B 187	160.407	155.327	-25.178	1.00	64.68	O	ATOM	34058	O	PRO B 194	153.749	147.677	-22.458	1.00	52.49	O
ATOM	34009	CB LEU B 187	159.671	157.981	-24.708	1.00	59.58	C	ATOM	34059	CB	PRO B 194	153.520	147.616	-25.755	1.00	38.83	C
ATOM	34010	CG LEU B 187	159.569	158.766	-26.028	1.00	59.58	C	ATOM	34060	CG	PRO B 194	153.570	146.302	-26.484	1.00	38.83	C
ATOM	34011	CD1 LEU B 187	159.756	157.855	-27.216	1.00	59.58	C	ATOM	34061	CD	PRO B 194	155.056	146.078	-26.637	1.00	38.83	C
ATOM	34012	CD2 LEU B 187	158.216	159.440	-26.114	1.00	59.58	C	ATOM	34062	N	ASP B 195	153.970	145.588	-23.283	1.00	44.88	N
ATOM	34013	N ALA B 188	158.324	154.793	-25.744	1.00	57.80	N	ATOM	34063	CA	ASP B 195	153.440	144.921	-22.103	1.00	44.88	C
ATOM	34014	CA ALA B 188	158.795	153.586	-26.411	1.00	57.80	C	ATOM	34064	C	ASP B 195	154.218	145.168	-20.827	1.00	44.88	C
ATOM	34015	C ALA B 188	158.189	153.411	-27.782	1.00	57.80	C	ATOM	34065	O	ASP B 195	153.673	145.036	-19.740	1.00	44.88	O
ATOM	34016	O ALA B 188	157.011	153.692	-27.973	1.00	82.83	C	ATOM	34066	CB	ASP B 195	152.355	143.419	-22.343	1.00	105.88	C
ATOM	34017	CB ALA B 188	158.487	152.377	-25.550	1.00	82.83	C	ATOM	34067	CB	ASP B 195	152.753	143.082	-23.682	1.00	105.88	C
ATOM	34018	N ASP B 189	158.985	152.926	-28.733	1.00	62.58	N	ATOM	34068	OD1	ASP B 195	151.720	143.686	-24.047	1.00	105.88	O
ATOM	34019	CA ASP B 189	158.484	152.746	-30.092	1.00	62.58	C	ATOM	34069	OD2	ASP B 195	153.311	142.204	-24.370	1.00	105.88	O
ATOM	34020	C ASP B 189	158.409	151.316	-30.623	1.00	62.58	C	ATOM	34070	N	LEU B 196	155.486	145.528	-20.943	1.00	35.21	N
ATOM	34021	O ASP B 189	158.369	150.345	-29.866	1.00	62.58	O	ATOM	34071	CA	LEU B 196	156.293	145.760	-19.754	1.00	35.21	C
ATOM	34022	CB ASP B 189	159.297	153.605	-31.062	1.00	97.90	C	ATOM	34072	C	LEU B 196	156.235	147.194	-19.271	1.00	35.21	C
ATOM	34023	CG ASP B 189	160.716	153.130	-31.196	1.00	97.90	O	ATOM	34073	O	LEU B 196	156.637	147.494	-18.151	1.00	35.21	O
ATOM	34024	OD1 ASP B 189	161.255	152.582	-30.210	1.00	97.90	O	ATOM	34074	CB	LEU B 196	157.748	145.394	-20.024	1.00	57.78	C
ATOM	34025	OD2 ASP B 189	161.296	153.316	-32.282	1.00	97.90	O	ATOM	34075	CG	LEU B 196	157.942	144.038	-20.686	1.00	57.78	C
ATOM	34026	N THR B 190	158.393	151.229	-31.949	1.00	46.01	N	ATOM	34076	CD1	LEU B 196	159.408	143.683	-20.703	1.00	57.78	C
ATOM	34027	CA THR B 190	158.270	149.990	-32.714	1.00	46.01	C	ATOM	34077	CD2	LEU B 196	157.159	143.004	-19.912	1.00	57.78	C
ATOM	34028	C THR B 190	159.015	148.729	-32.296	1.00	46.01	C	ATOM	34078	N	VAL B 197	155.751	148.090	-20.117	1.00	50.01	N
ATOM	34029	O THR B 190	158.481	147.623	-32.447	1.00	46.01	O	ATOM	34079	CA	VAL B 197	155.677	149.483	-19.733	1.00	50.01	C
ATOM	34030	CB THR B 190	158.592	150.282	-34.182	1.00	60.96	C	ATOM	34080	C	VAL B 197	154.302	149.762	-19.154	1.00	50.01	C
ATOM	34031	OG1 THR B 190	157.587	151.157	-34.697	1.00	60.96	O	ATOM	34081	O	VAL B 197	153.275	149.489	-19.787	1.00	50.01	O
ATOM	34032	CG2 THR B 190	158.625	149.003	-35.015	1.00	60.96	C	ATOM	34082	CB	VAL B 197	155.922	150.387	-20.926	1.00	66.06	C
ATOM	34033	N ASP B 191	160.226	148.886	-31.769	1.00	56.14	N	ATOM	34083	CG1	VAL B 197	156.194	151.800	-20.451	1.00	66.06	C
ATOM	34034	CA ASP B 191	161.046	147.743	-31.375	1.00	56.14	C	ATOM	34084	CG2	VAL B 197	157.080	149.859	-21.727	1.00	66.06	C
ATOM	34035	C ASP B 191	160.960	147.293	-29.920	1.00	56.14	O	ATOM	34085	N	ASP B 198	154.296	150.304	-17.942	1.00	50.90	N
ATOM	34036	O ASP B 191	161.728	146.432	-29.507	1.00	56.14	C	ATOM	34086	CA	ASP B 198	153.055	150.606	-17.242	1.00	50.90	C
ATOM	34037	CB ASP B 191	162.518	148.024	-31.707	1.00	89.82	C	ATOM	34087	C	ASP B 198	152.319	151.792	-17.852	1.00	50.90	C
ATOM	34038	CG ASP B 191	163.133	149.088	-30.804	1.00	89.82	C	ATOM	34088	O	ASP B 198	151.094	151.788	-17.944	1.00	50.90	O
ATOM	34039	OD1 ASP B 191	162.641	150.236	-30.798	1.00	89.82	O	ATOM	34089	CB	ASP B 198	153.362	150.858	-15.770	1.00	61.91	C
ATOM	34040	OD2 ASP B 191	164.113	148.777	-30.097	1.00	89.82	O	ATOM	34090	CG	ASP B 198	154.154	149.728	-15.148	1.00	61.91	C
ATOM	34041	N SER B 192	160.045	147.843	-29.133	1.00	62.36	N	ATOM	34091	OD1	ASP B 198	153.742	148.563	-15.321	1.00	61.91	O
ATOM	34042	CA SER B 192	159.978	147.438	-27.731	1.00	62.36	C	ATOM	34092	OD2	ASP B 198	155.179	149.997	-14.487	1.00	61.91	O
ATOM	34043	C SER B 192	158.727	146.672	-27.321	1.00	62.36	C	ATOM	34093	N	TYR B 199	153.077	152.806	-18.257	1.00	72.22	N
ATOM	34044	O SER B 192	157.759	146.584	-28.079	1.00	62.36	O	ATOM	34094	CA	TYR B 199	152.528	154.001	-18.889	1.00	72.22	C
ATOM	34045	CB SER B 192	160.161	148.660	-26.830	1.00	112.91	C	ATOM	34095	C	TYR B 199	153.394	154.236	-20.116	1.00	72.22	C
ATOM	34046	OG SER B 192	159.340	149.726	-27.262	1.00	112.91	O	ATOM	34096	O	TYR B 199	154.511	154.741	-20.019	1.00	72.22	O
ATOM	34047	N ASP B 193	158.774	146.116	-26.110	1.00	52.24	N	ATOM	34097	CB	TYR B 199	152.591	155.186	-17.925	1.00	55.76	C



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ATOM	34098	CG	TYR B 199	151.797	154.942	-16.658	1.00	55.76	C	ATOM	34148	N	ASP B 206	163.910	157.575	-30.629	1.00	157.77	N
ATOM	34099	CD1	TYR B 199	152.421	154.517	-15.488	1.00	55.76	C	ATOM	34149	CA	ASP B 206	165.164	158.159	-31.065	1.00	157.77	C
ATOM	34100	CD2	TYR B 199	150.403	155.068	-16.653	1.00	55.76	C	ATOM	34150	C	ASP B 206	164.883	159.564	-31.578	1.00	157.77	C
ATOM	34101	CEL	TYR B 199	151.677	154.222	-14.347	1.00	55.76	C	ATOM	34151	O	ASP B 206	163.737	160.009	-31.560	1.00	157.77	O
ATOM	34102	CE2	TYR B 199	149.652	154.770	-15.522	1.00	55.76	C	ATOM	34152	CB	ASP B 206	165.772	157.306	-32.172	1.00	142.01	C
ATOM	34103	CZ	TYR B 199	150.295	154.347	-14.376	1.00	55.76	C	ATOM	34153	CG	ASP B 206	167.090	157.846	-32.652	1.00	142.01	C
ATOM	34104	OH	TYR B 199	149.555	154.022	-13.268	1.00	55.76	O	ATOM	34154	OD1	ASP B 206	168.030	157.922	-31.834	1.00	142.01	O
ATOM	34105	N	ILE B 200	152.861	153.844	-21.267	1.00	72.21	N	ATOM	34155	OD2	ASP B 206	167.183	158.201	-33.845	1.00	91.29	N
ATOM	34106	CA	ILE B 200	153.567	153.928	-22.538	1.00	72.21	C	ATOM	34156	N	ALA B 207	165.922	160.264	-32.024	1.00	91.29	C
ATOM	34107	C	ILE B 200	153.320	155.190	-23.341	1.00	72.21	C	ATOM	34157	CA	ALA B 207	165.764	161.622	-32.547	1.00	91.29	C
ATOM	34108	O	ILE B 200	152.175	155.591	-23.535	1.00	72.21	O	ATOM	34158	C	ALA B 207	165.499	162.639	-31.445	1.00	91.29	C
ATOM	34109	CB	ILE B 200	153.170	152.753	-23.453	1.00	108.21	C	ATOM	34159	O	ALA B 207	164.457	162.605	-30.790	1.00	91.29	O
ATOM	34110	CG1	ILE B 200	153.106	151.463	-22.641	1.00	108.21	C	ATOM	34160	CB	ALA B 207	164.624	161.670	-33.579	1.00	48.38	C
ATOM	34111	CG2	ILE B 200	154.169	152.608	-24.583	1.00	108.21	C	ATOM	34161	N	ILE B 208	166.443	163.553	-31.255	1.00	70.71	N
ATOM	34112	CD1	ILE B 200	152.438	150.310	-23.366	1.00	108.21	C	ATOM	34162	CA	ILE B 208	166.304	164.581	-30.238	1.00	70.71	C
ATOM	34113	N	ILE B 201	154.401	155.808	-23.810	1.00	72.42	N	ATOM	34163	C	ILE B 208	165.004	165.366	-30.384	1.00	70.71	C
ATOM	34114	CA	ILE B 201	154.302	156.982	-24.671	1.00	72.42	C	ATOM	34164	O	ILE B 208	164.260	165.517	-29.421	1.00	70.71	O
ATOM	34115	C	ILE B 201	154.875	156.513	-26.009	1.00	72.42	C	ATOM	34165	CB	ILE B 208	167.504	165.555	-30.272	1.00	87.92	C
ATOM	34116	O	ILE B 201	156.047	156.733	-26.327	1.00	72.42	O	ATOM	34166	CG1	ILE B 208	168.713	164.889	-29.611	1.00	87.92	C
ATOM	34117	CB	ILE B 201	155.116	158.183	-24.154	1.00	89.62	C	ATOM	34167	CG2	ILE B 208	167.154	166.865	-29.572	1.00	87.92	C
ATOM	34118	CG1	ILE B 201	154.624	158.594	-22.768	1.00	89.62	C	ATOM	34168	CD1	ILE B 208	169.918	165.791	-29.460	1.00	87.92	C
ATOM	34119	CG2	ILE B 201	154.945	159.365	-25.104	1.00	89.62	C	ATOM	34169	N	ARG B 209	164.723	165.858	-31.584	1.00	102.77	N
ATOM	34120	CD1	ILE B 201	155.360	159.790	-22.190	1.00	89.62	C	ATOM	34170	CA	ARG B 209	163.507	166.632	-31.802	1.00	102.77	C
ATOM	34121	N	PRO B 202	154.040	155.829	-26.799	1.00	51.89	N	ATOM	34171	C	ARG B 209	162.291	166.008	-31.103	1.00	102.77	C
ATOM	34122	CA	PRO B 202	154.397	155.292	-28.109	1.00	51.89	C	ATOM	34172	O	ARG B 209	161.355	166.715	-30.717	1.00	102.77	O
ATOM	34123	C	PRO B 202	154.780	156.383	-29.085	1.00	51.89	C	ATOM	34173	CB	ARG B 209	163.246	166.787	-33.308	1.00	104.33	C
ATOM	34124	O	PRO B 202	153.950	157.203	-29.472	1.00	51.89	O	ATOM	34174	CG	ARG B 209	162.057	167.679	-33.672	1.00	104.33	C
ATOM	34125	CB	PRO B 202	153.133	154.550	-28.529	1.00	36.75	C	ATOM	34175	CD	ARG B 209	162.098	169.027	-32.959	1.00	104.33	C
ATOM	34126	CG	PRO B 202	152.065	155.390	-27.930	1.00	36.75	C	ATOM	34176	NE	ARG B 209	163.232	169.852	-33.365	1.00	104.33	N
ATOM	34127	CD	PRO B 202	152.601	155.652	-26.546	1.00	36.75	C	ATOM	34177	CZ	ARG B 209	163.359	170.410	-34.564	1.00	104.33	C
ATOM	34128	N	GLY B 203	156.046	156.381	-29.479	1.00	59.05	N	ATOM	34178	NH1	ARG B 209	162.419	170.231	-35.480	1.00	104.33	N
ATOM	34129	CA	GLY B 203	156.528	157.377	-30.408	1.00	59.05	C	ATOM	34179	NH2	ARG B 209	164.425	171.147	-34.846	1.00	81.81	N
ATOM	34130	C	GLY B 203	158.032	157.303	-30.516	1.00	59.05	C	ATOM	34180	N	SER B 210	162.321	164.688	-30.924	1.00	81.81	N
ATOM	34131	O	GLY B 203	158.691	156.704	-29.666	1.00	59.05	O	ATOM	34181	CA	SER B 210	161.223	163.966	-30.272	1.00	81.81	C
ATOM	34132	N	ASN B 204	158.565	157.926	-31.561	1.00	63.99	N	ATOM	34182	C	SER B 210	161.403	163.776	-28.766	1.00	81.81	C
ATOM	34133	CA	ASN B 204	159.997	157.951	-31.830	1.00	63.99	C	ATOM	34183	O	SER B 210	160.554	164.174	-27.971	1.00	81.81	O
ATOM	34134	C	ASN B 204	160.880	157.975	-30.571	1.00	63.99	C	ATOM	34184	CB	SER B 210	161.041	162.597	-30.921	1.00	71.00	C
ATOM	34135	O	ASN B 204	161.036	159.011	-29.926	1.00	63.99	O	ATOM	34185	OG	SER B 210	160.194	161.793	-30.126	1.00	71.00	O
ATOM	34136	CB	ASN B 204	160.303	159.150	-32.726	1.00	116.51	C	ATOM	34186	N	ILE B 211	162.503	163.138	-28.387	1.00	66.24	N
ATOM	34137	CG	ASN B 204	161.641	159.039	-33.405	1.00	116.51	C	ATOM	34187	CA	ILE B 211	162.806	162.906	-26.985	1.00	66.24	C
ATOM	34138	OD1	ASN B 204	161.945	159.800	-34.322	1.00	116.51	O	ATOM	34188	C	ILE B 211	162.671	164.201	-26.211	1.00	66.24	C
ATOM	34139	ND2	ASN B 204	162.455	158.094	-32.958	1.00	116.51	N	ATOM	34189	O	ILE B 211	162.074	164.226	-25.139	1.00	66.24	O
ATOM	34140	N	ASP B 205	161.452	156.818	-30.233	1.00	66.69	N	ATOM	34190	CB	ILE B 211	164.239	162.414	-26.802	1.00	60.59	C
ATOM	34141	CA	ASP B 205	162.323	156.668	-29.062	1.00	66.69	C	ATOM	34191	CG1	ILE B 211	164.389	161.030	-27.426	1.00	60.59	C
ATOM	34142	O	ASP B 205	163.684	157.263	-29.361	1.00	66.69	C	ATOM	34192	CG2	ILE B 211	164.603	162.421	-25.322	1.00	60.59	C
ATOM	34143	C	ASP B 205	164.510	157.425	-28.472	1.00	66.69	O	ATOM	34193	CD1	ILE B 211	165.808	160.515	-27.429	1.00	60.59	C
ATOM	34144	CB	ASP B 205	162.477	155.179	-28.681	1.00	83.14	C	ATOM	34194	N	GLN B 212	163.244	165.267	-26.764	1.00	91.38	N
ATOM	34145	CG	ASP B 205	163.342	154.382	-29.678	1.00	83.14	C	ATOM	34195	CA	GLN B 212	163.215	166.592	-26.153	1.00	91.38	C
ATOM	34146	OD1	ASP B 205	163.084	154.437	-30.907	1.00	83.14	O	ATOM	34196	C	GLN B 212	161.782	167.057	-25.908	1.00	91.38	C
ATOM	34147	OD2	ASP B 205	164.279	153.681	-29.224	1.00	83.14	O	ATOM	34197	O	GLN B 212	161.460	167.559	-24.831	1.00	91.38	O



ATOM	34198	CB	GLN B 212	163.948	167.594	-27.056	1.00	83.07	C	ATOM	34248	CB	ALA B 218	157.079	164.366	-19.111	1.00	75.56	C
ATOM	34199	CG	GLN B 212	164.036	169.031	-26.534	1.00	83.07	C	ATOM	34249	N	VAL B 219	158.095	167.289	-17.887	1.00	63.71	N
ATOM	34200	CD	GLN B 212	162.707	169.772	-26.591	1.00	83.07	C	ATOM	34250	CA	VAL B 219	158.738	167.985	-16.776	1.00	63.71	C
ATOM	34201	OE1	GLN B 212	161.986	169.704	-27.592	1.00	83.07	O	ATOM	34251	C	VAL B 219	157.917	169.221	-16.424	1.00	63.71	C
ATOM	34202	NE2	GLN B 212	162.384	170.496	-25.519	1.00	83.07	N	ATOM	34252	O	VAL B 219	157.653	169.492	-15.249	1.00	63.71	O
ATOM	34203	N	LEU B 213	160.921	166.892	-26.905	1.00	61.32	N	ATOM	34253	CB	VAL B 219	160.169	168.441	-17.123	1.00	58.50	C
ATOM	34204	CA	LEU B 213	159.536	167.311	-26.758	1.00	61.32	C	ATOM	34254	CG1	VAL B 219	160.922	168.829	-15.841	1.00	58.50	C
ATOM	34205	C	LEU B 213	158.892	166.632	-25.556	1.00	61.32	C	ATOM	34255	CG2	VAL B 219	160.894	167.342	-17.870	1.00	58.50	C
ATOM	34206	O	LEU B 213	158.646	167.257	-24.522	1.00	61.32	O	ATOM	34256	N	ASP B 220	157.519	169.978	-17.443	1.00	87.16	N
ATOM	34207	CB	LEU B 213	158.735	166.956	-28.009	1.00	58.20	C	ATOM	34257	CA	ASP B 220	156.710	171.167	-17.214	1.00	87.16	C
ATOM	34208	CG	LEU B 213	157.332	167.566	-28.136	1.00	58.20	C	ATOM	34258	C	ASP B 220	155.575	170.719	-16.305	1.00	87.16	C
ATOM	34209	CD1	LEU B 213	156.634	166.844	-29.253	1.00	58.20	C	ATOM	34259	O	ASP B 220	155.310	171.322	-15.266	1.00	87.16	O
ATOM	34210	CD2	LEU B 213	156.513	167.419	-26.854	1.00	58.20	C	ATOM	34260	CB	ASP B 220	156.124	171.699	-18.530	1.00	109.79	C
ATOM	34211	N	ILE B 214	158.599	165.349	-25.717	1.00	61.99	N	ATOM	34261	CG	ASP B 220	157.193	172.055	-19.560	1.00	109.79	C
ATOM	34212	CA	ILE B 214	157.968	164.575	-24.669	1.00	61.99	C	ATOM	34262	OD1	ASP B 220	158.210	172.682	-19.190	1.00	109.79	O
ATOM	34213	C	ILE B 214	158.545	164.906	-23.304	1.00	61.99	C	ATOM	34263	OD2	ASP B 220	157.003	171.719	-20.750	1.00	109.79	O
ATOM	34214	O	ILE B 214	157.886	165.538	-22.487	1.00	61.99	O	ATOM	34264	N	LEU B 221	154.927	169.634	-16.712	1.00	59.01	N
ATOM	34215	CB	ILE B 214	158.136	163.081	-24.926	1.00	43.53	C	ATOM	34265	CA	LEU B 221	153.812	169.045	-15.982	1.00	59.01	C
ATOM	34216	CG1	ILE B 214	157.546	162.724	-26.281	1.00	43.53	C	ATOM	34266	C	LEU B 221	154.170	168.774	-14.519	1.00	59.01	C
ATOM	34217	CG2	ILE B 214	157.443	162.290	-23.840	1.00	43.53	C	ATOM	34267	O	LEU B 221	153.355	168.990	-13.629	1.00	59.01	O
ATOM	34218	CD1	ILE B 214	156.097	163.103	-26.439	1.00	43.53	C	ATOM	34268	CB	LEU B 221	153.397	167.744	-16.668	1.00	58.43	C
ATOM	34219	N	LEU B 215	159.777	164.483	-23.057	1.00	63.44	N	ATOM	34269	CG	LEU B 221	151.984	167.221	-16.433	1.00	58.43	C
ATOM	34220	CA	LEU B 215	160.400	164.750	-21.777	1.00	63.44	C	ATOM	34270	CD1	LEU B 221	151.798	166.860	-14.977	1.00	58.43	C
ATOM	34221	C	LEU B 215	160.147	166.166	-21.287	1.00	63.44	C	ATOM	34271	CD2	LEU B 221	150.984	168.278	-16.875	1.00	58.43	C
ATOM	34222	O	LEU B 215	159.503	166.356	-20.258	1.00	63.44	O	ATOM	34272	N	ILE B 222	155.382	168.289	-14.276	1.00	71.55	N
ATOM	34223	CB	LEU B 215	161.903	164.497	-21.840	1.00	63.70	C	ATOM	34273	CA	ILE B 222	155.823	168.012	-12.911	1.00	71.55	C
ATOM	34224	CG	LEU B 215	162.341	163.048	-21.650	1.00	63.70	C	ATOM	34274	C	ILE B 222	155.801	169.294	-12.085	1.00	71.55	C
ATOM	34225	CD1	LEU B 215	163.859	162.988	-21.571	1.00	63.70	C	ATOM	34275	O	ILE B 222	155.286	169.316	-10.965	1.00	71.55	O
ATOM	34226	CD2	LEU B 215	161.736	162.499	-20.370	1.00	63.70	C	ATOM	34276	CB	ILE B 222	157.273	167.443	-12.869	1.00	73.84	C
ATOM	34227	N	SER B 216	160.644	167.159	-22.016	1.00	62.80	N	ATOM	34277	CG1	ILE B 222	157.280	165.958	-13.239	1.00	73.84	C
ATOM	34228	CA	SER B 216	160.452	168.519	-21.615	1.00	62.80	C	ATOM	34278	CG2	ILE B 222	157.876	167.645	-11.483	1.00	73.84	C
ATOM	34229	C	SER B 216	159.064	168.729	-21.010	1.00	62.80	C	ATOM	34279	CD1	ILE B 222	158.647	165.314	-13.100	1.00	73.84	C
ATOM	34230	O	SER B 216	158.945	169.061	-19.833	1.00	62.80	O	ATOM	34280	N	ILE B 223	156.373	170.356	-12.648	1.00	63.50	N
ATOM	34231	CB	SER B 216	160.614	169.485	-22.810	1.00	80.20	C	ATOM	34281	CA	ILE B 223	156.444	171.657	-11.978	1.00	63.50	C
ATOM	34232	OG	SER B 216	159.549	169.314	-23.725	1.00	80.20	O	ATOM	34282	C	ILE B 223	155.055	172.289	-11.903	1.00	63.50	C
ATOM	34233	N	ARG B 217	158.024	168.484	-21.809	1.00	56.93	N	ATOM	34283	O	ILE B 223	154.609	172.736	-10.847	1.00	63.50	O
ATOM	34234	CA	ARG B 217	156.644	168.622	-21.341	1.00	56.93	C	ATOM	34284	CB	ILE B 223	157.407	172.604	-12.731	1.00	70.72	C
ATOM	34235	C	ARG B 217	156.405	167.860	-20.050	1.00	56.93	C	ATOM	34285	CG1	ILE B 223	158.646	171.821	-13.176	1.00	70.72	C
ATOM	34236	O	ARG B 217	155.987	168.434	-19.047	1.00	56.93	O	ATOM	34286	CG2	ILE B 223	157.836	173.741	-11.819	1.00	70.72	C
ATOM	34237	CB	ARG B 217	155.654	168.130	-22.394	1.00	62.15	C	ATOM	34287	CD1	ILE B 223	159.650	172.629	-13.949	1.00	70.72	C
ATOM	34238	CG	ARG B 217	155.691	168.909	-23.679	1.00	62.15	C	ATOM	34288	N	GLN B 224	154.379	172.306	-13.042	1.00	64.77	N
ATOM	34239	CD	ARG B 217	155.495	170.407	-23.445	1.00	62.15	C	ATOM	34289	CA	GLN B 224	153.038	172.849	-13.135	1.00	64.77	C
ATOM	34240	NE	ARG B 217	155.423	171.126	-24.717	1.00	62.15	N	ATOM	34290	C	GLN B 224	152.174	172.223	-12.045	1.00	64.77	C
ATOM	34241	CZ	ARG B 217	154.349	171.159	-25.504	1.00	62.15	C	ATOM	34291	O	GLN B 224	151.276	172.861	-11.511	1.00	64.77	O
ATOM	34242	NH1	ARG B 217	153.234	170.528	-25.145	1.00	62.15	N	ATOM	34292	CB	GLN B 224	152.437	172.527	-14.507	1.00	99.95	C
ATOM	34243	NH2	ARG B 217	154.406	171.781	-26.677	1.00	62.15	N	ATOM	34293	CG	GLN B 224	151.226	173.366	-14.875	1.00	99.95	C
ATOM	34244	N	ALA B 218	156.666	166.563	-20.076	1.00	67.98	N	ATOM	34294	CD	GLN B 224	150.288	172.653	-15.831	1.00	99.95	C
ATOM	34245	CA	ALA B 218	156.477	165.749	-18.892	1.00	67.98	C	ATOM	34295	OE1	GLN B 224	149.566	171.734	-15.437	1.00	99.95	O
ATOM	34246	C	ALA B 218	157.106	166.426	-17.667	1.00	67.98	C	ATOM	34296	NE2	GLN B 224	150.298	173.067	-17.095	1.00	99.95	N
ATOM	34247	O	ALA B 218	156.696	166.171	-16.536	1.00	67.98	O	ATOM	34297	N	ALA B 225	152.447	170.970	-11.708	1.00	66.62	N



Table 1: Sheet 345/521

ATOM	34298	CA	ALA B 225	151.660	170.300	-10.688	1.00	66.62	C	ATOM	34348	CB	PRO B 232	159.945	178.276	-22.333	1.00100.10	C
ATOM	34299	C	ALA B 225	152.221	170.511	-9.292	1.00	66.62	C	ATOM	34349	CG	PRO B 232	158.678	179.063	-22.110	1.00100.10	C
ATOM	34300	O	ALA B 225	151.600	170.125	-8.306	1.00	66.62	O	ATOM	34350	CD	PRO B 232	158.751	179.434	-20.625	1.00100.10	C
ATOM	34301	CB	ALA B 225	151.559	168.817	-10.995	1.00	91.23	C	ATOM	34351	N	SER B 233	161.432	175.528	-21.550	1.00138.49	N
ATOM	34302	N	ARG B 226	153.396	171.115	-9.196	1.00100.16	N	C	ATOM	34352	CA	SER B 233	162.609	174.669	-21.447	1.00138.49	C
ATOM	34303	CA	ARG B 226	153.964	171.369	-7.885	1.00100.16	C	ATOM	34353	C	SER B 233	163.841	175.108	-22.242	1.00138.49	C	
ATOM	34304	C	ARG B 226	154.003	172.860	-7.609	1.00100.16	C	ATOM	34354	O	SER B 233	163.737	175.534	-23.393	1.00138.49	O	
ATOM	34305	O	ARG B 226	154.721	173.319	-6.722	1.00100.16	O	ATOM	34355	CB	SER B 233	162.221	173.242	-21.853	1.00108.79	C	
ATOM	34306	CB	ARG B 226	155.360	170.761	-7.767	1.00106.94	C	ATOM	34356	OG	SER B 233	163.299	172.341	-21.687	1.00108.79	O	
ATOM	34307	CG	ARG B 226	155.314	169.267	-7.564	1.00106.94	C	ATOM	34357	N	PRO B 234	165.032	175.001	-21.623	1.00125.98	N	
ATOM	34308	CD	ARG B 226	156.597	168.719	-6.976	1.00106.94	C	ATOM	34358	CA	PRO B 234	166.319	175.368	-22.220	1.00125.98	C	
ATOM	34309	NE	ARG B 226	157.697	168.701	-7.935	1.00106.94	N	ATOM	34360	O	PRO B 234	166.985	174.225	-23.003	1.00125.98	O	
ATOM	34310	CZ	ARG B 226	158.833	168.038	-7.743	1.00106.94	C	ATOM	34361	CB	PRO B 234	167.137	175.779	-21.003	1.00 73.74	C	
ATOM	34311	NH1	ARG B 226	159.013	167.342	-6.628	1.00106.94	N	ATOM	34362	CG	PRO B 234	166.714	174.763	-19.997	1.00 73.74	C	
ATOM	34312	NH2	ARG B 226	159.789	168.063	-8.664	1.00106.94	N	ATOM	34363	CD	PRO B 234	165.196	174.754	-20.175	1.00 73.74	C	
ATOM	34313	N	GLY B 227	153.211	173.607	-8.374	1.00114.64	N	ATOM	34364	N	SER B 235	166.291	173.097	-23.125	1.00137.54	N	
ATOM	34314	CA	GLY B 227	153.151	175.047	-8.207	1.00114.64	C	ATOM	34365	CA	SER B 235	166.819	171.934	-23.838	1.00137.54	C	
ATOM	34315	C	GLY B 227	154.500	175.711	-8.386	1.00114.64	C	ATOM	34366	C	SER B 235	166.720	172.104	-25.345	1.00137.54	C	
ATOM	34316	O	GLY B 227	155.118	176.157	-7.418	1.00114.64	O	ATOM	34367	O	SER B 235	167.563	171.611	-26.089	1.00137.54	O	
ATOM	34317	N	GLY B 228	154.960	175.780	-9.630	1.00119.29	N	ATOM	34368	CB	SER B 235	166.038	170.685	-23.460	1.00 91.67	C	
ATOM	34318	CA	GLY B 228	156.245	176.394	-9.904	1.00119.29	C	ATOM	34369	OG	SER B 235	164.748	170.722	-24.052	1.00 91.67	O	
ATOM	34319	C	GLY B 228	156.167	177.479	-10.956	1.00119.29	C	ATOM	34370	N	TYR B 236	165.665	172.783	-25.783	1.00 99.14	N	
ATOM	34320	O	GLY B 228	157.087	178.289	-11.075	1.00119.29	O	ATOM	34371	CA	TYR B 236	165.415	173.031	-27.202	1.00 99.14	C	
ATOM	34321	N	VAL B 229	155.071	177.495	-11.714	1.00161.38	N	ATOM	34372	C	TYR B 236	166.679	173.549	-27.899	1.00 99.14	C	
ATOM	34322	CA	VAL B 229	154.865	178.483	-12.770	1.00161.38	C	ATOM	34373	O	TYR B 236	166.801	173.474	-29.119	1.00 99.14	O	
ATOM	34323	C	VAL B 229	156.191	178.743	-13.479	1.00161.38	O	ATOM	34374	CB	TYR B 236	164.262	174.036	-27.332	1.00102.48	C	
ATOM	34324	O	VAL B 229	156.577	179.890	-13.703	1.00161.38	O	ATOM	34375	CG	TYR B 236	163.610	174.146	-28.700	1.00102.48	C	
ATOM	34325	CB	VAL B 229	154.331	179.816	-12.189	1.00167.84	C	ATOM	34376	CD1	TYR B 236	162.433	174.880	-28.860	1.00102.48	C	
ATOM	34326	CG1	VAL B 229	153.918	180.754	-13.317	1.00167.84	C	ATOM	34377	CD2	TYR B 236	164.167	173.542	-29.830	1.00102.48	C	
ATOM	34327	CG2	VAL B 229	153.157	179.546	-11.260	1.00167.84	C	ATOM	34378	CE1	TYR B 236	161.821	175.014	-30.105	1.00102.48	C	
ATOM	34328	N	VAL B 230	156.885	177.665	-13.828	1.00 94.33	N	ATOM	34379	CE2	TYR B 236	163.565	173.669	-31.089	1.00102.48	C	
ATOM	34329	CA	VAL B 230	158.181	177.767	-14.484	1.00 94.33	C	ATOM	34380	CZ	TYR B 236	162.386	174.411	-31.218	1.00102.48	C	
ATOM	34330	C	VAL B 230	158.126	178.095	-15.974	1.00 94.33	O	ATOM	34381	OH	TYR B 236	161.760	174.560	-32.444	1.00102.48	O	
ATOM	34331	O	VAL B 230	157.220	177.673	-16.692	1.00 94.33	C	ATOM	34382	N	ALA B 237	167.619	174.066	-27.114	1.00107.84	N	
ATOM	34332	CB	VAL B 230	159.005	176.472	-14.260	1.00101.68	C	ATOM	34383	CA	ALA B 237	168.874	174.579	-27.648	1.00107.84	C	
ATOM	34333	CG1	VAL B 230	160.217	176.433	-15.193	1.00101.68	C	ATOM	34384	C	ALA B 237	169.733	173.401	-28.095	1.00107.84	C	
ATOM	34334	CG2	VAL B 230	159.466	176.413	-12.802	1.00101.68	C	ATOM	34385	O	ALA B 237	170.554	173.520	-29.008	1.00107.84	O	
ATOM	34335	N	GLU B 231	159.120	178.862	-16.414	1.00194.57	N	ATOM	34386	CB	ALA B 237	169.602	175.382	-26.580	1.00 94.22	C	
ATOM	34336	CA	GLU B 231	159.255	179.295	-17.799	1.00194.57	C	ATOM	34387	N	LEU B 238	169.533	172.266	-27.430	1.00116.55	N	
ATOM	34337	C	GLU B 231	159.792	178.199	-18.724	1.00194.57	C	ATOM	34388	CA	LEU B 238	170.261	171.031	-27.719	1.00116.55	C	
ATOM	34338	O	GLU B 231	160.428	177.246	-18.268	1.00194.57	O	ATOM	34389	C	LEU B 238	169.735	170.374	-28.986	1.00116.55	O	
ATOM	34339	CB	GLU B 231	160.179	180.519	-17.859	1.00143.74	C	ATOM	34390	O	LEU B 238	170.380	169.498	-29.567	1.00116.55	O	
ATOM	34340	CD	GLU B 231	161.332	180.495	-16.855	1.00143.74	C	ATOM	34391	CB	LEU B 238	170.123	170.056	-26.549	1.00122.95	C	
ATOM	34341	CG	GLU B 231	162.073	179.168	-16.830	1.00143.74	C	ATOM	34392	CG	LEU B 238	170.756	170.531	-25.238	1.00122.95	C	
ATOM	34342	OE1	GLU B 231	162.552	178.723	-17.895	1.00143.74	O	ATOM	34393	CD1	LEU B 238	170.176	169.756	-24.069	1.00122.95	C	
ATOM	34343	OE2	GLU B 231	162.179	178.567	-15.740	1.00143.74	O	ATOM	34394	CD2	LEU B 238	172.269	170.367	-25.319	1.00122.95	C	
ATOM	34344	N	PRO B 232	159.536	178.326	-20.041	1.00144.95	N	ATOM	34395	N	VAL B 239	168.547	170.802	-29.396	1.00107.59	N	
ATOM	34345	CA	PRO B 232	159.959	177.395	-21.093	1.00144.95	C	ATOM	34396	CA	VAL B 239	167.907	170.290	-30.596	1.00107.59	C	
ATOM	34346	C	PRO B 232	161.295	176.671	-20.881	1.00144.95	C	ATOM	34397	C	VAL B 239	168.792	170.557	-31.822	1.00107.59	C	
ATOM	34347	O	PRO B 232	162.171	177.119	-27.149	1.00144.95	O	ATOM	34398	C	VAL B 239	169.685	171.000	-32.596	1.00107.59	C	



ATOM	34398	O	VAL B 239	168.831	169.751	-32.757	1.00107.59	O	ATOM	34448	CD2 HIS C	6	204.912	138.405	17.807	1.00 74.33	C
ATOM	34399	CB	VAL B 239	166.514	170.948	-30.768	1.00 79.22	C	ATOM	34449	CE1 HIS C	6	204.281	136.649	18.961	1.00 74.33	C
ATOM	34400	CG1	VAL B 239	165.941	170.675	-32.146	1.00 79.22	C	ATOM	34450	NE2 HIS C	6	204.259	137.970	18.934	1.00 74.33	N
ATOM	34401	CG2	VAL B 239	165.577	170.404	-29.719	1.00 79.22	C	ATOM	34451	N PRO C	7	203.460	138.888	14.411	1.00 52.28	N
ATOM	34402	N	GLN B 240	169.510	171.679	-31.821	1.00136.49	N	ATOM	34452	CA PRO C	7	203.067	140.251	14.038	1.00 52.28	C
ATOM	34403	CA	GLN B 240	170.390	171.993	-32.946	1.00136.49	C	ATOM	34453	C PRO C	7	203.681	141.326	14.926	1.00 52.28	C
ATOM	34404	C	GLN B 240	171.693	171.206	-32.834	1.00136.49	C	ATOM	34454	O PRO C	7	203.806	142.482	14.520	1.00 52.28	O
ATOM	34405	O	GLN B 240	171.919	170.325	-33.695	1.00136.49	O	ATOM	34455	CB PRO C	7	201.543	140.201	14.103	1.00 47.20	C
ATOM	34406	CB	GLN B 240	170.716	173.488	-32.996	1.00107.35	C	ATOM	34456	CG PRO C	7	201.284	139.132	15.123	1.00 47.20	C
ATOM	34407	CG	GLN B 240	169.519	174.405	-33.235	1.00107.35	C	ATOM	34457	CD PRO C	7	202.292	138.080	14.799	1.00 47.20	C
ATOM	34408	CD	GLN B 240	168.867	174.877	-33.1949	1.00107.35	C	ATOM	34458	N ILE C	8	204.080	140.942	16.133	1.00 67.40	N
ATOM	34409	OE1	GLN B 240	169.525	175.455	-31.079	1.00107.35	O	ATOM	34459	CA ILE C	8	204.697	141.893	17.047	1.00 67.40	C
ATOM	34410	NE2	GLN B 240	167.565	174.638	-31.824	1.00107.35	N	ATOM	34460	C ILE C	8	206.163	142.036	16.664	1.00 67.40	C
TER	34411		GLN B 240						ATOM	34461	O ILE C	8	206.584	143.077	16.151	1.00 67.40	O
ATOM	34412	N	GLY C 2	203.599	126.339	6.801	1.00 57.06	N	ATOM	34462	CB ILE C	8	204.619	141.408	18.501	1.00 88.41	C
ATOM	34413	CA	GLY C 2	204.213	127.077	7.971	1.00 57.06	C	ATOM	34463	CG1 ILE C	8	203.163	141.178	18.895	1.00 88.41	C
ATOM	34414	C	GLY C 2	204.990	128.340	7.629	1.00 57.06	C	ATOM	34464	CG2 ILE C	8	205.266	142.425	19.420	1.00 88.41	C
ATOM	34415	O	GLY C 2	206.214	128.329	7.540	1.00 57.06	O	ATOM	34465	CD1 ILE C	8	203.005	140.428	20.199	1.00 88.41	C
ATOM	34416	N	ASN C 3	204.263	129.434	7.460	1.00 50.79	N	ATOM	34466	N GLY C	9	206.926	140.972	16.907	1.00 85.62	N
ATOM	34417	CA	ASN C 3	204.839	130.721	7.109	1.00 50.79	C	ATOM	34467	CA GLY C	9	208.342	140.974	16.592	1.00 85.62	C
ATOM	34418	C	ASN C 3	204.488	131.826	8.125	1.00 50.79	C	ATOM	34468	C GLY C	9	208.632	141.594	15.240	1.00 85.62	C
ATOM	34419	O	ASN C 3	204.144	131.548	9.281	1.00 50.79	O	ATOM	34469	O GLY C	9	209.708	142.150	15.007	1.00 85.62	O
ATOM	34420	CB	ASN C 3	204.341	131.111	5.711	1.00 80.78	C	ATOM	34470	N PHE C	10	207.659	141.505	14.343	1.00 61.09	N
ATOM	34421	CG	ASN C 3	202.968	130.515	5.393	1.00 80.78	C	ATOM	34471	CA PHE C	10	207.813	142.055	13.011	1.00 61.09	C
ATOM	34422	OD1	ASN C 3	202.856	129.457	4.777	1.00 80.78	O	ATOM	34472	C PHE C	10	207.726	143.576	13.028	1.00 61.09	C
ATOM	34423	ND2	ASN C 3	201.920	131.188	5.837	1.00 80.78	N	ATOM	34473	O PHE C	10	208.369	144.246	12.218	1.00 61.09	O
ATOM	34424	N	LYS C 4	204.569	133.079	7.677	1.00 59.54	N	ATOM	34474	CB PHE C	10	206.740	141.474	12.073	1.00 51.75	C
ATOM	34425	CA	LYS C 4	204.281	134.276	8.487	1.00 59.54	C	ATOM	34475	CG PHE C	10	206.800	142.019	10.659	1.00 51.75	C
ATOM	34426	C	LYS C 4	204.945	134.507	9.854	1.00 59.54	C	ATOM	34476	CD1 PHE C	10	205.666	142.554	10.056	1.00 51.75	C
ATOM	34427	O	LYS C 4	204.875	133.663	10.759	1.00 59.54	O	ATOM	34477	CD2 PHE C	10	205.666	142.554	10.056	1.00 51.75	C
ATOM	34428	CB	LYS C 4	202.768	134.487	8.635	1.00 46.05	C	ATOM	34478	CE1 PHE C	10	208.046	142.505	8.631	1.00 51.75	C
ATOM	34429	CG	LYS C 4	201.906	133.261	8.613	1.00 46.05	C	ATOM	34479	CE2 PHE C	10	205.714	143.063	8.752	1.00 51.75	C
ATOM	34430	CD	LYS C 4	200.641	133.612	7.867	1.00 46.05	C	ATOM	34480	CZ PHE C	10	206.904	143.038	8.042	1.00 51.75	C
ATOM	34431	CE	LYS C 4	199.763	132.415	7.671	1.00 46.05	C	ATOM	34481	N ARG C	11	206.947	144.119	13.962	1.00 69.36	N
ATOM	34432	NZ	LYS C 4	198.598	132.827	6.856	1.00 46.05	N	ATOM	34482	CA ARG C	11	206.756	145.564	14.049	1.00 69.36	C
ATOM	34433	N	ILE C 5	205.575	135.679	9.985	1.00 67.45	N	ATOM	34483	C ARG C	11	207.512	146.294	15.160	1.00 69.36	C
ATOM	34434	CA	ILE C 5	206.257	136.070	11.218	1.00 67.45	C	ATOM	34484	O ARG C	11	207.448	147.522	15.233	1.00 69.36	O
ATOM	34435	C	ILE C 5	205.306	136.520	12.304	1.00 67.45	C	ATOM	34485	CB ARG C	11	205.267	145.870	14.183	1.00 70.96	C
ATOM	34436	O	ILE C 5	204.124	136.771	12.063	1.00 67.45	O	ATOM	34486	CG ARG C	11	204.445	145.302	13.060	1.00 70.96	C
ATOM	34437	CB	ILE C 5	207.239	137.278	11.036	1.00 57.77	C	ATOM	34487	CD ARG C	11	203.053	144.966	13.531	1.00 70.96	C
ATOM	34438	CG1	ILE C 5	206.736	138.210	9.939	1.00 57.77	C	ATOM	34488	NE ARG C	11	202.382	144.082	12.590	1.00 70.96	N
ATOM	34439	CG2	ILE C 5	208.653	136.790	10.819	1.00 57.77	C	ATOM	34489	CZ ARG C	11	202.059	144.437	11.355	1.00 70.96	C
ATOM	34440	CD1	ILE C 5	205.343	138.729	10.174	1.00 57.77	C	ATOM	34490	NH1 ARG C	11	202.345	145.659	10.923	1.00 70.96	N
ATOM	34441	N	HIS C 6	205.860	136.632	13.504	1.00 53.86	N	ATOM	34491	NH2 ARG C	11	201.461	143.574	10.552	1.00 70.96	N
ATOM	34442	CA	HIS C 6	205.130	137.110	14.655	1.00 53.86	C	ATOM	34492	N LEU C	12	208.226	145.559	16.012	1.00 46.26	N
ATOM	34443	C	HIS C 6	204.742	138.532	14.269	1.00 53.86	C	ATOM	34493	CA LEU C	12	208.964	146.175	17.112	1.00 46.26	C
ATOM	34444	O	HIS C 6	205.590	139.315	13.828	1.00 53.86	O	ATOM	34494	C LEU C	12	209.583	147.533	16.793	1.00 46.26	C
ATOM	34445	CB	HIS C 6	206.053	137.159	15.853	1.00 74.33	C	ATOM	34495	O LEU C	12	209.638	148.420	17.649	1.00 46.26	O
ATOM	34446	CG	HIS C 6	205.333	137.305	17.145	1.00 74.33	C	ATOM	34496	CB LEU C	12	210.039	145.222	17.626	1.00 35.43	C
ATOM	34447	ND1	HIS C 6	204.224	136.222	17.990	1.00 74.33	N	ATOM	34497	CG LEU C	12	209.444	144.045	18.400	1.00 35.43	C



Table 1: Sheet 347/521

ATOM	34498	CD1 LEU C	12	210.518	143.282	19.160	1.00	35.43	C	ATOM	34548	CE3 TRP C	18	211.278	147.939	21.413	1.00	70.48	C
ATOM	34499	CD2 LEU C	12	208.427	144.589	19.368	1.00	35.43	C	ATOM	34549	C22 TRP C	18	213.211	146.701	19.732	1.00	70.48	C
ATOM	34500	GLY C	13	210.052	147.700	15.566	1.00	94.73	N	ATOM	34550	C23 TRP C	18	211.722	148.547	20.231	1.00	70.48	C
ATOM	34501	CA GLY C	13	210.629	148.977	15.194	1.00	94.73	C	ATOM	34551	CH2 TRP C	18	212.680	147.923	19.409	1.00	70.48	C
ATOM	34502	C GLY C	13	209.596	150.076	15.358	1.00	94.73	C	ATOM	34552	N GLU C	19	208.708	144.583	25.796	1.00	64.84	N
ATOM	34503	O GLY C	13	209.896	151.160	15.858	1.00	94.73	O	ATOM	34553	CA GLU C	19	208.148	144.265	27.109	1.00	64.84	C
ATOM	34504	I LE C	14	208.369	149.787	14.936	1.00	73.35	N	ATOM	34554	O GLU C	19	209.193	144.505	28.209	1.00	64.84	C
ATOM	34505	CA I LE C	14	207.279	150.746	15.035	1.00	73.35	C	ATOM	34555	O GLU C	19	208.868	144.551	29.388	1.00	64.84	O
ATOM	34506	C I LE C	14	206.098	150.118	15.768	1.00	73.35	C	ATOM	34556	CB GLU C	19	207.665	142.808	27.167	1.00	112.94	C
ATOM	34507	O I LE C	14	206.258	149.145	16.502	1.00	73.35	O	ATOM	34557	CG GLU C	19	206.284	142.561	26.558	1.00	112.94	C
ATOM	34508	CB I LE C	14	206.794	151.190	13.641	1.00	98.65	C	ATOM	34558	CD GLU C	19	205.745	141.164	26.864	1.00	112.94	C
ATOM	34509	CG1 I LE C	14	207.984	151.334	12.685	1.00	98.65	C	ATOM	34559	OE1 GLU C	19	205.660	140.808	28.058	1.00	112.94	O
ATOM	34510	CG2 I LE C	14	206.048	152.512	13.760	1.00	98.65	C	ATOM	34560	OE2 GLU C	19	205.404	140.420	25.917	1.00	112.94	O
ATOM	34511	CD1 I LE C	14	208.993	152.402	13.084	1.00	98.65	C	ATOM	34561	N SER C	20	210.451	144.650	27.812	1.00	85.73	N
ATOM	34512	N THR C	15	204.920	150.694	15.553	1.00	54.03	N	ATOM	34562	CA SER C	20	211.537	144.907	28.754	1.00	85.73	C
ATOM	34513	CA THR C	15	203.657	150.251	16.143	1.00	54.03	C	ATOM	34563	C SER C	20	212.446	145.917	28.077	1.00	85.73	C
ATOM	34514	C THR C	15	202.951	148.133	17.040	1.00	54.03	O	ATOM	34564	O SER C	20	213.209	145.560	27.182	1.00	85.73	O
ATOM	34515	O THR C	15	202.666	149.866	15.027	1.00	83.74	C	ATOM	34565	CB SER C	20	212.332	143.626	29.059	1.00	40.02	O
ATOM	34516	CB THR C	15	203.165	148.730	14.306	1.00	83.74	C	ATOM	34566	OG SER C	20	211.494	142.579	29.545	1.00	40.02	O
ATOM	34517	OG1 THR C	15	202.492	151.028	14.055	1.00	83.74	O	ATOM	34567	N ARG C	21	212.351	147.179	28.487	1.00	107.26	N
ATOM	34518	CG2 THR C	15	204.740	148.167	19.169	1.00	58.05	N	ATOM	34568	CA ARG C	21	213.173	148.235	27.900	1.00	107.26	C
ATOM	34519	N ARG C	16	204.597	149.205	18.150	1.00	58.05	N	ATOM	34569	C ARG C	21	214.197	148.791	28.880	1.00	107.26	C
ATOM	34520	CA ARG C	16	206.087	148.274	19.889	1.00	58.05	C	ATOM	34570	O ARG C	21	213.883	149.621	29.725	1.00	107.26	O
ATOM	34521	C ARG C	16	207.137	148.095	19.266	1.00	58.05	O	ATOM	34571	CB ARG C	21	212.278	149.353	27.367	1.00	131.86	C
ATOM	34522	O ARG C	16	204.645	146.788	18.525	1.00	62.97	C	ATOM	34572	CG ARG C	21	211.062	149.624	28.223	1.00	131.86	C
ATOM	34523	CB ARG C	16	204.245	145.697	19.472	1.00	62.97	C	ATOM	34573	CD ARG C	21	209.959	150.245	27.392	1.00	131.86	C
ATOM	34524	CG ARG C	16	202.776	145.793	19.787	1.00	62.97	C	ATOM	34574	NE ARG C	21	208.716	150.364	28.144	1.00	131.86	N
ATOM	34525	CD ARG C	16	202.356	144.739	20.697	1.00	62.97	N	ATOM	34575	CZ ARG C	21	207.536	150.633	27.595	1.00	131.86	N
ATOM	34526	CE ARG C	16	201.092	144.518	21.052	1.00	62.97	C	ATOM	34576	NH1 ARG C	21	207.438	150.808	26.282	1.00	131.86	N
ATOM	34527	NH1 ARG C	16	200.118	145.286	20.562	1.00	62.97	N	ATOM	34577	NH2 ARG C	21	206.454	150.729	28.357	1.00	131.86	N
ATOM	34528	NE ARG C	16	200.800	143.529	21.896	1.00	62.97	N	ATOM	34578	N TRP C	22	215.432	148.324	28.745	1.00	104.16	N
ATOM	34529	NH2 ARG C	16	206.061	148.554	21.195	1.00	52.57	N	ATOM	34579	CA TRP C	22	216.515	148.742	29.619	1.00	104.16	C
ATOM	34530	N ASP C	17	207.587	147.337	22.663	1.00	52.57	C	ATOM	34580	C TRP C	22	217.859	148.405	29.007	1.00	104.16	C
ATOM	34531	CA ASP C	17	206.738	146.442	22.678	1.00	52.57	O	ATOM	34581	O TRP C	22	218.025	147.333	28.429	1.00	104.16	O
ATOM	34532	C ASP C	17	207.183	149.766	23.049	1.00	52.57	O	ATOM	34582	CB TRP C	22	216.403	148.028	30.961	1.00	67.68	C
ATOM	34533	CB ASP C	17	206.841	151.124	22.459	1.00	114.65	C	ATOM	34583	CG TRP C	22	216.043	146.574	30.845	1.00	67.68	C
ATOM	34534	CB ASP C	17	207.457	151.515	21.445	1.00	114.65	O	ATOM	34584	CD1 TRP C	22	214.793	146.033	30.955	1.00	67.68	C
ATOM	34535	OD1 ASP C	17	205.957	151.806	23.020	1.00	114.65	O	ATOM	34585	CD2 TRP C	22	216.939	145.471	30.627	1.00	67.68	C
ATOM	34536	OD2 ASP C	17	208.791	147.219	23.215	1.00	81.06	N	ATOM	34586	NE1 TRP C	22	214.851	144.666	30.829	1.00	67.68	N
ATOM	34537	N TRP C	18	209.235	145.998	23.898	1.00	81.06	C	ATOM	34587	CE2 TRP C	22	216.156	144.291	30.627	1.00	67.68	C
ATOM	34538	CA TRP C	18	208.571	145.789	25.246	1.00	81.06	C	ATOM	34588	CE3 TRP C	22	218.326	145.363	30.431	1.00	67.68	C
ATOM	34539	C TRP C	18	207.950	146.702	25.782	1.00	81.06	O	ATOM	34589	CZ2 TRP C	22	216.718	143.007	30.440	1.00	67.68	C
ATOM	34540	O TRP C	18	210.751	146.034	24.095	1.00	70.48	C	ATOM	34590	CG2 TRP C	22	218.886	144.084	30.242	1.00	67.68	C
ATOM	34541	CB TRP C	18	211.604	145.795	22.869	1.00	70.48	C	ATOM	34591	CH2 TRP C	22	218.078	142.926	30.250	1.00	67.68	C
ATOM	34542	CG TRP C	18	212.416	144.720	22.764	1.00	70.48	C	ATOM	34592	N TYR C	23	218.822	149.314	29.135	1.00	68.19	N
ATOM	34543	CD1 TRP C	18	211.808	146.690	21.764	1.00	70.48	C	ATOM	34593	CA TYR C	23	220.154	149.064	28.595	1.00	68.19	C
ATOM	34544	CD2 TRP C	18	213.118	144.892	21.474	1.00	70.48	N	ATOM	34594	O TYR C	23	220.889	148.069	29.494	1.00	68.19	C
ATOM	34545	NE1 TRP C	18	212.767	146.092	20.914	1.00	70.48	C	ATOM	34595	C TYR C	23	220.398	147.709	30.562	1.00	68.19	O
ATOM	34546	CE2 TRP C	18							ATOM	34596	CB TYR C	23	220.966	150.361	28.488	1.00	103.66	C
ATOM	34547									ATOM	34597	CG TYR C	23	222.343	150.117	27.921	1.00	103.66	C



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ATOM	34598	CD1 TYR C	23	222.516	149.821	26.575	1.00103.66	C	ATOM	34648	CE1 TYR C	29	220.574	143.149	26.229	1.00 67.50	C
ATOM	34599	CD2 TYR C	23	223.459	150.064	28.753	1.00103.66	C	ATOM	34649	CE2 TYR C	29	219.670	140.938	26.604	1.00 67.50	C
ATOM	34600	CE1 TYR C	23	223.760	149.468	26.075	1.00103.66	C	ATOM	34650	CZ TYR C	29	219.595	142.187	25.992	1.00 67.50	C
ATOM	34601	CE2 TYR C	23	224.704	149.709	28.262	1.00103.66	C	ATOM	34651	OH TYR C	29	218.550	142.462	25.134	1.00 67.50	O
ATOM	34602	CZ TYR C	23	224.846	149.410	26.924	1.00103.66	C	ATOM	34652	N ARG C	30	222.703	138.661	30.157	1.00 84.97	N
ATOM	34603	OH TYR C	23	226.073	149.031	26.440	1.00103.66	O	ATOM	34653	CA ARG C	30	222.135	137.324	30.319	1.00 84.97	C
ATOM	34604	N ALA C	24	222.057	147.621	29.051	1.00 75.75	N	ATOM	34654	C ARG C	30	221.585	137.075	31.723	1.00 84.97	C
ATOM	34605	CA ALA C	24	222.864	146.671	29.803	1.00 75.75	C	ATOM	34655	O ARG C	30	220.592	136.364	31.888	1.00 84.97	O
ATOM	34606	C ALA C	24	223.735	145.937	28.809	1.00 75.75	C	ATOM	34656	CB ARG C	30	223.162	136.242	29.966	1.00 85.76	C
ATOM	34607	O ALA C	24	223.971	146.426	27.705	1.00 75.75	O	ATOM	34657	CG ARG C	30	224.309	136.133	30.925	1.00 85.76	C
ATOM	34608	CB ALA C	24	221.974	145.676	30.546	1.00 45.81	C	ATOM	34658	CD ARG C	30	225.198	134.959	30.584	1.00 85.76	C
ATOM	34609	N GLY C	25	224.214	144.763	29.199	1.00 92.97	N	ATOM	34659	NE ARG C	30	226.469	135.038	31.299	1.00 85.76	N
ATOM	34610	CA GLY C	25	225.033	143.994	28.289	1.00 92.97	C	ATOM	34660	CZ ARG C	30	227.355	136.023	31.153	1.00 85.76	C
ATOM	34611	C GLY C	25	226.287	143.346	28.830	1.00 92.97	C	ATOM	34661	NH1 ARG C	30	227.123	137.026	30.313	1.00 85.76	N
ATOM	34612	O GLY C	25	226.601	143.408	30.020	1.00 92.97	O	ATOM	34662	NH2 ARG C	30	228.478	136.011	31.858	1.00 85.76	N
ATOM	34613	N LYS C	26	226.994	142.693	27.916	1.00 85.79	N	ATOM	34663	CA HIS C	31	222.230	137.662	32.727	1.00 85.98	N
ATOM	34614	CA LYS C	26	228.243	142.015	28.206	1.00 85.79	C	ATOM	34664	CA HIS C	31	221.811	137.521	34.123	1.00 85.98	C
ATOM	34615	C LYS C	26	228.152	140.957	29.305	1.00 85.79	C	ATOM	34665	C HIS C	31	220.596	138.413	34.382	1.00 85.98	C
ATOM	34616	O LYS C	26	227.708	139.831	29.069	1.00 85.79	O	ATOM	34666	O HIS C	31	219.601	138.003	35.055	1.00 85.98	O
ATOM	34617	CB LYS C	26	229.307	143.054	28.573	1.00122.62	C	ATOM	34667	CB HIS C	31	222.939	137.965	35.938	1.00 63.80	C
ATOM	34618	CG LYS C	26	229.116	144.402	27.887	1.00122.62	C	ATOM	34668	CG HIS C	31	224.191	137.155	34.938	1.00 63.80	C
ATOM	34619	CD LYS C	26	228.956	144.255	26.387	1.00122.62	C	ATOM	34669	ND1 HIS C	31	224.242	135.814	35.250	1.00 63.80	N
ATOM	34620	CE LYS C	26	228.491	145.560	25.781	1.00122.62	C	ATOM	34670	CD2 HIS C	31	225.454	137.513	34.601	1.00 63.80	C
ATOM	34621	NZ LYS C	26	228.219	145.420	24.331	1.00122.62	N	ATOM	34671	CE1 HIS C	31	225.485	135.381	35.116	1.00 63.80	C
ATOM	34622	N LYS C	27	228.575	141.327	30.508	1.00 97.43	N	ATOM	34672	NE2 HIS C	31	226.241	136.392	34.723	1.00 63.80	N
ATOM	34623	CA LYS C	27	228.588	140.401	31.630	1.00 97.43	C	ATOM	34673	N LEU C	32	220.714	139.646	33.910	1.00 70.33	N
ATOM	34624	C LYS C	27	227.270	140.327	32.389	1.00 97.43	C	ATOM	34674	CA LEU C	32	219.692	140.664	34.058	1.00 70.33	C
ATOM	34625	O LYS C	27	227.047	139.402	33.172	1.00 97.43	O	ATOM	34675	C LEU C	32	218.444	140.339	33.241	1.00 70.33	C
ATOM	34626	CB LYS C	27	229.719	140.785	32.595	1.00113.07	C	ATOM	34676	O LEU C	32	217.406	140.973	33.408	1.00 70.33	O
ATOM	34627	CG LYS C	27	231.093	140.886	31.935	1.00113.07	C	ATOM	34677	CB LEU C	32	220.278	142.005	33.620	1.00 62.17	C
ATOM	34628	CD LYS C	27	232.170	141.386	32.900	1.00113.07	C	ATOM	34678	CG LEU C	32	219.752	143.315	34.202	1.00 62.17	C
ATOM	34629	CE LYS C	27	233.519	141.563	32.194	1.00113.07	C	ATOM	34679	CD1 LEU C	32	220.633	144.470	33.706	1.00 62.17	C
ATOM	34630	NZ LYS C	27	234.559	142.160	33.080	1.00113.07	N	ATOM	34680	CD2 LEU C	32	218.296	143.529	33.799	1.00 62.17	C
ATOM	34631	N GLN C	28	226.386	141.285	32.148	1.00110.72	N	ATOM	34681	N LEU C	33	218.542	139.356	32.350	1.00107.97	N
ATOM	34632	CA GLN C	28	225.122	141.308	32.861	1.00110.72	C	ATOM	34682	CA LEU C	33	217.401	138.970	31.523	1.00107.97	C
ATOM	34633	C GLN C	28	223.920	140.815	32.074	1.00110.72	C	ATOM	34683	C LEU C	33	216.759	137.720	32.080	1.00107.97	C
ATOM	34634	O GLN C	28	223.225	139.899	32.511	1.00110.72	O	ATOM	34684	O LEU C	33	215.538	137.587	32.075	1.00107.97	O
ATOM	34635	CB GLN C	28	224.844	142.721	33.343	1.00114.11	C	ATOM	34685	CB LEU C	33	217.831	138.703	30.079	1.00 81.19	C
ATOM	34636	CG GLN C	28	226.006	143.355	34.048	1.00114.11	C	ATOM	34686	CG LEU C	33	216.750	138.368	29.039	1.00 81.19	C
ATOM	34637	CD GLN C	28	225.725	144.793	34.373	1.00114.11	C	ATOM	34687	CD1 LEU C	33	217.389	138.392	27.663	1.00 81.19	C
ATOM	34638	OE1 GLN C	28	224.825	145.095	35.160	1.00114.11	O	ATOM	34688	CD2 LEU C	33	216.114	137.013	29.305	1.00 81.19	C
ATOM	34639	NE2 GLN C	28	226.479	145.699	33.758	1.00114.11	N	ATOM	34689	N LEU C	34	217.586	136.795	32.546	1.00 61.69	N
ATOM	34640	N TYR C	29	223.680	141.435	30.922	1.00 64.96	N	ATOM	34690	CA LEU C	34	217.060	135.562	33.098	1.00 61.69	C
ATOM	34641	CA TYR C	29	222.542	141.105	30.065	1.00 64.96	C	ATOM	34691	C LEU C	34	216.085	135.963	34.182	1.00 61.69	C
ATOM	34642	C TYR C	29	221.917	139.729	30.261	1.00 64.96	C	ATOM	34692	O LEU C	34	215.058	135.315	34.383	1.00 61.69	O
ATOM	34643	O TYR C	29	220.722	139.638	30.504	1.00 64.96	O	ATOM	34693	CB LEU C	34	218.172	134.710	33.710	1.00 42.10	C
ATOM	34644	CB TYR C	29	222.915	141.270	28.597	1.00 67.50	C	ATOM	34694	CG LEU C	34	217.850	133.227	33.835	1.00 42.10	C
ATOM	34645	CG TYR C	29	221.736	141.599	27.703	1.00 67.50	C	ATOM	34695	CD1 LEU C	34	218.926	132.563	34.685	1.00 42.10	C
ATOM	34646	CD1 TYR C	29	221.635	142.850	27.082	1.00 67.50	C	ATOM	34696	CD2 LEU C	34	216.485	133.008	34.459	1.00 42.10	C
ATOM	34647	CD2 TYR C	29	220.739	140.652	27.454	1.00 67.50	C	ATOM	34697	N GLU C	35	216.420	137.047	34.877	1.00 89.60	N



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ATOM	34698	CA	GLU	C	35	215.584	137.572	35.950	1.00	89.60	C	ATOM	34748	CD	ARG	C	40	207.827	138.395	30.910	1.00	59.23	C
ATOM	34699	C	GLU	C	35	214.180	137.861	35.422	1.00	89.60	C	ATOM	34749	NE	ARG	C	40	207.902	139.732	30.325	1.00	59.23	N
ATOM	34700	O	GLU	C	35	213.206	137.252	35.868	1.00	89.60	O	ATOM	34750	CZ	ARG	C	40	209.016	140.458	30.237	1.00	59.23	C
ATOM	34701	CB	GLU	C	35	216.218	138.846	36.522	1.00	101.88	C	ATOM	34751	NH1	ARG	C	40	210.164	139.973	30.703	1.00	59.23	N
ATOM	34702	CG	GLU	C	35	215.521	139.411	37.751	1.00	101.88	C	ATOM	34752	NH2	ARG	C	40	208.986	141.664	29.671	1.00	59.23	N
ATOM	34703	CD	GLU	C	35	216.467	140.187	38.659	1.00	101.88	C	ATOM	34753	N	GLY	C	41	207.506	134.702	35.096	1.00	73.80	N
ATOM	34704	OE1	GLU	C	35	217.317	139.555	39.327	1.00	101.88	O	ATOM	34754	CA	GLY	C	41	207.174	133.336	35.466	1.00	73.80	C
ATOM	34705	OE2	GLU	C	35	216.362	141.430	38.703	1.00	101.88	O	ATOM	34755	C	GLY	C	41	206.092	133.231	36.524	1.00	73.80	C
ATOM	34706	N	ASP	C	36	214.088	138.779	34.461	1.00	69.67	N	ATOM	34756	O	GLY	C	41	205.078	132.564	36.316	1.00	73.80	O
ATOM	34707	CA	ASP	C	36	212.806	139.144	33.866	1.00	69.67	C	ATOM	34757	N	LEU	C	42	206.305	133.898	37.657	1.00	116.05	N
ATOM	34708	C	ASP	C	36	211.892	137.943	33.677	1.00	69.67	C	ATOM	34758	CA	LEU	C	42	205.352	133.882	38.767	1.00	116.05	C
ATOM	34709	O	ASP	C	36	210.694	138.019	33.951	1.00	69.67	C	ATOM	34759	C	LEU	C	42	204.064	134.647	38.490	1.00	116.05	C
ATOM	34710	CB	ASP	C	36	213.009	139.826	32.512	1.00	118.19	C	ATOM	34760	O	LEU	C	42	202.969	134.137	38.731	1.00	116.05	O
ATOM	34711	CG	ASP	C	36	213.656	141.183	32.637	1.00	118.19	C	ATOM	34761	CB	LEU	C	42	206.001	134.454	40.032	1.00	155.90	C
ATOM	34712	OD1	ASP	C	36	213.662	141.933	31.640	1.00	118.19	O	ATOM	34762	CG	LEU	C	42	207.061	133.613	40.746	1.00	155.90	C
ATOM	34713	OD2	ASP	C	36	214.162	141.498	33.732	1.00	118.19	O	ATOM	34763	CD1	LEU	C	42	207.643	134.406	41.905	1.00	155.90	C
ATOM	34714	N	GLN	C	37	212.458	136.840	33.200	1.00	111.95	N	ATOM	34764	CD2	LEU	C	42	206.438	132.316	41.245	1.00	155.90	C
ATOM	34715	CA	GLN	C	37	211.680	135.627	32.969	1.00	111.95	C	ATOM	34765	N	LEU	C	43	204.201	135.872	37.991	1.00	88.39	N
ATOM	34716	C	GLN	C	37	211.227	135.012	34.289	1.00	111.95	C	ATOM	34766	CA	LEU	C	43	203.049	136.719	37.701	1.00	88.39	C
ATOM	34717	O	GLN	C	37	210.123	134.470	34.382	1.00	111.95	O	ATOM	34767	C	LEU	C	43	201.988	136.023	36.859	1.00	88.39	C
ATOM	34718	CB	GLN	C	37	212.497	134.620	32.142	1.00	88.42	C	ATOM	34768	O	LEU	C	43	200.791	136.160	37.116	1.00	88.39	O
ATOM	34719	CG	GLN	C	37	212.093	134.554	30.664	1.00	88.42	C	ATOM	34769	CB	LEU	C	43	203.495	137.987	36.983	1.00	84.27	C
ATOM	34720	CD	GLN	C	37	211.964	135.930	30.016	1.00	88.42	C	ATOM	34770	CG	LEU	C	43	204.822	138.568	37.454	1.00	84.27	C
ATOM	34721	OE1	GLN	C	37	212.943	136.668	29.885	1.00	88.42	O	ATOM	34771	CD1	LEU	C	43	204.980	139.963	36.854	1.00	84.27	C
ATOM	34722	NE2	GLN	C	37	210.747	136.281	29.613	1.00	88.42	N	ATOM	34772	CD2	LEU	C	43	204.868	138.612	38.974	1.00	84.27	C
ATOM	34723	CA	ARG	C	38	212.080	135.099	35.306	1.00	91.17	N	ATOM	34773	N	GLU	C	44	202.428	135.287	35.845	1.00	96.36	N
ATOM	34724	N	ARG	C	38	211.742	134.579	36.624	1.00	91.17	C	ATOM	34774	CA	GLU	C	44	201.503	134.575	34.977	1.00	96.36	C
ATOM	34725	C	ARG	C	38	210.519	135.372	37.077	1.00	91.17	C	ATOM	34775	O	GLU	C	44	199.785	132.985	35.499	1.00	96.36	O
ATOM	34726	O	ARG	C	38	209.520	134.812	37.542	1.00	91.17	O	ATOM	34776	O	GLU	C	44	200.939	133.361	35.705	1.00	96.36	C
ATOM	34727	CB	ARG	C	38	212.905	134.803	37.587	1.00	97.67	C	ATOM	34777	CB	GLU	C	44	202.221	134.156	33.695	1.00	120.74	C
ATOM	34728	CG	ARG	C	38	214.114	133.947	37.294	1.00	97.67	C	ATOM	34778	CG	GLU	C	44	202.694	135.346	32.876	1.00	120.74	C
ATOM	34729	CD	ARG	C	38	213.883	132.512	37.738	1.00	97.67	C	ATOM	34779	CD	GLU	C	44	203.501	134.948	31.659	1.00	120.74	C
ATOM	34730	NE	ARG	C	38	214.966	131.623	37.316	1.00	97.67	N	ATOM	34780	OE1	GLU	C	44	202.988	134.159	30.839	1.00	120.74	O
ATOM	34731	CZ	ARG	C	38	216.259	131.840	37.552	1.00	97.67	N	ATOM	34781	OE2	GLU	C	44	204.646	135.431	31.520	1.00	120.74	O
ATOM	34732	NH1	ARG	C	38	216.649	132.926	38.212	1.00	97.67	N	ATOM	34782	N	LYS	C	45	201.759	132.765	36.568	1.00	107.49	N
ATOM	34733	NH2	ARG	C	38	217.166	130.965	37.129	1.00	97.67	N	ATOM	34783	CA	LYS	C	45	201.360	131.602	37.356	1.00	107.49	C
ATOM	34734	N	ILE	C	39	210.619	136.689	36.924	1.00	82.76	N	ATOM	34784	C	LYS	C	45	200.368	131.997	38.443	1.00	107.49	O
ATOM	34735	CA	ILE	C	39	209.539	137.600	37.266	1.00	82.76	C	ATOM	34785	O	LYS	C	45	199.561	131.179	38.886	1.00	107.49	O
ATOM	34736	C	ILE	C	39	208.275	137.117	36.574	1.00	82.76	C	ATOM	34786	CB	LYS	C	45	202.586	130.960	38.009	1.00	103.96	C
ATOM	34737	O	ILE	C	39	207.415	136.500	37.201	1.00	82.76	O	ATOM	34787	CG	LYS	C	45	203.137	129.750	37.272	1.00	103.96	C
ATOM	34738	CB	ILE	C	39	209.852	139.021	36.773	1.00	75.81	C	ATOM	34788	CD	LYS	C	45	202.165	128.579	37.345	1.00	103.96	C
ATOM	34739	CG1	ILE	C	39	210.984	139.616	37.612	1.00	75.81	C	ATOM	34789	CE	LYS	C	45	202.773	127.311	36.759	1.00	103.96	C
ATOM	34740	CG2	ILE	C	39	208.595	139.877	36.800	1.00	75.81	C	ATOM	34790	NZ	LYS	C	45	201.871	126.139	36.940	1.00	103.96	N
ATOM	34741	CD1	ILE	C	39	211.374	141.029	37.195	1.00	75.81	C	ATOM	34791	N	GLU	C	46	200.437	133.254	38.872	1.00	99.44	N
ATOM	34742	N	ARG	C	40	208.182	137.398	35.275	1.00	73.77	N	ATOM	34792	CA	GLU	C	46	199.556	133.769	39.915	1.00	99.44	C
ATOM	34743	CA	ARG	C	40	207.038	136.996	34.460	1.00	73.77	C	ATOM	34793	C	GLU	C	46	198.386	134.568	39.352	1.00	99.44	O
ATOM	34744	O	ARG	C	40	206.555	135.597	34.834	1.00	73.77	C	ATOM	34794	O	GLU	C	46	197.263	134.066	39.256	1.00	99.44	O
ATOM	34745	O	ARG	C	40	205.350	135.340	34.892	1.00	73.77	O	ATOM	34795	CB	GLU	C	46	200.349	134.658	40.877	1.00	146.52	C
ATOM	34746	CB	ARG	C	40	207.408	137.029	32.972	1.00	59.23	C	ATOM	34796	CG	GLU	C	46	201.344	133.911	41.749	1.00	146.52	C
ATOM	34747	CG	ARG	C	40	207.750	138.415	32.425	1.00	59.23	C	ATOM	34797	CD	GLU	C	46	200.670	133.070	42.819	1.00	146.52	C



ATOM	34798	OE1	GLU	C	46	199.919	133.641	43.638	1.00146.52	O	ATOM	34848	N	ARG	C	54	200.178	141.918	29.927	1.00	83.50	C	
ATOM	34799	OE2	GLU	C	46	200.893	131.841	42.847	1.00146.52	O	ATOM	34849	CA	ARG	C	54	201.508	142.404	29.622	1.00	83.50	C	
ATOM	34800	N	LEU	C	47	198.672	135.814	38.989	1.00	84.77	N	ATOM	34850	C	ARG	C	54	202.261	142.642	30.914	1.00	83.50	C
ATOM	34801	CA	LEU	C	47	197.689	136.747	38.442	1.00	84.77	C	ATOM	34851	O	ARG	C	54	201.657	142.823	31.966	1.00	83.50	O
ATOM	34802	C	LEU	C	47	196.862	136.235	37.262	1.00	84.77	C	ATOM	34852	CB	ARG	C	54	201.429	143.701	28.823	1.00	104.55	C
ATOM	34803	O	LEU	C	47	196.469	137.027	36.401	1.00	84.77	O	ATOM	34853	CG	ARG	C	54	202.717	144.037	28.113	1.00	104.55	C
ATOM	34804	CB	LEU	C	47	198.389	138.036	38.003	1.00	61.86	C	ATOM	34854	CD	ARG	C	54	202.647	145.393	27.452	1.00	104.55	C
ATOM	34805	CG	LEU	C	47	199.093	138.913	39.037	1.00	61.86	C	ATOM	34855	NE	ARG	C	54	203.828	145.643	26.632	1.00	104.55	N
ATOM	34806	CD1	LEU	C	47	199.930	138.050	39.983	1.00	61.86	C	ATOM	34856	CZ	ARG	C	54	204.164	146.832	26.145	1.00	104.55	C
ATOM	34807	CD2	LEU	C	47	199.956	139.955	38.302	1.00	61.86	C	ATOM	34857	NH1	ARG	C	54	203.409	147.894	26.395	1.00	104.55	N
ATOM	34808	N	TYR	C	48	196.583	134.937	37.204	1.00	95.84	N	ATOM	34858	NH2	ARG	C	54	205.252	146.957	25.398	1.00	104.55	N
ATOM	34809	CA	TYR	C	48	195.802	134.427	36.091	1.00	95.84	C	ATOM	34859	N	VAL	C	55	203.584	142.641	30.828	1.00	81.22	N
ATOM	34810	C	TYR	C	48	194.384	134.998	36.104	1.00	95.84	C	ATOM	34860	CA	VAL	C	55	204.421	142.844	31.996	1.00	81.22	C
ATOM	34811	O	TYR	C	48	193.959	135.645	35.141	1.00	95.84	O	ATOM	34861	C	VAL	C	55	205.619	143.703	31.649	1.00	81.22	C
ATOM	34812	CB	TYR	C	48	195.757	132.895	36.106	1.00	108.15	C	ATOM	34862	O	VAL	C	55	206.703	143.178	31.423	1.00	81.22	O
ATOM	34813	CG	TYR	C	48	195.010	132.318	34.917	1.00	108.15	C	ATOM	34863	CB	VAL	C	55	204.957	141.497	32.556	1.00	49.30	C
ATOM	34814	CD1	TYR	C	48	194.836	133.072	33.746	1.00	108.15	C	ATOM	34864	CG1	VAL	C	55	205.855	141.753	33.762	1.00	49.30	C
ATOM	34815	CD2	TYR	C	48	194.477	131.027	34.956	1.00	108.15	C	ATOM	34865	CG2	VAL	C	55	203.805	140.588	32.947	1.00	49.30	C
ATOM	34816	CE1	TYR	C	48	194.149	132.564	32.649	1.00	108.15	C	ATOM	34866	N	ASP	C	56	205.435	145.017	31.593	1.00	97.61	N
ATOM	34817	CE2	TYR	C	48	193.788	130.504	33.858	1.00	108.15	C	ATOM	34867	CA	ASP	C	56	206.555	145.905	31.297	1.00	97.61	C
ATOM	34818	CZ	TYR	C	48	193.629	131.282	32.708	1.00	108.15	C	ATOM	34868	C	ASP	C	56	207.574	145.812	32.432	1.00	97.61	C
ATOM	34819	OH	TYR	C	48	192.954	130.782	31.617	1.00	108.15	O	ATOM	34869	O	ASP	C	56	207.206	145.744	33.606	1.00	97.61	O
ATOM	34820	N	SER	C	49	193.667	134.768	37.203	1.00	85.79	N	ATOM	34870	CB	ASP	C	56	206.073	147.349	31.159	1.00	117.28	C
ATOM	34821	CA	SER	C	49	192.292	135.242	37.355	1.00	85.79	C	ATOM	34871	CG	ASP	C	56	205.282	147.575	29.897	1.00	117.28	C
ATOM	34822	C	SER	C	49	192.154	136.762	37.254	1.00	85.79	C	ATOM	34872	OD1	ASP	C	56	204.437	146.718	29.571	1.00	117.28	O
ATOM	34823	O	SER	C	49	191.060	137.287	37.038	1.00	85.79	O	ATOM	34873	OD2	ASP	C	56	205.497	148.610	29.235	1.00	117.28	O
ATOM	34824	CB	SER	C	49	191.727	134.759	38.689	1.00	96.45	C	ATOM	34874	N	ILE	C	57	208.854	145.798	32.081	1.00	75.59	N
ATOM	34825	OG	SER	C	49	192.579	135.132	39.754	1.00	96.45	O	ATOM	34875	CA	ILE	C	57	209.900	145.721	33.089	1.00	75.59	C
ATOM	34826	N	ALA	C	50	193.263	137.471	37.419	1.00	48.78	N	ATOM	34876	C	ILE	C	57	211.048	146.679	32.803	1.00	75.59	C
ATOM	34827	CA	ALA	C	50	193.242	138.925	37.320	1.00	48.78	C	ATOM	34877	O	ILE	C	57	211.982	146.329	32.085	1.00	75.59	O
ATOM	34828	C	ALA	C	50	193.125	139.319	35.852	1.00	48.78	C	ATOM	34878	CB	ILE	C	57	210.461	144.291	33.206	1.00	54.29	C
ATOM	34829	O	ALA	C	50	192.559	140.362	35.505	1.00	48.78	O	ATOM	34879	CG1	ILE	C	57	209.398	143.369	33.809	1.00	54.29	C
ATOM	34830	CB	ALA	C	50	194.520	139.504	37.914	1.00	58.44	C	ATOM	34880	CG2	ILE	C	57	211.731	144.295	34.056	1.00	54.29	C
ATOM	34831	N	GLY	C	51	193.666	138.464	34.994	1.00	115.85	N	ATOM	34881	CD1	ILE	C	57	209.895	141.952	34.069	1.00	54.29	C
ATOM	34832	CA	GLY	C	51	193.643	138.733	33.575	1.00	115.85	C	ATOM	34882	N	GLU	C	58	210.969	147.886	33.369	1.00	74.35	N
ATOM	34833	C	GLY	C	51	194.926	139.436	33.187	1.00	115.85	C	ATOM	34883	CA	GLU	C	58	212.006	148.900	33.189	1.00	74.35	C
ATOM	34834	O	GLY	C	51	194.957	140.659	33.056	1.00	115.85	O	ATOM	34884	C	GLU	C	58	213.075	148.772	34.261	1.00	74.35	C
ATOM	34835	N	LEU	C	52	195.992	138.657	33.028	1.00	88.98	N	ATOM	34885	O	GLU	C	58	212.866	148.091	35.266	1.00	74.35	O
ATOM	34836	CA	LEU	C	52	197.304	139.177	32.640	1.00	88.98	C	ATOM	34886	CB	GLU	C	58	211.390	150.298	33.209	1.00	120.92	C
ATOM	34837	C	LEU	C	52	197.254	139.584	31.174	1.00	88.98	C	ATOM	34887	CG	GLU	C	58	210.779	150.679	31.874	1.00	120.92	C
ATOM	34838	O	LEU	C	52	196.552	138.963	30.382	1.00	88.98	O	ATOM	34888	CD	GLU	C	58	210.077	152.020	31.895	1.00	120.92	C
ATOM	34839	CB	LEU	C	52	198.359	138.090	32.804	1.00	83.24	C	ATOM	34889	OE1	GLU	C	58	209.003	152.116	32.526	1.00	120.92	O
ATOM	34840	CG	LEU	C	52	198.039	136.841	31.966	1.00	83.24	C	ATOM	34890	OE2	GLU	C	58	210.599	152.977	31.280	1.00	120.92	O
ATOM	34841	CD1	LEU	C	52	199.283	135.957	31.842	1.00	83.24	C	ATOM	34891	N	ARG	C	59	214.226	149.402	34.036	1.00	100.18	N
ATOM	34842	CD2	LEU	C	52	196.862	136.078	32.594	1.00	83.24	C	ATOM	34892	CA	ARG	C	59	215.323	149.335	34.997	1.00	100.18	C
ATOM	34843	N	ALA	C	53	197.997	140.612	30.799	1.00	81.21	N	ATOM	34893	C	ARG	C	59	216.302	150.500	34.914	1.00	100.18	C
ATOM	34844	CA	ALA	C	53	197.989	141.035	29.406	1.00	81.21	C	ATOM	34894	O	ARG	C	59	216.314	151.253	33.936	1.00	100.18	O
ATOM	34845	C	ALA	C	53	199.360	141.523	28.962	1.00	81.21	C	ATOM	34895	CB	ARG	C	59	216.110	148.036	34.826	1.00	73.59	C
ATOM	34846	O	ALA	C	53	199.673	141.543	27.770	1.00	81.21	O	ATOM	34896	CG	ARG	C	59	215.333	146.766	35.107	1.00	73.59	C
ATOM	34847	CB	ALA	C	53	196.944	142.131	29.195	1.00	20.02	C	ATOM	34897	CD	ARG	C	59	216.244	145.757	35.760	1.00	73.59	C



Table 1: Sheet 351/521

ATOM	34898	NE	ARG	C	59	215.683	144.415	35.770	1.00	73.59	N	ATOM	34948	CA	THR	C	67	204.111	147.403	35.605	1.00	73.77	C
ATOM	34899	CZ	ARG	C	59	216.229	143.399	36.428	1.00	73.59	C	ATOM	34949	C	THR	C	67	203.015	146.479	35.064	1.00	73.77	C
ATOM	34900	NH1	ARG	C	59	217.342	143.590	37.128	1.00	73.59	N	ATOM	34950	O	THR	C	67	202.463	146.727	33.993	1.00	73.77	O
ATOM	34901	NH2	ARG	C	59	215.677	142.192	36.379	1.00	73.59	N	ATOM	34951	CB	THR	C	67	204.214	148.659	34.704	1.00	66.56	C
ATOM	34902	N	ALA	C	60	217.127	150.628	35.954	1.00	101.42	N	ATOM	34952	OG1	THR	C	67	205.299	149.480	35.163	1.00	66.56	O
ATOM	34903	CA	ALA	C	60	218.141	151.679	36.046	1.00	101.42	C	ATOM	34953	CG2	THR	C	67	202.919	149.458	34.723	1.00	66.56	C
ATOM	34904	C	ALA	C	60	219.199	151.309	37.084	1.00	101.42	C	ATOM	34954	N	VAL	C	68	202.705	145.417	35.801	1.00	64.14	N
ATOM	34905	O	ALA	C	60	220.138	152.070	37.313	1.00	101.42	O	ATOM	34955	CA	VAL	C	68	201.671	144.464	35.384	1.00	64.14	C
ATOM	34906	CB	ALA	C	60	217.495	153.017	36.411	1.00	79.65	C	ATOM	34956	C	VAL	C	68	200.378	145.143	34.899	1.00	64.14	C
ATOM	34907	N	ALA	C	61	219.017	150.140	37.702	1.00	116.40	N	ATOM	34957	O	VAL	C	68	199.845	146.023	35.579	1.00	64.14	O
ATOM	34908	CA	ALA	C	61	219.912	149.577	38.723	1.00	116.40	C	ATOM	34958	CB	VAL	C	68	201.310	143.493	36.548	1.00	65.60	C
ATOM	34909	C	ALA	C	61	219.260	149.435	40.095	1.00	116.40	C	ATOM	34959	CG1	VAL	C	68	200.041	142.716	36.223	1.00	65.60	C
ATOM	34910	O	ALA	C	61	218.749	150.405	40.655	1.00	116.40	O	ATOM	34960	CG2	VAL	C	68	202.455	142.523	36.792	1.00	65.60	C
ATOM	34911	CB	ALA	C	61	221.194	150.402	38.849	1.00	114.74	C	ATOM	34961	N	HIS	C	69	199.886	144.731	33.725	1.00	76.77	N
ATOM	34912	N	ASP	C	62	219.286	148.211	40.619	1.00	131.67	N	ATOM	34962	CA	HIS	C	69	198.641	145.263	33.150	1.00	76.77	C
ATOM	34913	CA	ASP	C	62	218.731	147.873	41.931	1.00	131.67	C	ATOM	34963	C	HIS	C	69	197.527	144.234	33.309	1.00	76.77	C
ATOM	34914	O	ASP	C	62	217.381	148.498	42.277	1.00	131.67	C	ATOM	34964	O	HIS	C	69	197.676	143.074	32.908	1.00	76.77	O
ATOM	34915	C	ASP	C	62	216.956	148.469	43.433	1.00	131.67	O	ATOM	34965	CB	HIS	C	69	198.819	145.578	31.677	1.00	59.66	C
ATOM	34916	CB	ASP	C	62	219.748	148.222	43.018	1.00	156.71	C	ATOM	34966	CG	HIS	C	69	199.772	146.696	31.415	1.00	59.66	C
ATOM	34917	CG	ASP	C	62	221.057	147.486	42.838	1.00	156.71	C	ATOM	34967	ND1	HIS	C	69	199.363	147.926	30.947	1.00	59.66	N
ATOM	34918	OD1	ASP	C	62	221.038	146.238	42.854	1.00	156.71	O	ATOM	34968	CD2	HIS	C	69	201.118	146.766	31.535	1.00	59.66	C
ATOM	34919	OD2	ASP	C	62	222.103	148.150	42.677	1.00	156.71	O	ATOM	34969	CE1	HIS	C	69	200.418	148.706	30.787	1.00	59.66	C
ATOM	34920	N	ASN	C	63	216.714	149.065	41.279	1.00	175.64	N	ATOM	34970	NE2	HIS	C	69	201.495	148.027	31.136	1.00	59.66	N
ATOM	34921	CA	ASN	C	63	215.403	149.679	41.465	1.00	175.64	C	ATOM	34971	N	VAL	C	70	196.404	144.667	33.880	1.00	96.43	N
ATOM	34922	C	ASN	C	63	214.571	149.380	40.231	1.00	175.64	C	ATOM	34972	CA	VAL	C	70	195.294	143.757	34.138	1.00	96.43	C
ATOM	34923	CB	ASN	C	63	214.348	150.239	39.379	1.00	175.64	O	ATOM	34973	C	VAL	C	70	193.898	144.268	33.773	1.00	96.43	C
ATOM	34924	CB	ASN	C	63	215.536	151.198	41.677	1.00	136.10	C	ATOM	34974	O	VAL	C	70	193.683	145.463	33.578	1.00	96.43	O
ATOM	34925	CG	ASN	C	63	215.924	151.538	43.102	1.00	136.10	C	ATOM	34975	CB	VAL	C	70	195.271	143.361	35.634	1.00	86.98	C
ATOM	34926	OD1	ASN	C	63	215.182	151.256	44.046	1.00	136.10	C	ATOM	34976	CG1	VAL	C	70	194.700	141.970	35.797	1.00	86.98	C
ATOM	34927	ND2	ASN	C	63	217.092	152.150	43.266	1.00	135.87	N	ATOM	34977	CG2	VAL	C	70	196.668	143.445	36.221	1.00	86.98	C
ATOM	34928	N	VAL	C	64	214.122	148.134	40.160	1.00	150.99	N	ATOM	34978	N	ALA	C	71	192.955	143.332	33.695	1.00	86.91	N
ATOM	34929	CA	VAL	C	64	213.334	147.625	39.050	1.00	150.99	C	ATOM	34979	CA	ALA	C	71	191.561	143.630	33.389	1.00	86.91	C
ATOM	34930	C	VAL	C	64	211.935	148.233	38.968	1.00	150.99	C	ATOM	34980	C	ALA	C	71	190.837	143.887	34.710	1.00	86.91	C
ATOM	34931	O	VAL	C	64	211.424	148.770	39.170	1.00	66.31	C	ATOM	34981	O	ALA	C	71	189.988	144.776	34.805	1.00	86.91	O
ATOM	34932	CB	VAL	C	64	213.213	146.106	39.951	1.00	66.31	C	ATOM	34982	CB	ALA	C	71	190.927	142.452	32.671	1.00	55.20	C
ATOM	34933	CG1	VAL	C	64	212.946	145.496	37.806	1.00	66.31	C	ATOM	34983	N	LYS	C	72	191.189	143.089	35.718	1.00	94.53	N
ATOM	34934	CG2	VAL	C	64	214.478	145.541	39.813	1.00	66.31	C	ATOM	34984	CA	LYS	C	72	190.618	143.185	37.063	1.00	94.53	C
ATOM	34935	N	ALA	C	65	211.319	148.135	37.790	1.00	135.87	N	ATOM	34985	C	LYS	C	72	191.723	143.605	38.043	1.00	94.53	C
ATOM	34936	CA	ALA	C	65	209.983	148.683	37.565	1.00	135.87	C	ATOM	34986	O	LYS	C	72	192.200	142.789	38.846	1.00	94.53	O
ATOM	34937	C	ALA	C	65	208.866	147.655	37.752	1.00	135.87	C	ATOM	34987	CB	LYS	C	72	190.056	141.826	37.500	1.00	85.42	C
ATOM	34938	O	ALA	C	65	208.339	147.500	38.854	1.00	135.87	O	ATOM	34988	CG	LYS	C	72	189.236	141.108	36.440	1.00	85.42	C
ATOM	34939	CB	ALA	C	65	209.897	149.302	36.160	1.00	74.99	C	ATOM	34989	CD	LYS	C	72	188.635	139.814	36.974	1.00	85.42	C
ATOM	34940	N	VAL	C	66	208.509	146.962	36.673	1.00	103.04	C	ATOM	34990	CE	LYS	C	72	187.524	140.095	37.978	1.00	85.42	C
ATOM	34941	CA	VAL	C	66	207.445	145.958	36.698	1.00	103.04	C	ATOM	34991	NZ	LYS	C	72	186.735	138.880	38.338	1.00	85.42	N
ATOM	34942	C	VAL	C	66	206.099	146.656	36.791	1.00	103.04	C	ATOM	34992	N	PRO	C	73	192.133	144.890	37.999	1.00	94.43	N
ATOM	34943	O	VAL	C	66	205.691	147.096	37.861	1.00	103.04	O	ATOM	34993	CA	PRO	C	73	193.186	145.407	38.880	1.00	94.43	C
ATOM	34944	CB	VAL	C	66	207.572	145.006	37.902	1.00	52.71	C	ATOM	34994	C	PRO	C	73	192.942	145.087	40.346	1.00	94.43	C
ATOM	34945	CG1	VAL	C	66	206.515	143.908	37.809	1.00	52.71	C	ATOM	34995	O	PRO	C	73	193.866	145.122	41.161	1.00	94.43	O
ATOM	34946	CG2	VAL	C	66	208.967	144.415	37.949	1.00	52.71	C	ATOM	34996	CB	PRO	C	73	193.184	146.908	38.585	1.00	86.93	C
ATOM	34947	N	THR	C	67	205.405	146.738	35.665	1.00	73.77	N	ATOM	34997	CG	PRO	C	73	191.773	147.170	38.174	1.00	86.93	C



Table 1: Sheet 352/521

ATOM	34998	CD	PRO	C	73	191.473	145.994	37.280	1.00	86.93	C	ATOM	35048	N	GLU	C	82	196.406	144.158	50.503	1.00164.30	C	
ATOM	34999	N	GLY	C	74	191.693	144.773	40.671	1.00	74.15	N	ATOM	35049	CA	GLU	C	82	197.140	143.130	51.233	1.00164.30	C	
ATOM	35000	CA	GLY	C	74	191.358	144.429	42.037	1.00	74.15	C	ATOM	35050	C	GLU	C	82	197.893	142.161	50.322	1.00164.30	C	
ATOM	35001	C	GLY	C	74	192.070	143.153	42.446	1.00	74.15	C	ATOM	35051	O	GLU	C	82	198.957	141.665	50.691	1.00164.30	O	
ATOM	35002	O	GLY	C	74	192.978	143.174	43.276	1.00	74.15	O	ATOM	35052	CB	GLU	C	82	196.186	142.345	52.146	1.00141.03	C	
ATOM	35003	N	VAL	C	75	191.665	142.042	41.841	1.00	69.06	N	ATOM	35053	CG	GLU	C	82	195.640	141.044	51.557	1.00141.03	C	
ATOM	35004	CA	VAL	C	75	192.243	140.733	42.131	1.00	69.06	C	ATOM	35054	CD	GLU	C	82	196.650	139.903	51.586	1.00141.03	C	
ATOM	35005	C	VAL	C	75	193.753	140.838	42.379	1.00	69.06	C	ATOM	35055	OE1	GLU	C	82	197.115	139.544	52.689	1.00141.03	O	
ATOM	35006	O	VAL	C	75	194.319	140.110	43.204	1.00	69.06	O	ATOM	35056	OE2	GLU	C	82	196.979	139.364	50.508	1.00141.03	O	
ATOM	35007	CB	VAL	C	75	191.980	139.744	40.957	1.00	69.05	C	ATOM	35057	N	ARG	C	83	197.343	141.878	49.144	1.00104.25	N	
ATOM	35008	CG1	VAL	C	75	191.769	138.321	41.494	1.00	69.05	C	ATOM	35058	CA	ARG	C	83	198.004	140.958	48.225	1.00104.25	C	
ATOM	35009	CG2	VAL	C	75	190.772	140.201	40.145	1.00	69.05	C	ATOM	35059	C	ARG	C	83	199.192	141.606	47.537	1.00104.25	C	
ATOM	35010	N	VAL	C	76	194.395	141.753	41.658	1.00137.52	N	ATOM	35060	O	ARG	C	83	200.237	140.979	47.381	1.00104.25	O		
ATOM	35011	CA	VAL	C	76	195.830	141.972	41.791	1.00137.52	C	ATOM	35061	CB	ARG	C	83	197.034	140.435	47.168	1.00100.62	C		
ATOM	35012	C	VAL	C	76	196.118	142.554	43.172	1.00137.52	C	ATOM	35062	CG	ARG	C	83	197.735	139.574	46.142	1.00100.62	C		
ATOM	35013	O	VAL	C	76	196.618	141.861	44.061	1.00137.52	O	ATOM	35063	CD	ARG	C	83	196.781	138.767	45.299	1.00100.62	C		
ATOM	35014	CB	VAL	C	76	196.349	142.963	40.713	1.00124.75	C	ATOM	35064	NE	ARG	C	83	197.519	137.777	44.522	1.00100.62	C		
ATOM	35015	CG1	VAL	C	76	197.863	143.076	40.780	1.00124.75	C	ATOM	35065	CZ	ARG	C	83	196.973	136.704	43.962	1.00100.62	C		
ATOM	35016	CG2	VAL	C	76	195.916	142.503	39.336	1.00124.75	C	ATOM	35066	NH1	ARG	C	83	195.672	136.476	44.090	1.00100.62	N		
ATOM	35017	N	ILE	C	77	195.784	143.830	43.334	1.00125.93	N	ATOM	35067	NH2	ARG	C	83	197.731	135.852	43.284	1.00100.62	N		
ATOM	35018	CA	ILE	C	77	195.992	144.555	44.582	1.00125.93	C	ATOM	35068	N	ILE	C	84	199.030	142.861	47.125	1.00	89.41	N	
ATOM	35019	C	ILE	C	77	195.726	143.715	45.822	1.00125.93	C	ATOM	35069	CA	ILE	C	84	200.108	143.584	46.465	1.00	89.41	C	
ATOM	35020	O	ILE	C	77	196.634	143.431	46.599	1.00125.93	O	ATOM	35070	C	ILE	C	84	201.266	143.690	47.459	1.00	89.41	C	
ATOM	35021	CB	ILE	C	77	195.080	145.786	44.665	1.00	62.33	C	ATOM	35071	O	ILE	C	84	202.300	144.301	47.191	1.00	89.41	O
ATOM	35022	CG1	ILE	C	77	195.353	146.735	43.491	1.00	62.33	C	ATOM	35072	CB	ILE	C	84	199.636	144.996	46.001	1.00	86.86	C
ATOM	35023	CG2	ILE	C	77	195.285	146.471	46.002	1.00	62.33	C	ATOM	35073	CG1	ILE	C	84	200.813	145.778	45.403	1.00	86.86	C
ATOM	35024	CD1	ILE	C	77	196.732	147.357	43.493	1.00	62.33	C	ATOM	35074	CG2	ILE	C	84	198.980	145.732	47.158	1.00	86.86	C
ATOM	35025	N	GLY	C	78	194.465	143.337	46.003	1.00126.12	N	ATOM	35075	CD1	ILE	C	84	200.452	147.148	44.884	1.00	86.86	C	
ATOM	35026	CA	GLY	C	78	194.076	142.542	47.152	1.00126.12	C	ATOM	35076	N	ARG	C	85	201.066	143.071	48.617	1.00121.01	N		
ATOM	35027	C	GLY	C	78	193.083	143.305	48.008	1.00126.12	C	ATOM	35077	CA	ARG	C	85	202.060	143.028	49.680	1.00121.01	C		
ATOM	35028	O	GLY	C	78	192.519	144.308	47.563	1.00126.12	O	ATOM	35078	C	ARG	C	85	202.745	141.667	49.582	1.00121.01	C		
ATOM	35029	N	ARG	C	79	192.865	142.832	49.233	1.00143.32	N	ATOM	35079	O	ARG	C	85	203.973	141.564	49.589	1.00121.01	O		
ATOM	35030	CA	ARG	C	79	191.942	143.479	50.163	1.00143.32	C	ATOM	35080	CB	ARG	C	85	201.370	143.176	51.044	1.00135.83	C		
ATOM	35031	C	ARG	C	79	192.629	144.678	50.818	1.00143.32	C	ATOM	35081	CG	ARG	C	85	202.248	142.869	52.243	1.00135.83	C		
ATOM	35032	O	ARG	C	79	193.487	144.520	51.691	1.00143.32	O	ATOM	35082	CD	ARG	C	85	202.413	143.825	52.312	1.00135.83	C		
ATOM	35033	CB	ARG	C	79	191.491	142.479	51.229	1.00127.53	C	ATOM	35083	NE	ARG	C	85	204.395	143.412	53.306	1.00135.83	N		
ATOM	35034	CG	ARG	C	79	192.634	141.878	52.019	1.00127.53	C	ATOM	35084	CZ	ARG	C	85	205.561	144.020	53.494	1.00135.83	C		
ATOM	35035	CD	ARG	C	79	192.184	140.689	52.836	1.00127.53	C	ATOM	35085	NH1	ARG	C	85	205.886	145.070	52.752	1.00135.83	N		
ATOM	35036	CE	ARG	C	79	193.274	140.140	53.636	1.00127.53	N	ATOM	35086	NH2	ARG	C	85	206.404	143.578	54.418	1.00135.83	N		
ATOM	35037	NH1	ARG	C	79	191.988	138.461	54.554	1.00127.53	N	ATOM	35087	N	VAL	C	86	201.927	140.624	49.480	1.00122.10	N		
ATOM	35038	NH2	ARG	C	79	194.199	138.664	55.141	1.00127.53	N	ATOM	35088	CA	VAL	C	86	202.421	139.260	49.376	1.00122.10	C		
ATOM	35039	N	GLY	C	80	192.247	145.877	50.385	1.00109.54	N	ATOM	35089	C	VAL	C	86	203.320	139.140	48.154	1.00122.10	C		
ATOM	35040	CA	GLY	C	80	192.843	147.086	50.921	1.00109.54	C	ATOM	35090	O	VAL	C	86	204.482	138.748	48.260	1.00122.10	O		
ATOM	35041	C	GLY	C	80	194.254	147.265	50.393	1.00109.54	C	ATOM	35091	CB	VAL	C	86	201.255	138.256	49.232	1.00	95.06	C	
ATOM	35042	O	GLY	C	80	194.842	148.344	50.499	1.00109.54	O	ATOM	35092	CG1	VAL	C	86	201.758	136.835	49.462	1.00	95.06	C	
ATOM	35043	N	GLY	C	81	194.791	146.195	49.815	1.00116.55	N	ATOM	35093	CG2	VAL	C	86	200.143	138.605	50.209	1.00	95.06	C	
ATOM	35044	CA	GLY	C	81	196.134	146.224	49.270	1.00116.55	C	ATOM	35094	N	LEU	C	87	202.774	139.485	46.993	1.00124.22	N		
ATOM	35045	C	GLY	C	81	197.017	145.222	49.984	1.00116.55	C	ATOM	35095	CA	LEU	C	87	203.524	139.412	45.748	1.00124.22	C		
ATOM	35046	O	GLY	C	81	198.230	145.403	50.059	1.00116.55	O	ATOM	35096	C	LEU	C	87	204.751	140.308	45.816	1.00124.22	C		
ATOM	35047	O	GLY	C	81	198.230	145.403	50.059	1.00116.55	O	ATOM	35097	O	LEU	C	87	205.880	139.821	45.776	1.00124.22	O		



Table 1: Sheet 353/521

ATOM	35098	CB	LEU	C	87	202.645	139.834	44.564	1.00	65.54	C	ATOM	35148	CB	LYS	C	93	211.353	135.851	48.265	1.00	112.99	C
ATOM	35099	CG	LEU	C	87	201.294	139.125	44.423	1.00	65.54	C	ATOM	35149	CG	LYS	C	93	211.102	136.188	49.723	1.00	112.99	C
ATOM	35100	CD1	LEU	C	87	200.557	139.681	43.215	1.00	65.54	C	ATOM	35150	CD	LYS	C	93	212.253	135.715	50.604	1.00	112.99	C
ATOM	35101	CD2	LEU	C	87	201.489	137.622	44.230	1.00	65.54	C	ATOM	35151	CE	LYS	C	93	211.978	135.992	52.080	1.00	112.99	C
ATOM	35102	N	ARG	C	88	204.522	141.616	45.929	1.00	98.00	N	ATOM	35152	NZ	LYS	C	93	213.064	135.481	52.966	1.00	112.99	N
ATOM	35103	CA	ARG	C	88	205.603	142.600	45.991	1.00	98.00	C	ATOM	35153	CA	LEU	C	94	213.001	136.664	45.262	1.00	101.90	N
ATOM	35104	C	ARG	C	88	206.744	142.118	46.885	1.00	98.00	C	ATOM	35154	N	LEU	C	94	213.401	136.156	43.958	1.00	101.90	C
ATOM	35105	O	ARG	C	88	207.901	142.496	46.691	1.00	98.00	O	ATOM	35155	C	LEU	C	94	214.525	137.049	43.435	1.00	101.90	C
ATOM	35106	CB	ARG	C	88	205.060	143.942	46.493	1.00	128.19	C	ATOM	35156	O	LEU	C	94	215.517	136.571	42.888	1.00	101.90	O
ATOM	35107	CG	ARG	C	88	205.811	145.167	45.974	1.00	128.19	C	ATOM	35157	CB	LEU	C	94	212.184	136.195	43.024	1.00	85.53	C
ATOM	35108	CD	ARG	C	88	204.954	146.427	46.123	1.00	128.19	C	ATOM	35158	CG	LEU	C	94	212.170	135.508	41.659	1.00	85.53	C
ATOM	35109	NE	ARG	C	88	205.501	147.576	45.400	1.00	128.19	C	ATOM	35159	CD1	LEU	C	94	210.733	135.426	41.163	1.00	85.53	C
ATOM	35110	CZ	ARG	C	88	204.825	148.697	45.150	1.00	128.19	C	ATOM	35160	CD2	LEU	C	94	213.037	136.270	40.678	1.00	85.53	C
ATOM	35111	NH1	ARG	C	88	203.571	148.824	45.565	1.00	128.19	N	ATOM	35161	N	THR	C	95	214.362	138.353	43.623	1.00	139.33	N
ATOM	35112	NH2	ARG	C	88	205.400	149.689	44.479	1.00	128.19	N	ATOM	35162	CA	THR	C	95	215.359	139.318	43.190	1.00	139.33	C
ATOM	35113	N	GLU	C	89	206.419	141.282	47.866	1.00	114.78	N	ATOM	35163	C	THR	C	95	215.695	140.243	44.353	1.00	139.33	C
ATOM	35114	CA	GLU	C	89	207.438	140.742	48.751	1.00	114.78	C	ATOM	35164	O	THR	C	95	214.917	141.139	44.687	1.00	139.33	O
ATOM	35115	C	GLU	C	89	207.976	139.459	48.128	1.00	114.78	C	ATOM	35165	CB	THR	C	95	214.841	140.178	42.025	1.00	98.24	C
ATOM	35116	O	GLU	C	89	209.186	139.271	48.029	1.00	114.78	O	ATOM	35166	OG1	THR	C	95	213.878	141.123	42.510	1.00	98.24	O
ATOM	35117	CB	GLU	C	89	206.858	140.455	50.136	1.00	128.95	C	ATOM	35167	CG2	THR	C	95	214.182	139.302	40.979	1.00	98.24	C
ATOM	35118	CG	GLU	C	89	207.866	139.850	51.099	1.00	128.95	C	ATOM	35168	N	GLY	C	96	216.845	140.018	44.982	1.00	122.13	N
ATOM	35119	CD	GLU	C	89	207.375	139.845	52.532	1.00	128.95	C	ATOM	35169	CA	GLY	C	96	217.236	140.870	46.087	1.00	122.13	C
ATOM	35120	OE1	GLU	C	89	206.258	139.341	52.779	1.00	128.95	O	ATOM	35170	C	GLY	C	96	217.130	142.305	45.613	1.00	122.13	C
ATOM	35121	OE2	GLU	C	89	208.111	140.342	53.411	1.00	128.95	N	ATOM	35171	O	GLY	C	96	216.827	143.212	46.382	1.00	122.13	O
ATOM	35122	N	GLU	C	90	207.069	138.583	47.703	1.00	131.96	N	ATOM	35172	N	LYS	C	97	217.366	142.484	44.317	1.00	134.19	N
ATOM	35123	CA	GLU	C	90	207.449	137.323	47.066	1.00	131.96	C	ATOM	35173	CA	LYS	C	97	217.325	143.774	43.630	1.00	134.19	C
ATOM	35124	C	GLU	C	90	208.440	137.654	45.954	1.00	131.96	C	ATOM	35174	C	LYS	C	97	216.532	144.927	44.264	1.00	134.19	C
ATOM	35125	O	GLU	C	90	209.286	136.840	45.585	1.00	131.96	O	ATOM	35175	O	LYS	C	97	216.946	146.082	44.151	1.00	93.06	O
ATOM	35126	CB	GLU	C	90	206.213	136.641	46.468	1.00	136.78	C	ATOM	35176	CB	LYS	C	97	216.819	143.555	42.202	1.00	93.06	C
ATOM	35127	CG	GLU	C	90	205.949	135.217	46.957	1.00	136.78	C	ATOM	35177	CG	LYS	C	97	217.705	142.654	41.348	1.00	93.06	C
ATOM	35128	CD	GLU	C	90	207.053	134.233	46.585	1.00	136.78	C	ATOM	35178	CD	LYS	C	97	218.905	143.408	40.791	1.00	93.06	C
ATOM	35129	OE1	GLU	C	90	206.859	133.016	46.799	1.00	136.78	O	ATOM	35179	CE	LYS	C	97	219.649	142.575	39.758	1.00	93.06	C
ATOM	35130	OE2	GLU	C	90	208.112	134.669	46.083	1.00	136.78	O	ATOM	35180	NZ	LYS	C	97	220.664	143.379	39.033	1.00	93.06	C
ATOM	35131	N	LEU	C	91	208.318	138.870	45.436	1.00	106.69	N	ATOM	35181	N	ASN	C	98	215.403	144.623	44.910	1.00	110.63	N
ATOM	35132	CA	LEU	C	91	209.172	139.371	44.372	1.00	106.69	C	ATOM	35182	CA	ASN	C	98	214.551	145.648	45.534	1.00	110.63	C
ATOM	35133	C	LEU	C	91	210.640	139.473	44.775	1.00	106.69	C	ATOM	35183	C	ASN	C	98	213.767	146.354	44.428	1.00	110.63	C
ATOM	35134	O	LEU	C	91	211.518	138.998	44.053	1.00	106.69	O	ATOM	35184	O	ASN	C	98	214.226	147.351	43.867	1.00	110.63	O
ATOM	35135	CB	LEU	C	91	208.654	140.737	43.907	1.00	92.48	C	ATOM	35185	CB	ASN	C	98	215.404	146.664	46.310	1.00	150.26	C
ATOM	35136	CG	LEU	C	91	209.607	141.842	43.433	1.00	92.48	C	ATOM	35186	CG	ASN	C	98	214.574	147.758	46.960	1.00	150.26	C
ATOM	35137	CD1	LEU	C	91	208.813	142.846	42.611	1.00	92.48	C	ATOM	35187	OD1	ASN	C	98	213.933	148.562	46.278	1.00	150.26	O
ATOM	35138	CD2	LEU	C	91	210.280	142.535	44.621	1.00	92.48	C	ATOM	35188	ND2	ASN	C	98	214.584	147.794	48.288	1.00	150.26	N
ATOM	35139	N	ALA	C	92	210.911	140.092	45.921	1.00	99.80	N	ATOM	35189	N	VAL	C	99	212.574	145.845	44.131	1.00	127.91	N
ATOM	35140	CA	ALA	C	92	212.290	140.244	46.375	1.00	99.80	C	ATOM	35190	CA	VAL	C	99	211.764	146.396	43.049	1.00	127.91	C
ATOM	35141	C	ALA	C	92	212.884	138.923	46.867	1.00	99.80	C	ATOM	35191	C	VAL	C	99	210.318	146.782	43.362	1.00	127.91	C
ATOM	35142	O	ALA	C	92	214.101	138.789	46.971	1.00	99.80	O	ATOM	35192	O	VAL	C	99	209.690	146.233	44.269	1.00	127.91	O
ATOM	35143	CB	ALA	C	92	212.372	141.301	47.460	1.00	55.20	C	ATOM	35193	CB	VAL	C	99	211.783	145.409	41.851	1.00	131.91	C
ATOM	35144	N	LYS	C	93	212.026	137.953	47.173	1.00	156.69	N	ATOM	35194	CG1	VAL	C	99	211.907	143.986	42.364	1.00	131.91	C
ATOM	35145	CA	LYS	C	93	212.491	136.638	47.612	1.00	156.69	C	ATOM	35195	CG2	VAL	C	99	210.529	145.557	40.999	1.00	131.91	C
ATOM	35146	C	LYS	C	93	212.955	135.912	46.357	1.00	156.69	C	ATOM	35196	N	ALA	C	100	209.808	147.734	42.579	1.00	146.58	N
ATOM	35147	O	LYS	C	93	213.260	134.719	46.379	1.00	156.69	O	ATOM	35197	CA	ALA	C	100	208.441	148.236	42.698	1.00	146.58	C



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ATOM	35198	C	ALA	C 100	207.437	147.190	42.208	1.00146.58	C	ATOM	35248	CG2	VAL	C 106	194.452	145.280	30.769	1.00	96.54	C
ATOM	35199	O	ALA	C 100	207.728	145.993	42.216	1.00146.58	O	ATOM	35249	N	GLN	C 107	191.765	149.089	29.737	1.00125.29	N	
ATOM	35200	CB	ALA	C 100	208.291	149.525	41.884	1.00 51.78	C	ATOM	35250	CA	GLN	C 107	190.547	149.753	29.289	1.00125.29	C	
ATOM	35201	N	LEU	C 101	206.258	147.646	41.786	1.00 83.45	N	ATOM	35251	C	GLN	C 107	189.941	148.923	28.163	1.00125.29	C	
ATOM	35202	CA	LEU	C 101	205.204	146.759	41.287	1.00 83.45	C	ATOM	35252	O	GLN	C 107	190.310	149.075	26.995	1.00125.29	O	
ATOM	35203	C	LEU	C 101	203.920	147.558	41.050	1.00 83.45	C	ATOM	35253	CB	GLN	C 107	190.863	151.161	28.784	1.00139.39	C	
ATOM	35204	O	LEU	C 101	202.965	147.451	41.820	1.00 83.45	O	ATOM	35254	CG	GLN	C 107	192.258	151.638	29.139	1.00139.39	C	
ATOM	35205	CB	LEU	C 101	204.924	145.619	42.289	1.00 79.80	C	ATOM	35255	CD	GLN	C 107	193.334	150.786	28.494	1.00139.39	C	
ATOM	35206	CG	LEU	C 101	204.235	144.314	41.833	1.00 79.80	C	ATOM	35256	OE1	GLN	C 107	193.408	150.686	27.271	1.00139.39	O	
ATOM	35207	CD1	LEU	C 101	204.046	143.381	43.030	1.00 79.80	C	ATOM	35257	NE2	GLN	C 107	194.169	150.161	29.316	1.00139.39	N	
ATOM	35208	CD2	LEU	C 101	202.890	144.606	41.190	1.00 79.80	C	ATOM	35258	N	ASN	C 108	189.011	148.046	28.536	1.00 86.94	N	
ATOM	35209	N	ASN	C 102	203.906	148.364	39.992	1.00 70.22	N	ATOM	35259	CA	ASN	C 108	188.325	147.141	27.613	1.00 86.94	C	
ATOM	35210	CA	ASN	C 102	202.730	149.164	39.647	1.00 70.22	C	ATOM	35260	C	ASN	C 108	189.222	145.967	27.254	1.00 86.94	O	
ATOM	35211	C	ASN	C 102	201.646	148.251	39.074	1.00 70.22	C	ATOM	35261	O	ASN	C 108	189.992	146.024	26.301	1.00 86.94	O	
ATOM	35212	O	ASN	C 102	201.870	147.053	38.894	1.00 70.22	O	ATOM	35262	CB	ASN	C 108	187.871	147.871	26.337	1.00 77.09	C	
ATOM	35213	CB	ASN	C 102	203.095	150.218	38.602	1.00101.93	C	ATOM	35263	CG	ASN	C 108	186.943	147.019	25.473	1.00 77.09	O	
ATOM	35214	CG	ASN	C 102	204.144	151.186	39.095	1.00101.93	C	ATOM	35264	OD1	ASN	C 108	186.153	146.217	25.981	1.00 77.09	O	
ATOM	35215	OD1	ASN	C 102	203.848	152.096	39.872	1.00101.93	O	ATOM	35265	ND2	ASN	C 108	187.022	147.204	24.164	1.00 77.09	N	
ATOM	35216	ND2	ASN	C 102	205.385	150.990	38.655	1.00101.93	N	ATOM	35266	N	PRO	C 109	189.134	144.883	28.030	1.00 99.05	N	
ATOM	35217	N	VAL	C 103	200.476	148.818	38.787	1.00 92.34	N	ATOM	35267	CA	PRO	C 109	189.938	143.683	27.794	1.00 99.05	C	
ATOM	35218	CA	VAL	C 103	199.363	148.050	38.223	1.00 92.34	C	ATOM	35268	C	PRO	C 109	189.505	143.061	26.469	1.00 99.05	C	
ATOM	35219	C	VAL	C 103	198.421	148.954	37.440	1.00 92.34	C	ATOM	35269	O	PRO	C 109	190.029	142.035	26.032	1.00 99.05	O	
ATOM	35220	O	VAL	C 103	197.704	149.764	38.020	1.00 92.34	O	ATOM	35270	CB	PRO	C 109	189.587	142.803	28.989	1.00 86.67	C	
ATOM	35221	CB	VAL	C 103	198.520	147.323	39.324	1.00 53.58	C	ATOM	35271	CG	PRO	C 109	188.146	143.139	29.211	1.00 86.67	C	
ATOM	35222	CG1	VAL	C 103	197.244	146.741	38.713	1.00 53.58	C	ATOM	35272	CD	PRO	C 109	188.149	144.649	29.100	1.00 86.67	C	
ATOM	35223	CG2	VAL	C 103	199.338	146.206	39.978	1.00 53.58	C	ATOM	35273	N	ASN	C 110	188.533	143.714	25.843	1.00 92.81	N	
ATOM	35224	N	GLN	C 104	198.434	148.827	36.118	1.00 82.96	N	ATOM	35274	CA	ASN	C 110	187.973	143.265	24.582	1.00 92.81	C	
ATOM	35225	CA	GLN	C 104	197.545	149.621	35.291	1.00 82.96	C	ATOM	35275	C	ASN	C 110	188.773	143.769	23.391	1.00 92.81	C	
ATOM	35226	C	GLN	C 104	196.353	148.753	34.925	1.00 82.96	C	ATOM	35276	O	ASN	C 110	188.316	143.709	22.253	1.00 92.81	O	
ATOM	35227	O	GLN	C 104	196.455	147.523	34.906	1.00 82.96	O	ATOM	35277	CB	ASN	C 110	186.522	143.724	24.486	1.00100.75	C	
ATOM	35228	CB	GLN	C 104	198.261	150.117	34.036	1.00104.29	C	ATOM	35278	CG	ASN	C 110	185.595	142.608	24.100	1.00100.75	C	
ATOM	35229	CG	GLN	C 104	199.073	151.378	34.280	1.00104.29	C	ATOM	35279	OD1	ASN	C 110	185.728	141.478	24.580	1.00100.75	O	
ATOM	35230	CD	GLN	C 104	199.608	151.999	33.001	1.00104.29	C	ATOM	35280	ND2	ASN	C 110	184.637	142.914	23.235	1.00100.75	N	
ATOM	35231	OE1	GLN	C 104	200.537	151.478	32.382	1.00104.29	O	ATOM	35281	N	LEU	C 111	189.965	144.279	23.668	1.00 94.85	N	
ATOM	35232	NE2	GLN	C 104	199.015	153.119	32.596	1.00104.29	N	ATOM	35282	CA	LEU	C 111	190.857	144.759	22.624	1.00 94.85	C	
ATOM	35233	N	GLU	C 105	195.218	149.396	34.669	1.00 97.81	N	ATOM	35283	C	LEU	C 111	192.274	144.313	22.969	1.00 94.85	C	
ATOM	35234	CA	GLU	C 105	193.997	148.685	34.316	1.00 97.81	C	ATOM	35284	O	LEU	C 111	193.255	144.869	22.472	1.00 94.85	O	
ATOM	35235	C	GLU	C 105	193.838	148.661	32.801	1.00 97.81	C	ATOM	35285	CB	LEU	C 111	190.803	146.285	22.499	1.00 53.04	C	
ATOM	35236	O	GLU	C 105	194.193	149.619	32.112	1.00 97.81	O	ATOM	35286	CG	LEU	C 111	189.501	146.938	22.028	1.00 53.04	C	
ATOM	35237	CB	GLU	C 105	192.778	149.367	34.947	1.00123.33	C	ATOM	35287	CD1	LEU	C 111	189.799	148.353	21.516	1.00 53.04	C	
ATOM	35238	CG	GLU	C 105	191.480	148.575	34.802	1.00123.33	C	ATOM	35288	CD2	LEU	C 111	188.871	146.115	20.919	1.00 53.04	C	
ATOM	35239	CD	GLU	C 105	190.228	149.438	34.937	1.00123.33	C	ATOM	35289	N	SER	C 112	192.364	143.311	23.841	1.00 74.84	N	
ATOM	35240	OE1	GLU	C 105	189.994	150.298	34.058	1.00123.33	O	ATOM	35290	CA	SER	C 112	193.641	142.751	24.257	1.00 74.84	C	
ATOM	35241	OE2	GLU	C 105	189.477	149.251	35.920	1.00123.33	O	ATOM	35291	C	SER	C 112	193.746	141.353	23.687	1.00 74.84	C	
ATOM	35242	N	VAL	C 106	193.305	147.555	32.294	1.00 85.07	N	ATOM	35292	O	SER	C 112	193.214	140.398	24.261	1.00 74.84	O	
ATOM	35243	CA	VAL	C 106	193.078	147.382	30.866	1.00 85.07	C	ATOM	35293	CB	SER	C 112	193.739	142.675	25.776	1.00139.16	C	
ATOM	35244	C	VAL	C 106	191.727	147.982	30.470	1.00 85.07	C	ATOM	35294	CG	SER	C 112	193.735	143.966	26.346	1.00139.16	O	
ATOM	35245	O	VAL	C 106	190.673	147.454	30.831	1.00 85.07	O	ATOM	35295	N	ALA	C 113	194.435	141.244	22.556	1.00 56.18	N	
ATOM	35246	CB	VAL	C 106	193.088	145.884	30.484	1.00 96.54	C	ATOM	35296	CA	ALA	C 113	194.623	139.969	21.885	1.00 56.18	C	
ATOM	35247	CG1	VAL	C 106	192.731	145.719	29.020	1.00 96.54	C	ATOM	35297	C	ALA	C 113	194.885	138.843	22.880	1.00 56.18	C	



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ATOM	35298	O	ALA C 113	194.277	137.772	22.792	1.00	56.18	O	ATOM	35348	CA	VAL C 120	188.617	131.651	24.087	1.00	61.59	C
ATOM	35299	CB	ALA C 113	195.776	140.070	20.887	1.00	106.43	C	ATOM	35349	C	VAL C 120	189.268	130.350	24.526	1.00	61.59	C
ATOM	35300	N	PRO C 114	195.793	139.074	23.846	1.00	55.08	N	ATOM	35350	O	VAL C 120	188.644	129.290	24.503	1.00	61.59	O
ATOM	35301	CA	PRO C 114	196.122	138.054	24.852	1.00	55.08	C	ATOM	35351	CB	VAL C 120	188.973	131.903	22.613	1.00	41.32	C
ATOM	35302	C	PRO C 114	194.892	137.651	25.640	1.00	55.08	C	ATOM	35352	CG1	VAL C 120	188.436	130.758	21.752	1.00	41.32	C
ATOM	35303	O	PRO C 114	194.671	136.475	25.925	1.00	55.08	O	ATOM	35353	CG2	VAL C 120	188.395	133.240	22.150	1.00	41.32	C
ATOM	35304	CB	PRO C 114	197.157	138.749	25.728	1.00	44.51	C	ATOM	35354	N	ALA C 121	190.531	130.437	24.917	1.00	65.73	N
ATOM	35305	CG	PRO C 114	197.792	139.739	24.777	1.00	44.51	C	ATOM	35355	CA	ALA C 121	191.263	129.267	25.374	1.00	65.73	C
ATOM	35306	CD	PRO C 114	196.614	140.284	24.034	1.00	44.51	C	ATOM	35356	C	ALA C 121	190.499	128.604	26.515	1.00	65.73	C
ATOM	35307	N	LEU C 115	194.091	138.646	25.987	1.00	64.37	N	ATOM	35357	O	ALA C 121	190.333	127.383	26.541	1.00	65.73	O
ATOM	35308	CA	LEU C 115	192.879	138.401	26.736	1.00	64.37	C	ATOM	35358	CB	ALA C 121	192.640	129.679	25.843	1.00	38.91	C
ATOM	35309	C	LEU C 115	191.872	137.660	25.872	1.00	64.37	C	ATOM	35359	N	GLU C 122	190.033	129.427	27.452	1.00	87.91	N
ATOM	35310	O	LEU C 115	191.450	136.552	26.224	1.00	64.37	O	ATOM	35360	CA	GLU C 122	189.281	128.949	28.609	1.00	87.91	C
ATOM	35311	CB	LEU C 115	192.308	139.726	27.233	1.00	76.71	C	ATOM	35361	C	GLU C 122	188.003	128.224	28.207	1.00	87.91	C
ATOM	35312	CG	LEU C 115	193.219	140.360	28.286	1.00	76.71	C	ATOM	35362	O	GLU C 122	187.812	127.053	28.551	1.00	87.91	O
ATOM	35313	CD1	LEU C 115	192.709	141.731	28.660	1.00	76.71	C	ATOM	35363	CB	GLU C 122	188.935	130.121	29.528	1.00	186.03	C
ATOM	35314	CD2	LEU C 115	193.277	139.449	29.507	1.00	76.71	C	ATOM	35364	CG	GLU C 122	190.132	130.714	30.246	1.00	186.03	C
ATOM	35315	N	VAL C 116	191.498	138.261	24.740	1.00	32.68	N	ATOM	35365	CD	GLU C 122	189.768	131.925	31.078	1.00	186.03	C
ATOM	35316	CA	VAL C 116	190.544	137.629	23.827	1.00	32.68	C	ATOM	35366	OE1	GLU C 122	188.801	131.835	31.863	1.00	186.03	C
ATOM	35317	C	VAL C 116	190.936	136.163	23.609	1.00	32.68	C	ATOM	35367	OE2	GLU C 122	190.452	132.963	30.951	1.00	186.03	O
ATOM	35318	O	VAL C 116	190.083	135.273	23.573	1.00	32.68	O	ATOM	35368	N	GLN C 123	187.131	128.922	27.481	1.00	60.42	N
ATOM	35319	CB	VAL C 116	190.515	138.319	22.450	1.00	50.89	C	ATOM	35369	CA	GLN C 123	185.872	128.332	27.043	1.00	60.42	C
ATOM	35320	CG1	VAL C 116	189.188	138.022	21.769	1.00	50.89	C	ATOM	35370	C	GLN C 123	186.130	126.943	26.487	1.00	60.42	C
ATOM	35321	CG2	VAL C 116	190.739	139.819	22.591	1.00	50.89	C	ATOM	35371	O	GLN C 123	185.461	125.974	26.861	1.00	60.42	O
ATOM	35322	N	ALA C 117	192.240	135.932	23.474	1.00	53.16	N	ATOM	35372	CB	GLN C 123	185.207	129.190	25.966	1.00	59.73	C
ATOM	35323	CA	ALA C 117	192.787	134.597	23.267	1.00	53.16	C	ATOM	35373	CG	GLN C 123	184.872	130.599	26.393	1.00	59.73	C
ATOM	35324	C	ALA C 117	192.475	133.720	24.461	1.00	53.16	C	ATOM	35374	CD	GLN C 123	183.913	131.274	25.426	1.00	59.73	C
ATOM	35325	O	ALA C 117	191.769	132.717	24.328	1.00	53.16	O	ATOM	35375	OE1	GLN C 123	182.752	130.867	25.303	1.00	59.73	O
ATOM	35326	CB	ALA C 117	194.298	134.676	23.064	1.00	68.94	C	ATOM	35376	NE2	GLN C 123	184.393	132.302	24.724	1.00	59.73	N
ATOM	35327	N	GLN C 118	193.020	134.109	25.616	1.00	60.99	N	ATOM	35377	N	ILE C 124	187.119	126.854	25.603	1.00	65.28	N
ATOM	35328	CA	GLN C 118	192.829	133.394	26.882	1.00	60.99	C	ATOM	35378	CA	ILE C 124	187.473	125.592	24.972	1.00	65.28	C
ATOM	35329	C	GLN C 118	191.343	133.174	27.123	1.00	60.99	C	ATOM	35379	C	ILE C 124	187.823	124.530	26.012	1.00	65.28	C
ATOM	35330	O	GLN C 118	190.919	132.121	27.623	1.00	60.99	O	ATOM	35380	O	ILE C 124	187.507	123.342	25.848	1.00	65.28	O
ATOM	35331	CB	GLN C 118	193.406	134.206	28.040	1.00	95.15	C	ATOM	35381	CB	ILE C 124	188.654	125.785	24.004	1.00	72.01	C
ATOM	35332	CG	GLN C 118	194.912	134.358	28.017	1.00	95.15	C	ATOM	35382	CG1	ILE C 124	188.301	126.870	22.983	1.00	72.01	C
ATOM	35333	CD	GLN C 118	195.394	135.406	28.997	1.00	95.15	C	ATOM	35383	CG2	ILE C 124	188.961	124.479	23.285	1.00	72.01	C
ATOM	35334	OE1	GLN C 118	195.179	136.603	28.798	1.00	95.15	O	ATOM	35384	CD1	ILE C 124	189.400	127.179	21.985	1.00	72.01	C
ATOM	35335	NE2	GLN C 118	196.039	134.963	30.068	1.00	95.15	N	ATOM	35385	N	GLU C 125	188.469	124.959	27.090	1.00	82.64	N
ATOM	35336	N	ARG C 119	190.568	134.198	26.772	1.00	72.26	N	ATOM	35386	CA	GLU C 125	188.846	124.030	28.136	1.00	82.64	C
ATOM	35337	CA	ARG C 119	189.121	134.176	26.894	1.00	72.26	C	ATOM	35387	C	GLU C 125	187.607	123.558	28.873	1.00	82.64	C
ATOM	35338	C	ARG C 119	188.618	132.917	26.187	1.00	72.26	C	ATOM	35388	O	GLU C 125	187.552	122.421	29.344	1.00	82.64	O
ATOM	35339	O	ARG C 119	187.918	132.085	26.778	1.00	72.26	O	ATOM	35389	CB	GLU C 125	189.824	124.690	29.098	1.00	98.04	C
ATOM	35340	CB	ARG C 119	188.550	135.425	26.222	1.00	113.28	C	ATOM	35390	CG	GLU C 125	191.099	125.131	28.420	1.00	98.04	C
ATOM	35341	CG	ARG C 119	187.052	135.424	26.007	1.00	113.28	C	ATOM	35391	CD	GLU C 125	192.211	125.409	29.400	1.00	98.04	C
ATOM	35342	CD	ARG C 119	186.281	135.520	27.314	1.00	113.28	C	ATOM	35392	OE1	GLU C 125	192.055	126.318	30.242	1.00	98.04	O
ATOM	35343	NE	ARG C 119	184.845	135.605	27.066	1.00	113.28	N	ATOM	35393	OE2	GLU C 125	193.245	124.712	29.329	1.00	98.04	O
ATOM	35344	C2	ARG C 119	183.916	135.646	28.014	1.00	113.28	C	ATOM	35394	N	ARG C 126	186.606	124.428	28.955	1.00	94.28	N
ATOM	35345	NH1	ARG C 119	184.261	135.611	29.294	1.00	113.28	N	ATOM	35395	CA	ARG C 126	185.364	124.087	29.636	1.00	94.28	C
ATOM	35346	NH2	ARG C 119	182.635	135.717	27.678	1.00	113.28	N	ATOM	35396	C	ARG C 126	184.448	123.216	28.781	1.00	94.28	C
ATOM	35347	N	VAL C 120	189.012	132.783	24.919	1.00	61.59	N	ATOM	35397	O	ARG C 126	183.433	122.714	29.265	1.00	94.28	O



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ATOM	35398	CB	ARG C 126	184.625	125.353	30.047	1.00	99.68	C	ATOM	35448	NH1	ARG C 131	181.236	125.109	10.789	1.00	118.75	N
ATOM	35399	CG	ARG C 126	185.356	126.182	31.071	1.00	99.68	C	ATOM	35449	NH2	ARG C 131	183.142	123.896	11.221	1.00	118.75	N
ATOM	35400	CD	ARG C 126	184.573	127.432	31.365	1.00	99.68	C	ATOM	35450	N	ARG C 132	181.672	128.473	17.729	1.00	82.43	N
ATOM	35401	NE	ARG C 126	185.355	128.380	32.142	1.00	99.68	N	ATOM	35451	CA	ARG C 132	180.839	129.501	18.360	1.00	82.43	C
ATOM	35402	CZ	ARG C 126	185.012	129.650	32.315	1.00	99.68	C	ATOM	35452	C	ARG C 132	181.728	130.445	19.155	1.00	82.43	C
ATOM	35403	NH1	ARG C 126	183.897	130.110	31.762	1.00	99.68	N	ATOM	35453	O	ARG C 132	181.819	131.639	18.856	1.00	82.43	O
ATOM	35404	NH2	ARG C 126	185.785	130.459	33.031	1.00	99.68	N	ATOM	35454	CB	ARG C 132	179.815	128.872	19.311	1.00	174.85	C
ATOM	35405	N	ARG C 127	184.815	123.051	27.512	1.00	63.42	N	ATOM	35455	CG	ARG C 132	178.849	127.894	18.666	1.00	174.85	C
ATOM	35406	CA	ARG C 127	184.073	122.233	26.554	1.00	63.42	C	ATOM	35456	CD	ARG C 132	177.874	127.344	19.701	1.00	174.85	C
ATOM	35407	C	ARG C 127	182.955	122.944	25.795	1.00	63.42	C	ATOM	35457	NE	ARG C 132	177.100	126.213	19.194	1.00	174.85	N
ATOM	35408	O	ARG C 127	181.901	122.363	25.555	1.00	63.42	O	ATOM	35458	CZ	ARG C 132	176.280	125.475	19.937	1.00	174.85	C
ATOM	35409	CB	ARG C 127	183.518	120.985	27.241	1.00	78.91	C	ATOM	35459	NH1	ARG C 132	176.124	125.749	21.225	1.00	174.85	N
ATOM	35410	CG	ARG C 127	184.559	120.267	28.053	1.00	78.91	C	ATOM	35460	NH2	ARG C 132	175.520	124.460	19.395	1.00	174.85	N
ATOM	35411	CD	ARG C 127	184.026	119.024	28.711	1.00	78.91	C	ATOM	35461	N	ALA C 133	182.384	129.888	20.170	1.00	66.72	N
ATOM	35412	NE	ARG C 127	184.988	118.524	29.686	1.00	78.91	N	ATOM	35462	CA	ALA C 133	183.280	130.646	21.035	1.00	66.72	C
ATOM	35413	CZ	ARG C 127	184.925	117.329	30.265	1.00	78.91	C	ATOM	35463	C	ALA C 133	184.139	131.612	20.228	1.00	66.72	C
ATOM	35414	NH1	ARG C 127	183.935	116.495	29.968	1.00	78.91	N	ATOM	35464	O	ALA C 133	184.424	132.732	20.659	1.00	66.72	O
ATOM	35415	NH2	ARG C 127	185.858	116.963	31.137	1.00	78.91	N	ATOM	35465	CB	ALA C 133	184.164	129.692	21.808	1.00	50.53	C
ATOM	35416	N	PHE C 128	183.195	124.195	25.410	1.00	72.61	N	ATOM	35466	N	IIE C 134	184.546	131.157	19.051	1.00	53.33	N
ATOM	35417	CA	PHE C 128	182.224	124.970	24.644	1.00	72.61	C	ATOM	35467	CA	IIE C 134	185.371	131.946	18.152	1.00	53.33	C
ATOM	35418	O	PHE C 128	182.414	124.688	23.154	1.00	72.61	O	ATOM	35468	C	IIE C 134	184.582	133.099	17.550	1.00	53.33	C
ATOM	35419	C	PHE C 128	183.466	124.202	22.735	1.00	72.61	C	ATOM	35469	O	IIE C 134	184.967	134.255	17.700	1.00	53.33	O
ATOM	35420	CB	PHE C 128	182.412	126.465	24.896	1.00	109.21	C	ATOM	35470	CB	IIE C 134	185.907	131.082	17.006	1.00	63.09	C
ATOM	35421	CG	PHE C 128	181.821	126.940	26.184	1.00	109.21	C	ATOM	35471	CG1	IIE C 134	186.552	129.874	17.574	1.00	63.09	C
ATOM	35422	CD1	PHE C 128	182.067	126.260	27.372	1.00	109.21	C	ATOM	35472	CG2	IIE C 134	186.819	131.903	16.139	1.00	63.09	C
ATOM	35423	CD2	PHE C 128	181.029	128.082	26.215	1.00	109.21	C	ATOM	35473	CD1	IIE C 134	186.966	128.814	16.558	1.00	63.09	C
ATOM	35424	CE1	PHE C 128	181.531	126.711	28.577	1.00	109.21	C	ATOM	35474	N	LXS C 135	183.486	132.776	16.862	1.00	72.98	N
ATOM	35425	CE2	PHE C 128	180.489	128.542	27.414	1.00	109.21	C	ATOM	35475	CA	LXS C 135	182.644	133.789	16.230	1.00	72.98	C
ATOM	35426	CZ	PHE C 128	180.741	127.855	28.598	1.00	109.21	C	ATOM	35476	C	LXS C 135	182.252	134.846	17.257	1.00	72.98	C
ATOM	35427	CA	ALA C 129	181.394	124.984	22.354	1.00	67.81	N	ATOM	35477	O	LXS C 135	182.277	136.053	16.971	1.00	72.98	O
ATOM	35428	CA	ALA C 129	181.489	124.766	20.919	1.00	67.81	C	ATOM	35478	CB	LXS C 135	181.380	133.154	15.661	1.00	83.22	C
ATOM	35429	C	ALA C 129	182.551	125.729	20.408	1.00	67.81	C	ATOM	35479	CG	LXS C 135	181.608	132.036	14.674	1.00	83.22	C
ATOM	35430	O	ALA C 129	182.392	126.953	20.484	1.00	67.81	O	ATOM	35480	CD	LXS C 135	180.270	131.481	14.198	1.00	83.22	C
ATOM	35431	CB	ALA C 129	180.153	125.045	20.253	1.00	132.26	C	ATOM	35481	CE	LXS C 135	180.436	130.346	13.195	1.00	83.22	C
ATOM	35432	N	VAL C 130	183.639	125.171	19.890	1.00	50.44	N	ATOM	35482	N2	LXS C 135	179.132	129.917	12.596	1.00	83.22	N
ATOM	35433	CA	VAL C 130	184.746	125.978	19.393	1.00	50.44	C	ATOM	35483	N	GLN C 136	181.878	134.378	18.449	1.00	65.34	N
ATOM	35434	C	VAL C 130	184.360	127.067	18.403	1.00	50.44	C	ATOM	35484	CA	GLN C 136	181.492	135.255	19.552	1.00	65.34	C
ATOM	35435	O	VAL C 130	184.552	128.249	18.672	1.00	50.44	O	ATOM	35485	C	GLN C 136	182.615	136.241	19.804	1.00	65.34	C
ATOM	35436	CB	VAL C 130	185.794	125.100	18.740	1.00	40.53	C	ATOM	35486	O	GLN C 136	182.430	137.453	19.690	1.00	65.34	O
ATOM	35437	CG1	VAL C 130	187.118	125.843	18.691	1.00	40.53	C	ATOM	35487	CB	GLN C 136	181.258	134.435	20.815	1.00	74.45	C
ATOM	35438	CG2	VAL C 130	185.892	123.770	19.500	1.00	40.53	C	ATOM	35488	CG	GLN C 136	179.809	134.091	21.090	1.00	74.45	C
ATOM	35439	N	ARG C 131	183.811	126.673	17.260	1.00	72.96	N	ATOM	35489	CD	GLN C 136	179.677	132.888	22.002	1.00	74.45	C
ATOM	35440	CA	ARG C 131	183.431	127.648	16.249	1.00	72.96	C	ATOM	35490	OE1	GLN C 136	180.543	132.641	22.855	1.00	74.45	O
ATOM	35441	C	ARG C 131	182.608	128.794	16.836	1.00	72.96	C	ATOM	35491	NE2	GLN C 136	178.589	132.132	21.833	1.00	74.45	N
ATOM	35442	O	ARG C 131	182.825	129.956	16.487	1.00	72.96	O	ATOM	35492	N	ALA C 137	183.779	135.692	20.142	1.00	51.88	N
ATOM	35443	CB	ARG C 131	182.661	126.971	15.114	1.00	118.75	C	ATOM	35493	CA	ALA C 137	184.987	136.463	20.414	1.00	51.88	C
ATOM	35444	CG	ARG C 131	182.588	127.816	13.849	1.00	118.75	C	ATOM	35494	C	ALA C 137	185.267	137.529	19.352	1.00	51.88	C
ATOM	35445	CD	ARG C 131	181.971	127.047	12.699	1.00	118.75	C	ATOM	35495	O	ALA C 137	185.540	138.694	19.671	1.00	51.88	O
ATOM	35446	NE	ARG C 131	182.743	125.854	12.365	1.00	118.75	N	ATOM	35496	CB	ALA C 137	186.173	135.521	20.516	1.00	32.91	C
ATOM	35447	CZ	ARG C 131	182.374	124.953	11.458	1.00	118.75	C	ATOM	35497	N	VAL C 138	185.219	137.125	18.087	1.00	66.36	N



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ATOM	35498	CA	VAL C 138	185.470	138.065	17.008	1.00	66.36	C	ATOM	35548	N	SER C 144	183.329	146.258	19.777	1.00	68.20	N
ATOM	35499	C	VAL C 138	184.428	139.157	17.091	1.00	66.36	C	ATOM	35549	CA	SER C 144	183.752	147.256	20.754	1.00	68.20	C
ATOM	35500	O	VAL C 138	184.737	140.332	16.908	1.00	66.36	O	ATOM	35550	C	SER C 144	185.034	147.923	20.259	1.00	68.20	C
ATOM	35501	CB	VAL C 138	185.398	137.385	15.632	1.00	48.37	C	ATOM	35551	O	SER C 144	186.112	147.744	20.831	1.00	68.20	O
ATOM	35502	CG1	VAL C 138	185.705	138.400	14.523	1.00	48.37	C	ATOM	35552	CB	SER C 144	183.972	146.617	22.132	1.00	60.69	C
ATOM	35503	CG2	VAL C 138	186.387	136.240	15.592	1.00	48.37	C	ATOM	35553	OG	SER C 144	185.090	145.754	22.151	1.00	60.69	O
ATOM	35504	N	GLN C 139	183.191	138.769	17.378	1.00	64.33	N	ATOM	35554	N	GLY C 145	184.897	148.698	19.186	1.00	92.65	N
ATOM	35505	CA	GLN C 139	182.142	139.761	17.491	1.00	64.33	C	ATOM	35555	CA	GLY C 145	186.036	149.378	18.600	1.00	92.65	C
ATOM	35506	C	GLN C 139	182.449	140.741	18.613	1.00	64.33	C	ATOM	35556	C	GLY C 145	186.615	148.500	17.511	1.00	92.65	C
ATOM	35507	O	GLN C 139	182.546	141.938	18.363	1.00	64.33	O	ATOM	35557	O	GLY C 145	185.868	147.892	16.746	1.00	92.65	O
ATOM	35508	CB	GLN C 139	180.784	139.100	17.703	1.00	79.42	C	ATOM	35558	N	ALA C 146	187.942	148.430	17.453	1.00	84.21	N
ATOM	35509	CG	GLN C 139	179.988	139.006	16.409	1.00	79.42	C	ATOM	35559	CA	ALA C 146	188.665	147.616	16.474	1.00	84.21	C
ATOM	35510	CD	GLN C 139	179.754	140.371	15.754	1.00	79.42	C	ATOM	35560	C	ALA C 146	188.258	147.834	15.021	1.00	84.21	C
ATOM	35511	OE1	GLN C 139	179.178	140.463	14.665	1.00	79.42	O	ATOM	35561	O	ALA C 146	187.077	147.796	14.681	1.00	84.21	O
ATOM	35512	NE2	GLN C 139	180.196	141.434	16.420	1.00	79.42	N	ATOM	35562	CB	ALA C 146	188.530	146.132	16.825	1.00	34.49	C
ATOM	35513	N	ARG C 140	182.621	140.241	19.836	1.00	65.07	N	ATOM	35563	N	LYS C 147	189.245	148.070	14.164	1.00	66.47	N
ATOM	35514	CA	ARG C 140	182.940	141.104	20.974	1.00	65.07	C	ATOM	35564	CA	LYS C 147	188.970	148.255	12.749	1.00	66.47	C
ATOM	35515	C	ARG C 140	183.990	142.132	20.549	1.00	65.07	C	ATOM	35565	C	LYS C 147	189.106	146.893	12.070	1.00	66.47	C
ATOM	35516	O	ARG C 140	183.744	143.343	20.571	1.00	65.07	O	ATOM	35566	O	LYS C 147	188.951	146.775	10.853	1.00	66.47	O
ATOM	35517	CB	ARG C 140	183.511	140.287	22.132	1.00	92.24	C	ATOM	35567	CB	LYS C 147	189.931	149.276	12.119	1.00	87.09	C
ATOM	35518	CD	ARG C 140	182.645	139.164	22.635	1.00	92.24	C	ATOM	35568	CG	LYS C 147	189.678	150.732	12.541	1.00	87.09	C
ATOM	35519	CG	ARG C 140	183.456	138.323	23.598	1.00	92.24	C	ATOM	35569	CD	LYS C 147	190.065	151.752	11.447	1.00	87.09	C
ATOM	35520	NE	ARG C 140	182.908	136.979	23.760	1.00	92.24	N	ATOM	35570	CE	LYS C 147	191.550	151.677	11.063	1.00	87.09	C
ATOM	35521	C2	ARG C 140	183.650	135.874	23.829	1.00	92.24	C	ATOM	35571	NZ	LYS C 147	191.970	152.625	9.981	1.00	87.09	N
ATOM	35522	NH1	ARG C 140	184.975	135.957	23.748	1.00	92.24	N	ATOM	35572	N	GLY C 148	189.379	145.870	12.881	1.00	53.29	N
ATOM	35523	NH2	ARG C 140	183.070	134.684	23.971	1.00	92.24	N	ATOM	35573	CA	GLY C 148	189.521	144.516	12.374	1.00	53.29	C
ATOM	35524	N	VAL C 141	185.161	141.626	20.166	1.00	53.41	N	ATOM	35574	C	GLY C 148	189.989	143.520	13.427	1.00	53.29	C
ATOM	35525	CA	VAL C 141	186.283	142.454	19.735	1.00	53.41	C	ATOM	35575	O	GLY C 148	190.734	143.875	14.342	1.00	53.29	O
ATOM	35526	C	VAL C 141	185.894	143.420	18.635	1.00	53.41	C	ATOM	35576	N	ALA C 149	189.562	142.268	13.301	1.00	38.23	N
ATOM	35527	O	VAL C 141	186.242	144.601	18.656	1.00	53.41	O	ATOM	35577	CA	ALA C 149	189.955	141.239	14.254	1.00	38.23	C
ATOM	35528	CB	VAL C 141	187.425	141.589	19.191	1.00	65.83	C	ATOM	35578	C	ALA C 149	189.884	139.868	13.609	1.00	38.23	C
ATOM	35529	CG1	VAL C 141	188.555	142.485	18.664	1.00	65.83	C	ATOM	35579	O	ALA C 149	189.277	139.716	12.545	1.00	38.23	O
ATOM	35530	CG2	VAL C 141	187.920	140.641	20.280	1.00	65.83	C	ATOM	35580	CB	ALA C 149	189.057	141.280	15.468	1.00	53.12	C
ATOM	35531	C	MET C 142	185.171	142.898	17.682	1.00	74.75	C	ATOM	35581	N	LYS C 150	190.485	138.875	14.267	1.00	47.00	N
ATOM	35532	CA	MET C 142	184.749	143.697	16.533	1.00	74.75	C	ATOM	35582	CA	LYS C 150	190.520	137.505	13.757	1.00	47.00	C
ATOM	35533	C	MET C 142	183.624	144.646	16.951	1.00	74.75	C	ATOM	35583	C	LYS C 150	190.984	136.511	14.824	1.00	47.00	C
ATOM	35534	O	MET C 142	183.475	145.741	16.397	1.00	74.75	O	ATOM	35584	O	LYS C 150	191.928	136.776	15.560	1.00	47.00	O
ATOM	35535	CB	MET C 142	184.295	142.750	15.412	1.00	76.42	C	ATOM	35585	CB	LYS C 150	191.463	137.456	12.554	1.00	98.22	C
ATOM	35536	CG	MET C 142	184.415	143.305	14.011	1.00	76.42	C	ATOM	35586	CG	LYS C 150	191.894	136.073	12.111	1.00	98.22	C
ATOM	35537	SD	MET C 142	186.015	144.067	13.720	1.00	76.42	S	ATOM	35587	CD	LYS C 150	193.011	136.199	11.090	1.00	98.22	C
ATOM	35538	CE	MET C 142	185.488	145.583	12.864	1.00	76.42	C	ATOM	35588	CE	LYS C 150	193.595	134.856	10.711	1.00	98.22	C
ATOM	35539	N	GLU C 143	182.862	144.230	17.959	1.00	97.36	N	ATOM	35589	NZ	LYS C 150	194.735	135.013	9.767	1.00	65.33	N
ATOM	35540	CA	GLU C 143	181.718	144.995	18.451	1.00	97.36	C	ATOM	35590	N	VAL C 151	190.329	135.363	14.917	1.00	65.33	N
ATOM	35541	C	GLU C 143	182.044	146.036	19.520	1.00	97.36	C	ATOM	35591	CA	VAL C 151	190.735	134.376	15.913	1.00	65.33	C
ATOM	35542	O	GLU C 143	181.139	146.624	20.105	1.00	97.36	O	ATOM	35592	C	VAL C 151	190.987	133.054	15.213	1.00	65.33	C
ATOM	35543	CB	GLU C 143	180.653	144.025	18.968	1.00	151.24	C	ATOM	35593	O	VAL C 151	190.326	132.740	14.221	1.00	65.33	O
ATOM	35544	CG	GLU C 143	179.254	144.600	19.070	1.00	151.24	C	ATOM	35594	CB	VAL C 151	189.647	134.184	16.999	1.00	38.17	C
ATOM	35545	CD	GLU C 143	178.200	143.513	19.181	1.00	151.24	C	ATOM	35595	CG1	VAL C 151	190.099	133.174	18.039	1.00	38.17	C
ATOM	35546	OE1	GLU C 143	178.304	142.672	20.099	1.00	151.24	O	ATOM	35596	CG2	VAL C 151	189.344	135.511	17.653	1.00	38.17	C
ATOM	35547	OE2	GLU C 143	177.270	143.497	18.346	1.00	151.24	O	ATOM	35597	N	ILE C 152	191.941	132.284	15.727	1.00	56.42	N



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ATOM	35598	CA	ILE C 152	192.295	130.997	15.135	1.00	56.42	C	ATOM	35648	O	GLY C 159	188.550	114.195	19.862	1.00	66.90	O
ATOM	35599	C	ILE C 152	192.482	129.947	16.213	1.00	56.42	C	ATOM	35649	N	ALA C 160	187.894	115.852	18.474	1.00	93.60	N
ATOM	35600	O	ILE C 152	193.254	130.151	17.154	1.00	56.42	O	ATOM	35650	CA	ALA C 160	187.886	115.037	17.260	1.00	93.60	C
ATOM	35601	CB	ILE C 152	193.639	131.082	14.346	1.00	34.56	C	ATOM	35651	C	ALA C 160	189.249	114.388	17.027	1.00	93.60	C
ATOM	35602	CG1	ILE C 152	193.498	132.014	13.138	1.00	34.56	C	ATOM	35652	O	ALA C 160	190.287	115.030	17.203	1.00	93.60	O
ATOM	35603	CG2	ILE C 152	194.079	129.686	13.908	1.00	34.56	C	ATOM	35653	CB	ALA C 160	187.508	115.901	16.064	1.00	73.54	C
ATOM	35604	CD1	ILE C 152	194.818	132.422	12.529	1.00	34.56	C	ATOM	35654	N	GLU C 161	189.239	113.121	16.618	1.00	53.44	N
ATOM	35605	N	VAL C 153	191.786	128.825	16.084	1.00	52.86	N	ATOM	35655	CA	GLU C 161	190.468	112.368	16.375	1.00	53.44	C
ATOM	35606	CA	VAL C 153	191.949	127.752	17.055	1.00	52.86	C	ATOM	35656	C	GLU C 161	191.369	113.019	15.317	1.00	53.44	C
ATOM	35607	C	VAL C 153	192.697	126.651	16.323	1.00	52.86	C	ATOM	35657	O	GLU C 161	192.591	112.864	15.351	1.00	53.44	O
ATOM	35608	O	VAL C 153	192.467	126.425	15.136	1.00	52.86	O	ATOM	35658	CB	GLU C 161	190.124	110.936	15.975	1.00	139.75	C
ATOM	35609	CB	VAL C 153	190.587	127.224	17.594	1.00	42.64	C	ATOM	35659	CG	GLU C 161	191.282	109.971	16.091	1.00	139.75	C
ATOM	35610	CG1	VAL C 153	190.808	126.020	18.507	1.00	42.64	C	ATOM	35660	CD	GLU C 161	190.820	108.528	16.166	1.00	139.75	C
ATOM	35611	CG2	VAL C 153	189.852	128.336	18.336	1.00	42.64	C	ATOM	35661	OE1	GLU C 161	191.684	107.625	16.192	1.00	139.75	O
ATOM	35612	N	SER C 154	193.604	125.992	17.038	1.00	75.42	N	ATOM	35662	OE2	GLU C 161	189.592	108.296	16.207	1.00	139.75	O
ATOM	35613	CA	SER C 154	194.438	124.925	16.497	1.00	75.42	C	ATOM	35663	N	GLN C 162	190.759	113.753	14.386	1.00	67.30	N
ATOM	35614	C	SER C 154	193.652	123.734	15.993	1.00	75.42	C	ATOM	35664	CA	GLN C 162	191.485	114.452	13.323	1.00	67.30	C
ATOM	35615	O	SER C 154	192.811	123.869	15.108	1.00	75.42	O	ATOM	35665	C	GLN C 162	191.603	115.931	13.667	1.00	67.30	C
ATOM	35616	CB	SER C 154	195.407	124.436	17.562	1.00	72.10	C	ATOM	35666	O	GLN C 162	190.595	116.632	13.795	1.00	67.30	O
ATOM	35617	OG	SER C 154	194.703	123.744	18.579	1.00	72.10	O	ATOM	35667	CB	GLN C 162	190.752	114.305	11.987	1.00	108.38	C
ATOM	35618	N	GLY C 155	193.925	122.564	16.570	1.00	56.97	N	ATOM	35668	CG	GLN C 162	191.255	113.175	11.100	1.00	108.38	C
ATOM	35619	CA	GLY C 155	193.247	121.355	16.134	1.00	56.97	C	ATOM	35669	CD	GLN C 162	192.539	113.530	10.368	1.00	108.38	C
ATOM	35620	C	GLY C 155	192.890	120.339	17.202	1.00	56.97	C	ATOM	35670	OE1	GLN C 162	192.605	114.543	9.675	1.00	108.38	O
ATOM	35621	O	GLY C 155	193.510	120.273	18.260	1.00	56.97	O	ATOM	35671	NE2	GLN C 162	193.562	112.692	10.511	1.00	108.38	N
ATOM	35622	N	ARG C 156	191.906	119.514	16.855	1.00	63.42	N	ATOM	35672	N	ALA C 163	192.840	116.393	13.822	1.00	47.31	N
ATOM	35623	CA	ARG C 156	191.309	118.471	17.688	1.00	63.42	C	ATOM	35673	CA	ALA C 163	193.123	117.788	14.147	1.00	47.31	C
ATOM	35624	C	ARG C 156	190.093	119.147	18.266	1.00	63.42	C	ATOM	35674	C	ALA C 163	192.637	118.696	13.027	1.00	47.31	C
ATOM	35625	O	ARG C 156	189.707	118.933	19.408	1.00	63.42	O	ATOM	35675	O	ALA C 163	192.909	118.448	11.857	1.00	47.31	O
ATOM	35626	CB	ARG C 156	192.224	117.973	18.800	1.00	46.93	C	ATOM	35676	CB	ALA C 163	194.611	117.971	14.352	1.00	67.90	C
ATOM	35627	CG	ARG C 156	193.178	116.909	18.340	1.00	46.93	C	ATOM	35677	N	ARG C 164	191.913	119.747	13.378	1.00	48.50	N
ATOM	35628	CD	ARG C 156	193.363	115.806	19.381	1.00	46.93	C	ATOM	35678	CA	ARG C 164	191.392	120.654	12.364	1.00	48.50	C
ATOM	35629	NE	ARG C 156	192.377	114.734	19.243	1.00	46.93	N	ATOM	35679	C	ARG C 164	191.987	122.029	12.626	1.00	48.50	C
ATOM	35630	CZ	ARG C 156	192.420	113.578	19.909	1.00	46.93	C	ATOM	35680	O	ARG C 164	193.040	122.137	13.237	1.00	48.50	O
ATOM	35631	NH1	ARG C 156	193.403	113.328	20.768	1.00	46.93	N	ATOM	35681	CB	ARG C 164	189.849	120.705	12.432	1.00	64.63	C
ATOM	35632	NH2	ARG C 156	191.474	112.665	19.719	1.00	46.93	N	ATOM	35682	CG	ARG C 164	189.196	119.378	12.877	1.00	64.63	C
ATOM	35633	N	ILE C 157	189.517	120.004	17.436	1.00	63.99	N	ATOM	35683	CD	ARG C 164	187.721	119.182	12.450	1.00	64.63	C
ATOM	35634	CA	ILE C 157	188.320	120.738	17.766	1.00	63.99	C	ATOM	35684	NE	ARG C 164	186.744	120.004	13.165	1.00	64.63	N
ATOM	35635	C	ILE C 157	187.249	119.747	18.204	1.00	63.99	C	ATOM	35685	CZ	ARG C 164	186.511	121.286	12.902	1.00	64.63	C
ATOM	35636	O	ILE C 157	186.903	118.823	17.464	1.00	63.99	O	ATOM	35686	NH1	ARG C 164	187.186	121.898	11.941	1.00	64.63	N
ATOM	35637	CB	ILE C 157	187.836	121.515	16.535	1.00	64.74	C	ATOM	35687	NH2	ARG C 164	185.600	121.956	13.593	1.00	64.63	N
ATOM	35638	CG1	ILE C 157	188.771	122.697	16.284	1.00	64.74	C	ATOM	35688	N	THR C 165	191.320	123.072	12.150	1.00	47.50	N
ATOM	35639	CG2	ILE C 157	186.405	121.955	16.719	1.00	64.74	C	ATOM	35689	CA	THR C 165	191.773	124.437	12.361	1.00	47.50	C
ATOM	35640	CD1	ILE C 157	188.390	123.543	15.077	1.00	64.74	C	ATOM	35690	C	THR C 165	190.627	125.381	12.051	1.00	47.50	C
ATOM	35641	N	GLY C 158	186.739	119.939	19.415	1.00	57.53	N	ATOM	35691	O	THR C 165	190.159	125.440	10.910	1.00	47.50	O
ATOM	35642	CA	GLY C 158	185.712	119.058	19.930	1.00	57.53	C	ATOM	35692	CB	THR C 165	192.982	124.770	11.480	1.00	45.31	C
ATOM	35643	C	GLY C 158	186.253	117.700	20.317	1.00	57.53	C	ATOM	35693	OG1	THR C 165	194.161	124.213	12.075	1.00	45.31	O
ATOM	35644	O	GLY C 158	185.492	116.751	20.496	1.00	57.53	O	ATOM	35694	CG2	THR C 165	193.157	126.275	11.343	1.00	45.31	C
ATOM	35645	N	GLY C 159	187.571	117.603	20.447	1.00	66.90	N	ATOM	35695	N	GLU C 166	190.177	126.116	13.074	1.00	52.08	N
ATOM	35646	CA	GLY C 159	188.186	116.343	20.822	1.00	66.90	C	ATOM	35696	CA	GLU C 166	189.059	127.033	12.914	1.00	52.08	C
ATOM	35647	C	GLY C 159	188.226	115.365	19.670	1.00	66.90	C	ATOM	35697	C	GLU C 166	189.447	128.489	12.723	1.00	52.08	C



Table 1: Sheet 359/521

ATOM	35698	O	GLU C 166	190.445	128.971	13.259	1.00	52.08	O	ATOM	35748	NE	ARG C 172	192.494	148.691	5.852	1.00	84.08	N
ATOM	35699	CB	GLU C 166	188.095	126.881	14.082	1.00	88.95	C	ATOM	35749	C2	ARG C 172	193.640	148.472	6.496	1.00	84.08	C
ATOM	35700	CG	GLU C 166	186.639	126.826	13.642	1.00	88.95	C	ATOM	35750	NH1	ARG C 172	194.124	147.239	6.591	1.00	84.08	N
ATOM	35701	CD	GLU C 166	186.392	125.802	12.543	1.00	88.95	C	ATOM	35751	NH2	ARG C 172	194.309	149.484	7.037	1.00	84.08	N
ATOM	35702	OE1	GLU C 166	186.759	124.620	12.725	1.00	88.95	O	ATOM	35752	N	VAL C 173	192.693	143.361	8.483	1.00	57.21	N
ATOM	35703	OE2	GLU C 166	185.824	126.182	11.497	1.00	88.95	O	ATOM	35753	CA	VAL C 173	193.609	142.746	9.444	1.00	57.21	C
ATOM	35704	N	TRP C 167	188.612	129.181	11.961	1.00	69.68	N	ATOM	35754	C	VAL C 173	194.899	142.433	8.679	1.00	57.21	C
ATOM	35705	CA	TRP C 167	188.824	130.569	11.580	1.00	69.68	C	ATOM	35755	O	VAL C 173	195.408	141.312	8.714	1.00	57.21	O
ATOM	35706	C	TRP C 167	188.093	131.671	12.331	1.00	69.68	C	ATOM	35756	CB	VAL C 173	193.007	141.458	10.028	1.00	39.20	C
ATOM	35707	O	TRP C 167	188.087	131.704	13.552	1.00	69.68	C	ATOM	35757	CG1	VAL C 173	193.949	140.859	11.089	1.00	39.20	C
ATOM	35708	CB	TRP C 167	188.480	130.702	10.111	1.00	82.32	C	ATOM	35758	CG2	VAL C 173	191.636	141.768	10.622	1.00	39.20	C
ATOM	35709	CG	TRP C 167	189.644	130.900	9.278	1.00	82.32	C	ATOM	35759	N	PRO C 174	195.450	143.450	7.992	1.00	70.51	N
ATOM	35710	CD1	TRP C 167	190.661	130.030	9.079	1.00	82.32	C	ATOM	35760	CA	PRO C 174	196.664	143.437	7.168	1.00	70.51	C
ATOM	35711	CD2	TRP C 167	189.947	132.069	8.535	1.00	82.32	C	ATOM	35761	C	PRO C 174	197.960	143.020	7.831	1.00	70.51	C
ATOM	35712	NE1	TRP C 167	191.592	130.589	8.253	1.00	82.32	N	ATOM	35762	O	PRO C 174	198.731	143.869	8.271	1.00	70.51	O
ATOM	35713	CE2	TRP C 167	191.176	131.847	7.902	1.00	82.32	C	ATOM	35763	CB	PRO C 174	196.739	144.870	6.661	1.00	45.13	C
ATOM	35714	CE3	TRP C 167	189.296	133.291	8.343	1.00	82.32	C	ATOM	35764	CG	PRO C 174	196.211	145.633	7.814	1.00	45.13	C
ATOM	35715	CZ2	TRP C 167	191.779	132.805	7.085	1.00	82.32	C	ATOM	35765	CD	PRO C 174	194.990	144.840	8.173	1.00	45.13	C
ATOM	35716	CZ3	TRP C 167	189.888	134.243	7.534	1.00	82.32	C	ATOM	35766	N	LEU C 175	198.220	141.721	7.885	1.00	57.31	N
ATOM	35717	CH2	TRP C 167	191.119	133.995	6.913	1.00	82.32	C	ATOM	35767	CA	LEU C 175	199.455	141.261	8.494	1.00	57.31	C
ATOM	35718	N	ALA C 168	187.505	132.583	11.549	1.00	47.86	N	ATOM	35768	C	LEU C 175	200.662	141.738	7.695	1.00	57.31	C
ATOM	35719	CA	ALA C 168	186.730	133.751	12.007	1.00	47.86	C	ATOM	35769	O	LEU C 175	201.775	141.805	8.214	1.00	57.31	O
ATOM	35720	C	ALA C 168	187.495	135.065	11.918	1.00	47.86	C	ATOM	35770	CB	LEU C 175	199.490	139.732	8.592	1.00	40.80	C
ATOM	35721	O	ALA C 168	188.543	135.228	12.547	1.00	47.86	O	ATOM	35771	CG	LEU C 175	198.621	138.999	9.615	1.00	40.80	C
ATOM	35722	CB	ALA C 168	186.219	133.547	13.433	1.00	83.60	C	ATOM	35772	CD1	LEU C 175	199.444	137.863	10.230	1.00	40.80	C
ATOM	35723	N	ALA C 169	186.957	136.002	11.144	1.00	45.78	N	ATOM	35773	CD2	LEU C 175	198.165	139.963	10.708	1.00	40.80	C
ATOM	35724	CA	ALA C 169	187.594	137.301	10.989	1.00	45.78	C	ATOM	35774	N	HIS C 176	200.448	142.082	6.433	1.00	60.10	N
ATOM	35725	C	ALA C 169	186.666	138.383	10.407	1.00	45.78	C	ATOM	35775	CA	HIS C 176	201.566	142.519	5.619	1.00	60.10	C
ATOM	35726	O	ALA C 169	185.763	138.079	9.627	1.00	45.78	O	ATOM	35776	C	HIS C 176	201.938	143.964	5.816	1.00	60.10	C
ATOM	35727	CB	ALA C 169	188.818	137.151	10.121	1.00	43.89	C	ATOM	35777	O	HIS C 176	203.123	144.306	5.797	1.00	60.10	O
ATOM	35728	N	GLN C 170	186.889	139.642	10.797	1.00	36.90	N	ATOM	35778	CB	HIS C 176	201.294	142.266	4.138	1.00	79.27	C
ATOM	35729	CA	GLN C 170	186.096	140.776	10.301	1.00	36.90	C	ATOM	35779	CG	HIS C 176	201.757	140.924	3.665	1.00	79.27	C
ATOM	35730	C	GLN C 170	186.966	142.031	10.116	1.00	36.90	C	ATOM	35780	ND1	HIS C 176	201.128	139.750	4.019	1.00	79.27	N
ATOM	35731	O	GLN C 170	187.923	142.242	10.864	1.00	36.90	O	ATOM	35781	CD2	HIS C 176	202.792	140.572	2.867	1.00	79.27	C
ATOM	35732	CB	GLN C 170	184.941	141.089	11.261	1.00	86.13	C	ATOM	35782	CE1	HIS C 176	201.752	138.732	3.456	1.00	79.27	C
ATOM	35733	CG	GLN C 170	183.778	140.101	11.206	1.00	86.13	C	ATOM	35783	NE2	HIS C 176	202.765	139.204	2.751	1.00	79.27	C
ATOM	35734	CD	GLN C 170	182.614	140.504	12.105	1.00	86.13	C	ATOM	35784	N	THR C 177	200.936	144.817	6.003	1.00	78.65	N
ATOM	35735	OE1	GLN C 170	182.120	141.632	12.038	1.00	86.13	O	ATOM	35785	CA	THR C 177	201.205	146.236	6.187	1.00	78.65	C
ATOM	35736	NE2	GLN C 170	182.167	139.574	12.945	1.00	86.13	N	ATOM	35786	C	THR C 177	202.020	146.456	7.459	1.00	78.65	C
ATOM	35737	N	GLY C 171	186.639	142.846	9.111	1.00	46.48	N	ATOM	35787	O	THR C 177	201.565	146.222	8.576	1.00	78.65	O
ATOM	35738	CA	GLY C 171	187.389	144.066	8.841	1.00	46.48	C	ATOM	35788	CB	THR C 177	199.902	147.065	6.215	1.00	68.65	C
ATOM	35739	C	GLY C 171	188.870	143.882	8.547	1.00	46.48	C	ATOM	35789	OG1	THR C 177	200.222	148.455	6.087	1.00	68.65	O
ATOM	35740	O	GLY C 171	189.434	142.821	8.806	1.00	46.48	O	ATOM	35790	CG2	THR C 177	199.154	146.847	7.502	1.00	68.65	C
ATOM	35741	N	ARG C 172	189.517	144.919	8.018	1.00	50.76	N	ATOM	35791	N	LEU C 178	203.256	146.883	7.248	1.00	81.30	N
ATOM	35742	CA	ARG C 172	190.941	144.841	7.695	1.00	50.76	C	ATOM	35792	CA	LEU C 178	204.213	147.129	8.310	1.00	81.30	C
ATOM	35743	C	ARG C 172	191.787	144.271	8.829	1.00	50.76	C	ATOM	35793	C	LEU C 178	203.925	148.493	8.878	1.00	81.30	C
ATOM	35744	O	ARG C 172	191.618	144.636	9.985	1.00	50.76	O	ATOM	35794	O	LEU C 178	204.655	149.430	8.596	1.00	81.30	O
ATOM	35745	CB	ARG C 172	191.490	146.220	7.316	1.00	84.08	C	ATOM	35795	CB	LEU C 178	205.617	147.097	7.709	1.00	54.46	C
ATOM	35746	CG	ARG C 172	190.760	146.888	6.166	1.00	84.08	C	ATOM	35796	CG	LEU C 178	206.865	147.129	8.580	1.00	54.46	C
ATOM	35747	CD	ARG C 172	191.695	147.645	5.214	1.00	84.08	C	ATOM	35797	CD1	LEU C 178	206.866	145.992	9.599	1.00	54.46	C



ATOM	35798	CD2	LEU	C	178	208.055	147.021	7.658	1.00	54.46	C	ATOM	35848	CE2	TYR	C	184	201.125	135.545	19.013	1.00	57.38	C
ATOM	35799	N	ARG	C	179	202.870	148.603	9.680	1.00	66.26	N	ATOM	35849	CZ	TYR	C	184	200.543	134.790	18.008	1.00	57.38	C
ATOM	35800	CA	ARG	C	179	202.470	149.888	10.253	1.00	66.26	C	ATOM	35850	OH	TYR	C	184	200.690	133.417	18.016	1.00	57.38	O
ATOM	35801	C	ARG	C	179	201.038	149.808	10.781	1.00	66.26	C	ATOM	35851	N	GLY	C	185	197.889	137.794	20.193	1.00	53.14	N
ATOM	35802	O	ARG	C	179	200.522	150.766	11.336	1.00	66.26	O	ATOM	35852	CA	GLY	C	185	197.799	137.129	21.468	1.00	53.14	C
ATOM	35803	CB	ARG	C	179	202.591	150.977	9.167	1.00	75.98	C	ATOM	35853	C	GLY	C	185	197.618	135.647	21.278	1.00	53.14	C
ATOM	35804	CG	ARG	C	179	201.763	152.228	9.326	1.00	75.98	C	ATOM	35854	O	GLY	C	185	196.803	135.220	20.460	1.00	53.14	O
ATOM	35805	CD	ARG	C	179	200.332	151.984	8.920	1.00	75.98	C	ATOM	35855	N	PHE	C	186	198.375	134.858	22.030	1.00	52.21	N
ATOM	35806	NE	ARG	C	179	200.140	151.898	7.477	1.00	75.98	N	ATOM	35856	CA	PHE	C	186	198.277	133.417	21.936	1.00	52.21	C
ATOM	35807	CZ	ARG	C	179	199.979	152.946	6.671	1.00	75.98	C	ATOM	35857	O	PHE	C	186	197.910	132.811	23.272	1.00	52.21	O
ATOM	35808	NH1	ARG	C	179	199.771	152.763	7.158	1.00	75.98	N	ATOM	35858	O	PHE	C	186	198.447	133.180	24.309	1.00	52.21	O
ATOM	35809	NH2	ARG	C	179	199.992	154.179	5.374	1.00	75.98	N	ATOM	35859	CB	PHE	C	186	199.598	132.819	21.464	1.00	56.24	C
ATOM	35810	N	ALA	C	180	200.411	148.650	10.617	1.00	89.45	N	ATOM	35860	CG	PHE	C	186	199.637	131.319	21.527	1.00	56.24	C
ATOM	35811	CA	ALA	C	180	199.033	148.433	11.049	1.00	89.45	C	ATOM	35861	CD1	PHE	C	186	198.752	130.553	20.772	1.00	56.24	C
ATOM	35812	C	ALA	C	180	198.770	148.690	12.516	1.00	89.45	C	ATOM	35862	CD2	PHE	C	186	200.545	130.668	22.355	1.00	56.24	C
ATOM	35813	O	ALA	C	180	197.941	149.535	12.882	1.00	89.45	O	ATOM	35863	CE1	PHE	C	186	198.772	129.153	20.843	1.00	56.24	C
ATOM	35814	CB	ALA	C	180	198.613	147.014	10.731	1.00	65.67	C	ATOM	35864	CE2	PHE	C	186	200.575	129.274	22.435	1.00	56.24	C
ATOM	35815	N	ASN	C	181	199.485	147.942	13.345	1.00	58.96	N	ATOM	35865	CZ	PHE	C	186	199.685	128.513	21.678	1.00	56.24	C
ATOM	35816	CA	ASN	C	181	199.336	147.991	14.797	1.00	58.96	C	ATOM	35866	N	ALA	C	187	196.985	131.869	23.239	1.00	52.83	N
ATOM	35817	C	ASN	C	181	198.280	146.958	15.062	1.00	58.96	C	ATOM	35867	CA	ALA	C	187	196.566	131.187	24.444	1.00	52.83	C
ATOM	35818	O	ASN	C	181	197.090	147.252	15.233	1.00	58.96	O	ATOM	35868	C	ALA	C	187	196.615	129.676	24.198	1.00	52.83	C
ATOM	35819	CB	ASN	C	181	198.855	149.343	15.324	1.00	87.88	C	ATOM	35869	O	ALA	C	187	196.193	129.181	23.145	1.00	52.83	O
ATOM	35820	CG	ASN	C	181	198.442	149.271	16.786	1.00	87.88	C	ATOM	35870	CB	ALA	C	187	195.157	131.626	24.821	1.00	43.89	C
ATOM	35821	OD1	ASN	C	181	199.105	148.627	17.605	1.00	87.88	O	ATOM	35871	N	LEU	C	188	197.152	128.950	25.169	1.00	44.19	N
ATOM	35822	ND2	ASN	C	181	197.344	149.934	17.121	1.00	87.88	N	ATOM	35872	CA	LEU	C	188	197.248	127.499	25.088	1.00	44.19	C
ATOM	35823	N	ILE	C	182	198.748	145.727	15.073	1.00	65.44	N	ATOM	35873	C	LEU	C	188	195.856	126.928	25.383	1.00	44.19	C
ATOM	35824	CA	ILE	C	182	197.899	144.591	15.275	1.00	65.44	C	ATOM	35874	O	LEU	C	188	194.857	127.552	25.051	1.00	44.19	O
ATOM	35825	C	ILE	C	182	198.328	143.905	16.565	1.00	65.44	C	ATOM	35875	CB	LEU	C	188	198.266	127.015	26.116	1.00	55.28	C
ATOM	35826	O	ILE	C	182	199.483	143.501	16.711	1.00	65.44	O	ATOM	35876	CG	LEU	C	188	199.245	125.920	25.705	1.00	55.28	C
ATOM	35827	CB	ILE	C	182	198.042	143.659	14.057	1.00	62.94	C	ATOM	35877	CD1	LEU	C	188	198.644	124.556	25.953	1.00	55.28	C
ATOM	35828	CG1	ILE	C	182	197.717	144.451	12.781	1.00	62.94	C	ATOM	35878	CD2	LEU	C	188	199.621	126.117	24.251	1.00	55.28	C
ATOM	35829	CG2	ILE	C	182	197.155	142.443	14.214	1.00	62.94	C	ATOM	35879	N	ALA	C	189	195.781	125.755	26.002	1.00	41.65	N
ATOM	35830	CD1	ILE	C	182	197.884	143.680	11.495	1.00	62.94	C	ATOM	35880	CA	ALA	C	189	194.491	125.140	26.330	1.00	41.65	C
ATOM	35831	N	ASP	C	183	197.415	143.807	17.522	1.00	56.91	N	ATOM	35881	C	ALA	C	189	194.635	123.646	26.614	1.00	41.65	C
ATOM	35832	CA	ASP	C	183	197.764	143.146	18.763	1.00	56.91	C	ATOM	35882	O	ALA	C	189	194.157	122.816	25.840	1.00	41.65	O
ATOM	35833	C	ASP	C	183	197.667	141.650	18.505	1.00	56.91	C	ATOM	35883	CB	ALA	C	189	193.466	125.359	25.180	1.00	1.93	C
ATOM	35834	O	ASP	C	183	196.687	141.159	17.941	1.00	56.91	O	ATOM	35884	N	ARG	C	190	195.295	123.305	27.718	1.00	66.05	N
ATOM	35835	CB	ASP	C	183	196.821	143.554	19.899	1.00	95.40	C	ATOM	35885	CA	ARG	C	190	195.475	121.905	28.089	1.00	66.05	C
ATOM	35836	CG	ASP	C	183	197.286	143.036	21.258	1.00	95.40	C	ATOM	35886	C	ARG	C	190	194.100	121.220	28.108	1.00	66.05	C
ATOM	35837	OD1	ASP	C	183	196.543	143.196	22.251	1.00	95.40	O	ATOM	35887	O	ARG	C	190	193.096	121.836	28.471	1.00	66.05	O
ATOM	35838	ND2	ASP	C	183	198.398	142.469	21.335	1.00	95.40	O	ATOM	35888	CB	ARG	C	190	196.150	121.811	29.461	1.00	83.86	C
ATOM	35839	N	TYR	C	184	198.709	140.934	18.899	1.00	49.60	N	ATOM	35889	CG	ARG	C	190	197.498	122.546	29.554	1.00	83.86	C
ATOM	35840	CA	TYR	C	184	198.755	139.497	18.722	1.00	49.60	C	ATOM	35890	CD	ARG	C	190	198.203	122.343	30.911	1.00	83.86	C
ATOM	35841	O	TYR	C	184	198.679	138.845	20.086	1.00	49.60	C	ATOM	35891	NE	ARG	C	190	198.870	121.044	31.064	1.00	83.86	N
ATOM	35842	C	TYR	C	184	199.333	139.280	21.032	1.00	49.60	O	ATOM	35892	CZ	ARG	C	190	198.254	119.861	31.135	1.00	83.86	C
ATOM	35843	CB	TYR	C	184	200.065	139.081	18.043	1.00	57.38	C	ATOM	35893	NH1	ARG	C	190	196.932	119.776	31.068	1.00	83.86	N
ATOM	35844	CG	TYR	C	184	200.268	137.585	17.999	1.00	57.38	C	ATOM	35894	NH2	ARG	C	190	198.966	118.750	31.284	1.00	83.86	N
ATOM	35845	CD1	TYR	C	184	199.690	136.809	16.996	1.00	57.38	C	ATOM	35895	N	THR	C	191	194.052	119.951	27.717	1.00	82.97	N
ATOM	35846	CD2	TYR	C	184	200.987	136.935	19.001	1.00	57.38	C	ATOM	35896	CA	THR	C	191	192.782	119.235	27.655	1.00	82.97	C
ATOM	35847	CE1	TYR	C	184	199.823	135.415	16.995	1.00	57.38	C	ATOM	35897	C	THR	C	191	192.892	117.731	27.781	1.00	82.97	C



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ATOM	35898	O	THR	C	191	193.934	117.145	27.508	1.00	82.97	O	ATOM	35948	CB	VAL	C	198	193.525	130.089	21.492	1.00	43.21	C
ATOM	35899	CG1	THR	C	191	192.075	119.509	26.327	1.00	54.45	C	ATOM	35949	CG1	VAL	C	198	192.564	131.208	21.111	1.00	43.21	C
ATOM	35900	CG1	THR	C	191	191.632	120.869	26.300	1.00	54.45	O	ATOM	35950	CG2	VAL	C	198	192.772	128.804	21.812	1.00	43.21	C
ATOM	35901	CG2	THR	C	191	190.900	118.565	26.134	1.00	54.45	C	ATOM	35951	N	LYS	C	199	194.854	131.655	18.790	1.00	53.51	N
ATOM	35902	N	THR	C	192	191.788	117.112	28.179	1.00	68.99	N	ATOM	35952	CA	LYS	C	199	195.446	132.909	18.371	1.00	53.51	C
ATOM	35903	CA	THR	C	192	191.716	115.671	28.324	1.00	68.99	C	ATOM	35953	C	LYS	C	199	194.428	134.020	18.175	1.00	53.51	C
ATOM	35904	C	THR	C	192	192.302	115.004	27.093	1.00	68.99	O	ATOM	35954	O	LYS	C	199	193.395	133.827	17.530	1.00	53.51	O
ATOM	35905	O	THR	C	192	193.025	114.015	27.193	1.00	68.99	C	ATOM	35955	CB	LYS	C	199	196.234	132.716	17.075	1.00	71.87	C
ATOM	35906	CB	THR	C	192	190.259	115.219	28.467	1.00	75.57	C	ATOM	35956	CG	LYS	C	199	197.369	131.722	17.174	1.00	71.87	C
ATOM	35907	OG1	THR	C	192	189.751	115.674	29.723	1.00	75.57	O	ATOM	35957	CD	LYS	C	199	198.183	131.691	15.887	1.00	71.87	C
ATOM	35908	CG2	THR	C	192	190.145	113.699	28.371	1.00	75.57	C	ATOM	35958	CE	LYS	C	199	199.055	130.443	15.821	1.00	71.87	C
ATOM	35909	N	TYR	C	193	191.992	115.557	25.926	1.00	91.55	N	ATOM	35959	NZ	LYS	C	199	199.855	130.380	14.570	1.00	71.87	N
ATOM	35910	CA	TYR	C	193	192.484	114.986	24.683	1.00	91.55	C	ATOM	35960	N	ALA	C	200	194.734	135.189	18.727	1.00	46.86	N
ATOM	35911	C	TYR	C	193	193.743	115.639	24.121	1.00	91.55	C	ATOM	35961	CA	ALA	C	200	193.861	136.344	18.601	1.00	46.86	C
ATOM	35912	O	TYR	C	193	194.325	115.132	23.166	1.00	91.55	O	ATOM	35962	C	ALA	C	200	194.617	137.482	17.929	1.00	46.86	C
ATOM	35913	CB	TYR	C	193	191.364	114.986	23.640	1.00	79.75	C	ATOM	35963	O	ALA	C	200	195.747	137.800	18.311	1.00	46.86	O
ATOM	35914	CG1	TYR	C	193	190.607	116.288	23.528	1.00	79.75	C	ATOM	35964	CB	ALA	C	200	193.368	136.779	19.971	1.00	157.68	C
ATOM	35915	CD1	TYR	C	193	191.156	117.386	22.867	1.00	79.75	C	ATOM	35965	N	TYR	C	201	193.987	138.083	16.925	1.00	48.57	N
ATOM	35916	CD2	TYR	C	193	189.327	116.415	24.062	1.00	79.75	C	ATOM	35966	CA	TYR	C	201	194.568	139.198	16.174	1.00	48.57	C
ATOM	35917	CE1	TYR	C	193	190.444	118.577	22.733	1.00	79.75	C	ATOM	35967	C	TYR	C	201	193.629	140.386	16.202	1.00	48.57	C
ATOM	35918	CE2	TYR	C	193	188.608	117.600	23.937	1.00	79.75	C	ATOM	35968	O	TYR	C	201	192.492	140.274	15.732	1.00	48.57	O
ATOM	35919	CH	TYR	C	193	189.169	118.675	23.270	1.00	79.75	C	ATOM	35969	CB	TYR	C	201	194.753	138.846	14.695	1.00	96.63	C
ATOM	35920	OH	TYR	C	193	188.448	119.839	23.127	1.00	79.75	O	ATOM	35970	CG	TYR	C	201	195.899	137.935	14.351	1.00	96.63	C
ATOM	35921	N	GLY	C	194	194.167	116.755	24.707	1.00	62.24	N	ATOM	35971	CD1	TYR	C	201	195.815	136.559	14.561	1.00	96.63	C
ATOM	35922	CA	GLY	C	194	195.375	117.407	24.230	1.00	62.24	C	ATOM	35972	CD2	TYR	C	201	197.047	138.446	13.751	1.00	96.63	C
ATOM	35923	C	GLY	C	194	195.377	118.921	24.107	1.00	62.24	C	ATOM	35973	CE1	TYR	C	201	196.842	135.715	14.169	1.00	96.63	C
ATOM	35924	O	GLY	C	194	194.337	119.579	24.164	1.00	62.24	O	ATOM	35974	CE2	TYR	C	201	198.077	137.616	13.360	1.00	96.63	C
ATOM	35925	N	VAL	C	195	196.574	119.468	23.923	1.00	50.06	N	ATOM	35975	CZ	TYR	C	201	197.969	136.252	13.565	1.00	96.63	C
ATOM	35926	CA	VAL	C	195	196.778	120.905	23.787	1.00	50.06	C	ATOM	35976	OH	TYR	C	201	198.977	135.429	13.123	1.00	52.88	O
ATOM	35927	C	VAL	C	195	196.137	121.453	22.521	1.00	50.06	C	ATOM	35977	N	ILE	C	202	194.082	141.526	16.716	1.00	53.83	N
ATOM	35928	O	VAL	C	195	196.123	120.779	21.502	1.00	50.06	O	ATOM	35978	CA	ILE	C	202	193.211	142.701	16.722	1.00	53.83	C
ATOM	35929	CB	VAL	C	195	198.288	121.227	23.738	1.00	105.15	C	ATOM	35979	C	ILE	C	202	193.862	143.889	16.027	1.00	53.83	C
ATOM	35930	CG1	VAL	C	195	198.506	122.681	23.363	1.00	105.15	C	ATOM	35980	O	ILE	C	202	195.009	144.234	16.284	1.00	53.83	O
ATOM	35931	CG2	VAL	C	195	198.924	120.923	25.080	1.00	105.15	C	ATOM	35981	CB	ILE	C	202	192.783	143.094	18.153	1.00	75.76	C
ATOM	35932	N	LEU	C	196	195.600	122.667	22.587	1.00	45.33	N	ATOM	35982	CG1	ILE	C	202	192.332	141.841	18.919	1.00	75.76	C
ATOM	35933	CA	LEU	C	196	195.004	123.303	21.415	1.00	45.33	C	ATOM	35983	CG2	ILE	C	202	191.622	144.091	18.082	1.00	75.76	C
ATOM	35934	C	LEU	C	196	195.327	124.793	21.489	1.00	45.33	C	ATOM	35984	CD1	ILE	C	202	191.865	142.092	20.336	1.00	75.76	C
ATOM	35935	O	LEU	C	196	194.790	125.506	22.327	1.00	45.33	O	ATOM	35985	N	PHE	C	203	193.114	144.506	15.131	1.00	73.17	N
ATOM	35936	CB	LEU	C	196	193.482	123.109	21.373	1.00	49.74	C	ATOM	35986	CA	PHE	C	203	193.611	145.637	14.372	1.00	73.17	C
ATOM	35937	CG	LEU	C	196	192.840	121.766	21.765	1.00	49.74	C	ATOM	35987	C	PHE	C	203	193.003	146.924	14.909	1.00	73.17	C
ATOM	35938	CD1	LEU	C	196	191.402	121.784	21.282	1.00	49.74	C	ATOM	35988	O	PHE	C	203	191.800	146.981	15.168	1.00	73.17	O
ATOM	35939	CD2	LEU	C	196	193.549	120.565	21.155	1.00	49.74	C	ATOM	35989	CB	PHE	C	203	193.246	145.428	12.902	1.00	33.42	C
ATOM	35940	N	GLY	C	197	196.210	125.263	20.619	1.00	48.86	N	ATOM	35990	CG	PHE	C	203	193.597	146.570	12.011	1.00	33.42	C
ATOM	35941	CA	GLY	C	197	196.582	126.666	20.640	1.00	48.86	C	ATOM	35991	CD1	PHE	C	203	194.866	147.133	12.038	1.00	33.42	C
ATOM	35942	C	GLY	C	197	195.498	127.620	20.171	1.00	48.86	C	ATOM	35992	CD2	PHE	C	203	192.673	147.046	11.088	1.00	33.42	C
ATOM	35943	O	GLY	C	197	194.681	127.273	19.312	1.00	48.86	O	ATOM	35993	CE1	PHE	C	203	195.219	148.163	11.147	1.00	33.42	C
ATOM	35944	N	VAL	C	198	195.490	128.831	20.728	1.00	46.85	N	ATOM	35994	CE2	PHE	C	203	193.008	148.073	10.191	1.00	33.42	C
ATOM	35945	CA	VAL	C	198	194.501	129.836	20.353	1.00	46.85	C	ATOM	35995	CZ	PHE	C	203	194.287	148.674	10.220	1.00	33.42	C
ATOM	35946	C	VAL	C	198	195.148	131.157	19.981	1.00	46.85	C	ATOM	35996	N	LEU	C	204	193.842	147.945	15.092	1.00	87.21	N
ATOM	35947	O	VAL	C	198	195.894	131.726	20.763	1.00	46.85	O	ATOM	35997	CA	LEU	C	204	193.402	149.251	15.594	1.00	87.21	C



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ATOM	35998	C	LEU	C	204	194.061	150.340	14.765	1.00	87.21	C	ATOM	36048	CE1	TYR	D	4	156.040	101.456	33.420	1.00	50.78	C
ATOM	35999	O	LEU	C	204	195.237	150.235	14.420	1.00	87.21	O	ATOM	36049	CE2	TYR	D	4	155.034	103.269	34.641	1.00	50.78	C
ATOM	36000	CB	LEU	C	204	193.822	149.449	17.049	1.00	45.76	C	ATOM	36050	CZ	TYR	D	4	156.162	102.591	34.195	1.00	50.78	C
ATOM	36001	CG	LEU	C	204	194.245	148.217	17.846	1.00	45.76	C	ATOM	36051	OH	TYR	D	4	157.423	103.021	34.519	1.00	50.78	O
ATOM	36002	CD1	LEU	C	204	195.152	148.628	18.992	1.00	45.76	C	ATOM	36052	N	ILE	D	5	152.434	99.822	35.490	1.00	102.76	N
ATOM	36003	CD2	LEU	C	204	193.023	147.491	18.363	1.00	45.76	C	ATOM	36053	CA	ILE	D	5	152.828	99.464	36.852	1.00	102.76	C
ATOM	36004	N	GLY	C	205	193.312	151.391	14.459	1.00	125.95	N	ATOM	36054	C	ILE	D	5	154.346	99.551	36.949	1.00	102.76	C
ATOM	36005	CA	GLY	C	205	193.863	152.480	13.673	1.00	125.95	C	ATOM	36055	O	ILE	D	5	155.058	98.599	36.618	1.00	102.76	O
ATOM	36006	C	GLY	C	205	194.846	152.038	12.601	1.00	125.95	C	ATOM	36056	CB	ILE	D	5	152.397	98.032	37.233	1.00	72.62	C
ATOM	36007	O	GLY	C	205	194.600	151.081	11.871	1.00	125.95	O	ATOM	36057	CG1	ILE	D	5	150.873	97.947	37.292	1.00	72.62	C
ATOM	36008	N	GLU	C	206	195.970	152.734	12.507	1.00	101.89	N	ATOM	36058	CG2	ILE	D	5	152.993	97.651	38.575	1.00	72.62	C
ATOM	36009	CA	GLU	C	206	196.968	152.400	11.513	1.00	101.89	C	ATOM	36059	CD1	ILE	D	5	150.353	96.546	37.511	1.00	72.62	C
ATOM	36010	C	GLU	C	206	198.246	153.224	11.703	1.00	101.89	C	ATOM	36060	N	GLY	D	6	154.828	100.707	37.393	1.00	46.75	N
ATOM	36011	O	GLU	C	206	199.128	152.808	12.456	1.00	101.89	O	ATOM	36061	CA	GLY	D	6	156.256	100.939	37.532	1.00	46.75	C
ATOM	36012	CB	GLU	C	206	196.381	152.607	10.114	1.00	92.35	C	ATOM	36062	C	GLY	D	6	156.492	102.397	37.861	1.00	46.75	C
ATOM	36013	CG	GLU	C	206	197.169	151.948	8.991	1.00	92.35	C	ATOM	36063	O	GLY	D	6	155.535	103.173	37.855	1.00	46.75	O
ATOM	36014	CD	GLU	C	206	196.402	151.901	7.679	1.00	92.35	C	ATOM	36064	N	PRO	D	7	157.730	102.813	38.161	1.00	54.99	N
ATOM	36015	OE1	GLU	C	206	197.007	151.558	6.638	1.00	92.35	O	ATOM	36065	CA	PRO	D	7	157.915	104.233	38.470	1.00	54.99	C
ATOM	36016	OE2	GLU	C	206	195.189	152.200	7.694	1.00	92.35	O	ATOM	36066	C	PRO	D	7	157.079	105.097	37.531	1.00	54.99	C
ATOM	36017	N	VAL	C	207	198.338	154.389	11.053	1.00	90.14	N	ATOM	36067	O	PRO	D	7	157.116	104.931	36.312	1.00	54.99	O
ATOM	36018	CA	VAL	C	207	199.537	155.248	11.134	1.00	90.14	C	ATOM	36068	CB	PRO	D	7	159.425	104.437	38.309	1.00	77.36	C
ATOM	36019	C	VAL	C	207	200.336	155.136	12.435	1.00	90.14	C	ATOM	36069	CG	PRO	D	7	159.873	103.249	37.492	1.00	77.36	C
ATOM	36020	O	VAL	C	207	199.725	154.934	13.506	1.00	90.14	O	ATOM	36070	CD	PRO	D	7	159.024	102.138	38.014	1.00	77.36	C
ATOM	36021	CB	VAL	C	207	199.187	156.755	10.907	1.00	67.62	C	ATOM	36071	N	VAL	D	8	156.313	106.014	38.107	1.00	45.97	N
ATOM	36022	CG1	VAL	C	207	200.419	157.637	11.156	1.00	67.62	C	ATOM	36072	CA	VAL	D	8	155.431	106.863	37.324	1.00	45.97	C
ATOM	36023	CG2	VAL	C	207	198.681	156.963	9.487	1.00	67.62	C	ATOM	36073	C	VAL	D	8	155.825	108.331	37.241	1.00	45.97	C
TER	36024	VAL	C	207								ATOM	36074	O	VAL	D	8	155.587	108.980	36.222	1.00	45.97	O
ATOM	36025	N	GLY	D	2	148.654	93.702	31.635	1.00	63.78	N	ATOM	36075	CB	VAL	D	8	154.016	106.723	37.872	1.00	31.22	C
ATOM	36026	CA	GLY	D	2	148.804	94.536	32.852	1.00	63.78	C	ATOM	36076	CG1	VAL	D	8	153.049	107.582	37.119	1.00	31.22	C
ATOM	36027	C	GLY	D	2	149.278	95.946	32.554	1.00	63.78	C	ATOM	36077	CG2	VAL	D	8	153.612	105.268	37.761	1.00	31.22	C
ATOM	36028	O	GLY	D	2	150.423	96.154	32.146	1.00	63.78	O	ATOM	36078	N	CYS	D	9	156.413	108.870	38.302	1.00	142.34	N
ATOM	36029	N	ARG	D	3	148.397	96.919	32.769	1.00	88.19	N	ATOM	36079	CA	CYS	D	9	156.821	110.263	38.252	1.00	142.34	C
ATOM	36030	CA	ARG	D	3	148.710	98.320	32.520	1.00	88.19	C	ATOM	36080	C	CYS	D	9	157.961	110.390	37.242	1.00	142.34	C
ATOM	36031	C	ARG	D	3	149.912	98.904	34.509	1.00	88.19	O	ATOM	36081	O	CYS	D	9	158.437	111.487	36.966	1.00	142.34	O
ATOM	36032	O	ARG	D	3	149.912	98.904	34.509	1.00	88.19	O	ATOM	36082	CB	CYS	D	9	157.239	110.764	39.644	1.00	48.20	C
ATOM	36033	CB	ARG	D	3	147.498	99.189	32.851	1.00	200.30	C	ATOM	36083	SG	CYS	D	9	155.936	111.685	40.536	1.00	48.20	S
ATOM	36034	CG	ARG	D	3	146.313	98.888	31.956	1.00	200.30	C	ATOM	36084	N	ARG	D	10	158.385	109.259	36.679	1.00	63.66	N
ATOM	36035	CD	ARG	D	3	146.717	99.016	30.495	1.00	200.30	C	ATOM	36085	CA	ARG	D	10	159.453	109.257	35.673	1.00	63.66	C
ATOM	36036	NE	ARG	D	3	145.932	98.148	29.625	1.00	200.30	N	ATOM	36086	C	ARG	D	10	158.859	109.558	34.293	1.00	63.66	C
ATOM	36037	CZ	ARG	D	3	144.638	98.302	29.375	1.00	200.30	C	ATOM	36087	O	ARG	D	10	159.552	110.023	33.395	1.00	63.66	O
ATOM	36038	NH1	ARG	D	3	143.959	99.300	29.927	1.00	200.30	N	ATOM	36088	CB	ARG	D	10	160.198	107.905	35.656	1.00	44.88	C
ATOM	36039	NH2	ARG	D	3	144.022	97.445	28.575	1.00	200.30	N	ATOM	36089	CG	ARG	D	10	159.559	106.790	34.815	1.00	44.88	C
ATOM	36040	N	TYR	D	4	150.983	99.098	32.541	1.00	130.88	N	ATOM	36090	CD	ARG	D	10	160.201	105.401	35.079	1.00	44.88	C
ATOM	36041	CA	TYR	D	4	152.246	99.574	33.086	1.00	130.88	C	ATOM	36091	NE	ARG	D	10	161.640	105.338	34.807	1.00	44.88	N
ATOM	36042	C	TYR	D	4	152.675	99.034	34.444	1.00	130.88	C	ATOM	36092	CZ	ARG	D	10	162.192	105.609	33.627	1.00	44.88	C
ATOM	36043	O	TYR	D	4	153.223	97.935	34.535	1.00	130.88	O	ATOM	36093	NH1	ARG	D	10	161.431	105.967	32.600	1.00	44.88	N
ATOM	36044	CB	TYR	D	4	152.265	101.100	33.145	1.00	50.78	C	ATOM	36094	NH2	ARG	D	10	163.501	105.520	33.470	1.00	44.88	N
ATOM	36045	CG	TYR	D	4	153.627	101.638	33.516	1.00	50.78	C	ATOM	36095	N	LEU	D	11	157.570	109.282	34.133	1.00	70.27	N
ATOM	36046	CD1	TYR	D	4	154.781	100.998	33.084	1.00	50.78	C	ATOM	36096	CA	LEU	D	11	156.881	109.562	32.882	1.00	70.27	C
ATOM	36047	CD2	TYR	D	4	153.770	102.786	34.299	1.00	50.78	C	ATOM	36097	C	LEU	D	11	156.608	111.055	32.919	1.00	70.27	C



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ATOM	36098	O	LEU D	11	156.765	111.742	31.911	1.00	70.27	O	ATOM	36148	CB	VAL D	17	153.914	118.124	30.485	1.00	63.40	C
ATOM	36099	CG	LEU D	11	155.559	108.802	32.809	1.00	51.10	C	ATOM	36149	CG1	VAL D	17	152.608	118.672	31.020	1.00	63.40	C
ATOM	36100	CB	LEU D	11	155.627	107.309	33.139	1.00	51.10	C	ATOM	36150	CG2	VAL D	17	154.412	118.995	29.350	1.00	63.40	C
ATOM	36101	CD1	LEU D	11	154.227	106.716	33.104	1.00	51.10	C	ATOM	36151	N	LYS D	18	153.771	118.031	33.701	1.00	60.31	N
ATOM	36102	CD2	LEU D	11	156.544	106.605	32.148	1.00	51.10	C	ATOM	36152	CA	LYS D	18	153.190	117.441	34.889	1.00	60.31	C
ATOM	36103	N	CYS D	12	156.185	111.540	34.093	1.00	55.14	N	ATOM	36153	C	LYS D	18	152.097	116.447	34.524	1.00	60.31	C
ATOM	36104	CA	CYS D	12	155.918	112.964	34.311	1.00	55.14	C	ATOM	36154	O	LYS D	18	151.265	116.695	33.655	1.00	60.31	O
ATOM	36105	C	CYS D	12	157.138	113.668	33.695	1.00	55.14	C	ATOM	36155	CB	LYS D	18	152.620	118.543	35.788	1.00	74.06	C
ATOM	36106	O	CYS D	12	157.008	114.558	32.854	1.00	55.14	O	ATOM	36156	CG	LYS D	18	152.833	118.320	37.288	1.00	74.06	C
ATOM	36107	CB	CYS D	12	155.876	113.300	35.827	1.00	54.37	C	ATOM	36157	CD	LYS D	18	152.380	119.543	38.086	1.00	74.06	C
ATOM	36108	SG	CYS D	12	154.285	113.381	36.796	1.00	64.37	S	ATOM	36158	CE	LYS D	18	152.783	119.468	39.548	1.00	74.06	C
ATOM	36109	N	ARG D	13	158.324	113.220	34.107	1.00	53.30	C	ATOM	36159	NZ	LYS D	18	152.278	120.658	40.289	1.00	74.06	N
ATOM	36110	CA	ARG D	13	159.593	113.794	33.663	1.00	63.30	C	ATOM	36160	N	LEU D	19	152.129	115.304	35.187	1.00	142.66	N
ATOM	36111	C	ARG D	13	159.931	113.690	32.180	1.00	63.30	C	ATOM	36161	CA	LEU D	19	151.131	114.280	34.978	1.00	142.66	C
ATOM	36112	O	ARG D	13	160.389	114.669	31.590	1.00	63.30	O	ATOM	36162	C	LEU D	19	150.618	113.912	36.345	1.00	142.66	O
ATOM	36113	CB	ARG D	13	160.750	113.215	34.493	1.00	49.54	C	ATOM	36163	O	LEU D	19	151.391	113.638	37.272	1.00	142.66	O
ATOM	36114	CD	ARG D	13	160.600	113.457	35.998	1.00	49.54	C	ATOM	36164	CB	LEU D	19	151.733	113.060	34.306	1.00	73.65	C
ATOM	36115	CD	ARG D	13	161.942	113.693	36.699	1.00	49.54	C	ATOM	36165	CG	LEU D	19	152.057	113.239	32.835	1.00	73.65	C
ATOM	36116	NE	ARG D	13	162.738	112.480	36.850	1.00	49.54	N	ATOM	36166	CD1	LEU D	19	152.726	111.974	32.315	1.00	73.65	C
ATOM	36117	CZ	ARG D	13	164.043	112.402	36.599	1.00	49.54	C	ATOM	36167	CD2	LEU D	19	150.772	113.539	32.079	1.00	73.65	C
ATOM	36118	NH1	ARG D	13	164.718	113.472	36.185	1.00	49.54	N	ATOM	36168	N	TYR D	20	149.303	113.927	36.473	1.00	113.06	N
ATOM	36119	NH2	ARG D	13	164.675	111.254	36.746	1.00	49.54	N	ATOM	36169	CA	TYR D	20	148.684	113.606	37.736	1.00	113.06	C
ATOM	36120	N	ARG D	14	159.729	112.516	31.583	1.00	58.45	N	ATOM	36170	C	TYR D	20	148.392	112.118	37.754	1.00	113.06	C
ATOM	36121	CA	ARG D	14	160.018	112.313	30.156	1.00	58.45	C	ATOM	36171	O	TYR D	20	147.283	111.671	37.459	1.00	113.06	O
ATOM	36122	C	ARG D	14	159.153	113.219	29.269	1.00	58.45	C	ATOM	36172	CB	TYR D	20	147.433	114.466	37.899	1.00	73.89	C
ATOM	36123	O	ARG D	14	159.604	113.714	28.231	1.00	58.45	O	ATOM	36173	CG	TYR D	20	147.776	115.945	37.934	1.00	73.89	C
ATOM	36124	CB	ARG D	14	159.795	110.842	29.776	1.00	53.10	C	ATOM	36174	CD1	TYR D	20	146.914	116.900	37.405	1.00	73.89	C
ATOM	36125	CG	ARG D	14	159.712	110.564	28.269	1.00	53.10	C	ATOM	36175	CD2	TYR D	20	148.995	116.382	38.460	1.00	73.89	C
ATOM	36126	CD	ARG D	14	160.955	111.029	27.526	1.00	53.10	C	ATOM	36176	CE1	TYR D	20	147.265	118.253	37.388	1.00	73.89	C
ATOM	36127	NE	ARG D	14	162.150	110.282	27.905	1.00	53.10	N	ATOM	36177	CE2	TYR D	20	149.352	117.725	38.448	1.00	73.89	C
ATOM	36128	CZ	ARG D	14	163.388	110.694	27.655	1.00	53.10	C	ATOM	36178	CZ	TYR D	20	148.489	118.654	37.909	1.00	73.89	C
ATOM	36129	NH1	ARG D	14	163.590	111.849	27.031	1.00	53.10	N	ATOM	36179	OH	TYR D	20	148.865	119.980	37.854	1.00	73.89	O
ATOM	36130	NH2	ARG D	14	164.427	109.954	28.021	1.00	53.10	N	ATOM	36180	N	LEU D	21	149.430	111.357	38.087	1.00	90.40	N
ATOM	36131	N	GLU D	15	157.906	113.426	29.679	1.00	59.13	N	ATOM	36181	CA	LEU D	21	149.352	109.907	38.143	1.00	90.40	C
ATOM	36132	CA	GLU D	15	157.011	114.283	28.928	1.00	59.13	C	ATOM	36182	C	LEU D	21	149.414	109.453	39.591	1.00	90.40	C
ATOM	36133	C	GLU D	15	157.299	115.721	29.306	1.00	59.13	C	ATOM	36183	O	LEU D	21	149.657	108.280	39.881	1.00	90.40	O
ATOM	36134	O	GLU D	15	156.707	116.640	28.755	1.00	59.13	O	ATOM	36184	CB	LEU D	21	150.507	109.315	37.335	1.00	54.56	C
ATOM	36135	CB	GLU D	15	155.557	113.954	29.244	1.00	76.29	C	ATOM	36185	CG	LEU D	21	150.507	109.815	35.882	1.00	54.56	C
ATOM	36136	CG	GLU D	15	154.846	113.213	28.132	1.00	76.29	C	ATOM	36186	CD1	LEU D	21	151.780	109.420	35.160	1.00	54.56	C
ATOM	36137	CD	GLU D	15	155.550	111.929	27.758	1.00	76.29	C	ATOM	36187	CD2	LEU D	21	149.287	109.257	35.156	1.00	54.56	C
ATOM	36138	OE1	GLU D	15	156.006	111.216	28.674	1.00	76.29	O	ATOM	36188	N	LYS D	22	149.176	110.401	40.494	1.00	91.81	N
ATOM	36139	OE2	GLU D	15	155.635	111.625	26.552	1.00	76.29	O	ATOM	36189	CA	LYS D	22	149.206	110.138	41.925	1.00	91.81	C
ATOM	36140	N	GLY D	16	158.207	115.910	30.257	1.00	127.26	N	ATOM	36190	C	LYS D	22	148.239	110.996	42.726	1.00	91.81	C
ATOM	36141	CA	GLY D	16	158.553	117.252	30.689	1.00	127.26	C	ATOM	36191	O	LYS D	22	148.279	110.992	43.959	1.00	91.81	O
ATOM	36142	C	GLY D	16	157.354	118.054	31.164	1.00	127.26	C	ATOM	36192	CB	LYS D	22	150.614	110.364	42.465	1.00	45.58	C
ATOM	36143	O	GLY D	16	157.478	119.225	31.520	1.00	127.26	O	ATOM	36193	CG	LYS D	22	151.500	109.144	42.427	1.00	45.58	C
ATOM	36144	N	VAL D	17	156.187	117.423	31.169	1.00	70.55	N	ATOM	36194	CD	LYS D	22	152.834	109.443	43.080	1.00	45.58	C
ATOM	36145	CA	VAL D	17	154.967	118.074	31.609	1.00	70.55	C	ATOM	36195	CE	LYS D	22	153.748	108.233	43.051	1.00	45.58	C
ATOM	36146	C	VAL D	17	154.401	117.300	32.790	1.00	70.55	C	ATOM	36196	NZ	LYS D	22	155.053	108.560	43.665	1.00	45.58	N
ATOM	36147	O	VAL D	17	154.534	116.774	32.577	1.00	70.55	O	ATOM	36197	N	GLY D	23	147.372	111.729	42.039	1.00	152.58	N



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ATOM	36198	CA	GLY D	23	146.444	112.579	42.755	1.00152.58	C	ATOM	36248	O	PRO D	29	158.522	118.502	46.639	1.00	77.21	
ATOM	36199	C	GLY D	23	147.235	113.424	43.734	1.00152.58	C	ATOM	36249	CB	PRO D	29	157.326	120.917	47.149	1.00	78.62	
ATOM	36200	O	GLY D	23	147.937	114.343	43.316	1.00152.58	O	ATOM	36250	CG	PRO D	29	156.213	121.822	47.498	1.00	78.62	
ATOM	36201	N	GLU D	24	147.152	113.111	45.026	1.00	85.89	N	ATOM	36251	CD	PRO D	29	155.075	120.866	47.766	1.00	78.62
ATOM	36202	CA	GLU D	24	147.888	113.879	46.025	1.00	85.89	C	ATOM	36252	N	LYS D	30	156.911	117.726	45.258	1.00153.86	N
ATOM	36203	C	GLU D	24	149.374	113.762	45.758	1.00	85.89	C	ATOM	36253	CA	LYS D	30	157.553	116.438	45.066	1.00153.86	C
ATOM	36204	O	GLU D	24	149.789	112.938	44.953	1.00	85.89	O	ATOM	36254	C	LYS D	30	157.157	115.700	43.785	1.00153.86	C
ATOM	36205	CB	GLU D	24	147.591	113.390	47.434	1.00116.18	C	ATOM	36255	O	LYS D	30	157.632	114.588	43.569	1.00153.86	O	
ATOM	36206	CG	GLU D	24	148.260	114.255	48.474	1.00116.18	C	ATOM	36256	CB	LYS D	30	157.260	115.536	46.271	1.00	88.03	
ATOM	36207	CD	GLU D	24	147.835	113.926	49.878	1.00116.18	C	ATOM	36257	CG	LYS D	30	157.591	116.154	47.627	1.00	88.03	
ATOM	36208	OE1	GLU D	24	146.621	114.011	50.162	1.00116.18	O	ATOM	36258	CD	LYS D	30	157.173	115.246	48.770	1.00	88.03	
ATOM	36209	OE2	GLU D	24	148.716	113.590	50.698	1.00116.18	O	ATOM	36259	CE	LYS D	30	157.465	115.861	50.132	1.00	88.03	
ATOM	36210	N	ARG D	25	150.169	114.576	46.444	1.00	93.09	N	ATOM	36260	NZ	LYS D	30	157.108	114.928	51.245	1.00	88.03
ATOM	36211	CA	ARG D	25	151.622	114.610	46.275	1.00	93.09	C	ATOM	36261	N	CYS D	31	156.304	116.281	42.937	1.00105.11	N
ATOM	36212	C	ARG D	25	151.999	115.313	44.990	1.00	93.09	O	ATOM	36262	CA	CYS D	31	155.914	115.586	41.701	1.00105.11	C
ATOM	36213	O	ARG D	25	152.887	116.162	44.990	1.00	93.09	O	ATOM	36263	C	CYS D	31	157.161	115.406	40.866	1.00105.11	C
ATOM	36214	CB	ARG D	25	152.267	113.215	46.258	1.00	55.65	C	ATOM	36264	O	CYS D	31	157.096	114.891	39.746	1.00105.11	O
ATOM	36215	CG	ARG D	25	153.693	113.268	45.678	1.00	55.65	C	ATOM	36265	CB	CYS D	31	154.898	116.383	40.884	1.00	42.86
ATOM	36216	CD	ARG D	25	154.557	112.029	45.925	1.00	55.65	C	ATOM	36266	SG	CYS D	31	154.200	115.472	39.450	1.00	42.86
ATOM	36217	NE	ARG D	25	155.530	112.237	47.001	1.00	55.65	N	ATOM	36267	N	ALA D	32	158.284	115.844	41.443	1.00	76.94
ATOM	36218	CZ	ARG D	25	156.814	111.880	46.952	1.00	55.65	C	ATOM	36268	CA	ALA D	32	159.614	115.790	40.841	1.00	76.94
ATOM	36219	NH1	ARG D	25	157.315	111.294	45.873	1.00	55.65	N	ATOM	36269	C	ALA D	32	159.711	116.838	39.749	1.00	76.94
ATOM	36220	NH2	ARG D	25	157.601	112.086	47.999	1.00	55.65	N	ATOM	36270	O	ALA D	32	160.788	117.372	39.485	1.00	76.94
ATOM	36221	N	CYS D	26	151.344	114.953	43.889	1.00	88.05	N	ATOM	36271	CB	ALA D	32	159.900	114.403	40.280	1.00106.89	C
ATOM	36222	CA	CYS D	26	151.635	115.590	42.613	1.00	88.05	C	ATOM	36272	N	MET D	33	158.574	117.133	39.123	1.00	69.77
ATOM	36223	C	CYS D	26	151.291	117.079	42.760	1.00	88.05	C	ATOM	36273	CA	MET D	33	158.524	118.139	38.074	1.00	69.77
ATOM	36224	O	CYS D	26	151.070	117.792	41.784	1.00	88.05	O	ATOM	36274	C	MET D	33	158.814	119.452	38.763	1.00	69.77
ATOM	36225	CB	CYS D	26	150.853	114.909	41.463	1.00	48.62	C	ATOM	36275	O	MET D	33	158.876	120.517	38.139	1.00	69.77
ATOM	36226	SG	CYS D	26	151.787	113.581	40.556	1.00	48.62	S	ATOM	36276	CB	MET D	33	157.146	118.165	37.413	1.00	77.34
ATOM	36227	N	TYR D	27	151.252	117.518	44.018	1.00	71.68	N	ATOM	36277	CG	MET D	33	156.915	116.993	36.482	1.00	77.34
ATOM	36228	CA	TYR D	27	151.001	118.901	44.414	1.00	71.68	C	ATOM	36278	SD	MET D	33	158.282	116.800	35.326	1.00	77.34
ATOM	36229	C	TYR D	27	152.108	119.261	45.395	1.00	71.68	C	ATOM	36279	CE	MET D	33	157.825	117.950	34.102	1.00	77.34
ATOM	36230	O	TYR D	27	152.898	120.173	45.154	1.00	71.68	O	ATOM	36280	N	GLU D	34	158.975	119.343	40.077	1.00	71.86
ATOM	36231	CB	TYR D	27	149.646	119.040	45.100	1.00	54.74	C	ATOM	36281	CA	GLU D	34	159.299	120.465	40.924	1.00	71.86
ATOM	36232	CG	TYR D	27	148.500	118.681	44.193	1.00	54.74	C	ATOM	36282	C	GLU D	34	160.802	120.312	41.126	1.00	71.86
ATOM	36233	CD1	TYR D	27	148.154	117.351	43.968	1.00	54.74	C	ATOM	36283	O	GLU D	34	161.263	119.335	41.722	1.00	71.86
ATOM	36234	CD2	TYR D	27	147.812	119.670	43.485	1.00	54.74	C	ATOM	36284	CB	GLU D	34	158.563	120.346	42.257	1.00	84.50
ATOM	36235	CE1	TYR D	27	147.154	117.017	43.050	1.00	54.74	C	ATOM	36285	CG	GLU D	34	158.001	121.655	42.758	1.00	84.50
ATOM	36236	CE2	TYR D	27	146.816	119.346	42.565	1.00	54.74	C	ATOM	36286	CD	GLU D	34	156.789	122.102	41.969	1.00	84.50
ATOM	36237	CZ	TYR D	27	146.494	118.021	42.350	1.00	54.74	C	ATOM	36287	OE1	GLU D	34	155.662	121.696	42.320	1.00	84.50
ATOM	36238	OH	TYR D	27	145.534	117.694	41.417	1.00	54.74	O	ATOM	36288	OE2	GLU D	34	156.961	122.853	40.990	1.00	84.50
ATOM	36239	N	SER D	28	152.172	118.522	46.497	1.00	86.80	N	ATOM	36289	N	ARG D	35	161.565	121.250	40.576	1.00172.91	N
ATOM	36240	CA	SER D	28	153.202	118.755	47.499	1.00	86.80	C	ATOM	36290	CA	ARG D	35	163.020	121.239	40.692	1.00172.91	C
ATOM	36241	C	SER D	28	154.566	118.665	46.815	1.00	86.80	C	ATOM	36291	C	ARG D	35	163.720	119.970	40.175	1.00172.91	C
ATOM	36242	O	SER D	28	154.945	117.603	46.329	1.00	86.80	O	ATOM	36292	O	ARG D	35	164.611	119.431	40.834	1.00172.91	O
ATOM	36243	CB	SER D	28	153.107	117.709	48.616	1.00169.57	C	ATOM	36293	CB	ARG D	35	163.413	121.498	42.149	1.00174.82	C	
ATOM	36244	OG	SER D	28	153.357	116.406	48.122	1.00169.57	O	ATOM	36294	CG	ARG D	35	162.945	122.850	42.683	1.00174.82	C	
ATOM	36245	N	PRO D	29	155.323	119.781	46.797	1.00	77.21	N	ATOM	36295	CD	ARG D	35	163.325	123.024	44.146	1.00174.82	C
ATOM	36246	CA	PRO D	29	156.653	119.943	46.199	1.00	77.21	C	ATOM	36296	NE	ARG D	35	163.055	124.375	44.631	1.00174.82	N
ATOM	36247	C	PRO D	29	157.441	119.649	46.057	1.00	77.21	C	ATOM	36297	CZ	ARG D	35	163.349	124.803	45.855	1.00174.82	C



Table 1: Sheet 365/521

ATOM	36298	NH1	ARG D	35	163.923	123.985	46.727	1.00174.82	N	ATOM	36348	N	GLN D	42	170.755	108.662	32.871	1.00	59.92	N
ATOM	36299	NH2	ARG D	35	163.074	126.052	46.208	1.00174.82	N	ATOM	36349	CA	GLN D	42	172.102	109.189	32.785	1.00	59.92	C
ATOM	36300	N	ARG D	36	163.309	119.508	38.993	1.00 96.01	N	ATOM	36350	C	GLN D	42	172.271	110.398	31.877	1.00	59.92	C
ATOM	36301	CA	ARG D	36	163.887	118.329	38.335	1.00 96.01	C	ATOM	36351	O	GLN D	42	173.282	111.099	31.962	1.00	59.92	O
ATOM	36302	C	ARG D	36	163.035	117.850	37.143	1.00 96.01	C	ATOM	36352	CB	GLN D	42	173.032	108.063	32.331	1.00	74.86	C
ATOM	36303	O	ARG D	36	162.927	116.651	36.893	1.00 96.01	O	ATOM	36353	CG	GLN D	42	174.418	108.480	31.880	1.00	74.86	C
ATOM	36304	CB	ARG D	36	164.034	117.184	39.336	1.00 71.52	C	ATOM	36354	CD	GLN D	42	175.330	107.284	31.652	1.00	74.86	C
ATOM	36305	CG	ARG D	36	165.134	116.194	38.995	1.00 71.52	C	ATOM	36355	OE1	GLN D	42	176.206	107.319	30.791	1.00	74.86	O
ATOM	36306	CD	ARG D	36	164.994	114.945	39.844	1.00 71.52	C	ATOM	36356	NE2	GLN D	42	175.137	106.221	32.435	1.00	74.86	N
ATOM	36307	NE	ARG D	36	166.184	114.103	39.798	1.00 71.52	N	ATOM	36357	N	HIS D	43	171.287	110.667	31.026	1.00	51.74	N
ATOM	36308	CZ	ARG D	36	166.204	112.828	40.171	1.00 71.52	C	ATOM	36358	CA	HIS D	43	171.410	111.784	30.093	1.00	51.74	C
ATOM	36309	NH1	ARG D	36	165.094	112.252	40.613	1.00 71.52	N	ATOM	36359	C	HIS D	43	170.451	112.949	30.293	1.00	51.74	C
ATOM	36310	NH2	ARG D	36	167.329	112.129	40.104	1.00 71.52	N	ATOM	36360	O	HIS D	43	170.618	114.002	29.677	1.00	51.74	O
ATOM	36311	N	PRO D	37	162.444	118.788	36.379	1.00 74.73	N	ATOM	36361	CB	HIS D	43	171.267	111.259	28.669	1.00	57.82	C
ATOM	36312	CA	PRO D	37	161.593	118.511	35.215	1.00 74.73	C	ATOM	36362	CG	HIS D	43	172.242	110.181	28.330	1.00	57.82	C
ATOM	36313	C	PRO D	37	162.306	118.000	33.970	1.00 74.73	O	ATOM	36363	ND1	HIS D	43	173.578	110.432	28.103	1.00	57.82	N
ATOM	36314	O	PRO D	37	161.763	118.066	32.864	1.00 74.73	C	ATOM	36364	CD2	HIS D	43	172.086	108.840	28.219	1.00	57.82	C
ATOM	36315	CB	PRO D	37	160.916	119.856	34.945	1.00 66.23	C	ATOM	36365	CE1	HIS D	43	174.203	109.293	27.867	1.00	57.82	C
ATOM	36316	CG	PRO D	37	161.115	120.632	36.225	1.00 66.23	C	ATOM	36366	NE2	HIS D	43	173.320	108.311	27.932	1.00	57.82	N
ATOM	36317	CD	PRO D	37	162.496	120.235	36.616	1.00 66.23	C	ATOM	36367	N	GLY D	44	169.452	112.761	31.147	1.00	56.58	N
ATOM	36318	N	TYR D	38	163.524	117.509	34.135	1.00 76.90	N	ATOM	36368	CA	GLY D	44	168.473	113.806	31.393	1.00	56.58	C
ATOM	36319	CA	TYR D	38	164.244	116.985	32.994	1.00 76.90	C	ATOM	36369	C	GLY D	44	168.927	115.262	31.340	1.00	56.58	C
ATOM	36320	C	TYR D	38	164.063	115.479	32.962	1.00 76.90	C	ATOM	36370	O	GLY D	44	168.270	116.107	30.717	1.00	56.58	O
ATOM	36321	O	TYR D	38	163.898	114.847	34.004	1.00 76.90	C	ATOM	36371	N	GLN D	45	170.051	115.566	31.980	1.00	67.52	N
ATOM	36322	CB	TYR D	38	165.719	117.365	33.073	1.00 61.11	C	ATOM	36372	CA	GLN D	45	170.526	116.938	32.021	1.00	67.52	C
ATOM	36323	CG	TYR D	38	166.403	117.051	34.380	1.00 61.11	C	ATOM	36373	C	GLN D	45	171.227	117.453	30.768	1.00	67.52	C
ATOM	36324	CD1	TYR D	38	167.212	115.929	34.506	1.00 61.11	C	ATOM	36374	O	GLN D	45	171.404	118.661	30.612	1.00	67.52	O
ATOM	36325	CD2	TYR D	38	166.293	117.905	35.473	1.00 61.11	C	ATOM	36375	CB	GLN D	45	171.411	117.126	33.249	1.00	90.47	C
ATOM	36326	CE1	TYR D	38	167.902	115.671	35.680	1.00 61.11	C	ATOM	36376	CG	GLN D	45	170.645	116.971	34.557	1.00	90.47	C
ATOM	36327	CE2	TYR D	38	166.976	117.652	36.650	1.00 61.11	C	ATOM	36377	CD	GLN D	45	171.538	117.060	35.777	1.00	90.47	C
ATOM	36328	CZ	TYR D	38	167.779	116.535	36.741	1.00 61.11	O	ATOM	36378	OE1	GLN D	45	172.198	118.075	36.005	1.00	90.47	O
ATOM	36329	OH	TYR D	38	168.482	116.279	37.885	1.00 61.11	O	ATOM	36379	NE2	GLN D	45	171.564	115.994	36.570	1.00	90.47	N
ATOM	36330	N	PRO D	39	164.077	114.883	31.589	1.00 70.37	N	ATOM	36380	N	LYS D	46	171.618	116.551	29.874	1.00	65.05	N
ATOM	36331	CA	PRO D	39	163.906	113.434	31.760	1.00 70.37	C	ATOM	36381	CA	LYS D	46	172.278	116.947	28.631	1.00	65.05	C
ATOM	36332	C	PRO D	39	164.798	112.555	32.475	1.00 70.37	C	ATOM	36382	C	LYS D	46	171.299	117.698	27.741	1.00	65.05	C
ATOM	36333	O	PRO D	39	165.900	112.943	32.868	1.00 70.37	O	ATOM	36383	O	LYS D	46	170.085	117.516	27.856	1.00	65.05	O
ATOM	36334	CB	PRO D	39	164.159	113.234	30.093	1.00 60.18	C	ATOM	36384	CB	LYS D	46	172.777	115.720	27.877	1.00	65.47	C
ATOM	36335	CG	PRO D	39	165.078	114.375	29.739	1.00 60.18	C	ATOM	36385	CG	LYS D	46	173.874	114.944	28.579	1.00	65.47	C
ATOM	36336	CD	PRO D	39	164.453	115.519	30.485	1.00 60.18	C	ATOM	36386	CD	LYS D	46	174.307	113.762	27.738	1.00	65.47	C
ATOM	36337	N	PRO D	40	164.320	111.348	32.798	1.00 66.49	N	ATOM	36387	CE	LYS D	46	175.504	113.076	28.337	1.00	65.47	C
ATOM	36338	CA	PRO D	40	165.056	110.402	33.641	1.00 66.49	C	ATOM	36388	NZ	LYS D	46	175.810	111.842	27.581	1.00	65.47	N
ATOM	36339	C	PRO D	40	166.295	109.845	32.955	1.00 66.49	C	ATOM	36389	N	ARG D	47	171.834	118.528	26.847	1.00	76.69	N
ATOM	36340	O	PRO D	40	166.449	109.989	31.744	1.00 66.49	O	ATOM	36390	CA	ARG D	47	171.022	119.324	25.921	1.00	76.69	C
ATOM	36341	CB	PRO D	40	164.018	109.316	33.921	1.00 64.57	C	ATOM	36391	C	ARG D	47	170.176	118.453	25.000	1.00	76.69	C
ATOM	36342	CG	PRO D	40	163.234	109.283	32.646	1.00 64.57	C	ATOM	36392	O	ARG D	47	170.621	117.397	24.555	1.00	76.69	O
ATOM	36343	CD	PRO D	40	163.050	110.760	32.329	1.00 64.57	C	ATOM	36393	CB	ARG D	47	171.926	120.222	25.071	1.00	100.08.11	C
ATOM	36344	N	GLY D	41	167.183	109.228	33.732	1.00 54.26	N	ATOM	36394	CG	ARG D	47	171.290	120.698	23.776	1.00	100.08.11	C
ATOM	36345	CA	GLY D	41	168.377	108.633	33.157	1.00 54.26	C	ATOM	36395	CD	ARG D	47	172.347	121.184	22.800	1.00	100.08.11	C
ATOM	36346	C	GLY D	41	169.687	109.412	33.103	1.00 54.26	C	ATOM	36396	NE	ARG D	47	171.894	121.099	21.412	1.00	100.08.11	N
ATOM	36347	O	GLY D	41	169.741	110.632	33.241	1.00 54.26	O	ATOM	36397	CZ	ARG D	47	172.630	121.442	20.357	1.00	100.08.11	C



Table 1: Sheet 366/521

ATOM	36398	NH1	ARG	D	47	173.866	121.900	20.522	1.00108.11	N	ATOM	36448	N	TYR	D	54	158.432	112.675	13.744	1.00	45.32	N	
ATOM	36399	NH2	ARG	D	47	172.131	121.326	19.134	1.00108.11	N	ATOM	36449	CA	TYR	D	54	157.988	111.443	14.380	1.00	45.32	C	
ATOM	36400	N	ALA	D	48	168.960	118.903	24.706	1.00	90.44	N	ATOM	36450	C	TYR	D	54	158.061	111.634	15.897	1.00	45.32	C
ATOM	36401	CA	ALA	D	48	168.062	118.155	23.830	1.00	90.44	C	ATOM	36451	O	TYR	D	54	157.060	111.504	16.608	1.00	45.32	O
ATOM	36402	C	ALA	D	48	168.206	118.621	22.383	1.00	90.44	C	ATOM	36452	CB	TYR	D	54	158.871	110.255	13.977	1.00	39.52	C
ATOM	36403	O	ALA	D	48	168.400	119.811	22.124	1.00	90.44	O	ATOM	36453	CG	TYR	D	54	158.379	108.946	14.567	1.00	39.52	C
ATOM	36404	CB	ALA	D	48	166.619	118.325	24.292	1.00111.75	C	ATOM	36454	CD1	TYR	D	54	157.188	108.380	14.132	1.00	39.52	C	
ATOM	36405	N	ARG	D	49	168.111	117.683	21.444	1.00	58.71	N	ATOM	36455	CD2	TYR	D	54	159.054	108.319	15.619	1.00	39.52	C
ATOM	36406	CA	ARG	D	49	168.228	118.018	20.030	1.00	58.71	C	ATOM	36456	CE1	TYR	D	54	156.665	107.226	14.730	1.00	39.52	C
ATOM	36407	C	ARG	D	49	166.859	118.204	19.384	1.00	58.71	C	ATOM	36457	CE2	TYR	D	54	157.336	106.621	15.773	1.00	39.52	C
ATOM	36408	O	ARG	D	49	165.854	117.686	19.869	1.00	58.71	O	ATOM	36458	CZ	TYR	D	54	157.336	106.621	15.773	1.00	39.52	C
ATOM	36409	CB	ARG	D	49	169.013	116.933	19.298	1.00134.34	C	ATOM	36459	OH	TYR	D	54	156.775	105.495	16.350	1.00	39.52	O	
ATOM	36410	CG	ARG	D	49	170.383	116.685	19.890	1.00134.34	C	ATOM	36460	N	ALA	D	55	159.256	111.952	16.385	1.00	48.08	N	
ATOM	36411	CD	ARG	D	49	171.235	115.868	18.945	1.00134.34	C	ATOM	36461	CA	ALA	D	55	159.483	112.172	17.807	1.00	48.08	C	
ATOM	36412	NE	ARG	D	49	172.578	115.638	19.472	1.00134.34	N	ATOM	36462	C	ALA	D	55	158.367	113.008	18.419	1.00	48.08	C	
ATOM	36413	CZ	ARG	D	49	173.582	115.130	18.761	1.00134.34	C	ATOM	36463	O	ALA	D	55	157.783	112.632	19.429	1.00	48.08	O	
ATOM	36414	NH1	ARG	D	49	173.395	114.801	17.489	1.00134.34	N	ATOM	36464	CB	ALA	D	55	160.818	112.856	18.013	1.00	23.50	C	
ATOM	36415	NH2	ARG	D	49	174.773	114.948	19.320	1.00134.34	N	ATOM	36465	N	VAL	D	56	158.062	114.138	17.799	1.00	43.45	N	
ATOM	36416	N	ARG	D	50	166.830	118.960	18.293	1.00	75.57	N	ATOM	36466	CA	VAL	D	56	157.011	114.996	18.317	1.00	43.45	C
ATOM	36417	CA	ARG	D	50	165.594	119.230	17.572	1.00	75.57	C	ATOM	36467	C	VAL	D	56	155.660	114.284	18.387	1.00	43.45	C
ATOM	36418	C	ARG	D	50	164.898	117.916	17.206	1.00	75.57	C	ATOM	36468	O	VAL	D	56	155.004	114.295	19.433	1.00	43.45	O
ATOM	36419	O	ARG	D	50	165.336	117.193	16.313	1.00	75.57	O	ATOM	36469	CB	VAL	D	56	156.862	116.275	17.467	1.00	43.50	C
ATOM	36420	CB	ARG	D	50	165.907	120.053	16.315	1.00107.21	C	ATOM	36470	CG1	VAL	D	56	155.716	117.116	17.994	1.00	43.50	C	
ATOM	36421	CG	ARG	D	50	164.697	120.428	15.487	1.00107.21	C	ATOM	36471	CG2	VAL	D	56	158.163	117.068	17.499	1.00	43.50	C	
ATOM	36422	CD	ARG	D	50	164.447	119.432	14.361	1.00107.21	C	ATOM	36472	N	ARG	D	57	155.234	113.680	17.279	1.00	45.22	N	
ATOM	36423	CE	ARG	D	50	165.337	119.644	13.220	1.00107.21	N	ATOM	36473	CA	ARG	D	57	153.956	112.975	17.265	1.00	45.22	C	
ATOM	36424	N	ARG	D	50	165.243	118.987	12.066	1.00107.21	C	ATOM	36474	C	ARG	D	57	154.027	111.807	18.224	1.00	45.22	C	
ATOM	36425	NH1	ARG	D	50	164.298	118.072	11.901	1.00107.21	N	ATOM	36475	O	ARG	D	57	153.053	111.482	18.886	1.00	45.22	O	
ATOM	36426	NH2	ARG	D	50	166.087	119.251	11.073	1.00107.21	N	ATOM	36476	CB	ARG	D	57	153.625	112.439	15.876	1.00	51.00	C	
ATOM	36427	N	PRO	D	51	163.796	117.594	17.899	1.00	53.28	N	ATOM	36477	CG	ARG	D	57	152.870	113.390	14.970	1.00	51.00	C
ATOM	36428	CA	PRO	D	51	163.032	116.365	17.661	1.00	53.28	C	ATOM	36478	CD	ARG	D	57	153.759	114.450	14.397	1.00	51.00	C
ATOM	36429	C	PRO	D	51	162.546	116.218	16.224	1.00	53.28	C	ATOM	36479	NE	ARG	D	57	153.083	115.183	13.337	1.00	51.00	N
ATOM	36430	O	PRO	D	51	162.321	117.216	15.532	1.00	53.28	O	ATOM	36480	CZ	ARG	D	57	153.476	116.373	12.895	1.00	51.00	C
ATOM	36431	CB	PRO	D	51	161.860	116.498	18.633	1.00	48.94	C	ATOM	36481	NH1	ARG	D	57	154.544	116.967	13.425	1.00	51.00	N
ATOM	36432	CG	PRO	D	51	162.416	117.344	19.727	1.00	48.94	C	ATOM	36482	NH2	ARG	D	57	152.798	116.979	11.928	1.00	51.00	N
ATOM	36433	CD	PRO	D	51	163.161	118.396	18.956	1.00	48.94	C	ATOM	36483	N	LEU	D	58	155.182	111.164	18.301	1.00	44.70	N
ATOM	36434	N	SER	D	52	162.382	114.973	15.781	1.00	34.22	N	ATOM	36484	CA	LEU	D	58	155.295	110.046	19.206	1.00	44.70	C
ATOM	36435	CA	SER	D	52	161.879	114.708	14.432	1.00	34.22	C	ATOM	36485	C	LEU	D	58	155.081	110.572	20.624	1.00	44.70	O
ATOM	36436	C	SER	D	52	160.348	114.755	14.450	1.00	34.22	C	ATOM	36486	O	LEU	D	58	154.152	110.146	21.316	1.00	44.70	O
ATOM	36437	O	SER	D	52	159.722	114.585	15.503	1.00	63.59	C	ATOM	36487	CB	LEU	D	58	156.664	109.368	19.061	1.00	47.64	C
ATOM	36438	CB	SER	D	52	162.345	113.336	13.938	1.00	63.59	C	ATOM	36488	CG	LEU	D	58	156.917	108.047	19.810	1.00	47.64	C
ATOM	36439	OG	SER	D	52	161.999	112.319	14.859	1.00	63.59	O	ATOM	36489	CD1	LEU	D	58	157.263	108.334	21.252	1.00	47.64	C
ATOM	36440	N	ASP	D	53	159.741	114.997	13.295	1.00	56.35	N	ATOM	36490	CD2	LEU	D	58	155.689	107.139	19.713	1.00	47.64	C
ATOM	36441	CA	ASP	D	53	158.291	115.053	13.233	1.00	56.35	C	ATOM	36491	N	ARG	D	59	155.915	111.518	21.048	1.00	52.19	N
ATOM	36442	C	ASP	D	53	157.747	113.806	13.918	1.00	56.35	C	ATOM	36492	CA	ARG	D	59	155.789	112.077	22.387	1.00	52.19	C
ATOM	36443	O	ASP	D	53	156.732	113.870	14.608	1.00	56.35	O	ATOM	36493	C	ARG	D	59	154.381	112.584	22.710	1.00	52.19	C
ATOM	36444	CB	ASP	D	53	157.812	115.126	11.779	1.00	86.02	C	ATOM	36494	O	ARG	D	59	153.903	112.434	23.837	1.00	52.19	O
ATOM	36445	CG	ASP	D	53	158.154	116.453	11.116	1.00	86.02	C	ATOM	36495	CB	ARG	D	59	156.766	113.232	22.602	1.00	54.11	C
ATOM	36446	OD1	ASP	D	53	159.303	116.914	11.278	1.00	86.02	O	ATOM	36496	CG	ARG	D	59	158.231	112.917	22.432	1.00	54.11	C
ATOM	36447	OD2	ASP	D	53	157.279	117.028	10.425	1.00	86.02	O	ATOM	36497	CD	ARG	D	59	158.619	111.563	22.982	1.00	54.11	C



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ATOM	36498	NE	ARG D	59	157.980	111.244	24.247	1.00	54.11	N	ATOM	36548	C	ARG D	65	148.390	107.637	28.120	1.00	55.76	C
ATOM	36499	CZ	ARG D	59	158.044	110.043	24.808	1.00	54.11	C	ATOM	36549	O	ARG D	65	147.637	107.020	28.867	1.00	55.76	O
ATOM	36500	NH1	ARG D	59	158.729	109.078	24.210	1.00	54.11	N	ATOM	36550	CB	ARG D	65	148.604	106.959	25.735	1.00	50.70	C
ATOM	36501	NH2	ARG D	59	157.387	109.787	25.934	1.00	54.11	N	ATOM	36551	CG	ARG D	65	148.760	105.564	26.310	1.00	50.70	C
ATOM	36502	N	GLU D	60	153.708	113.191	21.743	1.00	41.62	N	ATOM	36552	CD	ARG D	65	148.869	104.527	25.222	1.00	50.70	C
ATOM	36503	CA	GLU D	60	152.384	113.701	22.040	1.00	41.62	C	ATOM	36553	NE	ARG D	65	149.764	103.430	25.586	1.00	50.70	N
ATOM	36504	O	GLU D	60	151.412	112.581	22.396	1.00	41.62	C	ATOM	36554	CZ	ARG D	65	151.085	103.542	25.683	1.00	50.70	C
ATOM	36505	C	GLU D	60	150.692	112.677	23.389	1.00	41.62	O	ATOM	36555	NH1	ARG D	65	151.678	104.704	25.455	1.00	50.70	N
ATOM	36506	CB	GLU D	60	151.839	114.525	20.879	1.00	60.21	C	ATOM	36556	NH2	ARG D	65	151.822	102.482	25.972	1.00	50.70	N
ATOM	36507	CG	GLU D	60	150.679	115.422	21.300	1.00	60.21	C	ATOM	36557	N	ARG D	66	149.596	108.026	28.504	1.00	58.22	N
ATOM	36508	CD	GLU D	60	151.088	116.533	22.275	1.00	60.21	C	ATOM	36558	CA	ARG D	66	150.041	107.735	29.858	1.00	58.22	C
ATOM	36509	OE1	GLU D	60	152.152	116.421	22.922	1.00	60.21	O	ATOM	36559	C	ARG D	66	149.188	108.483	30.874	1.00	58.22	C
ATOM	36510	OE2	GLU D	60	150.330	117.519	22.402	1.00	60.21	O	ATOM	36560	O	ARG D	66	149.190	108.162	32.061	1.00	58.22	O
ATOM	36511	N	LYS D	61	151.403	111.514	21.602	1.00	49.21	N	ATOM	36561	CB	ARG D	66	151.511	108.091	30.015	1.00	53.22	C
ATOM	36512	CA	LYS D	61	150.514	110.383	21.859	1.00	49.21	C	ATOM	36562	CG	ARG D	66	152.402	107.117	29.299	1.00	53.22	C
ATOM	36513	C	LYS D	61	150.818	109.741	23.205	1.00	49.21	C	ATOM	36563	CD	ARG D	66	153.810	107.627	29.185	1.00	53.22	C
ATOM	36514	O	LYS D	61	149.918	109.524	24.004	1.00	49.21	O	ATOM	36564	NE	ARG D	66	154.674	106.586	28.651	1.00	53.22	N
ATOM	36515	CB	LYS D	61	150.657	109.321	20.779	1.00	56.90	C	ATOM	36565	CZ	ARG D	66	155.976	106.728	28.426	1.00	53.22	C
ATOM	36516	CG	LYS D	61	149.738	108.144	21.001	1.00	56.90	C	ATOM	36566	NH1	ARG D	66	156.583	107.884	28.685	1.00	53.22	N
ATOM	36517	CD	LYS D	61	150.179	106.948	20.195	1.00	56.90	C	ATOM	36567	NH2	ARG D	66	156.677	105.701	27.957	1.00	53.22	N
ATOM	36518	CE	LYS D	61	151.407	106.287	20.790	1.00	56.90	C	ATOM	36568	N	ILE D	67	148.446	109.475	30.400	1.00	59.40	N
ATOM	36520	NZ	LYS D	62	151.099	105.685	22.110	1.00	56.90	N	ATOM	36569	CA	ILE D	67	147.575	110.236	31.272	1.00	59.40	C
ATOM	36521	CA	GLN D	62	152.089	109.424	23.437	1.00	57.86	N	ATOM	36570	C	ILE D	67	146.461	109.331	31.789	1.00	59.40	C
ATOM	36522	C	GLN D	62	152.531	108.811	24.691	1.00	57.86	C	ATOM	36571	O	ILE D	67	146.038	109.438	32.943	1.00	59.40	O
ATOM	36523	O	GLN D	62	151.997	109.583	25.883	1.00	57.86	C	ATOM	36572	CB	ILE D	67	146.963	111.434	30.527	1.00	57.41	C
ATOM	36524	CB	GLN D	62	151.659	109.012	26.914	1.00	57.86	O	ATOM	36573	CG1	ILE D	67	147.979	112.577	30.479	1.00	57.41	C
ATOM	36525	CG	GLN D	62	154.064	108.774	24.754	1.00	63.35	C	ATOM	36574	CG2	ILE D	67	145.679	111.878	31.200	1.00	57.41	C
ATOM	36526	CD	GLN D	62	154.679	107.784	23.775	1.00	63.35	C	ATOM	36575	CD1	ILE D	67	147.460	113.839	29.803	1.00	57.41	C
ATOM	36527	OE1	GLN D	62	154.270	106.347	24.069	1.00	63.35	C	ATOM	36576	N	TYR D	68	145.988	108.431	30.938	1.00	52.81	N
ATOM	36528	NE2	GLN D	62	154.918	105.651	24.848	1.00	63.35	N	ATOM	36577	CA	TYR D	68	144.929	107.517	31.336	1.00	52.81	C
ATOM	36529	N	LYS D	63	153.181	105.906	23.455	1.00	63.35	N	ATOM	36578	C	TYR D	68	145.468	106.120	31.622	1.00	52.81	C
ATOM	36530	CA	LYS D	63	151.932	110.896	25.734	1.00	51.57	N	ATOM	36579	O	TYR D	68	144.720	105.139	31.578	1.00	51.22	O
ATOM	36531	C	LYS D	63	151.430	111.754	26.789	1.00	51.57	C	ATOM	36580	CB	TYR D	68	143.869	107.432	30.248	1.00	51.22	C
ATOM	36532	O	LYS D	63	149.941	111.434	26.972	1.00	51.57	O	ATOM	36581	CG	TYR D	68	143.194	108.738	29.949	1.00	51.22	C
ATOM	36533	CB	LYS D	63	149.547	110.746	27.917	1.00	51.57	C	ATOM	36582	CD1	TYR D	68	143.880	109.779	29.337	1.00	51.22	C
ATOM	36534	CG	LYS D	63	151.629	113.212	26.377	1.00	56.15	C	ATOM	36583	CD2	TYR D	68	141.851	108.923	30.248	1.00	51.22	C
ATOM	36535	CD	LYS D	63	151.348	114.212	27.466	1.00	56.15	C	ATOM	36584	CE1	TYR D	68	143.238	110.975	29.025	1.00	51.22	C
ATOM	36536	CE	LYS D	63	151.313	115.621	26.907	1.00	56.15	C	ATOM	36585	CE2	TYR D	68	141.197	110.111	29.944	1.00	51.22	C
ATOM	36537	NZ	LYS D	63	152.643	116.011	26.295	1.00	56.15	C	ATOM	36586	CZ	TYR D	68	141.892	111.130	29.333	1.00	51.22	C
ATOM	36538	N	LEU D	64	152.538	117.347	25.663	1.00	56.15	N	ATOM	36587	OH	TYR D	68	141.229	112.297	29.030	1.00	51.22	O
ATOM	36539	CA	LEU D	64	149.127	111.919	26.041	1.00	40.59	N	ATOM	36588	N	GLY D	69	146.765	106.039	31.908	1.00	71.40	N
ATOM	36540	O	LEU D	64	147.693	111.693	26.074	1.00	40.59	C	ATOM	36589	CA	GLY D	69	147.393	104.761	32.203	1.00	71.40	C
ATOM	36541	C	LEU D	64	147.379	110.304	26.599	1.00	40.59	C	ATOM	36590	C	GLY D	69	146.805	103.595	31.430	1.00	71.40	C
ATOM	36542	CB	LEU D	64	146.421	110.126	27.331	1.00	40.59	O	ATOM	36591	O	GLY D	69	146.525	102.548	32.001	1.00	71.40	O
ATOM	36543	CG	LEU D	64	147.099	111.870	24.667	1.00	35.56	C	ATOM	36592	N	ILE D	70	146.630	103.779	30.125	1.00	65.06	N
ATOM	36544	CD1	LEU D	64	145.578	111.895	24.450	1.00	35.56	C	ATOM	36593	CA	ILE D	70	146.061	102.755	29.258	1.00	65.06	C
ATOM	36545	CD2	LEU D	64	145.019	110.516	24.442	1.00	35.56	C	ATOM	36594	C	ILE D	70	147.063	102.153	28.274	1.00	65.06	C
ATOM	36546	N	ARG D	65	144.922	112.703	25.540	1.00	35.56	C	ATOM	36595	O	ILE D	70	147.996	102.820	27.824	1.00	65.06	O
ATOM	36547	CA	ARG D	65	148.197	109.322	26.248	1.00	55.76	N	ATOM	36596	CB	ILE D	70	144.867	103.338	28.499	1.00	53.66	C
ATOM					147.958	107.958	26.697	1.00	55.76	C	ATOM	36597	CG1	ILE D	70	143.592	102.934	29.203	1.00	53.66	C



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ATOM	36598	CG2	ILE	D	70	144.843	102.885	27.060	1.00	53.66	C	ATOM	36648	C	ARG	D	76	143.098	102.068	19.116	1.00	42.02	C
ATOM	36599	CD1	ILE	D	70	142.397	103.411	28.466	1.00	53.66	C	ATOM	36649	O	ARG	D	76	142.549	102.739	18.236	1.00	42.02	O
ATOM	36600	N	SER	D	71	146.855	100.881	27.947	1.00	54.66	N	ATOM	36650	CB	ARG	D	76	145.497	101.354	19.009	1.00	89.36	C
ATOM	36601	CA	SER	D	71	147.723	100.151	27.026	1.00	54.66	C	ATOM	36651	CD	ARG	D	76	145.618	101.393	17.501	1.00	89.36	C
ATOM	36602	C	SER	D	71	147.552	100.659	25.610	1.00	54.66	C	ATOM	36652	CD	ARG	D	76	146.288	102.680	17.063	1.00	89.36	C
ATOM	36603	O	SER	D	71	146.458	101.050	25.214	1.00	54.66	O	ATOM	36653	NE	ARG	D	76	146.185	102.929	15.625	1.00	89.36	N
ATOM	36604	CB	SER	D	71	147.377	98.668	27.046	1.00	70.11	C	ATOM	36654	CZ	ARG	D	76	146.799	102.220	14.681	1.00	89.36	C
ATOM	36605	OG	SER	D	71	146.040	98.475	26.605	1.00	70.11	O	ATOM	36655	NH1	ARG	D	76	147.580	101.191	15.004	1.00	89.36	N
ATOM	36606	N	GLU	D	72	148.631	100.650	24.839	1.00	52.02	N	ATOM	36656	NH2	ARG	D	76	146.634	102.555	13.405	1.00	89.36	N
ATOM	36607	CA	GLU	D	72	148.540	101.102	23.462	1.00	52.02	C	ATOM	36657	N	ASN	D	77	142.496	101.043	19.701	1.00	43.59	N
ATOM	36608	C	GLU	D	72	147.414	100.302	22.829	1.00	52.02	C	ATOM	36658	CA	ASN	D	77	141.146	100.668	19.309	1.00	43.59	C
ATOM	36609	O	GLU	D	72	146.512	100.861	22.214	1.00	52.02	O	ATOM	36659	C	ASN	D	77	140.146	101.803	19.542	1.00	43.59	C
ATOM	36610	CB	GLU	D	72	149.851	100.840	22.724	1.00	77.42	C	ATOM	36660	O	ASN	D	77	139.218	102.007	18.745	1.00	43.59	O
ATOM	36611	CG	GLU	D	72	149.779	101.112	21.232	1.00	77.42	C	ATOM	36661	CB	ASN	D	77	140.711	99.408	20.057	1.00	77.23	C
ATOM	36612	CD	GLU	D	72	149.660	102.589	20.892	1.00	77.42	O	ATOM	36662	CG	ASN	D	77	141.617	98.226	19.771	1.00	77.23	C
ATOM	36613	OE1	GLU	D	72	149.520	102.914	19.689	1.00	77.42	O	ATOM	36663	OD1	ASN	D	77	141.933	97.937	18.614	1.00	77.23	O
ATOM	36614	OE2	GLU	D	72	149.713	103.421	21.819	1.00	77.42	O	ATOM	36664	ND2	ASN	D	77	142.037	97.532	20.822	1.00	77.23	N
ATOM	36615	N	ARG	D	73	147.458	98.987	23.017	1.00	50.44	N	ATOM	36665	N	LEU	D	78	140.328	102.534	20.641	1.00	48.20	N
ATOM	36616	CA	ARG	D	73	146.451	98.097	22.461	1.00	50.44	C	ATOM	36666	CA	LEU	D	78	139.460	103.659	20.943	1.00	48.20	C
ATOM	36617	C	ARG	D	73	145.032	98.646	22.573	1.00	50.44	O	ATOM	36667	C	LEU	D	78	139.613	104.673	19.832	1.00	48.20	C
ATOM	36618	O	ARG	D	73	144.343	98.780	21.564	1.00	50.44	O	ATOM	36668	O	LEU	D	78	138.633	105.212	19.327	1.00	48.20	O
ATOM	36619	CB	ARG	D	73	146.520	96.743	23.147	1.00	92.78	C	ATOM	36669	CB	LEU	D	78	139.858	104.299	22.258	1.00	35.67	C
ATOM	36620	CG	ARG	D	73	145.653	95.698	22.495	1.00	92.78	C	ATOM	36670	CG	LEU	D	78	138.944	103.911	23.411	1.00	35.67	C
ATOM	36621	NE	ARG	D	73	146.124	95.444	21.095	1.00	92.78	C	ATOM	36671	CD1	LEU	D	78	139.360	104.675	24.668	1.00	35.67	C
ATOM	36622	CD	ARG	D	73	145.577	94.205	20.567	1.00	92.78	N	ATOM	36672	CD2	LEU	D	78	137.495	104.225	23.026	1.00	35.67	C
ATOM	36623	CZ	ARG	D	73	145.952	93.668	19.413	1.00	92.78	C	ATOM	36673	N	PHE	D	79	140.860	104.931	19.455	1.00	32.54	N
ATOM	36624	NH1	ARG	D	73	146.876	94.267	18.673	1.00	92.78	N	ATOM	36674	CA	PHE	D	79	141.137	105.871	18.381	1.00	32.54	C
ATOM	36625	NH2	ARG	D	73	145.405	92.533	19.001	1.00	92.78	N	ATOM	36675	C	PHE	D	79	140.470	105.443	17.070	1.00	32.54	C
ATOM	36626	N	GLN	D	74	144.599	98.958	23.798	1.00	43.63	N	ATOM	36676	O	PHE	D	79	139.772	106.225	16.441	1.00	45.94	O
ATOM	36627	CA	GLN	D	74	143.252	99.491	24.044	1.00	43.63	C	ATOM	36677	CB	PHE	D	79	142.635	106.003	18.141	1.00	45.94	C
ATOM	36628	C	GLN	D	74	143.106	100.911	23.541	1.00	43.63	C	ATOM	36678	CG	PHE	D	79	142.961	106.935	17.027	1.00	45.94	C
ATOM	36629	O	GLN	D	74	142.078	101.277	22.977	1.00	43.63	O	ATOM	36679	CD1	PHE	D	79	142.869	108.313	17.214	1.00	45.94	C
ATOM	36630	CB	GLN	D	74	142.919	99.460	25.535	1.00	70.10	C	ATOM	36680	CD2	PHE	D	79	143.257	106.442	15.762	1.00	45.94	C
ATOM	36631	CG	GLN	D	74	142.576	98.086	26.072	1.00	70.10	C	ATOM	36681	CE1	PHE	D	79	143.060	109.184	16.155	1.00	45.94	C
ATOM	36632	CD	GLN	D	74	141.686	98.165	27.295	1.00	70.10	C	ATOM	36682	CE2	PHE	D	79	143.450	107.299	14.698	1.00	45.94	C
ATOM	36633	OE1	GLN	D	74	142.038	98.793	28.294	1.00	70.10	O	ATOM	36683	CZ	PHE	D	79	143.350	108.674	14.888	1.00	45.94	C
ATOM	36634	NE2	GLN	D	74	140.520	97.535	27.221	1.00	70.10	N	ATOM	36684	N	GLU	D	80	140.690	104.201	16.651	1.00	36.70	N
ATOM	36635	N	PHE	D	75	144.146	101.704	23.760	1.00	56.32	N	ATOM	36685	CA	GLU	D	80	140.077	103.738	15.413	1.00	36.70	C
ATOM	36636	CA	PHE	D	75	144.187	103.094	23.327	1.00	56.32	C	ATOM	36686	C	GLU	D	80	138.564	103.780	15.525	1.00	36.70	C
ATOM	36637	C	PHE	D	75	143.891	103.186	21.823	1.00	56.32	C	ATOM	36687	O	GLU	D	80	137.866	103.720	14.523	1.00	36.70	O
ATOM	36638	O	PHE	D	75	142.991	103.916	21.397	1.00	56.32	O	ATOM	36688	CB	GLU	D	80	140.550	102.325	15.059	1.00	65.60	C
ATOM	36639	CB	PHE	D	75	145.575	103.663	23.616	1.00	57.93	C	ATOM	36689	CG	GLU	D	80	142.031	102.255	14.708	1.00	65.60	C
ATOM	36640	CG	PHE	D	75	145.679	105.146	23.439	1.00	57.93	C	ATOM	36690	CD	GLU	D	80	142.392	103.061	13.458	1.00	65.60	C
ATOM	36641	CD1	PHE	D	75	145.580	105.996	24.530	1.00	57.93	C	ATOM	36691	OE1	GLU	D	80	143.599	103.308	13.236	1.00	65.60	O
ATOM	36642	CD2	PHE	D	75	145.904	105.693	22.185	1.00	57.93	C	ATOM	36692	OE2	GLU	D	80	141.477	103.439	12.692	1.00	65.60	O
ATOM	36643	CE1	PHE	D	75	145.710	107.367	24.372	1.00	57.93	C	ATOM	36693	N	GLU	D	81	138.057	103.883	16.750	1.00	64.01	N
ATOM	36644	CE2	PHE	D	75	146.034	107.067	22.021	1.00	57.93	C	ATOM	36694	CA	GLU	D	81	136.618	103.963	16.968	1.00	64.01	C
ATOM	36645	CZ	PHE	D	75	145.938	107.901	23.114	1.00	57.93	C	ATOM	36695	C	GLU	D	81	136.224	105.398	16.687	1.00	64.01	C
ATOM	36646	N	ARG	D	76	144.658	102.431	21.035	1.00	42.02	N	ATOM	36696	O	GLU	D	81	135.320	105.676	15.904	1.00	64.01	O
ATOM	36647	CA	ARG	D	76	144.526	102.389	19.582	1.00	42.02	C	ATOM	36697	CB	GLU	D	81	136.271	103.648	18.417	1.00	74.41	C



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ATOM	36698	CG	GLU D	81	135.372	102.455	18.596	1.00	74.41	C	ATOM	36748	CB	VAL D	88	136.232	116.993	15.461	1.00	34.42	C
ATOM	36699	CD	GLU D	81	134.701	102.438	19.953	1.00	74.41	C	ATOM	36749	CG1	VAL D	88	137.745	117.150	15.677	1.00	34.42	C
ATOM	36700	OE1	GLU D	81	133.512	102.821	20.032	1.00	74.41	O	ATOM	36750	CG2	VAL D	88	135.676	118.163	14.671	1.00	34.42	C
ATOM	36701	OE2	GLU D	81	135.364	102.051	20.940	1.00	74.41	O	ATOM	36751	N	THR D	89	137.220	113.643	14.780	1.00	43.55	N
ATOM	36702	N	ALA D	82	136.929	106.309	17.340	1.00	44.80	N	ATOM	36752	CA	THR D	89	137.873	112.511	15.411	1.00	43.55	C
ATOM	36703	CA	ALA D	82	136.671	107.723	17.187	1.00	44.80	C	ATOM	36753	C	THR D	89	138.584	112.952	16.698	1.00	43.55	C
ATOM	36704	C	ALA D	82	136.958	108.197	15.764	1.00	44.80	C	ATOM	36754	O	THR D	89	138.359	112.403	17.770	1.00	43.55	O
ATOM	36705	O	ALA D	82	136.647	109.340	15.403	1.00	44.80	O	ATOM	36755	CB	THR D	89	138.881	111.882	14.436	1.00	46.72	C
ATOM	36706	CB	ALA D	82	137.517	108.503	18.181	1.00	42.26	C	ATOM	36756	OG1	THR D	89	138.166	111.337	13.316	1.00	46.72	C
ATOM	36707	N	SER D	83	137.554	107.329	14.953	1.00	56.37	N	ATOM	36757	CG2	THR D	89	139.685	110.785	15.122	1.00	46.72	C
ATOM	36708	CA	SER D	83	137.880	107.701	13.589	1.00	56.37	C	ATOM	36758	N	GLY D	90	139.421	113.971	16.580	1.00	59.62	N
ATOM	36709	C	SER D	83	136.729	107.385	12.665	1.00	56.37	C	ATOM	36759	CA	GLY D	90	140.153	114.465	17.727	1.00	59.62	C
ATOM	36710	O	SER D	83	136.514	108.079	11.674	1.00	56.37	O	ATOM	36760	C	GLY D	90	139.399	114.470	19.040	1.00	59.62	C
ATOM	36711	CB	SER D	83	139.128	106.962	13.113	1.00	67.83	C	ATOM	36761	O	GLY D	90	139.766	113.755	19.971	1.00	59.62	O
ATOM	36712	OG	SER D	83	140.245	107.269	13.925	1.00	67.83	O	ATOM	36762	N	SER D	91	138.352	115.279	19.130	1.00	63.81	N
ATOM	36713	N	LYS D	84	135.985	106.337	12.992	1.00	70.38	N	ATOM	36763	CA	SER D	91	137.598	115.351	20.369	1.00	63.81	C
ATOM	36714	CA	LYS D	84	134.858	105.928	12.165	1.00	70.38	C	ATOM	36764	C	SER D	91	136.795	114.079	20.634	1.00	63.81	C
ATOM	36715	C	LYS D	84	133.612	106.743	12.485	1.00	70.38	C	ATOM	36765	O	SER D	91	136.812	113.556	21.749	1.00	63.81	O
ATOM	36716	O	LYS D	84	132.904	107.206	11.587	1.00	70.38	O	ATOM	36766	CB	SER D	91	136.695	116.593	20.380	1.00	74.15	C
ATOM	36717	CB	LYS D	84	134.579	104.436	12.371	1.00	69.86	C	ATOM	36767	OG	SER D	91	135.900	116.679	19.217	1.00	74.15	O
ATOM	36718	CG	LYS D	84	135.764	103.549	12.042	1.00	69.86	C	ATOM	36768	N	VAL D	92	136.104	113.569	19.622	1.00	43.54	N
ATOM	36719	CD	LYS D	84	135.505	102.089	12.394	1.00	69.86	C	ATOM	36769	CA	VAL D	92	135.334	112.339	19.799	1.00	43.54	C
ATOM	36720	CE	LYS D	84	136.785	101.255	12.247	1.00	69.86	C	ATOM	36770	C	VAL D	92	136.181	111.291	20.527	1.00	43.54	C
ATOM	36721	NZ	LYS D	84	136.653	99.860	12.776	1.00	69.86	N	ATOM	36771	O	VAL D	92	135.682	110.533	21.362	1.00	43.54	O
ATOM	36722	N	LYS D	85	133.357	106.925	13.774	1.00	71.26	N	ATOM	36772	CB	VAL D	92	134.905	111.757	18.450	1.00	27.45	C
ATOM	36723	CA	LYS D	85	132.195	107.671	14.218	1.00	71.26	C	ATOM	36773	CG1	VAL D	92	134.298	110.377	18.640	1.00	27.45	C
ATOM	36724	C	LYS D	85	132.247	109.105	13.725	1.00	71.26	C	ATOM	36774	CG2	VAL D	92	133.915	112.694	17.787	1.00	27.45	C
ATOM	36725	O	LYS D	85	133.323	109.698	13.625	1.00	71.26	O	ATOM	36775	N	PHE D	93	137.467	111.264	20.192	1.00	65.36	N
ATOM	36726	CB	LYS D	85	132.119	107.641	15.743	1.00	74.78	C	ATOM	36776	CA	PHE D	93	138.422	110.347	20.793	1.00	65.36	C
ATOM	36727	CG	LYS D	85	132.193	106.237	16.302	1.00	74.78	C	ATOM	36777	C	PHE D	93	138.521	110.654	22.284	1.00	65.36	C
ATOM	36728	CD	LYS D	85	131.939	106.210	17.787	1.00	74.78	C	ATOM	36778	O	PHE D	93	138.371	109.766	23.126	1.00	65.36	O
ATOM	36729	CE	LYS D	85	130.486	106.459	18.093	1.00	74.78	C	ATOM	36779	CB	PHE D	93	139.789	110.532	20.133	1.00	46.62	C
ATOM	36730	NZ	LYS D	85	130.264	106.427	19.559	1.00	74.78	N	ATOM	36780	CG	PHE D	93	140.854	109.611	20.657	1.00	46.62	C
ATOM	36731	N	LYS D	86	131.075	109.653	13.412	1.00	58.30	N	ATOM	36781	CD1	PHE D	93	142.175	110.030	20.725	1.00	46.62	C
ATOM	36732	CA	LYS D	86	130.957	111.028	12.932	1.00	58.30	C	ATOM	36782	CD2	PHE D	93	140.543	108.320	21.069	1.00	46.62	C
ATOM	36733	C	LYS D	86	131.594	112.012	13.908	1.00	58.30	C	ATOM	36783	CE1	PHE D	93	143.172	109.181	21.197	1.00	46.62	C
ATOM	36734	O	LYS D	86	131.803	111.691	15.078	1.00	58.30	O	ATOM	36784	CE2	PHE D	93	141.538	107.461	21.544	1.00	46.62	C
ATOM	36735	CB	LYS D	86	129.482	111.404	12.760	1.00	83.95	C	ATOM	36785	CZ	PHE D	93	142.855	107.895	21.607	1.00	46.62	C
ATOM	36736	CG	LYS D	86	128.741	110.670	11.659	1.00	83.95	C	ATOM	36786	N	LEU D	94	138.774	111.916	22.609	1.00	48.26	N
ATOM	36737	CD	LYS D	86	127.353	111.266	11.475	1.00	83.95	C	ATOM	36787	CA	LEU D	94	138.886	112.318	24.005	1.00	48.26	C
ATOM	36738	CE	LYS D	86	126.656	110.712	10.239	1.00	83.95	C	ATOM	36788	O	LEU D	94	137.594	112.030	24.770	1.00	48.26	O
ATOM	36739	NZ	LYS D	86	125.334	111.374	9.985	1.00	83.95	N	ATOM	36789	C	LEU D	94	137.624	111.707	25.957	1.00	48.26	O
ATOM	36740	N	GLY D	87	131.910	113.210	13.425	1.00	57.42	N	ATOM	36790	CB	LEU D	94	139.239	113.802	24.100	1.00	41.82	C
ATOM	36741	CA	GLY D	87	132.478	114.221	14.301	1.00	57.42	C	ATOM	36791	CG	LEU D	94	140.664	114.178	23.682	1.00	41.82	C
ATOM	36742	C	GLY D	87	133.981	114.252	14.456	1.00	57.42	C	ATOM	36792	CD1	LEU D	94	140.750	115.679	23.527	1.00	41.82	C
ATOM	36743	O	GLY D	88	134.646	113.215	14.489	1.00	57.42	O	ATOM	36793	CD2	LEU D	94	141.669	113.688	24.718	1.00	41.82	C
ATOM	36744	N	VAL D	88	134.511	115.464	14.561	1.00	50.75	N	ATOM	36794	N	GLY D	95	136.457	112.140	24.092	1.00	69.95	N
ATOM	36745	CA	VAL D	88	135.937	115.675	14.717	1.00	50.75	C	ATOM	36795	CA	GLY D	95	135.197	111.865	24.757	1.00	69.95	C
ATOM	36746	C	VAL D	88	136.559	114.538	15.499	1.00	50.75	C	ATOM	36796	C	GLY D	95	135.199	110.447	25.296	1.00	69.95	C
ATOM	36747	O	VAL D	88	136.439	114.467	16.725	1.00	50.75	O	ATOM	36797	O	GLY D	95	134.922	110.208	26.473	1.00	69.95	O



ATOM	36798	N	LEU D 96	135.530	109.505	24.421	1.00	54.70	N	ATOM	36848	N	ASP D 102	136.558	103.725	34.974	1.00	51.58	N
ATOM	36799	CA	LEU D 96	135.582	108.095	24.769	1.00	54.70	C	ATOM	36849	CA	ASP D 102	137.665	103.976	35.872	1.00	51.58	C
ATOM	36800	C	LEU D 96	136.604	107.788	25.851	1.00	54.70	C	ATOM	36850	C	ASP D 102	138.090	105.434	35.836	1.00	51.58	C
ATOM	36801	O	LEU D 96	136.395	106.906	26.684	1.00	54.70	O	ATOM	36851	O	ASP D 102	138.567	105.956	36.841	1.00	51.58	O
ATOM	36802	CB	LEU D 96	135.872	107.277	23.516	1.00	38.11	C	ATOM	36852	CB	ASP D 102	138.851	103.018	35.586	1.00	77.83	C
ATOM	36803	CG	LEU D 96	134.617	106.971	22.702	1.00	38.11	C	ATOM	36853	CG	ASP D 102	139.627	103.357	34.316	1.00	77.83	C
ATOM	36804	CD1	LEU D 96	133.688	108.189	22.660	1.00	38.11	C	ATOM	36854	OD1	ASP D 102	139.014	103.717	33.289	1.00	77.83	C
ATOM	36805	CD2	LEU D 96	135.033	106.520	21.318	1.00	38.11	C	ATOM	36855	OD2	ASP D 102	140.871	103.234	34.344	1.00	77.83	O
ATOM	36806	N	LEU D 97	137.716	108.506	25.837	1.00	55.11	N	ATOM	36856	N	ASN D 103	137.903	106.107	34.702	1.00	57.41	N
ATOM	36807	CA	LEU D 97	138.727	108.290	26.857	1.00	55.11	C	ATOM	36857	CA	ASN D 103	138.282	107.517	34.619	1.00	57.41	C
ATOM	36808	C	LEU D 97	138.186	108.713	28.225	1.00	55.11	C	ATOM	36858	C	ASN D 103	137.258	108.318	35.403	1.00	57.41	C
ATOM	36809	O	LEU D 97	138.478	108.087	29.246	1.00	55.11	O	ATOM	36859	O	ASN D 103	137.605	109.086	36.301	1.00	57.41	O
ATOM	36810	CB	LEU D 97	139.981	109.101	26.539	1.00	53.70	C	ATOM	36860	CB	ASN D 103	138.304	108.006	33.170	1.00	45.73	C
ATOM	36811	CG	LEU D 97	141.026	108.448	25.652	1.00	53.70	C	ATOM	36861	CG	ASN D 103	138.467	109.522	33.067	1.00	45.73	C
ATOM	36812	CD1	LEU D 97	142.200	109.386	25.472	1.00	53.70	C	ATOM	36862	OD1	ASN D 103	139.528	110.085	33.384	1.00	45.73	O
ATOM	36813	CD2	LEU D 97	141.476	107.164	26.310	1.00	53.70	C	ATOM	36863	ND2	ASN D 103	137.405	110.192	32.626	1.00	45.73	N
ATOM	36814	N	GLU D 98	137.390	109.779	28.234	1.00	67.74	N	ATOM	36864	N	VAL D 104	135.993	108.133	35.051	1.00	44.52	N
ATOM	36815	CA	GLU D 98	136.821	110.297	29.469	1.00	67.74	C	ATOM	36865	CA	VAL D 104	134.914	108.818	35.733	1.00	44.52	C
ATOM	36816	C	GLU D 98	135.595	109.513	29.928	1.00	67.74	C	ATOM	36866	C	VAL D 104	135.130	108.780	37.243	1.00	44.52	C
ATOM	36817	O	GLU D 98	135.097	109.748	31.028	1.00	67.74	O	ATOM	36867	O	VAL D 104	135.178	109.818	37.893	1.00	44.52	O
ATOM	36818	CB	GLU D 98	136.443	111.765	29.293	1.00	58.83	C	ATOM	36868	CB	VAL D 104	133.582	108.160	35.431	1.00	21.41	C
ATOM	36819	CG	GLU D 98	136.748	112.629	30.492	1.00	58.83	C	ATOM	36869	CG1	VAL D 104	132.477	108.911	36.135	1.00	21.41	C
ATOM	36820	CD	GLU D 98	138.231	112.856	30.646	1.00	58.83	C	ATOM	36870	CG2	VAL D 104	133.361	108.111	33.932	1.00	21.41	C
ATOM	36821	OE1	GLU D 98	138.872	113.155	29.623	1.00	58.83	O	ATOM	36871	N	VAL D 105	135.252	107.586	37.811	1.00	55.74	N
ATOM	36822	OE2	GLU D 98	138.760	112.744	31.773	1.00	58.83	O	ATOM	36872	CA	VAL D 105	135.472	107.482	39.245	1.00	55.74	C
ATOM	36823	N	SER D 99	135.109	108.597	29.088	1.00	37.28	N	ATOM	36873	C	VAL D 105	136.515	108.511	39.675	1.00	55.74	C
ATOM	36824	CA	SER D 99	133.938	107.783	29.429	1.00	37.28	C	ATOM	36874	O	VAL D 105	136.287	109.266	40.616	1.00	55.74	O
ATOM	36825	C	SER D 99	134.276	106.438	30.089	1.00	37.28	C	ATOM	36875	CB	VAL D 105	135.900	106.048	39.635	1.00	42.85	C
ATOM	36826	O	SER D 99	133.387	105.624	30.380	1.00	37.28	O	ATOM	36876	CG1	VAL D 105	136.493	106.009	41.043	1.00	42.85	C
ATOM	36827	CB	SER D 99	133.083	107.536	28.197	1.00	35.55	C	ATOM	36877	CG2	VAL D 105	134.680	105.149	39.573	1.00	42.85	C
ATOM	36828	OG	SER D 99	132.688	108.769	27.647	1.00	35.55	O	ATOM	36878	N	TYR D 106	137.644	108.558	38.976	1.00	57.76	N
ATOM	36829	N	ARG D 100	135.560	106.203	30.322	1.00	55.87	N	ATOM	36879	CA	TYR D 106	138.691	109.531	39.290	1.00	57.76	C
ATOM	36830	CA	ARG D 100	135.961	104.975	30.978	1.00	55.87	C	ATOM	36880	C	TYR D 106	138.128	110.944	39.178	1.00	57.76	C
ATOM	36831	C	ARG D 100	135.492	105.058	32.421	1.00	55.87	C	ATOM	36881	O	TYR D 106	138.301	111.773	40.068	1.00	57.76	O
ATOM	36832	O	ARG D 100	135.775	106.031	33.127	1.00	55.87	O	ATOM	36882	CB	TYR D 106	139.850	109.411	38.313	1.00	53.81	C
ATOM	36833	CB	ARG D 100	137.481	104.806	30.942	1.00	52.48	C	ATOM	36883	CG	TYR D 106	140.782	110.605	38.361	1.00	53.81	C
ATOM	36834	CG	ARG D 100	138.054	104.551	29.563	1.00	52.48	C	ATOM	36884	CD1	TYR D 106	141.790	110.688	39.327	1.00	53.81	C
ATOM	36835	CD	ARG D 100	139.565	104.517	29.619	1.00	52.48	C	ATOM	36885	CD2	TYR D 106	140.634	111.671	37.467	1.00	53.81	C
ATOM	36836	NE	ARG D 100	140.083	103.407	30.424	1.00	52.48	N	ATOM	36886	CE1	TYR D 106	142.625	111.801	39.406	1.00	53.81	C
ATOM	36837	CZ	ARG D 100	140.005	102.125	30.071	1.00	52.48	C	ATOM	36887	CE2	TYR D 106	141.463	112.789	37.538	1.00	53.81	C
ATOM	36838	NH1	ARG D 100	139.424	101.790	28.923	1.00	52.48	N	ATOM	36888	CZ	TYR D 106	142.456	112.848	38.513	1.00	53.81	C
ATOM	36839	NH2	ARG D 100	140.518	101.180	30.857	1.00	52.48	N	ATOM	36889	OH	TYR D 106	143.264	113.958	38.624	1.00	53.81	O
ATOM	36840	N	LEU D 101	134.756	104.042	32.848	1.00	58.39	N	ATOM	36890	N	ARG D 107	137.481	111.215	38.054	1.00	71.73	N
ATOM	36841	CA	LEU D 101	134.268	103.981	34.215	1.00	58.39	C	ATOM	36891	CA	ARG D 107	136.875	112.512	37.810	1.00	71.73	C
ATOM	36842	C	LEU D 101	135.389	104.311	35.190	1.00	58.39	C	ATOM	36892	C	ARG D 107	135.912	112.912	38.937	1.00	71.73	C
ATOM	36843	O	LEU D 101	135.202	105.082	36.122	1.00	58.39	O	ATOM	36893	O	ARG D 107	135.874	114.081	39.334	1.00	71.73	O
ATOM	36844	CB	LEU D 101	133.742	102.583	34.531	1.00	42.98	C	ATOM	36894	CB	ARG D 107	136.132	112.491	36.469	1.00	54.31	C
ATOM	36845	CG	LEU D 101	133.234	102.435	35.960	1.00	42.98	C	ATOM	36895	CG	ARG D 107	136.993	112.774	35.241	1.00	54.31	C
ATOM	36846	CD1	LEU D 101	132.039	103.363	36.141	1.00	42.98	C	ATOM	36896	CD	ARG D 107	137.067	114.280	34.944	1.00	54.31	C
ATOM	36847	CD2	LEU D 101	132.846	100.992	36.237	1.00	42.98	C	ATOM	36897	NE	ARG D 107	137.807	114.602	33.720	1.00	54.31	N



Table 1: Sheet 371/521

ATOM	36898	CZ	ARG	D 107	139.112	114.863	33.668	1.00	54.31	C	ATOM	36948	CD	ARG	D 114	142.878	108.811	34.700	1.00	47.69	C
ATOM	36899	NH1	ARG	D 107	139.850	114.850	34.768	1.00	54.31	N	ATOM	36949	NE	ARG	D 114	142.089	109.963	34.275	1.00	47.69	N
ATOM	36900	NH2	ARG	D 107	139.683	115.134	32.506	1.00	54.31	N	ATOM	36950	CZ	ARG	D 114	142.535	111.214	34.266	1.00	47.69	C
ATOM	36901	N	LEU	D 108	135.142	111.952	39.452	1.00	62.21	N	ATOM	36951	NH1	ARG	D 114	143.778	111.489	34.660	1.00	47.69	N
ATOM	36902	CA	LEU	D 108	134.184	112.237	40.522	1.00	62.21	C	ATOM	36952	NH2	ARG	D 114	141.729	112.191	33.866	1.00	47.69	N
ATOM	36903	C	LEU	D 108	134.759	112.278	41.935	1.00	62.21	C	ATOM	36953	N	ARG	D 115	144.915	105.511	38.832	1.00	59.25	N
ATOM	36904	O	LEU	D 108	134.014	112.262	42.932	1.00	62.21	C	ATOM	36954	CA	ARG	D 115	145.270	104.147	39.181	1.00	59.25	C
ATOM	36905	CB	LEU	D 108	133.025	111.246	40.480	1.00	49.42	C	ATOM	36955	C	ARG	D 115	144.331	103.696	40.290	1.00	59.25	C
ATOM	36906	CG	LEU	D 108	132.043	111.521	39.347	1.00	49.42	C	ATOM	36956	O	ARG	D 115	143.626	102.699	40.139	1.00	59.25	O
ATOM	36907	CD1	LEU	D 108	130.835	110.606	39.469	1.00	49.42	C	ATOM	36957	CB	ARG	D 115	146.723	104.066	39.659	1.00	71.51	C
ATOM	36908	CD2	LEU	D 108	131.607	112.969	39.412	1.00	49.42	C	ATOM	36958	CG	ARG	D 115	147.751	104.320	38.571	1.00	71.51	C
ATOM	36909	N	GLY	D 109	136.082	112.323	42.036	1.00	64.27	N	ATOM	36959	CD	ARG	D 115	149.156	103.974	39.030	1.00	71.51	C
ATOM	36910	CA	GLY	D 109	136.724	112.403	43.333	1.00	64.27	C	ATOM	36960	NE	ARG	D 115	150.038	103.762	37.887	1.00	71.51	N
ATOM	36911	C	GLY	D 109	136.739	111.178	44.226	1.00	64.27	C	ATOM	36961	CZ	ARG	D 115	151.244	103.205	37.954	1.00	71.51	C
ATOM	36912	O	GLY	D 109	137.355	111.210	45.294	1.00	64.27	O	ATOM	36962	NH1	ARG	D 115	151.735	102.796	39.118	1.00	71.51	N
ATOM	36913	N	PHE	D 110	136.070	110.104	43.828	1.00	58.07	N	ATOM	36963	NH2	ARG	D 115	151.956	103.038	36.845	1.00	71.51	N
ATOM	36914	CA	PHE	D 110	136.073	108.907	44.658	1.00	58.07	C	ATOM	36964	N	GLN	D 116	144.317	104.446	41.391	1.00	66.42	N
ATOM	36915	C	PHE	D 110	137.510	108.490	44.945	1.00	58.07	C	ATOM	36965	CA	GLN	D 116	143.471	104.139	42.542	1.00	66.42	C
ATOM	36916	O	PHE	D 110	137.881	108.255	46.097	1.00	58.07	O	ATOM	36966	C	GLN	D 116	142.044	103.825	42.102	1.00	66.42	C
ATOM	36917	CB	PHE	D 110	135.346	107.774	43.955	1.00	45.69	C	ATOM	36967	O	GLN	D 116	141.462	102.814	42.498	1.00	66.42	O
ATOM	36918	CG	PHE	D 110	133.904	108.048	43.712	1.00	45.69	C	ATOM	36968	CB	GLN	D 116	143.454	105.325	43.501	1.00	64.10	C
ATOM	36919	CD1	PHE	D 110	133.318	109.215	44.178	1.00	45.69	C	ATOM	36969	CG	GLN	D 116	142.983	104.999	44.920	1.00	64.10	C
ATOM	36920	CD2	PHE	D 110	133.124	107.132	43.020	1.00	45.69	C	ATOM	36970	CD	GLN	D 116	142.922	106.232	45.804	1.00	64.10	C
ATOM	36921	CE1	PHE	D 110	131.969	109.470	43.954	1.00	45.69	C	ATOM	36971	OE1	GLN	D 116	141.891	106.902	45.877	1.00	64.10	O
ATOM	36922	CE2	PHE	D 110	131.777	107.369	42.788	1.00	45.69	C	ATOM	36972	NE2	GLN	D 116	144.037	106.551	46.461	1.00	64.10	N
ATOM	36923	CZ	PHE	D 110	131.194	108.540	43.254	1.00	45.69	C	ATOM	36973	N	ALA	D 117	141.480	104.701	41.284	1.00	39.89	N
ATOM	36924	N	ALA	D 111	138.320	108.405	43.894	1.00	57.71	N	ATOM	36974	CA	ALA	D 117	140.128	104.497	40.781	1.00	39.89	C
ATOM	36925	CA	ALA	D 111	139.716	108.028	44.051	1.00	57.71	C	ATOM	36975	C	ALA	D 117	140.040	103.155	40.055	1.00	39.89	O
ATOM	36926	C	ALA	D 111	140.600	109.248	43.859	1.00	57.71	C	ATOM	36976	O	ALA	D 117	139.058	102.417	40.192	1.00	39.89	C
ATOM	36927	O	ALA	D 111	140.222	110.200	43.174	1.00	57.71	O	ATOM	36977	CB	ALA	D 117	139.743	105.636	39.833	1.00	33.29	C
ATOM	36928	CB	ALA	D 111	140.084	108.951	43.049	1.00	91.18	C	ATOM	36978	N	ARG	D 118	141.069	102.844	39.274	1.00	67.20	N
ATOM	36929	N	VAL	D 112	141.776	109.217	44.471	1.00	63.77	N	ATOM	36979	CA	ARG	D 118	141.090	101.591	38.540	1.00	67.20	C
ATOM	36930	CA	VAL	D 112	142.717	110.322	44.366	1.00	63.77	C	ATOM	36980	C	ARG	D 118	140.859	100.452	39.531	1.00	67.20	C
ATOM	36931	C	VAL	D 112	143.424	110.343	43.018	1.00	63.77	C	ATOM	36981	O	ARG	D 118	140.021	99.582	39.309	1.00	67.20	O
ATOM	36932	O	VAL	D 112	143.693	111.411	42.464	1.00	63.77	C	ATOM	36982	CB	ARG	D 118	142.439	101.402	37.830	1.00	57.12	C
ATOM	36933	CB	VAL	D 112	143.773	110.250	45.486	1.00	63.14	C	ATOM	36983	CG	ARG	D 118	142.415	100.316	36.765	1.00	57.12	C
ATOM	36934	CG1	VAL	D 112	144.992	111.060	45.114	1.00	63.14	C	ATOM	36984	CD	ARG	D 118	143.802	99.921	36.271	1.00	57.12	C
ATOM	36935	CG2	VAL	D 112	143.184	110.791	46.774	1.00	63.14	C	ATOM	36985	NE	ARG	D 118	143.717	98.901	35.221	1.00	57.12	N
ATOM	36936	N	SER	D 113	143.720	109.159	42.495	1.00	60.17	N	ATOM	36986	CZ	ARG	D 118	143.407	99.146	33.947	1.00	57.12	C
ATOM	36937	CA	SER	D 113	144.405	109.038	41.216	1.00	60.17	C	ATOM	36987	NH1	ARG	D 118	143.342	98.145	33.079	1.00	57.12	N
ATOM	36938	C	SER	D 113	143.588	108.197	40.253	1.00	60.17	C	ATOM	36988	NH2	ARG	D 118	143.185	100.392	33.535	1.00	57.12	N
ATOM	36939	O	SER	D 113	142.522	107.696	40.608	1.00	60.17	O	ATOM	36989	N	GLN	D 119	141.592	100.479	40.639	1.00	66.87	N
ATOM	36940	CB	SER	D 113	145.771	108.375	41.409	1.00	100.134.50	C	ATOM	36990	CA	GLN	D 119	141.477	99.438	41.653	1.00	66.87	C
ATOM	36941	OG	SER	D 113	145.625	107.009	41.773	1.00	48.23	O	ATOM	36991	C	GLN	D 119	140.102	99.418	42.324	1.00	66.87	C
ATOM	36942	N	ARG	D 114	144.094	108.049	39.029	1.00	48.62	N	ATOM	36992	O	GLN	D 119	139.511	98.357	42.521	1.00	66.87	O
ATOM	36943	CA	ARG	D 114	143.422	107.239	38.025	1.00	48.62	C	ATOM	36993	CB	GLN	D 119	142.566	99.614	42.708	1.00	48.10	C
ATOM	36944	C	ARG	D 114	143.717	105.776	38.331	1.00	48.62	C	ATOM	36994	CG	GLN	D 119	142.811	98.376	43.525	1.00	48.10	C
ATOM	36945	O	ARG	D 114	142.877	104.901	38.131	1.00	48.62	O	ATOM	36995	CD	GLN	D 119	143.927	98.555	44.535	1.00	48.10	C
ATOM	36946	CB	ARG	D 114	143.911	107.605	36.625	1.00	47.69	C	ATOM	36996	OE1	GLN	D 119	143.818	99.358	45.455	1.00	48.10	O
ATOM	36947	CG	ARG	D 114	143.393	108.939	36.126	1.00	47.69	C	ATOM	36997	NE2	GLN	D 119	145.010	97.808	44.367	1.00	48.10	N



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ATOM	36998	N	LEU D 120	139.596	100.591	42.682	1.00	57.24	N	ATOM	37048	N	ILE D 126	132.706	99.830	43.392	1.00	55.06	N
ATOM	36999	CA	LEU D 120	138.291	100.660	43.309	1.00	57.24	C	ATOM	37049	CA	ILE D 126	131.964	100.789	42.572	1.00	55.06	C
ATOM	37000	C	LEU D 120	137.278	99.967	42.412	1.00	57.24	C	ATOM	37050	C	ILE D 126	130.646	100.268	42.023	1.00	55.06	C
ATOM	37001	O	LEU D 120	136.503	99.130	42.861	1.00	57.24	O	ATOM	37051	O	ILE D 126	130.450	99.064	41.897	1.00	55.06	O
ATOM	37002	CB	LEU D 120	137.907	102.117	43.550	1.00	42.63	C	ATOM	37052	CB	ILE D 126	132.831	101.274	41.406	1.00	42.18	C
ATOM	37003	CG	LEU D 120	138.642	102.662	44.775	1.00	42.63	C	ATOM	37053	CG1	ILE D 126	134.034	102.032	41.968	1.00	42.18	C
ATOM	37004	CD1	LEU D 120	138.724	104.168	44.741	1.00	42.63	C	ATOM	37054	CG2	ILE D 126	132.023	102.163	40.469	1.00	42.18	C
ATOM	37005	CD2	LEU D 120	137.919	102.195	46.013	1.00	42.63	C	ATOM	37055	CD1	ILE D 126	133.659	103.290	42.717	1.00	42.18	C
ATOM	37006	N	VAL D 121	137.287	100.310	41.133	1.00	74.02	N	ATOM	37056	N	THR D 127	129.754	101.195	41.691	1.00	53.76	N
ATOM	37007	CA	VAL D 121	136.374	99.684	40.192	1.00	74.02	C	ATOM	37057	CA	THR D 127	128.433	100.866	41.166	1.00	53.76	C
ATOM	37008	C	VAL D 121	136.628	98.173	40.201	1.00	74.02	C	ATOM	37058	C	THR D 127	128.074	101.666	39.917	1.00	53.76	C
ATOM	37009	O	VAL D 121	135.707	97.366	40.352	1.00	74.02	O	ATOM	37059	O	THR D 127	128.638	102.724	39.672	1.00	53.76	O
ATOM	37010	CB	VAL D 121	136.596	100.251	38.770	1.00	49.31	C	ATOM	37060	CB	THR D 127	127.350	101.138	42.241	1.00	76.62	C
ATOM	37011	CG1	VAL D 121	135.909	99.371	37.736	1.00	49.31	C	ATOM	37061	OG1	THR D 127	127.017	99.906	42.887	1.00	76.62	O
ATOM	37012	CG2	VAL D 121	136.054	101.674	38.693	1.00	49.31	C	ATOM	37062	CG2	THR D 127	126.085	101.781	41.627	1.00	76.62	C
ATOM	37013	N	ARG D 122	137.897	97.813	40.056	1.00	60.08	N	ATOM	37063	N	VAL D 128	127.135	101.151	39.132	1.00	55.00	N
ATOM	37014	CA	ARG D 122	138.340	96.424	40.037	1.00	60.08	C	ATOM	37064	CA	VAL D 128	126.669	101.843	37.938	1.00	55.00	C
ATOM	37015	C	ARG D 122	137.885	95.619	41.250	1.00	60.08	C	ATOM	37065	C	VAL D 128	125.193	101.527	37.775	1.00	55.00	C
ATOM	37016	O	ARG D 122	137.216	94.598	41.098	1.00	60.08	O	ATOM	37066	O	VAL D 128	124.832	100.506	37.197	1.00	55.00	O
ATOM	37017	CB	ARG D 122	139.865	96.384	39.947	1.00	61.92	C	ATOM	37067	CB	VAL D 128	127.422	101.396	36.659	1.00	54.77	C
ATOM	37018	CG	ARG D 122	140.409	95.946	38.605	1.00	61.92	C	ATOM	37068	CG1	VAL D 128	126.690	101.915	35.420	1.00	54.77	C
ATOM	37019	CD	ARG D 122	140.316	94.441	38.449	1.00	61.92	C	ATOM	37069	CG2	VAL D 128	128.852	101.927	36.675	1.00	54.77	C
ATOM	37020	NE	ARG D 122	139.174	94.018	37.650	1.00	61.92	N	ATOM	37070	N	ASN D 129	124.347	102.408	38.296	1.00	64.02	N
ATOM	37021	CZ	ARG D 122	138.867	92.744	37.426	1.00	61.92	C	ATOM	37071	CA	ASN D 129	122.901	102.228	38.228	1.00	64.02	C
ATOM	37022	NH1	ARG D 122	139.616	91.761	37.947	1.00	61.92	N	ATOM	37072	C	ASN D 129	122.508	101.074	39.109	1.00	64.02	C
ATOM	37023	NH2	ARG D 122	137.820	92.430	36.674	1.00	61.92	N	ATOM	37073	O	ASN D 129	121.561	100.346	38.796	1.00	64.02	O
ATOM	37024	N	HIS D 123	138.261	96.078	42.445	1.00	58.37	N	ATOM	37074	CB	ASN D 129	122.455	101.923	36.804	1.00	54.81	C
ATOM	37025	CA	HIS D 123	137.898	95.409	43.692	1.00	58.37	C	ATOM	37075	CG	ASN D 129	122.976	102.925	35.822	1.00	54.81	C
ATOM	37026	C	HIS D 123	136.410	95.510	44.057	1.00	58.37	O	ATOM	37076	OD1	ASN D 129	123.366	104.033	36.203	1.00	54.81	O
ATOM	37027	O	HIS D 123	136.048	95.299	45.214	1.00	58.37	O	ATOM	37077	ND2	ASN D 129	122.977	102.560	34.546	1.00	54.81	N
ATOM	37028	CB	HIS D 123	138.726	95.952	44.859	1.00	67.92	C	ATOM	37078	N	GLY D 130	123.237	100.915	40.211	1.00	61.50	N
ATOM	37029	CG	HIS D 123	140.189	95.641	44.768	1.00	67.92	C	ATOM	37079	CA	GLY D 130	122.966	99.818	41.116	1.00	61.50	C
ATOM	37030	ND1	HIS D 123	140.675	94.509	44.153	1.00	67.92	C	ATOM	37080	C	GLY D 130	123.957	98.704	40.844	1.00	61.50	C
ATOM	37031	CD2	HIS D 123	141.269	96.281	45.278	1.00	67.92	C	ATOM	37081	O	GLY D 130	124.968	98.608	41.537	1.00	61.50	O
ATOM	37032	CE1	HIS D 123	141.989	94.462	44.290	1.00	67.92	C	ATOM	37082	N	ARG D 131	123.689	97.875	39.831	1.00	76.92	N
ATOM	37033	NE2	HIS D 123	142.374	95.526	44.971	1.00	67.92	N	ATOM	37083	CA	ARG D 131	124.585	96.770	39.488	1.00	76.92	C
ATOM	37034	N	GLY D 124	135.563	95.852	43.082	1.00	66.91	N	ATOM	37084	C	ARG D 131	126.028	97.226	39.612	1.00	76.92	C
ATOM	37035	CA	GLY D 124	134.123	95.935	43.303	1.00	66.91	C	ATOM	37085	O	ARG D 131	126.391	98.290	39.104	1.00	76.92	O
ATOM	37036	C	GLY D 124	133.518	97.126	44.032	1.00	66.91	C	ATOM	37086	CB	ARG D 131	124.345	96.275	38.056	1.00	76.92	C
ATOM	37037	O	GLY D 124	132.295	97.302	44.015	1.00	66.91	O	ATOM	37087	CG	ARG D 131	123.042	95.538	37.844	1.00	76.92	C
ATOM	37038	N	HIS D 125	134.359	97.941	44.664	1.00	59.19	N	ATOM	37088	CD	ARG D 131	121.881	96.499	37.682	1.00	76.92	C
ATOM	37039	CA	HIS D 125	133.906	99.114	45.415	1.00	59.19	C	ATOM	37089	NE	ARG D 131	120.603	95.793	37.622	1.00	76.92	N
ATOM	37040	C	HIS D 125	133.117	100.156	44.617	1.00	59.19	C	ATOM	37090	CZ	ARG D 131	119.439	96.366	37.328	1.00	76.92	C
ATOM	37041	O	HIS D 125	132.882	101.255	45.120	1.00	59.19	O	ATOM	37091	NH1	ARG D 131	119.384	97.664	37.060	1.00	76.92	N
ATOM	37042	CB	HIS D 125	135.101	99.822	46.053	1.00	69.70	C	ATOM	37092	NH2	ARG D 131	118.328	95.640	37.305	1.00	76.92	N
ATOM	37043	CG	HIS D 125	136.064	98.898	46.723	1.00	69.70	C	ATOM	37093	N	ARG D 132	126.848	96.436	40.301	1.00	62.27	N
ATOM	37044	ND1	HIS D 125	135.665	97.931	47.618	1.00	69.70	N	ATOM	37094	CA	ARG D 132	128.247	96.797	40.452	1.00	62.27	C
ATOM	37045	CD2	HIS D 125	137.414	98.810	46.651	1.00	69.70	C	ATOM	37095	C	ARG D 132	128.967	96.410	39.173	1.00	62.27	C
ATOM	37046	CE1	HIS D 125	136.726	97.288	48.070	1.00	69.70	C	ATOM	37096	O	ARG D 132	128.558	95.484	38.477	1.00	62.27	O
ATOM	37047	NE2	HIS D 125	137.801	97.802	47.500	1.00	69.70	N	ATOM	37097	CB	ARG D 132	128.891	96.088	41.647	1.00	94.25	C



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ATOM	37098	CG	ARG D 132	129.274	94.641	41.423	1.00	94.25	C	ATOM	37148	CE1	TYR D 138	129.163	98.739	31.744	1.00	53.17	C
ATOM	37099	CD	ARG D 132	130.389	94.242	42.388	1.00	94.25	C	ATOM	37149	CE2	TYR D 138	129.288	101.052	32.379	1.00	53.17	C
ATOM	37100	NE	ARG D 132	130.663	92.807	42.361	1.00	94.25	N	ATOM	37150	CZ	TYR D 138	128.546	99.951	31.991	1.00	53.17	C
ATOM	37101	CZ	ARG D 132	129.908	91.885	42.955	1.00	94.25	C	ATOM	37151	OH	TYR D 138	127.189	100.078	31.845	1.00	53.17	O
ATOM	37102	NH1	ARG D 132	128.826	92.239	43.639	1.00	94.25	N	ATOM	37152	N	ARG D 139	132.413	101.415	29.515	1.00	41.85	N
ATOM	37103	NH2	ARG D 132	130.226	90.603	42.854	1.00	94.25	N	ATOM	37153	CA	ARG D 139	132.041	102.720	28.988	1.00	41.85	C
ATOM	37104	N	VAL D 133	130.032	97.137	38.867	1.00	52.57	N	ATOM	37154	C	ARG D 139	130.768	103.319	29.552	1.00	41.85	C
ATOM	37105	CA	VAL D 133	130.820	96.902	37.671	1.00	52.57	C	ATOM	37155	O	ARG D 139	129.660	102.886	29.212	1.00	41.85	O
ATOM	37106	C	VAL D 133	132.298	96.983	38.032	1.00	52.57	C	ATOM	37156	CB	ARG D 139	131.906	102.674	27.472	1.00	43.56	C
ATOM	37107	O	VAL D 133	132.750	98.008	38.534	1.00	52.57	O	ATOM	37157	CG	ARG D 139	131.421	103.993	26.898	1.00	43.56	C
ATOM	37108	CB	VAL D 133	130.491	97.963	36.611	1.00	45.56	C	ATOM	37158	CD	ARG D 139	131.482	103.991	25.398	1.00	43.56	C
ATOM	37109	CG1	VAL D 133	131.389	97.789	35.412	1.00	45.56	C	ATOM	37159	NE	ARG D 139	132.829	103.684	24.942	1.00	43.56	N
ATOM	37110	CG2	VAL D 133	129.023	97.852	36.206	1.00	45.56	C	ATOM	37160	CZ	ARG D 139	133.146	103.482	23.672	1.00	43.56	C
ATOM	37111	N	ASP D 134	133.046	95.907	37.787	1.00	54.78	N	ATOM	37161	NH1	ARG D 139	132.203	103.569	22.740	1.00	43.56	N
ATOM	37112	CA	ASP D 134	134.472	95.878	38.105	1.00	54.78	C	ATOM	37162	NH2	ARG D 139	134.390	103.159	23.342	1.00	43.56	N
ATOM	37113	C	ASP D 134	135.342	95.928	36.857	1.00	54.78	C	ATOM	37163	N	VAL D 140	130.944	104.347	30.379	1.00	48.98	N
ATOM	37114	O	ASP D 134	136.497	95.495	36.882	1.00	54.78	O	ATOM	37164	CA	VAL D 140	129.845	105.072	31.016	1.00	48.98	C
ATOM	37115	CB	ASP D 134	134.816	94.621	38.897	1.00	110.01	C	ATOM	37165	C	VAL D 140	129.094	105.916	29.988	1.00	48.98	C
ATOM	37116	CG	ASP D 134	134.441	93.356	38.160	1.00	110.01	C	ATOM	37166	O	VAL D 140	129.714	106.679	29.251	1.00	48.98	O
ATOM	37117	OD1	ASP D 134	133.239	93.157	37.914	1.00	110.01	O	ATOM	37167	CB	VAL D 140	130.395	106.022	32.099	1.00	50.32	C
ATOM	37118	OD2	ASP D 134	135.341	92.561	37.821	1.00	110.01	O	ATOM	37168	CG1	VAL D 140	129.261	106.726	32.811	1.00	50.32	C
ATOM	37119	N	LEU D 135	134.785	96.466	35.774	1.00	62.25	N	ATOM	37169	CG2	VAL D 140	131.273	105.247	33.074	1.00	50.32	C
ATOM	37120	CA	LEU D 135	135.489	96.578	34.497	1.00	62.25	C	ATOM	37170	N	ARG D 141	127.772	105.784	29.931	1.00	54.80	N
ATOM	37121	C	LEU D 135	135.935	98.015	34.242	1.00	62.25	C	ATOM	37171	CA	ARG D 141	126.973	106.576	28.994	1.00	54.80	C
ATOM	37122	O	LEU D 135	135.150	98.859	33.825	1.00	62.25	O	ATOM	37172	C	ARG D 141	126.419	107.825	29.702	1.00	54.80	C
ATOM	37123	CB	LEU D 135	134.564	96.122	33.375	1.00	29.07	C	ATOM	37173	O	ARG D 141	126.613	108.007	30.902	1.00	54.80	O
ATOM	37124	CG	LEU D 135	133.974	94.729	33.564	1.00	29.07	C	ATOM	37174	CB	ARG D 141	125.783	105.773	28.471	1.00	129.79	C
ATOM	37125	CD1	LEU D 135	132.777	94.560	32.670	1.00	29.07	C	ATOM	37175	CG	ARG D 141	126.093	104.473	27.779	1.00	129.79	C
ATOM	37126	CD2	LEU D 135	135.033	93.679	33.260	1.00	29.07	C	ATOM	37176	NE	ARG D 141	124.778	103.867	27.331	1.00	129.79	C
ATOM	37127	N	PRO D 136	137.214	98.305	34.470	1.00	34.16	N	ATOM	37177	CZ	ARG D 141	124.902	102.497	26.852	1.00	129.79	N
ATOM	37128	CA	PRO D 136	137.762	99.645	34.272	1.00	34.16	C	ATOM	37178	CZ	ARG D 141	123.873	101.758	26.442	1.00	129.79	C
ATOM	37129	C	PRO D 136	137.512	100.191	32.881	1.00	34.16	C	ATOM	37179	NH1	ARG D 141	122.643	102.259	26.454	1.00	129.79	N
ATOM	37130	O	PRO D 136	137.334	101.383	32.702	1.00	34.16	O	ATOM	37180	NH2	ARG D 141	124.072	100.516	26.017	1.00	129.79	N
ATOM	37131	CB	PRO D 136	139.253	99.458	34.532	1.00	42.99	C	ATOM	37181	N	PRO D 142	125.735	108.715	28.963	1.00	76.84	N
ATOM	37132	CG	PRO D 136	139.301	98.307	35.461	1.00	42.99	C	ATOM	37182	CA	PRO D 142	125.193	109.900	29.632	1.00	76.84	C
ATOM	37133	CD	PRO D 136	138.271	97.369	34.870	1.00	42.99	C	ATOM	37183	C	PRO D 142	123.897	109.490	30.319	1.00	76.84	C
ATOM	37134	N	SER D 137	137.512	99.319	31.885	1.00	69.52	N	ATOM	37184	O	PRO D 142	123.003	108.933	29.682	1.00	76.84	O
ATOM	37135	CA	SER D 137	137.300	99.766	30.520	1.00	69.52	C	ATOM	37185	CB	PRO D 142	124.931	110.864	28.478	1.00	74.62	C
ATOM	37136	C	SER D 137	135.826	99.980	30.240	1.00	69.52	O	ATOM	37186	CG	PRO D 142	125.881	110.421	27.432	1.00	74.62	C
ATOM	37137	O	SER D 137	135.454	100.337	29.128	1.00	69.52	O	ATOM	37187	CD	PRO D 142	125.757	108.926	27.509	1.00	74.62	C
ATOM	37138	CB	SER D 137	137.868	98.737	29.543	1.00	99.44	C	ATOM	37188	N	GLY D 143	123.800	109.750	31.616	1.00	72.08	N
ATOM	37139	OG	SER D 137	137.235	97.480	29.705	1.00	99.44	O	ATOM	37189	CA	GLY D 143	122.593	109.390	32.332	1.00	72.08	C
ATOM	37140	N	TYR D 138	134.987	99.764	31.248	1.00	54.56	N	ATOM	37190	C	GLY D 143	122.803	108.269	33.325	1.00	72.08	C
ATOM	37141	CA	TYR D 138	133.547	99.922	31.074	1.00	54.56	C	ATOM	37191	O	GLY D 143	121.847	107.734	33.880	1.00	72.08	O
ATOM	37142	C	TYR D 138	133.184	101.328	30.593	1.00	54.56	C	ATOM	37192	N	ASP D 144	124.054	107.902	33.556	1.00	63.45	N
ATOM	37143	O	TYR D 138	133.583	102.323	31.200	1.00	54.56	O	ATOM	37193	CA	ASP D 144	124.344	106.839	34.500	1.00	63.45	C
ATOM	37144	CB	TYR D 138	132.821	99.632	32.385	1.00	53.17	C	ATOM	37194	C	ASP D 144	124.688	107.438	35.847	1.00	63.45	C
ATOM	37145	CG	TYR D 138	131.315	99.734	32.273	1.00	53.17	C	ATOM	37195	O	ASP D 144	125.186	108.559	35.916	1.00	63.45	O
ATOM	37146	CD1	TYR D 138	130.546	99.636	31.995	1.00	53.17	C	ATOM	37196	CB	ASP D 144	125.528	105.993	34.025	1.00	72.98	C
ATOM	37147	CD2	TYR D 138	130.663	99.734	31.519	1.00	53.17	C	ATOM	37197	CG	ASP D 144	125.214	105.185	32.780	1.00	72.98	C



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ATOM	37198	OD1 ASP D 144	124.081	104.671	32.673	1.00	72.98	O	ATOM	37248	CG	LYS D 151	128.711	95.508	51.224	1.00	90.59	C
ATOM	37199	OD2 ASP D 144	126.110	105.047	31.917	1.00	72.98	O	ATOM	37249	CD	LYS D 151	127.556	96.059	50.387	1.00	90.59	C
ATOM	37200	N GLU D 145	124.409	106.693	36.913	1.00	63.03	N	ATOM	37250	CE	LYS D 151	126.312	95.183	50.506	1.00	90.59	C
ATOM	37201	CA GLU D 145	124.737	107.127	38.271	1.00	63.03	C	ATOM	37251	NZ	LYS D 151	125.179	95.707	49.691	1.00	90.59	N
ATOM	37202	C GLU D 145	125.930	106.290	38.709	1.00	63.03	C	ATOM	37252	N	SER D 152	131.358	99.386	50.895	1.00	71.79	N
ATOM	37203	O GLU D 145	125.889	105.064	38.648	1.00	63.03	O	ATOM	37253	CA	SER D 152	132.609	100.131	50.958	1.00	71.79	N
ATOM	37204	CB GLU D 145	123.574	106.871	39.233	1.00	139.46	C	ATOM	37254	C	SER D 152	132.430	101.557	51.442	1.00	71.79	C
ATOM	37205	CG GLU D 145	122.277	107.572	38.885	1.00	139.46	C	ATOM	37255	O	SER D 152	133.409	102.216	51.784	1.00	71.79	O
ATOM	37206	CD GLU D 145	121.276	107.518	40.024	1.00	139.46	C	ATOM	37256	CB	SER D 152	133.261	100.160	49.582	1.00	60.09	C
ATOM	37207	OE1 GLU D 145	121.027	106.411	40.548	1.00	139.46	O	ATOM	37257	OG	SER D 152	133.279	98.870	49.008	1.00	60.09	O
ATOM	37208	OE2 GLU D 145	120.736	108.583	40.394	1.00	139.46	O	ATOM	37258	N	ARG D 153	131.184	102.035	51.461	1.00	76.48	N
ATOM	37209	N ILE D 146	126.996	106.932	39.149	1.00	66.53	N	ATOM	37259	CA	ARG D 153	130.886	103.400	51.899	1.00	76.48	C
ATOM	37210	CA ILE D 146	128.157	106.167	39.564	1.00	66.53	C	ATOM	37260	C	ARG D 153	131.474	103.690	53.265	1.00	76.48	C
ATOM	37211	C ILE D 146	128.406	106.293	41.057	1.00	66.53	C	ATOM	37261	O	ARG D 153	131.614	104.849	53.657	1.00	76.48	O
ATOM	37212	O ILE D 146	129.152	107.158	41.518	1.00	65.43	O	ATOM	37262	CB	ARG D 153	129.372	103.649	51.925	1.00	84.01	C
ATOM	37213	CB ILE D 146	129.393	106.588	38.759	1.00	65.43	C	ATOM	37263	CG	ARG D 153	128.777	103.806	50.545	1.00	84.01	C
ATOM	37214	CG1 ILE D 146	129.100	106.351	37.277	1.00	65.43	C	ATOM	37264	CD	ARG D 153	127.373	104.385	50.560	1.00	84.01	C
ATOM	37215	CG2 ILE D 146	130.627	105.805	39.217	1.00	65.43	C	ATOM	37265	NE	ARG D 153	126.343	103.362	50.376	1.00	84.01	N
ATOM	37216	CD1 ILE D 146	130.268	106.596	36.380	1.00	65.43	C	ATOM	37266	CZ	ARG D 153	125.124	103.602	49.894	1.00	84.01	C
ATOM	37217	N ALA D 147	127.774	105.395	41.804	1.00	66.51	N	ATOM	37267	NH1	ARG D 153	124.779	104.836	49.542	1.00	84.01	N
ATOM	37218	CA ALA D 147	127.875	105.391	43.248	1.00	66.51	C	ATOM	37268	NH2	ARG D 153	124.245	102.613	49.768	1.00	84.01	N
ATOM	37219	C ALA D 147	128.944	104.474	43.799	1.00	66.51	C	ATOM	37269	N	ASN D 154	131.829	102.624	53.976	1.00	80.06	N
ATOM	37220	O ALA D 147	129.389	103.533	43.142	1.00	66.51	O	ATOM	37270	CA	ASN D 154	132.402	102.724	55.310	1.00	80.06	C
ATOM	37221	CB VAL D 148	126.525	105.021	43.857	1.00	70.24	C	ATOM	37271	C	ASN D 154	133.917	102.624	55.272	1.00	80.06	C
ATOM	37222	N VAL D 148	129.345	104.773	45.027	1.00	70.24	N	ATOM	37272	O	ASN D 154	134.580	102.841	56.282	1.00	80.06	O
ATOM	37223	C VAL D 148	130.332	103.985	45.728	1.00	70.24	C	ATOM	37273	CB	ASN D 154	131.835	101.619	56.201	1.00	154.83	C
ATOM	37224	C VAL D 148	129.579	102.814	46.346	1.00	70.24	C	ATOM	37274	CG	ASN D 154	130.340	101.749	56.404	1.00	154.83	C
ATOM	37225	O VAL D 148	128.455	102.967	46.831	1.00	70.24	O	ATOM	37275	OD1	ASN D 154	129.868	102.702	57.026	1.00	154.83	O
ATOM	37226	CB VAL D 148	131.023	104.823	46.824	1.00	59.89	C	ATOM	37276	NH2	ASN D 154	129.582	100.792	55.874	1.00	154.83	N
ATOM	37227	CG1 VAL D 148	131.829	103.929	47.750	1.00	59.89	C	ATOM	37277	N	LEU D 155	134.459	102.297	54.102	1.00	81.79	N
ATOM	37228	CG2 VAL D 148	131.936	105.852	46.174	1.00	59.89	C	ATOM	37278	CA	LEU D 155	135.902	102.165	53.935	1.00	81.79	C
ATOM	37229	N ALA D 149	130.198	101.640	46.296	1.00	81.19	N	ATOM	37279	C	LEU D 155	136.627	103.466	54.198	1.00	81.79	C
ATOM	37230	CA ALA D 149	129.607	100.428	46.836	1.00	81.19	C	ATOM	37280	O	LEU D 155	136.306	104.504	53.609	1.00	81.79	O
ATOM	37231	C ALA D 149	129.241	100.597	48.303	1.00	81.19	C	ATOM	37281	CB	LEU D 155	136.241	101.678	52.528	1.00	81.82	C
ATOM	37232	O ALA D 149	130.064	100.998	49.128	1.00	81.19	O	ATOM	37282	CG	LEU D 155	135.957	100.205	52.252	1.00	81.82	C
ATOM	37233	CB ALA D 149	130.573	99.264	46.670	1.00	119.40	C	ATOM	37283	CD1	LEU D 155	136.371	99.879	50.830	1.00	81.82	C
ATOM	37234	N GLU D 150	127.993	100.279	48.616	1.00	80.13	N	ATOM	37284	CD2	LEU D 155	136.724	99.337	53.244	1.00	81.82	C
ATOM	37235	CA GLU D 150	127.480	100.386	49.970	1.00	80.13	C	ATOM	37285	N	GLU D 156	137.615	103.390	55.084	1.00	69.14	N
ATOM	37236	C GLU D 150	128.472	99.786	50.943	1.00	80.13	C	ATOM	37286	CA	GLU D 156	138.420	104.543	55.467	1.00	69.14	C
ATOM	37237	O GLU D 150	128.994	100.478	51.813	1.00	80.13	O	ATOM	37287	C	GLU D 156	138.761	105.416	54.260	1.00	69.14	C
ATOM	37238	CB GLU D 150	126.138	99.661	50.074	1.00	104.30	C	ATOM	37288	O	GLU D 156	138.490	106.623	54.240	1.00	69.14	O
ATOM	37239	CG GLU D 150	125.160	100.055	48.979	1.00	104.30	C	ATOM	37289	CB	GLU D 156	139.710	104.059	56.120	1.00	113.16	C
ATOM	37240	CD GLU D 150	125.646	99.662	47.587	1.00	104.30	C	ATOM	37290	CG	GLU D 156	140.533	105.157	56.744	1.00	113.16	C
ATOM	37241	OE1 GLU D 150	125.535	98.467	47.232	1.00	104.30	O	ATOM	37291	CD	GLU D 156	141.959	104.726	56.979	1.00	113.16	C
ATOM	37242	OE2 GLU D 150	126.151	100.544	46.852	1.00	104.30	O	ATOM	37292	OE1	GLU D 156	142.743	104.719	56.005	1.00	113.16	O
ATOM	37243	N LYS D 151	128.752	98.501	50.778	1.00	52.79	N	ATOM	37293	OE2	GLU D 156	142.294	104.382	58.131	1.00	113.16	O
ATOM	37244	CA LYS D 151	129.673	97.818	51.674	1.00	52.79	C	ATOM	37294	N	LEU D 157	139.358	104.776	53.259	1.00	83.38	N
ATOM	37245	C LYS D 151	120.995	98.560	51.872	1.00	52.79	C	ATOM	37295	CA	LEU D 157	139.775	105.422	52.022	1.00	83.38	C
ATOM	37246	O LYS D 151	131.666	98.444	52.902	1.00	52.79	O	ATOM	37296	C	LEU D 157	138.658	106.251	51.395	1.00	83.38	C
ATOM	37247	CB LYS D 151	131.446	96.444	51.166	1.00	90.59	C	ATOM	37297	O	LEU D 157	138.830	107.434	51.114	1.00	83.38	O



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ATOM	37298	CB	LEU D 157	140.223	104.352	51.020	1.00	72.27	C	ATOM	37348	C	GLU D 163	135.922	115.401	51.947	1.00	87.29	C
ATOM	37299	CG	LEU D 157	141.347	104.644	50.018	1.00	72.27	C	ATOM	37349	O	GLU D 163	135.227	116.349	51.588	1.00	87.29	O
ATOM	37300	CD1	LEU D 157	141.236	103.654	48.865	1.00	72.27	C	ATOM	37350	CB	GLU D 163	136.139	113.835	53.879	1.00	102.70	C
ATOM	37301	CD2	LEU D 157	141.261	106.069	49.505	1.00	72.27	C	ATOM	37351	CG	GLU D 163	136.554	115.036	54.747	1.00	102.70	C
ATOM	37302	N	ILE D 158	137.514	105.619	51.171	1.00	79.54	N	ATOM	37352	CD	GLU D 163	135.388	115.694	55.481	1.00	102.70	C
ATOM	37303	CA	ILE D 158	136.387	106.293	50.555	1.00	79.54	C	ATOM	37353	OE1	GLU D 163	135.562	116.825	55.989	1.00	102.70	O
ATOM	37304	C	ILE D 158	135.859	107.468	51.365	1.00	79.54	C	ATOM	37354	OE2	GLU D 163	134.303	115.078	55.560	1.00	102.70	O
ATOM	37305	O	ILE D 158	135.408	108.469	50.790	1.00	79.54	O	ATOM	37355	N	ALA D 164	137.238	115.342	51.749	1.00	70.13	N
ATOM	37306	CB	ILE D 158	135.250	105.303	50.286	1.00	81.92	C	ATOM	37356	CA	ALA D 164	137.972	116.409	51.081	1.00	70.13	C
ATOM	37307	CG1	ILE D 158	135.742	104.239	49.307	1.00	81.92	C	ATOM	37357	C	ALA D 164	137.238	116.822	49.812	1.00	70.13	C
ATOM	37308	CG2	ILE D 158	134.035	106.028	49.713	1.00	81.92	C	ATOM	37358	O	ALA D 164	137.464	117.898	49.266	1.00	70.13	O
ATOM	37309	CD1	ILE D 158	134.718	103.191	48.981	1.00	81.92	C	ATOM	37359	CB	ALA D 164	139.374	115.938	50.741	1.00	60.93	C
ATOM	37310	N	ARG D 159	135.909	107.359	52.691	1.00	65.94	N	ATOM	37360	N	MET D 165	136.359	115.951	49.340	1.00	42.07	N
ATOM	37311	CA	ARG D 159	135.432	108.453	53.527	1.00	65.94	C	ATOM	37361	CA	MET D 165	135.592	116.250	48.154	1.00	42.07	C
ATOM	37312	C	ARG D 159	136.362	109.664	53.460	1.00	65.94	C	ATOM	37362	C	MET D 165	134.511	117.273	48.459	1.00	42.07	C
ATOM	37313	O	ARG D 159	135.893	110.800	53.414	1.00	65.94	O	ATOM	37363	O	MET D 165	133.802	117.725	47.557	1.00	42.07	O
ATOM	37314	CB	ARG D 159	135.237	107.989	54.973	1.00	101.54.55	C	ATOM	37364	CB	MET D 165	134.969	114.977	47.578	1.00	71.00	C
ATOM	37315	CG	ARG D 159	134.042	107.062	55.130	1.00	101.54.55	C	ATOM	37365	CG	MET D 165	135.763	114.403	46.414	1.00	71.00	C
ATOM	37316	CD	ARG D 159	133.477	107.074	56.542	1.00	101.54.55	C	ATOM	37366	SD	MET D 165	136.061	115.639	45.106	1.00	71.00	S
ATOM	37317	NE	ARG D 159	132.277	106.243	56.644	1.00	101.54.55	N	ATOM	37367	CE	MET D 165	134.420	115.671	44.275	1.00	71.00	C
ATOM	37318	CZ	ARG D 159	131.523	106.131	57.730	1.00	101.54.55	C	ATOM	37368	N	LYS D 166	134.378	117.631	49.732	1.00	84.26	N
ATOM	37319	NH1	ARG D 159	131.836	106.801	58.831	1.00	101.54.55	N	ATOM	37369	CA	LYS D 166	133.392	118.626	50.142	1.00	84.26	C
ATOM	37320	NH2	ARG D 159	130.454	105.344	57.721	1.00	101.54.55	N	ATOM	37370	C	LYS D 166	133.869	119.976	49.623	1.00	84.26	C
ATOM	37321	N	GLN D 160	137.673	109.429	53.438	1.00	66.52	N	ATOM	37371	O	LYS D 166	134.994	120.398	49.908	1.00	84.26	O
ATOM	37322	CA	GLN D 160	138.632	110.532	53.341	1.00	66.52	C	ATOM	37372	CB	LYS D 166	133.279	118.686	51.665	1.00	90.31	C
ATOM	37323	C	GLN D 160	138.416	111.333	52.057	1.00	66.52	C	ATOM	37373	CG	LYS D 166	132.616	117.487	52.319	1.00	90.31	C
ATOM	37324	O	GLN D 160	138.170	112.540	52.095	1.00	66.52	O	ATOM	37374	CD	LYS D 166	132.682	117.627	53.834	1.00	90.31	C
ATOM	37325	CB	GLN D 160	140.068	110.014	53.324	1.00	101.04.19	C	ATOM	37375	CE	LYS D 166	131.980	116.488	54.540	1.00	90.31	C
ATOM	37326	CG	GLN D 160	140.556	109.398	54.608	1.00	101.04.19	C	ATOM	37376	NZ	LYS D 166	132.164	116.596	56.014	1.00	90.31	N
ATOM	37327	CD	GLN D 160	142.027	109.036	54.528	1.00	101.04.19	C	ATOM	37377	N	GLY D 167	133.015	120.646	48.856	1.00	140.93	N
ATOM	37328	OE1	GLN D 160	142.866	109.883	54.218	1.00	101.04.19	O	ATOM	37378	CA	GLY D 167	133.386	121.933	48.303	1.00	140.93	C
ATOM	37329	NE2	GLN D 160	142.348	107.774	54.804	1.00	101.04.19	N	ATOM	37379	C	GLY D 167	133.899	121.784	46.885	1.00	140.93	C
ATOM	37330	N	ASN D 161	138.514	110.637	50.924	1.00	84.48	N	ATOM	37380	O	GLY D 167	133.370	122.410	45.965	1.00	140.93	O
ATOM	37331	CA	ASN D 161	138.378	111.247	49.605	1.00	84.48	C	ATOM	37381	N	ARG D 168	134.928	120.956	46.707	1.00	100.28	N
ATOM	37332	C	ASN D 161	137.045	111.923	49.375	1.00	84.48	C	ATOM	37382	CA	ARG D 168	135.509	120.713	45.389	1.00	100.28	C
ATOM	37333	O	ASN D 161	136.991	112.985	48.764	1.00	84.48	O	ATOM	37383	C	ARG D 168	134.421	120.647	44.324	1.00	100.28	C
ATOM	37334	CB	ASN D 161	138.615	110.214	48.499	1.00	75.52	C	ATOM	37384	O	ARG D 168	133.486	119.853	44.437	1.00	100.28	O
ATOM	37335	CG	ASN D 161	139.936	109.467	48.659	1.00	75.52	C	ATOM	37385	CB	ARG D 168	136.283	119.394	45.383	1.00	125.84	C
ATOM	37336	OD1	ASN D 161	140.968	110.045	49.016	1.00	75.52	O	ATOM	37386	CG	ARG D 168	137.711	119.458	45.901	1.00	125.84	C
ATOM	37337	ND2	ASN D 161	139.908	108.172	48.376	1.00	75.52	N	ATOM	37387	CD	ARG D 168	138.353	118.084	45.743	1.00	125.84	C
ATOM	37338	N	LEU D 162	135.964	111.311	49.845	1.00	71.22	N	ATOM	37388	NE	ARG D 168	139.810	118.092	45.847	1.00	125.84	N
ATOM	37339	CA	LEU D 162	134.653	111.922	49.668	1.00	71.22	C	ATOM	37389	CZ	ARG D 168	140.569	117.007	45.707	1.00	125.84	C
ATOM	37340	C	LEU D 162	134.490	113.097	50.620	1.00	71.22	C	ATOM	37390	NH1	ARG D 168	140.003	115.832	45.460	1.00	125.84	N
ATOM	37341	O	LEU D 162	133.647	113.970	50.404	1.00	71.22	C	ATOM	37391	NH2	ARG D 168	141.891	117.091	45.808	1.00	125.84	N
ATOM	37342	CB	LEU D 162	133.551	110.895	49.878	1.00	71.37	C	ATOM	37392	N	LYS D 169	134.534	121.486	43.299	1.00	92.20	N
ATOM	37343	CG	LEU D 162	133.059	110.348	48.537	1.00	71.37	C	ATOM	37393	CA	LYS D 169	133.551	121.486	42.223	1.00	92.20	C
ATOM	37344	CD1	LEU D 162	132.515	108.952	48.724	1.00	71.37	C	ATOM	37394	C	LYS D 169	133.775	120.259	41.346	1.00	92.20	C
ATOM	37345	CD2	LEU D 162	132.009	111.282	47.945	1.00	71.37	C	ATOM	37395	O	LYS D 169	134.692	119.469	41.589	1.00	92.20	O
ATOM	37346	N	GLU D 163	135.309	113.112	51.671	1.00	87.29	N	ATOM	37396	CB	LYS D 169	133.677	122.752	41.374	1.00	81.09	C
ATOM	37347	CA	GLU D 163	135.300	114.199	52.646	1.00	87.29	C	ATOM	37397	CG	LYS D 169	133.158	124.023	42.024	1.00	81.09	C



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ATOM	37398	CD	LVS D 169	133.267	125.193	41.050	1.00	81.09	C	ATOM	37448	CA	LEU D 176	127.785	114.469	42.360	1.00	86.71	C
ATOM	37399	CE	LVS D 169	132.568	126.441	41.568	1.00	81.09	C	ATOM	37449	C	LEU D 176	127.055	114.861	43.641	1.00	86.71	C
ATOM	37400	NZ	LVS D 169	132.682	127.592	40.618	1.00	81.09	N	ATOM	37450	O	LEU D 176	127.022	116.027	44.027	1.00	86.71	O
ATOM	37401	N	VAL D 170	132.947	120.108	40.318	1.00	78.59	N	ATOM	37451	CB	LEU D 176	129.230	114.086	42.694	1.00	65.70	C
ATOM	37402	CA	VAL D 170	133.050	118.966	39.417	1.00	78.59	C	ATOM	37452	CG	LEU D 176	129.940	114.872	43.798	1.00	65.70	C
ATOM	37403	C	VAL D 170	132.845	119.372	37.964	1.00	78.59	C	ATOM	37453	CD1	LEU D 176	131.353	114.329	43.998	1.00	65.70	C
ATOM	37404	O	VAL D 170	132.148	120.346	37.686	1.00	78.59	O	ATOM	37454	CD2	LEU D 176	129.981	116.340	43.434	1.00	65.70	C
ATOM	37405	CB	VAL D 170	132.014	117.884	39.823	1.00	51.81	C	ATOM	37455	N	ASP D 177	126.463	113.863	44.285	1.00	87.98	N
ATOM	37406	CG1	VAL D 170	131.591	117.045	38.625	1.00	51.81	C	ATOM	37456	CA	ASP D 177	125.749	114.047	45.539	1.00	87.98	C
ATOM	37407	CG2	VAL D 170	132.617	116.994	40.907	1.00	51.81	C	ATOM	37457	C	ASP D 177	126.656	113.446	46.606	1.00	87.98	C
ATOM	37408	N	GLY D 171	133.461	118.628	37.045	1.00	39.13	N	ATOM	37458	O	ASP D 177	126.557	112.259	46.915	1.00	87.98	O
ATOM	37409	CA	GLY D 171	133.321	118.924	35.626	1.00	39.13	C	ATOM	37459	CB	ASP D 177	124.411	113.302	45.486	1.00	126.40	O
ATOM	37410	C	GLY D 171	131.890	119.239	35.204	1.00	39.13	C	ATOM	37460	CG	ASP D 177	123.698	113.277	46.822	1.00	126.40	C
ATOM	37411	O	GLY D 171	130.943	118.610	35.681	1.00	39.13	O	ATOM	37461	OD1	ASP D 177	124.183	112.587	47.742	1.00	126.40	O
ATOM	37412	N	PRO D 172	131.700	120.214	34.305	1.00	52.07	N	ATOM	37462	OD2	ASP D 177	122.652	113.947	46.955	1.00	126.40	O
ATOM	37413	CA	PRO D 172	130.377	120.615	33.816	1.00	52.07	C	ATOM	37463	N	VAL D 178	127.547	114.264	47.160	1.00	54.39	N
ATOM	37414	C	PRO D 172	128.432	119.734	32.725	1.00	52.07	O	ATOM	37464	CA	VAL D 178	128.497	113.787	48.167	1.00	54.39	C
ATOM	37415	O	PRO D 172	129.595	119.522	33.093	1.00	52.07	C	ATOM	37465	C	VAL D 178	127.848	113.134	49.388	1.00	54.39	C
ATOM	37416	CB	PRO D 172	130.692	121.793	32.899	1.00	49.88	C	ATOM	37466	O	VAL D 178	128.543	112.606	50.262	1.00	54.39	O
ATOM	37417	CG	PRO D 172	132.042	121.447	32.378	1.00	49.88	C	ATOM	37467	CB	VAL D 178	129.402	114.924	48.647	1.00	49.99	C
ATOM	37418	CD	PRO D 172	132.754	120.983	33.629	1.00	49.88	C	ATOM	37468	CG1	VAL D 178	130.613	114.353	49.363	1.00	49.99	C
ATOM	37419	N	TRP D 173	130.223	118.364	32.876	1.00	56.10	N	ATOM	37469	CG2	VAL D 178	129.832	115.761	47.471	1.00	49.99	C
ATOM	37420	CA	TRP D 173	129.550	117.249	32.200	1.00	56.10	C	ATOM	37470	N	GLU D 179	126.518	113.175	49.436	1.00	136.22	N
ATOM	37421	C	TRP D 173	129.223	116.173	33.226	1.00	56.10	C	ATOM	37471	CA	GLU D 179	125.752	112.588	50.533	1.00	136.22	C
ATOM	37422	O	TRP D 173	128.688	115.110	32.899	1.00	56.10	O	ATOM	37472	C	GLU D 179	125.796	111.072	50.395	1.00	136.22	C
ATOM	37423	CB	TRP D 173	130.426	116.681	31.499	1.00	45.85	C	ATOM	37473	O	GLU D 179	126.530	110.390	51.111	1.00	136.22	O
ATOM	37424	CG	TRP D 173	131.610	115.861	31.640	1.00	45.85	C	ATOM	37474	CB	GLU D 179	124.289	113.042	50.477	1.00	147.20	C
ATOM	37425	CD1	TRP D 173	131.661	114.500	31.867	1.00	45.85	C	ATOM	37475	CG	GLU D 179	124.079	114.518	50.180	1.00	147.20	C
ATOM	37426	CD2	TRP D 173	132.903	116.348	31.867	1.00	45.85	C	ATOM	37476	CD	GLU D 179	124.501	115.417	51.321	1.00	147.20	C
ATOM	37427	NE1	TRP D 173	132.906	114.114	32.074	1.00	45.85	N	ATOM	37477	OE1	GLU D 179	125.683	115.360	51.723	1.00	147.20	O
ATOM	37428	CE3	TRP D 173	133.687	115.229	32.222	1.00	45.85	C	ATOM	37478	OE2	GLU D 179	123.649	116.185	51.813	1.00	147.20	O
ATOM	37429	CE2	TRP D 173	133.477	117.620	31.932	1.00	45.85	C	ATOM	37479	N	GLY D 180	124.997	110.558	49.464	1.00	106.26	N
ATOM	37430	CZ2	TRP D 173	135.011	115.347	32.637	1.00	45.85	C	ATOM	37480	CA	GLY D 180	124.942	109.128	49.225	1.00	106.26	C
ATOM	37431	CZ3	TRP D 173	134.794	117.735	32.342	1.00	45.85	C	ATOM	37481	C	GLY D 180	126.117	108.675	48.387	1.00	106.26	C
ATOM	37432	CH2	TRP D 173	135.546	116.606	32.689	1.00	45.85	C	ATOM	37482	O	GLY D 180	126.133	107.556	47.866	1.00	106.26	O
ATOM	37433	N	LEU D 174	129.536	116.488	34.478	1.00	71.55	N	ATOM	37483	N	MET D 181	127.103	109.588	48.254	1.00	87.71	N
ATOM	37434	CA	LEU D 174	129.293	115.599	35.601	1.00	71.55	C	ATOM	37484	CA	MET D 181	128.303	109.264	47.487	1.00	87.71	C
ATOM	37435	C	LEU D 174	128.415	116.279	36.657	1.00	71.55	C	ATOM	37485	C	MET D 181	127.912	108.792	46.094	1.00	87.71	C
ATOM	37436	O	LEU D 174	127.775	117.297	36.391	1.00	71.55	O	ATOM	37486	O	MET D 181	128.337	107.731	45.641	1.00	87.71	O
ATOM	37437	CB	LEU D 174	130.624	115.196	36.234	1.00	53.91	C	ATOM	37487	CB	MET D 181	129.117	108.192	48.210	1.00	81.37	C
ATOM	37438	CG	LEU D 174	131.597	114.378	35.393	1.00	53.91	C	ATOM	37488	CG	MET D 181	129.403	108.550	49.655	1.00	81.37	C
ATOM	37439	CD1	LEU D 174	132.857	114.089	36.194	1.00	53.91	C	ATOM	37489	SD	MET D 181	129.802	107.126	50.676	1.00	81.37	S
ATOM	37440	CD2	LEU D 174	130.925	113.082	34.990	1.00	53.91	C	ATOM	37490	CE	MET D 181	131.463	107.558	51.334	1.00	81.37	C
ATOM	37441	N	SER D 175	128.406	115.700	37.856	1.00	71.47	N	ATOM	37491	N	LVS D 182	127.087	109.591	45.426	1.00	78.78	N
ATOM	37442	CA	SER D 175	127.640	116.202	38.998	1.00	71.47	C	ATOM	37492	CA	LVS D 182	126.622	109.285	44.084	1.00	78.78	C
ATOM	37443	C	SER D 175	127.660	115.112	40.056	1.00	71.47	C	ATOM	37493	C	LVS D 182	127.095	110.391	43.164	1.00	78.78	C
ATOM	37444	O	SER D 175	127.582	113.934	39.724	1.00	71.47	O	ATOM	37494	O	LVS D 182	127.588	111.417	43.626	1.00	78.78	O
ATOM	37445	CB	SER D 175	126.192	116.485	38.602	1.00	72.45	C	ATOM	37495	CB	LVS D 182	125.103	109.213	44.064	1.00	98.39	C
ATOM	37446	OG	SER D 175	125.503	115.283	38.317	1.00	72.45	O	ATOM	37496	CB	LVS D 182	124.565	108.386	45.194	1.00	98.39	C
ATOM	37447	N	LEU D 176	127.764	115.486	41.323	1.00	86.71	N	ATOM	37497	CD	LVS D 182	123.098	108.097	45.032	1.00	98.39	C



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ATOM	37498	CE	LYS D 182	122.629	107.163	46.137	1.00	98.39	C	ATOM	37548	CG	LEU D 188	129.877	111.468	25.103	1.00	46.74	C
ATOM	37499	N2	LYS D 182	121.267	106.629	45.871	1.00	98.39	N	ATOM	37549	CD1	LEU D 188	129.799	111.275	23.602	1.00	46.74	C
ATOM	37500	N	GLY D 183	126.946	110.174	41.863	1.00	61.86	N	ATOM	37550	CD2	LEU D 188	130.920	110.548	25.707	1.00	46.74	C
ATOM	37501	CA	GLY D 183	127.357	111.157	40.877	1.00	61.86	C	ATOM	37551	N	PRO D 189	132.068	114.839	27.606	1.00	44.82	N
ATOM	37502	C	GLY D 183	126.761	110.764	39.546	1.00	61.86	C	ATOM	37552	CA	PRO D 189	132.824	116.092	27.643	1.00	44.82	C
ATOM	37503	O	GLY D 183	126.411	109.598	39.360	1.00	61.86	O	ATOM	37553	C	PRO D 189	133.325	116.479	26.250	1.00	44.82	C
ATOM	37504	N	LYS D 184	126.622	111.712	38.626	1.00	73.90	N	ATOM	37554	O	PRO D 189	133.562	115.624	25.384	1.00	44.82	O
ATOM	37505	CA	LYS D 184	126.055	111.392	37.321	1.00	73.90	C	ATOM	37555	CB	PRO D 189	133.957	115.786	28.614	1.00	35.49	C
ATOM	37506	C	LYS D 184	126.877	111.878	36.143	1.00	73.90	C	ATOM	37556	CG	PRO D 189	134.169	114.332	28.420	1.00	35.49	C
ATOM	37507	O	LYS D 184	127.481	112.955	36.179	1.00	73.90	O	ATOM	37557	CD	PRO D 189	132.757	113.791	28.367	1.00	35.49	C
ATOM	37508	CB	LYS D 184	124.630	111.938	37.178	1.00	78.13	C	ATOM	37558	N	ASP D 190	133.464	117.782	26.037	1.00	52.30	N
ATOM	37509	CG	LYS D 184	123.566	111.077	37.824	1.00	78.13	C	ATOM	37559	CA	ASP D 190	133.914	118.304	24.759	1.00	52.30	C
ATOM	37510	CD	LYS D 184	122.174	111.463	37.346	1.00	78.13	C	ATOM	37560	C	ASP D 190	135.362	118.714	24.928	1.00	52.30	C
ATOM	37511	CE	LYS D 184	121.104	110.556	37.964	1.00	78.13	C	ATOM	37561	O	ASP D 190	135.830	118.907	26.045	1.00	52.30	O
ATOM	37512	N2	LYS D 184	119.724	110.824	37.449	1.00	78.13	N	ATOM	37562	CB	ASP D 190	133.069	119.519	24.377	1.00	145.61	C
ATOM	37513	CA	PHE D 185	126.890	111.055	35.099	1.00	44.19	C	ATOM	37563	CG	ASP D 190	133.093	119.800	22.894	1.00	145.61	C
ATOM	37515	C	PHE D 185	127.595	111.357	33.860	1.00	44.19	C	ATOM	37564	OD1	ASP D 190	134.200	119.881	22.321	1.00	145.61	O
ATOM	37516	O	PHE D 185	126.538	112.072	33.014	1.00	44.19	O	ATOM	37565	OD2	ASP D 190	132.003	119.945	22.303	1.00	59.52	N
ATOM	37517	CB	PHE D 185	125.710	111.428	32.351	1.00	44.19	C	ATOM	37566	N	ARG D 191	136.073	118.849	23.818	1.00	59.52	C
ATOM	37518	CG	PHE D 185	128.036	110.053	33.185	1.00	45.74	C	ATOM	37567	CA	ARG D 191	137.472	119.238	23.879	1.00	59.52	C
ATOM	37519	CD1	PHE D 185	128.991	110.249	32.047	1.00	45.74	C	ATOM	37568	C	ARG D 191	137.721	120.408	24.843	1.00	59.52	C
ATOM	37520	CD2	PHE D 185	130.325	110.546	32.290	1.00	45.74	C	ATOM	37569	O	ARG D 191	138.709	120.405	25.576	1.00	59.52	O
ATOM	37521	CE1	PHE D 185	128.548	110.156	30.726	1.00	45.74	C	ATOM	37570	CB	ARG D 191	137.978	119.584	22.477	1.00	71.78	C
ATOM	37522	CE2	PHE D 185	131.205	110.751	31.236	1.00	45.74	C	ATOM	37571	CG	ARG D 191	139.365	120.181	22.455	1.00	71.78	C
ATOM	37523	CZ	PHE D 185	129.420	110.359	29.674	1.00	45.74	C	ATOM	37572	CD	ARG D 191	140.281	119.438	23.406	1.00	71.78	C
ATOM	37524	N	LEU D 186	130.751	110.658	29.930	1.00	44.69	N	ATOM	37573	NE	ARG D 191	141.683	119.797	23.217	1.00	71.78	N
ATOM	37525	CA	LEU D 186	126.572	113.403	33.055	1.00	44.69	C	ATOM	37574	CZ	ARG D 191	142.638	119.577	24.114	1.00	71.78	C
ATOM	37526	C	LEU D 186	125.598	114.226	32.343	1.00	44.69	C	ATOM	37575	NH1	ARG D 191	142.345	119.003	25.276	1.00	71.78	N
ATOM	37527	O	LEU D 186	125.704	114.144	30.831	1.00	44.69	O	ATOM	37576	NH2	ARG D 191	143.890	119.919	23.838	1.00	71.78	N
ATOM	37528	CB	LEU D 186	124.714	113.865	30.152	1.00	44.69	C	ATOM	37577	N	GLU D 192	136.823	121.393	24.850	1.00	64.97	N
ATOM	37529	CG	LEU D 186	125.708	115.691	32.800	1.00	71.73	C	ATOM	37578	CA	GLU D 192	136.969	122.557	25.723	1.00	64.97	C
ATOM	37530	CD1	LEU D 186	125.662	115.982	34.312	1.00	71.73	C	ATOM	37579	C	GLU D 192	136.877	122.207	27.208	1.00	64.97	C
ATOM	37531	CD2	LEU D 186	125.745	117.478	34.537	1.00	71.73	C	ATOM	37580	O	GLU D 192	137.579	122.799	28.029	1.00	64.97	O
ATOM	37532	N	ARG D 187	124.392	115.443	34.924	1.00	71.73	C	ATOM	37581	CB	GLU D 192	135.914	123.620	25.397	1.00	154.74	C
ATOM	37533	CA	ARG D 187	126.898	114.392	30.302	1.00	59.37	N	ATOM	37582	CG	GLU D 192	136.201	124.468	24.165	1.00	154.74	C
ATOM	37534	C	ARG D 187	127.109	114.335	28.863	1.00	59.37	C	ATOM	37583	CD	GLU D 192	136.050	123.701	22.867	1.00	154.74	C
ATOM	37535	O	ARG D 187	128.572	114.048	28.525	1.00	59.37	O	ATOM	37584	OE1	GLU D 192	136.844	122.769	22.629	1.00	154.74	O
ATOM	37536	CB	ARG D 187	129.447	114.110	29.399	1.00	59.37	C	ATOM	37585	OE2	GLU D 192	135.133	124.031	22.083	1.00	154.74	O
ATOM	37537	CG	ARG D 187	126.673	115.659	28.224	1.00	109.02	C	ATOM	37586	N	ASP D 193	136.014	121.246	27.542	1.00	53.81	N
ATOM	37538	CD	ARG D 187	125.996	114.462	26.149	1.00	109.02	C	ATOM	37587	CA	ASP D 193	135.800	120.818	28.928	1.00	53.81	C
ATOM	37539	NE	ARG D 187	126.749	115.654	26.714	1.00	109.02	C	ATOM	37588	C	ASP D 193	137.056	120.254	29.586	1.00	53.81	C
ATOM	37540	CZ	ARG D 187	125.996	114.462	26.149	1.00	109.02	C	ATOM	37589	O	ASP D 193	137.198	120.301	30.810	1.00	53.81	O
ATOM	37541	NH1	ARG D 187	126.294	112.742	24.403	1.00	109.02	N	ATOM	37590	CB	ASP D 193	134.682	119.774	28.983	1.00	76.54	C
ATOM	37542	NH2	ARG D 187	125.169	112.145	24.775	1.00	109.02	N	ATOM	37591	CG	ASP D 193	133.347	120.325	28.527	1.00	76.54	C
ATOM	37543	N	LEU D 188	127.004	112.241	23.400	1.00	109.02	N	ATOM	37592	OD1	ASP D 193	132.727	121.088	29.299	1.00	76.54	O
ATOM	37544	CA	LEU D 188	128.833	113.713	27.262	1.00	50.91	N	ATOM	37593	OD2	ASP D 193	132.919	120.003	27.395	1.00	76.54	O
ATOM	37545	C	LEU D 188	130.205	113.458	26.822	1.00	50.91	C	ATOM	37594	N	LEU D 194	137.963	119.723	28.773	1.00	56.16	N
ATOM	37546	O	LEU D 188	130.970	114.772	26.845	1.00	50.91	O	ATOM	37595	CA	LEU D 194	139.200	119.150	29.285	1.00	56.16	C
ATOM	37547	CB	LEU D 188	130.576	115.735	26.180	1.00	50.91	C	ATOM	37596	C	LEU D 194	140.370	120.129	29.155	1.00	56.16	C
				130.233	112.918	25.391	1.00	46.74	C	ATOM	37597	O	LEU D 194	140.561	120.760	28.116	1.00	56.16	O



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ATOM	37598	CB	LEU D 194	139.549	117.862	28.524	1.00	47.86	C	ATOM	37648	CA	ASN D 201	145.916	116.949	16.154	1.00	56.22	C
ATOM	37599	CG	LEU D 194	138.604	116.659	28.424	1.00	47.86	C	ATOM	37649	C	ASN D 201	147.166	116.124	15.855	1.00	56.22	C
ATOM	37600	CD1	LEU D 194	138.191	116.218	29.806	1.00	47.86	C	ATOM	37650	O	ASN D 201	147.222	115.397	14.865	1.00	56.22	O
ATOM	37601	CD2	LEU D 194	137.391	117.005	27.601	1.00	47.86	C	ATOM	37651	CB	ASN D 201	146.117	118.415	15.742	1.00	78.57	C
ATOM	37602	N	ALA D 195	141.157	120.267	30.209	1.00	62.28	N	ATOM	37652	CG	ASN D 201	145.564	118.714	14.341	1.00	78.57	C
ATOM	37603	CA	ALA D 195	142.308	121.150	30.134	1.00	62.28	C	ATOM	37653	OD1	ASN D 201	144.383	118.476	14.062	1.00	78.57	O
ATOM	37604	C	ALA D 195	143.506	120.236	29.984	1.00	62.28	C	ATOM	37654	ND2	ASN D 201	146.415	119.243	13.461	1.00	78.57	N
ATOM	37605	O	ALA D 195	144.453	120.293	30.775	1.00	62.28	C	ATOM	37655	N	LEU D 202	148.162	116.217	16.727	1.00	42.93	N
ATOM	37606	CB	ALA D 195	142.433	121.980	31.399	1.00	49.98	C	ATOM	37656	CA	LEU D 202	149.370	115.441	16.545	1.00	42.93	C
ATOM	37607	N	LEU D 196	143.455	119.382	28.968	1.00	47.37	N	ATOM	37657	C	LEU D 202	149.108	113.963	16.810	1.00	42.93	C
ATOM	37608	CA	LEU D 196	144.534	118.437	28.728	1.00	47.37	C	ATOM	37658	O	LEU D 202	149.796	113.106	16.266	1.00	42.93	O
ATOM	37609	C	LEU D 196	145.718	119.070	28.032	1.00	47.37	C	ATOM	37659	CB	LEU D 202	150.447	115.916	17.488	1.00	31.79	C
ATOM	37610	O	LEU D 196	145.559	119.776	27.040	1.00	47.37	O	ATOM	37660	CG	LEU D 202	150.798	117.382	17.351	1.00	31.79	C
ATOM	37611	CB	LEU D 196	144.021	117.258	27.903	1.00	58.10	C	ATOM	37661	CD1	LEU D 202	151.961	117.693	18.282	1.00	31.79	C
ATOM	37612	CG	LEU D 196	143.342	116.185	28.756	1.00	58.10	C	ATOM	37662	CD2	LEU D 202	151.150	117.692	15.914	1.00	31.79	C
ATOM	37613	CD1	LEU D 196	142.444	115.290	27.917	1.00	58.10	C	ATOM	37663	N	VAL D 203	148.132	113.646	17.655	1.00	58.89	N
ATOM	37614	CD2	LEU D 196	144.427	115.383	29.453	1.00	58.10	C	ATOM	37664	CA	VAL D 203	147.846	112.240	17.921	1.00	58.89	C
ATOM	37615	N	PRO D 197	146.928	118.842	28.563	1.00	50.35	N	ATOM	37665	C	VAL D 203	147.203	111.626	16.686	1.00	58.89	C
ATOM	37616	CA	PRO D 197	148.160	119.387	27.980	1.00	50.35	C	ATOM	37666	O	VAL D 203	147.522	110.502	16.299	1.00	58.89	O
ATOM	37617	C	PRO D 197	148.462	118.517	26.762	1.00	50.35	C	ATOM	37667	CB	VAL D 203	146.901	112.047	19.141	1.00	31.98	C
ATOM	37618	O	PRO D 197	149.590	118.083	26.542	1.00	50.35	C	ATOM	37668	CG1	VAL D 203	146.471	110.583	19.235	1.00	31.98	C
ATOM	37619	CB	PRO D 197	149.177	119.185	29.091	1.00	37.74	C	ATOM	37669	CG2	VAL D 203	147.622	112.458	20.430	1.00	31.98	C
ATOM	37620	CG	PRO D 197	148.738	117.860	29.671	1.00	37.74	C	ATOM	37670	N	ILE D 204	146.297	112.369	16.061	1.00	44.54	N
ATOM	37621	CD	PRO D 197	147.221	118.019	29.751	1.00	37.74	C	ATOM	37671	CA	ILE D 204	145.646	111.859	14.873	1.00	44.54	C
ATOM	37622	N	VAL D 198	147.414	118.252	25.995	1.00	70.02	N	ATOM	37672	C	ILE D 204	146.704	111.675	13.805	1.00	44.54	C
ATOM	37623	CA	VAL D 198	147.485	117.408	24.816	1.00	70.02	C	ATOM	37673	O	ILE D 204	146.763	110.642	13.150	1.00	44.54	O
ATOM	37624	C	VAL D 198	147.101	118.209	23.590	1.00	70.02	C	ATOM	37674	CB	ILE D 204	144.575	112.820	14.366	1.00	65.81	C
ATOM	37625	O	VAL D 198	146.477	119.263	23.694	1.00	70.02	O	ATOM	37675	CG1	ILE D 204	143.459	112.918	15.400	1.00	65.81	C
ATOM	37626	CB	VAL D 198	146.513	116.211	24.955	1.00	75.85	C	ATOM	37676	CG2	ILE D 204	144.015	112.326	13.041	1.00	65.81	C
ATOM	37627	CG1	VAL D 198	146.527	115.351	23.699	1.00	75.85	C	ATOM	37677	CD1	ILE D 204	142.328	113.823	14.982	1.00	65.81	C
ATOM	37628	CG2	VAL D 199	146.893	115.392	26.176	1.00	75.85	C	ATOM	37678	N	GLU D 205	147.556	112.676	13.651	1.00	55.89	N
ATOM	37629	N	GLN D 199	147.477	117.689	22.429	1.00	62.03	N	ATOM	37679	CA	GLU D 205	148.609	112.616	12.662	1.00	55.89	C
ATOM	37630	CA	GLN D 199	147.192	118.323	21.159	1.00	62.03	C	ATOM	37680	C	GLU D 205	149.550	111.431	12.879	1.00	55.89	C
ATOM	37631	C	GLN D 199	146.833	117.195	20.211	1.00	62.03	C	ATOM	37681	O	GLU D 205	150.037	110.833	11.928	1.00	55.89	O
ATOM	37632	O	GLN D 199	147.614	116.827	19.344	1.00	88.07	C	ATOM	37682	CB	GLU D 205	149.386	113.928	12.665	1.00	67.25	C
ATOM	37633	CB	GLN D 199	148.437	119.054	20.697	1.00	88.07	C	ATOM	37683	CG	GLU D 205	148.585	115.081	12.105	1.00	67.25	C
ATOM	37634	CG	GLN D 199	148.122	120.356	20.069	1.00	88.07	C	ATOM	37684	CD	GLU D 205	149.384	116.364	12.024	1.00	67.25	C
ATOM	37635	CD	GLN D 199	147.995	120.231	18.599	1.00	57.29	O	ATOM	37685	OE1	GLU D 205	148.878	117.349	11.433	1.00	67.25	O
ATOM	37636	OE1	GLN D 199	148.998	120.234	17.880	1.00	57.29	O	ATOM	37686	OE2	GLU D 205	150.516	116.387	12.554	1.00	67.25	O
ATOM	37637	NE2	GLN D 199	146.764	120.098	18.102	1.00	57.29	N	ATOM	37687	N	PHE D 206	149.800	111.080	14.128	1.00	44.25	N
ATOM	37638	N	GLU D 200	145.642	116.639	20.398	1.00	76.95	N	ATOM	37688	CA	PHE D 206	150.684	109.968	14.423	1.00	44.25	C
ATOM	37639	CA	GLU D 200	145.185	115.513	19.597	1.00	76.95	C	ATOM	37689	C	PHE D 206	150.074	108.642	13.967	1.00	44.25	C
ATOM	37640	C	GLU D 200	145.471	115.614	18.108	1.00	76.95	C	ATOM	37690	O	PHE D 206	150.784	107.724	13.568	1.00	44.25	O
ATOM	37641	O	GLU D 200	145.536	114.588	17.429	1.00	76.95	O	ATOM	37691	CB	PHE D 206	150.961	109.928	15.923	1.00	25.98	C
ATOM	37642	CB	GLU D 200	143.687	115.268	19.805	1.00	56.04	C	ATOM	37692	CG	PHE D 206	151.660	108.690	16.381	1.00	25.98	C
ATOM	37643	CG	GLU D 200	142.807	116.331	19.212	1.00	56.04	C	ATOM	37693	CD1	PHE D 206	153.029	108.690	16.599	1.00	25.98	C
ATOM	37644	CD	GLU D 200	142.586	117.516	20.141	1.00	56.04	C	ATOM	37694	CD2	PHE D 206	150.945	107.526	16.628	1.00	25.98	C
ATOM	37645	OE1	GLU D 200	143.515	117.876	20.905	1.00	56.04	O	ATOM	37695	CE1	PHE D 206	153.675	107.545	17.067	1.00	25.98	C
ATOM	37646	OE2	GLU D 200	141.476	118.094	20.088	1.00	56.04	O	ATOM	37696	CE2	PHE D 206	151.582	106.384	17.093	1.00	25.98	C
ATOM	37647	N	ASN D 201	145.642	116.825	17.585	1.00	56.22	N	ATOM	37697	CZ	PHE D 206	152.941	106.396	17.313	1.00	25.98	C



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ATOM	37698	N	TYR D 207	148.761	108.518	14.037	1.00	40.98	N	ATOM	37748	N	GLU E 7	156.583	132.106	12.609	1.00	55.39	N
ATOM	37699	CA	TYR D 207	148.156	107.277	13.606	1.00	40.98	C	ATOM	37749	CA	GLU E 7	157.229	130.927	13.167	1.00	55.39	C
ATOM	37700	C	TYR D 207	147.898	107.313	12.115	1.00	40.98	C	ATOM	37750	C	GLU E 7	158.223	130.571	12.074	1.00	55.39	C
ATOM	37701	O	TYR D 207	147.316	106.378	11.558	1.00	40.98	O	ATOM	37751	O	GLU E 7	158.059	131.000	10.931	1.00	55.39	O
ATOM	37702	CB	TYR D 207	146.867	107.020	14.379	1.00	41.33	C	ATOM	37752	CB	GLU E 7	156.225	129.791	13.383	1.00	55.39	C
ATOM	37703	CG	TYR D 207	147.144	106.540	15.780	1.00	41.33	C	ATOM	37753	CG	GLU E 7	156.843	128.536	14.004	1.00	55.39	C
ATOM	37704	CD1	TYR D 207	146.370	106.969	16.863	1.00	41.33	C	ATOM	37754	CD	GLU E 7	155.803	127.529	14.483	1.00	55.39	C
ATOM	37705	CD2	TYR D 207	148.209	105.686	16.036	1.00	41.33	C	ATOM	37755	OE1	GLU E 7	156.192	126.399	14.862	1.00	55.39	C
ATOM	37706	CE1	TYR D 207	146.665	106.562	18.167	1.00	41.33	C	ATOM	37756	OE2	GLU E 7	154.601	127.871	14.488	1.00	55.39	C
ATOM	37707	CE2	TYR D 207	148.507	105.271	17.327	1.00	41.33	C	ATOM	37757	N	GLU E 8	159.238	129.781	12.395	1.00	61.88	N
ATOM	37708	CZ	TYR D 207	147.738	105.712	18.384	1.00	41.33	C	ATOM	37758	CA	GLU E 8	160.265	129.476	11.407	1.00	61.88	C
ATOM	37709	OH	TYR D 207	148.062	105.303	19.654	1.00	41.33	O	ATOM	37759	C	GLU E 8	160.736	128.016	11.414	1.00	61.88	C
ATOM	37710	N	SER D 208	148.342	108.397	11.476	1.00	58.43	N	ATOM	37760	O	GLU E 8	161.510	127.612	12.277	1.00	61.88	O
ATOM	37711	CA	SER D 208	148.183	108.591	10.033	1.00	58.43	C	ATOM	37761	CB	GLU E 8	161.425	130.431	11.678	1.00	95.38	C
ATOM	37712	C	SER D 208	149.304	107.898	9.287	1.00	58.43	C	ATOM	37762	CG	GLU E 8	162.492	130.521	10.637	1.00	95.38	C
ATOM	37713	O	SER D 208	149.073	107.253	8.268	1.00	58.43	O	ATOM	37763	CD	GLU E 8	163.556	131.531	11.033	1.00	95.38	C
ATOM	37714	CB	SER D 208	148.211	110.078	9.676	1.00	97.01	C	ATOM	37764	OE1	GLU E 8	164.118	131.391	12.143	1.00	95.38	O
ATOM	37715	OG	SER D 208	147.116	110.765	10.247	1.00	97.01	O	ATOM	37765	OE2	GLU E 8	163.829	132.462	10.242	1.00	95.38	O
ATOM	37716	N	ARG D 209	150.519	108.049	9.811	1.00	93.97	N	ATOM	37766	N	LYS E 9	160.265	127.224	10.455	1.00	63.40	N
ATOM	37717	CA	ARG D 209	151.731	107.467	9.239	1.00	93.97	C	ATOM	37767	CA	LYS E 9	160.664	125.817	10.365	1.00	63.40	C
ATOM	37718	C	ARG D 209	151.460	106.116	8.601	1.00	93.97	C	ATOM	37768	C	LYS E 9	161.735	125.640	9.289	1.00	63.40	C
ATOM	37719	O	ARG D 209	151.741	105.971	7.390	1.00	93.97	O	ATOM	37769	O	LYS E 9	161.664	126.261	8.219	1.00	63.40	O
ATOM	37720	CB	ARG D 209	152.794	107.316	10.329	1.00	102.01	C	ATOM	37770	CB	LYS E 9	159.458	124.932	10.034	1.00	117.69	C
ATOM	37721	CG	ARG D 209	154.190	107.052	9.812	1.00	102.01	C	ATOM	37771	CG	LYS E 9	158.359	124.951	11.087	1.00	117.69	C
ATOM	37722	CD	ARG D 209	155.200	107.146	10.939	1.00	102.01	C	ATOM	37772	CD	LYS E 9	157.255	123.948	10.773	1.00	117.69	C
ATOM	37723	NE	ARG D 209	156.555	107.371	10.442	1.00	102.01	N	ATOM	37773	CE	LYS E 9	157.789	122.522	10.788	1.00	117.69	C
ATOM	37724	CZ	ARG D 209	157.263	106.479	9.757	1.00	102.01	C	ATOM	37774	NZ	LYS E 9	156.742	121.511	10.469	1.00	117.69	N
ATOM	37725	NH1	ARG D 209	156.748	105.287	9.486	1.00	102.01	N	ATOM	37775	N	MET E 10	162.724	124.793	9.576	1.00	54.62	N
ATOM	37726	NH2	ARG D 209	158.483	106.781	9.334	1.00	102.01	N	ATOM	37776	CA	MET E 10	163.823	124.532	8.643	1.00	54.62	C
ATOM	37727	OXT	ARG D 209	150.967	105.223	9.325	1.00	64.97	O	ATOM	37777	C	MET E 10	163.709	123.159	7.972	1.00	54.62	C
TER	37728		ARG D 209							ATOM	37778	O	MET E 10	163.987	122.132	8.585	1.00	54.62	O
ATOM	37729	N	ASP E 5	154.307	136.303	15.826	1.00	137.38	N	ATOM	37779	CB	MET E 10	165.155	124.645	9.377	1.00	101.01	C
ATOM	37730	CA	ASP E 5	154.315	136.634	14.373	1.00	137.38	C	ATOM	37780	CG	MET E 10	166.349	124.370	8.509	1.00	101.01	C
ATOM	37731	C	ASP E 5	154.696	135.436	13.494	1.00	137.38	C	ATOM	37781	SD	MET E 10	167.299	123.006	9.174	1.00	101.01	S
ATOM	37732	O	ASP E 5	153.929	134.476	13.383	1.00	137.38	O	ATOM	37782	CE	MET E 10	168.461	123.898	10.225	1.00	101.01	C
ATOM	37733	CB	ASP E 5	155.268	137.809	14.108	1.00	136.58	C	ATOM	37783	N	ILE E 11	163.310	123.165	6.701	1.00	62.92	N
ATOM	37734	CG	ASP E 5	156.628	137.621	14.759	1.00	136.58	C	ATOM	37784	CA	ILE E 11	163.123	121.952	5.904	1.00	62.92	C
ATOM	37735	OD1	ASP E 5	156.687	137.602	16.007	1.00	136.58	O	ATOM	37785	C	ILE E 11	164.336	121.035	5.787	1.00	62.92	C
ATOM	37736	OD2	ASP E 5	157.634	137.492	14.027	1.00	136.58	O	ATOM	37786	O	ILE E 11	164.274	119.866	6.174	1.00	62.92	O
ATOM	37737	N	PHE E 6	155.880	135.497	12.882	1.00	71.45	N	ATOM	37787	CB	ILE E 11	162.638	122.311	4.492	1.00	54.01	C
ATOM	37738	CA	PHE E 6	156.364	134.439	11.993	1.00	71.45	C	ATOM	37788	CG1	ILE E 11	161.333	123.085	4.600	1.00	54.01	C
ATOM	37739	C	PHE E 6	157.133	133.319	12.680	1.00	71.45	C	ATOM	37789	CG2	ILE E 11	162.432	121.055	3.669	1.00	54.01	C
ATOM	37740	O	PHE E 6	158.189	133.554	13.266	1.00	71.45	O	ATOM	37790	CD1	ILE E 11	160.369	122.457	5.577	1.00	54.01	C
ATOM	37741	CB	PHE E 6	157.251	135.039	10.890	1.00	55.81	C	ATOM	37791	N	LEU E 12	165.426	121.545	5.223	1.00	56.42	N
ATOM	37742	CG	PHE E 6	156.488	135.774	9.806	1.00	55.81	C	ATOM	37792	CA	LEU E 12	166.641	120.747	5.107	1.00	56.42	C
ATOM	37743	CD1	PHE E 6	157.137	136.703	8.992	1.00	55.81	C	ATOM	37793	C	LEU E 12	167.861	121.616	4.897	1.00	56.42	C
ATOM	37744	CD2	PHE E 6	155.136	135.526	9.581	1.00	55.81	C	ATOM	37794	O	LEU E 12	167.772	122.699	4.317	1.00	56.42	O
ATOM	37745	CE1	PHE E 6	156.455	137.373	7.976	1.00	55.81	C	ATOM	37795	CB	LEU E 12	166.535	119.727	3.955	1.00	55.25	C
ATOM	37746	CE2	PHE E 6	154.445	136.195	8.563	1.00	55.81	C	ATOM	37796	CG	LEU E 12	166.693	120.119	2.476	1.00	55.25	C
ATOM	37747	CZ	PHE E 6	155.106	137.117	7.763	1.00	55.81	C	ATOM	37797	CD1	LEU E 12	165.765	121.271	2.186	1.00	55.25	C



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ATOM	37798	CD2	LEU	E	12	168.128	120.506	2.146	1.00	55.25	C	ATOM	37848	NE	ARG	E	18	183.891	126.346	-4.288	1.00	59.92	N
ATOM	37799	N	ILE	E	13	168.995	121.148	5.404	1.00	54.84	N	ATOM	37849	CZ	ARG	E	18	184.464	127.254	-3.513	1.00	59.92	C
ATOM	37800	CA	ILE	E	13	170.251	121.852	5.215	1.00	54.84	C	ATOM	37850	NH1	ARG	E	18	185.683	127.686	-3.792	1.00	59.92	N
ATOM	37801	C	ILE	E	13	171.239	120.814	4.725	1.00	54.84	C	ATOM	37851	NH2	ARG	E	18	183.816	127.728	-2.458	1.00	59.92	N
ATOM	37802	O	ILE	E	13	171.410	119.773	5.362	1.00	54.84	O	ATOM	37852	N	MET	E	19	185.230	122.030	-6.235	1.00	34.61	N
ATOM	37803	CB	ILE	E	13	170.778	122.473	6.501	1.00	60.77	C	ATOM	37853	CA	MET	E	19	186.631	121.641	-6.358	1.00	34.61	C
ATOM	37804	CG1	ILE	E	13	170.916	121.409	7.575	1.00	60.77	C	ATOM	37854	C	MET	E	19	187.546	122.757	-6.788	1.00	34.61	C
ATOM	37805	CG2	ILE	E	13	169.854	123.572	6.950	1.00	60.77	C	ATOM	37855	O	MET	E	19	187.178	123.618	-7.584	1.00	34.61	O
ATOM	37806	CD1	ILE	E	13	171.597	121.925	8.811	1.00	60.77	C	ATOM	37856	CB	MET	E	19	186.788	120.513	-7.360	1.00	47.28	C
ATOM	37807	N	ARG	E	14	171.865	121.091	3.580	1.00	31.36	N	ATOM	37857	CG	MET	E	19	186.167	119.252	-6.908	1.00	47.28	C
ATOM	37808	CA	ARG	E	14	172.823	120.172	2.988	1.00	31.36	C	ATOM	37858	SD	MET	E	19	187.173	118.492	-5.677	1.00	47.28	S
ATOM	37809	C	ARG	E	14	174.189	120.802	2.912	1.00	31.36	C	ATOM	37859	CE	MET	E	19	187.378	116.805	-6.441	1.00	47.28	C
ATOM	37810	O	ARG	E	14	174.319	122.032	2.906	1.00	31.36	O	ATOM	37860	N	GLN	E	20	188.747	122.728	-6.231	1.00	52.05	N
ATOM	37811	CB	ARG	E	14	172.365	119.765	1.600	1.00	38.94	C	ATOM	37861	CA	GLN	E	20	189.817	123.659	-6.551	1.00	52.05	C
ATOM	37812	CG	ARG	E	14	172.183	120.910	0.657	1.00	38.94	C	ATOM	37862	C	GLN	E	20	190.987	122.721	-6.446	1.00	52.05	C
ATOM	37813	CD	ARG	E	14	171.489	120.406	-0.551	1.00	38.94	C	ATOM	37863	O	GLN	E	20	190.840	121.588	-5.973	1.00	52.05	O
ATOM	37814	NE	ARG	E	14	171.483	121.381	-1.619	1.00	38.94	N	ATOM	37864	CB	GLN	E	20	189.978	124.750	-5.494	1.00	83.21	C
ATOM	37815	CZ	ARG	E	14	170.935	121.148	-2.807	1.00	38.94	C	ATOM	37865	CG	GLN	E	20	188.915	125.816	-5.535	1.00	83.21	C
ATOM	37816	NH1	ARG	E	14	170.357	119.971	-3.037	1.00	38.94	N	ATOM	37866	CD	GLN	E	20	188.907	126.595	-6.843	1.00	83.21	C
ATOM	37817	NH2	ARG	E	14	170.978	122.074	-3.771	1.00	38.94	N	ATOM	37867	OE1	GLN	E	20	189.899	127.242	-7.206	1.00	83.21	O
ATOM	37818	N	ARG	E	15	175.207	119.953	2.826	1.00	58.30	N	ATOM	37868	NE2	GLN	E	20	187.780	126.540	-7.560	1.00	83.21	N
ATOM	37819	CA	ARG	E	15	176.564	120.438	2.806	1.00	58.30	C	ATOM	37869	N	ALA	E	21	192.149	123.157	-6.895	1.00	72.43	N
ATOM	37820	C	ARG	E	15	177.163	120.825	1.475	1.00	58.30	C	ATOM	37870	CA	ALA	E	21	193.305	122.309	-6.740	1.00	72.43	C
ATOM	37821	O	ARG	E	15	178.056	121.649	1.469	1.00	58.30	O	ATOM	37871	C	ALA	E	21	193.370	122.225	-5.238	1.00	72.43	C
ATOM	37822	CB	ARG	E	15	177.476	119.456	3.524	1.00	50.29	C	ATOM	37872	O	ALA	E	21	192.635	122.922	-4.540	1.00	72.43	O
ATOM	37823	CG	ARG	E	15	178.707	120.117	4.102	1.00	50.29	C	ATOM	37873	CB	ALA	E	21	194.500	122.997	-7.233	1.00	9.79	C
ATOM	37824	CD	ARG	E	15	179.821	120.049	3.123	1.00	50.29	C	ATOM	37874	N	GLY	E	22	194.236	121.391	-4.712	1.00	49.73	N
ATOM	37825	NE	ARG	E	15	180.342	118.691	3.042	1.00	50.29	N	ATOM	37875	CA	GLY	E	22	194.305	121.349	-3.270	1.00	49.73	C
ATOM	37826	CZ	ARG	E	15	181.175	118.166	3.935	1.00	50.29	C	ATOM	37876	C	GLY	E	22	193.078	120.773	-2.593	1.00	49.73	C
ATOM	37827	NH1	ARG	E	15	181.579	118.898	4.965	1.00	50.29	N	ATOM	37877	O	GLY	E	22	193.148	120.452	-1.409	1.00	49.73	O
ATOM	37828	NH2	ARG	E	15	181.603	116.915	3.805	1.00	50.29	N	ATOM	37878	N	GLY	E	23	191.948	120.656	-3.286	1.00	49.88	N
ATOM	37829	N	THR	E	16	176.720	120.242	0.363	1.00	38.29	N	ATOM	37879	CA	GLY	E	23	190.815	120.041	-2.616	1.00	49.88	C
ATOM	37830	CA	THR	E	16	177.233	120.628	-0.974	1.00	38.29	C	ATOM	37880	C	GLY	E	23	189.382	120.520	-2.728	1.00	49.88	C
ATOM	37831	C	THR	E	16	178.763	120.886	-1.152	1.00	38.29	C	ATOM	37881	O	GLY	E	23	189.024	121.330	-3.585	1.00	49.88	O
ATOM	37832	O	THR	E	16	179.441	121.330	-0.237	1.00	38.29	O	ATOM	37882	N	ARG	E	24	188.562	119.972	-1.829	1.00	45.50	N
ATOM	37833	CB	THR	E	16	176.475	121.906	-1.490	1.00	49.73	C	ATOM	37883	CA	ARG	E	24	187.144	120.278	-1.740	1.00	45.50	C
ATOM	37834	OG1	THR	E	16	176.718	122.089	-2.886	1.00	49.73	O	ATOM	37884	C	ARG	E	24	186.925	121.567	-0.956	1.00	45.50	C
ATOM	37835	CG2	THR	E	16	176.966	123.160	-0.783	1.00	49.73	C	ATOM	37885	O	ARG	E	24	187.703	121.925	-0.069	1.00	45.50	O
ATOM	37836	N	ALA	E	17	179.313	120.633	-2.338	1.00	95.89	N	ATOM	37886	CB	ARG	E	24	186.394	119.143	-1.035	1.00	77.17	C
ATOM	37837	CA	ALA	E	17	180.744	120.885	-2.517	1.00	95.89	C	ATOM	37887	CG	ARG	E	24	186.724	117.761	-1.541	1.00	77.17	C
ATOM	37838	C	ALA	E	17	181.201	121.433	-3.844	1.00	95.89	C	ATOM	37888	CD	ARG	E	24	185.760	116.711	-0.998	1.00	77.17	C
ATOM	37839	O	ALA	E	17	180.457	121.483	-4.817	1.00	95.89	O	ATOM	37889	NE	ARG	E	24	186.189	115.359	-1.355	1.00	77.17	N
ATOM	37840	CB	ALA	E	17	181.531	119.660	-2.219	1.00	31.09	C	ATOM	37890	CZ	ARG	E	24	186.426	114.941	-2.601	1.00	77.17	C
ATOM	37841	N	ARG	E	18	182.474	121.803	-3.861	1.00	51.54	N	ATOM	37891	NH1	ARG	E	24	186.274	115.764	-3.629	1.00	77.17	N
ATOM	37842	CA	ARG	E	18	183.129	122.386	-5.024	1.00	51.54	C	ATOM	37892	NH2	ARG	E	24	186.830	113.696	-2.827	1.00	77.17	N
ATOM	37843	C	ARG	E	18	184.608	121.969	-5.059	1.00	51.54	C	ATOM	37893	N	ARG	E	25	185.844	122.257	-1.287	1.00	62.59	N
ATOM	37844	O	ARG	E	18	185.182	121.595	-4.030	1.00	51.54	O	ATOM	37894	CA	ARG	E	25	185.502	123.496	-0.623	1.00	62.59	C
ATOM	37845	CB	ARG	E	18	183.014	123.900	-4.936	1.00	59.92	C	ATOM	37895	C	ARG	E	25	183.996	123.600	-0.579	1.00	62.59	C
ATOM	37846	CG	ARG	E	18	183.670	124.655	-6.053	1.00	59.92	C	ATOM	37896	O	ARG	E	25	183.349	123.886	-1.592	1.00	62.59	O
ATOM	37847	CD	ARG	E	18	184.519	125.765	-5.467	1.00	59.92	C	ATOM	37897	CB	ARG	E	25	186.133	124.654	-1.372	1.00	46.42	C



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ATOM	37898	CG	ARG E	25	187.624	124.544	-1.329	1.00	46.42	C	ATOM	37948	C	LEU E	31	164.806	125.941	4.206	1.00	36.86	C
ATOM	37899	CD	ARG E	25	188.280	125.870	-1.484	1.00	46.42	C	ATOM	37949	O	LEU E	31	164.751	125.154	5.159	1.00	36.86	O
ATOM	37900	NE	ARG E	25	189.671	125.766	-1.065	1.00	46.42	N	ATOM	37950	CB	LEU E	31	164.940	124.376	2.284	1.00	35.57	C
ATOM	37901	CZ	ARG E	25	190.556	126.751	-1.154	1.00	46.42	C	ATOM	37951	CG	LEU E	31	164.365	124.586	0.887	1.00	35.57	C
ATOM	37902	NH1	ARG E	25	190.193	127.936	-1.652	1.00	46.42	N	ATOM	37952	CD1	LEU E	31	163.199	123.621	0.684	1.00	35.57	C
ATOM	37903	NH2	ARG E	25	191.809	126.539	-0.755	1.00	46.42	N	ATOM	37953	CD2	LEU E	31	163.919	126.032	0.721	1.00	35.57	C
ATOM	37904	CA	PHE E	26	183.454	123.373	0.617	1.00	47.88	N	ATOM	37954	N	VAL E	32	164.207	127.121	4.218	1.00	49.82	N
ATOM	37905	C	PHE E	26	182.016	123.351	0.825	1.00	47.88	C	ATOM	37955	CA	VAL E	32	163.471	127.536	5.393	1.00	49.82	C
ATOM	37906	O	PHE E	26	181.263	124.643	1.092	1.00	47.88	C	ATOM	37956	C	VAL E	32	162.060	128.018	5.096	1.00	49.82	C
ATOM	37907	O	PHE E	26	181.836	125.662	1.464	1.00	47.88	O	ATOM	37957	O	VAL E	32	161.836	128.793	4.156	1.00	49.82	C
ATOM	37908	CB	PHE E	26	181.679	122.385	1.949	1.00	39.48	C	ATOM	37958	CB	VAL E	32	164.236	128.647	6.133	1.00	50.86	C
ATOM	37909	CG	PHE E	26	182.675	121.286	2.129	1.00	39.48	C	ATOM	37959	CG1	VAL E	32	163.472	129.065	7.353	1.00	50.86	C
ATOM	37910	CD1	PHE E	26	183.837	121.496	2.852	1.00	39.48	C	ATOM	37960	CG2	VAL E	32	165.607	128.152	6.538	1.00	50.86	C
ATOM	37911	CD2	PHE E	26	182.428	120.013	1.629	1.00	39.48	C	ATOM	37961	N	VAL E	33	161.110	127.534	5.898	1.00	55.54	N
ATOM	37912	CE1	PHE E	26	184.740	120.443	3.085	1.00	39.48	C	ATOM	37962	CA	VAL E	33	159.719	127.948	5.767	1.00	55.54	C
ATOM	37913	CE2	PHE E	26	183.326	118.956	1.859	1.00	39.48	C	ATOM	37963	C	VAL E	33	159.430	128.930	6.879	1.00	55.54	C
ATOM	37914	CZ	PHE E	26	184.480	119.176	2.590	1.00	39.48	C	ATOM	37964	O	VAL E	33	159.925	128.792	8.001	1.00	55.54	O
ATOM	37915	N	ARG E	27	179.952	124.556	0.881	1.00	43.02	N	ATOM	37965	CB	VAL E	33	158.735	126.811	5.930	1.00	40.66	C
ATOM	37916	CA	ARG E	27	178.998	125.630	1.113	1.00	43.02	C	ATOM	37966	CG1	VAL E	33	157.365	127.282	5.518	1.00	40.66	C
ATOM	37917	O	ARG E	27	177.819	124.942	1.773	1.00	43.02	C	ATOM	37967	CG2	VAL E	33	159.155	125.646	5.095	1.00	40.66	C
ATOM	37918	O	ARG E	27	177.755	123.725	1.794	1.00	43.02	C	ATOM	37968	N	VAL E	34	158.618	129.922	6.555	1.00	60.54	N
ATOM	37919	CB	ARG E	27	178.526	126.253	-0.189	1.00	80.17	C	ATOM	37969	CA	VAL E	34	158.261	130.950	7.502	1.00	60.54	C
ATOM	37920	CG	ARG E	27	179.446	127.287	-0.721	1.00	80.17	C	ATOM	37970	C	VAL E	34	156.776	131.191	7.369	1.00	60.54	O
ATOM	37921	CD	ARG E	27	178.792	128.028	-1.843	1.00	80.17	C	ATOM	37971	O	VAL E	34	156.271	131.400	6.260	1.00	60.54	C
ATOM	37922	CE	ARG E	27	179.743	128.931	-2.469	1.00	80.17	N	ATOM	37972	CB	VAL E	34	159.013	132.243	7.189	1.00	53.76	C
ATOM	37923	NH1	ARG E	27	179.502	129.606	-3.585	1.00	80.17	N	ATOM	37973	CG1	VAL E	34	158.546	133.342	8.092	1.00	53.76	C
ATOM	37924	NH2	ARG E	27	178.328	129.472	-4.197	1.00	80.17	N	ATOM	37974	CG2	VAL E	34	160.494	132.026	7.362	1.00	53.76	C
ATOM	37925	N	PHE E	28	180.436	130.409	-4.091	1.00	80.17	N	ATOM	37975	N	GLY E	35	156.073	131.152	8.495	1.00	54.02	N
ATOM	37926	CA	PHE E	28	176.889	125.700	2.334	1.00	33.69	N	ATOM	37976	CA	GLY E	35	154.643	131.374	8.458	1.00	54.02	C
ATOM	37927	CA	PHE E	28	175.735	125.062	2.941	1.00	33.69	C	ATOM	37977	C	GLY E	35	154.087	131.876	9.767	1.00	54.02	C
ATOM	37928	C	PHE E	28	174.520	125.726	2.389	1.00	33.69	C	ATOM	37978	O	GLY E	35	154.726	131.753	10.803	1.00	54.02	O
ATOM	37929	O	PHE E	28	174.530	126.922	2.095	1.00	33.69	O	ATOM	37979	N	ASP E	36	152.891	132.450	9.715	1.00	61.95	N
ATOM	37930	CB	PHE E	28	175.765	125.181	4.459	1.00	39.16	C	ATOM	37980	CA	ASP E	36	152.234	132.955	10.914	1.00	61.95	C
ATOM	37931	CG	PHE E	28	176.899	124.429	5.092	1.00	39.16	C	ATOM	37981	C	ASP E	36	151.118	132.003	11.353	1.00	61.95	C
ATOM	37932	CD1	PHE E	28	178.209	124.901	4.990	1.00	39.16	C	ATOM	37982	O	ASP E	36	150.467	132.209	12.374	1.00	61.95	O
ATOM	37933	CD2	PHE E	28	176.667	123.223	5.754	1.00	39.16	C	ATOM	37983	CB	ASP E	36	151.659	134.356	10.659	1.00	61.63	C
ATOM	37934	CE1	PHE E	28	179.262	124.182	5.533	1.00	39.16	C	ATOM	37984	CG	ASP E	36	150.682	134.395	9.491	1.00	61.63	C
ATOM	37935	CE2	PHE E	28	177.723	122.495	6.303	1.00	39.16	C	ATOM	37985	OD1	ASP E	36	150.100	133.344	9.144	1.00	61.63	O
ATOM	37936	CZ	PHE E	28	179.022	122.973	6.191	1.00	39.16	C	ATOM	37986	OD2	ASP E	36	150.484	135.494	8.930	1.00	61.63	O
ATOM	37937	N	GLY E	29	173.481	124.930	2.206	1.00	40.89	N	ATOM	37987	N	ARG E	37	150.914	130.953	10.571	1.00	56.99	N
ATOM	37938	CA	GLY E	29	172.243	125.463	1.683	1.00	40.89	C	ATOM	37988	CA	ARG E	37	149.881	129.972	10.849	1.00	56.99	C
ATOM	37939	C	GLY E	29	171.181	125.096	2.679	1.00	40.89	C	ATOM	37989	O	ARG E	37	148.528	130.636	10.702	1.00	56.99	C
ATOM	37940	O	GLY E	29	171.187	123.983	3.211	1.00	40.89	O	ATOM	37990	C	ARG E	37	147.509	130.083	11.101	1.00	56.99	O
ATOM	37941	N	ALA E	30	170.284	126.027	2.959	1.00	35.51	N	ATOM	37991	CB	ARG E	37	150.052	129.397	12.255	1.00	42.71	C
ATOM	37942	CA	ALA E	30	169.230	125.741	3.907	1.00	35.51	C	ATOM	37992	CG	ARG E	37	151.197	128.409	12.375	1.00	42.71	C
ATOM	37943	C	ALA E	30	167.889	126.162	3.334	1.00	35.51	C	ATOM	37993	CD	ARG E	37	151.451	128.025	13.814	1.00	42.71	C
ATOM	37944	O	ALA E	30	167.744	127.254	2.776	1.00	35.51	O	ATOM	37994	NE	ARG E	37	152.359	126.887	13.946	1.00	42.71	N
ATOM	37945	CB	ALA E	30	169.503	126.463	5.222	1.00	42.28	C	ATOM	37995	CZ	ARG E	37	152.068	125.635	13.580	1.00	42.71	C
ATOM	37946	N	LEU E	31	166.911	125.277	3.440	1.00	36.86	N	ATOM	37996	NH1	ARG E	37	150.877	125.345	13.049	1.00	42.71	N
ATOM	37947	CA	LEU E	31	165.580	125.590	2.953	1.00	36.86	C	ATOM	37997	NH2	ARG E	37	152.970	124.661	13.747	1.00	42.71	N



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ATOM	37998	N	GLN E	38	148.530	131.823	10.106	1.00	52.26	N	ATOM	38048	O	PHE E	45	168.110	130.457	-0.949	1.00	71.01	O
ATOM	37999	CA	GLN E	38	147.308	132.582	9.890	1.00	52.26	C	ATOM	38049	CB	PHE E	45	166.517	128.066	-1.272	1.00	52.68	C
ATOM	38000	C	GLN E	38	146.899	132.608	8.426	1.00	52.26	C	ATOM	38050	CG	PHE E	45	167.436	126.889	-1.245	1.00	52.68	C
ATOM	38001	O	GLN E	38	145.745	132.853	8.109	1.00	52.26	O	ATOM	38051	CD1	PHE E	45	167.593	126.147	-0.082	1.00	52.68	C
ATOM	38002	CB	GLN E	38	147.482	134.012	10.391	1.00	66.03	C	ATOM	38052	CD2	PHE E	45	168.120	126.500	-2.382	1.00	52.68	C
ATOM	38003	CG	GLN E	38	146.501	134.391	11.476	1.00	66.03	C	ATOM	38053	CE1	PHE E	45	168.421	125.032	-0.056	1.00	52.68	C
ATOM	38004	CD	GLN E	38	146.447	133.353	12.575	1.00	66.03	C	ATOM	38054	CE2	PHE E	45	168.952	125.382	-2.365	1.00	52.68	C
ATOM	38005	OE1	GLN E	38	147.485	132.960	13.117	1.00	66.03	O	ATOM	38055	CZ	PHE E	45	169.101	124.650	-1.201	1.00	52.68	C
ATOM	38006	NE2	GLN E	38	145.236	132.900	12.916	1.00	66.03	N	ATOM	38056	N	GLY E	46	168.527	129.706	1.130	1.00	37.69	N
ATOM	38007	N	GLY E	39	147.837	132.358	7.529	1.00	64.77	N	ATOM	38057	CA	GLY E	46	169.727	130.509	1.260	1.00	37.69	C
ATOM	38008	CA	GLY E	39	147.490	132.364	6.123	1.00	64.77	C	ATOM	38058	C	GLY E	46	170.986	129.706	1.485	1.00	37.69	C
ATOM	38009	C	GLY E	39	148.626	132.925	5.304	1.00	64.77	C	ATOM	38059	O	GLY E	46	171.017	128.778	2.313	1.00	37.69	O
ATOM	38010	O	GLY E	39	148.483	133.186	4.108	1.00	64.77	O	ATOM	38060	N	LYS E	47	172.024	130.075	0.736	1.00	56.22	N
ATOM	38011	N	ARG E	40	149.766	133.105	5.961	1.00	38.01	N	ATOM	38061	CA	LYS E	47	173.310	129.403	0.811	1.00	56.22	C
ATOM	38012	CA	ARG E	40	150.951	133.639	5.313	1.00	38.01	C	ATOM	38062	C	LYS E	47	174.353	130.338	1.363	1.00	56.22	C
ATOM	38013	C	ARG E	40	152.130	132.668	5.449	1.00	38.01	C	ATOM	38063	O	LYS E	47	174.311	131.547	1.131	1.00	56.22	O
ATOM	38014	O	ARG E	40	152.490	132.259	6.558	1.00	38.01	O	ATOM	38064	CB	LYS E	47	173.757	128.925	-0.565	1.00	65.54	C
ATOM	38015	CB	ARG E	40	151.313	134.989	5.940	1.00	67.95	C	ATOM	38065	CG	LYS E	47	172.748	128.076	-1.297	1.00	65.54	C
ATOM	38016	CG	ARG E	40	150.165	135.988	5.957	1.00	67.95	C	ATOM	38066	CD	LYS E	47	171.953	128.917	-2.259	1.00	65.54	C
ATOM	38017	CD	ARG E	40	150.537	137.287	6.664	1.00	67.95	C	ATOM	38067	CE	LYS E	47	170.989	128.059	-3.042	1.00	65.54	C
ATOM	38018	NE	ARG E	40	151.697	137.944	6.066	1.00	67.95	N	ATOM	38068	NZ	LYS E	47	170.284	128.834	-4.109	1.00	65.54	N
ATOM	38019	CZ	ARG E	40	151.791	138.291	4.783	1.00	67.95	C	ATOM	38069	N	ALA E	48	175.302	129.759	2.085	1.00	29.36	N
ATOM	38020	NH1	ARG E	40	150.790	138.043	3.949	1.00	67.95	N	ATOM	38070	CA	ALA E	48	176.375	130.522	2.698	1.00	29.36	C
ATOM	38021	NH2	ARG E	40	152.888	138.892	4.330	1.00	67.95	N	ATOM	38071	C	ALA E	48	177.484	129.589	3.165	1.00	29.36	C
ATOM	38022	N	VAL E	41	152.712	132.288	4.331	1.00	52.70	N	ATOM	38072	O	ALA E	48	177.268	128.385	3.357	1.00	29.36	O
ATOM	38023	CA	VAL E	41	153.866	131.389	4.295	1.00	52.70	C	ATOM	38073	CB	ALA E	48	175.837	131.325	3.878	1.00	80.08	C
ATOM	38024	C	VAL E	41	154.837	131.882	3.271	1.00	52.70	C	ATOM	38074	N	PRO E	49	178.699	130.135	3.339	1.00	40.43	N
ATOM	38025	O	VAL E	41	154.442	132.416	2.225	1.00	52.70	O	ATOM	38075	CA	PRO E	49	179.849	129.349	3.786	1.00	40.43	C
ATOM	38026	CB	VAL E	41	153.541	129.951	3.861	1.00	44.65	C	ATOM	38076	C	PRO E	49	179.678	128.713	5.161	1.00	40.43	C
ATOM	38027	CG1	VAL E	41	153.889	128.982	4.974	1.00	44.65	C	ATOM	38077	O	PRO E	49	180.512	127.931	5.584	1.00	40.43	O
ATOM	38028	CG2	VAL E	41	152.090	129.849	3.423	1.00	44.65	C	ATOM	38078	CB	PRO E	49	180.994	130.355	3.734	1.00	45.94	C
ATOM	38029	N	GLY E	42	156.108	131.666	3.579	1.00	56.61	N	ATOM	38079	CG	PRO E	49	180.297	131.688	3.886	1.00	45.94	C
ATOM	38030	CA	GLY E	42	157.179	132.056	2.693	1.00	56.61	C	ATOM	38080	CD	PRO E	49	179.102	131.515	3.014	1.00	45.94	C
ATOM	38031	C	GLY E	42	158.208	130.948	2.688	1.00	56.61	O	ATOM	38081	N	GLU E	50	178.598	129.038	5.860	1.00	74.83	N
ATOM	38032	O	GLY E	42	158.428	130.280	3.706	1.00	56.61	O	ATOM	38082	CA	GLU E	50	178.365	128.451	7.175	1.00	74.83	C
ATOM	38033	N	LEU E	43	158.828	130.739	1.533	1.00	59.72	N	ATOM	38083	C	GLU E	50	176.895	128.162	7.382	1.00	74.83	C
ATOM	38034	CA	LEU E	43	159.844	129.707	1.389	1.00	59.72	C	ATOM	38084	O	GLU E	50	176.035	128.903	6.898	1.00	74.83	O
ATOM	38035	C	LEU E	43	161.102	130.394	0.927	1.00	59.72	C	ATOM	38085	CB	GLU E	50	178.848	129.384	8.280	1.00	139.65	C
ATOM	38036	O	LEU E	43	161.061	131.211	0.018	1.00	59.72	C	ATOM	38086	CG	GLU E	50	180.332	129.632	8.270	1.00	139.65	C
ATOM	38037	CB	LEU E	43	159.427	128.685	0.335	1.00	37.31	C	ATOM	38087	CD	GLU E	50	180.785	130.389	9.492	1.00	139.65	C
ATOM	38038	CG	LEU E	43	159.844	127.243	0.599	1.00	37.31	C	ATOM	38088	OE1	GLU E	50	180.231	131.478	9.753	1.00	139.65	O
ATOM	38039	CD1	LEU E	43	160.098	126.564	-0.723	1.00	37.31	C	ATOM	38089	OE2	GLU E	50	181.694	129.893	10.191	1.00	139.65	O
ATOM	38040	CD2	LEU E	43	161.080	127.209	1.460	1.00	37.31	C	ATOM	38090	N	VAL E	51	176.613	127.089	8.115	1.00	53.21	N
ATOM	38041	N	GLY E	44	162.224	130.067	1.540	1.00	35.51	N	ATOM	38091	CA	VAL E	51	175.237	126.685	8.389	1.00	53.21	C
ATOM	38042	CA	GLY E	44	163.453	130.708	1.134	1.00	35.51	C	ATOM	38092	C	VAL E	51	174.343	127.834	8.877	1.00	53.21	C
ATOM	38043	C	GLY E	44	164.617	129.749	1.144	1.00	35.51	C	ATOM	38093	O	VAL E	51	173.258	128.064	8.330	1.00	53.21	O
ATOM	38044	O	GLY E	44	164.802	128.980	2.093	1.00	35.51	O	ATOM	38094	CB	VAL E	51	175.197	125.572	9.426	1.00	31.19	C
ATOM	38045	N	PHE E	45	165.408	129.778	0.080	1.00	71.01	N	ATOM	38095	CG1	VAL E	51	173.804	125.035	9.537	1.00	31.19	C
ATOM	38046	CA	PHE E	45	166.563	128.902	0.002	1.00	71.01	C	ATOM	38096	CG2	VAL E	51	176.173	124.489	9.049	1.00	31.19	C
ATOM	38047	C	PHE E	45	167.808	129.759	0.018	1.00	71.01	C	ATOM	38097	N	PRO E	52	174.777	128.558	9.926	1.00	53.33	N



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ATOM	38098	CA	PRO E	52	173.989	129.671	10.447	1.00	53.33	C	ATOM	38148	CA	GLY E	59	164.892	132.975	6.780	1.00	44.56	C
ATOM	38099	C	PRO E	52	173.733	130.786	9.440	1.00	53.33	C	ATOM	38149	C	GLY E	59	164.539	134.300	6.134	1.00	44.56	C
ATOM	38100	O	PRO E	52	172.582	131.137	9.180	1.00	53.33	O	ATOM	38150	O	GLY E	59	163.999	134.537	5.724	1.00	44.56	O
ATOM	38101	CB	PRO E	52	174.816	130.128	11.630	1.00	38.76	C	ATOM	38151	N	TYR E	60	165.543	135.162	6.028	1.00	50.73	N
ATOM	38102	CG	PRO E	52	175.332	128.832	12.160	1.00	38.76	C	ATOM	38152	CA	TYR E	60	165.390	136.470	5.412	1.00	50.73	C
ATOM	38103	CD	PRO E	52	175.826	128.191	10.896	1.00	38.76	C	ATOM	38153	C	TYR E	60	164.771	136.351	4.018	1.00	50.73	C
ATOM	38104	N	LEU E	53	174.786	131.346	8.865	1.00	46.07	N	ATOM	38154	O	TYR E	60	163.850	137.092	3.674	1.00	50.73	O
ATOM	38105	CA	LEU E	53	174.569	132.418	7.900	1.00	46.07	C	ATOM	38155	CB	TYR E	60	166.759	137.143	5.316	1.00	80.15	C
ATOM	38106	C	LEU E	53	173.584	131.949	6.830	1.00	46.07	C	ATOM	38156	CG	TYR E	60	166.821	138.316	4.369	1.00	80.15	C
ATOM	38107	O	LEU E	53	172.836	132.747	6.245	1.00	46.07	O	ATOM	38157	CD1	TYR E	60	166.369	139.579	4.744	1.00	80.15	C
ATOM	38108	CB	LEU E	53	175.875	132.828	7.223	1.00	73.11	C	ATOM	38158	CD2	TYR E	60	167.353	138.162	3.096	1.00	80.15	C
ATOM	38109	CG	LEU E	53	177.110	133.082	8.078	1.00	73.11	C	ATOM	38159	CE1	TYR E	60	166.458	140.658	3.869	1.00	80.15	C
ATOM	38110	CD1	LEU E	53	177.989	134.055	7.327	1.00	73.11	C	ATOM	38160	CE2	TYR E	60	167.443	139.226	2.215	1.00	80.15	C
ATOM	38111	CD2	LEU E	53	176.739	133.656	9.429	1.00	73.11	C	ATOM	38161	CZ	TYR E	60	167.002	140.471	2.601	1.00	80.15	C
ATOM	38112	N	ALA E	54	173.599	130.644	6.581	1.00	46.26	N	ATOM	38162	OH	TYR E	60	167.154	141.522	1.717	1.00	80.15	O
ATOM	38113	CA	ALA E	54	172.734	130.041	5.585	1.00	46.26	C	ATOM	38163	N	TYR E	61	165.282	135.424	3.212	1.00	50.55	N
ATOM	38114	C	ALA E	54	171.269	130.087	6.028	1.00	46.26	C	ATOM	38164	CA	TYR E	61	164.757	135.250	1.863	1.00	50.55	C
ATOM	38115	O	ALA E	54	170.394	130.608	5.314	1.00	46.26	O	ATOM	38165	C	TYR E	61	163.319	134.778	1.879	1.00	50.55	C
ATOM	38116	CB	ALA E	54	173.167	128.619	5.354	1.00	44.94	C	ATOM	38166	O	TYR E	61	162.526	135.198	1.050	1.00	50.55	O
ATOM	38117	N	VAL E	55	171.007	129.526	7.205	1.00	47.82	N	ATOM	38167	CB	TYR E	61	165.591	134.248	1.055	1.00	68.67	C
ATOM	38118	CA	VAL E	55	169.658	129.513	7.757	1.00	47.82	C	ATOM	38168	CG	TYR E	61	166.886	134.789	0.486	1.00	68.67	C
ATOM	38119	C	VAL E	55	169.173	130.958	7.823	1.00	47.82	C	ATOM	38169	CD1	TYR E	61	166.980	136.104	0.051	1.00	68.67	C
ATOM	38120	O	VAL E	55	168.085	131.291	7.358	1.00	47.82	O	ATOM	38170	CD2	TYR E	61	168.007	133.971	0.358	1.00	68.67	C
ATOM	38121	CB	VAL E	55	169.646	128.915	9.173	1.00	34.65	C	ATOM	38171	CE1	TYR E	61	168.151	136.593	-0.490	1.00	68.67	C
ATOM	38122	CG1	VAL E	55	168.228	128.578	9.576	1.00	34.65	C	ATOM	38172	CE2	TYR E	61	169.184	134.450	-0.185	1.00	68.67	C
ATOM	38123	CG2	VAL E	55	170.533	127.674	9.222	1.00	34.65	C	ATOM	38173	CZ	TYR E	61	169.250	135.763	-0.605	1.00	68.67	C
ATOM	38124	N	GLN E	56	170.001	131.823	8.395	1.00	45.88	N	ATOM	38174	OH	TYR E	61	170.415	136.260	-1.138	1.00	68.67	O
ATOM	38125	CA	GLN E	56	169.640	133.223	8.491	1.00	45.88	C	ATOM	38175	N	ALA E	62	162.983	133.897	2.813	1.00	40.20	N
ATOM	38126	C	GLN E	56	169.347	133.802	7.125	1.00	45.88	C	ATOM	38176	CA	ALA E	62	161.617	133.389	2.893	1.00	40.20	C
ATOM	38127	O	GLN E	56	168.333	134.464	6.946	1.00	45.88	O	ATOM	38177	C	ALA E	62	160.644	134.511	3.233	1.00	40.20	C
ATOM	38128	CG	GLN E	56	170.740	134.006	9.200	1.00	103.35	C	ATOM	38178	O	ALA E	62	159.568	134.618	2.641	1.00	40.20	O
ATOM	38129	CG	GLN E	56	170.474	134.127	10.693	1.00	103.35	C	ATOM	38179	CB	ALA E	62	161.525	132.286	3.944	1.00	42.17	C
ATOM	38130	CD	GLN E	56	169.701	132.927	11.262	1.00	103.35	C	ATOM	38180	N	ARG E	63	161.045	135.343	4.191	1.00	54.25	N
ATOM	38131	OE1	GLN E	56	170.217	131.806	11.323	1.00	103.35	O	ATOM	38181	CA	ARG E	63	160.236	136.459	4.664	1.00	54.25	C
ATOM	38132	NE2	GLN E	56	168.452	133.165	11.671	1.00	103.35	N	ATOM	38182	C	ARG E	63	159.835	137.371	3.521	1.00	54.25	C
ATOM	38133	N	LYS E	57	170.207	133.529	6.149	1.00	53.49	N	ATOM	38183	O	ARG E	63	158.777	138.001	3.553	1.00	54.25	O
ATOM	38134	CA	LYS E	57	169.985	134.050	4.803	1.00	53.49	C	ATOM	38184	CB	ARG E	63	161.006	137.229	5.721	1.00	71.09	C
ATOM	38135	C	LYS E	57	168.642	133.534	4.253	1.00	53.49	C	ATOM	38185	CG	ARG E	63	160.147	137.676	6.863	1.00	71.09	C
ATOM	38136	O	LYS E	57	167.859	134.289	3.662	1.00	53.49	O	ATOM	38186	CD	ARG E	63	160.979	137.724	8.116	1.00	71.09	C
ATOM	38137	CB	LYS E	57	171.152	133.651	3.877	1.00	57.01	C	ATOM	38187	NE	ARG E	63	161.324	136.389	8.583	1.00	71.09	N
ATOM	38138	CG	LYS E	57	171.331	134.573	2.647	1.00	57.01	C	ATOM	38188	CZ	ARG E	63	162.380	136.121	9.341	1.00	71.09	C
ATOM	38139	CD	LYS E	57	172.643	134.305	1.890	1.00	57.01	C	ATOM	38189	NH1	ARG E	63	163.198	137.102	9.707	1.00	71.09	N
ATOM	38140	CE	LYS E	57	173.888	134.679	2.717	1.00	57.01	C	ATOM	38190	NH2	ARG E	63	162.613	134.879	9.743	1.00	71.09	N
ATOM	38141	NZ	LYS E	57	175.180	134.185	2.135	1.00	57.01	C	ATOM	38191	N	ARG E	64	160.701	137.457	2.521	1.00	66.30	N
ATOM	38142	N	ALA E	58	168.371	132.252	4.471	1.00	34.60	N	ATOM	38192	CA	ARG E	64	160.412	138.236	1.330	1.00	66.30	C
ATOM	38143	CA	ALA E	58	167.126	131.661	4.000	1.00	34.60	C	ATOM	38193	C	ARG E	64	159.902	137.103	0.455	1.00	66.30	C
ATOM	38144	C	ALA E	58	165.941	132.329	4.689	1.00	34.60	C	ATOM	38194	O	ARG E	64	160.475	136.013	0.485	1.00	66.30	O
ATOM	38145	O	ALA E	58	165.028	132.809	4.020	1.00	34.60	O	ATOM	38195	CB	ARG E	64	161.695	138.857	0.789	1.00	112.95	C
ATOM	38146	CB	ALA E	58	167.124	130.165	4.276	1.00	76.75	C	ATOM	38196	CG	ARG E	64	162.442	139.615	1.868	1.00	112.95	C
ATOM	38147	N	GLY E	59	165.964	132.352	6.023	1.00	44.56	N	ATOM	38197	CD	ARG E	64	163.419	140.617	1.311	1.00	112.95	C



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ATOM	38198	NE	ARG E	64	163.875	141.520	2.364	1.00112.95	N	ATOM	38248	N	LEU E	71	142.805	130.056	3.345	1.00	62.08	N	
ATOM	38199	C2	ARG E	64	164.632	142.594	2.156	1.00112.95	C	ATOM	38249	CA	LEU E	71	142.282	129.056	4.273	1.00	62.08	C	
ATOM	38200	NH1	ARG E	64	165.022	142.902	0.925	1.00112.95	N	ATOM	38250	C	LEU E	71	140.772	129.156	4.450	1.00	62.08	C	
ATOM	38201	NH2	ARG E	64	165.004	143.357	3.177	1.00112.95	N	ATOM	38251	O	LEU E	71	140.183	130.221	4.297	1.00	62.08	O	
ATOM	38202	N	ASN E	65	158.817	137.326	-0.283	1.00	90.09	N	ATOM	38252	CB	LEU E	71	142.978	129.176	5.630	1.00	53.10	C
ATOM	38203	CA	ASN E	65	158.221	136.267	-1.105	1.00	90.09	C	ATOM	38253	CG	LEU E	71	144.419	128.662	5.573	1.00	53.10	C
ATOM	38204	C	ASN E	65	157.297	135.404	-0.227	1.00	90.09	C	ATOM	38254	CD1	LEU E	71	145.177	128.954	6.864	1.00	53.10	C
ATOM	38205	O	ASN E	65	157.588	134.245	0.084	1.00	90.09	O	ATOM	38255	CD2	LEU E	71	144.378	127.167	5.290	1.00	53.10	C
ATOM	38206	CB	ASN E	65	159.313	135.394	-1.755	1.00	88.83	C	ATOM	38256	N	GLN E	72	140.145	128.028	4.748	1.00	46.56	N
ATOM	38207	CG	ASN E	65	158.899	133.935	-1.895	1.00	88.83	C	ATOM	38257	CA	GLN E	72	138.706	127.983	4.952	1.00	46.56	C
ATOM	38208	OD1	ASN E	65	157.913	133.614	-2.560	1.00	88.83	O	ATOM	38258	C	GLN E	72	138.425	126.886	5.958	1.00	46.56	C
ATOM	38209	ND2	ASN E	65	159.647	133.047	-1.254	1.00	88.83	N	ATOM	38259	O	GLN E	72	138.338	125.710	5.607	1.00	46.56	O
ATOM	38210	N	MET E	66	156.184	135.994	0.190	1.00	53.85	N	ATOM	38260	CB	GLN E	72	137.972	127.665	3.654	1.00	78.45	C
ATOM	38211	CA	MET E	66	155.215	135.292	1.016	1.00	53.85	C	ATOM	38261	CG	GLN E	72	138.306	128.574	2.502	1.00	78.45	C
ATOM	38212	C	MET E	66	153.994	134.981	0.157	1.00	53.85	C	ATOM	38262	CD	GLN E	72	137.313	128.420	1.371	1.00	78.45	C
ATOM	38213	O	MET E	66	153.744	135.657	-0.845	1.00	53.85	O	ATOM	38263	OE1	GLN E	72	136.781	127.332	1.145	1.00	78.45	O
ATOM	38214	CB	MET E	66	154.777	136.176	2.182	1.00	65.30	C	ATOM	38264	NE2	GLN E	72	137.060	129.507	0.646	1.00	78.45	N
ATOM	38215	CG	MET E	66	155.893	136.661	3.072	1.00	65.30	C	ATOM	38265	N	ASN E	73	138.292	127.273	7.215	1.00	60.29	N
ATOM	38216	SD	MET E	66	156.358	135.480	4.344	1.00	65.30	S	ATOM	38266	CA	ASN E	73	138.028	126.304	8.255	1.00	60.29	C
ATOM	38217	CE	MET E	66	154.798	135.268	5.161	1.00	65.30	C	ATOM	38267	C	ASN E	73	139.233	125.370	8.346	1.00	60.29	C
ATOM	38218	N	VAL E	67	153.234	133.959	0.536	1.00	58.07	N	ATOM	38268	O	ASN E	73	139.079	124.148	8.405	1.00	60.29	O
ATOM	38219	CA	VAL E	67	152.027	133.650	-0.209	1.00	58.07	C	ATOM	38269	CB	ASN E	73	136.762	125.516	7.913	1.00	69.39	C
ATOM	38220	C	VAL E	67	150.834	133.723	0.725	1.00	58.07	C	ATOM	38270	CG	ASN E	73	136.137	124.854	9.124	1.00	69.39	C
ATOM	38221	O	VAL E	67	150.932	133.365	1.903	1.00	58.07	O	ATOM	38271	OD1	ASN E	73	135.170	124.096	8.999	1.00	69.39	O
ATOM	38222	CB	VAL E	67	152.073	132.258	-0.843	1.00	33.88	C	ATOM	38272	ND2	ASN E	73	136.680	125.142	10.309	1.00	69.39	N
ATOM	38223	CG1	VAL E	67	150.770	131.969	-1.565	1.00	33.88	C	ATOM	38273	N	GLY E	74	140.431	125.956	8.336	1.00	49.69	N
ATOM	38224	CG2	VAL E	67	153.203	132.186	-1.824	1.00	33.88	C	ATOM	38274	CA	GLY E	74	141.654	125.166	8.434	1.00	49.69	C
ATOM	38225	N	GLU E	68	149.715	134.199	0.186	1.00	56.08	N	ATOM	38275	C	GLY E	74	142.016	124.299	7.235	1.00	49.69	C
ATOM	38226	CA	GLU E	68	148.472	134.329	0.931	1.00	56.08	C	ATOM	38276	O	GLY E	74	143.075	123.671	7.208	1.00	49.69	O
ATOM	38227	C	GLU E	68	147.588	133.100	0.709	1.00	56.08	C	ATOM	38277	N	THR E	75	141.133	124.244	6.246	1.00	40.01	N
ATOM	38228	O	GLU E	68	146.929	132.977	-0.326	1.00	56.08	O	ATOM	38278	CA	THR E	75	141.403	123.458	5.061	1.00	40.01	C
ATOM	38229	CB	GLU E	68	147.729	135.587	0.480	1.00109.04	C	ATOM	38279	C	THR E	75	141.418	124.366	3.840	1.00	40.01	C	
ATOM	38230	CG	GLU E	68	147.497	136.596	1.584	1.00109.04	C	ATOM	38280	O	THR E	75	141.243	125.574	3.937	1.00	40.01	O	
ATOM	38231	CD	GLU E	68	148.753	136.866	2.379	1.00109.04	C	ATOM	38281	CB	THR E	75	140.369	122.343	4.857	1.00	58.22	C	
ATOM	38232	OE1	GLU E	68	149.800	137.176	1.767	1.00109.04	O	ATOM	38282	OG1	THR E	75	140.907	121.360	3.968	1.00	58.22	O	
ATOM	38233	OE2	GLU E	68	148.688	136.767	3.619	1.00109.04	O	ATOM	38283	CG2	THR E	75	139.099	122.896	4.253	1.00	58.22	C	
ATOM	38234	N	VAL E	69	147.573	132.204	1.692	1.00	47.68	N	ATOM	38284	N	ILE E	76	141.612	123.763	2.684	1.00	52.30	N
ATOM	38235	CA	VAL E	69	146.788	130.982	1.618	1.00	47.68	C	ATOM	38285	CA	ILE E	76	141.716	124.498	1.450	1.00	52.30	C
ATOM	38236	C	VAL E	69	145.330	131.207	1.993	1.00	47.68	C	ATOM	38286	C	ILE E	76	140.468	124.408	0.586	1.00	52.30	C
ATOM	38237	O	VAL E	69	145.025	131.540	3.135	1.00	47.68	O	ATOM	38287	O	ILE E	76	139.717	123.443	0.659	1.00	52.30	O
ATOM	38238	CB	VAL E	69	147.346	129.932	2.561	1.00	55.61	C	ATOM	38288	CB	ILE E	76	142.959	123.990	0.707	1.00	56.84	C
ATOM	38239	CG1	VAL E	69	146.871	128.554	2.130	1.00	55.61	C	ATOM	38289	CG1	ILE E	76	144.166	124.758	1.217	1.00	56.84	C
ATOM	38240	CG2	VAL E	69	148.862	130.027	2.598	1.00	55.61	C	ATOM	38290	CG2	ILE E	76	142.792	124.072	-0.783	1.00	56.84	C
ATOM	38241	N	PRO E	70	144.412	131.023	1.032	1.00	45.81	N	ATOM	38291	CD1	ILE E	76	145.444	124.370	0.543	1.00	56.84	C
ATOM	38242	CA	PRO E	70	142.965	131.189	1.200	1.00	45.81	C	ATOM	38292	N	PRO E	77	140.226	125.436	-0.235	1.00	48.90	N
ATOM	38243	C	PRO E	70	142.367	130.124	2.091	1.00	45.81	C	ATOM	38293	CA	PRO E	77	139.094	125.567	-1.150	1.00	48.90	C
ATOM	38244	O	PRO E	70	141.508	129.367	1.636	1.00	45.81	O	ATOM	38294	C	PRO E	77	138.922	124.533	-2.235	1.00	48.90	C
ATOM	38245	CB	PRO E	70	142.429	131.055	-0.218	1.00	62.02	C	ATOM	38295	O	PRO E	77	137.798	124.286	-2.667	1.00	48.90	O
ATOM	38246	CG	PRO E	70	143.569	131.501	-1.048	1.00	62.02	C	ATOM	38296	CB	PRO E	77	139.277	126.955	-1.734	1.00	16.25	C
ATOM	38247	CD	PRO E	70	144.736	130.836	-0.387	1.00	62.02	C	ATOM	38297	CG	PRO E	77	140.715	127.232	-1.538	1.00	16.25	C



ATOM	38298	CD	PRO E	77	140.972	126.697	-0.176	1.00	16.25	C	ATOM	38348	CD	GLU E	83	153.652	117.436	-14.187	1.00	91.97	C
ATOM	38299	N	HIS E	78	140.007	123.936	-2.704	1.00	46.37	N	ATOM	38349	OE1	GLU E	83	154.821	117.106	-14.488	1.00	91.97	O
ATOM	38300	CA	HIS E	78	139.877	122.926	-3.753	1.00	46.37	C	ATOM	38350	OE2	GLU E	83	152.662	117.249	-14.932	1.00	91.97	O
ATOM	38301	C	HIS E	78	141.183	122.202	-3.979	1.00	46.37	C	ATOM	38351	N	PHE E	84	156.483	120.783	-10.790	1.00	40.73	N
ATOM	38302	O	HIS E	78	142.210	122.595	-3.439	1.00	46.37	O	ATOM	38352	CA	PHE E	84	157.562	121.756	-10.803	1.00	40.73	C
ATOM	38303	CB	HIS E	78	139.413	123.564	-5.067	1.00	49.85	C	ATOM	38353	C	PHE E	84	158.792	120.924	-11.044	1.00	40.73	C
ATOM	38304	CG	HIS E	78	140.353	124.599	-5.602	1.00	49.85	C	ATOM	38354	O	PHE E	84	159.255	120.227	-10.142	1.00	40.73	O
ATOM	38305	ND1	HIS E	78	141.658	124.315	-5.945	1.00	49.85	N	ATOM	38355	CB	PHE E	84	157.688	122.453	-9.473	1.00	27.30	C
ATOM	38306	CD2	HIS E	78	140.176	125.917	-5.854	1.00	49.85	C	ATOM	38356	CG	PHE E	84	158.749	123.480	-9.446	1.00	27.30	C
ATOM	38307	CE1	HIS E	78	142.244	125.415	-6.384	1.00	49.85	C	ATOM	38357	CD1	PHE E	84	158.483	124.779	-9.849	1.00	27.30	C
ATOM	38308	NE2	HIS E	78	141.367	126.401	-6.340	1.00	49.85	N	ATOM	38358	CD2	PHE E	84	160.020	123.161	-9.004	1.00	27.30	C
ATOM	38309	N	GLU E	79	141.146	121.145	-4.781	1.00	45.97	N	ATOM	38359	CE1	PHE E	84	159.479	125.769	-9.807	1.00	27.30	C
ATOM	38310	CA	GLU E	79	142.342	120.366	-5.052	1.00	45.97	C	ATOM	38360	CE2	PHE E	84	161.030	124.139	-8.957	1.00	27.30	C
ATOM	38311	C	GLU E	79	143.102	120.944	-6.226	1.00	45.97	C	ATOM	38361	CZ	PHE E	84	160.752	125.451	-9.360	1.00	27.30	C
ATOM	38312	O	GLU E	79	142.510	121.314	-7.235	1.00	45.97	O	ATOM	38362	N	GLY E	85	159.323	120.992	-12.259	1.00	29.23	N
ATOM	38313	CB	GLU E	79	141.988	118.912	-5.371	1.00	115.53	C	ATOM	38363	CA	GLY E	85	160.470	120.172	-12.579	1.00	29.23	C
ATOM	38314	CD	GLU E	79	140.670	118.426	-4.806	1.00	115.53	C	ATOM	38364	C	GLY E	85	159.843	118.811	-12.747	1.00	29.23	C
ATOM	38315	CG	GLU E	79	139.472	118.905	-5.610	1.00	115.53	C	ATOM	38365	O	GLY E	85	158.836	118.683	-13.438	1.00	29.23	O
ATOM	38316	OE1	GLU E	79	139.159	120.113	-5.574	1.00	115.53	O	ATOM	38366	N	ALA E	86	160.411	117.798	-12.110	1.00	46.71	N
ATOM	38317	OE2	GLU E	79	138.839	118.067	-6.288	1.00	115.53	O	ATOM	38367	CA	ALA E	86	159.850	116.459	-12.211	1.00	46.71	C
ATOM	38318	N	ILE E	80	144.414	121.048	-6.076	1.00	49.75	N	ATOM	38368	C	ALA E	86	159.083	116.147	-10.931	1.00	46.71	C
ATOM	38319	CA	ILE E	80	145.267	121.517	-7.156	1.00	49.75	C	ATOM	38369	O	ALA E	86	158.700	115.006	-10.679	1.00	46.71	O
ATOM	38320	C	ILE E	80	146.375	120.502	-7.219	1.00	49.75	C	ATOM	38370	CB	ALA E	86	160.955	115.456	-12.414	1.00	49.63	C
ATOM	38321	O	ILE E	80	146.754	119.920	-6.195	1.00	49.75	O	ATOM	38371	N	SER E	87	158.867	117.179	-8.123	1.00	37.15	N
ATOM	38322	CB	ILE E	80	145.976	122.874	-6.886	1.00	60.63	C	ATOM	38372	CA	SER E	87	158.155	117.037	-8.868	1.00	37.15	C
ATOM	38323	CG1	ILE E	80	145.891	123.202	-5.411	1.00	60.63	C	ATOM	38373	C	SER E	87	156.725	117.468	-9.069	1.00	37.15	C
ATOM	38324	CG2	ILE E	80	145.453	123.959	-7.808	1.00	60.63	C	ATOM	38374	O	SER E	87	156.457	118.538	-9.616	1.00	37.15	O
ATOM	38325	CD1	ILE E	80	146.695	122.259	-4.581	1.00	60.63	C	ATOM	38375	CB	SER E	87	158.803	117.897	-7.801	1.00	32.20	C
ATOM	38326	N	GLU E	81	146.869	120.279	-8.429	1.00	39.76	N	ATOM	38376	OG	SER E	87	160.151	117.515	-7.620	1.00	32.20	O
ATOM	38327	CA	GLU E	81	147.992	119.395	-8.644	1.00	39.76	C	ATOM	38377	N	LYS E	88	155.811	116.618	-8.624	1.00	37.20	N
ATOM	38328	C	GLU E	81	148.992	120.299	-9.328	1.00	39.76	C	ATOM	38378	CA	LYS E	88	154.392	116.862	-8.746	1.00	37.20	C
ATOM	38329	O	GLU E	81	148.650	121.034	-10.249	1.00	39.76	O	ATOM	38379	C	LYS E	88	153.867	116.811	-7.328	1.00	37.20	C
ATOM	38330	CB	GLU E	81	147.603	118.216	-9.527	1.00	118.30	C	ATOM	38380	O	LYS E	88	154.194	115.890	-6.588	1.00	37.20	O
ATOM	38331	CG	GLU E	81	146.899	117.129	-8.746	1.00	118.30	C	ATOM	38381	CB	LYS E	88	153.770	115.747	-9.586	1.00	45.44	C
ATOM	38332	CD	GLU E	81	146.496	115.959	-9.605	1.00	118.30	C	ATOM	38382	CG	LYS E	88	152.353	115.986	-10.092	1.00	45.44	C
ATOM	38333	OE1	GLU E	81	146.330	115.514	-10.422	1.00	118.30	O	ATOM	38383	CD	LYS E	88	152.075	115.090	-11.312	1.00	45.44	C
ATOM	38334	OE2	GLU E	81	145.348	115.482	-9.452	1.00	118.30	O	ATOM	38384	OE	LYS E	88	150.715	115.359	-11.965	1.00	45.44	C
ATOM	38335	N	VAL E	82	150.226	120.292	-8.860	1.00	47.34	N	ATOM	38385	NZ	LYS E	88	149.581	114.658	-11.279	1.00	45.44	N
ATOM	38336	CA	VAL E	82	151.202	121.150	-9.485	1.00	47.34	C	ATOM	38386	N	ILE E	89	153.088	117.810	-6.926	1.00	41.59	N
ATOM	38337	C	VAL E	82	152.509	120.443	-9.745	1.00	47.34	C	ATOM	38387	CA	ILE E	89	152.514	117.823	-5.580	1.00	41.59	C
ATOM	38338	O	VAL E	82	153.053	119.782	-8.864	1.00	47.34	O	ATOM	38388	C	ILE E	89	151.010	117.822	-5.760	1.00	41.59	C
ATOM	38339	CB	VAL E	82	151.451	122.389	-8.626	1.00	30.55	C	ATOM	38389	CB	ILE E	89	150.488	118.448	-6.678	1.00	41.59	O
ATOM	38340	CG1	VAL E	82	152.824	122.956	-8.924	1.00	30.55	C	ATOM	38390	CB	ILE E	89	152.947	119.092	-4.762	1.00	34.20	C
ATOM	38341	CG2	VAL E	82	150.376	123.433	-8.906	1.00	30.55	C	ATOM	38391	CG1	ILE E	89	153.085	118.746	-3.269	1.00	34.20	C
ATOM	38342	N	GLU E	83	153.004	120.577	-10.969	1.00	42.64	N	ATOM	38392	CG2	ILE E	89	151.968	120.224	-4.955	1.00	34.20	C
ATOM	38343	CA	GLU E	83	154.275	119.973	-11.337	1.00	42.64	C	ATOM	38393	CD1	ILE E	89	151.958	117.938	-2.674	1.00	34.20	C
ATOM	38344	C	GLU E	83	155.319	121.059	-11.348	1.00	42.64	C	ATOM	38394	N	VAL E	90	150.314	117.100	-4.898	1.00	49.35	N
ATOM	38345	O	GLU E	83	155.071	122.142	-11.848	1.00	42.64	O	ATOM	38395	CA	VAL E	90	148.867	117.046	-4.977	1.00	49.35	C
ATOM	38346	CB	GLU E	83	154.219	119.371	-12.733	1.00	91.97	C	ATOM	38396	C	VAL E	90	148.224	117.409	-3.655	1.00	49.35	C
ATOM	38347	CG	GLU E	83	153.432	118.100	-12.849	1.00	91.97	C	ATOM	38397	O	VAL E	90	148.522	116.800	-2.621	1.00	49.35	O



Table 1: Sheet 386/521

ATOM	38398	CB	VAL E	90	148.380	115.659	-5.334	1.00	20.32	C	ATOM	38448	C	THR E	98	143.196	114.873	9.680	1.00	36.26	C
ATOM	38399	CG1	VAL E	90	146.872	115.630	-5.223	1.00	20.32	C	ATOM	38449	O	THR E	98	143.937	113.893	9.683	1.00	36.26	O
ATOM	38400	CG2	VAL E	90	148.844	115.280	-6.731	1.00	20.32	C	ATOM	38450	CB	THR E	98	141.416	115.177	7.945	1.00	30.10	C
ATOM	38401	N	LEU E	91	147.333	118.394	-3.689	1.00	40.30	N	ATOM	38451	OG1	THR E	98	140.016	115.054	7.659	1.00	30.10	O
ATOM	38402	CA	LEU E	91	146.632	118.818	-2.480	1.00	40.30	C	ATOM	38452	CG2	THR E	98	142.180	114.318	6.975	1.00	30.10	C
ATOM	38403	C	LEU E	91	145.123	118.624	-2.659	1.00	40.30	C	ATOM	38453	N	GLY E	99	143.627	116.104	9.939	1.00	46.22	N
ATOM	38404	O	LEU E	91	144.545	118.952	-3.704	1.00	40.30	O	ATOM	38454	CA	GLY E	99	145.025	116.372	10.230	1.00	46.22	C
ATOM	38405	CB	LEU E	91	146.953	120.284	-2.156	1.00	28.35	C	ATOM	38455	O	GLY E	99	145.769	116.781	8.976	1.00	46.22	C
ATOM	38406	CG	LEU E	91	148.439	120.673	-2.141	1.00	28.35	C	ATOM	38456	O	GLY E	99	145.225	116.709	7.866	1.00	46.22	O
ATOM	38407	CD1	LEU E	91	148.604	122.186	-1.941	1.00	28.35	C	ATOM	38457	N	VAL E	100	147.002	117.245	9.137	1.00	38.40	N
ATOM	38408	CD2	LEU E	91	149.141	119.895	-1.046	1.00	28.35	C	ATOM	38458	CA	VAL E	100	147.789	117.612	7.972	1.00	38.40	C
ATOM	38409	N	LYS E	92	144.499	118.079	-1.623	1.00	32.66	N	ATOM	38459	C	VAL E	100	148.489	116.327	7.594	1.00	38.40	C
ATOM	38410	CA	LYS E	92	143.068	117.800	-1.613	1.00	32.66	C	ATOM	38460	O	VAL E	100	149.493	115.947	8.211	1.00	38.40	O
ATOM	38411	C	LYS E	92	142.514	118.278	-0.274	1.00	32.66	C	ATOM	38461	CB	VAL E	100	148.850	118.666	8.285	1.00	36.87	C
ATOM	38412	O	LYS E	92	143.087	117.989	0.777	1.00	32.66	O	ATOM	38462	CG1	VAL E	100	149.557	119.061	7.000	1.00	36.87	C
ATOM	38413	CB	LYS E	92	142.870	116.301	-1.737	1.00	61.40	C	ATOM	38463	CG2	VAL E	100	148.213	119.883	8.943	1.00	36.87	C
ATOM	38414	CD	LYS E	92	141.558	115.858	-2.293	1.00	61.40	C	ATOM	38464	N	ILE E	101	147.934	115.643	6.599	1.00	32.41	N
ATOM	38415	CE	LYS E	92	141.562	114.345	-2.340	1.00	61.40	C	ATOM	38465	CA	ILE E	101	148.478	114.371	6.127	1.00	32.41	C
ATOM	38416	NZ	LYS E	92	140.572	112.321	-3.275	1.00	61.40	N	ATOM	38466	C	ILE E	101	149.354	114.545	4.890	1.00	32.41	C
ATOM	38417	CA	PRO E	93	140.497	113.801	-3.258	1.00	16.57	C	ATOM	38467	O	ILE E	101	148.883	114.526	3.755	1.00	32.41	O
ATOM	38418	N	PRO E	93	140.840	119.509	0.989	1.00	32.07	N	ATOM	38468	CB	ILE E	101	147.330	113.397	5.863	1.00	40.41	C
ATOM	38419	CA	PRO E	93	140.243	118.396	1.845	1.00	32.07	C	ATOM	38469	CG1	ILE E	101	146.622	113.160	7.185	1.00	40.41	C
ATOM	38420	C	PRO E	93	139.742	117.398	1.323	1.00	32.07	O	ATOM	38470	CG2	ILE E	101	147.834	112.080	5.289	1.00	40.41	C
ATOM	38421	O	PRO E	93	139.796	120.530	0.545	1.00	16.57	C	ATOM	38471	CD1	ILE E	101	145.401	112.304	7.058	1.00	40.41	C
ATOM	38422	CB	PRO E	93	139.369	120.035	-0.787	1.00	16.57	C	ATOM	38472	N	ALA E	102	150.645	114.707	5.134	1.00	34.85	N
ATOM	38423	CG	PRO E	93	140.667	119.599	-1.429	1.00	16.57	C	ATOM	38473	CA	ALA E	102	151.581	114.915	4.055	1.00	34.85	C
ATOM	38424	CD	PRO E	93	140.309	118.568	3.160	1.00	45.67	N	ATOM	38474	C	ALA E	102	152.988	114.568	4.512	1.00	34.85	C
ATOM	38425	N	ALA E	94	139.777	117.574	4.089	1.00	45.67	C	ATOM	38475	O	ALA E	102	153.235	114.385	5.707	1.00	34.85	O
ATOM	38426	CA	ALA E	94	138.899	118.193	5.177	1.00	45.67	C	ATOM	38476	CB	ALA E	102	151.523	116.374	3.612	1.00	33.62	C
ATOM	38427	C	ALA E	94	138.982	119.396	5.448	1.00	45.67	C	ATOM	38477	N	GLY E	103	153.904	114.469	3.551	1.00	45.41	N
ATOM	38428	O	ALA E	94	140.920	116.801	4.735	1.00	32.05	O	ATOM	38478	CA	GLY E	103	155.285	114.187	3.889	1.00	45.41	C
ATOM	38429	CB	ALA E	94	138.061	117.363	5.797	1.00	42.99	N	ATOM	38479	C	GLY E	103	155.880	115.446	4.491	1.00	45.41	C
ATOM	38430	N	ALA E	95	137.191	117.832	6.864	1.00	42.99	C	ATOM	38480	O	GLY E	103	155.358	116.535	4.267	1.00	45.41	O
ATOM	38431	CA	ALA E	95	138.028	118.025	8.120	1.00	42.99	C	ATOM	38481	N	ALA E	104	156.968	115.313	5.240	1.00	41.82	N
ATOM	38432	C	ALA E	95	139.226	117.755	8.119	1.00	42.99	O	ATOM	38482	CA	ALA E	104	157.597	116.462	5.879	1.00	41.82	C
ATOM	38433	O	ALA E	95	136.103	116.832	7.115	1.00	44.36	C	ATOM	38483	C	ALA E	104	157.567	117.768	5.077	1.00	41.82	C
ATOM	38434	CB	ALA E	95	137.421	118.522	9.202	1.00	37.10	N	ATOM	38484	O	ALA E	104	156.731	118.632	5.325	1.00	41.82	O
ATOM	38435	N	PRO E	96	138.194	118.719	10.432	1.00	37.10	C	ATOM	38485	CB	ALA E	104	159.001	116.125	6.241	1.00	23.50	C
ATOM	38436	CA	PRO E	96	137.537	116.536	11.136	1.00	37.10	O	ATOM	38486	N	VAL E	105	158.470	117.923	4.121	1.00	36.73	N
ATOM	38437	C	PRO E	96	137.318	119.655	11.242	1.00	32.07	C	ATOM	38487	CA	VAL E	105	158.514	119.144	3.328	1.00	36.73	C
ATOM	38438	O	PRO E	96	136.602	120.417	10.200	1.00	32.07	C	ATOM	38488	C	VAL E	105	157.122	119.750	3.095	1.00	36.73	C
ATOM	38439	CB	PRO E	96	136.202	119.338	9.236	1.00	32.07	C	ATOM	38489	O	VAL E	105	156.852	120.865	3.534	1.00	36.73	O
ATOM	38440	CG	PRO E	96	139.585	117.244	11.755	1.00	66.14	N	ATOM	38490	CB	VAL E	105	159.219	118.891	1.983	1.00	33.59	C
ATOM	38441	CD	PRO E	96	139.900	116.016	12.462	1.00	66.14	C	ATOM	38491	CG1	VAL E	105	159.323	120.190	1.184	1.00	33.59	C
ATOM	38442	N	GLY E	97	140.728	115.094	11.594	1.00	66.14	C	ATOM	38492	CG2	VAL E	105	160.603	118.302	2.240	1.00	33.59	C
ATOM	38443	CA	GLY E	97	141.186	114.038	12.038	1.00	66.14	O	ATOM	38493	N	PRO E	106	156.216	119.030	2.414	1.00	40.05	N
ATOM	38444	C	GLY E	97	140.914	115.499	10.343	1.00	36.26	N	ATOM	38494	CA	PRO E	106	154.879	119.592	2.186	1.00	40.05	C
ATOM	38445	O	THR E	98	141.697	114.724	9.390	1.00	36.26	C	ATOM	38495	C	PRO E	106	154.190	120.029	3.480	1.00	40.05	C
ATOM	38446	N	THR E	98							ATOM	38496	O	PRO E	106	153.620	121.120	3.565	1.00	40.05	O
ATOM	38447	CA	THR E	98							ATOM	38497	CB	PRO E	106	154.134	118.445	1.518	1.00	39.07	C



ATOM	38498	CG	PRO E 106	155.199	117.795	0.740	1.00	39.07	C	ATOM	38548	CD2	LEU E 112	155.133	126.820	10.877	1.00	20.57	C
ATOM	38499	CD	PRO E 106	156.364	117.750	1.705	1.00	39.07	C	ATOM	38549	N	ALA E 113	151.575	127.459	7.109	1.00	47.86	N
ATOM	38500	N	ARG E 107	154.236	119.160	4.481	1.00	52.71	N	ATOM	38550	CA	ALA E 113	150.643	128.086	6.196	1.00	47.86	C
ATOM	38501	CA	ARG E 107	153.611	119.437	5.766	1.00	52.71	C	ATOM	38551	C	ALA E 113	149.340	128.341	6.943	1.00	47.86	C
ATOM	38502	C	ARG E 107	154.123	120.736	6.384	1.00	52.71	C	ATOM	38552	O	ALA E 113	148.525	129.171	6.542	1.00	47.86	O
ATOM	38503	O	ARG E 107	153.360	121.679	6.590	1.00	52.71	O	ATOM	38553	CB	ALA E 113	150.401	127.185	4.998	1.00	77.88	C
ATOM	38504	CB	ARG E 107	153.851	118.257	6.716	1.00	62.12	C	ATOM	38554	N	GLY E 114	149.146	127.633	8.047	1.00	42.88	N
ATOM	38505	CG	ARG E 107	153.974	118.641	8.169	1.00	62.12	C	ATOM	38555	CA	GLY E 114	147.920	127.806	8.796	1.00	42.88	C
ATOM	38506	CD	ARG E 107	154.436	117.476	8.972	1.00	62.12	C	ATOM	38556	C	GLY E 114	146.960	126.670	8.506	1.00	42.88	C
ATOM	38507	NE	ARG E 107	153.363	116.508	9.099	1.00	62.12	N	ATOM	38557	O	GLY E 114	145.937	126.519	9.171	1.00	42.88	O
ATOM	38508	CZ	ARG E 107	153.532	115.192	9.010	1.00	62.12	C	ATOM	38558	N	VAL E 115	147.269	125.868	7.495	1.00	50.00	N
ATOM	38509	NH1	ARG E 107	154.750	114.694	8.782	1.00	62.12	N	ATOM	38559	CA	VAL E 115	146.405	124.742	7.192	1.00	50.00	C
ATOM	38510	NH2	ARG E 107	152.486	114.375	9.156	1.00	62.12	N	ATOM	38560	C	VAL E 115	146.439	123.806	8.377	1.00	50.00	C
ATOM	38511	N	ALA E 108	155.418	120.774	6.669	1.00	34.21	N	ATOM	38561	O	VAL E 115	147.429	123.723	9.093	1.00	50.00	O
ATOM	38512	CA	ALA E 108	156.057	121.930	7.273	1.00	34.21	C	ATOM	38562	CB	VAL E 115	146.855	123.958	5.966	1.00	29.35	C
ATOM	38513	C	ALA E 108	155.560	123.249	6.689	1.00	34.21	C	ATOM	38563	CG1	VAL E 115	146.024	122.684	5.877	1.00	29.35	C
ATOM	38514	O	ALA E 108	155.411	124.240	7.399	1.00	34.21	O	ATOM	38564	CG2	VAL E 115	146.689	124.809	4.702	1.00	29.35	C
ATOM	38515	CB	ALA E 108	157.557	121.824	7.110	1.00	47.83	C	ATOM	38565	N	THR E 116	145.360	123.075	8.571	1.00	48.41	N
ATOM	38516	N	ILE E 109	155.321	123.272	5.390	1.00	41.58	N	ATOM	38566	CA	THR E 116	145.291	122.191	9.710	1.00	48.41	C
ATOM	38517	CA	ILE E 109	154.828	124.476	4.765	1.00	41.58	C	ATOM	38567	C	THR E 116	144.670	120.843	9.326	1.00	48.41	C
ATOM	38518	C	ILE E 109	153.363	124.629	5.112	1.00	41.58	C	ATOM	38568	O	THR E 116	144.783	119.863	10.057	1.00	48.41	O
ATOM	38519	O	ILE E 109	152.952	125.639	5.667	1.00	41.58	O	ATOM	38569	CB	THR E 116	144.485	122.902	10.824	1.00	35.04	C
ATOM	38520	CB	ILE E 109	154.965	124.401	3.260	1.00	26.49	C	ATOM	38570	CG1	THR E 116	142.980	122.346	12.095	1.00	35.04	O
ATOM	38521	CG2	ILE E 109	156.443	124.491	2.892	1.00	26.49	C	ATOM	38571	CG2	THR E 116	142.980	122.779	10.570	1.00	35.04	O
ATOM	38522	CG1	ILE E 109	154.116	125.486	2.608	1.00	26.49	C	ATOM	38572	N	ASP E 117	144.033	120.800	8.162	1.00	53.16	N
ATOM	38523	CD1	ILE E 109	156.721	124.260	1.426	1.00	26.49	C	ATOM	38573	CA	ASP E 117	143.410	119.581	7.681	1.00	53.16	C
ATOM	38524	N	LEU E 110	152.576	123.615	4.787	1.00	37.33	N	ATOM	38574	C	ASP E 117	143.517	119.454	6.169	1.00	53.16	C
ATOM	38525	CA	LEU E 110	151.149	123.637	5.065	1.00	37.33	C	ATOM	38575	O	ASP E 117	142.821	120.181	5.452	1.00	53.16	O
ATOM	38526	C	LEU E 110	150.787	124.028	6.507	1.00	37.33	C	ATOM	38576	CB	ASP E 117	141.930	119.560	8.057	1.00	79.65	C
ATOM	38527	O	LEU E 110	149.759	124.671	6.732	1.00	37.33	O	ATOM	38577	CG	ASP E 117	141.704	119.373	9.536	1.00	79.65	C
ATOM	38528	CB	LEU E 110	150.551	122.276	4.714	1.00	15.69	C	ATOM	38578	OD1	ASP E 117	141.796	118.225	10.013	1.00	79.65	O
ATOM	38529	CG	LEU E 110	150.494	122.017	3.214	1.00	15.69	C	ATOM	38579	OD2	ASP E 117	141.437	120.375	10.229	1.00	79.65	O
ATOM	38530	CD1	LEU E 110	149.887	120.651	2.971	1.00	15.69	C	ATOM	38580	N	ILE E 118	144.393	118.558	5.689	1.00	40.68	N
ATOM	38531	CD2	LEU E 110	149.679	123.110	2.538	1.00	15.69	C	ATOM	38581	CA	ILE E 118	144.533	118.300	4.251	1.00	40.68	C
ATOM	38532	N	GLU E 111	151.623	123.644	7.474	1.00	44.22	N	ATOM	38582	C	ILE E 118	144.982	116.891	3.923	1.00	40.68	C
ATOM	38533	CA	GLU E 111	151.383	123.977	8.878	1.00	44.22	C	ATOM	38583	O	ILE E 118	145.558	116.195	4.755	1.00	40.68	O
ATOM	38534	C	GLU E 111	151.554	125.472	9.099	1.00	44.22	C	ATOM	38584	CB	ILE E 118	145.573	119.164	3.526	1.00	38.85	C
ATOM	38535	O	GLU E 111	150.601	126.162	9.445	1.00	44.22	O	ATOM	38585	CG1	ILE E 118	145.322	120.641	3.699	1.00	38.85	C
ATOM	38536	CB	GLU E 111	152.336	123.212	9.788	1.00	101.40	C	ATOM	38586	CG2	ILE E 118	145.424	118.962	2.024	1.00	38.85	C
ATOM	38537	CG	GLU E 111	152.231	121.713	9.645	1.00	101.40	C	ATOM	38587	CD1	ILE E 118	146.173	121.474	2.719	1.00	38.85	C
ATOM	38538	CD	GLU E 111	152.957	120.973	10.747	1.00	101.40	C	ATOM	38588	N	LEU E 119	144.706	116.508	2.676	1.00	40.15	N
ATOM	38539	OE1	GLU E 111	154.161	121.237	10.954	1.00	101.40	O	ATOM	38589	CA	LEU E 119	145.102	115.238	2.082	1.00	40.15	C
ATOM	38540	OE2	GLU E 111	152.322	120.122	11.405	1.00	101.40	O	ATOM	38590	C	LEU E 119	146.147	115.656	1.041	1.00	40.15	C
ATOM	38541	N	LEU E 112	152.761	125.985	8.902	1.00	41.28	N	ATOM	38591	O	LEU E 119	145.909	116.525	0.196	1.00	40.15	O
ATOM	38542	CA	LEU E 112	152.973	127.411	9.075	1.00	41.28	C	ATOM	38592	CB	LEU E 119	143.909	114.553	1.426	1.00	49.31	C
ATOM	38543	C	LEU E 112	152.003	128.131	8.164	1.00	41.28	C	ATOM	38593	CG	LEU E 119	142.971	113.954	2.472	1.00	49.31	C
ATOM	38544	O	LEU E 112	151.643	129.280	8.402	1.00	41.28	O	ATOM	38594	CD1	LEU E 119	141.791	113.285	1.800	1.00	49.31	C
ATOM	38545	CB	LEU E 112	154.397	127.809	8.708	1.00	20.57	C	ATOM	38595	CD2	LEU E 119	143.748	112.952	3.314	1.00	49.31	C
ATOM	38546	CG	LEU E 112	155.490	127.013	9.418	1.00	20.57	C	ATOM	38596	N	THR E 120	147.309	115.027	1.117	1.00	48.67	N
ATOM	38547	CD1	LEU E 112	156.806	127.761	9.310	1.00	20.57	C	ATOM	38597	CA	THR E 120	148.437	115.369	0.273	1.00	48.67	C



ATOM	38598	C	THR	E	120	148.986	114.195	-0.494	1.00	48.67	C	ATOM	38648	NH1	ARG	E	126	157.469	108.703	-2.271	1.00	47.48	N
ATOM	38599	O	THR	E	120	148.570	113.071	-0.277	1.00	48.67	O	ATOM	38649	NH2	ARG	E	126	155.842	108.610	-3.912	1.00	47.48	N
ATOM	38600	CB	THR	E	120	149.540	115.923	1.183	1.00	37.93	C	ATOM	38650	N	ASN	E	127	162.444	115.471	-4.826	1.00	47.65	N
ATOM	38601	OG1	THR	E	120	149.501	117.349	1.142	1.00	37.93	O	ATOM	38651	CA	ASN	E	127	163.511	116.315	-4.347	1.00	47.65	C
ATOM	38602	CG2	THR	E	120	150.929	115.384	0.811	1.00	37.93	C	ATOM	38652	C	ASN	E	127	162.882	117.331	-3.413	1.00	47.65	C
ATOM	38603	N	LYS	E	121	149.922	114.468	-1.398	1.00	55.46	N	ATOM	38653	O	ASN	E	127	162.178	118.230	-3.870	1.00	47.65	O
ATOM	38604	CA	LYS	E	121	150.595	113.416	-2.147	1.00	55.46	C	ATOM	38654	CB	ASN	E	127	164.171	117.045	-5.503	1.00	63.99	C
ATOM	38605	C	LYS	E	121	151.706	113.887	-3.065	1.00	55.46	C	ATOM	38655	CG	ASN	E	127	165.463	117.692	-5.100	1.00	63.99	C
ATOM	38606	O	LYS	E	121	151.480	114.687	-3.975	1.00	55.46	O	ATOM	38656	OD1	ASN	E	127	165.519	118.448	-4.125	1.00	63.99	O
ATOM	38607	CB	LYS	E	121	149.607	112.608	-2.963	1.00	43.27	C	ATOM	38657	ND2	ASN	E	127	166.521	117.397	-5.843	1.00	63.99	N
ATOM	38608	CG	LYS	E	121	150.261	111.412	-3.630	1.00	43.27	C	ATOM	38658	N	PRO	E	128	163.136	117.216	-2.098	1.00	39.46	N
ATOM	38609	CD	LYS	E	121	151.168	110.670	-2.669	1.00	43.27	C	ATOM	38659	CA	PRO	E	128	162.532	118.188	-1.187	1.00	39.46	C
ATOM	38610	CE	LYS	E	121	151.661	109.401	-3.305	1.00	43.27	C	ATOM	38660	C	PRO	E	128	162.494	119.587	-1.772	1.00	39.46	C
ATOM	38611	NZ	LYS	E	121	152.726	108.761	-2.488	1.00	43.27	N	ATOM	38661	O	PRO	E	128	161.427	120.196	-1.865	1.00	39.46	O
ATOM	38612	N	GLU	E	122	152.910	113.386	-2.812	1.00	48.66	N	ATOM	38662	CB	PRO	E	128	163.409	118.091	0.066	1.00	29.62	C
ATOM	38613	CA	GLU	E	122	154.075	113.716	-3.629	1.00	48.66	C	ATOM	38663	CG	PRO	E	128	164.708	117.574	-0.449	1.00	29.62	C
ATOM	38614	C	GLU	E	122	154.214	112.694	-4.756	1.00	48.66	C	ATOM	38664	CD	PRO	E	128	164.265	116.537	-1.444	1.00	29.62	C
ATOM	38615	O	GLU	E	122	154.271	111.478	-4.537	1.00	48.66	O	ATOM	38665	N	ILE	E	129	163.644	120.085	-2.203	1.00	36.01	N
ATOM	38616	CB	GLU	E	122	155.353	113.705	-2.792	1.00	52.71	C	ATOM	38666	CA	ILE	E	129	163.696	121.424	-2.757	1.00	36.01	C
ATOM	38617	CG	GLU	E	122	155.481	114.841	-1.827	1.00	52.71	C	ATOM	38667	C	ILE	E	129	162.729	121.665	-3.910	1.00	36.01	C
ATOM	38618	CD	GLU	E	122	156.747	114.748	-1.004	1.00	52.71	C	ATOM	38668	O	ILE	E	129	162.186	122.760	-4.043	1.00	36.01	O
ATOM	38619	OE1	GLU	E	122	157.834	114.563	-1.595	1.00	52.71	O	ATOM	38669	CB	ILE	E	129	165.105	121.768	-3.190	1.00	37.93	C
ATOM	38620	OE2	GLU	E	122	156.661	114.864	0.239	1.00	52.71	O	ATOM	38670	CG1	ILE	E	129	166.062	121.377	-2.060	1.00	37.93	C
ATOM	38621	N	LEU	E	123	154.262	113.185	-5.977	1.00	37.85	N	ATOM	38671	CG2	ILE	E	129	165.204	123.263	-3.498	1.00	37.93	C
ATOM	38622	CA	LEU	E	123	154.400	112.288	-7.093	1.00	37.85	C	ATOM	38672	CD1	ILE	E	129	167.506	121.653	-2.356	1.00	37.93	C
ATOM	38623	C	LEU	E	123	155.585	112.737	-7.937	1.00	37.85	C	ATOM	38673	N	ASN	E	130	162.495	120.662	-4.742	1.00	38.18	N
ATOM	38625	CB	LEU	E	123	153.093	112.264	-7.895	1.00	31.32	C	ATOM	38674	CA	ASN	E	130	161.562	120.864	-5.834	1.00	38.18	C
ATOM	38626	CG	LEU	E	123	151.924	111.554	-7.194	1.00	31.32	C	ATOM	38675	C	ASN	E	130	160.125	120.623	-5.408	1.00	38.18	C
ATOM	38627	CD1	LEU	E	123	150.842	111.233	-8.197	1.00	31.32	C	ATOM	38676	O	ASN	E	130	159.198	121.187	-5.986	1.00	38.18	O
ATOM	38628	CD2	LEU	E	123	152.404	110.262	-6.549	1.00	31.32	C	ATOM	38677	CB	ASN	E	130	161.918	119.985	-7.023	1.00	50.22	C
ATOM	38629	N	GLY	E	124	156.180	111.811	-8.687	1.00	33.20	N	ATOM	38678	CG	ASN	E	130	163.124	120.500	-7.765	1.00	50.22	C
ATOM	38630	CA	GLY	E	124	157.327	112.146	-9.518	1.00	33.20	C	ATOM	38679	OD1	ASN	E	130	163.284	121.712	-7.954	1.00	50.22	O
ATOM	38631	C	GLY	E	124	158.592	112.328	-8.697	1.00	33.20	C	ATOM	38680	ND2	ASN	E	130	163.980	119.587	-8.202	1.00	50.22	N
ATOM	38632	O	GLY	E	124	158.814	111.631	-7.705	1.00	33.20	O	ATOM	38681	N	ILE	E	131	159.936	119.782	-4.402	1.00	39.79	N
ATOM	38633	N	SER	E	125	159.436	113.261	-9.111	1.00	36.81	N	ATOM	38682	CA	ILE	E	131	158.598	119.508	-3.892	1.00	39.79	C
ATOM	38634	CA	SER	E	125	160.659	113.530	-8.378	1.00	36.81	C	ATOM	38683	C	ILE	E	131	158.150	120.758	-3.134	1.00	39.79	C
ATOM	38635	C	SER	E	125	160.322	113.987	-6.973	1.00	36.81	C	ATOM	38684	O	ILE	E	131	156.964	121.104	-3.113	1.00	39.79	O
ATOM	38636	O	SER	E	125	159.479	114.868	-6.778	1.00	36.81	O	ATOM	38685	CB	ILE	E	131	158.605	118.277	-2.951	1.00	40.16	C
ATOM	38637	CB	SER	E	125	161.450	114.637	-9.053	1.00	46.36	C	ATOM	38686	CG1	ILE	E	131	158.508	116.998	-3.784	1.00	40.16	C
ATOM	38638	CG	SER	E	125	162.348	115.207	-8.123	1.00	46.36	O	ATOM	38687	CG2	ILE	E	131	157.477	118.372	-1.931	1.00	40.16	C
ATOM	38639	N	ARG	E	126	160.987	113.418	-5.984	1.00	38.11	N	ATOM	38688	CD1	ILE	E	131	157.216	116.888	-4.600	1.00	40.16	C
ATOM	38640	CA	ARG	E	126	160.703	113.828	-4.626	1.00	38.11	C	ATOM	38689	N	ALA	E	132	159.115	121.438	-2.520	1.00	40.24	N
ATOM	38641	C	ARG	E	126	161.823	114.646	-3.999	1.00	38.11	C	ATOM	38690	CA	ALA	E	132	158.829	122.667	-1.793	1.00	40.24	C
ATOM	38642	O	ARG	E	126	162.111	114.553	-2.804	1.00	38.11	O	ATOM	38691	C	ALA	E	132	158.295	123.695	-2.797	1.00	40.24	C
ATOM	38643	CB	ARG	E	126	160.366	112.602	-3.799	1.00	47.48	C	ATOM	38692	O	ALA	E	132	157.143	124.112	-2.707	1.00	40.24	O
ATOM	38644	CG	ARG	E	126	159.138	111.946	-4.340	1.00	47.48	C	ATOM	38693	CB	ALA	E	132	160.092	123.181	-1.123	1.00	31.68	C
ATOM	38645	CD	ARG	E	126	158.605	110.950	-3.378	1.00	47.48	C	ATOM	38694	N	TYR	E	133	159.127	124.087	-3.761	1.00	36.76	N
ATOM	38646	NE	ARG	E	126	157.435	110.279	-3.924	1.00	47.48	N	ATOM	38695	CA	TYR	E	133	158.707	125.045	-4.780	1.00	36.76	C
ATOM	38647	CZ	ARG	E	126	156.907	109.197	-3.372	1.00	47.48	C	ATOM	38696	C	TYR	E	133	157.353	124.637	-5.363	1.00	36.76	C
												ATOM	38697	O	TYR	E	133	156.468	125.476	-5.574	1.00	36.76	O



ATOM	38698	CB	TYR E 133	159.733	125.114	-5.904	1.00	75.11	C	ATOM	38748	N	ARG E 140	149.932	129.230	-4.241	1.00	35.07	N
ATOM	38699	CG	TYR E 133	161.053	125.754	-5.536	1.00	75.11	C	ATOM	38749	CA	ARG E 140	149.663	130.458	-4.980	1.00	35.07	C
ATOM	38700	CD1	TYR E 133	162.151	125.622	-6.382	1.00	75.11	C	ATOM	38750	C	ARG E 140	148.457	130.349	-5.905	1.00	35.07	C
ATOM	38701	CD2	TYR E 133	161.213	126.494	-4.361	1.00	75.11	C	ATOM	38751	O	ARG E 140	147.679	131.294	-6.037	1.00	35.07	O
ATOM	38702	CE1	TYR E 133	163.382	126.197	-6.084	1.00	75.11	C	ATOM	38752	CB	ARG E 140	150.842	130.854	-5.849	1.00	47.69	C
ATOM	38703	CE2	TYR E 133	162.446	127.083	-4.044	1.00	75.11	C	ATOM	38753	CG	ARG E 140	152.033	131.350	-5.127	1.00	47.69	C
ATOM	38704	CZ	TYR E 133	163.532	126.923	-4.921	1.00	75.11	C	ATOM	38754	CD	ARG E 140	152.914	132.133	-6.082	1.00	47.69	C
ATOM	38705	OH	TYR E 133	164.782	127.463	-4.666	1.00	75.11	O	ATOM	38755	NE	ARG E 140	154.163	132.477	-5.426	1.00	47.69	N
ATOM	38706	N	ALA E 134	157.201	123.342	-5.623	1.00	41.89	N	ATOM	38756	CZ	ARG E 140	155.134	131.603	-5.191	1.00	47.69	C
ATOM	38707	CA	ALA E 134	155.964	122.810	-6.172	1.00	41.89	C	ATOM	38757	NH1	ARG E 140	154.993	130.340	-5.581	1.00	47.69	N
ATOM	38708	C	ALA E 134	154.804	123.133	-5.246	1.00	41.89	C	ATOM	38758	NH2	ARG E 140	156.228	131.979	-4.533	1.00	47.69	N
ATOM	38709	O	ALA E 134	153.741	123.570	-5.693	1.00	41.89	O	ATOM	38759	N	GLN E 141	148.299	129.199	-6.552	1.00	29.79	N
ATOM	38710	CB	ALA E 134	156.077	121.321	-6.346	1.00	70.32	C	ATOM	38760	CA	GLN E 141	147.217	129.030	-7.499	1.00	29.79	C
ATOM	38711	N	THR E 135	155.002	122.909	-3.952	1.00	44.25	N	ATOM	38761	C	GLN E 141	145.827	128.807	-6.918	1.00	29.79	C
ATOM	38712	CA	THR E 135	153.956	123.199	-2.991	1.00	44.25	C	ATOM	38762	O	GLN E 141	144.839	128.816	-7.665	1.00	29.79	O
ATOM	38713	C	THR E 135	153.582	124.665	-3.054	1.00	44.25	C	ATOM	38763	CB	GLN E 141	147.561	127.906	-8.461	1.00	50.25	C
ATOM	38714	O	THR E 135	152.443	124.996	-3.365	1.00	44.25	O	ATOM	38764	CG	GLN E 141	149.023	127.848	-8.783	1.00	50.25	C
ATOM	38715	CB	THR E 135	154.395	122.860	-1.588	1.00	35.21	C	ATOM	38765	OE1	GLN E 141	149.296	127.328	-10.172	1.00	50.25	C
ATOM	38716	CG2	THR E 135	154.350	121.439	-1.422	1.00	35.21	O	ATOM	38766	OE1	GLN E 141	148.718	126.327	-10.607	1.00	50.25	O
ATOM	38717	N	MET E 136	153.490	123.533	-0.570	1.00	35.21	C	ATOM	38767	NE2	GLN E 141	150.193	128.007	-10.883	1.00	50.25	N
ATOM	38718	CA	MET E 136	154.536	125.542	-2.763	1.00	50.84	N	ATOM	38768	N	LEU E 142	145.736	128.593	-5.608	1.00	42.15	N
ATOM	38719	CA	MET E 136	154.292	126.978	-2.817	1.00	50.84	C	ATOM	38769	CA	LEU E 142	144.436	128.395	-4.975	1.00	42.15	C
ATOM	38720	C	MET E 136	153.503	127.378	-4.056	1.00	50.84	C	ATOM	38770	C	LEU E 142	143.552	129.602	-5.267	1.00	42.15	C
ATOM	38721	O	MET E 136	152.540	128.144	-3.961	1.00	50.84	O	ATOM	38771	O	LEU E 142	144.029	130.739	-5.302	1.00	42.15	O
ATOM	38722	CB	MET E 136	155.608	127.721	-2.806	1.00	51.85	C	ATOM	38772	CB	LEU E 142	144.589	128.246	-3.464	1.00	30.34	C
ATOM	38723	CG	MET E 136	156.311	127.602	-1.491	1.00	51.85	C	ATOM	38773	CG	LEU E 142	145.179	126.920	-3.001	1.00	30.34	C
ATOM	38724	SD	MET E 136	155.433	128.538	-0.264	1.00	51.85	S	ATOM	38774	CD1	LEU E 142	145.495	126.969	-1.521	1.00	30.34	C
ATOM	38725	CE	MET E 136	156.360	130.108	-0.336	1.00	51.85	C	ATOM	38775	CD2	LEU E 142	144.193	125.812	-3.328	1.00	30.34	C
ATOM	38726	N	GLU E 137	153.904	126.874	-5.222	1.00	32.87	N	ATOM	38776	N	ARG E 143	142.267	129.348	-5.482	1.00	36.52	N
ATOM	38727	CA	GLU E 137	153.175	127.209	-6.439	1.00	32.87	C	ATOM	38777	CA	ARG E 143	141.312	130.403	-5.766	1.00	36.52	C
ATOM	38728	C	GLU E 137	151.750	126.739	-6.320	1.00	32.87	C	ATOM	38778	C	ARG E 143	140.059	130.158	-4.963	1.00	36.52	C
ATOM	38729	O	GLU E 137	150.836	127.462	-6.671	1.00	32.87	O	ATOM	38779	O	ARG E 143	139.827	129.047	-4.500	1.00	36.52	O
ATOM	38730	CB	GLU E 137	153.820	126.584	-7.667	1.00	53.12	C	ATOM	38780	CB	ARG E 143	140.969	130.433	-7.252	1.00	45.56	C
ATOM	38731	CG	GLU E 137	154.510	127.617	-8.552	1.00	53.12	C	ATOM	38781	CG	ARG E 143	142.095	130.951	-8.102	1.00	45.56	C
ATOM	38732	CD	GLU E 137	153.602	128.794	-8.922	1.00	53.12	C	ATOM	38782	CD	ARG E 143	142.549	132.292	-7.579	1.00	45.56	C
ATOM	38733	OE1	GLU E 137	152.448	128.553	-9.339	1.00	53.12	O	ATOM	38783	NE	ARG E 143	143.998	132.356	-7.451	1.00	45.56	N
ATOM	38734	OE2	GLU E 137	154.051	129.958	-8.804	1.00	53.12	O	ATOM	38784	CZ	ARG E 143	144.832	132.418	-8.479	1.00	45.56	N
ATOM	38735	N	ALA E 138	151.557	125.528	-5.814	1.00	38.31	N	ATOM	38785	NH1	ARG E 143	144.351	132.426	-9.717	1.00	45.56	N
ATOM	38736	CA	ALA E 138	150.211	125.006	-5.647	1.00	38.31	C	ATOM	38786	NH2	ARG E 143	146.142	132.466	-8.267	1.00	45.56	N
ATOM	38737	C	ALA E 138	149.402	125.968	-4.779	1.00	38.31	C	ATOM	38787	N	THR E 144	139.239	131.192	-4.815	1.00	63.10	N
ATOM	38738	O	ALA E 138	148.263	126.302	-5.102	1.00	38.31	O	ATOM	38788	CA	THR E 144	138.012	131.087	-4.044	1.00	63.10	C
ATOM	38739	CB	LEU E 139	150.255	123.636	-5.007	1.00	27.84	C	ATOM	38789	C	THR E 144	136.798	131.385	-4.883	1.00	63.10	C
ATOM	38740	N	LEU E 139	149.989	126.423	-3.680	1.00	56.59	N	ATOM	38790	O	THR E 144	136.872	132.175	-5.819	1.00	63.10	O
ATOM	38741	CA	LEU E 139	149.284	127.349	-2.813	1.00	56.59	C	ATOM	38791	CB	THR E 144	138.016	132.075	-2.913	1.00	61.47	C
ATOM	38742	C	LEU E 139	148.953	128.637	-3.562	1.00	56.59	C	ATOM	38792	OG1	THR E 144	139.310	132.074	-2.309	1.00	61.47	O
ATOM	38743	O	LEU E 139	147.807	129.086	-3.558	1.00	56.59	O	ATOM	38793	CG2	THR E 144	136.975	131.694	-1.884	1.00	61.47	C
ATOM	38744	CB	LEU E 139	150.109	127.652	-1.558	1.00	26.59	C	ATOM	38794	N	LYS E 145	135.675	130.760	-4.532	1.00	58.08	N
ATOM	38745	CG	LEU E 139	150.323	126.451	-0.625	1.00	26.59	C	ATOM	38795	CA	LYS E 145	134.422	130.976	-5.246	1.00	58.08	C
ATOM	38746	CD1	LEU E 139	151.059	126.915	0.609	1.00	26.59	C	ATOM	38796	C	LYS E 145	134.319	132.484	-5.485	1.00	58.08	C
ATOM	38747	CD2	LEU E 139	148.976	125.814	-0.231	1.00	26.59	C	ATOM	38797	O	LYS E 145	133.767	132.941	-6.488	1.00	58.08	O



Table 1: Sheet 390/521

ATOM	38798	CB	LYS E 145	133.250	130.469	-4.398	1.00	68.28	C	ATOM	38848	CG	LEU E 151	139.390	135.548	-12.241	1.00	41.79	C
ATOM	38799	CG	LYS E 145	131.929	130.334	-5.140	1.00	68.28	C	ATOM	38849	CD1	LEU E 151	140.070	134.200	-12.357	1.00	41.79	C
ATOM	38800	CD	LYS E 145	130.866	129.684	-4.242	1.00	68.28	C	ATOM	38850	CD2	LEU E 151	140.032	136.547	-13.177	1.00	41.79	C
ATOM	38801	CE	LYS E 145	129.458	129.666	-4.880	1.00	68.28	C	ATOM	38851	N	ARG E 152	134.887	135.862	-13.489	1.00	45.04	N
ATOM	38802	NZ	LYS E 145	128.390	129.098	-3.979	1.00	68.28	N	ATOM	38852	CA	ARG E 152	133.926	135.620	-14.544	1.00	45.04	C
ATOM	38803	N	ALA E 146	134.885	133.249	-4.555	1.00	48.74	N	ATOM	38853	C	ARG E 152	132.770	136.609	-14.652	1.00	45.04	C
ATOM	38804	CA	ALA E 146	134.894	134.695	-4.649	1.00	48.74	C	ATOM	38854	O	ARG E 152	131.800	136.334	-15.363	1.00	45.04	O
ATOM	38805	C	ALA E 146	135.669	135.090	-5.897	1.00	48.74	C	ATOM	38855	CB	ARG E 152	133.355	134.229	-14.394	1.00	60.11	C
ATOM	38806	O	ALA E 146	135.088	135.585	-6.867	1.00	48.74	O	ATOM	38856	CG	ARG E 152	134.369	133.183	-14.069	1.00	60.11	C
ATOM	38807	CB	ALA E 146	135.556	135.276	-3.429	1.00	42.38	C	ATOM	38857	CD	ARG E 152	133.691	131.851	-14.146	1.00	60.11	C
ATOM	38808	N	ASP E 147	136.983	134.852	-5.856	1.00	39.15	N	ATOM	38858	CE	ARG E 152	134.479	130.778	-13.566	1.00	60.11	N
ATOM	38809	CA	ASP E 147	137.897	135.161	-6.955	1.00	39.15	C	ATOM	38859	NZ	ARG E 152	133.961	129.604	-13.225	1.00	60.11	C
ATOM	38810	C	ASP E 147	137.382	134.661	-8.291	1.00	39.15	C	ATOM	38860	NH1	ARG E 152	132.657	129.381	-13.411	1.00	60.11	N
ATOM	38811	O	ASP E 147	137.470	135.350	-9.299	1.00	39.15	O	ATOM	38861	NH2	ARG E 152	134.736	128.657	-12.704	1.00	60.11	N
ATOM	38812	CB	ASP E 147	139.248	134.519	-6.697	1.00	60.78	C	ATOM	38862	N	LYS E 153	132.861	137.745	-13.959	1.00	80.17	N
ATOM	38813	CG	ASP E 147	139.679	134.650	-5.267	1.00	60.78	C	ATOM	38863	CA	LYS E 153	131.812	138.769	-14.009	1.00	80.17	C
ATOM	38814	OD1	ASP E 147	139.630	135.782	-4.749	1.00	60.78	O	ATOM	38864	C	LYS E 153	131.679	139.350	-15.414	1.00	80.17	C
ATOM	38815	OD2	ASP E 147	140.070	133.630	-4.661	1.00	60.78	O	ATOM	38865	O	LYS E 153	130.962	138.808	-16.252	1.00	80.17	O
ATOM	38816	N	VAL E 148	136.868	133.441	-8.294	1.00	33.56	N	ATOM	38866	CB	LYS E 153	132.120	139.905	-13.029	1.00	107.55	C
ATOM	38817	CA	VAL E 148	136.338	132.830	-9.494	1.00	33.56	C	ATOM	38867	CG	LYS E 153	131.545	139.727	-11.631	1.00	107.55	C
ATOM	38818	C	VAL E 148	135.152	133.617	-9.993	1.00	33.56	C	ATOM	38868	CD	LYS E 153	130.067	140.106	-11.567	1.00	107.55	C
ATOM	38819	O	VAL E 148	135.084	133.938	-11.177	1.00	33.56	O	ATOM	38869	CE	LYS E 153	129.564	140.110	-10.122	1.00	107.55	C
ATOM	38820	CB	VAL E 148	135.898	131.394	-9.217	1.00	50.92	C	ATOM	38870	NZ	LYS E 153	128.162	140.603	-9.986	1.00	107.55	N
ATOM	38821	CG1	VAL E 148	135.346	130.758	-10.480	1.00	50.92	C	ATOM	38871	N	GLY E 154	132.370	140.457	-15.664	1.00	124.87	N
ATOM	38822	CG2	VAL E 148	137.078	130.607	-8.676	1.00	50.92	C	ATOM	38872	CA	GLY E 154	132.315	141.098	-16.968	1.00	124.87	C
ATOM	38823	N	GLU E 149	134.214	133.912	-9.092	1.00	51.93	N	ATOM	38873	C	GLY E 154	130.922	141.529	-17.405	1.00	124.87	C
ATOM	38824	CA	GLU E 149	133.013	134.677	-9.433	1.00	51.93	C	ATOM	38874	O	GLY E 154	129.927	141.020	-16.847	1.00	124.87	O
ATOM	38825	C	GLU E 149	133.463	136.017	-9.987	1.00	51.93	C	TER	38875								
ATOM	38826	O	GLU E 149	132.965	136.488	-11.012	1.00	51.93	O	ATOM	38876	N	MET F 1	155.027	112.782	-83.037	1.00	97.52	N
ATOM	38827	CB	GLU E 149	132.155	134.919	-8.192	1.00	161.16	C	ATOM	38877	CA	MET F 1	156.464	113.071	-83.285	1.00	97.52	C
ATOM	38828	CG	GLU E 149	131.006	135.890	-8.433	1.00	161.16	C	ATOM	38878	C	MET F 1	156.970	114.185	-82.379	1.00	97.52	C
ATOM	38829	CD	GLU E 149	130.451	136.479	-7.151	1.00	161.16	C	ATOM	38879	O	MET F 1	156.184	114.882	-81.742	1.00	97.52	O
ATOM	38830	OE1	GLU E 149	131.230	137.103	-6.399	1.00	161.16	O	ATOM	38880	CB	MET F 1	156.673	113.476	-84.742	1.00	138.36	C
ATOM	38831	OE2	GLU E 149	129.237	136.326	-6.897	1.00	161.16	O	ATOM	38881	CG	MET F 1	156.262	112.418	-85.737	1.00	138.36	C
ATOM	38832	N	ARG E 150	134.406	136.621	-9.275	1.00	42.95	N	ATOM	38882	SD	MET F 1	156.646	112.927	-87.412	1.00	138.36	S
ATOM	38833	CA	ARG E 150	134.992	137.898	-9.644	1.00	42.95	C	ATOM	38883	CE	MET F 1	155.310	114.081	-87.720	1.00	138.36	C
ATOM	38834	C	ARG E 150	135.561	137.803	-11.061	1.00	42.95	C	ATOM	38884	N	ARG F 2	158.290	114.342	-82.328	1.00	78.70	N
ATOM	38835	O	ARG E 150	135.235	138.613	-11.916	1.00	42.95	O	ATOM	38885	CA	ARG F 2	158.925	115.371	-81.514	1.00	78.70	C
ATOM	38836	CB	ARG E 150	136.104	138.231	-8.658	1.00	111.01	C	ATOM	38886	C	ARG F 2	159.961	116.101	-82.367	1.00	78.70	C
ATOM	38837	CG	ARG E 150	135.885	139.485	-7.874	1.00	111.01	C	ATOM	38887	O	ARG F 2	160.604	115.494	-83.226	1.00	78.70	O
ATOM	38838	CD	ARG E 150	136.224	140.692	-8.712	1.00	111.01	C	ATOM	38888	CB	ARG F 2	159.603	114.739	-80.289	1.00	62.54	C
ATOM	38839	NE	ARG E 150	136.446	141.865	-7.874	1.00	111.01	N	ATOM	38889	CG	ARG F 2	158.652	114.073	-79.301	1.00	62.54	C
ATOM	38840	CZ	ARG E 150	137.298	141.900	-6.851	1.00	111.01	C	ATOM	38890	CD	ARG F 2	159.403	113.410	-78.151	1.00	62.54	C
ATOM	38841	NH1	ARG E 150	138.009	140.823	-6.536	1.00	111.01	N	ATOM	38891	NE	ARG F 2	158.504	112.584	-77.344	1.00	62.54	N
ATOM	38842	NH2	ARG E 150	137.444	143.015	-6.143	1.00	111.01	N	ATOM	38892	CZ	ARG F 2	158.876	111.547	-76.586	1.00	62.54	C
ATOM	38843	N	LEU E 151	136.403	136.801	-11.306	1.00	51.48	N	ATOM	38893	NH1	ARG F 2	160.150	111.179	-76.507	1.00	62.54	N
ATOM	38844	CA	LEU E 151	137.023	136.588	-12.615	1.00	51.48	C	ATOM	38894	NH2	ARG F 2	157.958	110.856	-75.920	1.00	62.54	N
ATOM	38845	C	LEU E 151	136.063	136.404	-13.769	1.00	51.48	C	ATOM	38895	N	ARG F 3	160.113	117.401	-82.128	1.00	66.18	N
ATOM	38846	O	LEU E 151	136.393	136.736	-14.903	1.00	51.48	O	ATOM	38896	CA	ARG F 3	161.068	118.232	-82.865	1.00	66.18	C
ATOM	38847	CB	LEU E 151	137.924	135.364	-12.588	1.00	41.79	C	ATOM	38897	C	ARG F 3	162.473	118.101	-82.246	1.00	66.18	C



ATOM	38898	O	ARG F	3	162.651	118.281	-81.038	1.00	66.18	O	ATOM	38948	CG2	ILE F	8	177.331	114.608	-89.102	1.00	50.99	C
ATOM	38899	CB	ARG F	3	160.599	119.689	-82.813	1.00	159.21	C	ATOM	38949	CD1	ILE F	8	174.369	114.293	-89.349	1.00	50.99	C
ATOM	38900	CG	ARG F	3	161.159	120.595	-83.890	1.00	159.21	C	ATOM	38950	N	VAL F	9	179.430	116.357	-87.088	1.00	72.97	N
ATOM	38901	CD	ARG F	3	160.565	121.990	-83.754	1.00	159.21	C	ATOM	38951	CA	VAL F	9	180.760	116.877	-87.358	1.00	72.97	C
ATOM	38902	NE	ARG F	3	160.905	122.862	-84.876	1.00	159.21	N	ATOM	38952	C	VAL F	9	181.539	115.827	-88.141	1.00	72.97	C
ATOM	38903	CZ	ARG F	3	160.523	124.133	-84.979	1.00	159.21	C	ATOM	38953	O	VAL F	9	181.821	114.736	-87.635	1.00	72.97	O
ATOM	38904	NH1	ARG F	3	159.787	124.685	-84.024	1.00	159.21	N	ATOM	38954	CB	VAL F	9	181.510	117.184	-86.061	1.00	58.24	C
ATOM	38905	NH2	ARG F	3	160.870	124.852	-86.038	1.00	159.21	N	ATOM	38955	CG1	VAL F	9	182.639	118.150	-86.337	1.00	58.24	C
ATOM	38906	N	TYR F	4	163.471	117.790	-83.069	1.00	70.71	N	ATOM	38956	CG2	VAL F	9	180.556	117.746	-85.034	1.00	58.24	C
ATOM	38907	CA	TYR F	4	164.843	117.630	-82.576	1.00	70.71	C	ATOM	38957	N	LEU F	10	181.877	116.157	-89.382	1.00	82.25	N
ATOM	38908	C	TYR F	4	165.849	118.561	-83.243	1.00	70.71	C	ATOM	38958	CA	LEU F	10	182.609	115.230	-90.226	1.00	82.25	C
ATOM	38909	O	TYR F	4	165.484	119.477	-83.968	1.00	70.71	O	ATOM	38959	C	LEU F	10	183.921	115.805	-90.730	1.00	82.25	C
ATOM	38910	CB	TYR F	4	165.305	116.187	-82.779	1.00	87.66	C	ATOM	38960	O	LEU F	10	184.127	117.020	-90.710	1.00	82.25	O
ATOM	38911	CG	TYR F	4	164.471	115.168	-82.047	1.00	87.66	C	ATOM	38961	CB	LEU F	10	181.725	114.784	-91.394	1.00	70.98	C
ATOM	38912	CD1	TYR F	4	164.576	115.012	-80.666	1.00	87.66	C	ATOM	38962	CG	LEU F	10	180.749	115.827	-91.934	1.00	70.98	C
ATOM	38913	CD2	TYR F	4	163.574	114.352	-82.737	1.00	87.66	C	ATOM	38963	CD1	LEU F	10	181.503	116.888	-92.697	1.00	70.98	C
ATOM	38914	CE1	TYR F	4	163.809	114.064	-79.991	1.00	87.66	C	ATOM	38964	CD2	LEU F	10	179.729	115.149	-92.829	1.00	70.98	C
ATOM	38915	CE2	TYR F	4	162.802	113.403	-82.072	1.00	87.66	C	ATOM	38965	CA	ASN F	11	184.799	114.906	-91.169	1.00	97.25	N
ATOM	38916	CZ	TYR F	4	162.926	113.263	-80.701	1.00	87.66	C	ATOM	38966	N	ASN F	11	186.127	115.238	-91.679	1.00	97.25	C
ATOM	38917	OH	TYR F	4	162.177	112.312	-80.048	1.00	87.66	O	ATOM	38967	C	ASN F	11	186.196	116.537	-92.487	1.00	97.25	C
ATOM	38918	N	GLU F	5	167.125	118.312	-82.974	1.00	83.06	N	ATOM	38968	O	ASN F	11	185.443	116.731	-93.439	1.00	97.25	O
ATOM	38919	CA	GLU F	5	168.221	119.088	-83.536	1.00	83.06	C	ATOM	38969	CB	ASN F	11	186.639	114.087	-92.538	1.00	99.10	C
ATOM	38920	C	GLU F	5	169.413	118.169	-83.728	1.00	83.06	C	ATOM	38970	CG	ASN F	11	188.129	114.147	-92.752	1.00	99.10	C
ATOM	38921	O	GLU F	5	170.069	117.778	-82.764	1.00	83.06	O	ATOM	38971	OD1	ASN F	11	188.686	115.208	-93.039	1.00	99.10	O
ATOM	38922	CB	GLU F	5	168.605	120.246	-82.615	1.00	71.48	C	ATOM	38972	ND2	ASN F	11	188.788	113.002	-92.620	1.00	99.10	N
ATOM	38923	CG	GLU F	5	167.850	121.525	-82.907	1.00	71.48	C	ATOM	38973	N	PRO F	12	187.123	117.436	-92.122	1.00	82.30	N
ATOM	38924	CD	GLU F	5	168.238	122.667	-81.978	1.00	71.48	C	ATOM	38974	CA	PRO F	12	187.304	118.724	-92.803	1.00	82.30	C
ATOM	38925	OE1	GLU F	5	169.449	122.810	-81.691	1.00	71.48	C	ATOM	38975	C	PRO F	12	188.201	118.625	-94.039	1.00	82.30	C
ATOM	38926	OE2	GLU F	5	167.338	123.431	-81.546	1.00	71.48	O	ATOM	38976	O	PRO F	12	188.612	119.640	-94.606	1.00	82.30	O
ATOM	38927	N	VAL F	6	169.674	117.810	-84.980	1.00	68.24	N	ATOM	38977	CB	PRO F	12	187.931	119.588	-91.721	1.00	60.48	C
ATOM	38928	CA	VAL F	6	170.791	116.939	-85.302	1.00	68.24	C	ATOM	38978	CG	PRO F	12	188.863	118.608	-91.063	1.00	60.48	C
ATOM	38929	C	VAL F	6	172.045	117.762	-85.546	1.00	68.24	C	ATOM	38979	CD	PRO F	12	188.023	117.329	-90.958	1.00	60.48	C
ATOM	38930	O	VAL F	6	172.004	118.775	-86.236	1.00	68.24	C	ATOM	38980	N	ASN F	13	188.503	117.399	-94.453	1.00	118.83	N
ATOM	38931	CB	VAL F	6	170.530	116.113	-86.573	1.00	43.21	C	ATOM	38981	CA	ASN F	13	189.362	117.196	-95.606	1.00	118.83	C
ATOM	38932	CG1	VAL F	6	171.702	115.182	-86.827	1.00	43.21	C	ATOM	38982	C	ASN F	13	188.653	116.540	-96.778	1.00	118.83	C
ATOM	38933	CG2	VAL F	6	169.255	115.319	-86.432	1.00	43.21	C	ATOM	38983	O	ASN F	13	189.287	115.904	-97.619	1.00	118.83	O
ATOM	38934	N	ASN F	7	173.152	117.321	-84.959	1.00	62.68	N	ATOM	38984	CB	ASN F	13	190.574	116.356	-95.214	1.00	90.03	C
ATOM	38935	CA	ASN F	7	174.445	117.965	-85.124	1.00	62.68	C	ATOM	38985	CG	ASN F	13	191.299	116.915	-94.018	1.00	90.03	C
ATOM	38936	C	ASN F	7	175.329	116.889	-85.698	1.00	62.68	C	ATOM	38986	OD1	ASN F	13	191.479	118.128	-93.897	1.00	90.03	O
ATOM	38937	O	ASN F	7	175.269	115.737	-85.265	1.00	62.68	O	ATOM	38987	ND2	ASN F	13	191.731	116.033	-93.125	1.00	90.03	N
ATOM	38938	CB	ASN F	7	175.010	118.410	-83.785	1.00	66.43	C	ATOM	38988	N	LEU F	14	187.339	116.691	-96.845	1.00	101.72	N
ATOM	38939	CG	ASN F	7	174.418	119.704	-83.319	1.00	66.43	C	ATOM	38989	CA	LEU F	14	186.602	116.098	-97.944	1.00	101.72	C
ATOM	38940	OD1	ASN F	7	174.752	120.770	-83.830	1.00	66.43	O	ATOM	38990	C	LEU F	14	186.545	117.069	-99.115	1.00	101.72	C
ATOM	38941	ND2	ASN F	7	173.519	119.625	-82.353	1.00	66.43	N	ATOM	38991	O	LEU F	14	186.398	118.275	-98.921	1.00	101.72	O
ATOM	38942	N	ILE F	8	176.134	117.245	-86.686	1.00	62.62	N	ATOM	38992	CB	LEU F	14	185.191	115.717	-97.490	1.00	81.89	C
ATOM	38943	CA	ILE F	8	177.023	116.269	-87.284	1.00	62.62	C	ATOM	38993	CG	LEU F	14	185.136	114.688	-96.355	1.00	81.89	C
ATOM	38944	C	ILE F	8	178.353	116.906	-87.636	1.00	62.62	C	ATOM	38994	CD1	LEU F	14	183.714	114.176	-96.209	1.00	81.89	C
ATOM	38945	O	ILE F	8	178.405	117.883	-88.374	1.00	62.62	O	ATOM	38995	CD2	LEU F	14	186.074	113.526	-96.648	1.00	81.89	C
ATOM	38946	CB	ILE F	8	176.398	115.650	-88.539	1.00	50.99	C	ATOM	38996	N	ASP F	15	186.686	116.542	-100.329	1.00	106.17	N
ATOM	38947	CG1	ILE F	8	175.067	114.983	-88.183	1.00	50.99	C	ATOM	38997	CA	ASP F	15	186.636	117.374	-101.526	1.00	106.17	C



Table 1: Sheet 392/521

ATOM	38998	C	ASP	F	15	185.183	117.613	-101.906	1.00106.17	C	ATOM	39048	CD2	LEU	F	21	180.800	109.201	-101.170	1.00	76.32	C	
ATOM	38999	O	ASP	F	15	184.301	116.849	-101.506	1.00106.17	O	ATOM	39049	N	GLU	F	22	178.599	112.299	-98.535	1.00	93.44	N	
ATOM	39000	CB	ASP	F	15	187.388	116.705	-102.686	1.00139.97	C	ATOM	39050	CA	GLU	F	22	178.264	111.960	-97.159	1.00	93.44	C	
ATOM	39001	CG	ASP	F	15	186.944	115.273	-102.931	1.00139.97	C	ATOM	39051	C	GLU	F	22	176.933	112.603	-96.797	1.00	93.44	C	
ATOM	39002	OD1	ASP	F	15	185.747	115.053	-103.207	1.00139.97	O	ATOM	39052	O	GLU	F	22	176.117	112.006	-96.093	1.00	93.44	O	
ATOM	39003	OD2	ASP	F	15	187.800	114.366	-102.851	1.00139.97	O	ATOM	39053	CB	GLU	F	22	179.376	112.425	-96.210	1.00	99.75	C	
ATOM	39004	N	GLN	F	16	184.940	118.677	-102.666	1.00	88.33	N	ATOM	39054	CG	GLU	F	22	180.725	111.726	-96.444	1.00	99.75	C
ATOM	39005	CA	GLN	F	16	183.590	119.035	-103.092	1.00	88.33	C	ATOM	39055	CD	GLU	F	22	180.699	110.221	-96.148	1.00	99.75	C
ATOM	39006	C	GLN	F	16	182.664	117.826	-103.267	1.00	88.33	C	ATOM	39056	OE1	GLU	F	22	179.825	109.508	-96.683	1.00	99.75	O
ATOM	39007	O	GLN	F	16	181.516	117.829	-102.805	1.00	88.33	O	ATOM	39057	OE2	GLU	F	22	181.565	109.742	-95.384	1.00	99.75	O
ATOM	39008	CB	GLN	F	16	183.652	119.829	-104.399	1.00173.59	C	ATOM	39058	N	LYS	F	23	176.714	113.816	-97.298	1.00	81.67	N	
ATOM	39009	CG	GLN	F	16	182.290	120.246	-104.927	1.00173.59	C	ATOM	39059	CA	LYS	F	23	175.469	114.531	-97.047	1.00	81.67	C	
ATOM	39010	CD	GLN	F	16	181.475	121.006	-103.897	1.00173.59	C	ATOM	39060	C	LYS	F	23	174.337	113.739	-97.685	1.00	81.67	C	
ATOM	39011	OE1	GLN	F	16	181.870	122.079	-103.443	1.00173.59	C	ATOM	39061	O	LYS	F	23	173.200	113.754	-97.211	1.00	81.67	O	
ATOM	39012	NE2	GLN	F	16	180.330	120.447	-103.519	1.00173.59	N	ATOM	39062	CB	LYS	F	23	175.523	115.931	-97.651	1.00	68.75	C	
ATOM	39013	N	SER	F	17	183.173	116.792	-103.930	1.00	92.12	N	ATOM	39063	CG	LYS	F	23	176.618	116.803	-97.082	1.00	68.75	C
ATOM	39014	CA	SER	F	17	182.404	115.581	-104.181	1.00	92.12	C	ATOM	39064	CD	LYS	F	23	176.522	118.224	-97.613	1.00	68.75	C
ATOM	39015	C	SER	F	17	182.240	114.724	-102.928	1.00	92.12	C	ATOM	39065	CE	LYS	F	23	175.194	118.872	-97.236	1.00	68.75	C
ATOM	39016	O	SER	F	17	181.124	114.542	-102.442	1.00	92.12	O	ATOM	39066	NZ	LYS	F	23	175.071	120.269	-97.755	1.00	68.75	N
ATOM	39017	CB	SER	F	17	183.086	114.765	-105.278	1.00	92.98	C	ATOM	39067	N	GLU	F	24	174.664	113.055	-98.775	1.00	89.89	N
ATOM	39018	OG	SER	F	17	183.402	115.590	-106.385	1.00	92.98	O	ATOM	39068	CA	GLU	F	24	173.699	112.231	-99.477	1.00	89.89	C
ATOM	39019	N	GLN	F	18	183.356	114.196	-102.423	1.00101.73	N	ATOM	39069	C	GLU	F	24	173.176	111.221	-98.474	1.00	89.89	C	
ATOM	39020	CA	GLN	F	18	183.372	113.352	-101.227	1.00101.73	C	ATOM	39070	O	GLU	F	24	172.010	111.270	-98.083	1.00	89.89	O	
ATOM	39021	C	GLN	F	18	182.419	113.853	-100.157	1.00101.73	C	ATOM	39071	CB	GLU	F	24	174.377	111.512	-100.648	1.00	141.77	C	
ATOM	39022	O	GLN	F	18	181.707	113.067	-99.532	1.00101.73	O	ATOM	39072	CG	GLU	F	24	173.727	110.198	-101.074	1.00	141.77	C	
ATOM	39023	CB	GLN	F	18	184.780	113.296	-100.636	1.00	99.56	C	ATOM	39073	CD	GLU	F	24	172.316	110.371	-101.599	1.00	141.77	C
ATOM	39024	CG	GLN	F	18	185.639	112.140	-101.115	1.00	99.56	C	ATOM	39074	OE1	GLU	F	24	172.126	111.167	-102.541	1.00	141.77	O
ATOM	39025	CD	GLN	F	18	187.044	112.180	-100.523	1.00	99.56	C	ATOM	39075	OE2	GLU	F	24	171.398	109.704	-101.075	1.00	141.77	O
ATOM	39026	OE1	GLN	F	18	187.791	111.207	-100.605	1.00	99.56	O	ATOM	39076	N	ILE	F	25	174.056	110.321	-98.042	1.00	91.54	N
ATOM	39027	NE2	GLN	F	18	187.410	113.315	-99.932	1.00	99.56	N	ATOM	39077	CA	ILE	F	25	173.699	109.279	-97.082	1.00	91.54	C
ATOM	39028	N	LEU	F	19	182.424	115.166	-99.943	1.00	91.33	N	ATOM	39078	C	ILE	F	25	172.916	109.809	-95.875	1.00	91.54	C
ATOM	39029	CA	LEU	F	19	181.559	115.786	-98.945	1.00	91.33	C	ATOM	39079	O	ILE	F	25	172.021	109.135	-95.362	1.00	91.54	O
ATOM	39030	C	LEU	F	19	180.086	115.604	-99.302	1.00	91.33	C	ATOM	39080	CB	ILE	F	25	174.960	108.551	-96.581	1.00	88.57	C
ATOM	39031	O	LEU	F	19	179.327	114.981	-98.555	1.00	91.33	O	ATOM	39081	CG1	ILE	F	25	175.754	108.033	-97.780	1.00	88.57	C
ATOM	39032	CB	LEU	F	19	181.890	117.281	-98.820	1.00	73.72	C	ATOM	39082	CG2	ILE	F	25	174.570	107.398	-95.656	1.00	88.57	C
ATOM	39033	CG	LEU	F	19	181.056	118.171	-97.880	1.00	73.72	C	ATOM	39083	CD1	ILE	F	25	177.024	107.306	-97.415	1.00	88.57	C
ATOM	39034	CD1	LEU	F	19	181.840	119.437	-97.579	1.00	73.72	C	ATOM	39084	N	ILE	F	26	173.260	111.013	-95.425	1.00	71.83	N
ATOM	39035	CD2	LEU	F	19	179.694	118.506	-98.501	1.00	73.72	C	ATOM	39085	CA	ILE	F	26	172.582	111.635	-94.294	1.00	71.83	C
ATOM	39036	N	ALA	F	20	179.691	116.149	-100.448	1.00	105.48	N	ATOM	39086	C	ILE	F	26	171.111	111.883	-94.637	1.00	71.83	C
ATOM	39037	CA	ALA	F	20	178.314	116.057	-100.912	1.00	105.48	C	ATOM	39087	O	ILE	F	26	170.204	111.333	-94.000	1.00	71.83	O
ATOM	39038	C	ALA	F	20	177.799	114.611	-100.946	1.00	105.48	C	ATOM	39088	CB	ILE	F	26	173.251	112.975	-93.929	1.00	59.11	C
ATOM	39039	O	ALA	F	20	176.589	114.377	-100.985	1.00	105.48	O	ATOM	39089	CG1	ILE	F	26	174.597	112.715	-93.241	1.00	59.11	C
ATOM	39040	CB	ALA	F	20	178.194	116.696	-102.288	1.00	140.69	C	ATOM	39090	CG2	ILE	F	26	172.316	113.802	-93.057	1.00	59.11	C
ATOM	39041	N	LEU	F	21	178.718	113.648	-100.938	1.00	69.29	N	ATOM	39091	CD1	ILE	F	26	175.331	113.967	-92.809	1.00	59.11	C
ATOM	39042	CA	LEU	F	21	178.349	112.235	-100.945	1.00	69.29	C	ATOM	39092	N	GLN	F	27	170.890	112.723	-95.645	1.00	83.54	N
ATOM	39043	C	LEU	F	21	177.900	111.808	-99.556	1.00	69.29	C	ATOM	39093	CA	GLN	F	27	169.547	113.048	-96.110	1.00	83.54	C
ATOM	39044	O	LEU	F	21	176.952	111.032	-99.411	1.00	69.29	O	ATOM	39094	C	GLN	F	27	168.794	111.751	-96.363	1.00	83.54	C
ATOM	39045	CB	LEU	F	21	179.537	111.361	-101.356	1.00	76.32	C	ATOM	39095	O	GLN	F	27	167.613	111.623	-96.036	1.00	83.54	O
ATOM	39046	CG	LEU	F	21	179.477	109.902	-100.870	1.00	76.32	C	ATOM	39096	CB	GLN	F	27	169.633	113.846	-97.408	1.00	113.56	C
ATOM	39047	CD1	LEU	F	21	178.311	109.172	-101.526	1.00	76.32	C	ATOM	39097	CG	GLN	F	27	170.384	115.151	-97.274	1.00	113.56	C



ATOM	39098	CD	GLN	F	27	169.590	116.196	-96.525	1.00113.56	C	ATOM	39148	CD1	TYR	F	33	167.144	106.190	-89.998	1.00	76.11	C	
ATOM	39099	OE1	GLN	F	27	170.090	117.283	-96.239	1.00113.56	O	ATOM	39149	CD2	TYR	F	33	165.741	104.968	-88.494	1.00	76.11	C	
ATOM	39100	NE2	GLN	F	27	168.337	115.877	-96.209	1.00113.56	N	ATOM	39150	CE1	TYR	F	33	168.046	105.124	-90.029	1.00	76.11	C	
ATOM	39101	N	ARG	F	28	169.500	110.793	-96.953	1.00	95.03	N	ATOM	39151	CE2	TYR	F	33	166.634	103.899	-88.519	1.00	76.11	C
ATOM	39102	CA	ARG	F	28	168.939	109.488	-97.263	1.00	95.03	C	ATOM	39152	CZ	TYR	F	33	167.783	103.982	-89.286	1.00	76.11	C
ATOM	39103	C	ARG	F	28	168.541	108.820	-95.956	1.00	95.03	C	ATOM	39153	OH	TYR	F	33	168.668	102.927	-89.294	1.00	76.11	O
ATOM	39104	O	ARG	F	28	167.410	108.365	-95.795	1.00	95.03	O	ATOM	39154	N	GLY	F	34	162.206	108.716	-90.856	1.00	63.44	N
ATOM	39105	CB	ARG	F	28	169.983	108.631	-97.981	1.00135.83	C	ATOM	39155	CA	GLY	F	34	161.075	109.598	-90.649	1.00	63.44	C	
ATOM	39106	CG	ARG	F	28	169.413	107.456	-98.748	1.00135.83	C	ATOM	39156	C	GLY	F	34	161.477	111.042	-90.438	1.00	63.44	C	
ATOM	39107	CD	ARG	F	28	170.522	106.629	-99.377	1.00135.83	C	ATOM	39157	O	GLY	F	34	160.628	111.903	-90.196	1.00	63.44	O	
ATOM	39108	NE	ARG	F	28	170.049	105.898	-100.549	1.00135.83	N	ATOM	39158	N	ALA	F	35	162.769	111.322	-90.533	1.00	97.15	N	
ATOM	39109	CZ	ARG	F	28	169.713	106.472	-101.701	1.00135.83	C	ATOM	39159	CA	ALA	F	35	163.246	112.682	-90.339	1.00	97.15	C	
ATOM	39110	NH1	ARG	F	28	169.801	107.788	-101.839	1.00135.83	N	ATOM	39160	C	ALA	F	35	162.672	113.659	-91.367	1.00	97.15	C	
ATOM	39111	NH2	ARG	F	28	169.283	105.735	-102.715	1.00135.83	N	ATOM	39161	O	ALA	F	35	163.012	113.615	-92.551	1.00	97.15	O	
ATOM	39112	N	ALA	F	29	169.484	108.776	-95.021	1.00	90.18	N	ATOM	39162	CB	ALA	F	35	164.764	112.706	-90.382	1.00	74.51	C
ATOM	39113	CA	ALA	F	29	169.260	108.170	-93.714	1.00	90.18	C	ATOM	39163	N	ARG	F	36	161.789	114.536	-90.904	1.00	52.74	N
ATOM	39114	C	ALA	F	29	168.080	108.800	-93.002	1.00	90.18	C	ATOM	39164	CA	ARG	F	36	161.175	115.546	-91.760	1.00	52.74	C
ATOM	39115	O	ALA	F	29	167.209	108.098	-92.489	1.00	90.18	O	ATOM	39165	C	ARG	F	36	161.970	116.853	-91.584	1.00	52.74	C
ATOM	39116	CB	ALA	F	29	170.489	108.324	-92.867	1.00	31.60	C	ATOM	39166	O	ARG	F	36	161.664	117.682	-90.722	1.00	52.74	O
ATOM	39117	N	LEU	F	30	168.062	110.127	-92.961	1.00	80.94	N	ATOM	39167	CB	ARG	F	36	159.705	115.733	-91.356	1.00	87.75	C
ATOM	39118	CA	LEU	F	30	166.986	110.839	-92.295	1.00	80.94	C	ATOM	39168	CG	ARG	F	36	158.985	116.916	-91.998	1.00	87.75	C
ATOM	39119	C	LEU	F	30	165.605	110.342	-92.701	1.00	80.94	C	ATOM	39169	CD	ARG	F	36	157.602	117.106	-91.373	1.00	87.75	C
ATOM	39120	O	LEU	F	30	164.824	109.906	-91.851	1.00	80.94	O	ATOM	39170	NE	ARG	F	36	157.000	118.392	-91.719	1.00	87.75	N
ATOM	39121	CB	LEU	F	30	167.113	112.336	-92.555	1.00	59.02	C	ATOM	39171	CZ	ARG	F	36	157.524	119.578	-91.408	1.00	87.75	C
ATOM	39122	CG	LEU	F	30	168.341	112.912	-91.854	1.00	59.02	C	ATOM	39172	NH1	ARG	F	36	158.666	119.650	-90.742	1.00	87.75	N
ATOM	39123	CD1	LEU	F	30	168.417	114.422	-92.026	1.00	59.02	C	ATOM	39173	NH2	ARG	F	36	156.905	120.699	-91.759	1.00	87.75	N
ATOM	39124	CD2	LEU	F	30	168.254	112.548	-90.383	1.00	59.02	C	ATOM	39174	N	VAL	F	37	162.993	117.021	-92.417	1.00	84.61	N
ATOM	39125	N	GLU	F	31	165.297	110.401	-93.992	1.00101.67	N	ATOM	39175	CA	VAL	F	37	163.881	118.186	-92.373	1.00	84.61	C	
ATOM	39126	CA	GLU	F	31	164.001	109.929	-94.460	1.00101.67	C	ATOM	39176	C	VAL	F	37	163.210	119.562	-92.331	1.00	84.61	C	
ATOM	39127	C	GLU	F	31	163.776	108.488	-94.020	1.00101.67	C	ATOM	39177	O	VAL	F	37	162.908	120.137	-93.370	1.00	84.61	O	
ATOM	39128	O	GLU	F	31	162.701	108.134	-93.541	1.00101.67	O	ATOM	39178	CB	VAL	F	37	164.838	118.175	-93.577	1.00	73.10	C	
ATOM	39129	CB	GLU	F	31	163.913	110.004	-95.983	1.00125.99	C	ATOM	39179	CG1	VAL	F	37	166.156	118.823	-93.187	1.00	73.10	C	
ATOM	39130	CG	GLU	F	31	163.778	111.401	-96.541	1.00125.99	C	ATOM	39180	CG2	VAL	F	37	165.031	116.745	-94.079	1.00	73.10	C	
ATOM	39131	CD	GLU	F	31	163.297	111.382	-97.975	1.00125.99	C	ATOM	39181	N	GLU	F	38	163.001	120.099	-91.132	1.00	84.12	N	
ATOM	39132	OE1	GLU	F	31	164.004	110.809	-98.831	1.00125.99	O	ATOM	39182	CA	GLU	F	38	162.373	121.412	-90.993	1.00	84.12	C	
ATOM	39133	OE2	GLU	F	31	162.209	111.931	-98.245	1.00125.99	O	ATOM	39183	C	GLU	F	38	163.289	122.526	-91.473	1.00	84.12	C	
ATOM	39134	N	ASN	F	32	164.801	107.661	-94.188	1.00	80.09	N	ATOM	39184	O	GLU	F	38	162.819	123.563	-91.941	1.00	84.12	O
ATOM	39135	CA	ASN	F	32	164.727	106.255	-93.814	1.00	80.09	C	ATOM	39185	CB	GLU	F	38	161.973	121.686	-89.543	1.00	98.55	C
ATOM	39136	C	ASN	F	32	164.223	106.060	-92.390	1.00	80.09	C	ATOM	39186	CG	GLU	F	38	160.840	120.825	-89.034	1.00	98.55	C
ATOM	39137	O	ASN	F	32	163.799	104.962	-92.022	1.00	80.09	O	ATOM	39187	CD	GLU	F	38	160.185	121.417	-87.809	1.00	98.55	C
ATOM	39138	CB	ASN	F	32	166.101	105.608	-93.958	1.00139.70	C	ATOM	39188	OE1	GLU	F	38	159.323	120.741	-87.209	1.00	98.55	O	
ATOM	39139	CG	ASN	F	32	166.601	105.627	-95.380	1.00139.70	C	ATOM	39189	OE2	GLU	F	38	160.530	122.563	-87.452	1.00	98.55	O	
ATOM	39140	OD1	ASN	F	32	167.778	105.373	-95.638	1.00139.70	O	ATOM	39190	N	LYS	F	39	164.595	122.327	-91.320	1.00	86.31	N	
ATOM	39141	ND2	ASN	F	32	165.706	105.923	-96.317	1.00139.70	N	ATOM	39191	CA	LYS	F	39	165.567	123.304	-91.792	1.00	86.31	C	
ATOM	39142	N	TYR	F	33	164.274	107.116	-91.585	1.00101.58	N	ATOM	39192	C	LYS	F	39	167.009	122.893	-91.572	1.00	86.31	C	
ATOM	39143	CA	TYR	F	33	163.811	107.012	-90.209	1.00101.58	C	ATOM	39193	O	LYS	F	39	167.285	121.830	-91.011	1.00	86.31	O	
ATOM	39144	C	TYR	F	33	162.631	107.919	-89.881	1.00101.58	C	ATOM	39194	CB	LYS	F	39	165.304	124.701	-91.211	1.00	99.61	C	
ATOM	39145	O	TYR	F	33	162.106	107.883	-88.768	1.00101.58	O	ATOM	39195	CG	LYS	F	39	165.740	124.977	-89.800	1.00	99.61	C	
ATOM	39146	CB	TYR	F	33	164.971	107.260	-89.239	1.00	76.11	C	ATOM	39196	CD	LYS	F	39	165.510	126.463	-89.559	1.00	99.61	C
ATOM	39147	CG	TYR	F	33	165.979	106.127	-89.231	1.00	76.11	C	ATOM	39197	CE	LYS	F	39	165.642	126.860	-88.106	1.00	99.61	C



Table 1: Sheet 394/521

ATOM	39198	NZ	LYS F	39	165.242	128.287	-87.917	1.00	99.61	N	ATOM	39248	CB	ARG F	46	184.200	125.380	-86.647	1.00	10107.03	C
ATOM	39199	N	VAL F	40	167.930	123.736	-92.031	1.00	88.66	N	ATOM	39249	CG	ARG F	46	183.073	126.213	-87.243	1.00	10107.03	C
ATOM	39200	CA	VAL F	40	169.344	123.415	-91.932	1.00	88.66	C	ATOM	39250	CD	ARG F	46	182.272	126.893	-86.162	1.00	10107.03	C
ATOM	39201	C	VAL F	40	170.281	124.617	-91.938	1.00	88.66	C	ATOM	39251	NE	ARG F	46	183.139	127.668	-85.280	1.00	10107.03	N
ATOM	39202	O	VAL F	40	169.943	125.693	-92.421	1.00	88.66	O	ATOM	39252	CZ	ARG F	46	182.725	128.300	-84.186	1.00	10107.03	C
ATOM	39203	CB	VAL F	40	169.743	122.454	-93.091	1.00	59.52	C	ATOM	39253	NH1	ARG F	46	181.446	128.252	-83.835	1.00	10107.03	N
ATOM	39204	CG1	VAL F	40	169.189	122.985	-94.396	1.00	59.52	C	ATOM	39254	NH2	ARG F	46	183.590	128.973	-83.434	1.00	10107.03	N
ATOM	39205	CG2	VAL F	40	171.260	122.301	-93.179	1.00	59.52	C	ATOM	39255	N	ARG F	47	187.423	125.676	-86.078	1.00	78.78	N
ATOM	39206	N	GLU F	41	171.465	124.403	-91.378	1.00	91.95	N	ATOM	39256	CA	ARG F	47	188.593	125.286	-85.298	1.00	78.78	C
ATOM	39207	CA	GLU F	41	172.516	125.401	-91.305	1.00	91.95	C	ATOM	39257	C	ARG F	47	188.178	124.726	-83.943	1.00	78.78	C
ATOM	39208	C	GLU F	41	173.793	124.636	-91.612	1.00	91.95	C	ATOM	39258	O	ARG F	47	187.852	125.477	-83.025	1.00	78.78	O
ATOM	39209	O	GLU F	41	173.850	123.422	-91.410	1.00	91.95	O	ATOM	39259	CB	ARG F	47	189.520	126.492	-85.107	1.00	10121.52	C
ATOM	39210	CB	GLU F	41	172.582	125.997	-89.906	1.00	106.42	C	ATOM	39260	CG	ARG F	47	189.726	127.328	-86.373	1.00	10121.52	C
ATOM	39211	CG	GLU F	41	171.370	126.822	-89.556	1.00	106.42	C	ATOM	39261	CD	ARG F	47	190.264	126.497	-87.549	1.00	10121.52	C
ATOM	39212	CD	GLU F	41	171.412	127.324	-88.133	1.00	106.42	C	ATOM	39262	NE	ARG F	47	190.139	127.184	-88.841	1.00	10121.52	N
ATOM	39213	OE1	GLU F	41	172.451	127.893	-87.732	1.00	106.42	O	ATOM	39263	CZ	ARG F	47	190.456	126.649	-90.022	1.00	10121.52	C
ATOM	39214	OE2	GLU F	41	170.403	127.154	-87.418	1.00	106.42	O	ATOM	39264	NH1	ARG F	47	190.927	125.410	-90.092	1.00	10121.52	N
ATOM	39215	N	GLU F	42	174.814	125.329	-92.103	1.00	110.08	N	ATOM	39265	NH2	ARG F	47	190.288	127.348	-91.140	1.00	10121.52	N
ATOM	39216	CA	GLU F	42	176.057	124.653	-92.441	1.00	110.08	C	ATOM	39266	N	LEU F	48	188.193	123.400	-83.832	1.00	67.21	N
ATOM	39217	C	GLU F	42	177.294	125.507	-92.195	1.00	110.08	C	ATOM	39267	CA	LEU F	48	187.821	122.699	-82.603	1.00	67.21	C
ATOM	39218	O	GLU F	42	177.988	125.891	-93.134	1.00	110.08	O	ATOM	39268	C	LEU F	48	188.661	123.099	-81.403	1.00	67.21	C
ATOM	39219	CB	GLU F	42	175.999	124.202	-93.902	1.00	104.67	C	ATOM	39269	O	LEU F	48	189.827	123.449	-81.549	1.00	67.21	O
ATOM	39220	CG	GLU F	42	177.123	123.283	-94.337	1.00	104.67	C	ATOM	39270	CB	LEU F	48	187.951	121.199	-82.806	1.00	44.33	C
ATOM	39221	CD	GLU F	42	176.791	122.546	-95.625	1.00	104.67	C	ATOM	39271	CG	LEU F	48	187.164	120.661	-83.995	1.00	44.33	C
ATOM	39222	OE1	GLU F	42	177.664	121.815	-96.141	1.00	104.67	O	ATOM	39272	CD1	LEU F	48	187.385	119.151	-84.082	1.00	44.33	C
ATOM	39223	OE2	GLU F	42	175.650	122.692	-96.118	1.00	104.67	O	ATOM	39273	CD2	LEU F	48	185.675	120.996	-83.849	1.00	44.33	C
ATOM	39224	N	LEU F	43	177.562	125.795	-90.924	1.00	86.42	N	ATOM	39274	N	ALA F	49	188.065	123.028	-80.216	1.00	61.57	N
ATOM	39225	CA	LEU F	43	178.722	126.592	-90.532	1.00	86.42	C	ATOM	39275	CA	ALA F	49	188.758	123.394	-78.986	1.00	61.57	C
ATOM	39226	C	LEU F	43	179.980	126.013	-91.177	1.00	86.42	C	ATOM	39276	C	ALA F	49	189.890	122.418	-78.719	1.00	61.57	C
ATOM	39227	O	LEU F	43	181.016	126.681	-91.270	1.00	86.42	O	ATOM	39277	O	ALA F	49	190.909	122.767	-78.119	1.00	61.57	O
ATOM	39228	CB	LEU F	43	178.884	126.587	-89.007	1.00	95.76	C	ATOM	39278	CB	ALA F	49	187.784	123.404	-77.819	1.00	113.05	C
ATOM	39229	CG	LEU F	43	177.788	127.204	-88.130	1.00	95.76	C	ATOM	39279	N	TYR F	50	189.696	121.189	-79.174	1.00	69.22	N
ATOM	39230	CD1	LEU F	43	177.703	128.693	-88.405	1.00	95.76	C	ATOM	39280	CA	TYR F	50	190.684	120.134	-79.020	1.00	69.22	C
ATOM	39231	CD2	LEU F	43	176.451	126.520	-88.389	1.00	95.76	C	ATOM	39281	C	TYR F	50	190.552	119.259	-80.260	1.00	69.22	C
ATOM	39232	N	GLY F	44	179.883	124.759	-91.608	1.00	97.31	N	ATOM	39282	O	TYR F	50	189.500	119.233	-80.896	1.00	69.22	O
ATOM	39233	CA	GLY F	44	181.004	124.110	-92.256	1.00	97.31	C	ATOM	39283	CB	TYR F	50	190.393	119.315	-77.765	1.00	58.17	C
ATOM	39234	C	GLY F	44	182.230	123.913	-91.389	1.00	97.31	C	ATOM	39284	CG	TYR F	50	189.008	118.706	-77.749	1.00	58.17	C
ATOM	39235	O	GLY F	44	182.173	123.228	-90.372	1.00	97.31	O	ATOM	39285	CD1	TYR F	50	187.892	119.473	-77.424	1.00	58.17	C
ATOM	39236	N	LEU F	45	183.343	124.516	-91.791	1.00	107.46	N	ATOM	39286	CD2	TYR F	50	188.811	117.373	-78.097	1.00	58.17	C
ATOM	39237	CA	LEU F	45	184.592	124.385	-91.053	1.00	107.46	C	ATOM	39287	CE1	TYR F	50	186.613	118.930	-77.448	1.00	58.17	C
ATOM	39238	C	LEU F	45	184.697	125.246	-89.811	1.00	107.46	C	ATOM	39288	CE2	TYR F	50	187.536	116.817	-78.127	1.00	58.17	C
ATOM	39239	O	LEU F	45	184.284	126.403	-89.817	1.00	107.46	O	ATOM	39289	CZ	TYR F	50	186.437	117.599	-77.802	1.00	58.17	C
ATOM	39240	CB	LEU F	45	185.776	124.719	-91.953	1.00	73.92	C	ATOM	39290	OH	TYR F	50	185.166	117.049	-77.839	1.00	58.17	O
ATOM	39241	CG	LEU F	45	186.150	123.684	-93.004	1.00	73.92	C	ATOM	39291	N	PRO F	51	191.616	118.536	-80.629	1.00	60.86	N
ATOM	39242	CD1	LEU F	45	187.503	124.058	-93.592	1.00	73.92	C	ATOM	39292	CA	PRO F	51	191.549	117.678	-81.813	1.00	60.86	C
ATOM	39243	CD2	LEU F	45	186.210	122.297	-92.373	1.00	73.92	C	ATOM	39293	C	PRO F	51	190.575	116.511	-81.737	1.00	60.86	C
ATOM	39244	N	ARG F	46	185.268	124.671	-88.752	1.00	101.51	N	ATOM	39294	O	PRO F	51	190.416	115.878	-80.692	1.00	60.86	O
ATOM	39245	CA	ARG F	46	185.476	125.393	-87.494	1.00	101.51	C	ATOM	39295	CB	PRO F	51	192.993	117.214	-81.981	1.00	52.13	C
ATOM	39246	C	ARG F	46	186.647	124.790	-86.705	1.00	101.51	C	ATOM	39296	CG	PRO F	51	193.515	117.233	-80.593	1.00	52.13	C
ATOM	39247	O	ARG F	46	186.845	123.568	-86.678	1.00	101.51	O	ATOM	39297	CD	PRO F	51	192.972	118.531	-80.064	1.00	52.13	C



ATOM	39298	N	ILE	F	52	189.914	116.248	-82.858	1.00	77.66	N	183.995	119.839	-89.865	1.00	62.73	N
ATOM	39299	CA	ILE	F	52	188.973	115.143	-82.974	1.00	77.66	C	182.975	120.368	-90.769	1.00	62.73	C
ATOM	39300	C	ILE	F	52	189.495	114.263	-84.104	1.00	77.66	C	181.621	120.129	-90.100	1.00	62.73	C
ATOM	39301	O	ILE	F	52	189.550	114.688	-85.260	1.00	77.66	O	181.295	118.999	-89.732	1.00	62.73	O
ATOM	39302	CB	ILE	F	52	187.551	115.628	-83.327	1.00	50.11	C	183.026	119.658	-92.128	1.00	83.29	C
ATOM	39303	CG1	ILE	F	52	186.993	116.482	-82.183	1.00	50.11	C	182.259	120.393	-93.204	1.00	83.29	C
ATOM	39304	CG2	ILE	F	52	186.651	114.423	-83.618	1.00	50.11	C	182.702	121.629	-93.672	1.00	83.29	C
ATOM	39305	CD1	ILE	F	52	185.563	116.966	-82.391	1.00	50.11	C	181.059	119.888	-93.709	1.00	83.29	C
ATOM	39306	N	ALA	F	53	189.887	113.041	-83.765	1.00	80.16	N	181.974	122.350	-94.611	1.00	83.29	C
ATOM	39307	CA	ALA	F	53	190.428	112.125	-84.755	1.00	80.16	C	180.318	120.601	-94.650	1.00	83.29	C
ATOM	39308	C	ALA	F	53	191.723	112.733	-85.290	1.00	80.16	C	180.783	121.836	-95.095	1.00	83.29	C
ATOM	39309	O	ALA	F	53	191.958	112.773	-86.495	1.00	80.16	O	180.055	122.566	-96.009	1.00	83.29	O
ATOM	39310	CB	ALA	F	53	189.424	111.912	-85.886	1.00	70.49	C	180.833	121.189	-89.952	1.00	89.64	N
ATOM	39311	N	LYS	F	54	192.555	113.207	-84.368	1.00	75.25	N	179.549	121.077	-89.279	1.00	89.64	C
ATOM	39312	CA	LYS	F	54	193.844	113.823	-84.681	1.00	75.25	C	178.291	121.126	-90.117	1.00	89.64	C
ATOM	39313	C	LYS	F	54	193.671	115.154	-85.404	1.00	75.25	C	178.192	121.868	-91.087	1.00	89.64	O
ATOM	39314	O	LYS	F	54	194.469	116.073	-85.225	1.00	75.25	O	179.444	122.137	-88.185	1.00	84.83	C
ATOM	39315	CB	LYS	F	54	194.703	112.888	-85.535	1.00	106.11	C	180.423	121.943	-87.068	1.00	84.83	C
ATOM	39316	CG	LYS	F	54	194.509	111.406	-85.249	1.00	106.11	C	181.646	122.597	-87.075	1.00	84.83	C
ATOM	39317	CD	LYS	F	54	194.676	111.065	-83.781	1.00	106.11	C	180.134	121.075	-86.020	1.00	84.83	C
ATOM	39318	CE	LYS	F	54	194.312	109.607	-83.537	1.00	106.11	C	182.571	122.389	-86.052	1.00	84.83	C
ATOM	39319	NZ	LYS	F	54	194.310	109.266	-82.091	1.00	106.11	N	181.047	120.863	-84.999	1.00	84.83	C
ATOM	39320	N	ASP	F	55	192.620	115.255	-86.212	1.00	62.88	N	182.268	121.520	-85.014	1.00	84.83	C
ATOM	39321	CA	ASP	F	55	192.328	116.465	-86.973	1.00	62.88	C	177.324	120.323	-89.690	1.00	83.29	N
ATOM	39322	C	ASP	F	55	191.851	117.579	-86.034	1.00	62.88	C	176.017	120.212	-90.316	1.00	83.29	C
ATOM	39323	O	ASP	F	55	190.888	117.388	-85.298	1.00	62.88	O	174.989	120.264	-89.192	1.00	83.29	C
ATOM	39324	CB	ASP	F	55	191.241	116.158	-87.994	1.00	93.42	C	175.101	119.526	-88.213	1.00	83.29	O
ATOM	39325	CG	ASP	F	55	191.247	117.119	-88.910	1.00	93.42	C	175.899	118.879	-91.046	1.00	103.26	C
ATOM	39326	OD1	ASP	F	55	191.208	118.347	-88.910	1.00	93.42	O	176.845	118.701	-92.226	1.00	103.26	C
ATOM	39327	OD2	ASP	F	55	191.289	116.640	-90.294	1.00	93.42	O	176.806	117.261	-92.705	1.00	103.26	C
ATOM	39328	N	PRO	F	56	192.507	118.758	-86.054	1.00	64.02	N	176.437	119.656	-93.333	1.00	103.26	C
ATOM	39329	CA	PRO	F	56	192.159	119.904	-85.206	1.00	64.02	C	173.994	121.132	-89.330	1.00	70.49	N
ATOM	39330	C	PRO	F	56	191.022	120.788	-85.714	1.00	64.02	C	172.956	121.270	-88.313	1.00	70.49	C
ATOM	39331	O	PRO	F	56	190.758	121.846	-85.143	1.00	64.02	O	171.569	121.092	-88.932	1.00	70.49	C
ATOM	39332	CB	PRO	F	56	193.462	120.672	-85.145	1.00	77.63	C	171.153	121.888	-89.761	1.00	70.49	O
ATOM	39333	CG	PRO	F	56	193.921	120.551	-86.540	1.00	77.63	C	173.060	122.652	-87.663	1.00	97.05	C
ATOM	39334	CD	PRO	F	56	193.728	119.062	-86.818	1.00	77.63	C	172.101	122.879	-86.533	1.00	97.05	C
ATOM	39335	N	GLN	F	57	190.359	120.362	-86.784	1.00	53.59	N	172.274	122.531	-85.225	1.00	97.05	C
ATOM	39336	CA	GLN	F	57	189.253	121.124	-87.364	1.00	53.59	C	170.821	123.515	-86.614	1.00	97.05	C
ATOM	39337	C	GLN	F	57	188.074	120.191	-87.580	1.00	53.59	C	171.183	122.914	-84.484	1.00	97.05	N
ATOM	39338	O	GLN	F	57	188.185	118.978	-87.393	1.00	53.59	O	170.275	123.520	-85.312	1.00	97.05	C
ATOM	39339	CB	GLN	F	57	189.663	121.701	-88.716	1.00	137.37	C	170.079	124.081	-87.662	1.00	97.05	C
ATOM	39340	CG	GLN	F	57	191.005	122.394	-88.726	1.00	137.37	C	169.021	124.072	-85.029	1.00	97.05	C
ATOM	39341	CD	GLN	F	57	191.560	122.542	-90.128	1.00	137.37	C	168.831	124.628	-87.380	1.00	97.05	C
ATOM	39342	OE1	GLN	F	57	192.611	123.148	-90.330	1.00	137.37	O	168.316	124.620	-86.072	1.00	97.05	C
ATOM	39343	NE2	GLN	F	57	190.857	121.979	-91.107	1.00	137.37	N	170.852	120.048	-88.539	1.00	89.22	N
ATOM	39344	N	GLY	F	58	186.946	120.759	-87.989	1.00	52.83	N	169.521	119.826	-89.083	1.00	89.22	C
ATOM	39345	CA	GLY	F	58	185.776	119.941	-88.233	1.00	52.83	C	168.466	119.791	-87.990	1.00	89.22	C
ATOM	39346	C	GLY	F	58	184.791	120.635	-89.149	1.00	52.83	C	168.580	119.033	-87.028	1.00	89.22	O
ATOM	39347	O	GLY	F	58	184.766	121.872	-89.220	1.00	52.83	O	169.444	118.502	-89.846	1.00	102.96	C



Table 1: Sheet 396/521

ATOM	39398	CG	TYR F	63	170.537	118.270	-90.856	1.00102.96	C	ATOM	39448	O	GLU F	69	162.655	107.753	-80.631	1.00101.88	O
ATOM	39399	CD1	TYR F	63	170.993	119.298	-91.678	1.00102.96	C	ATOM	39449	CB	GLU F	69	160.522	110.005	-79.829	1.00 82.63	C
ATOM	39400	CD2	TYR F	63	171.096	117.004	-91.013	1.00102.96	C	ATOM	39450	CG	GLU F	69	159.232	110.787	-79.945	1.00 82.63	C
ATOM	39401	CE1	TYR F	63	171.982	119.068	-92.634	1.00102.96	C	ATOM	39451	CD	GLU F	69	158.028	109.891	-80.127	1.00 82.63	C
ATOM	39402	CE2	TYR F	63	172.080	116.764	-91.963	1.00102.96	C	ATOM	39452	OE1	GLU F	69	157.955	109.206	-81.166	1.00 82.63	O
ATOM	39403	C2	TYR F	63	172.519	117.795	-92.769	1.00102.96	C	ATOM	39453	OE2	GLU F	69	157.157	109.862	-79.229	1.00 82.63	O
ATOM	39404	OH	TYR F	63	173.496	117.552	-93.705	1.00102.96	O	ATOM	39454	N	ASP F	70	160.588	107.098	-81.221	1.00 64.01	N
ATOM	39405	N	GLN F	64	167.436	120.611	-88.144	1.00 79.08	N	ATOM	39455	CA	ASP F	70	160.886	105.677	-81.074	1.00 64.01	C
ATOM	39406	CA	GLN F	64	166.336	120.644	-87.192	1.00 79.08	C	ATOM	39456	C	ASP F	70	162.012	105.190	-81.991	1.00 64.01	O
ATOM	39407	C	GLN F	64	165.209	119.792	-87.784	1.00 79.08	C	ATOM	39457	O	ASP F	70	162.384	104.011	-81.950	1.00 64.01	O
ATOM	39408	O	GLN F	64	164.525	120.220	-88.705	1.00 79.08	O	ATOM	39458	CB	ASP F	70	159.628	104.848	-81.326	1.00154.75	C
ATOM	39409	CB	GLN F	64	165.871	122.088	-86.981	1.00 87.65	C	ATOM	39459	CG	ASP F	70	159.090	105.026	-82.725	1.00154.75	C
ATOM	39410	CG	GLN F	64	164.547	122.217	-86.248	1.00 87.65	C	ATOM	39460	OD1	ASP F	70	158.741	106.170	-83.083	1.00154.75	O
ATOM	39411	CD	GLN F	64	164.282	123.631	-85.782	1.00 87.65	C	ATOM	39461	OD2	ASP F	70	159.017	104.024	-83.466	1.00154.75	O
ATOM	39412	OE1	GLN F	64	164.912	124.111	-84.840	1.00 87.65	O	ATOM	39462	N	ARG F	71	162.553	106.089	-82.813	1.00 77.99	N
ATOM	39413	NE2	GLN F	64	163.353	124.313	-86.445	1.00 87.65	N	ATOM	39463	CA	ARG F	71	163.641	105.726	-83.719	1.00 77.99	C
ATOM	39414	N	VAL F	65	165.017	118.587	-87.261	1.00 92.93	N	ATOM	39464	C	ARG F	71	164.857	106.660	-83.646	1.00 77.99	C
ATOM	39415	CA	VAL F	65	163.985	117.710	-87.797	1.00 92.93	C	ATOM	39465	O	ARG F	71	165.925	106.351	-84.184	1.00 77.99	O
ATOM	39416	C	VAL F	65	162.767	117.501	-86.916	1.00 92.93	C	ATOM	39466	CB	ARG F	71	163.124	105.648	-85.162	1.00118.36	C
ATOM	39417	O	VAL F	65	162.627	118.093	-85.846	1.00 92.93	O	ATOM	39467	CG	ARG F	71	162.145	104.507	-85.385	1.00118.36	C
ATOM	39418	CB	VAL F	65	164.545	116.316	-88.108	1.00 96.98	C	ATOM	39468	CD	ARG F	71	162.287	103.878	-86.764	1.00118.36	C
ATOM	39419	CG1	VAL F	65	165.815	116.443	-88.916	1.00 96.98	C	ATOM	39469	NE	ARG F	71	161.866	104.769	-87.843	1.00118.36	N
ATOM	39420	CG2	VAL F	65	164.791	115.553	-86.816	1.00 96.98	C	ATOM	39470	C2	ARG F	71	161.757	104.398	-89.117	1.00118.36	C
ATOM	39421	N	GLU F	66	161.888	116.636	-87.406	1.00 71.16	N	ATOM	39471	NH1	ARG F	71	162.038	103.154	-89.477	1.00118.36	N
ATOM	39422	CA	GLU F	66	160.660	116.255	-86.734	1.00 71.16	C	ATOM	39472	NH2	ARG F	71	161.355	105.267	-90.033	1.00118.36	N
ATOM	39423	C	GLU F	66	160.534	114.785	-87.096	1.00 71.16	C	ATOM	39473	N	VAL F	72	164.702	107.789	-82.964	1.00 70.74	N
ATOM	39424	O	GLU F	66	160.534	114.447	-88.279	1.00 71.16	C	ATOM	39474	CA	VAL F	72	165.788	108.751	-82.844	1.00 70.74	C
ATOM	39425	CB	GLU F	66	159.483	117.038	-87.305	1.00107.74	O	ATOM	39475	C	VAL F	72	167.100	108.088	-82.470	1.00 70.74	C
ATOM	39426	CG	GLU F	66	158.132	116.599	-86.780	1.00107.74	C	ATOM	39476	O	VAL F	72	168.161	108.504	-82.926	1.00 70.74	O
ATOM	39427	CD	GLU F	66	156.997	117.436	-87.336	1.00107.74	C	ATOM	39477	CB	VAL F	72	165.480	109.829	-81.800	1.00 72.20	C
ATOM	39428	OE1	GLU F	66	156.975	118.656	-87.059	1.00107.74	O	ATOM	39478	CG1	VAL F	72	166.526	110.923	-81.871	1.00 72.20	C
ATOM	39429	OE2	GLU F	66	156.133	116.878	-88.051	1.00107.74	O	ATOM	39479	CG2	VAL F	72	164.108	110.408	-82.046	1.00 72.20	C
ATOM	39430	N	MET F	67	160.491	113.905	-86.098	1.00 64.27	N	ATOM	39480	N	ASN F	73	167.044	107.060	-81.635	1.00 85.91	N
ATOM	39431	CA	MET F	67	160.422	112.473	-86.385	1.00 64.27	C	ATOM	39481	CA	ASN F	73	168.279	106.395	-81.260	1.00 85.91	C
ATOM	39432	C	MET F	67	159.930	111.629	-85.217	1.00 64.27	C	ATOM	39482	C	ASN F	73	168.886	105.682	-82.468	1.00 85.91	C
ATOM	39433	O	MET F	67	159.772	112.120	-84.102	1.00 64.27	O	ATOM	39483	O	ASN F	73	170.092	105.792	-82.705	1.00 85.91	O
ATOM	39434	CB	MET F	67	161.804	111.968	-86.815	1.00 80.45	C	ATOM	39484	CB	ASN F	73	168.047	105.424	-80.094	1.00 87.49	C
ATOM	39435	CG	MET F	67	162.887	112.189	-85.767	1.00 80.45	C	ATOM	39485	CG	ASN F	73	168.417	106.038	-78.737	1.00 87.49	C
ATOM	39436	SD	MET F	67	164.519	111.565	-86.237	1.00 80.45	S	ATOM	39486	OD1	ASN F	73	169.595	106.235	-78.426	1.00 87.49	O
ATOM	39437	CE	MET F	67	164.487	109.941	-85.516	1.00 80.45	C	ATOM	39487	ND2	ASN F	73	167.407	106.351	-77.935	1.00 87.49	N
ATOM	39438	N	PRO F	68	159.670	110.338	-85.472	1.00 98.53	N	ATOM	39488	CA	ASP F	74	168.060	104.974	-83.243	1.00 79.62	N
ATOM	39439	CA	PRO F	68	159.198	109.392	-84.459	1.00 98.53	C	ATOM	39489	CA	ASP F	74	168.562	104.274	-84.430	1.00 79.62	N
ATOM	39440	C	PRO F	68	160.291	109.127	-83.428	1.00 98.53	C	ATOM	39490	C	ASP F	74	169.118	105.290	-85.415	1.00 79.62	C
ATOM	39441	O	PRO F	68	161.285	108.458	-83.724	1.00 98.53	O	ATOM	39491	O	ASP F	74	170.236	105.147	-85.908	1.00 79.62	O
ATOM	39442	CB	PRO F	68	158.877	108.145	-85.278	1.00 95.15	C	ATOM	39492	CB	ASP F	74	167.455	103.471	-85.112	1.00 88.42	C
ATOM	39443	CG	PRO F	68	158.495	108.703	-86.608	1.00 95.15	C	ATOM	39493	CG	ASP F	74	166.810	102.472	-84.185	1.00 88.42	C
ATOM	39444	CD	PRO F	68	159.554	109.747	-86.817	1.00 95.15	C	ATOM	39494	OD1	ASP F	74	167.513	101.968	-83.286	1.00 88.42	O
ATOM	39445	N	GLU F	69	160.103	109.651	-82.222	1.00101.88	N	ATOM	39495	OD2	ASP F	74	165.606	102.181	-84.361	1.00 88.42	O
ATOM	39446	CA	GLU F	69	161.078	109.479	-81.153	1.00101.88	C	ATOM	39496	N	LEU F	75	168.322	106.317	-85.692	1.00 52.52	N
ATOM	39447	C	GLU F	69	161.506	108.027	-80.977	1.00101.88	C	ATOM	39497	CA	LEU F	75	168.726	107.378	-86.604	1.00 52.52	C



ATOM	39498	C	LEU F	75	170.191	107.742	-86.382	1.00	52.52	C	ATOM	39548	N	ILE F	81	177.678	105.354	-88.365	1.00	77.96	N
ATOM	39499	O	LEU F	75	170.930	107.972	-87.333	1.00	52.52	O	ATOM	39549	CA	ILE F	81	178.291	104.298	-89.176	1.00	77.96	C
ATOM	39500	CB	LEU F	75	167.836	108.611	-86.395	1.00	81.27	C	ATOM	39550	C	ILE F	81	179.319	104.816	-90.179	1.00	77.96	C
ATOM	39501	CG	LEU F	75	167.996	109.880	-87.247	1.00	81.27	C	ATOM	39551	O	ILE F	81	180.329	104.159	-90.454	1.00	77.96	O
ATOM	39502	CD1	LEU F	75	169.323	110.556	-86.940	1.00	81.27	C	ATOM	39552	CB	ILE F	81	177.226	103.520	-89.956	1.00	88.00	C
ATOM	39503	CD2	LEU F	75	167.883	109.535	-88.722	1.00	81.27	C	ATOM	39553	CG1	ILE F	81	176.161	103.003	-88.993	1.00	88.00	C
ATOM	39504	N	ALA F	76	170.627	107.783	-85.130	1.00	69.78	N	ATOM	39554	CG2	ILE F	81	177.870	102.355	-90.687	1.00	88.00	C
ATOM	39505	CA	ALA F	76	172.014	108.131	-84.869	1.00	69.78	C	ATOM	39555	CD1	ILE F	81	174.990	102.324	-89.671	1.00	88.00	C
ATOM	39506	C	ALA F	76	172.964	106.940	-84.955	1.00	69.78	C	ATOM	39556	N	ARG F	82	179.046	105.988	-90.736	1.00	98.26	N
ATOM	39507	O	ALA F	76	174.145	107.129	-85.237	1.00	69.78	O	ATOM	39557	CA	ARG F	82	179.949	106.607	-91.693	1.00	98.26	C
ATOM	39508	CB	ALA F	76	172.146	108.826	-83.522	1.00	21.48	C	ATOM	39558	C	ARG F	82	181.326	106.805	-91.050	1.00	98.26	C
ATOM	39509	N	ARG F	77	172.478	105.723	-84.706	1.00	77.15	N	ATOM	39559	O	ARG F	82	181.432	107.110	-89.858	1.00	98.26	O
ATOM	39510	CA	ARG F	77	173.358	104.560	-84.820	1.00	77.15	C	ATOM	39560	CB	ARG F	82	179.376	107.955	-92.143	1.00	104.46	C
ATOM	39511	C	ARG F	77	173.795	104.612	-86.255	1.00	77.15	C	ATOM	39561	CG	ARG F	82	178.135	107.867	-93.033	1.00	104.46	C
ATOM	39512	O	ARG F	77	174.967	104.444	-86.576	1.00	77.15	O	ATOM	39562	CD	ARG F	82	178.518	107.579	-94.481	1.00	104.46	C
ATOM	39513	CB	ARG F	77	172.622	103.240	-84.653	1.00	113.52	C	ATOM	39563	NE	ARG F	82	178.881	106.181	-94.721	1.00	104.46	N
ATOM	39514	CG	ARG F	77	172.055	102.958	-83.310	1.00	113.52	C	ATOM	39564	CZ	ARG F	82	179.456	105.737	-95.837	1.00	104.46	C
ATOM	39515	CD	ARG F	77	171.457	101.579	-83.357	1.00	113.52	C	ATOM	39565	NH1	ARG F	82	179.744	106.580	-96.819	1.00	104.46	N
ATOM	39516	NE	ARG F	77	170.548	101.338	-82.249	1.00	113.52	N	ATOM	39566	NH2	ARG F	82	179.731	104.447	-95.977	1.00	104.46	N
ATOM	39517	CZ	ARG F	77	169.812	100.240	-82.127	1.00	113.52	C	ATOM	39567	N	ASP F	83	182.376	106.625	-91.846	1.00	80.71	N
ATOM	39518	NH1	ARG F	77	169.889	99.288	-83.051	1.00	113.52	N	ATOM	39568	CA	ASP F	83	183.748	106.777	-91.369	1.00	80.71	C
ATOM	39519	NH2	ARG F	77	168.998	100.095	-81.088	1.00	113.52	N	ATOM	39569	C	ASP F	83	184.145	108.245	-91.306	1.00	80.71	C
ATOM	39520	N	GLU F	78	172.806	104.846	-87.112	1.00	81.35	N	ATOM	39570	O	ASP F	83	184.961	108.636	-90.476	1.00	80.71	O
ATOM	39521	CA	GLU F	78	172.994	104.925	-88.549	1.00	81.35	C	ATOM	39571	CB	ASP F	83	184.713	106.018	-92.285	1.00	194.96	C
ATOM	39522	C	GLU F	78	173.953	106.042	-88.916	1.00	81.35	C	ATOM	39572	CG	ASP F	83	184.428	104.527	-92.327	1.00	194.96	C
ATOM	39523	O	GLU F	78	174.938	105.821	-89.621	1.00	81.35	O	ATOM	39573	OD1	ASP F	83	185.161	103.800	-93.030	1.00	194.96	O
ATOM	39524	CB	GLU F	78	171.646	105.160	-89.228	1.00	116.12	C	ATOM	39574	OD2	ASP F	83	183.471	104.081	-91.659	1.00	194.96	O
ATOM	39525	CG	GLU F	78	171.673	105.037	-90.737	1.00	116.12	C	ATOM	39575	N	ASN F	84	183.569	109.055	-92.188	1.00	97.26	N
ATOM	39526	CD	GLU F	78	172.010	103.634	-91.200	1.00	116.12	C	ATOM	39576	CA	ASN F	84	183.866	110.482	-92.208	1.00	97.26	C
ATOM	39527	OE1	GLU F	78	171.290	102.689	-90.809	1.00	116.12	O	ATOM	39577	C	ASN F	84	183.069	111.215	-91.143	1.00	97.26	C
ATOM	39528	OE2	GLU F	78	172.992	103.479	-91.957	1.00	116.12	O	ATOM	39578	O	ASN F	84	183.324	112.385	-90.861	1.00	97.26	O
ATOM	39529	N	LEU F	79	173.671	107.244	-88.433	1.00	61.29	N	ATOM	39579	CB	ASN F	84	183.562	111.074	-93.583	1.00	112.14	C
ATOM	39530	CA	LEU F	79	174.524	108.377	-88.743	1.00	61.29	C	ATOM	39580	CG	ASN F	84	184.586	110.678	-94.618	1.00	112.14	C
ATOM	39531	C	LEU F	79	175.977	108.217	-88.289	1.00	61.29	C	ATOM	39581	OD1	ASN F	84	185.755	111.063	-94.531	1.00	112.14	O
ATOM	39532	O	LEU F	79	176.872	108.832	-88.864	1.00	61.29	O	ATOM	39582	ND2	ASN F	84	184.158	109.896	-95.603	1.00	112.14	N
ATOM	39533	CB	LEU F	79	173.943	109.662	-88.150	1.00	39.84	C	ATOM	39583	N	VAL F	85	182.093	110.523	-90.564	1.00	82.64	N
ATOM	39534	CG	LEU F	79	172.521	110.044	-88.570	1.00	39.84	C	ATOM	39584	CA	VAL F	85	181.279	111.098	-89.501	1.00	82.64	C
ATOM	39535	CD1	LEU F	79	172.241	111.504	-88.191	1.00	39.84	C	ATOM	39585	C	VAL F	85	182.031	110.863	-88.204	1.00	82.64	C
ATOM	39536	CD2	LEU F	79	172.366	109.844	-90.072	1.00	39.84	C	ATOM	39586	O	VAL F	85	182.227	109.715	-87.784	1.00	82.64	O
ATOM	39537	N	ARG F	80	176.225	107.396	-87.274	1.00	88.54	N	ATOM	39587	CB	VAL F	85	179.896	110.423	-89.405	1.00	73.33	C
ATOM	39538	CA	ARG F	80	177.593	107.213	-86.788	1.00	88.54	C	ATOM	39588	CG1	VAL F	85	179.290	110.680	-88.043	1.00	73.33	C
ATOM	39539	C	ARG F	80	178.386	106.172	-87.587	1.00	88.54	C	ATOM	39589	CG2	VAL F	85	178.976	110.968	-90.481	1.00	73.33	C
ATOM	39540	O	ARG F	80	179.617	106.118	-87.490	1.00	88.54	O	ATOM	39590	N	ARG F	86	182.456	111.954	-87.578	1.00	71.60	N
ATOM	39541	CB	ARG F	80	177.592	106.799	-85.313	1.00	69.47	C	ATOM	39591	CA	ARG F	86	183.201	111.856	-86.335	1.00	71.60	C
ATOM	39542	CG	ARG F	80	176.894	107.746	-84.345	1.00	69.47	C	ATOM	39592	C	ARG F	86	182.526	112.514	-85.127	1.00	71.60	C
ATOM	39543	CD	ARG F	80	177.010	107.182	-82.921	1.00	69.47	C	ATOM	39593	O	ARG F	86	183.190	112.842	-84.145	1.00	71.60	O
ATOM	39544	NE	ARG F	80	175.981	107.673	-82.005	1.00	69.47	N	ATOM	39594	CB	ARG F	86	184.608	112.417	-86.545	1.00	79.35	C
ATOM	39545	CZ	ARG F	80	175.852	108.942	-81.634	1.00	69.47	C	ATOM	39595	CG	ARG F	86	184.665	113.572	-87.521	1.00	79.35	C
ATOM	39546	NH1	ARG F	80	176.694	109.860	-82.101	1.00	69.47	N	ATOM	39596	CD	ARG F	86	186.103	113.940	-87.865	1.00	79.35	C
ATOM	39547	NH2	ARG F	80	174.877	109.288	-80.800	1.00	69.47	N	ATOM	39597	NE	ARG F	86	186.811	112.855	-88.538	1.00	79.35	N



ATOM	39598	CZ	ARG F	86	188.045	112.959	-89.019	1.00	79.35	C	ATOM	39648	CE	LYS F	92	163.074	114.713	-74.866	1.00	66.20	C
ATOM	39599	NH1	ARG F	86	188.714	114.103	-88.902	1.00	79.35	N	ATOM	39649	NZ	LYS F	92	164.261	114.874	-73.968	1.00	66.20	N
ATOM	39600	NH2	ARG F	86	188.606	111.919	-89.620	1.00	79.35	N	ATOM	39650	N	SER F	93	164.616	119.785	-79.293	1.00	70.82	N
ATOM	39601	N	ARG F	87	181.205	112.684	-85.210	1.00	74.23	N	ATOM	39651	CA	SER F	93	164.565	121.226	-79.484	1.00	70.82	C
ATOM	39602	CA	ARG F	87	180.385	113.268	-84.144	1.00	74.23	C	ATOM	39652	C	SER F	93	164.030	121.810	-78.195	1.00	70.82	C
ATOM	39603	C	ARG F	87	178.937	113.343	-84.578	1.00	74.23	C	ATOM	39653	O	SER F	93	163.249	121.164	-77.500	1.00	70.82	O
ATOM	39604	O	ARG F	87	178.641	113.713	-85.710	1.00	74.23	O	ATOM	39654	CB	SER F	93	163.621	121.585	-80.631	1.00	67.28	C
ATOM	39605	CB	ARG F	87	180.837	114.677	-83.787	1.00	58.97	C	ATOM	39655	OG	SER F	93	163.971	120.901	-81.815	1.00	67.28	O
ATOM	39606	CG	ARG F	87	181.909	114.748	-82.723	1.00	58.97	C	ATOM	39656	N	GLN F	94	164.454	123.022	-77.867	1.00	57.85	N
ATOM	39607	CD	ARG F	87	181.466	114.222	-81.365	1.00	58.97	C	ATOM	39657	CA	GLN F	94	163.984	123.664	-76.652	1.00	57.85	C
ATOM	39608	NE	ARG F	87	182.466	114.572	-80.359	1.00	58.97	N	ATOM	39658	C	GLN F	94	163.820	125.162	-76.815	1.00	57.85	C
ATOM	39609	CZ	ARG F	87	183.676	114.020	-80.274	1.00	58.97	C	ATOM	39659	O	GLN F	94	164.617	125.820	-77.494	1.00	57.85	O
ATOM	39610	NH1	ARG F	87	184.044	113.070	-81.126	1.00	58.97	N	ATOM	39660	CB	GLN F	94	164.935	123.371	-75.496	1.00	76.58	C
ATOM	39611	NH2	ARG F	87	184.537	114.442	-79.357	1.00	58.97	N	ATOM	39661	CG	GLN F	94	164.887	121.928	-75.031	1.00	76.58	C
ATOM	39612	N	VAL F	88	178.035	112.993	-83.671	1.00	69.19	N	ATOM	39662	CD	GLN F	94	165.796	121.660	-73.849	1.00	76.58	C
ATOM	39613	CA	VAL F	88	176.610	113.037	-83.958	1.00	69.19	C	ATOM	39663	OE1	GLN F	94	165.797	120.559	-73.296	1.00	76.58	O
ATOM	39614	C	VAL F	88	175.852	113.297	-82.672	1.00	69.19	C	ATOM	39664	NE2	GLN F	94	166.577	122.664	-73.455	1.00	76.58	N
ATOM	39615	O	VAL F	88	175.851	112.453	-81.786	1.00	69.19	O	ATOM	39665	N	GLU F	95	162.765	125.689	-76.199	1.00	59.43	N
ATOM	39616	CB	VAL F	88	176.105	111.707	-84.522	1.00	66.18	C	ATOM	39666	CA	GLU F	95	162.467	127.112	-76.243	1.00	59.43	C
ATOM	39617	CG1	VAL F	88	174.611	111.798	-84.799	1.00	66.18	C	ATOM	39667	C	GLU F	95	163.753	127.792	-75.800	1.00	59.43	C
ATOM	39618	CG2	VAL F	88	176.865	111.355	-85.778	1.00	66.18	C	ATOM	39668	O	GLU F	95	164.413	127.343	-74.862	1.00	59.43	O
ATOM	39619	N	MET F	89	175.206	114.453	-82.563	1.00	69.17	N	ATOM	39669	CB	GLU F	95	161.335	127.436	-75.270	1.00	140.36	C
ATOM	39620	CA	MET F	89	174.448	114.751	-81.356	1.00	69.17	C	ATOM	39670	CG	GLU F	95	160.234	126.377	-75.210	1.00	140.36	C
ATOM	39621	C	MET F	89	173.020	115.218	-81.624	1.00	69.17	C	ATOM	39671	CD	GLU F	95	160.720	125.039	-74.658	1.00	140.36	C
ATOM	39622	O	MET F	89	172.801	116.346	-82.061	1.00	69.17	O	ATOM	39672	OE1	GLU F	95	161.264	125.009	-73.532	1.00	140.36	O
ATOM	39623	CB	MET F	89	175.176	115.799	-80.517	1.00	86.37	C	ATOM	39673	OE2	GLU F	95	160.557	124.014	-75.354	1.00	140.36	O
ATOM	39624	CD	MET F	89	174.564	115.994	-79.138	1.00	86.37	C	ATOM	39674	N	PRO F	96	164.141	128.876	-76.472	1.00	90.35	N
ATOM	39625	SD	MET F	89	175.564	117.047	-78.085	1.00	86.37	S	ATOM	39675	CA	PRO F	96	165.375	129.567	-76.091	1.00	90.35	C
ATOM	39626	CE	MET F	89	174.921	118.653	-78.542	1.00	86.37	C	ATOM	39676	C	PRO F	96	165.310	130.302	-74.753	1.00	90.35	C
ATOM	39627	N	VAL F	90	172.055	114.341	-81.353	1.00	78.46	N	ATOM	39677	O	PRO F	96	164.824	131.428	-74.680	1.00	90.35	O
ATOM	39628	CA	VAL F	90	170.643	114.661	-81.544	1.00	78.46	C	ATOM	39678	CB	PRO F	96	165.605	130.515	-77.261	1.00	70.13	C
ATOM	39629	C	VAL F	90	170.112	115.249	-80.245	1.00	78.46	C	ATOM	39679	CG	PRO F	96	164.207	130.862	-77.667	1.00	70.13	C
ATOM	39630	O	VAL F	90	170.295	114.670	-79.181	1.00	78.46	O	ATOM	39680	CD	PRO F	96	163.501	129.525	-77.626	1.00	70.13	C
ATOM	39631	CB	VAL F	90	169.821	113.417	-81.857	1.00	59.89	C	ATOM	39681	N	PHE F	97	165.804	129.668	-73.695	1.00	41.61	N
ATOM	39632	CG1	VAL F	90	168.457	113.837	-82.364	1.00	59.89	C	ATOM	39682	CA	PHE F	97	165.806	130.303	-72.384	1.00	41.61	C
ATOM	39633	CG2	VAL F	90	170.546	112.545	-82.865	1.00	59.89	C	ATOM	39683	C	PHE F	97	166.728	131.539	-72.376	1.00	41.61	C
ATOM	39634	N	VAL F	91	169.426	116.378	-80.331	1.00	74.82	N	ATOM	39684	O	PHE F	97	167.949	131.414	-72.248	1.00	41.61	O
ATOM	39635	CA	VAL F	91	168.929	117.033	-79.132	1.00	74.82	C	ATOM	39685	CB	PHE F	97	166.279	129.312	-71.313	1.00	50.14	C
ATOM	39636	C	VAL F	91	167.492	117.542	-79.224	1.00	74.82	C	ATOM	39686	CG	PHE F	97	166.185	129.850	-69.903	1.00	50.14	C
ATOM	39637	O	VAL F	91	167.126	118.179	-80.208	1.00	74.82	O	ATOM	39687	CD1	PHE F	97	165.048	129.628	-69.134	1.00	50.14	C
ATOM	39638	CB	VAL F	91	169.878	118.204	-78.779	1.00	51.03	C	ATOM	39688	CD2	PHE F	97	167.220	130.614	-69.362	1.00	50.14	C
ATOM	39639	CG1	VAL F	91	169.183	119.244	-77.902	1.00	51.03	C	ATOM	39689	CE1	PHE F	97	164.947	130.158	-67.856	1.00	50.14	C
ATOM	39640	CG2	VAL F	91	171.099	117.654	-78.087	1.00	51.03	C	ATOM	39690	CE2	PHE F	97	167.126	131.149	-68.082	1.00	50.14	C
ATOM	39641	N	LYS F	92	166.680	117.268	-78.201	1.00	56.74	N	ATOM	39691	CZ	PHE F	97	165.991	130.922	-67.331	1.00	50.14	C
ATOM	39642	CA	LYS F	92	165.299	117.743	-78.195	1.00	56.74	C	ATOM	39692	N	LEU F	98	166.144	132.728	-72.503	1.00	61.40	N
ATOM	39643	O	LYS F	92	165.325	119.250	-78.305	1.00	56.74	C	ATOM	39693	CA	LEU F	98	166.925	133.962	-72.500	1.00	61.40	C
ATOM	39644	C	LYS F	92	165.985	119.918	-77.508	1.00	56.74	O	ATOM	39694	C	LEU F	98	167.534	134.303	-71.148	1.00	61.40	C
ATOM	39645	CB	LYS F	92	164.577	117.382	-76.902	1.00	66.20	C	ATOM	39695	O	LEU F	98	167.236	133.665	-70.146	1.00	61.40	O
ATOM	39646	CG	LYS F	92	164.174	115.937	-76.762	1.00	66.20	C	ATOM	39696	CB	LEU F	98	166.067	135.137	-72.947	1.00	72.31	C
ATOM	39647	CD	LYS F	92	162.960	115.848	-75.856	1.00	66.20	C	ATOM	39697	CG	LEU F	98	165.915	135.363	-74.445	1.00	72.31	C



ATOM	39698	CD1	LEU F	98	165.233	136.704	-74.651	1.00	72.31	C	ATOM	39748	CA	ARG G	5	212.882	142.481	-23.425	1.00	105.95	C
ATOM	39699	CD2	LEU F	98	167.283	135.353	-75.120	1.00	72.31	C	ATOM	39749	C	ARG G	5	213.745	141.812	-24.476	1.00	105.95	C
ATOM	39700	N	ALA F	99	168.378	135.330	-71.130	1.00	74.44	N	ATOM	39750	O	ARG G	5	213.694	140.600	-24.674	1.00	105.95	O
ATOM	39701	CA	ALA F	99	169.037	135.767	-69.905	1.00	74.44	C	ATOM	39751	CB	ARG G	5	213.793	143.325	-22.526	1.00	182.43	C
ATOM	39702	C	ALA F	99	169.636	137.151	-70.082	1.00	74.44	C	ATOM	39752	CG	ARG G	5	213.099	144.026	-21.369	1.00	182.43	C
ATOM	39703	O	ALA F	99	169.886	137.586	-71.208	1.00	74.44	O	ATOM	39753	CD	ARG G	5	214.126	144.651	-20.433	1.00	182.43	C
ATOM	39704	CB	ALA F	99	170.125	134.793	-69.534	1.00	58.18	C	ATOM	39754	NE	ARG G	5	213.530	145.160	-19.199	1.00	182.43	N
ATOM	39705	N	ASN F	100	169.872	137.837	-68.967	1.00	102.90	N	ATOM	39755	CZ	ARG G	5	214.226	145.667	-18.185	1.00	182.43	C
ATOM	39706	CA	ASN F	100	170.449	139.180	-68.991	1.00	102.90	C	ATOM	39756	NH1	ARG G	5	215.549	146.736	-18.254	1.00	182.43	N
ATOM	39707	C	ASN F	100	169.647	140.108	-69.908	1.00	102.90	C	ATOM	39757	NH2	ARG G	5	213.602	146.102	-17.098	1.00	182.43	N
ATOM	39708	O	ASN F	100	170.213	140.891	-70.667	1.00	102.90	O	ATOM	39758	N	ARG G	6	214.545	142.630	-25.146	1.00	60.87	N
ATOM	39709	CB	ASN F	100	171.908	139.110	-69.459	1.00	118.68	C	ATOM	39759	CA	ARG G	6	215.451	142.145	-26.168	1.00	60.87	C
ATOM	39710	CG	ASN F	100	172.676	140.389	-69.184	1.00	118.68	C	ATOM	39760	C	ARG G	6	216.867	142.466	-25.706	1.00	60.87	C
ATOM	39711	OD1	ASN F	100	172.345	141.453	-69.700	1.00	118.68	O	ATOM	39761	O	ARG G	6	217.703	142.912	-26.493	1.00	60.87	O
ATOM	39712	ND2	ASN F	100	173.712	140.289	-68.364	1.00	118.68	N	ATOM	39762	CB	ARG G	6	215.161	142.829	-27.498	1.00	119.64	C
ATOM	39713	N	ALA F	101	168.323	140.010	-69.838	1.00	164.66	N	ATOM	39763	CG	ARG G	6	215.936	142.258	-28.666	1.00	119.64	C
ATOM	39714	CA	ALA F	101	167.450	140.845	-70.657	1.00	164.66	C	ATOM	39764	CD	ARG G	6	215.497	142.920	-29.949	1.00	119.64	C
ATOM	39715	C	ALA F	101	166.203	141.244	-69.878	1.00	164.66	C	ATOM	39765	NE	ARG G	6	216.158	142.360	-31.121	1.00	119.64	N
ATOM	39716	O	ALA F	101	166.088	140.841	-68.700	1.00	164.66	O	ATOM	39766	CZ	ARG G	6	215.866	142.712	-32.369	1.00	119.64	C
ATOM	39717	CB	ALA F	101	167.054	140.107	-71.926	1.00	47.58	C	ATOM	39767	NH1	ARG G	6	214.926	143.621	-32.594	1.00	119.64	N
ATOM	39718	OXT	ALA F	101	165.356	141.955	-70.459	1.00	91.14	O	ATOM	39768	NH2	ARG G	6	216.508	142.157	-33.391	1.00	119.64	N
TER	39719	ALA F	101								ATOM	39769	N	ALA G	7	217.110	142.240	-24.414	1.00	99.89	N
ATOM	39720	N	ALA G	2	215.887	135.499	-21.572	1.00	42.50	N	ATOM	39770	CA	ALA G	7	218.403	142.485	-23.772	1.00	99.89	C
ATOM	39721	CA	ALA G	2	215.280	136.721	-22.183	1.00	42.50	C	ATOM	39771	C	ALA G	7	219.367	143.312	-24.616	1.00	99.89	C
ATOM	39722	C	ALA G	2	213.884	136.552	-22.810	1.00	42.50	C	ATOM	39772	O	ALA G	7	219.995	142.797	-25.534	1.00	99.89	O
ATOM	39723	O	ALA G	2	213.744	136.687	-24.017	1.00	42.50	O	ATOM	39773	CB	ALA G	7	219.053	141.151	-23.393	1.00	69.34	C
ATOM	39724	CB	ALA G	2	216.240	137.282	-23.232	1.00	27.04	C	ATOM	39774	N	GLU G	8	219.481	144.598	-24.309	1.00	105.81	N
ATOM	39725	N	ARG G	3	212.851	136.275	-22.017	1.00	66.07	N	ATOM	39775	CA	GLU G	8	220.384	145.466	-25.052	1.00	105.81	C
ATOM	39726	CA	ARG G	3	211.506	136.137	-22.594	1.00	66.07	C	ATOM	39776	C	GLU G	8	221.841	145.144	-24.732	1.00	105.81	C
ATOM	39727	C	ARG G	3	210.884	137.496	-22.916	1.00	66.07	C	ATOM	39777	O	GLU G	8	222.156	144.601	-23.671	1.00	105.81	O
ATOM	39728	O	ARG G	3	210.266	137.668	-23.967	1.00	66.07	O	ATOM	39778	CB	GLU G	8	220.081	146.938	-24.748	1.00	114.92	C
ATOM	39729	CB	ARG G	3	210.558	135.395	-21.644	1.00	33.34	C	ATOM	39779	CG	GLU G	8	219.347	147.191	-23.429	1.00	114.92	C
ATOM	39730	CG	ARG G	3	210.329	133.932	-21.945	1.00	33.34	C	ATOM	39780	CD	GLU G	8	220.212	146.985	-22.197	1.00	114.92	O
ATOM	39731	CD	ARG G	3	209.535	133.317	-20.805	1.00	33.34	C	ATOM	39781	OE1	GLU G	8	220.705	145.857	-21.979	1.00	114.92	O
ATOM	39732	NE	ARG G	3	209.754	131.878	-20.642	1.00	33.34	N	ATOM	39782	OE2	GLU G	8	220.391	147.963	-21.440	1.00	114.92	O
ATOM	39733	CZ	ARG G	3	209.547	130.980	-21.598	1.00	33.34	C	ATOM	39783	N	VAL G	9	222.728	145.480	-25.660	1.00	62.64	N
ATOM	39734	NH1	ARG G	3	209.117	131.373	-22.794	1.00	33.34	N	ATOM	39784	CA	VAL G	9	224.143	145.205	-25.487	1.00	62.64	C
ATOM	39735	NH2	ARG G	3	209.765	129.696	-21.358	1.00	33.34	N	ATOM	39785	C	VAL G	9	224.849	146.160	-24.533	1.00	62.64	C
ATOM	39736	N	ARG G	4	211.046	138.452	-22.004	1.00	72.58	N	ATOM	39786	O	VAL G	9	224.722	147.375	-24.661	1.00	62.64	O
ATOM	39737	CA	ARG G	4	210.479	139.786	-22.172	1.00	72.58	C	ATOM	39787	CB	VAL G	9	224.870	145.261	-26.838	1.00	69.10	C
ATOM	39738	C	ARG G	4	211.227	140.685	-23.153	1.00	72.58	C	ATOM	39788	CG1	VAL G	9	226.338	144.916	-26.657	1.00	69.10	C
ATOM	39739	O	ARG G	4	211.007	140.619	-24.359	1.00	72.58	O	ATOM	39789	CG2	VAL G	9	224.218	144.304	-27.813	1.00	69.10	C
ATOM	39740	CB	ARG G	4	210.387	140.488	-20.816	1.00	85.93	C	ATOM	39790	N	ARG G	10	225.590	145.609	-23.573	1.00	65.07	N
ATOM	39741	CG	ARG G	4	209.466	139.812	-19.823	1.00	85.93	C	ATOM	39791	CA	ARG G	10	226.348	146.436	-22.640	1.00	65.07	C
ATOM	39742	CD	ARG G	4	209.430	140.571	-18.506	1.00	85.93	C	ATOM	39792	C	ARG G	10	227.334	147.228	-23.495	1.00	65.07	C
ATOM	39743	CE	ARG G	4	208.595	139.903	-17.509	1.00	85.93	N	ATOM	39793	O	ARG G	10	228.048	146.640	-24.308	1.00	65.07	O
ATOM	39744	NZ	ARG G	4	207.265	139.854	-17.545	1.00	85.93	C	ATOM	39794	CB	ARG G	10	227.149	145.567	-21.663	1.00	58.99	C
ATOM	39745	NH1	ARG G	4	206.594	140.441	-18.531	1.00	85.93	N	ATOM	39795	CG	ARG G	10	226.346	144.833	-20.611	1.00	58.99	C
ATOM	39746	NH2	ARG G	4	206.604	139.203	-16.595	1.00	85.93	N	ATOM	39796	CD	ARG G	10	227.246	144.002	-19.701	1.00	58.99	C
ATOM	39747	N	ARG G	5	212.107	141.532	-22.623	1.00	105.95	N	ATOM	39797	NE	ARG G	10	226.502	143.479	-18.555	1.00	58.99	N



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ATOM	39798	CZ	ARG	G	10	226.304	144.146	-17.417	1.00	58.99	C	ATOM	39848	CD1	LEU	G	16	241.707	154.295	-19.426	1.00	133.24	C
ATOM	39799	NH1	ARG	G	10	226.811	145.366	-17.261	1.00	58.99	N	ATOM	39849	CD2	LEU	G	16	241.034	152.049	-20.334	1.00	133.24	C
ATOM	39800	NH2	ARG	G	10	225.578	143.608	-16.437	1.00	58.99	N	ATOM	39850	N	VAL	G	17	244.175	153.666	-24.375	1.00	80.10	N
ATOM	39801	N	GLN	G	11	227.369	148.550	-23.334	1.00	74.22	N	ATOM	39851	CA	VAL	G	17	245.339	153.949	-25.210	1.00	80.10	C
ATOM	39802	CA	GLN	G	11	228.305	149.377	-24.099	1.00	74.22	C	ATOM	39852	C	VAL	G	17	244.940	154.208	-26.660	1.00	80.10	C
ATOM	39803	C	GLN	G	11	229.577	149.591	-23.273	1.00	74.22	C	ATOM	39853	O	VAL	G	17	245.514	155.068	-27.325	1.00	80.10	O
ATOM	39804	C	GLN	G	11	229.522	149.891	-22.107	1.00	74.22	O	ATOM	39854	CB	VAL	G	17	246.353	152.775	-25.189	1.00	62.58	C
ATOM	39805	CB	GLN	G	11	227.702	150.753	-24.383	1.00	92.52	C	ATOM	39855	CG1	VAL	G	17	247.494	153.059	-26.154	1.00	62.58	C
ATOM	39806	CG	GLN	G	11	227.586	151.061	-25.863	1.00	92.52	C	ATOM	39856	CG2	VAL	G	17	246.892	152.566	-23.780	1.00	62.58	C
ATOM	39807	CD	GLN	G	11	226.810	149.993	-26.616	1.00	92.52	C	ATOM	39857	N	TYR	G	18	243.976	153.445	-27.158	1.00	63.28	N
ATOM	39808	OE1	GLN	G	11	225.628	149.773	-26.363	1.00	92.52	O	ATOM	39858	CA	TYR	G	18	243.510	153.632	-28.521	1.00	63.28	C
ATOM	39809	NE2	GLN	G	11	227.477	149.320	-27.544	1.00	92.52	N	ATOM	39859	C	TYR	G	18	242.081	154.151	-28.480	1.00	63.28	C
ATOM	39810	N	LEU	G	12	230.722	149.205	-23.874	1.00	87.72	N	ATOM	39860	O	TYR	G	18	241.495	154.452	-29.522	1.00	63.28	O
ATOM	39811	CA	LEU	G	12	231.988	149.257	-23.148	1.00	87.72	C	ATOM	39861	CB	TYR	G	18	243.550	152.322	-29.301	1.00	82.17	C
ATOM	39812	C	LEU	G	12	232.766	150.565	-23.258	1.00	87.72	C	ATOM	39862	CG	TYR	G	18	244.926	151.740	-29.473	1.00	82.17	C
ATOM	39813	O	LEU	G	12	232.733	151.243	-24.287	1.00	87.72	O	ATOM	39863	CD1	TYR	G	18	245.627	151.224	-28.385	1.00	82.17	C
ATOM	39814	CB	LEU	G	12	232.888	148.092	-23.585	1.00	73.94	C	ATOM	39864	CD2	TYR	G	18	245.525	151.681	-30.730	1.00	82.17	C
ATOM	39815	CG	LEU	G	12	232.442	146.665	-23.247	1.00	73.94	C	ATOM	39865	CE1	TYR	G	18	246.896	150.655	-28.544	1.00	82.17	C
ATOM	39816	CD1	LEU	G	12	231.164	146.338	-23.985	1.00	73.94	C	ATOM	39866	CE2	TYR	G	18	246.796	151.116	-30.903	1.00	82.17	C
ATOM	39817	CD2	LEU	G	12	233.528	145.679	-23.639	1.00	73.94	C	ATOM	39867	CZ	TYR	G	18	247.473	150.605	-29.805	1.00	82.17	C
ATOM	39818	N	GLN	G	13	233.469	150.908	-22.182	1.00	81.94	N	ATOM	39868	OH	TYR	G	18	248.721	150.045	-29.965	1.00	82.17	O
ATOM	39819	CA	GLN	G	13	234.273	152.123	-22.146	1.00	81.94	C	ATOM	39869	N	GLY	G	19	241.527	154.254	-27.271	1.00	73.96	N
ATOM	39820	C	GLN	G	13	235.510	151.931	-23.013	1.00	81.94	C	ATOM	39870	CA	GLY	G	19	240.166	154.740	-27.109	1.00	73.96	C
ATOM	39821	O	GLN	G	13	236.284	151.008	-22.792	1.00	81.94	O	ATOM	39871	C	GLY	G	19	239.200	153.988	-28.001	1.00	73.96	C
ATOM	39822	CB	GLN	G	13	234.682	152.438	-20.707	1.00	117.39	C	ATOM	39872	O	GLY	G	19	238.135	154.489	-28.374	1.00	73.96	O
ATOM	39823	CG	GLN	G	13	233.543	152.981	-19.865	1.00	117.39	C	ATOM	39873	N	ASP	G	20	239.588	152.767	-28.345	1.00	126.53	N
ATOM	39824	CD	GLN	G	13	233.046	154.329	-20.368	1.00	117.39	C	ATOM	39874	CA	ASP	G	20	238.788	151.909	-29.200	1.00	126.53	C
ATOM	39825	OE1	GLN	G	13	233.744	155.338	-20.268	1.00	117.39	O	ATOM	39875	C	ASP	G	20	238.081	150.880	-28.334	1.00	126.53	C
ATOM	39826	NE2	GLN	G	13	231.837	154.347	-20.920	1.00	117.39	N	ATOM	39876	O	ASP	G	20	238.724	150.119	-27.609	1.00	126.53	O
ATOM	39827	N	PRO	G	14	235.716	152.806	-24.011	1.00	65.88	N	ATOM	39877	CB	ASP	G	20	239.696	151.208	-30.207	1.00	98.24	C
ATOM	39828	CA	PRO	G	14	236.877	152.701	-24.905	1.00	65.88	C	ATOM	39878	CG	ASP	G	20	238.925	150.446	-31.258	1.00	98.24	C
ATOM	39829	C	PRO	G	14	238.245	152.427	-24.267	1.00	65.88	C	ATOM	39879	OD1	ASP	G	20	238.180	149.510	-30.901	1.00	98.24	O
ATOM	39830	O	PRO	G	14	238.427	152.547	-23.054	1.00	65.88	O	ATOM	39880	OD2	ASP	G	20	239.074	150.784	-32.449	1.00	98.24	O
ATOM	39831	CB	PRO	G	14	236.830	154.011	-25.711	1.00	74.99	C	ATOM	39881	N	VAL	G	21	236.755	150.864	-28.407	1.00	89.50	N
ATOM	39832	CG	PRO	G	14	235.954	154.915	-24.903	1.00	74.99	C	ATOM	39882	CA	VAL	G	21	235.950	149.928	-27.628	1.00	89.50	C
ATOM	39833	CD	PRO	G	14	234.909	153.986	-24.352	1.00	74.99	C	ATOM	39883	C	VAL	G	21	236.221	148.473	-28.001	1.00	89.50	C
ATOM	39834	N	ASP	G	15	239.194	152.037	-25.112	1.00	85.18	N	ATOM	39884	O	VAL	G	21	236.352	147.615	-27.123	1.00	89.50	O
ATOM	39835	CA	ASP	G	15	240.544	151.706	-24.684	1.00	85.18	C	ATOM	39885	CB	VAL	G	21	234.454	150.212	-27.811	1.00	69.54	C
ATOM	39836	C	ASP	G	15	241.259	152.891	-24.048	1.00	85.18	C	ATOM	39886	CG1	VAL	G	21	234.092	151.533	-27.146	1.00	69.54	C
ATOM	39837	O	ASP	G	15	241.058	154.037	-24.454	1.00	85.18	O	ATOM	39887	CG2	VAL	G	21	234.120	150.253	-29.292	1.00	69.54	C
ATOM	39838	CB	ASP	G	15	241.349	151.187	-25.881	1.00	120.70	C	ATOM	39888	N	LEU	G	22	236.299	148.202	-29.302	1.00	72.98	N
ATOM	39839	CG	ASP	G	15	242.719	150.669	-25.486	1.00	120.70	C	ATOM	39889	CA	LEU	G	22	236.571	146.855	-29.783	1.00	72.98	C
ATOM	39840	OD1	ASP	G	15	243.561	151.474	-25.050	1.00	120.70	O	ATOM	39890	C	LEU	G	22	237.783	146.265	-29.075	1.00	72.98	C
ATOM	39841	OD2	ASP	G	15	242.959	149.453	-25.607	1.00	112.60	O	ATOM	39891	O	LEU	G	22	237.861	145.056	-28.854	1.00	72.98	O
ATOM	39842	N	LEU	G	16	242.092	152.596	-23.051	1.00	112.60	N	ATOM	39892	CB	LEU	G	22	236.842	146.853	-31.284	1.00	58.80	C
ATOM	39843	CA	LEU	G	16	242.865	153.607	-22.328	1.00	112.60	C	ATOM	39893	CG	LEU	G	22	237.239	145.450	-31.748	1.00	58.80	C
ATOM	39844	C	LEU	G	16	244.138	153.978	-23.083	1.00	112.60	C	ATOM	39894	CD1	LEU	G	22	236.038	144.528	-31.640	1.00	58.80	C
ATOM	39845	O	LEU	G	16	245.069	154.534	-22.503	1.00	112.60	O	ATOM	39895	CD2	LEU	G	22	237.754	145.485	-33.168	1.00	58.80	C
ATOM	39846	CB	LEU	G	16	243.253	153.083	-20.938	1.00	133.24	C	ATOM	39896	N	VAL	G	23	238.739	147.118	-28.730	1.00	53.61	N
ATOM	39847	CG	LEU	G	16	242.191	152.921	-19.845	1.00	133.24	C	ATOM	39897	CA	VAL	G	23	239.926	146.644	-28.046	1.00	53.61	C



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ATOM	39898	C	VAL	G	23	239.588	146.182	-26.637	1.00	53.61	C	ATOM	39948	CD	LYS	G	29	235.745	136.696	-24.721	1.00	58.83	C
ATOM	39899	O	VAL	G	23	240.000	145.097	-26.222	1.00	53.61	O	ATOM	39949	CE	LYS	G	29	234.368	136.373	-25.282	1.00	58.83	C
ATOM	39900	CB	VAL	G	23	241.004	147.728	-27.157	1.00	41.21	C	ATOM	39950	NZ	LYS	G	29	233.778	135.180	-24.584	1.00	58.83	N
ATOM	39901	CG1	VAL	G	23	242.194	147.187	-27.977	1.00	41.21	C	ATOM	39951	N	ILE	G	30	240.431	138.265	-22.840	1.00	50.03	N
ATOM	39902	CG2	VAL	G	23	241.434	148.156	-29.350	1.00	41.21	C	ATOM	39952	CA	ILE	G	30	241.708	137.703	-22.423	1.00	50.03	C
ATOM	39903	N	THR	G	24	238.839	147.003	-25.904	1.00	70.51	N	ATOM	39953	C	ILE	G	30	241.669	137.564	-20.914	1.00	50.03	C
ATOM	39904	CA	THR	G	24	238.455	146.650	-24.540	1.00	70.51	C	ATOM	39954	O	ILE	G	30	242.170	136.585	-20.352	1.00	50.03	O
ATOM	39905	C	THR	G	24	237.816	145.278	-24.568	1.00	70.51	C	ATOM	39955	CB	ILE	G	30	242.908	138.615	-22.801	1.00	41.87	C
ATOM	39906	O	THR	G	24	238.145	144.399	-23.768	1.00	70.51	O	ATOM	39956	CG1	ILE	G	30	243.018	138.736	-24.327	1.00	41.87	C
ATOM	39907	CB	THR	G	24	237.437	147.629	-23.957	1.00	55.51	C	ATOM	39957	CG2	ILE	G	30	244.209	138.057	-22.197	1.00	41.87	C
ATOM	39908	OG1	THR	G	24	237.921	148.966	-24.118	1.00	55.51	O	ATOM	39958	CD1	ILE	G	30	244.005	139.792	-24.793	1.00	41.87	C
ATOM	39909	CG2	THR	G	24	237.233	147.346	-22.467	1.00	55.51	C	ATOM	39959	N	MET	G	31	241.062	138.553	-20.265	1.00	57.64	N
ATOM	39910	N	ALA	G	25	236.892	145.113	-25.503	1.00	42.75	N	ATOM	39960	CA	MET	G	31	240.952	138.580	-18.811	1.00	57.64	C
ATOM	39911	CA	ALA	G	25	236.203	143.856	-25.683	1.00	42.75	C	ATOM	39961	C	MET	G	31	240.352	137.320	-18.209	1.00	57.64	C
ATOM	39912	C	ALA	G	25	237.224	142.712	-25.724	1.00	42.75	C	ATOM	39962	O	MET	G	31	239.532	136.655	-18.830	1.00	57.64	O
ATOM	39913	O	ALA	G	25	237.150	141.769	-24.930	1.00	42.75	O	ATOM	39963	CB	MET	G	31	240.117	139.777	-18.383	1.00	62.50	C
ATOM	39914	CB	ALA	G	25	235.401	143.900	-26.973	1.00	39.02	C	ATOM	39964	CG	MET	G	31	239.578	139.661	-16.977	1.00	62.50	C
ATOM	39915	N	PHE	G	26	238.185	142.805	-26.641	1.00	68.77	N	ATOM	39965	SD	MET	G	31	238.884	141.197	-16.403	1.00	62.50	S
ATOM	39916	CA	PHE	G	26	239.215	141.774	-26.785	1.00	68.77	C	ATOM	39966	CE	MET	G	31	237.624	141.503	-17.647	1.00	62.50	C
ATOM	39917	C	PHE	G	26	239.988	141.559	-25.494	1.00	68.77	C	ATOM	39967	N	ARG	G	32	240.771	136.992	-16.995	1.00	54.53	N
ATOM	39918	O	PHE	G	26	240.358	140.434	-25.161	1.00	68.77	O	ATOM	39968	CA	ARG	G	32	240.243	135.821	-16.312	1.00	54.53	C
ATOM	39919	CB	PHE	G	26	240.210	142.156	-27.884	1.00	58.95	C	ATOM	39969	C	ARG	G	32	240.357	136.052	-14.816	1.00	54.53	C
ATOM	39920	CG	PHE	G	26	241.235	141.089	-28.176	1.00	58.95	C	ATOM	39970	O	ARG	G	32	241.443	136.347	-14.322	1.00	54.53	O
ATOM	39921	CD1	PHE	G	26	240.903	139.981	-28.945	1.00	58.95	C	ATOM	39971	CB	ARG	G	32	241.006	134.560	-16.727	1.00	75.51	C
ATOM	39922	CD2	PHE	G	26	242.530	141.202	-27.697	1.00	58.95	C	ATOM	39972	CG	ARG	G	32	242.499	134.615	-16.518	1.00	75.51	C
ATOM	39923	CE1	PHE	G	26	241.846	139.004	-29.232	1.00	58.95	C	ATOM	39973	CD	ARG	G	32	243.186	133.352	-17.048	1.00	75.51	C
ATOM	39924	CE2	PHE	G	26	243.478	140.231	-27.980	1.00	58.95	C	ATOM	39974	NE	ARG	G	32	243.090	133.198	-18.505	1.00	75.51	N
ATOM	39925	CZ	PHE	G	26	243.137	139.132	-28.750	1.00	58.95	C	ATOM	39975	CZ	ARG	G	32	243.733	132.263	-19.207	1.00	75.51	C
ATOM	39926	N	ILE	G	27	240.244	142.651	-24.781	1.00	58.02	N	ATOM	39976	NH1	ARG	G	32	244.527	131.392	-18.594	1.00	75.51	N
ATOM	39927	CA	ILE	G	27	240.987	142.587	-23.531	1.00	58.02	C	ATOM	39977	NH2	ARG	G	32	243.581	132.196	-20.524	1.00	75.51	N
ATOM	39928	C	ILE	G	27	240.148	141.866	-22.487	1.00	58.02	C	ATOM	39978	N	ASP	G	33	239.233	135.915	-14.109	1.00	53.83	N
ATOM	39929	O	ILE	G	27	240.679	141.130	-21.654	1.00	58.02	O	ATOM	39979	CA	ASP	G	33	239.155	136.151	-12.665	1.00	53.83	C
ATOM	39930	CB	ILE	G	27	241.354	144.006	-23.042	1.00	53.69	C	ATOM	39980	C	ASP	G	33	239.208	137.656	-12.440	1.00	53.83	C
ATOM	39931	CG1	ILE	G	27	242.023	144.767	-24.191	1.00	53.69	C	ATOM	39981	O	ASP	G	33	239.721	138.133	-11.425	1.00	53.83	O
ATOM	39932	CG2	ILE	G	27	242.299	143.927	-21.835	1.00	53.69	C	ATOM	39982	CB	ASP	G	33	240.309	135.493	-11.905	1.00	53.38	C
ATOM	39933	CD1	ILE	G	27	242.162	146.244	-23.966	1.00	53.69	C	ATOM	39983	CG	ASP	G	33	240.408	134.018	-12.170	1.00	53.38	C
ATOM	39934	N	ASN	G	28	238.834	142.070	-22.543	1.00	55.51	N	ATOM	39984	OD1	ASP	G	33	239.430	133.457	-12.698	1.00	53.38	O
ATOM	39935	CA	ASN	G	28	237.936	141.413	-21.602	1.00	55.51	C	ATOM	39985	OD2	ASP	G	33	241.454	133.416	-11.846	1.00	53.38	O
ATOM	39936	C	ASN	G	28	237.884	139.915	-21.868	1.00	55.51	C	ATOM	39986	N	GLY	G	34	238.688	138.399	-13.411	1.00	71.83	N
ATOM	39937	O	ASN	G	28	237.654	139.119	-20.957	1.00	55.51	O	ATOM	39987	CA	GLY	G	34	238.671	139.843	-13.307	1.00	71.83	C
ATOM	39938	CB	ASN	G	28	236.526	141.992	-21.691	1.00	60.98	C	ATOM	39988	C	GLY	G	34	240.020	140.507	-13.109	1.00	71.83	C
ATOM	39939	CG	ASN	G	28	236.442	143.379	-21.126	1.00	60.98	C	ATOM	39989	O	GLY	G	34	240.072	141.661	-12.693	1.00	71.83	O
ATOM	39940	OD1	ASN	G	28	236.999	143.661	-20.070	1.00	60.98	O	ATOM	39990	N	LYS	G	35	241.111	139.799	-13.385	1.00	56.75	N
ATOM	39941	ND2	ASN	G	28	235.733	144.257	-21.819	1.00	60.98	N	ATOM	39991	CA	LYS	G	35	242.435	140.396	-13.243	1.00	56.75	C
ATOM	39942	N	LYS	G	29	238.098	139.538	-23.123	1.00	54.47	N	ATOM	39992	C	LYS	G	35	242.700	141.219	-14.500	1.00	56.75	C
ATOM	39943	CA	LYS	G	29	238.093	138.137	-23.497	1.00	54.47	C	ATOM	39993	O	LYS	G	35	243.654	140.972	-15.245	1.00	56.75	O
ATOM	39944	C	LYS	G	29	239.401	137.469	-23.097	1.00	54.47	C	ATOM	39994	CB	LYS	G	35	243.500	139.317	-13.079	1.00	42.14	C
ATOM	39945	O	LYS	G	29	239.476	136.250	-23.011	1.00	54.47	O	ATOM	39995	CG	LYS	G	35	243.274	138.445	-11.868	1.00	42.14	C
ATOM	39946	CB	LYS	G	29	237.849	137.995	-24.995	1.00	58.83	C	ATOM	39996	CD	LYS	G	35	244.377	137.417	-11.693	1.00	42.14	C
ATOM	39947	CG	LYS	G	29	236.376	137.922	-25.367	1.00	58.83	C	ATOM	39997	CE	LYS	G	35	245.671	138.068	-11.231	1.00	42.14	C



ATOM	39998	NZ	LYS G	35	246.813	137.098	-11.152	1.00	42.14	N	ATOM	40048	O	ILE G	42	249.579	141.571	-24.488	1.00	54.95	O
ATOM	39999	N	LYS G	36	241.827	142.203	-14.709	1.00	66.56	N	ATOM	40049	CB	ILE G	42	248.357	139.968	-21.894	1.00	56.53	C
ATOM	40000	CA	LYS G	36	241.860	143.103	-15.854	1.00	66.56	C	ATOM	40050	CG1	ILE G	42	248.827	139.287	-20.600	1.00	56.53	C
ATOM	40001	C	LYS G	36	243.166	143.856	-16.097	1.00	66.56	C	ATOM	40051	CG2	ILE G	42	248.494	139.007	-23.078	1.00	56.53	C
ATOM	40002	O	LYS G	36	243.357	144.402	-17.178	1.00	66.56	O	ATOM	40052	CD1	ILE G	42	248.148	137.952	-20.306	1.00	56.53	C
ATOM	40003	CB	LYS G	36	240.726	144.118	-15.733	1.00	51.76	C	ATOM	40053	N	PHE G	43	247.712	142.460	-23.674	1.00	49.89	N
ATOM	40004	CG	LYS G	36	240.411	144.855	-17.019	1.00	51.76	C	ATOM	40054	CA	PHE G	43	247.352	142.963	-24.990	1.00	49.89	C
ATOM	40005	CD	LYS G	36	239.457	146.011	-16.762	1.00	51.76	C	ATOM	40055	C	PHE G	43	248.221	144.102	-25.493	1.00	49.89	C
ATOM	40006	CE	LYS G	36	238.841	146.550	-18.059	1.00	51.76	C	ATOM	40056	O	PHE G	43	248.403	144.269	-26.701	1.00	49.89	C
ATOM	40007	NZ	LYS G	36	237.633	145.791	-18.521	1.00	51.76	N	ATOM	40057	CB	PHE G	43	245.916	143.443	-25.041	1.00	43.16	C
ATOM	40008	N	ASN G	37	244.058	143.914	-15.112	1.00	80.13	N	ATOM	40058	CG	PHE G	43	245.562	144.051	-26.356	1.00	43.16	C
ATOM	40009	CA	ASN G	37	245.314	144.632	-15.322	1.00	80.13	C	ATOM	40059	CD1	PHE G	43	245.488	143.257	-27.498	1.00	43.16	C
ATOM	40010	C	ASN G	37	246.193	143.737	-16.179	1.00	80.13	C	ATOM	40060	CD2	PHE G	43	245.361	145.414	-26.472	1.00	43.16	C
ATOM	40011	O	ASN G	37	246.605	144.115	-17.281	1.00	80.13	O	ATOM	40061	CE1	PHE G	43	245.219	143.806	-28.742	1.00	43.16	C
ATOM	40012	CB	ASN G	37	246.004	144.921	-13.991	1.00	70.42	C	ATOM	40062	CE2	PHE G	43	245.091	145.979	-27.710	1.00	43.16	C
ATOM	40013	CG	ASN G	37	246.787	146.229	-14.007	1.00	70.42	C	ATOM	40063	CZ	PHE G	43	245.019	145.170	-28.852	1.00	43.16	C
ATOM	40014	ND1	ASN G	37	247.720	146.402	-13.226	1.00	70.42	O	ATOM	40064	N	TYR G	44	248.727	144.912	-24.575	1.00	62.04	N
ATOM	40015	ND2	ASN G	37	246.398	147.159	-14.880	1.00	70.42	N	ATOM	40065	CA	TYR G	44	249.570	146.028	-24.963	1.00	62.04	C
ATOM	40016	N	LEU G	38	246.472	142.545	-15.657	1.00	63.20	N	ATOM	40066	C	TYR G	44	250.983	145.538	-25.255	1.00	62.04	C
ATOM	40017	CA	LEU G	38	247.267	141.550	-16.365	1.00	63.20	C	ATOM	40067	O	TYR G	44	251.578	145.944	-26.250	1.00	62.04	O
ATOM	40018	C	LEU G	38	246.716	141.395	-17.783	1.00	63.20	C	ATOM	40068	CB	TYR G	44	249.539	147.083	-23.867	1.00	53.97	C
ATOM	40019	O	LEU G	38	247.466	141.240	-18.743	1.00	63.20	C	ATOM	40069	CG	TYR G	44	248.180	147.750	-23.752	1.00	53.97	C
ATOM	40020	CB	LEU G	38	247.200	140.218	-15.609	1.00	53.40	C	ATOM	40070	CD1	TYR G	44	247.578	147.935	-22.508	1.00	53.97	C
ATOM	40021	CG	LEU G	38	247.512	138.888	-16.299	1.00	53.40	C	ATOM	40071	CD2	TYR G	44	247.498	148.205	-24.890	1.00	53.97	C
ATOM	40022	CD1	LEU G	38	248.715	139.036	-17.193	1.00	53.40	C	ATOM	40072	CE1	TYR G	44	246.331	148.555	-22.388	1.00	53.97	C
ATOM	40023	CD2	LEU G	38	247.752	137.803	-15.240	1.00	53.40	C	ATOM	40073	CE2	TYR G	44	246.246	148.830	-24.781	1.00	53.97	C
ATOM	40024	N	ALA G	39	245.397	141.458	-17.907	1.00	69.71	N	ATOM	40074	CZ	TYR G	44	245.671	148.998	-23.519	1.00	53.97	C
ATOM	40025	CA	ALA G	39	244.745	141.334	-19.201	1.00	69.71	C	ATOM	40075	OH	TYR G	44	244.437	149.601	-23.371	1.00	53.97	O
ATOM	40026	C	ALA G	39	245.120	142.484	-20.134	1.00	69.71	C	ATOM	40076	N	ASP G	45	251.506	144.656	-24.402	1.00	56.79	N
ATOM	40027	O	ALA G	39	245.465	142.262	-21.292	1.00	69.71	O	ATOM	40077	CA	ASP G	45	252.829	144.079	-24.617	1.00	56.79	C
ATOM	40028	CB	ALA G	39	243.236	141.284	-19.015	1.00	108.43	C	ATOM	40078	C	ASP G	45	252.798	143.495	-26.018	1.00	56.79	C
ATOM	40029	N	ALA G	40	245.047	143.711	-19.628	1.00	70.27	N	ATOM	40079	O	ASP G	45	253.733	143.662	-26.806	1.00	56.79	O
ATOM	40030	CA	ALA G	40	245.376	144.889	-20.422	1.00	70.27	C	ATOM	40080	CB	ASP G	45	253.112	142.937	-23.639	1.00	86.90	C
ATOM	40031	C	ALA G	40	246.835	144.832	-20.816	1.00	70.27	C	ATOM	40081	CG	ASP G	45	253.423	143.419	-22.241	1.00	86.90	C
ATOM	40032	O	ALA G	40	247.181	145.058	-21.976	1.00	70.27	O	ATOM	40082	OD1	ASP G	45	254.376	144.207	-22.074	1.00	86.90	O
ATOM	40033	CB	ALA G	40	245.107	146.149	-19.630	1.00	29.80	C	ATOM	40083	OD2	ASP G	45	252.717	142.997	-21.302	1.00	86.90	O
ATOM	40034	N	ARG G	41	247.694	144.536	-19.845	1.00	76.86	N	ATOM	40084	N	ALA G	46	251.703	142.808	-26.322	1.00	72.67	N
ATOM	40035	CA	ARG G	41	249.117	144.433	-20.122	1.00	76.86	C	ATOM	40085	CA	ALA G	46	251.522	142.189	-27.626	1.00	72.67	C
ATOM	40036	C	ARG G	41	249.344	143.506	-21.302	1.00	76.86	C	ATOM	40086	C	ALA G	46	251.558	143.235	-28.735	1.00	72.67	C
ATOM	40037	O	ARG G	41	249.788	143.936	-22.365	1.00	76.86	O	ATOM	40087	O	ALA G	46	252.211	143.042	-29.760	1.00	72.67	O
ATOM	40038	CB	ARG G	41	249.855	143.891	-18.913	1.00	98.92	C	ATOM	40088	CB	ALA G	46	250.203	141.434	-27.663	1.00	129.80	C
ATOM	40039	CG	ARG G	41	250.027	144.905	-17.837	1.00	98.92	C	ATOM	40089	N	CYS G	47	250.856	144.343	-28.533	1.00	67.77	N
ATOM	40040	CD	ARG G	41	250.749	144.303	-16.670	1.00	98.92	C	ATOM	40090	CA	CYS G	47	250.832	145.392	-29.539	1.00	67.77	C
ATOM	40041	NE	ARG G	41	251.190	145.336	-15.745	1.00	98.92	N	ATOM	40091	C	CYS G	47	252.230	145.913	-29.822	1.00	67.77	C
ATOM	40042	CZ	ARG G	41	251.794	145.089	-14.590	1.00	98.92	C	ATOM	40092	O	CYS G	47	252.520	146.368	-30.934	1.00	67.77	O
ATOM	40043	NH1	ARG G	41	252.025	143.834	-14.216	1.00	98.92	N	ATOM	40093	CB	CYS G	47	249.927	146.534	-29.092	1.00	74.93	C
ATOM	40044	NH2	ARG G	41	252.176	146.098	-13.818	1.00	98.92	N	ATOM	40094	SG	CYS G	47	248.186	146.189	-29.355	1.00	74.93	S
ATOM	40045	N	ILE G	42	249.024	142.231	-21.110	1.00	54.95	N	ATOM	40095	N	LYS G	48	253.095	145.846	-28.815	1.00	95.12	N
ATOM	40046	CA	ILE G	42	249.195	141.242	-22.160	1.00	54.95	C	ATOM	40096	CA	LYS G	48	254.460	146.306	-28.985	1.00	95.12	C
ATOM	40047	C	ILE G	42	248.836	141.773	-23.541	1.00	54.95	C	ATOM	40097	C	LYS G	48	255.313	145.203	-29.578	1.00	95.12	C



ATOM	40098	O	LYS	G	48	256.460	145.436	-29.945	1.00	95.12	O	ATOM	40148	CA	THR	G	54	256.073	143.986	-37.991	1.00	126.11	C
ATOM	40099	CB	LYS	G	48	255.029	146.802	-27.657	1.00	102.99	C	ATOM	40149	C	THR	G	54	256.000	145.510	-37.991	1.00	126.11	C
ATOM	40100	CG	LYS	G	48	254.265	148.017	-27.143	1.00	102.99	C	ATOM	40150	O	THR	G	54	255.472	146.121	-37.061	1.00	126.11	O
ATOM	40101	CD	LYS	G	48	254.970	148.750	-26.011	1.00	102.99	C	ATOM	40151	CB	THR	G	54	254.640	143.413	-37.972	1.00	148.87	C
ATOM	40102	CE	LYS	G	48	254.116	149.920	-25.506	1.00	102.99	C	ATOM	40152	CG1	THR	G	54	254.260	143.102	-36.628	1.00	148.87	C
ATOM	40103	NZ	LYS	G	48	253.753	150.888	-26.594	1.00	102.99	N	ATOM	40153	CG2	THR	G	54	254.558	142.163	-38.827	1.00	148.87	C
ATOM	40104	N	LYS	G	49	254.746	144.002	-29.674	1.00	67.76	N	ATOM	40154	N	GLY	G	55	256.531	146.117	-39.046	1.00	80.08	N
ATOM	40105	CA	ILE	G	49	255.439	142.864	-30.285	1.00	67.76	C	ATOM	40155	CA	GLY	G	55	256.554	147.566	-39.136	1.00	80.08	C
ATOM	40106	C	ILE	G	49	255.015	142.869	-31.757	1.00	67.76	C	ATOM	40156	C	GLY	G	55	255.213	148.266	-39.226	1.00	80.08	C
ATOM	40107	O	ILE	G	49	255.682	142.308	-32.626	1.00	67.76	C	ATOM	40157	O	GLY	G	55	255.154	149.473	-39.485	1.00	80.08	C
ATOM	40108	CB	ILE	G	49	255.033	141.513	-29.633	1.00	47.29	C	ATOM	40158	N	GLN	G	56	254.133	147.525	-38.996	1.00	109.42	N
ATOM	40109	CG1	ILE	G	49	255.532	141.469	-28.189	1.00	47.29	C	ATOM	40159	CA	GLN	G	56	252.797	148.101	-39.074	1.00	109.42	C
ATOM	40110	CG2	ILE	G	49	255.615	140.338	-30.425	1.00	47.29	C	ATOM	40160	C	GLN	G	56	252.260	148.528	-37.711	1.00	109.42	C
ATOM	40111	CD1	ILE	G	49	255.264	140.149	-27.474	1.00	47.29	C	ATOM	40161	O	GLN	G	56	252.733	148.062	-36.674	1.00	109.42	C
ATOM	40112	N	ILE	G	50	253.892	143.522	-32.021	1.00	67.69	N	ATOM	40162	CB	GLN	G	56	251.842	147.089	-39.699	1.00	119.94	C
ATOM	40113	CA	ILE	G	50	253.384	143.633	-33.372	1.00	67.69	C	ATOM	40163	CG	GLN	G	56	252.398	146.395	-40.924	1.00	119.94	C
ATOM	40114	C	ILE	G	50	254.066	144.834	-34.017	1.00	67.69	C	ATOM	40164	CD	GLN	G	56	251.365	145.528	-41.609	1.00	119.94	C
ATOM	40115	O	ILE	G	50	254.006	145.015	-35.233	1.00	67.69	O	ATOM	40165	OE1	GLN	G	56	250.363	146.029	-42.117	1.00	119.94	O
ATOM	40116	CB	ILE	G	50	251.862	143.832	-33.366	1.00	71.46	C	ATOM	40166	NE2	GLN	G	56	251.598	144.221	-41.622	1.00	119.94	N
ATOM	40117	CG1	ILE	G	50	251.209	142.654	-32.653	1.00	71.46	C	ATOM	40167	N	GLU	G	57	251.274	149.422	-37.726	1.00	111.49	N
ATOM	40118	CG2	ILE	G	50	251.330	143.941	-34.791	1.00	71.46	C	ATOM	40168	CA	GLU	G	57	250.647	149.899	-36.497	1.00	111.49	C
ATOM	40119	CD1	ILE	G	50	249.708	142.700	-32.666	1.00	71.46	C	ATOM	40169	C	GLU	G	57	249.822	148.752	-35.936	1.00	111.49	C
ATOM	40120	N	GLN	G	51	254.708	145.660	-33.194	1.00	129.10	N	ATOM	40170	O	GLU	G	57	248.949	148.214	-36.616	1.00	111.49	O
ATOM	40121	CA	GLN	G	51	255.420	146.831	-33.699	1.00	129.10	C	ATOM	40171	CB	GLU	G	57	249.727	151.081	-36.786	1.00	144.05	C
ATOM	40122	C	GLN	G	51	256.812	146.425	-34.134	1.00	129.10	C	ATOM	40172	CG	GLU	G	57	250.416	152.246	-37.451	1.00	144.05	C
ATOM	40123	O	GLN	G	51	257.273	146.800	-35.213	1.00	129.10	O	ATOM	40173	CD	GLU	G	57	249.459	153.371	-37.777	1.00	144.05	C
ATOM	40124	CB	GLN	G	51	255.515	147.925	-32.632	1.00	93.11	C	ATOM	40174	OE1	GLU	G	57	248.475	153.119	-38.504	1.00	144.05	O
ATOM	40125	CG	GLN	G	51	254.366	148.909	-32.690	1.00	93.11	C	ATOM	40175	OE2	GLU	G	57	249.692	154.506	-37.308	1.00	144.05	O
ATOM	40126	CD	GLN	G	51	254.281	149.626	-34.027	1.00	93.11	C	ATOM	40176	N	PRO	G	58	250.070	148.375	-34.677	1.00	94.55	N
ATOM	40127	OE1	GLN	G	51	254.527	149.042	-35.086	1.00	93.11	O	ATOM	40177	CA	PRO	G	58	249.321	147.271	-34.071	1.00	94.55	C
ATOM	40128	NE2	GLN	G	51	253.914	150.902	-33.985	1.00	93.11	N	ATOM	40178	C	PRO	G	58	247.801	147.358	-34.266	1.00	94.55	C
ATOM	40129	N	GLU	G	52	257.482	145.658	-33.282	1.00	71.19	N	ATOM	40179	O	PRO	G	58	247.185	146.418	-34.777	1.00	94.55	O
ATOM	40130	CA	GLU	G	52	258.811	145.188	-33.600	1.00	71.19	C	ATOM	40180	CB	PRO	G	58	249.749	147.335	-32.602	1.00	70.54	C
ATOM	40131	C	GLU	G	52	258.744	144.278	-34.816	1.00	71.19	C	ATOM	40181	CG	PRO	G	58	250.011	148.788	-32.398	1.00	70.54	C
ATOM	40132	O	GLU	G	52	258.892	144.738	-35.943	1.00	71.19	O	ATOM	40182	CD	PRO	G	58	250.774	149.155	-33.647	1.00	70.54	C
ATOM	40133	CB	GLU	G	52	259.422	144.444	-32.411	1.00	147.53	C	ATOM	40183	N	LEU	G	59	247.210	148.487	-33.879	1.00	97.63	N
ATOM	40134	CG	GLU	G	52	259.818	145.365	-31.271	1.00	147.53	C	ATOM	40184	CA	LEU	G	59	245.767	148.686	-34.001	1.00	97.63	C
ATOM	40135	CD	GLU	G	52	260.661	144.670	-30.222	1.00	147.53	C	ATOM	40185	C	LEU	G	59	245.159	148.220	-35.322	1.00	97.63	C
ATOM	40136	OE1	GLU	G	52	261.696	144.075	-30.593	1.00	147.53	O	ATOM	40186	O	LEU	G	59	244.049	147.682	-35.333	1.00	97.63	O
ATOM	40137	OE2	GLU	G	52	260.296	144.725	-29.028	1.00	147.53	O	ATOM	40187	CB	LEU	G	59	245.404	150.157	-33.791	1.00	82.40	C
ATOM	40138	N	LYS	G	53	258.486	142.997	-34.591	1.00	102.39	N	ATOM	40188	CG	LEU	G	59	243.911	150.478	-33.954	1.00	82.40	C
ATOM	40139	CA	LYS	G	53	258.428	142.021	-35.675	1.00	102.39	C	ATOM	40189	CD1	LEU	G	59	243.089	149.641	-32.980	1.00	82.40	C
ATOM	40140	C	LYS	G	53	257.585	142.394	-36.908	1.00	102.39	C	ATOM	40190	CD2	LEU	G	59	243.674	151.960	-33.717	1.00	82.40	C
ATOM	40141	O	LYS	G	53	257.582	141.662	-37.896	1.00	102.39	O	ATOM	40191	N	LYS	G	60	245.867	148.437	-36.431	1.00	78.57	N
ATOM	40142	CB	LYS	G	53	257.987	140.673	-35.104	1.00	92.11	C	ATOM	40192	CA	LYS	G	60	245.361	148.025	-37.741	1.00	78.57	C
ATOM	40143	CG	LYS	G	53	258.801	140.267	-33.883	1.00	92.11	C	ATOM	40193	C	LYS	G	60	245.580	146.531	-37.996	1.00	78.57	C
ATOM	40144	CD	LYS	G	53	258.273	138.995	-33.246	1.00	92.11	C	ATOM	40194	O	LYS	G	60	244.817	145.904	-38.735	1.00	78.57	O
ATOM	40145	CE	LYS	G	53	258.906	138.755	-31.881	1.00	92.11	C	ATOM	40195	CB	LYS	G	60	246.013	148.840	-38.860	1.00	101.93	C
ATOM	40146	NZ	LYS	G	53	258.373	137.523	-31.239	1.00	92.11	N	ATOM	40196	CG	LYS	G	60	245.468	148.486	-40.232	1.00	101.93	C
ATOM	40147	N	THR	G	54	256.877	143.519	-36.856	1.00	126.11	N	ATOM	40197	CD	LYS	G	60	246.154	149.248	-41.349	1.00	101.93	C



Table 1: Sheet 404/521

ATOM	40198	CE	LYS	G	60	245.673	148.743	-42.707	1.00101.93	C	ATOM	40248	N	GLU	G	67	238.670	140.851	-38.656	1.00	62.87	N	
ATOM	40199	NZ	LYS	G	60	246.242	149.509	-43.855	1.00101.93	N	ATOM	40249	CA	GLU	G	67	238.004	140.749	-39.941	1.00	62.87	C	
ATOM	40200	N	VAL	G	61	246.624	145.964	-37.396	1.00	78.38	N	ATOM	40250	C	GLU	G	67	238.074	139.354	-40.578	1.00	62.87	C
ATOM	40201	CA	VAL	G	61	246.895	144.538	-37.556	1.00	78.38	C	ATOM	40251	O	GLU	G	67	237.052	138.786	-40.965	1.00	62.87	O
ATOM	40202	C	VAL	G	61	245.755	143.809	-36.861	1.00	78.38	C	ATOM	40252	CB	GLU	G	67	238.591	141.777	-40.904	1.00	82.65	C
ATOM	40203	O	VAL	G	61	245.195	142.842	-37.380	1.00	78.38	O	ATOM	40253	CG	GLU	G	67	237.980	141.727	-42.292	1.00	82.65	C
ATOM	40204	CB	VAL	G	61	248.220	144.118	-36.873	1.00	62.74	C	ATOM	40254	CD	GLU	G	67	236.484	142.001	-42.288	1.00	82.65	C
ATOM	40205	CG1	VAL	G	61	248.422	142.615	-37.000	1.00	62.74	C	ATOM	40255	OE1	GLU	G	67	235.859	141.864	-43.366	1.00	82.65	O
ATOM	40206	CG2	VAL	G	61	249.378	144.846	-37.496	1.00	62.74	C	ATOM	40256	OE2	GLU	G	67	235.939	142.356	-41.213	1.00	82.65	O
ATOM	40207	N	PHE	G	62	245.423	144.302	-35.672	1.00	79.72	N	ATOM	40257	N	ASN	G	68	239.272	138.798	-40.692	1.00	93.13	N
ATOM	40208	CA	PHE	G	62	244.357	143.745	-34.851	1.00	79.72	C	ATOM	40258	CA	ASN	G	68	239.417	137.484	-41.309	1.00	93.13	C
ATOM	40209	C	PHE	G	62	243.041	143.715	-35.617	1.00	79.72	C	ATOM	40259	C	ASN	G	68	238.845	136.346	-40.469	1.00	93.13	C
ATOM	40210	O	PHE	G	62	242.500	142.646	-35.900	1.00	79.72	C	ATOM	40260	O	ASN	G	68	238.575	135.263	-40.986	1.00	93.13	C
ATOM	40211	CB	PHE	G	62	244.208	144.583	-33.577	1.00	66.58	C	ATOM	40261	CB	ASN	G	68	240.891	137.195	-41.595	1.00	61.18	C
ATOM	40212	CG	PHE	G	62	243.090	144.145	-32.690	1.00	66.58	C	ATOM	40262	CG	ASN	G	68	241.543	138.272	-42.426	1.00	61.18	C
ATOM	40213	CD1	PHE	G	62	243.082	142.872	-32.139	1.00	66.58	C	ATOM	40263	OD1	ASN	G	68	240.982	138.718	-43.426	1.00	61.18	O
ATOM	40214	CD2	PHE	G	62	242.040	145.009	-32.404	1.00	66.58	C	ATOM	40264	ND2	ASN	G	68	242.738	138.692	-42.021	1.00	61.18	N
ATOM	40215	CE1	PHE	G	62	242.042	142.461	-31.312	1.00	66.58	C	ATOM	40265	N	VAL	G	69	238.654	136.598	-39.180	1.00	65.41	N
ATOM	40216	CE2	PHE	G	62	240.995	144.611	-31.579	1.00	66.58	C	ATOM	40266	CA	VAL	G	69	238.148	135.586	-38.260	1.00	65.41	C
ATOM	40217	CZ	PHE	G	62	240.996	143.333	-31.031	1.00	66.58	C	ATOM	40267	C	VAL	G	69	236.627	135.617	-38.025	1.00	65.41	C
ATOM	40218	N	LYS	G	63	242.531	144.892	-35.959	1.00	75.26	N	ATOM	40268	O	VAL	G	69	236.075	134.751	-37.346	1.00	65.41	O
ATOM	40219	CA	LYS	G	63	241.278	144.976	-36.685	1.00	75.26	C	ATOM	40269	CB	VAL	G	69	238.916	135.699	-36.920	1.00	50.63	C
ATOM	40220	C	LYS	G	63	241.264	144.081	-37.912	1.00	75.26	C	ATOM	40270	CG1	VAL	G	69	238.334	134.779	-35.869	1.00	50.63	C
ATOM	40221	O	LYS	G	63	240.267	143.413	-38.184	1.00	75.26	O	ATOM	40271	CG2	VAL	G	69	240.365	135.351	-37.155	1.00	50.63	C
ATOM	40222	CB	LYS	G	63	240.996	146.419	-37.076	1.00	90.56	C	ATOM	40272	N	LYS	G	70	235.942	136.601	-38.595	1.00	58.85	N
ATOM	40223	CG	LYS	G	63	240.896	147.316	-35.870	1.00	90.56	C	ATOM	40273	CA	LYS	G	70	234.494	136.686	-38.431	1.00	58.85	C
ATOM	40224	CD	LYS	G	63	239.977	148.481	-36.129	1.00	90.56	C	ATOM	40274	C	LYS	G	70	233.802	135.745	-39.403	1.00	58.85	C
ATOM	40225	CE	LYS	G	63	239.695	149.231	-34.845	1.00	90.56	C	ATOM	40275	O	LYS	G	70	233.956	135.879	-40.612	1.00	58.85	O
ATOM	40226	NZ	LYS	G	63	238.647	150.261	-35.063	1.00	90.56	N	ATOM	40276	CB	LYS	G	70	233.992	138.101	-38.712	1.00	58.16	C
ATOM	40227	N	GLN	G	64	242.370	144.060	-38.648	1.00	85.56	N	ATOM	40277	CG	LYS	G	70	234.386	139.153	-37.708	1.00	58.16	C
ATOM	40228	CA	GLN	G	64	242.464	143.222	-39.836	1.00	85.56	C	ATOM	40278	CD	LYS	G	70	233.927	140.508	-38.218	1.00	58.16	C
ATOM	40229	C	GLN	G	64	242.180	141.779	-39.436	1.00	85.56	C	ATOM	40279	CE	LYS	G	70	234.243	141.617	-37.233	1.00	58.16	C
ATOM	40230	O	GLN	G	64	241.393	141.083	-40.082	1.00	85.56	O	ATOM	40280	NZ	LYS	G	70	233.893	142.953	-37.789	1.00	58.16	N
ATOM	40231	CB	GLN	G	64	243.861	143.317	-40.450	1.00139.98	C	ATOM	40281	N	PRO	G	71	233.046	134.766	-38.894	1.00	70.21	N	
ATOM	40232	CG	GLN	G	64	244.030	142.487	-41.710	1.00139.98	C	ATOM	40282	CA	PRO	G	71	232.356	133.850	-39.808	1.00	70.21	C	
ATOM	40233	CD	GLN	G	64	243.104	142.936	-42.824	1.00139.98	C	ATOM	40283	C	PRO	G	71	231.140	134.581	-40.369	1.00	70.21	C	
ATOM	40234	OE1	GLN	G	64	243.238	144.041	-43.348	1.00139.98	O	ATOM	40284	O	PRO	G	71	230.508	135.358	-39.657	1.00	70.21	O	
ATOM	40235	NE2	GLN	G	64	242.154	142.082	-43.185	1.00139.98	N	ATOM	40285	CB	PRO	G	71	231.971	132.689	-38.900	1.00	42.96	C	
ATOM	40236	N	ALA	G	65	242.827	141.341	-38.358	1.00	85.21	N	ATOM	40286	CG	PRO	G	71	231.732	133.373	-37.592	1.00	42.96	C
ATOM	40237	CA	ALA	G	65	242.659	139.985	-37.847	1.00	85.21	C	ATOM	40287	CD	PRO	G	71	232.889	134.336	-37.495	1.00	42.96	C
ATOM	40238	C	ALA	G	65	241.181	139.700	-37.631	1.00	85.21	C	ATOM	40288	N	ARG	G	72	230.819	134.363	-41.639	1.00	63.77	N
ATOM	40239	O	ALA	G	65	240.599	138.855	-38.313	1.00	85.21	O	ATOM	40289	CA	ARG	G	72	229.672	135.043	-42.226	1.00	63.77	C
ATOM	40240	CB	ALA	G	65	243.422	139.822	-36.536	1.00	55.88	C	ATOM	40290	C	ARG	G	72	228.477	134.106	-42.379	1.00	63.77	C
ATOM	40241	N	VAL	G	66	240.584	140.413	-36.679	1.00	60.70	N	ATOM	40291	O	ARG	G	72	227.359	134.546	-42.653	1.00	63.77	O
ATOM	40242	CA	VAL	G	66	239.167	140.260	-36.370	1.00	60.70	C	ATOM	40292	CB	ARG	G	72	230.054	135.669	-43.568	1.00	106.43	C
ATOM	40243	C	VAL	G	66	238.384	140.030	-37.654	1.00	60.70	C	ATOM	40293	CG	ARG	G	72	230.819	134.747	-44.470	1.00	106.43	C
ATOM	40244	O	VAL	G	66	237.550	139.129	-37.737	1.00	60.70	O	ATOM	40294	CD	ARG	G	72	231.135	135.406	-45.795	1.00	106.43	C
ATOM	40245	CB	VAL	G	66	238.604	141.519	-35.678	1.00	36.25	C	ATOM	40295	NE	ARG	G	72	231.926	134.523	-46.649	1.00	106.43	N
ATOM	40246	CG1	VAL	G	66	237.110	141.371	-35.463	1.00	36.25	C	ATOM	40296	CZ	ARG	G	72	233.205	134.221	-46.440	1.00	106.43	C
ATOM	40247	CG2	VAL	G	66	239.302	141.733	-34.345	1.00	36.25	C	ATOM	40297	NH1	ARG	G	72	233.856	134.733	-45.401	1.00	106.43	N



Table 1: Sheet 405/521

ATOM	40298	NH2	ARG	G	72	233.834	133.395	-47.266	1.00106.43	N	ATOM	40348	CZ	ARG	G	78	212.971	125.319	-38.742	1.00102.79	C
ATOM	40299	N	MET	G	73	228.723	132.813	-42.196	1.00 68.54	N	ATOM	40349	NH1	ARG	G	78	213.680	126.334	-39.225	1.00102.79	N
ATOM	40300	CA	MET	G	73	227.678	131.793	-42.264	1.00 68.54	C	ATOM	40350	NH2	ARG	G	78	211.677	125.236	-39.024	1.00102.79	N
ATOM	40301	C	MET	G	73	228.027	130.768	-41.199	1.00 68.54	C	ATOM	40351	N	ARG	G	79	215.548	120.591	-34.738	1.00 80.58	N
ATOM	40302	O	MET	G	73	229.194	130.420	-41.029	1.00 68.54	O	ATOM	40352	CA	ARG	G	79	214.823	119.345	-34.923	1.00 80.58	C
ATOM	40303	CB	MET	G	73	227.643	131.106	-43.630	1.00 75.69	C	ATOM	40353	C	ARG	G	79	213.728	119.598	-35.942	1.00 80.58	C
ATOM	40304	CG	MET	G	73	227.046	131.936	-44.751	1.00 75.69	C	ATOM	40354	O	ARG	G	79	212.867	120.453	-35.741	1.00 80.58	O
ATOM	40305	SD	MET	G	73	225.273	132.220	-44.585	1.00 75.69	S	ATOM	40355	CB	ARG	G	79	214.198	118.873	-33.609	1.00150.49	C
ATOM	40306	CE	MET	G	73	224.575	130.878	-45.584	1.00 75.69	C	ATOM	40356	CG	ARG	G	79	215.193	118.672	-32.492	1.00150.49	C
ATOM	40307	N	GLU	G	74	227.031	130.299	-40.464	1.00 65.62	N	ATOM	40357	CD	ARG	G	79	214.673	117.683	-31.467	1.00150.49	C
ATOM	40308	CA	GLU	G	74	227.294	129.315	-39.430	1.00 65.62	C	ATOM	40358	NE	ARG	G	79	215.639	117.472	-30.394	1.00150.49	N
ATOM	40309	C	GLU	G	74	226.118	128.375	-39.425	1.00 65.62	C	ATOM	40359	CZ	ARG	G	79	215.536	116.527	-29.467	1.00150.49	C
ATOM	40310	O	GLU	G	74	225.037	128.725	-39.893	1.00 65.62	O	ATOM	40360	NH1	ARG	G	79	214.503	115.694	-29.480	1.00150.49	N
ATOM	40311	CB	GLU	G	74	227.441	129.987	-38.059	1.00 67.77	C	ATOM	40361	NH2	ARG	G	79	216.465	116.416	-28.527	1.00150.49	N
ATOM	40312	CG	GLU	G	74	226.128	130.216	-37.309	1.00 67.77	C	ATOM	40362	N	VAL	G	80	213.780	118.871	-37.049	1.00129.78	N
ATOM	40313	CD	GLU	G	74	226.308	131.010	-36.015	1.00 67.77	C	ATOM	40363	CA	VAL	G	80	212.778	119.007	-38.094	1.00129.78	C
ATOM	40314	OE1	GLU	G	74	227.271	130.729	-35.266	1.00 67.77	O	ATOM	40364	C	VAL	G	80	212.338	117.605	-38.484	1.00129.78	C
ATOM	40315	OE2	GLU	G	74	225.477	131.909	-35.743	1.00 67.77	O	ATOM	40365	O	VAL	G	80	213.127	116.824	-39.018	1.00129.78	O
ATOM	40316	N	VAL	G	75	226.332	127.180	-38.901	1.00 56.93	N	ATOM	40366	CB	VAL	G	80	213.341	119.746	-39.334	1.00101.17	C
ATOM	40317	CA	VAL	G	75	225.283	126.181	-38.831	1.00 56.93	C	ATOM	40367	CG1	VAL	G	80	212.290	119.808	-40.431	1.00101.17	C
ATOM	40318	C	VAL	G	75	224.648	126.141	-37.442	1.00 56.93	C	ATOM	40368	CG2	VAL	G	80	213.757	121.155	-38.951	1.00101.17	C
ATOM	40319	O	VAL	G	75	225.346	126.115	-36.431	1.00 56.93	O	ATOM	40369	N	GLY	G	81	211.080	117.289	-38.192	1.00114.28	N
ATOM	40320	CB	VAL	G	75	225.852	124.796	-39.175	1.00 62.47	C	ATOM	40370	CA	GLY	G	81	210.550	115.977	-38.507	1.00114.28	C
ATOM	40321	CG1	VAL	G	75	224.971	123.715	-38.619	1.00 62.47	C	ATOM	40371	C	GLY	G	81	211.555	114.869	-38.257	1.00114.28	C
ATOM	40322	CG2	VAL	G	75	225.958	124.648	-40.671	1.00 62.47	C	ATOM	40372	O	GLY	G	81	212.114	114.317	-39.201	1.00114.28	O
ATOM	40323	N	ARG	G	76	223.320	126.149	-37.398	1.00 74.26	N	ATOM	40373	N	GLY	G	82	211.794	114.551	-36.988	1.00121.54	N
ATOM	40324	CA	ARG	G	76	222.582	126.084	-36.138	1.00 74.26	C	ATOM	40374	CA	GLY	G	82	212.736	113.497	-36.653	1.00121.54	C
ATOM	40325	C	ARG	G	76	221.694	124.849	-36.178	1.00 74.26	C	ATOM	40375	C	GLY	G	82	214.152	113.974	-36.378	1.00121.54	C
ATOM	40326	O	ARG	G	76	220.929	124.656	-37.122	1.00 74.26	O	ATOM	40376	O	GLY	G	82	214.421	114.605	-35.352	1.00121.54	O
ATOM	40327	CB	ARG	G	76	221.716	127.326	-35.945	1.00 92.86	C	ATOM	40377	N	ALA	G	83	215.061	113.668	-37.299	1.00138.86	N
ATOM	40328	CG	ARG	G	76	222.438	128.537	-35.381	1.00 92.86	C	ATOM	40378	CA	ALA	G	83	216.464	114.047	-37.167	1.00138.86	C
ATOM	40329	CD	ARG	G	76	221.458	129.693	-35.271	1.00 92.86	C	ATOM	40379	C	ALA	G	83	216.656	115.525	-36.833	1.00138.86	C
ATOM	40330	NE	ARG	G	76	221.901	130.761	-34.381	1.00 92.86	N	ATOM	40380	O	ALA	G	83	215.753	116.343	-37.024	1.00138.86	O
ATOM	40331	CZ	ARG	G	76	221.110	131.743	-33.959	1.00 92.86	C	ATOM	40381	CB	ALA	G	83	217.213	113.700	-38.449	1.00138.86	O
ATOM	40332	NH1	ARG	G	76	219.841	131.785	-34.353	1.00 92.86	N	ATOM	40382	N	ASN	G	84	217.844	115.856	-36.333	1.00112.50	N
ATOM	40333	NH2	ARG	G	76	221.575	132.674	-33.133	1.00 92.86	N	ATOM	40383	CA	ASN	G	84	218.171	117.228	-35.964	1.00112.50	C
ATOM	40334	N	SER	G	77	221.799	124.010	-35.156	1.00 94.26	N	ATOM	40384	C	ASN	G	84	219.077	117.858	-37.014	1.00112.50	C
ATOM	40335	CA	SER	G	77	221.003	122.795	-35.112	1.00 94.26	C	ATOM	40385	O	ASN	G	84	220.289	117.967	-36.829	1.00112.50	O
ATOM	40336	C	SER	G	77	219.512	123.120	-35.128	1.00 94.26	C	ATOM	40386	CB	ASN	G	84	218.847	117.256	-34.591	1.00113.16	C
ATOM	40337	O	SER	G	77	219.119	124.283	-35.060	1.00 94.26	O	ATOM	40387	CG	ASN	G	84	218.058	116.492	-33.540	1.00113.16	C
ATOM	40338	CB	SER	G	77	221.348	121.981	-33.866	1.00 77.84	C	ATOM	40388	OD1	ASN	G	84	216.827	116.545	-33.512	1.00113.16	O
ATOM	40339	OG	SER	G	77	220.787	120.684	-33.950	1.00 77.84	O	ATOM	40389	ND2	ASN	G	84	218.763	115.784	-32.665	1.00113.16	N
ATOM	40340	N	ARG	G	78	218.690	122.083	-35.228	1.00114.96	N	ATOM	40390	N	TYR	G	85	218.464	118.269	-38.118	1.00110.74	N
ATOM	40341	CA	ARG	G	78	217.243	122.243	-35.258	1.00114.96	C	ATOM	40391	CA	TYR	G	85	219.168	118.898	-39.235	1.00110.74	C
ATOM	40342	C	ARG	G	78	216.576	120.902	-35.520	1.00114.96	C	ATOM	40392	C	TYR	G	85	219.890	120.169	-38.827	1.00110.74	C
ATOM	40343	O	ARG	G	78	216.993	120.156	-36.408	1.00114.96	O	ATOM	40393	O	TYR	G	85	219.344	120.997	-38.103	1.00110.74	O
ATOM	40344	CB	ARG	G	78	216.833	123.236	-36.352	1.00102.79	C	ATOM	40394	CB	TYR	G	85	218.175	119.199	-40.361	1.00113.56	C
ATOM	40345	CG	ARG	G	78	215.330	123.293	-36.616	1.00102.79	C	ATOM	40395	CG	TYR	G	85	217.455	117.987	-40.924	1.00113.56	C
ATOM	40346	CD	ARG	G	78	214.973	124.386	-37.623	1.00102.79	C	ATOM	40396	CD1	TYR	G	85	216.264	118.135	-41.632	1.00113.56	C
ATOM	40347	NE	ARG	G	78	213.552	124.389	-37.984	1.00102.79	N	ATOM	40397	CD2	TYR	G	85	217.969	116.697	-40.764	1.00113.56	C



Table 1: Sheet 406/521

ATOM	40398	CE1	TYR	G	85	215.597	117.037	-42.166	1.00113.56	C	ATOM	40448	CG2	VAL	G	91	227.205	133.682	-38.688	1.00	49.64	C	
ATOM	40399	CE2	TYR	G	85	217.309	115.587	-41.296	1.00113.56	C	ATOM	40449	N	SER	G	92	224.754	137.378	-37.198	1.00	70.28	N	
ATOM	40400	C2	TYR	G	85	216.122	115.765	-41.996	1.00113.56	C	ATOM	40450	CA	SER	G	92	224.507	138.769	-36.849	1.00	70.28	C	
ATOM	40401	OH	TYR	G	85	215.457	114.677	-42.525	1.00113.56	O	ATOM	40451	C	SER	G	92	225.820	139.513	-36.800	1.00	70.28	C	
ATOM	40402	N	GLN	G	86	221.119	120.321	-39.311	1.00	81.85	N	ATOM	40452	O	SER	G	92	226.866	138.927	-36.525	1.00	70.28	O
ATOM	40403	CA	GLN	G	86	221.948	121.487	-39.018	1.00	81.85	C	ATOM	40453	CB	SER	G	92	223.878	138.875	-35.467	1.00	82.81	C
ATOM	40404	C	GLN	G	86	221.695	122.588	-40.041	1.00	81.85	C	ATOM	40454	OG	SER	G	92	224.890	138.803	-34.476	1.00	82.81	O
ATOM	40405	O	GLN	G	86	222.339	122.627	-41.080	1.00	81.85	O	ATOM	40455	N	PRO	G	93	225.782	140.825	-37.046	1.00	58.83	N
ATOM	40406	CB	GLN	G	86	223.429	121.087	-39.050	1.00100.52	C	ATOM	40456	CA	PRO	G	93	227.026	141.590	-37.003	1.00	58.83	C	
ATOM	40407	CG	GLN	G	86	223.823	120.056	-38.004	1.00100.52	C	ATOM	40457	C	PRO	G	93	227.580	141.444	-35.589	1.00	58.83	C	
ATOM	40408	CD	GLN	G	86	223.766	120.595	-36.583	1.00100.52	C	ATOM	40458	O	PRO	G	93	228.786	141.274	-35.384	1.00	58.83	O	
ATOM	40409	OE1	GLN	G	86	223.708	119.831	-35.619	1.00100.52	O	ATOM	40459	CB	PRO	G	93	226.557	143.005	-37.301	1.00	93.32	C	
ATOM	40410	NE2	GLN	G	86	223.797	121.915	-36.448	1.00100.52	N	ATOM	40460	CG	PRO	G	93	225.206	143.035	-36.637	1.00	93.32	C	
ATOM	40411	N	VAL	G	87	220.765	123.487	-39.748	1.00	64.70	N	ATOM	40461	CD	PRO	G	93	224.614	141.721	-37.085	1.00	93.32	C
ATOM	40412	CA	VAL	G	87	220.449	124.562	-40.682	1.00	64.70	C	ATOM	40462	N	ARG	G	94	226.665	141.489	-34.624	1.00	57.45	N
ATOM	40413	C	VAL	G	87	221.506	125.664	-40.731	1.00	64.70	C	ATOM	40463	CA	ARG	G	94	226.991	141.376	-33.209	1.00	57.45	C
ATOM	40414	O	VAL	G	87	221.899	126.211	-39.705	1.00	64.70	O	ATOM	40464	C	ARG	G	94	227.704	140.067	-32.881	1.00	57.45	C
ATOM	40415	CB	VAL	G	87	219.088	125.202	-40.356	1.00	81.48	C	ATOM	40465	O	ARG	G	94	228.803	140.065	-32.320	1.00	57.45	O
ATOM	40416	CG1	VAL	G	87	218.775	126.316	-41.357	1.00	81.48	C	ATOM	40466	CB	ARG	G	94	225.700	141.497	-32.392	1.00	67.53	C
ATOM	40417	CG2	VAL	G	87	218.007	124.141	-40.387	1.00	81.48	C	ATOM	40467	CG	ARG	G	94	225.790	141.064	-30.933	1.00	67.53	C
ATOM	40418	N	PRO	G	88	221.968	126.009	-41.942	1.00	61.81	N	ATOM	40468	CD	ARG	G	94	226.818	141.859	-30.158	1.00	67.53	C
ATOM	40419	CA	PRO	G	88	222.977	127.036	-42.188	1.00	61.81	C	ATOM	40469	NE	ARG	G	94	226.740	141.575	-28.727	1.00	67.53	N
ATOM	40420	O	PRO	G	88	222.308	128.380	-42.259	1.00	61.81	C	ATOM	40470	C2	ARG	G	94	227.752	141.729	-27.877	1.00	67.53	C
ATOM	40421	O	PRO	G	88	221.217	128.492	-42.813	1.00	61.81	O	ATOM	40471	NH1	ARG	G	94	228.926	142.165	-28.311	1.00	67.53	N
ATOM	40422	CB	PRO	G	88	223.506	126.657	-43.545	1.00	52.14	C	ATOM	40472	NH2	ARG	G	94	227.596	141.441	-26.593	1.00	67.53	N
ATOM	40423	CG	PRO	G	88	222.235	126.307	-44.246	1.00	52.14	C	ATOM	40473	N	ARG	G	95	227.072	138.956	-33.247	1.00	57.20	N
ATOM	40424	CD	PRO	G	88	221.530	125.419	-43.221	1.00	52.14	C	ATOM	40474	CA	ARG	G	95	227.614	137.626	-32.983	1.00	57.20	C
ATOM	40425	N	MET	G	89	222.968	129.404	-41.733	1.00	67.97	N	ATOM	40475	C	ARG	G	95	228.962	137.388	-33.677	1.00	57.20	C
ATOM	40426	CA	MET	G	89	222.400	130.738	-41.772	1.00	67.97	C	ATOM	40476	O	ARG	G	95	229.834	136.697	-33.148	1.00	57.20	O
ATOM	40427	C	MET	G	89	223.406	131.823	-41.470	1.00	67.97	C	ATOM	40477	CB	ARG	G	95	226.588	136.561	-33.415	1.00	49.09	C
ATOM	40428	O	MET	G	89	224.477	131.559	-40.918	1.00	67.97	O	ATOM	40478	CG	ARG	G	95	226.918	135.139	-32.958	1.00	49.09	C
ATOM	40429	CB	MET	G	89	221.237	130.824	-40.801	1.00101.17	C	ATOM	40479	CD	ARG	G	95	225.876	134.115	-33.383	1.00	49.09	C	
ATOM	40430	CG	MET	G	89	221.543	130.231	-39.460	1.00101.17	C	ATOM	40480	NE	ARG	G	95	226.321	132.765	-33.067	1.00	49.09	N	
ATOM	40431	SD	MET	G	89	220.000	129.894	-38.679	1.00101.17	S	ATOM	40481	C2	ARG	G	95	226.748	132.395	-31.864	1.00	49.09	C	
ATOM	40432	CE	MET	G	89	219.430	131.579	-38.343	1.00101.17	C	ATOM	40482	NH1	ARG	G	95	226.781	133.276	-30.873	1.00	49.09	N	
ATOM	40433	N	GLU	G	90	223.038	133.046	-41.845	1.00	60.14	N	ATOM	40483	NH2	ARG	G	95	227.154	131.149	-31.643	1.00	49.09	N
ATOM	40434	CA	GLU	G	90	223.872	134.220	-41.652	1.00	60.14	C	ATOM	40484	N	GLN	G	96	229.130	137.953	-34.867	1.00	70.97	N
ATOM	40435	C	GLU	G	90	224.264	134.365	-40.195	1.00	60.14	C	ATOM	40485	CA	GLN	G	96	230.378	137.802	-35.598	1.00	70.97	C
ATOM	40436	O	GLU	G	90	223.799	133.619	-39.333	1.00	60.14	O	ATOM	40486	C	GLN	G	96	231.549	138.254	-34.736	1.00	70.97	C
ATOM	40437	CB	GLU	G	90	223.115	135.464	-42.100	1.00137.19	C	ATOM	40487	O	GLN	G	96	232.564	137.567	-34.621	1.00	70.97	O	
ATOM	40438	CG	GLU	G	90	222.511	135.330	-43.477	1.00137.19	C	ATOM	40488	CB	GLN	G	96	230.340	138.632	-36.872	1.00	80.29	C	
ATOM	40439	CD	GLU	G	90	221.581	136.472	-43.810	1.00137.19	C	ATOM	40489	CG	GLN	G	96	229.651	137.955	-38.018	1.00	80.29	C	
ATOM	40440	OE1	GLU	G	90	220.999	136.458	-44.916	1.00137.19	O	ATOM	40490	CD	GLN	G	96	229.423	138.902	-39.166	1.00	80.29	C	
ATOM	40441	OE2	GLU	G	90	221.430	137.382	-42.965	1.00137.19	O	ATOM	40491	OE1	GLN	G	96	230.277	139.732	-39.477	1.00	80.29	O	
ATOM	40442	N	VAL	G	91	225.139	135.321	-39.921	1.00	53.60	N	ATOM	40492	NE2	GLN	G	96	228.270	138.784	-39.811	1.00	80.29	N
ATOM	40443	CA	VAL	G	91	225.562	135.559	-38.557	1.00	53.60	C	ATOM	40493	N	GLN	G	97	231.405	139.419	-34.126	1.00	59.47	N
ATOM	40444	C	VAL	G	91	225.384	137.041	-38.317	1.00	53.60	C	ATOM	40494	CA	GLN	G	97	232.462	139.929	-33.283	1.00	59.47	C
ATOM	40445	O	VAL	G	91	225.776	137.861	-39.145	1.00	53.60	O	ATOM	40495	C	GLN	G	97	232.731	138.978	-32.125	1.00	59.47	C
ATOM	40446	CB	VAL	G	91	227.029	135.150	-38.343	1.00	49.64	C	ATOM	40496	O	GLN	G	97	233.843	138.470	-31.975	1.00	59.47	O
ATOM	40447	CG1	VAL	G	91	227.433	135.384	-36.898	1.00	49.64	C	ATOM	40497	CB	GLN	G	97	232.087	141.305	-32.751	1.00	80.36	C



ATOM	40498	CG	GLN G	97	233.195	141.977	-31.980	1.00	80.36	C	ATOM	40548	NE1	TRP G	103	234.764	130.192	-32.517	1.00	58.48	N
ATOM	40499	CD	GLN G	97	232.929	143.443	-31.793	1.00	80.36	C	ATOM	40549	CE2	TRP G	103	234.541	130.695	-33.771	1.00	58.48	C
ATOM	40500	OE1	GLN G	97	232.696	144.167	-32.763	1.00	80.36	O	ATOM	40550	CE3	TRP G	103	235.624	132.200	-35.318	1.00	58.48	C
ATOM	40501	NE2	GLN G	97	232.960	143.898	-30.543	1.00	80.36	N	ATOM	40551	C22	TRP G	103	233.486	130.463	-34.666	1.00	58.48	C
ATOM	40502	N	SER G	98	231.708	138.732	-31.314	1.00	81.39	N	ATOM	40552	C23	TRP G	103	234.573	131.966	-36.207	1.00	58.48	C
ATOM	40503	CA	SER G	98	231.840	137.849	-30.160	1.00	81.39	C	ATOM	40553	CH2	TRP G	103	233.523	131.107	-35.874	1.00	58.48	C
ATOM	40504	C	SER G	98	232.635	136.592	-30.502	1.00	81.39	C	ATOM	40554	N	LEU G	104	239.969	134.181	-31.445	1.00	58.27	N
ATOM	40505	O	SER G	98	233.536	136.187	-29.763	1.00	81.39	O	ATOM	40555	CA	LEU G	104	241.354	134.631	-31.407	1.00	58.27	C
ATOM	40506	CB	SER G	98	230.455	137.455	-29.642	1.00	73.06	C	ATOM	40556	C	LEU G	104	241.991	134.211	-30.094	1.00	58.27	C
ATOM	40507	OG	SER G	98	229.655	138.596	-29.392	1.00	73.06	C	ATOM	40557	O	LEU G	104	242.916	133.407	-30.081	1.00	58.27	C
ATOM	40508	N	LEU G	99	232.298	135.983	-31.632	1.00	57.80	N	ATOM	40558	CB	LEU G	104	241.447	136.148	-31.572	1.00	49.75	C
ATOM	40509	CA	LEU G	99	232.968	134.770	-32.077	1.00	57.80	C	ATOM	40559	CG	LEU G	104	241.075	136.709	-32.948	1.00	49.75	C
ATOM	40510	C	LEU G	99	234.411	135.035	-32.492	1.00	57.80	C	ATOM	40560	CD1	LEU G	104	241.282	138.207	-32.946	1.00	49.75	C
ATOM	40511	O	LEU G	99	235.318	134.299	-32.108	1.00	57.80	C	ATOM	40561	CD2	LEU G	104	241.931	136.076	-34.020	1.00	49.75	C
ATOM	40512	CB	LEU G	99	232.197	134.153	-33.245	1.00	52.95	C	ATOM	40562	N	VAL G	105	241.486	134.738	-28.986	1.00	43.89	N
ATOM	40513	CG	LEU G	99	230.817	133.606	-32.895	1.00	52.95	C	ATOM	40563	CA	VAL G	105	242.033	134.390	-27.679	1.00	43.89	C
ATOM	40514	CD1	LEU G	99	230.028	133.363	-34.154	1.00	52.95	C	ATOM	40564	C	VAL G	105	242.186	132.891	-27.496	1.00	43.89	C
ATOM	40515	CD2	LEU G	99	230.975	132.329	-32.101	1.00	52.95	C	ATOM	40565	O	VAL G	105	243.172	132.434	-26.930	1.00	43.89	O
ATOM	40516	N	ALA G	100	234.615	136.088	-33.278	1.00	61.13	N	ATOM	40566	CB	VAL G	105	241.149	134.894	-26.527	1.00	53.82	C
ATOM	40517	CA	ALA G	100	235.947	136.443	-33.749	1.00	61.13	C	ATOM	40567	CG1	VAL G	105	241.812	134.562	-25.183	1.00	53.82	C
ATOM	40518	C	ALA G	100	236.913	136.616	-32.576	1.00	61.13	C	ATOM	40568	CG2	VAL G	105	240.906	136.388	-26.673	1.00	53.82	C
ATOM	40519	O	ALA G	100	237.923	135.907	-32.470	1.00	61.13	O	ATOM	40569	N	GLN G	106	241.205	132.130	-27.966	1.00	49.71	N
ATOM	40520	CB	ALA G	100	235.880	137.725	-34.571	1.00	60.02	C	ATOM	40570	CA	GLN G	106	241.256	130.679	-27.830	1.00	49.71	C
ATOM	40521	N	LEU G	101	236.593	137.557	-31.693	1.00	57.37	N	ATOM	40571	O	GLN G	106	242.435	130.061	-28.572	1.00	49.71	C
ATOM	40522	CA	LEU G	101	237.427	137.823	-30.530	1.00	57.37	C	ATOM	40572	O	GLN G	106	243.227	129.315	-27.991	1.00	49.71	O
ATOM	40523	C	LEU G	101	237.628	136.552	-29.705	1.00	57.37	C	ATOM	40573	CB	GLN G	106	239.967	130.049	-28.343	1.00	83.96	C
ATOM	40524	O	LEU G	101	238.750	136.210	-29.328	1.00	57.37	O	ATOM	40574	CG	GLN G	106	238.732	130.416	-27.570	1.00	83.96	C
ATOM	40525	CB	LEU G	101	236.788	138.907	-29.659	1.00	56.55	C	ATOM	40575	CD	GLN G	106	237.536	129.603	-28.006	1.00	83.96	O
ATOM	40526	CG	LEU G	101	236.402	140.227	-30.329	1.00	56.55	C	ATOM	40576	OE1	GLN G	106	236.411	129.889	-27.617	1.00	83.96	O
ATOM	40527	CD1	LEU G	101	235.952	141.203	-29.260	1.00	56.55	C	ATOM	40577	NE2	GLN G	106	237.774	128.576	-28.815	1.00	83.96	N
ATOM	40528	CD2	LEU G	101	237.579	140.798	-31.092	1.00	56.55	C	ATOM	40578	N	ALA G	107	242.538	130.363	-29.861	1.00	78.64	N
ATOM	40529	N	ARG G	102	236.539	135.850	-29.420	1.00	54.50	N	ATOM	40579	CA	ALA G	107	243.615	129.842	-30.691	1.00	78.64	C
ATOM	40530	CA	ARG G	102	236.651	134.637	-28.643	1.00	54.50	C	ATOM	40580	C	ALA G	107	244.951	130.374	-30.199	1.00	78.64	C
ATOM	40531	O	ARG G	102	237.619	133.678	-29.331	1.00	54.50	C	ATOM	40581	O	ALA G	107	245.979	129.700	-30.275	1.00	78.64	O
ATOM	40532	O	ARG G	102	238.584	133.211	-28.722	1.00	54.50	O	ATOM	40582	CB	ALA G	107	243.395	130.252	-32.122	1.00	38.81	C
ATOM	40533	CB	ARG G	102	235.286	133.974	-28.485	1.00	42.89	C	ATOM	40583	N	ALA G	108	244.925	131.601	-29.699	1.00	45.42	N
ATOM	40534	CG	ARG G	102	235.348	132.655	-27.730	1.00	42.89	C	ATOM	40584	CA	ALA G	108	246.121	132.233	-29.186	1.00	45.42	C
ATOM	40535	CD	ARG G	102	233.996	131.986	-27.665	1.00	42.89	C	ATOM	40585	C	ALA G	108	246.640	131.436	-28.007	1.00	45.42	C
ATOM	40536	NE	ARG G	102	233.030	132.864	-27.022	1.00	42.89	N	ATOM	40586	O	ALA G	108	247.837	131.185	-27.898	1.00	45.42	O
ATOM	40537	CZ	ARG G	102	231.798	133.065	-27.469	1.00	42.89	C	ATOM	40587	CB	ALA G	108	245.811	133.638	-28.758	1.00	14.91	C
ATOM	40538	NH1	ARG G	102	231.389	132.433	-28.562	1.00	42.89	N	ATOM	40588	N	ASN G	109	245.740	131.041	-27.118	1.00	41.65	N
ATOM	40539	NH2	ARG G	102	230.994	133.929	-26.855	1.00	42.89	N	ATOM	40589	CA	ASN G	109	246.146	130.266	-25.959	1.00	41.65	C
ATOM	40540	N	TRP G	103	237.374	133.395	-30.605	1.00	68.07	N	ATOM	40590	C	ASN G	109	246.335	128.811	-26.333	1.00	41.65	C
ATOM	40541	CA	TRP G	103	238.233	132.475	-31.331	1.00	68.07	C	ATOM	40591	O	ASN G	109	246.584	127.959	-25.478	1.00	41.65	O
ATOM	40542	C	TRP G	103	239.696	132.890	-31.286	1.00	68.07	C	ATOM	40592	CB	ASN G	109	245.119	130.409	-24.846	1.00	84.22	C
ATOM	40543	O	TRP G	103	240.574	132.047	-31.108	1.00	68.07	O	ATOM	40593	CG	ASN G	109	245.216	131.746	-24.152	1.00	84.22	C
ATOM	40544	CB	TRP G	103	237.774	132.326	-32.788	1.00	58.48	C	ATOM	40594	OD1	ASN G	109	246.208	132.035	-23.486	1.00	84.22	O
ATOM	40545	CG	TRP G	103	236.495	131.553	-32.943	1.00	58.48	C	ATOM	40595	ND2	ASN G	109	244.191	132.577	-24.315	1.00	84.22	N
ATOM	40546	CD1	TRP G	103	235.938	130.710	-32.030	1.00	58.48	C	ATOM	40596	N	GLN G	110	246.226	128.548	-27.630	1.00	61.07	N
ATOM	40547	CD2	TRP G	103	235.613	131.555	-34.075	1.00	58.48	C	ATOM	40597	CA	GLN G	110	246.400	127.213	-28.182	1.00	61.07	C



Table 1: Sheet 408/521

ATOM	40598	C	GLN	G 110	247.817	127.093	-28.734	1.00	61.07	C	ATOM	40648	CG	ARG	G 115	256.694	135.151	-22.392	1.00	113.75	C
ATOM	40599	O	GLN	G 110	248.316	125.991	-28.974	1.00	61.07	O	ATOM	40649	CD	ARG	G 115	257.613	136.265	-22.840	1.00	113.75	C
ATOM	40600	CB	GLN	G 110	245.398	126.980	-29.310	1.00	106.36	C	ATOM	40650	NE	ARG	G 115	256.856	137.471	-23.167	1.00	113.75	N
ATOM	40601	CG	GLN	G 110	244.054	126.444	-28.873	1.00	106.36	C	ATOM	40651	CZ	ARG	G 115	257.287	138.424	-23.987	1.00	113.75	C
ATOM	40602	CD	GLN	G 110	244.127	124.992	-28.458	1.00	106.36	C	ATOM	40652	NH1	ARG	G 115	258.475	138.315	-24.570	1.00	113.75	N
ATOM	40603	OE1	GLN	G 110	244.366	124.673	-27.291	1.00	106.36	O	ATOM	40653	NH2	ARG	G 115	256.530	139.487	-24.231	1.00	113.75	N
ATOM	40604	NE2	GLN	G 110	243.938	124.097	-29.425	1.00	106.36	N	ATOM	40654	N	ALA	G 116	252.327	134.415	-22.665	1.00	51.45	N
ATOM	40605	N	ARG	G 111	248.459	128.238	-28.940	1.00	65.05	N	ATOM	40655	CA	ALA	G 116	250.965	134.806	-22.982	1.00	51.45	C
ATOM	40606	CA	ARG	G 111	249.818	128.274	-29.463	1.00	65.05	C	ATOM	40656	C	ALA	G 116	250.933	135.952	-23.985	1.00	51.45	C
ATOM	40607	C	ARG	G 111	250.835	127.734	-28.463	1.00	65.05	C	ATOM	40657	O	ALA	G 116	250.336	135.837	-25.056	1.00	51.45	O
ATOM	40608	O	ARG	G 111	250.515	127.495	-27.295	1.00	65.05	O	ATOM	40658	CB	ALA	G 116	250.240	135.215	-21.710	1.00	35.81	C
ATOM	40609	CB	ARG	G 111	250.187	129.705	-29.851	1.00	56.47	C	ATOM	40659	N	ALA	G 117	251.585	137.056	-23.628	1.00	63.22	N
ATOM	40610	CG	ARG	G 111	249.359	130.241	-30.986	1.00	56.47	C	ATOM	40660	CA	ALA	G 117	251.625	138.247	-24.472	1.00	63.22	C
ATOM	40611	CD	ARG	G 111	249.767	131.642	-31.381	1.00	56.47	C	ATOM	40661	C	ALA	G 117	252.075	137.975	-25.904	1.00	63.22	C
ATOM	40612	NE	ARG	G 111	249.790	131.792	-32.835	1.00	56.47	N	ATOM	40662	O	ALA	G 117	251.674	138.681	-26.828	1.00	63.22	O
ATOM	40613	CZ	ARG	G 111	250.902	131.870	-33.562	1.00	56.47	C	ATOM	40663	CB	ALA	G 117	252.524	139.291	-23.838	1.00	52.63	C
ATOM	40614	NH1	ARG	G 111	252.094	131.818	-32.971	1.00	56.47	N	ATOM	40664	N	VAL	G 118	252.910	136.955	-26.085	1.00	79.04	N
ATOM	40615	NH2	ARG	G 111	250.824	131.992	-34.883	1.00	56.47	N	ATOM	40665	CA	VAL	G 118	253.406	136.606	-27.413	1.00	79.04	C
ATOM	40616	N	PRO	G 112	252.081	127.526	-28.919	1.00	79.89	N	ATOM	40666	C	VAL	G 118	252.359	135.859	-28.216	1.00	79.04	C
ATOM	40617	CA	PRO	G 112	253.168	127.013	-28.080	1.00	79.89	C	ATOM	40667	O	VAL	G 118	252.085	136.198	-29.371	1.00	79.04	O
ATOM	40618	C	PRO	G 112	253.984	128.023	-27.263	1.00	79.89	C	ATOM	40668	CB	VAL	G 118	254.647	135.705	-27.346	1.00	42.87	C
ATOM	40619	O	PRO	G 112	254.174	127.820	-26.065	1.00	79.89	O	ATOM	40669	CG1	VAL	G 118	255.083	135.340	-28.753	1.00	42.87	C
ATOM	40620	CB	PRO	G 112	254.031	126.254	-29.076	1.00	41.65	C	ATOM	40670	CG2	VAL	G 118	255.761	136.402	-26.592	1.00	42.87	C
ATOM	40621	CG	PRO	G 112	253.902	127.065	-30.297	1.00	41.65	C	ATOM	40671	N	ARG	G 119	251.790	134.825	-27.605	1.00	63.56	N
ATOM	40622	CD	PRO	G 112	252.424	127.388	-30.347	1.00	41.65	C	ATOM	40672	CA	ARG	G 119	250.779	134.030	-28.277	1.00	63.56	C
ATOM	40623	N	GLU	G 113	254.469	129.093	-27.891	1.00	66.52	N	ATOM	40673	C	ARG	G 119	249.737	134.934	-28.891	1.00	63.56	C
ATOM	40624	CA	GLU	G 113	255.278	130.083	-27.173	1.00	66.52	C	ATOM	40674	O	ARG	G 119	249.243	134.671	-29.984	1.00	63.56	O
ATOM	40625	C	GLU	G 113	254.859	130.265	-25.714	1.00	66.52	C	ATOM	40675	CB	ARG	G 119	250.118	133.071	-27.303	1.00	53.40	C
ATOM	40626	O	GLU	G 113	253.722	130.640	-25.425	1.00	66.52	O	ATOM	40676	CG	ARG	G 119	251.022	131.962	-26.854	1.00	53.40	C
ATOM	40627	CB	GLU	G 113	255.242	131.431	-27.887	1.00	59.15	C	ATOM	40677	CD	ARG	G 119	250.215	130.916	-26.150	1.00	53.40	C
ATOM	40628	CG	GLU	G 113	253.955	131.705	-28.616	1.00	59.15	C	ATOM	40678	NE	ARG	G 119	249.535	131.481	-24.992	1.00	53.40	N
ATOM	40629	CD	GLU	G 113	254.017	131.290	-30.069	1.00	59.15	C	ATOM	40679	CZ	ARG	G 119	250.132	131.760	-23.835	1.00	53.40	C
ATOM	40630	OE1	GLU	G 113	254.806	131.894	-30.826	1.00	59.15	O	ATOM	40680	NH1	ARG	G 119	251.432	131.522	-23.676	1.00	53.40	N
ATOM	40631	OE2	GLU	G 113	253.276	130.363	-30.455	1.00	59.15	O	ATOM	40681	NH2	ARG	G 119	249.425	132.273	-22.834	1.00	53.40	N
ATOM	40632	N	ARG	G 114	255.794	130.005	-24.802	1.00	55.08	N	ATOM	40682	N	ILE	G 120	249.404	136.007	-28.188	1.00	55.72	N
ATOM	40633	CA	ARG	G 114	255.545	130.097	-23.369	1.00	55.08	C	ATOM	40683	CA	ILE	G 120	248.420	136.938	-28.700	1.00	55.72	C
ATOM	40634	C	ARG	G 114	254.902	131.404	-22.868	1.00	55.08	C	ATOM	40684	C	ILE	G 120	249.019	137.724	-29.849	1.00	55.72	C
ATOM	40635	O	ARG	G 114	254.168	131.388	-21.877	1.00	55.08	O	ATOM	40685	O	ILE	G 120	248.387	137.911	-30.898	1.00	55.72	O
ATOM	40636	CB	ARG	G 114	256.845	129.882	-22.593	1.00	60.27	C	ATOM	40686	CB	ILE	G 120	247.953	137.898	-27.604	1.00	74.02	C
ATOM	40637	CG	ARG	G 114	257.715	128.690	-22.976	1.00	60.27	C	ATOM	40687	CG1	ILE	G 120	247.202	137.101	-26.543	1.00	74.02	C
ATOM	40638	CD	ARG	G 114	258.898	128.704	-22.201	1.00	60.27	C	ATOM	40688	CG2	ILE	G 120	247.069	138.994	-28.194	1.00	74.02	C
ATOM	40639	NE	ARG	G 114	259.956	127.711	-22.208	1.00	60.27	N	ATOM	40689	CD1	ILE	G 120	246.536	137.953	-25.515	1.00	74.02	C
ATOM	40640	CZ	ARG	G 114	259.756	126.415	-22.424	1.00	60.27	C	ATOM	40690	N	ALA	G 121	250.253	138.170	-29.650	1.00	62.91	N
ATOM	40641	NH1	ARG	G 114	258.516	125.934	-22.497	1.00	60.27	N	ATOM	40691	CA	ALA	G 121	250.953	138.941	-30.662	1.00	62.91	C
ATOM	40642	NH2	ARG	G 114	260.798	125.587	-22.507	1.00	60.27	N	ATOM	40692	C	ALA	G 121	251.019	138.149	-31.955	1.00	62.91	C
ATOM	40643	N	ARG	G 115	255.169	132.529	-23.533	1.00	63.14	N	ATOM	40693	O	ALA	G 121	250.550	138.606	-33.000	1.00	62.91	O
ATOM	40644	CA	ARG	G 115	254.625	133.822	-23.096	1.00	63.14	C	ATOM	40694	CB	ALA	G 121	252.357	139.281	-30.180	1.00	84.09	C
ATOM	40645	C	ARG	G 115	253.244	134.218	-23.605	1.00	63.14	C	ATOM	40695	N	HIS	G 122	251.588	136.951	-31.876	1.00	54.51	N
ATOM	40646	O	ARG	G 115	253.018	134.367	-24.806	1.00	63.14	O	ATOM	40696	CA	HIS	G 122	251.729	136.100	-33.051	1.00	54.51	C
ATOM	40647	CB	ARG	G 115	255.603	134.947	-23.426	1.00	113.75	C	ATOM	40697	C	HIS	G 122	250.411	135.642	-33.665	1.00	54.51	C



ATOM	40698	O	HIS G 122	250.290	135.566	-34.887	1.00	54.51	O	ATOM	40748	N	GLU G 129	247.384	137.719	-41.799	1.00	82.54	N
ATOM	40699	CB	HIS G 122	252.604	134.897	-32.706	1.00	80.57	C	ATOM	40749	CA	GLU G 129	247.861	137.086	-43.029	1.00	82.54	C
ATOM	40700	CG	HIS G 122	254.048	135.244	-32.544	1.00	80.57	C	ATOM	40750	C	GLU G 129	246.854	136.113	-43.628	1.00	82.54	C
ATOM	40701	ND1	HIS G 122	254.933	134.450	-31.847	1.00	80.57	N	ATOM	40751	O	GLU G 129	246.903	135.816	-44.824	1.00	82.54	O
ATOM	40702	CD2	HIS G 122	254.765	136.299	-32.999	1.00	80.57	C	ATOM	40752	CB	GLU G 129	249.181	136.354	-42.773	1.00	82.54	C
ATOM	40703	CE1	HIS G 122	256.133	135.003	-31.879	1.00	80.57	C	ATOM	40753	CG	GLU G 129	250.341	137.277	-42.456	1.00	82.54	C
ATOM	40704	NE2	HIS G 122	256.058	136.125	-32.572	1.00	80.57	N	ATOM	40754	CD	GLU G 129	250.559	138.314	-43.539	1.00	82.54	C
ATOM	40705	N	GLU G 123	249.422	135.347	-32.824	1.00	57.55	N	ATOM	40755	OE1	GLU G 129	250.831	137.922	-44.692	1.00	82.54	O
ATOM	40706	CA	GLU G 123	248.129	134.896	-33.316	1.00	57.55	C	ATOM	40756	OE2	GLU G 129	250.453	139.522	-43.240	1.00	82.54	O
ATOM	40707	C	GLU G 123	247.494	135.979	-34.174	1.00	57.55	C	ATOM	40757	N	GLY G 130	245.943	135.619	-42.795	1.00	55.76	N
ATOM	40708	O	GLU G 123	247.049	135.713	-35.295	1.00	57.55	O	ATOM	40758	CA	GLY G 130	244.936	134.690	-43.269	1.00	55.76	C
ATOM	40709	CB	GLU G 123	247.205	134.542	-32.154	1.00	64.84	C	ATOM	40759	C	GLY G 130	245.224	133.272	-42.834	1.00	55.76	C
ATOM	40710	CG	GLU G 123	245.925	133.872	-32.613	1.00	64.84	C	ATOM	40760	O	GLY G 130	244.583	132.334	-43.293	1.00	55.76	O
ATOM	40711	CD	GLU G 123	246.183	132.605	-33.420	1.00	64.84	C	ATOM	40761	N	LYS G 131	246.193	133.114	-41.942	1.00	73.76	N
ATOM	40712	OE1	GLU G 123	245.235	132.117	-34.072	1.00	64.84	O	ATOM	40762	CA	LYS G 131	246.571	131.797	-41.441	1.00	73.76	C
ATOM	40713	OE2	GLU G 123	247.327	132.094	-33.401	1.00	64.84	O	ATOM	40763	C	LYS G 131	246.343	131.763	-39.931	1.00	73.76	C
ATOM	40714	N	LEU G 124	247.459	137.199	-33.644	1.00	59.55	N	ATOM	40764	O	LYS G 131	245.910	132.752	-39.344	1.00	73.76	O
ATOM	40715	CA	LEU G 124	246.894	138.328	-34.373	1.00	59.55	C	ATOM	40765	CB	LYS G 131	248.049	131.541	-41.765	1.00	96.15	C
ATOM	40716	C	LEU G 124	247.502	138.449	-35.768	1.00	59.55	C	ATOM	40766	CG	LYS G 131	248.962	132.668	-41.292	1.00	96.15	C
ATOM	40717	O	LEU G 124	246.777	138.515	-36.766	1.00	59.55	C	ATOM	40767	CD	LYS G 131	250.370	132.597	-41.874	1.00	96.15	C
ATOM	40718	CB	LEU G 124	247.120	139.618	-33.591	1.00	55.56	C	ATOM	40768	CE	LYS G 131	251.207	133.797	-41.413	1.00	96.15	C
ATOM	40719	CG	LEU G 124	246.093	139.824	-32.483	1.00	55.56	C	ATOM	40769	NZ	LYS G 131	252.525	133.909	-42.101	1.00	96.15	N
ATOM	40720	CD1	LEU G 124	246.430	141.046	-31.665	1.00	55.56	C	ATOM	40770	N	GLY G 132	246.621	130.626	-39.304	1.00	74.90	N
ATOM	40721	CD2	LEU G 124	244.721	139.973	-33.114	1.00	55.56	C	ATOM	40771	CA	GLY G 132	246.455	130.534	-37.864	1.00	74.90	C
ATOM	40722	N	MET G 125	248.833	138.475	-35.827	1.00	64.28	N	ATOM	40772	C	GLY G 132	245.215	129.814	-37.376	1.00	74.90	C
ATOM	40723	CA	MET G 125	249.553	138.577	-37.091	1.00	64.28	C	ATOM	40773	O	GLY G 132	244.184	129.794	-38.052	1.00	74.90	O
ATOM	40724	C	MET G 125	249.128	137.472	-38.046	1.00	64.28	C	ATOM	40774	N	GLY G 133	245.320	129.235	-36.181	1.00	77.30	N
ATOM	40725	O	MET G 125	248.674	137.749	-39.158	1.00	64.28	O	ATOM	40775	CA	GLY G 133	244.213	128.500	-35.588	1.00	77.30	C
ATOM	40726	CB	MET G 125	251.054	138.505	-36.839	1.00	82.82	C	ATOM	40776	C	GLY G 133	242.887	129.236	-35.524	1.00	77.30	C
ATOM	40727	CG	MET G 125	251.550	139.657	-35.997	1.00	82.82	C	ATOM	40777	O	GLY G 133	241.822	128.616	-35.553	1.00	77.30	O
ATOM	40728	SD	MET G 125	253.324	139.661	-35.763	1.00	82.82	S	ATOM	40778	N	ALA G 134	242.947	130.559	-35.423	1.00	51.58	N
ATOM	40729	CE	MET G 125	253.464	139.143	-34.052	1.00	82.82	C	ATOM	40779	CA	ALA G 134	241.740	131.363	-35.361	1.00	51.58	C
ATOM	40730	N	ASP G 126	249.273	136.222	-37.610	1.00	61.13	N	ATOM	40780	C	ALA G 134	240.993	131.243	-36.681	1.00	51.58	C
ATOM	40731	CA	ASP G 126	248.882	135.069	-38.423	1.00	61.13	C	ATOM	40781	O	ALA G 134	239.858	130.781	-36.728	1.00	51.58	O
ATOM	40732	C	ASP G 126	247.465	135.281	-38.957	1.00	61.13	C	ATOM	40782	CB	ALA G 134	242.096	132.810	-35.092	1.00	98.38	C
ATOM	40733	O	ASP G 126	247.183	135.060	-40.140	1.00	61.13	O	ATOM	40783	N	VAL G 135	241.641	131.651	-37.762	1.00	59.63	N
ATOM	40734	CB	ASP G 126	248.923	133.784	-37.583	1.00	84.43	C	ATOM	40784	CA	VAL G 135	241.005	131.587	-39.062	1.00	59.63	C
ATOM	40735	CG	ASP G 126	250.281	133.098	-37.616	1.00	84.43	C	ATOM	40785	C	VAL G 135	240.604	130.173	-39.450	1.00	59.63	C
ATOM	40736	OD1	ASP G 126	251.314	133.789	-37.495	1.00	84.43	O	ATOM	40786	O	VAL G 135	239.706	129.990	-40.272	1.00	59.63	O
ATOM	40737	OD2	ASP G 126	250.314	131.857	-37.750	1.00	84.43	O	ATOM	40787	CB	VAL G 135	241.908	132.179	-40.149	1.00	47.67	C
ATOM	40738	N	ALA G 127	246.578	135.718	-38.068	1.00	71.05	N	ATOM	40788	CG1	VAL G 135	241.289	131.949	-41.515	1.00	47.67	C
ATOM	40739	CA	ALA G 127	245.193	135.963	-38.433	1.00	71.05	C	ATOM	40789	CG2	VAL G 135	242.086	133.667	-39.904	1.00	47.67	C
ATOM	40740	C	ALA G 127	245.126	137.003	-39.545	1.00	71.05	C	ATOM	40790	N	LYS G 136	241.259	129.167	-38.878	1.00	62.78	N
ATOM	40741	O	ALA G 127	244.378	136.851	-40.512	1.00	71.05	O	ATOM	40791	CA	LYS G 136	240.877	127.805	-39.212	1.00	62.78	C
ATOM	40742	CB	ALA G 127	244.422	136.433	-37.218	1.00	48.72	C	ATOM	40792	C	LYS G 136	239.409	127.668	-38.831	1.00	62.78	C
ATOM	40743	N	ALA G 128	245.913	138.061	-39.408	1.00	75.32	N	ATOM	40793	O	LYS G 136	238.550	127.482	-39.693	1.00	62.78	O
ATOM	40744	CA	ALA G 128	245.934	139.105	-40.418	1.00	75.32	C	ATOM	40794	CB	LYS G 136	241.688	126.779	-38.430	1.00	102.22	C
ATOM	40745	C	ALA G 128	246.308	138.506	-41.776	1.00	75.32	C	ATOM	40795	CG	LYS G 136	241.300	125.340	-38.760	1.00	102.22	C
ATOM	40746	O	ALA G 128	245.628	138.744	-42.777	1.00	75.32	O	ATOM	40796	CD	LYS G 136	241.268	124.457	-37.518	1.00	102.22	C
ATOM	40747	CB	ALA G 128	246.929	140.186	-40.026	1.00	42.77	C	ATOM	40797	CE	LYS G 136	242.641	124.356	-36.861	1.00	102.22	C



ATOM	40798	NZ	LYS G 136	242.616	123.626	-35.556	1.00102.22	N	ATOM	40848	OE1	GLU G 142	232.942	133.028	-43.622	1.00	84.45	O
ATOM	40799	N	LYS G 137	239.125	127.783	-37.535	1.00	49.16	ATOM	40849	OE2	GLU G 142	234.319	131.367	-44.013	1.00	84.45	O
ATOM	40800	CA	LYS G 137	237.759	127.670	-37.032	1.00	49.16	ATOM	40850	N	ARG G 143	232.597	126.281	-43.910	1.00	52.83	N
ATOM	40801	C	LYS G 137	236.799	128.470	-37.900	1.00	49.16	ATOM	40851	CA	ARG G 143	232.631	124.996	-44.608	1.00	52.83	C
ATOM	40802	O	LYS G 137	235.774	127.949	-38.332	1.00	49.16	ATOM	40852	C	ARG G 143	231.465	124.154	-44.123	1.00	52.83	C
ATOM	40803	CB	LYS G 137	237.677	128.148	-35.572	1.00102.14	C	ATOM	40853	O	ARG G 143	230.719	123.613	-44.925	1.00	52.83	O
ATOM	40804	CG	LYS G 137	238.692	127.459	-34.662	1.00102.14	C	ATOM	40854	CB	ARG G 143	233.946	124.258	-44.347	1.00128.52	C	
ATOM	40805	CD	LYS G 137	238.616	127.884	-33.192	1.00102.14	C	ATOM	40855	CG	ARG G 143	235.149	124.856	-45.053	1.00128.52	C	
ATOM	40806	CE	LYS G 137	239.744	127.207	-32.402	1.00102.14	C	ATOM	40856	CD	ARG G 143	236.389	124.009	-44.823	1.00128.52	C	
ATOM	40807	NZ	LYS G 137	239.635	127.376	-30.936	1.00102.14	N	ATOM	40857	NE	ARG G 143	237.585	124.605	-45.414	1.00128.52	N	
ATOM	40808	N	LYS G 138	237.131	129.726	-38.174	1.00	50.46	ATOM	40858	CZ	ARG G 143	238.792	124.049	-45.373	1.00128.52	C	
ATOM	40809	CA	LYS G 138	236.254	130.547	-38.987	1.00	50.46	ATOM	40859	NH1	ARG G 143	238.964	122.882	-44.768	1.00128.52	N	
ATOM	40810	C	LYS G 138	235.919	129.886	-40.316	1.00	50.46	ATOM	40860	NH2	ARG G 143	239.828	124.660	-45.934	1.00128.52	N	
ATOM	40811	O	LYS G 138	234.748	129.766	-40.684	1.00	50.46	ATOM	40861	N	MET G 144	231.324	124.042	-42.806	1.00	57.89	N
ATOM	40812	CB	LYS G 138	236.881	131.911	-39.247	1.00	49.27	ATOM	40862	CA	MET G 144	230.222	123.298	-42.197	1.00	57.89	C
ATOM	40813	CG	LYS G 138	236.052	132.796	-40.173	1.00	49.27	ATOM	40863	C	MET G 144	228.881	123.739	-42.813	1.00	57.89	C
ATOM	40814	CD	LYS G 138	236.362	132.566	-41.657	1.00	49.27	ATOM	40864	O	MET G 144	228.048	122.911	-43.190	1.00	57.89	O
ATOM	40815	CE	LYS G 138	235.672	133.632	-42.520	1.00	49.27	ATOM	40865	CB	MET G 144	230.210	123.545	-40.687	1.00105.38	C	
ATOM	40816	NZ	LYS G 138	236.204	133.772	-43.915	1.00	49.27	ATOM	40866	CG	MET G 144	230.902	122.476	-39.877	1.00105.38	C	
ATOM	40817	N	GLU G 139	236.946	129.459	-41.039	1.00	58.39	ATOM	40867	SD	MET G 144	229.938	120.960	-39.925	1.00105.38	S	
ATOM	40818	CA	GLU G 139	236.739	128.827	-42.330	1.00	58.39	ATOM	40868	CE	MET G 144	228.674	121.315	-38.675	1.00105.38	C	
ATOM	40819	C	GLU G 139	236.102	127.451	-42.185	1.00	58.39	ATOM	40869	N	ALA G 145	228.668	125.047	-42.891	1.00	61.46	N
ATOM	40820	O	GLU G 139	235.437	126.977	-43.104	1.00	58.39	ATOM	40870	CA	ALA G 145	227.461	125.571	-43.505	1.00	61.46	C
ATOM	40821	CB	GLU G 139	238.066	128.759	-43.083	1.00	88.38	ATOM	40871	C	ALA G 145	227.811	125.414	-44.967	1.00	61.46	C
ATOM	40822	CG	GLU G 139	238.698	130.139	-43.205	1.00	88.38	ATOM	40872	O	ALA G 145	228.945	125.064	-45.272	1.00	61.46	O
ATOM	40823	CD	GLU G 139	239.871	130.197	-44.161	1.00	88.38	ATOM	40873	CB	ALA G 145	227.301	127.032	-43.160	1.00	31.62	C
ATOM	40824	OE1	GLU G 139	240.862	129.462	-43.947	1.00	88.38	ATOM	40874	N	GLU G 146	226.884	125.653	-45.883	1.00100.06	N	
ATOM	40825	OE2	GLU G 139	239.798	130.992	-45.125	1.00	88.38	ATOM	40875	CA	GLU G 146	227.250	125.519	-47.293	1.00100.06	C	
ATOM	40826	N	ASP G 140	236.297	126.824	-41.024	1.00	68.99	ATOM	40876	C	GLU G 146	227.793	124.108	-47.572	1.00100.06	C	
ATOM	40827	CA	ASP G 140	235.719	125.510	-40.730	1.00	68.99	ATOM	40877	O	GLU G 146	228.477	123.879	-48.569	1.00100.06	O	
ATOM	40828	C	ASP G 140	234.208	125.649	-40.583	1.00	68.99	ATOM	40878	CB	GLU G 146	228.325	126.561	-47.641	1.00128.50	C	
ATOM	40829	O	ASP G 140	233.439	124.782	-41.005	1.00	68.99	ATOM	40879	CG	GLU G 146	228.032	127.440	-48.852	1.00128.50	C	
ATOM	40830	CB	ASP G 140	236.291	124.953	-39.428	1.00128.09	C	ATOM	40880	CD	GLU G 146	228.165	126.702	-50.167	1.00128.50	C	
ATOM	40831	CG	ASP G 140	237.566	124.180	-39.638	1.00128.09	C	ATOM	40881	OE1	GLU G 146	229.245	126.127	-50.422	1.00128.50	O	
ATOM	40832	OD1	ASP G 140	238.474	124.701	-40.316	1.00128.09	O	ATOM	40882	OE2	GLU G 146	227.191	126.703	-50.951	1.00128.50	O	
ATOM	40833	OD2	ASP G 140	237.661	123.048	-39.118	1.00128.09	O	ATOM	40883	N	ALA G 147	227.504	123.182	-46.662	1.00	64.41	N
ATOM	40834	N	VAL G 141	233.798	126.750	-39.964	1.00	65.32	ATOM	40884	CA	ALA G 147	227.909	121.782	-46.779	1.00	64.41	C
ATOM	40835	CA	VAL G 141	232.395	127.039	-39.745	1.00	65.32	ATOM	40885	C	ALA G 147	226.711	121.020	-46.249	1.00	64.41	C
ATOM	40836	C	VAL G 141	231.709	127.203	-41.092	1.00	65.32	ATOM	40886	O	ALA G 147	226.660	119.792	-46.277	1.00	64.41	O
ATOM	40837	O	VAL G 141	230.757	126.491	-41.406	1.00	65.32	ATOM	40887	CB	ALA G 147	229.118	121.499	-45.932	1.00	24.42	C
ATOM	40838	CB	VAL G 141	232.224	128.332	-38.913	1.00	38.79	ATOM	40888	N	ASN G 148	225.761	121.800	-45.744	1.00112.26	N	
ATOM	40839	CG1	VAL G 141	230.758	128.755	-38.884	1.00	38.79	ATOM	40889	CA	ASN G 148	224.493	121.327	-45.211	1.00112.26	C	
ATOM	40840	CG2	VAL G 141	232.727	128.100	-37.493	1.00	38.79	ATOM	40890	C	ASN G 148	223.530	122.319	-45.826	1.00112.26	C	
ATOM	40841	N	GLU G 142	232.195	128.145	-41.892	1.00	51.82	ATOM	40891	O	ASN G 148	222.432	122.554	-45.323	1.00112.26	O	
ATOM	40842	CA	GLU G 142	231.606	128.380	-43.198	1.00	51.82	ATOM	40892	CB	ASN G 148	224.449	121.466	-43.693	1.00100.67	C	
ATOM	40843	C	GLU G 142	231.533	127.082	-43.978	1.00	51.82	ATOM	40893	CG	ASN G 148	225.387	120.518	-42.995	1.00100.67	C	
ATOM	40844	O	GLU G 142	230.527	126.808	-44.623	1.00	51.82	ATOM	40894	OD1	ASN G 148	225.264	119.302	-43.120	1.00100.67	O	
ATOM	40845	CB	GLU G 142	232.417	129.423	-43.955	1.00	84.45	ATOM	40895	ND2	ASN G 148	226.333	121.068	-42.250	1.00100.67	N	
ATOM	40846	CG	GLU G 142	232.050	130.834	-43.564	1.00	84.45	ATOM	40896	N	ARG G 149	223.979	122.908	-46.928	1.00	78.73	N
ATOM	40847	CD	GLU G 142	233.184	131.811	-43.751	1.00	84.45	ATOM	40897	CA	ARG G 149	223.217	123.910	-47.646	1.00	78.73	C



ATOM	40898	C	ARG	G	149	221.968	123.367	-48.325	1.00	78.73	C	213.136	121.583	-43.894	1.00	85.11	C
ATOM	40899	O	ARG	G	149	221.324	124.069	-49.098	1.00	78.73	O	214.037	120.534	-43.759	1.00	85.11	C
ATOM	40900	CB	ARG	G	149	224.117	124.601	-48.669	1.00	131.47	C	213.737	119.278	-44.237	1.00	85.11	O
ATOM	40901	CG	ARG	G	149	223.793	126.063	-48.834	1.00	131.47	C	215.336	127.837	-43.409	1.00	155.30	N
ATOM	40902	CD	ARG	G	149	223.040	126.325	-50.109	1.00	131.47	C	215.873	129.174	-43.162	1.00	155.30	C
ATOM	40903	NE	ARG	G	149	223.954	126.444	-51.237	1.00	131.47	N	215.922	129.689	-41.735	1.00	155.30	C
ATOM	40904	CZ	ARG	G	149	223.590	126.853	-52.446	1.00	131.47	C	216.924	130.290	-41.346	1.00	155.30	O
ATOM	40905	NH1	ARG	G	149	222.323	127.179	-52.681	1.00	131.47	N	215.151	130.196	-44.048	1.00	142.24	C
ATOM	40906	NH2	ARG	G	149	224.491	126.949	-53.418	1.00	131.47	N	215.753	130.328	-45.442	1.00	142.24	C
ATOM	40907	N	ALA	G	150	221.630	122.118	-48.035	1.00	75.12	N	217.130	130.978	-45.379	1.00	142.24	C
ATOM	40908	CA	ALA	G	150	220.441	121.498	-48.607	1.00	75.12	C	217.752	131.100	-46.696	1.00	142.24	N
ATOM	40909	C	ALA	G	150	219.294	121.742	-47.641	1.00	75.12	C	218.836	131.832	-46.950	1.00	142.24	C
ATOM	40910	O	ALA	G	150	218.182	122.065	-48.043	1.00	75.12	O	219.423	132.516	-45.976	1.00	142.24	N
ATOM	40911	CB	ALA	G	150	220.660	120.003	-48.796	1.00	116.71	C	219.334	131.884	-48.180	1.00	142.24	N
ATOM	40912	N	TYR	G	151	219.587	121.596	-46.355	1.00	98.91	N	214.852	129.485	-40.967	1.00	177.41	N
ATOM	40913	CA	TYR	G	151	218.600	121.798	-45.310	1.00	98.91	C	214.828	129.934	-39.574	1.00	177.41	C
ATOM	40914	C	TYR	G	151	218.441	123.291	-45.036	1.00	98.91	C	214.454	131.416	-39.519	1.00	177.41	C
ATOM	40915	O	TYR	G	151	217.900	123.690	-44.007	1.00	98.91	O	214.104	131.969	-40.582	1.00	177.41	O
ATOM	40916	CB	TYR	G	151	219.049	121.094	-44.033	1.00	103.31	C	216.212	129.717	-38.963	1.00	118.99	C
ATOM	40917	CG	TYR	G	151	219.568	119.693	-44.252	1.00	103.31	C	216.305	129.647	-37.483	1.00	118.99	C
ATOM	40918	CD1	TYR	G	151	220.835	119.470	-44.786	1.00	103.31	C	216.057	130.646	-36.587	1.00	118.99	C
ATOM	40919	CD2	TYR	G	151	218.794	118.586	-43.918	1.00	103.31	C	216.803	128.543	-36.730	1.00	118.99	C
ATOM	40920	CE1	TYR	G	151	221.321	118.172	-44.980	1.00	103.31	C	216.383	130.233	-35.319	1.00	118.99	N
ATOM	40921	CE2	TYR	G	151	219.267	117.284	-44.106	1.00	103.31	C	216.843	128.943	-35.379	1.00	118.99	C
ATOM	40922	CZ	TYR	G	151	220.530	117.084	-44.635	1.00	103.31	C	217.226	127.250	-37.068	1.00	118.99	C
ATOM	40923	OH	TYR	G	151	220.994	115.797	-44.809	1.00	103.31	O	217.292	128.094	-34.360	1.00	118.99	C
ATOM	40924	N	ALA	G	152	218.910	124.116	-45.965	1.00	72.14	N	217.672	126.409	-36.061	1.00	118.99	C
ATOM	40925	CA	ALA	G	152	218.832	125.559	-45.802	1.00	72.14	C	217.701	126.834	-34.721	1.00	118.99	C
ATOM	40926	C	ALA	G	152	217.453	126.122	-46.095	1.00	72.14	C	214.510	132.007	-38.422	1.00	118.99	O
ATOM	40927	O	ALA	G	152	217.237	127.328	-45.967	1.00	72.14	O						
ATOM	40928	CB	ALA	G	152	219.863	126.237	-46.684	1.00	43.87	C	142.782	114.023	-41.337	1.00	81.02	N
ATOM	40929	N	HIS	G	153	216.522	125.266	-46.507	1.00	92.06	C	141.456	114.720	-41.270	1.00	81.02	C
ATOM	40930	CA	HIS	G	153	215.173	125.735	-46.788	1.00	92.06	C	141.239	115.340	-39.885	1.00	81.02	C
ATOM	40931	C	HIS	G	153	214.364	125.681	-45.498	1.00	92.06	C	142.080	115.183	-38.991	1.00	81.02	O
ATOM	40932	O	HIS	G	153	213.133	125.690	-45.511	1.00	92.06	O	140.329	113.716	-41.558	1.00	125.78	C
ATOM	40933	CB	HIS	G	153	214.511	124.903	-47.887	1.00	68.06	C	138.917	114.308	-41.543	1.00	125.78	C
ATOM	40934	CG	HIS	G	153	214.294	123.469	-47.521	1.00	68.06	C	137.619	113.047	-41.484	1.00	125.78	S
ATOM	40935	ND1	HIS	G	153	215.326	122.621	-47.185	1.00	68.06	N	137.460	112.629	-43.230	1.00	125.78	C
ATOM	40936	CD2	HIS	G	153	213.163	122.725	-47.466	1.00	68.06	C	140.129	116.059	-39.707	1.00	59.94	N
ATOM	40937	CE1	HIS	G	153	214.842	121.416	-46.941	1.00	68.06	C	139.841	116.633	-38.395	1.00	59.94	C
ATOM	40938	NE2	HIS	G	153	213.532	121.452	-47.105	1.00	68.06	N	139.130	115.526	-37.624	1.00	59.94	C
ATOM	40939	N	TYR	G	154	215.092	125.607	-44.387	1.00	78.02	N	137.940	115.294	-37.760	1.00	59.94	O
ATOM	40940	CA	TYR	G	154	214.521	125.610	-43.046	1.00	78.02	C	138.967	117.896	-38.495	1.00	54.78	C
ATOM	40941	C	TYR	G	154	215.048	126.927	-42.478	1.00	78.02	C	139.585	119.137	-37.820	1.00	54.78	C
ATOM	40942	O	TYR	G	154	215.194	127.099	-41.269	1.00	78.02	O	138.657	120.336	-37.923	1.00	54.78	C
ATOM	40943	CB	TYR	G	154	215.061	124.438	-42.232	1.00	85.11	C	139.869	118.831	-36.369	1.00	54.78	C
ATOM	40944	CG	TYR	G	154	214.698	123.078	-42.783	1.00	85.11	C	139.919	114.832	-36.828	1.00	45.49	N
ATOM	40945	CD1	TYR	G	154	215.577	122.006	-42.660	1.00	85.11	C	139.494	113.704	-36.018	1.00	45.49	C
ATOM	40946	CD2	TYR	G	154	213.473	122.852	-43.406	1.00	85.11	C	138.468	114.020	-34.897	1.00	45.49	C
ATOM	40947	CE1	TYR	G	154	215.254	120.741	-43.145	1.00	85.11	C	137.514	113.264	-34.692	1.00	45.49	O



Table 1: Sheet 412/521

ATOM	40998	CB	THR H	3	140.781	113.039	-35.449	1.00	51.60	C	ATOM	41048	O	LEU H	10	140.682	124.767	-26.155	1.00	43.66	O
ATOM	40999	CG1	THR H	3	140.449	111.946	-34.605	1.00	51.60	O	ATOM	41049	CB	LEU H	10	138.535	122.294	-25.901	1.00	32.22	C
ATOM	41000	CG2	THR H	3	141.581	114.049	-34.662	1.00	51.60	C	ATOM	41050	CG	LEU H	10	137.148	121.640	-25.947	1.00	32.22	C
ATOM	41001	N	ASP H	4	138.654	115.126	-34.180	1.00	44.33	N	ATOM	41051	CD1	LEU H	10	137.060	120.534	-24.913	1.00	32.22	C
ATOM	41002	CA	ASP H	4	137.736	115.490	-33.106	1.00	44.33	C	ATOM	41052	CD2	LEU H	10	136.083	122.692	-25.693	1.00	32.22	C
ATOM	41003	C	ASP H	4	137.414	116.984	-33.126	1.00	44.33	C	ATOM	41053	N	THR H	11	140.917	123.261	-27.809	1.00	47.15	N
ATOM	41004	O	ASP H	4	138.151	117.795	-32.558	1.00	44.33	O	ATOM	41054	CA	THR H	11	142.331	123.531	-27.960	1.00	47.15	C
ATOM	41005	CB	ASP H	4	138.337	115.132	-31.748	1.00	76.34	C	ATOM	41055	C	THR H	11	142.565	124.889	-28.597	1.00	47.15	C
ATOM	41006	CG	ASP H	4	137.366	115.369	-30.597	1.00	76.34	C	ATOM	41056	O	THR H	11	143.402	125.653	-28.126	1.00	47.15	O
ATOM	41007	OD1	ASP H	4	136.568	116.327	-30.664	1.00	76.34	O	ATOM	41057	CB	THR H	11	143.008	122.416	-28.770	1.00	48.68	C
ATOM	41008	OD2	ASP H	4	137.403	114.605	-29.612	1.00	76.34	O	ATOM	41058	OG1	THR H	11	142.964	121.196	-28.014	1.00	48.68	O
ATOM	41009	N	PRO H	5	136.298	117.372	-33.770	1.00	48.78	N	ATOM	41059	CG2	THR H	11	144.452	122.769	-29.059	1.00	48.68	C
ATOM	41010	CA	PRO H	5	135.892	118.775	-33.855	1.00	48.78	C	ATOM	41060	N	ARG H	12	141.824	125.195	-29.658	1.00	42.44	N
ATOM	41011	C	PRO H	5	135.784	119.489	-32.516	1.00	48.78	C	ATOM	41061	CA	ARG H	12	141.965	126.487	-30.307	1.00	42.44	C
ATOM	41012	O	PRO H	5	136.214	120.633	-32.391	1.00	48.78	O	ATOM	41062	C	ARG H	12	141.849	127.538	-29.219	1.00	42.44	C
ATOM	41013	CB	PRO H	5	134.562	118.691	-34.581	1.00	50.08	C	ATOM	41063	O	ARG H	12	142.671	128.452	-29.150	1.00	42.44	O
ATOM	41014	CG	PRO H	5	134.802	117.581	-35.526	1.00	50.08	C	ATOM	41064	CB	ARG H	12	140.860	126.716	-31.334	1.00	31.73	C
ATOM	41015	CD	PRO H	5	135.430	116.544	-34.621	1.00	50.08	C	ATOM	41065	CG	ARG H	12	140.862	125.760	-32.499	1.00	31.73	C
ATOM	41016	N	ILE H	6	135.204	118.815	-31.526	1.00	30.36	N	ATOM	41066	CD	ARG H	12	140.265	126.420	-33.733	1.00	31.73	C
ATOM	41017	CA	ILE H	6	135.040	119.383	-30.192	1.00	30.36	C	ATOM	41067	NE	ARG H	12	140.420	125.592	-34.928	1.00	31.73	N
ATOM	41018	C	ILE H	6	136.370	119.628	-29.515	1.00	30.36	C	ATOM	41068	C2	ARG H	12	140.327	126.049	-36.174	1.00	31.73	C
ATOM	41019	O	ILE H	6	136.597	120.679	-28.914	1.00	30.36	O	ATOM	41069	NH1	ARG H	12	140.081	127.329	-36.399	1.00	31.73	N
ATOM	41020	CB	ILE H	6	134.245	118.456	-29.263	1.00	25.51	C	ATOM	41070	NH2	ARG H	12	140.485	125.231	-37.199	1.00	31.73	N
ATOM	41021	CG1	ILE H	6	132.832	118.270	-29.796	1.00	25.51	C	ATOM	41071	N	ILE H	13	140.826	127.383	-28.371	1.00	29.15	N
ATOM	41022	CG2	ILE H	6	134.203	119.049	-27.856	1.00	25.51	C	ATOM	41072	CA	ILE H	13	140.542	128.289	-27.253	1.00	29.15	C
ATOM	41023	CD1	ILE H	6	132.098	119.570	-29.975	1.00	25.51	C	ATOM	41073	O	ILE H	13	141.692	128.280	-26.247	1.00	29.15	C
ATOM	41024	N	ALA H	7	137.242	118.634	-29.577	1.00	41.14	N	ATOM	41074	CB	ILE H	13	142.183	129.333	-25.833	1.00	29.15	O
ATOM	41025	CA	ALA H	7	138.542	118.772	-28.961	1.00	41.14	C	ATOM	41075	CB	ILE H	13	139.218	127.878	-26.526	1.00	22.57	C
ATOM	41026	C	ALA H	7	139.308	119.831	-29.727	1.00	41.14	C	ATOM	41076	CG1	ILE H	13	138.031	128.088	-27.461	1.00	22.57	C
ATOM	41027	O	ALA H	7	140.086	120.584	-29.154	1.00	41.14	O	ATOM	41077	CG2	ILE H	13	138.999	128.695	-25.247	1.00	22.57	C
ATOM	41028	CB	ALA H	7	139.276	117.461	-28.995	1.00	9.95	C	ATOM	41078	CD1	ILE H	13	136.726	127.546	-26.912	1.00	22.57	C
ATOM	41029	N	ASP H	8	139.079	119.911	-31.028	1.00	48.36	N	ATOM	41079	N	ARG H	14	142.127	127.092	-25.847	1.00	36.50	N
ATOM	41030	CA	ASP H	8	139.785	120.918	-31.795	1.00	48.36	C	ATOM	41080	CA	ARG H	14	143.227	127.013	-24.900	1.00	36.50	C
ATOM	41031	C	ASP H	8	139.446	122.309	-31.286	1.00	48.36	C	ATOM	41081	C	ARG H	14	144.440	127.694	-25.513	1.00	36.50	C
ATOM	41032	O	ASP H	8	140.313	123.174	-31.195	1.00	48.36	O	ATOM	41082	O	ARG H	14	145.112	128.468	-24.854	1.00	36.50	O
ATOM	41033	CB	ASP H	8	139.433	120.840	-33.271	1.00	54.33	C	ATOM	41083	CB	ARG H	14	143.569	125.560	-24.587	1.00	31.48	C
ATOM	41034	CG	ASP H	8	140.289	121.763	-34.099	1.00	54.33	C	ATOM	41084	CG	ARG H	14	144.631	125.419	-23.524	1.00	31.48	C
ATOM	41035	OD1	ASP H	8	141.515	121.525	-34.181	1.00	54.33	O	ATOM	41085	CD	ARG H	14	145.103	123.975	-23.354	1.00	31.48	C
ATOM	41036	OD2	ASP H	8	139.741	122.732	-34.651	1.00	54.33	O	ATOM	41086	NE	ARG H	14	144.011	123.008	-23.315	1.00	31.48	N
ATOM	41037	N	MET H	9	138.180	122.513	-30.947	1.00	46.27	N	ATOM	41087	C2	ARG H	14	143.662	122.244	-24.348	1.00	31.48	C
ATOM	41038	CA	MET H	9	137.726	123.801	-30.466	1.00	46.27	C	ATOM	41088	NH1	ARG H	14	144.325	122.335	-25.495	1.00	31.48	N
ATOM	41039	C	MET H	9	138.249	124.159	-29.083	1.00	46.27	C	ATOM	41089	NH2	ARG H	14	142.644	121.395	-24.247	1.00	31.48	N
ATOM	41040	O	MET H	9	138.641	125.298	-28.841	1.00	46.27	O	ATOM	41090	N	ASN H	15	144.707	127.415	-26.785	1.00	42.48	N
ATOM	41041	CB	MET H	9	136.201	123.857	-30.463	1.00	44.20	C	ATOM	41091	CA	ASN H	15	145.861	128.001	-27.458	1.00	42.48	C
ATOM	41042	CG	MET H	9	135.644	125.143	-29.873	1.00	44.20	C	ATOM	41092	C	ASN H	15	145.800	129.519	-27.582	1.00	42.48	C
ATOM	41043	SD	MET H	9	133.842	125.192	-29.849	1.00	44.20	S	ATOM	41093	O	ASN H	15	146.780	130.199	-27.284	1.00	42.48	O
ATOM	41044	CE	MET H	9	133.481	124.056	-28.499	1.00	44.20	C	ATOM	41094	CB	ASN H	15	146.053	127.404	-28.861	1.00	41.55	C
ATOM	41045	N	LEU H	10	138.259	123.203	-28.167	1.00	43.66	N	ATOM	41095	CG	ASN H	15	146.521	125.951	-28.841	1.00	41.55	C
ATOM	41046	CA	LEU H	10	138.730	123.507	-26.823	1.00	43.66	C	ATOM	41096	OD1	ASN H	15	147.194	125.508	-27.912	1.00	41.55	O
ATOM	41047	C	LEU H	10	140.203	123.898	-26.893	1.00	43.66	C	ATOM	41097	ND2	ASN H	15	146.180	125.212	-29.892	1.00	41.55	N



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ATOM	41098	N	ALA H	16	144.664	130.048	-28.033	1.00	31.79	N	ATOM	41148	NZ	LYS H	21	145.429	135.662	-32.401	1.00	63.71	N
ATOM	41099	CA	ALA H	16	144.504	131.496	-28.200	1.00	31.79	C	ATOM	41149	N	GLU H	22	142.278	138.396	-28.600	1.00	42.67	N
ATOM	41100	C	ALA H	16	144.604	132.243	-26.887	1.00	31.79	C	ATOM	41150	CA	GLU H	22	141.018	138.991	-28.211	1.00	42.67	C
ATOM	41101	O	ALA H	16	145.286	133.254	-26.788	1.00	31.79	O	ATOM	41151	C	GLU H	22	139.919	138.023	-28.708	1.00	42.67	C
ATOM	41102	CB	ALA H	16	143.174	131.814	-28.862	1.00	13.21	C	ATOM	41152	O	GLU H	22	139.121	137.495	-27.929	1.00	42.67	O
ATOM	41103	N	THR H	17	143.914	131.757	-25.870	1.00	31.35	N	ATOM	41153	CB	GLU H	22	140.884	140.362	-28.868	1.00	118.87	C
ATOM	41104	CA	THR H	17	143.977	132.432	-24.597	1.00	31.35	C	ATOM	41154	CG	GLU H	22	140.037	141.336	-28.088	1.00	118.87	C
ATOM	41105	C	THR H	17	145.404	132.505	-24.070	1.00	31.35	C	ATOM	41155	OD	GLU H	22	139.950	142.689	-28.759	1.00	118.87	C
ATOM	41106	O	THR H	17	145.799	133.521	-23.508	1.00	31.35	O	ATOM	41156	OE1	GLU H	22	139.507	142.737	-29.928	1.00	118.87	O
ATOM	41107	CB	THR H	17	143.096	131.738	-23.558	1.00	26.85	C	ATOM	41157	OE2	GLU H	22	140.324	143.698	-28.119	1.00	118.87	O
ATOM	41108	OG1	THR H	17	143.574	130.407	-23.318	1.00	26.85	O	ATOM	41158	N	SER H	23	139.914	137.779	-30.014	1.00	44.44	N
ATOM	41109	CG2	THR H	17	141.668	131.682	-24.059	1.00	26.85	C	ATOM	41159	CA	SER H	23	138.960	136.889	-30.659	1.00	44.44	C
ATOM	41110	N	ARG H	18	146.189	131.448	-24.253	1.00	41.87	N	ATOM	41160	O	SER H	23	139.629	135.520	-30.862	1.00	44.44	O
ATOM	41111	CA	ARG H	18	147.553	131.465	-23.745	1.00	41.87	C	ATOM	41161	C	SER H	23	140.587	135.195	-30.165	1.00	44.44	C
ATOM	41112	C	ARG H	18	148.401	132.581	-24.328	1.00	41.87	C	ATOM	41162	CB	SER H	23	138.566	137.498	-32.008	1.00	55.27	C
ATOM	41113	O	ARG H	18	149.407	132.976	-23.737	1.00	41.87	O	ATOM	41163	OG	SER H	23	137.671	136.675	-32.732	1.00	55.27	O
ATOM	41114	CB	ARG H	18	148.222	130.110	-23.947	1.00	65.89	C	ATOM	41164	N	THR H	24	139.107	134.733	-31.808	1.00	49.31	N
ATOM	41115	CG	ARG H	18	148.051	129.210	-22.753	1.00	65.89	C	ATOM	41165	CA	THR H	24	139.611	133.398	-32.190	1.00	49.31	C
ATOM	41116	CD	ARG H	18	146.599	129.185	-22.347	1.00	65.89	C	ATOM	41166	C	THR H	24	138.489	132.633	-32.889	1.00	49.31	C
ATOM	41117	NE	ARG H	18	146.374	128.551	-21.052	1.00	65.89	N	ATOM	41167	O	THR H	24	137.409	132.465	-32.333	1.00	49.31	O
ATOM	41118	CZ	ARG H	18	145.224	128.618	-20.380	1.00	65.89	C	ATOM	41168	CB	THR H	24	140.106	132.567	-30.987	1.00	36.54	C
ATOM	41119	NH1	ARG H	18	144.187	129.289	-20.878	1.00	65.89	N	ATOM	41169	OG1	THR H	24	139.050	132.481	-29.937	1.00	36.54	O
ATOM	41120	NH2	ARG H	18	145.114	128.029	-19.197	1.00	65.89	N	ATOM	41170	CG2	THR H	24	138.754	132.179	-34.111	1.00	38.17	N
ATOM	41121	N	VAL H	19	148.014	133.102	-25.484	1.00	37.64	N	ATOM	41171	N	ASP H	25	137.769	131.469	-34.921	1.00	38.17	C
ATOM	41122	CA	VAL H	19	148.767	134.212	-26.046	1.00	37.64	C	ATOM	41172	CA	ASP H	25	137.865	129.960	-34.842	1.00	38.17	C
ATOM	41123	C	VAL H	19	147.929	135.473	-25.955	1.00	37.64	C	ATOM	41173	O	ASP H	25	137.947	129.408	-34.659	1.00	38.17	O
ATOM	41124	O	VAL H	19	148.300	136.521	-26.451	1.00	37.64	O	ATOM	41174	C	ASP H	25	137.914	131.876	-36.384	1.00	62.01	C
ATOM	41125	CB	VAL H	19	149.180	133.972	-27.492	1.00	32.03	C	ATOM	41175	CB	ASP H	25	137.675	133.356	-36.603	1.00	62.01	C
ATOM	41126	CG1	VAL H	19	150.460	133.177	-27.517	1.00	32.03	C	ATOM	41176	CG	ASP H	25	137.787	134.126	-35.623	1.00	62.01	O
ATOM	41127	CG2	VAL H	19	148.087	133.242	-28.230	1.00	32.03	C	ATOM	41177	OD1	ASP H	25	137.390	133.755	-37.758	1.00	62.01	O
ATOM	41128	N	TYR H	20	146.774	135.342	-25.324	1.00	25.89	N	ATOM	41178	OD2	ASP H	25	136.715	129.303	-34.979	1.00	49.06	N
ATOM	41129	CA	TYR H	20	145.891	136.462	-25.099	1.00	25.89	C	ATOM	41179	N	VAL H	26	136.612	127.841	-34.982	1.00	49.06	C
ATOM	41130	C	TYR H	20	145.229	137.077	-26.292	1.00	25.89	C	ATOM	41180	CA	VAL H	26	135.448	127.493	-35.895	1.00	49.06	C
ATOM	41131	O	TYR H	20	145.101	138.290	-26.361	1.00	25.89	O	ATOM	41181	C	VAL H	26	134.374	128.070	-35.781	1.00	49.06	O
ATOM	41132	CB	TYR H	20	146.642	137.523	-24.319	1.00	31.27	C	ATOM	41182	O	VAL H	26	136.357	127.228	-33.552	1.00	19.30	C
ATOM	41133	CG	TYR H	20	147.071	137.007	-22.978	1.00	31.27	C	ATOM	41183	CB	VAL H	26	136.343	128.323	-32.506	1.00	19.30	C
ATOM	41134	CD1	TYR H	20	146.235	137.117	-21.876	1.00	31.27	C	ATOM	41184	CG1	VAL H	26	135.059	126.420	-33.523	1.00	19.30	C
ATOM	41135	CD2	TYR H	20	148.299	136.383	-22.815	1.00	31.27	C	ATOM	41185	CG2	VAL H	26	135.662	126.564	-36.832	1.00	45.35	N
ATOM	41136	CE1	TYR H	20	146.609	136.624	-20.637	1.00	31.27	C	ATOM	41186	N	PRO H	27	134.636	126.129	-37.774	1.00	45.35	C
ATOM	41137	CE2	TYR H	20	148.688	135.888	-21.581	1.00	31.27	C	ATOM	41187	CA	PRO H	27	133.357	125.815	-37.014	1.00	45.35	C
ATOM	41138	CZ	TYR H	20	147.839	136.014	-20.489	1.00	31.27	O	ATOM	41188	C	PRO H	27	133.381	125.069	-36.029	1.00	45.35	O
ATOM	41139	OH	TYR H	20	148.237	135.573	-19.239	1.00	31.27	O	ATOM	41189	O	PRO H	27	135.251	124.888	-38.390	1.00	36.73	C
ATOM	41140	N	LYS H	21	144.798	136.249	-27.234	1.00	26.85	N	ATOM	41190	CB	PRO H	27	136.683	125.212	-38.403	1.00	36.73	C
ATOM	41141	CA	LYS H	21	144.093	136.765	-28.396	1.00	26.85	C	ATOM	41191	CG	PRO H	27	136.897	125.792	-37.031	1.00	36.73	C
ATOM	41142	C	LYS H	21	142.765	137.383	-27.908	1.00	26.85	C	ATOM	41192	CD	PRO H	27	132.245	126.376	-37.491	1.00	55.66	N
ATOM	41143	O	LYS H	21	142.195	136.963	-26.905	1.00	26.85	O	ATOM	41193	N	ALA H	28	130.942	126.212	-36.861	1.00	55.66	C
ATOM	41144	CB	LYS H	21	143.803	135.630	-29.381	1.00	63.71	C	ATOM	41194	CA	ALA H	28	130.280	124.859	-37.052	1.00	55.66	C
ATOM	41145	CG	LYS H	21	144.971	134.698	-29.592	1.00	63.71	C	ATOM	41195	C	ALA H	28	130.352	124.249	-38.121	1.00	55.66	O
ATOM	41146	CD	LYS H	21	146.224	135.458	-30.025	1.00	63.71	C	ATOM	41196	O	ALA H	28	130.005	127.311	-37.339	1.00	167.00	C
ATOM	41147	CE	LYS H	21	146.545	135.240	-31.501	1.00	63.71	C	ATOM	41197	CB	ALA H	28						



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ATOM	41198	N	SER H	29	129.628	124.413	-35.984	1.00	42.40	N	ATOM	41248	CB	GLU H	34	125.228	123.105	-28.197	1.00	77.14	C
ATOM	41199	CA	SER H	29	128.894	123.155	-35.949	1.00	42.40	C	ATOM	41249	CG	GLU H	34	123.945	123.028	-28.980	1.00	77.14	C
ATOM	41200	C	SER H	29	127.821	123.396	-34.904	1.00	42.40	C	ATOM	41250	CD	GLU H	34	122.870	123.916	-28.393	1.00	77.14	C
ATOM	41201	O	SER H	29	128.114	124.003	-33.863	1.00	42.40	O	ATOM	41251	OE1	GLU H	34	121.902	124.219	-29.122	1.00	77.14	O
ATOM	41202	CB	SER H	29	129.791	122.008	-35.481	1.00	48.05	C	ATOM	41252	OE2	GLU H	34	122.989	124.307	-27.208	1.00	77.14	O
ATOM	41203	OG	SER H	29	130.021	122.068	-34.081	1.00	48.05	O	ATOM	41253	N	ILE H	35	127.951	124.191	-27.085	1.00	42.98	N
ATOM	41204	N	ARG H	30	126.592	122.944	-35.167	1.00	40.73	N	ATOM	41254	CA	ILE H	35	128.921	124.223	-26.004	1.00	42.98	C
ATOM	41205	CA	ARG H	30	125.498	123.132	-34.197	1.00	40.73	C	ATOM	41255	C	ILE H	35	129.291	125.666	-25.647	1.00	42.98	C
ATOM	41206	C	ARG H	30	126.013	122.825	-32.795	1.00	40.73	C	ATOM	41256	O	ILE H	35	129.276	126.064	-24.471	1.00	42.98	O
ATOM	41207	O	ARG H	30	125.984	123.679	-31.907	1.00	40.73	O	ATOM	41257	CB	ILE H	35	130.154	123.376	-26.404	1.00	31.69	C
ATOM	41208	CB	ARG H	30	124.322	122.195	-34.497	1.00	98.09	C	ATOM	41258	CG1	ILE H	35	129.656	121.972	-26.771	1.00	31.69	C
ATOM	41209	CG	ARG H	30	123.370	122.647	-35.593	1.00	98.09	C	ATOM	41259	CG2	ILE H	35	131.166	123.300	-25.255	1.00	31.69	C
ATOM	41210	CD	ARG H	30	122.456	123.776	-35.144	1.00	98.09	C	ATOM	41260	CD1	ILE H	35	130.701	120.987	-27.124	1.00	31.69	C
ATOM	41211	NE	ARG H	30	121.467	124.089	-36.175	1.00	98.09	C	ATOM	41261	N	LEU H	36	129.591	126.456	-26.670	1.00	44.94	N
ATOM	41212	CZ	ARG H	30	120.700	125.176	-36.181	1.00	98.09	C	ATOM	41262	CA	LEU H	36	129.940	127.849	-26.465	1.00	44.94	C
ATOM	41213	NH1	ARG H	30	120.800	126.069	-35.203	1.00	98.09	N	ATOM	41263	C	LEU H	36	128.857	128.577	-25.657	1.00	44.94	C
ATOM	41214	NH2	ARG H	30	119.839	125.375	-37.171	1.00	98.09	N	ATOM	41264	O	LEU H	36	129.176	129.462	-24.851	1.00	44.94	O
ATOM	41215	N	PHE H	31	126.504	121.596	-32.635	1.00	37.41	N	ATOM	41265	CB	LEU H	36	130.140	128.522	-27.818	1.00	30.12	C
ATOM	41216	CA	PHE H	31	127.033	121.102	-31.371	1.00	37.41	C	ATOM	41266	CG	LEU H	36	131.357	128.078	-28.635	1.00	30.12	C
ATOM	41217	C	PHE H	31	128.060	122.023	-30.711	1.00	37.41	C	ATOM	41267	CD1	LEU H	36	131.263	128.675	-30.026	1.00	30.12	C
ATOM	41218	O	PHE H	31	127.973	122.287	-29.508	1.00	37.41	O	ATOM	41268	CD2	LEU H	36	132.654	128.522	-27.955	1.00	30.12	C
ATOM	41219	CB	PHE H	31	127.637	119.708	-31.582	1.00	39.50	C	ATOM	41269	N	ARG H	37	127.587	128.203	-25.877	1.00	42.49	N
ATOM	41220	CG	PHE H	31	128.050	119.019	-30.307	1.00	39.50	C	ATOM	41270	CA	ARG H	37	126.458	128.801	-25.156	1.00	42.49	C
ATOM	41221	CD1	PHE H	31	127.241	119.050	-29.187	1.00	39.50	C	ATOM	41271	C	ARG H	37	126.751	128.714	-23.652	1.00	42.49	C
ATOM	41222	CD2	PHE H	31	129.222	118.292	-30.245	1.00	39.50	C	ATOM	41272	O	ARG H	37	126.602	129.701	-22.928	1.00	42.49	O
ATOM	41223	CE1	PHE H	31	127.598	118.357	-28.029	1.00	39.50	C	ATOM	41273	CB	ARG H	37	125.131	128.068	-25.468	1.00	82.59	C
ATOM	41224	CE2	PHE H	31	129.576	117.603	-29.089	1.00	39.50	C	ATOM	41274	CG	ARG H	37	124.079	128.884	-26.262	1.00	82.59	C
ATOM	41225	CZ	PHE H	31	128.761	117.637	-27.985	1.00	39.50	C	ATOM	41275	CD	ARG H	37	122.640	128.277	-26.223	1.00	82.59	C
ATOM	41226	N	LYS H	32	129.031	122.503	-31.491	1.00	39.38	N	ATOM	41276	NE	ARG H	37	121.742	128.901	-27.216	1.00	82.59	N
ATOM	41227	CA	LYS H	32	130.065	123.382	-30.955	1.00	39.38	C	ATOM	41277	CZ	ARG H	37	120.448	128.600	-27.405	1.00	82.59	C
ATOM	41228	C	LYS H	32	129.460	124.680	-30.438	1.00	39.38	C	ATOM	41278	NH1	ARG H	37	119.860	127.675	-26.661	1.00	82.59	N
ATOM	41229	O	LYS H	32	129.901	125.232	-29.419	1.00	39.38	O	ATOM	41279	NH2	ARG H	37	119.737	129.209	-28.359	1.00	82.59	N
ATOM	41230	CB	LYS H	32	131.119	123.677	-32.023	1.00	43.52	C	ATOM	41280	N	ILE H	38	127.183	127.539	-23.189	1.00	35.91	N
ATOM	41231	CG	LYS H	32	132.325	122.769	-31.937	1.00	43.52	C	ATOM	41281	CA	ILE H	38	127.482	127.355	-21.767	1.00	35.91	C
ATOM	41232	CD	LYS H	32	133.386	123.088	-32.988	1.00	43.52	C	ATOM	41282	C	ILE H	38	128.700	128.163	-21.378	1.00	35.91	C
ATOM	41233	CE	LYS H	32	133.051	122.484	-34.351	1.00	43.52	C	ATOM	41283	O	ILE H	38	128.704	128.834	-20.343	1.00	35.91	O
ATOM	41234	NZ	LYS H	32	134.132	122.688	-35.370	1.00	43.52	N	ATOM	41284	CB	ILE H	38	127.795	125.873	-21.384	1.00	34.75	C
ATOM	41235	N	GLU H	33	128.441	125.157	-31.148	1.00	47.73	N	ATOM	41285	CG1	ILE H	38	126.548	125.010	-21.467	1.00	34.75	C
ATOM	41236	CA	GLU H	33	127.748	126.378	-30.767	1.00	47.73	C	ATOM	41286	CG2	ILE H	38	128.301	125.798	-19.954	1.00	34.75	C
ATOM	41237	C	GLU H	33	127.023	126.104	-29.453	1.00	47.73	C	ATOM	41287	CD1	ILE H	38	126.002	124.897	-22.856	1.00	34.75	C
ATOM	41238	O	GLU H	33	126.973	126.955	-28.564	1.00	47.73	O	ATOM	41288	N	LEU H	39	129.742	128.072	-22.201	1.00	47.31	N
ATOM	41239	CB	GLU H	33	126.759	126.782	-31.863	1.00	56.90	C	ATOM	41289	CA	LEU H	39	130.976	128.784	-21.914	1.00	47.31	C
ATOM	41240	CG	GLU H	33	126.031	128.079	-31.588	1.00	56.90	C	ATOM	41290	C	LEU H	39	130.696	130.241	-21.590	1.00	47.31	C
ATOM	41241	CD	GLU H	33	125.302	128.634	-32.803	1.00	56.90	C	ATOM	41291	O	LEU H	39	131.297	130.826	-20.683	1.00	47.31	O
ATOM	41242	OE1	GLU H	33	124.698	127.840	-33.569	1.00	56.90	C	ATOM	41292	CB	LEU H	39	131.952	128.683	-23.093	1.00	48.54	C
ATOM	41243	OE2	GLU H	33	125.323	129.875	-32.973	1.00	56.90	O	ATOM	41293	CG	LEU H	39	132.798	127.411	-23.163	1.00	48.54	C
ATOM	41244	N	GLU H	34	126.477	124.899	-29.324	1.00	35.56	N	ATOM	41294	CD1	LEU H	39	133.367	127.109	-21.787	1.00	48.54	C
ATOM	41245	CA	GLU H	34	125.783	124.524	-28.101	1.00	35.56	C	ATOM	41295	CD2	LEU H	39	131.940	126.263	-23.636	1.00	48.54	C
ATOM	41246	C	GLU H	34	126.709	124.620	-26.908	1.00	35.56	C	ATOM	41296	N	ALA H	40	129.770	130.824	-22.335	1.00	49.82	N
ATOM	41247	O	GLU H	34	126.311	125.085	-25.850	1.00	35.56	O	ATOM	41297	CA	ALA H	40	129.422	132.213	-22.109	1.00	49.82	C



ATOM	41298	C	ALA	H	40	128.633	132.345	-20.805	1.00	49.82	C	ATOM	41348	CB	LYS	H	46	133.673	138.319	-24.069	1.00	51.44	C
ATOM	41299	O	ALA	H	40	129.056	133.040	-19.877	1.00	49.82	O	ATOM	41349	CG	LYS	H	46	134.737	139.035	-23.272	1.00	51.44	C
ATOM	41300	CB	ALA	H	40	128.612	132.728	-23.275	1.00	24.41	C	ATOM	41350	CD	LYS	H	46	134.958	140.429	-23.837	1.00	51.44	C
ATOM	41301	N	ARG	H	41	127.490	131.665	-20.741	1.00	25.87	N	ATOM	41351	CE	LYS	H	46	136.090	141.164	-23.132	1.00	51.44	C
ATOM	41302	CA	ARG	H	41	126.648	131.707	-19.562	1.00	25.87	C	ATOM	41352	NZ	LYS	H	46	137.452	140.654	-23.530	1.00	51.44	N
ATOM	41303	C	ARG	H	41	127.475	131.505	-18.303	1.00	25.87	C	ATOM	41353	N	GLY	H	47	131.819	135.859	-24.952	1.00	44.27	N
ATOM	41304	O	ARG	H	41	127.350	132.264	-17.359	1.00	25.87	O	ATOM	41354	CA	GLY	H	47	130.703	135.414	-25.762	1.00	44.27	C
ATOM	41305	CB	ARG	H	41	125.570	130.641	-19.649	1.00	55.68	C	ATOM	41355	C	GLY	H	47	131.246	135.037	-27.121	1.00	44.27	C
ATOM	41306	CG	ARG	H	41	124.469	130.822	-18.641	1.00	55.68	C	ATOM	41356	O	GLY	H	47	132.450	135.085	-27.323	1.00	44.27	O
ATOM	41307	CD	ARG	H	41	123.552	129.643	-18.704	1.00	55.68	C	ATOM	41357	N	TYR	H	48	130.380	134.688	-28.062	1.00	43.28	N
ATOM	41308	NE	ARG	H	41	123.121	129.397	-20.076	1.00	55.68	N	ATOM	41358	CA	TYR	H	48	130.832	134.283	-29.382	1.00	43.28	C
ATOM	41309	CZ	ARG	H	41	123.062	128.190	-20.634	1.00	55.68	C	ATOM	41359	C	TYR	H	48	129.807	134.720	-30.414	1.00	43.28	C
ATOM	41310	NH1	ARG	H	41	123.414	127.111	-19.935	1.00	55.68	N	ATOM	41360	O	TYR	H	48	128.715	135.123	-30.050	1.00	43.28	O
ATOM	41311	NH2	ARG	H	41	122.645	128.058	-21.890	1.00	55.68	N	ATOM	41361	CB	TYR	H	48	130.917	132.779	-29.410	1.00	50.62	C
ATOM	41312	N	GLU	H	42	128.338	130.495	-18.281	1.00	34.61	N	ATOM	41362	CG	TYR	H	48	129.553	132.156	-29.510	1.00	50.62	C
ATOM	41313	CA	GLU	H	42	129.138	130.269	-17.091	1.00	34.61	C	ATOM	41363	CD1	TYR	H	48	129.005	131.835	-30.751	1.00	50.62	C
ATOM	41314	C	GLU	H	42	130.207	131.338	-16.912	1.00	34.61	C	ATOM	41364	CD2	TYR	H	48	128.790	131.928	-28.374	1.00	50.62	C
ATOM	41315	O	GLU	H	42	131.011	131.285	-15.978	1.00	34.61	O	ATOM	41365	CE1	TYR	H	48	127.724	131.300	-30.859	1.00	50.62	C
ATOM	41316	CB	GLU	H	42	129.746	128.872	-17.119	1.00	86.53	C	ATOM	41366	CE2	TYR	H	48	127.506	131.397	-28.467	1.00	50.62	C
ATOM	41317	CG	GLU	H	42	128.715	127.775	-16.884	1.00	86.53	C	ATOM	41367	CZ	TYR	H	48	126.978	131.084	-29.713	1.00	50.62	C
ATOM	41318	CD	GLU	H	42	127.893	128.001	-15.620	1.00	86.53	C	ATOM	41368	OH	TYR	H	48	125.702	130.564	-29.817	1.00	50.62	O
ATOM	41319	OE1	GLU	H	42	128.494	128.304	-14.565	1.00	86.53	O	ATOM	41369	N	GLU	H	49	130.130	134.612	-31.699	1.00	39.02	N
ATOM	41320	OE2	GLU	H	42	126.648	127.867	-15.681	1.00	86.53	O	ATOM	41370	CA	GLU	H	49	129.175	134.993	-32.737	1.00	39.02	C
ATOM	41321	N	GLY	H	43	130.205	132.307	-17.818	1.00	44.87	N	ATOM	41371	C	GLU	H	49	129.487	134.368	-34.091	1.00	39.02	C
ATOM	41322	CA	GLY	H	43	131.145	133.408	-17.739	1.00	44.87	C	ATOM	41372	O	GLU	H	49	130.648	134.204	-34.457	1.00	39.02	O
ATOM	41323	C	GLY	H	43	132.598	133.157	-18.080	1.00	44.87	C	ATOM	41373	CB	GLU	H	49	129.110	136.510	-32.878	1.00	91.35	C
ATOM	41324	O	GLY	H	43	133.453	133.920	-17.638	1.00	44.87	O	ATOM	41374	CD	GLU	H	49	130.405	137.134	-33.311	1.00	91.35	C
ATOM	41325	N	PHE	H	44	132.887	132.119	-18.866	1.00	49.41	N	ATOM	41375	CD	GLU	H	49	130.237	138.586	-33.697	1.00	91.35	C
ATOM	41326	CA	PHE	H	44	134.263	131.791	-19.247	1.00	49.41	C	ATOM	41376	OE1	GLU	H	49	129.413	138.866	-34.598	1.00	91.35	O
ATOM	41327	C	PHE	H	44	134.723	132.553	-20.480	1.00	49.41	C	ATOM	41377	OE2	GLU	H	49	130.926	139.446	-33.105	1.00	91.35	O
ATOM	41328	O	PHE	H	44	135.917	132.700	-20.717	1.00	49.41	O	ATOM	41378	N	ARG	H	50	128.437	134.005	-34.821	1.00	53.88	N
ATOM	41329	CB	PHE	H	44	134.406	130.290	-19.512	1.00	32.37	C	ATOM	41379	CA	ARG	H	50	128.587	133.397	-36.133	1.00	53.88	C
ATOM	41330	CG	PHE	H	44	134.453	129.458	-18.271	1.00	32.37	C	ATOM	41380	C	ARG	H	50	129.302	134.389	-37.020	1.00	53.88	C
ATOM	41331	CD1	PHE	H	44	135.502	129.594	-17.368	1.00	32.37	C	ATOM	41381	O	ARG	H	50	129.123	135.595	-36.873	1.00	53.88	O
ATOM	41332	CD2	PHE	H	44	133.450	128.528	-18.001	1.00	32.37	C	ATOM	41382	CB	ARG	H	50	127.223	133.064	-36.716	1.00	63.49	C
ATOM	41333	CE1	PHE	H	44	135.557	128.810	-16.204	1.00	32.37	C	ATOM	41383	CG	ARG	H	50	126.510	131.971	-35.977	1.00	63.49	C
ATOM	41334	CE2	PHE	H	44	133.490	127.740	-16.843	1.00	32.37	C	ATOM	41384	CD	ARG	H	50	125.117	131.770	-36.511	1.00	63.49	C
ATOM	41335	CZ	PHE	H	44	134.551	127.883	-15.942	1.00	32.37	C	ATOM	41385	NE	ARG	H	50	124.597	130.469	-36.112	1.00	63.49	N
ATOM	41336	N	ILE	H	45	133.778	133.018	-21.279	1.00	57.06	N	ATOM	41386	CZ	ARG	H	50	123.385	130.013	-36.419	1.00	63.49	C
ATOM	41337	CA	ILE	H	45	134.136	133.763	-22.470	1.00	57.06	C	ATOM	41387	NH1	ARG	H	50	122.550	130.759	-37.134	1.00	63.49	N
ATOM	41338	C	ILE	H	45	133.202	134.937	-22.634	1.00	57.06	C	ATOM	41388	NH2	ARG	H	50	123.011	128.801	-36.018	1.00	63.49	N
ATOM	41339	O	ILE	H	45	132.013	134.823	-22.350	1.00	57.06	O	ATOM	41389	N	VAL	H	51	130.105	133.879	-37.945	1.00	52.69	N
ATOM	41340	CB	ILE	H	45	134.027	132.909	-23.731	1.00	18.00	C	ATOM	41390	CA	VAL	H	51	130.887	134.718	-38.846	1.00	52.69	C
ATOM	41341	CG1	ILE	H	45	132.599	132.394	-23.875	1.00	18.00	C	ATOM	41391	C	VAL	H	51	131.196	133.862	-40.054	1.00	52.69	C
ATOM	41342	CG2	ILE	H	45	135.048	131.788	-23.687	1.00	18.00	C	ATOM	41392	O	VAL	H	51	131.102	132.642	-39.972	1.00	52.69	O
ATOM	41343	CD1	ILE	H	45	132.345	131.646	-25.165	1.00	18.00	C	ATOM	41393	CB	VAL	H	51	132.221	135.153	-38.160	1.00	56.33	C
ATOM	41344	N	LYS	H	46	133.735	136.067	-23.096	1.00	54.41	N	ATOM	41394	CG1	VAL	H	51	133.257	135.522	-39.191	1.00	56.33	C
ATOM	41345	CA	LYS	H	46	132.911	137.244	-23.298	1.00	54.41	C	ATOM	41395	CG2	VAL	H	51	131.979	136.335	-37.234	1.00	56.33	C
ATOM	41346	C	LYS	H	46	131.673	136.849	-24.080	1.00	54.41	C	ATOM	41396	N	ASP	H	52	131.544	134.494	-41.172	1.00	57.77	N
ATOM	41347	O	LYS	H	46	130.606	137.413	-23.881	1.00	54.41	O	ATOM	41397	CA	ASP	H	52	131.887	133.766	-42.394	1.00	57.77	C



Table 1: Sheet 416/521

ATOM	41398	C	ASP	H	52	133.327	134.039	-42.815	1.00	57.77	C	ATOM	41448	CE2	TYR	H	58	137.121	128.611	-39.579	1.00	47.16	C
ATOM	41399	O	ASP	H	52	133.680	135.162	-43.162	1.00	57.77	O	ATOM	41449	CZ	TYR	H	58	136.759	128.316	-40.888	1.00	47.16	C
ATOM	41400	CB	ASP	H	52	130.933	134.137	-43.539	1.00	87.72	C	ATOM	41450	OH	TYR	H	58	137.533	127.502	-41.680	1.00	47.16	O
ATOM	41401	CG	ASP	H	52	129.780	133.147	-43.689	1.00	87.72	C	ATOM	41451	N	LEU	H	59	132.756	130.374	-35.868	1.00	34.95	N
ATOM	41402	OD1	ASP	H	52	129.106	132.853	-42.681	1.00	87.72	O	ATOM	41452	CA	LEU	H	59	132.231	130.950	-34.655	1.00	34.95	C
ATOM	41403	OD2	ASP	H	52	129.542	132.662	-44.816	1.00	87.72	O	ATOM	41453	C	LEU	H	59	133.346	131.763	-34.014	1.00	34.95	C
ATOM	41404	N	VAL	H	53	134.158	133.002	-43.761	1.00	61.15	N	ATOM	41454	O	LEU	H	59	134.363	131.204	-33.605	1.00	34.95	O
ATOM	41405	CA	VAL	H	53	135.562	133.098	-43.150	1.00	61.15	C	ATOM	41455	CB	LEU	H	59	131.778	129.850	-33.692	1.00	46.28	C
ATOM	41406	C	VAL	H	53	135.787	132.377	-44.480	1.00	61.15	C	ATOM	41456	CG	LEU	H	59	130.716	128.859	-34.181	1.00	46.28	C
ATOM	41407	O	VAL	H	53	135.608	131.159	-44.585	1.00	61.15	O	ATOM	41457	CD1	LEU	H	59	130.459	127.787	-33.122	1.00	46.28	C
ATOM	41408	CB	VAL	H	53	136.481	132.486	-42.069	1.00	51.90	C	ATOM	41458	CD2	LEU	H	59	129.435	129.606	-34.498	1.00	46.28	C
ATOM	41409	CG1	VAL	H	53	137.843	132.158	-42.649	1.00	51.90	C	ATOM	41459	N	ARG	H	60	133.183	133.083	-33.963	1.00	36.99	N
ATOM	41410	CG2	VAL	H	53	136.649	133.470	-40.934	1.00	51.90	C	ATOM	41460	CA	ARG	H	60	134.182	133.917	-33.316	1.00	36.99	C
ATOM	41411	N	ASP	H	54	136.168	133.144	-45.497	1.00	58.32	N	ATOM	41461	C	ARG	H	60	134.029	133.662	-31.839	1.00	36.99	C
ATOM	41412	CA	ASP	H	54	136.419	132.592	-46.821	1.00	58.32	C	ATOM	41462	O	ARG	H	60	132.924	133.683	-31.315	1.00	36.99	O
ATOM	41413	C	ASP	H	54	135.149	131.970	-47.391	1.00	58.32	C	ATOM	41463	CB	ARG	H	60	133.914	135.394	-33.537	1.00	60.26	C
ATOM	41414	O	ASP	H	54	135.201	131.145	-48.297	1.00	58.32	O	ATOM	41464	CG	ARG	H	60	134.378	135.914	-34.833	1.00	60.26	C
ATOM	41415	CB	ASP	H	54	137.531	131.538	-46.749	1.00	200.50	C	ATOM	41465	CD	ARG	H	60	135.875	135.940	-34.905	1.00	60.26	C
ATOM	41416	CG	ASP	H	54	137.904	130.984	-48.112	1.00	200.50	C	ATOM	41466	NE	ARG	H	60	136.231	136.159	-36.291	1.00	60.26	C
ATOM	41417	OD1	ASP	H	54	138.362	131.767	-48.971	1.00	200.50	O	ATOM	41467	CZ	ARG	H	60	135.893	137.252	-36.954	1.00	60.26	C
ATOM	41418	OD2	ASP	H	54	137.738	129.764	-48.324	1.00	200.50	O	ATOM	41468	NH1	ARG	H	60	135.216	138.208	-36.329	1.00	60.26	N
ATOM	41419	N	GLY	H	55	134.003	132.363	-46.856	1.00	54.25	N	ATOM	41469	NH2	ARG	H	60	136.182	137.368	-38.241	1.00	60.26	N
ATOM	41420	CA	GLY	H	55	132.758	131.816	-47.359	1.00	54.25	C	ATOM	41470	N	VAL	H	61	135.124	133.417	-31.149	1.00	40.34	N
ATOM	41421	C	GLY	H	55	132.187	130.740	-46.464	1.00	54.25	C	ATOM	41471	CA	VAL	H	61	135.010	133.218	-29.728	1.00	40.34	C
ATOM	41422	O	GLY	H	55	130.988	130.449	-46.508	1.00	54.25	O	ATOM	41472	C	VAL	H	61	135.745	134.360	-29.059	1.00	40.34	C
ATOM	41423	N	LYS	H	56	133.036	129.142	-45.640	1.00	54.94	N	ATOM	41473	O	VAL	H	61	136.956	134.505	-29.207	1.00	40.34	O
ATOM	41424	CA	LYS	H	56	132.556	129.105	-44.752	1.00	54.94	C	ATOM	41474	CB	VAL	H	61	135.606	131.895	-29.305	1.00	20.84	C
ATOM	41425	C	LYS	H	56	132.263	129.603	-43.341	1.00	54.94	C	ATOM	41475	CG1	VAL	H	61	135.414	131.719	-27.809	1.00	20.84	C
ATOM	41426	O	LYS	H	56	132.916	130.506	-42.824	1.00	54.94	O	ATOM	41476	CG2	VAL	H	61	134.942	130.765	-30.075	1.00	20.84	C
ATOM	41427	CB	LYS	H	56	133.544	127.949	-44.706	1.00	74.99	C	ATOM	41477	N	TYR	H	62	134.998	135.195	-28.350	1.00	26.57	N
ATOM	41428	CG	LYS	H	56	133.576	127.143	-45.976	1.00	74.99	C	ATOM	41478	CA	TYR	H	62	135.587	136.329	-27.658	1.00	26.57	C
ATOM	41429	CD	LYS	H	56	134.181	127.938	-47.097	1.00	74.99	C	ATOM	41479	C	TYR	H	62	136.126	135.953	-26.288	1.00	26.57	C
ATOM	41430	CE	LYS	H	56	134.281	127.103	-48.349	1.00	74.99	C	ATOM	41480	O	TYR	H	62	135.385	135.709	-25.338	1.00	26.57	O
ATOM	41431	NZ	LYS	H	56	134.894	127.896	-49.448	1.00	74.99	N	ATOM	41481	CB	TYR	H	62	134.569	137.453	-27.577	1.00	29.62	C
ATOM	41432	N	PRO	H	57	131.256	129.008	-42.704	1.00	45.83	N	ATOM	41482	CG	TYR	H	62	134.300	138.003	-28.947	1.00	29.62	C
ATOM	41433	CA	PRO	H	57	130.792	129.313	-41.355	1.00	45.83	C	ATOM	41483	CD1	TYR	H	62	135.214	138.843	-29.561	1.00	29.62	C
ATOM	41434	C	PRO	H	57	131.799	129.071	-40.240	1.00	45.83	C	ATOM	41484	CD2	TYR	H	62	133.183	137.606	-29.673	1.00	29.62	C
ATOM	41435	O	PRO	H	57	132.427	128.021	-40.179	1.00	45.83	O	ATOM	41485	CE1	TYR	H	62	135.036	139.268	-30.865	1.00	29.62	C
ATOM	41436	CB	PRO	H	57	129.571	128.418	-41.218	1.00	24.28	C	ATOM	41486	CE2	TYR	H	62	132.991	138.028	-30.985	1.00	29.62	C
ATOM	41437	CG	PRO	H	57	129.916	127.259	-42.086	1.00	24.28	C	ATOM	41487	CZ	TYR	H	62	133.927	138.855	-31.581	1.00	29.62	C
ATOM	41438	CD	PRO	H	57	130.437	127.941	-43.256	1.00	24.28	C	ATOM	41488	OH	TYR	H	62	133.796	139.222	-32.914	1.00	29.62	O
ATOM	41439	N	TYR	H	58	131.938	130.053	-39.359	1.00	39.08	N	ATOM	41489	N	LEU	H	63	137.449	135.906	-26.224	1.00	32.77	N
ATOM	41440	CA	TYR	H	58	132.839	129.961	-38.223	1.00	39.08	C	ATOM	41490	CA	LEU	H	63	138.165	135.539	-25.027	1.00	32.77	C
ATOM	41441	C	TYR	H	58	132.179	130.600	-37.038	1.00	39.08	O	ATOM	41491	C	LEU	H	63	138.118	136.598	-23.951	1.00	32.77	C
ATOM	41442	O	TYR	H	58	131.168	131.284	-37.178	1.00	39.08	O	ATOM	41492	O	LEU	H	63	137.984	137.792	-24.239	1.00	32.77	O
ATOM	41443	CB	TYR	H	58	134.151	130.688	-38.484	1.00	47.16	C	ATOM	41493	CB	LEU	H	63	139.600	135.196	-25.400	1.00	30.04	C
ATOM	41444	CG	TYR	H	58	135.098	129.896	-39.332	1.00	47.16	C	ATOM	41494	CG	LEU	H	63	139.767	133.771	-25.938	1.00	30.04	C
ATOM	41445	CD1	TYR	H	58	134.775	129.591	-40.646	1.00	47.16	C	ATOM	41495	CD1	LEU	H	63	138.542	133.299	-26.692	1.00	30.04	C
ATOM	41446	CD2	TYR	H	58	136.288	129.398	-38.808	1.00	47.16	C	ATOM	41496	CD2	LEU	H	63	140.990	133.749	-26.819	1.00	30.04	C
ATOM	41447	CE1	TYR	H	58	135.592	128.809	-41.417	1.00	47.16	C	ATOM	41497	N	LYS	H	64	138.258	136.130	-22.712	1.00	39.96	N



ATOM	41498	CA	LYS H	64	138.181	136.958	-21.510	1.00	39.96	C	ATOM	41548	CZ	ARG H	69	150.676	137.087	-12.889	1.00	80.97	C
ATOM	41499	C	LYS H	64	139.341	136.661	-20.560	1.00	39.96	C	ATOM	41549	NH1	ARG H	69	150.638	136.549	-11.678	1.00	80.97	N
ATOM	41500	O	LYS H	64	139.710	135.513	-20.367	1.00	39.96	O	ATOM	41550	NH2	ARG H	69	151.585	136.677	-13.770	1.00	80.97	N
ATOM	41501	CB	LYS H	64	136.833	136.657	-20.853	1.00	44.53	C	ATOM	41551	N	GLN H	70	150.870	143.041	-11.196	1.00	60.26	N
ATOM	41502	CG	LYS H	64	136.501	137.301	-19.545	1.00	44.53	C	ATOM	41552	CA	GLN H	70	152.020	143.762	-10.650	1.00	60.26	C
ATOM	41503	CD	LYS H	64	135.047	136.960	-19.271	1.00	44.53	C	ATOM	41553	C	GLN H	70	153.288	142.934	-10.766	1.00	60.26	C
ATOM	41504	CE	LYS H	64	134.587	137.429	-17.912	1.00	44.53	C	ATOM	41554	O	GLN H	70	153.241	141.750	-11.092	1.00	60.26	O
ATOM	41505	NZ	LYS H	64	133.178	137.001	-17.672	1.00	44.53	N	ATOM	41555	CB	GLN H	70	151.795	144.086	-9.170	1.00	89.59	C
ATOM	41506	N	TYR H	65	139.915	137.697	-19.965	1.00	32.72	N	ATOM	41556	CG	GLN H	70	150.528	144.856	-8.855	1.00	89.59	C
ATOM	41507	CA	TYR H	65	141.046	137.513	-19.070	1.00	32.72	C	ATOM	41557	CD	GLN H	70	150.499	146.213	-9.514	1.00	89.59	C
ATOM	41508	C	TYR H	65	140.882	138.349	-17.828	1.00	32.72	C	ATOM	41558	OE1	GLN H	70	151.475	146.961	-9.456	1.00	89.59	O
ATOM	41509	O	TYR H	65	139.993	139.192	-17.760	1.00	32.72	O	ATOM	41559	NE2	GLN H	70	149.374	146.546	-10.138	1.00	89.59	N
ATOM	41510	CB	TYR H	65	142.349	137.925	-19.761	1.00	33.59	C	ATOM	41560	N	GLY H	71	154.419	143.567	-10.473	1.00	70.90	N
ATOM	41511	CG	TYR H	65	142.490	137.353	-21.142	1.00	33.59	C	ATOM	41561	CA	GLY H	71	155.700	142.886	-10.534	1.00	70.90	C
ATOM	41512	CD1	TYR H	65	141.881	137.962	-22.237	1.00	33.59	C	ATOM	41562	C	GLY H	71	156.035	142.423	-11.932	1.00	70.90	C
ATOM	41513	CD2	TYR H	65	143.169	136.160	-21.352	1.00	33.59	C	ATOM	41563	O	GLY H	71	155.381	142.826	-12.893	1.00	70.90	O
ATOM	41514	CE1	TYR H	65	141.941	137.391	-23.511	1.00	33.59	C	ATOM	41564	N	PRO H	72	157.067	141.585	-12.085	1.00	59.74	N
ATOM	41515	CE2	TYR H	65	143.233	135.578	-22.629	1.00	33.59	C	ATOM	41565	CA	PRO H	72	157.454	141.084	-13.407	1.00	59.74	C
ATOM	41516	CZ	TYR H	65	142.613	136.203	-23.692	1.00	33.59	C	ATOM	41566	C	PRO H	72	156.343	140.241	-14.008	1.00	59.74	C
ATOM	41517	OH	TYR H	65	142.647	135.616	-24.918	1.00	33.59	O	ATOM	41567	O	PRO H	72	155.560	139.626	-13.283	1.00	59.74	O
ATOM	41518	N	GLY H	66	141.750	138.114	-16.852	1.00	47.73	N	ATOM	41568	CB	PRO H	72	158.717	140.281	-13.114	1.00	23.40	C
ATOM	41519	CA	GLY H	66	141.698	138.880	-15.628	1.00	47.73	C	ATOM	41569	CG	PRO H	72	158.555	139.861	-11.683	1.00	23.40	C
ATOM	41520	C	GLY H	66	142.334	140.225	-15.907	1.00	47.73	C	ATOM	41570	CD	PRO H	72	157.998	141.108	-11.052	1.00	23.40	C
ATOM	41521	O	GLY H	66	142.536	140.575	-17.071	1.00	47.73	O	ATOM	41571	N	ASP H	73	156.277	140.208	-15.331	1.00	61.86	N
ATOM	41522	N	PRO H	67	142.643	141.021	-14.874	1.00	49.06	N	ATOM	41572	CA	ASP H	73	155.230	139.454	-16.026	1.00	61.86	C
ATOM	41523	CA	PRO H	67	143.259	142.308	-15.159	1.00	49.06	C	ATOM	41573	C	ASP H	73	153.842	139.927	-15.615	1.00	61.86	C
ATOM	41524	C	PRO H	67	144.774	142.169	-15.201	1.00	49.06	C	ATOM	41574	O	ASP H	73	153.158	139.301	-14.802	1.00	61.86	O
ATOM	41525	O	PRO H	67	145.322	141.114	-14.873	1.00	49.06	O	ATOM	41575	CB	ASP H	73	155.329	137.948	-15.764	1.00	52.93	C
ATOM	41526	CB	PRO H	67	142.808	143.144	-13.981	1.00	22.38	C	ATOM	41576	CG	ASP H	73	154.332	137.150	-16.599	1.00	52.93	C
ATOM	41527	CG	PRO H	67	142.897	142.195	-12.874	1.00	22.38	C	ATOM	41577	OD1	ASP H	73	154.278	135.909	-16.458	1.00	52.93	O
ATOM	41528	CD	PRO H	67	142.191	140.984	-13.470	1.00	22.38	C	ATOM	41578	OD2	ASP H	73	153.603	137.772	-17.403	1.00	52.93	O
ATOM	41529	N	ARG H	68	145.432	143.251	-15.602	1.00	31.04	N	ATOM	41579	N	PRO H	74	153.410	141.047	-16.189	1.00	50.64	N
ATOM	41530	CA	ARG H	68	146.886	143.322	-15.677	1.00	31.04	C	ATOM	41580	CA	PRO H	74	152.108	141.657	-15.928	1.00	50.64	C
ATOM	41531	C	ARG H	68	147.421	143.111	-14.271	1.00	31.04	C	ATOM	41581	C	PRO H	74	150.971	140.912	-16.618	1.00	50.64	C
ATOM	41532	O	ARG H	68	146.722	143.398	-13.311	1.00	31.04	O	ATOM	41582	O	PRO H	74	149.836	141.378	-16.624	1.00	50.64	O
ATOM	41533	CB	ARG H	68	147.288	144.698	-16.196	1.00	68.02	C	ATOM	41583	CB	PRO H	74	152.284	143.057	-16.494	1.00	47.35	C
ATOM	41534	CG	ARG H	68	148.757	144.879	-16.473	1.00	68.02	C	ATOM	41584	CG	PRO H	74	153.148	142.793	-17.706	1.00	47.35	C
ATOM	41535	CD	ARG H	68	148.958	146.069	-17.397	1.00	68.02	C	ATOM	41585	CD	PRO H	74	154.191	141.859	-17.141	1.00	47.35	C
ATOM	41536	NE	ARG H	68	150.354	146.259	-17.758	1.00	68.02	N	ATOM	41586	N	ARG H	75	151.271	139.763	-17.214	1.00	45.38	N
ATOM	41537	CZ	ARG H	68	151.310	146.531	-16.881	1.00	68.02	C	ATOM	41587	CA	ARG H	75	150.236	139.015	-17.904	1.00	45.38	C
ATOM	41538	NH1	ARG H	68	151.017	146.645	-15.592	1.00	68.02	N	ATOM	41588	C	ARG H	75	149.072	138.635	-17.013	1.00	45.38	C
ATOM	41539	NH2	ARG H	68	152.557	146.689	-17.296	1.00	68.02	N	ATOM	41589	O	ARG H	75	149.230	138.061	-15.940	1.00	45.38	O
ATOM	41540	N	ARG H	69	148.645	142.613	-14.138	1.00	42.88	N	ATOM	41590	CB	ARG H	75	150.811	137.779	-18.580	1.00	45.25	C
ATOM	41541	CA	ARG H	69	149.205	142.368	-12.815	1.00	42.88	C	ATOM	41591	CG	ARG H	75	151.284	138.056	-19.991	1.00	45.25	C
ATOM	41542	C	ARG H	69	150.428	143.207	-12.444	1.00	42.88	C	ATOM	41592	CD	ARG H	75	151.782	136.791	-20.634	1.00	45.25	C
ATOM	41543	O	ARG H	69	150.955	143.977	-13.258	1.00	42.88	O	ATOM	41593	CE	ARG H	75	152.891	136.239	-19.873	1.00	45.25	N
ATOM	41544	CB	ARG H	69	149.549	140.889	-12.659	1.00	80.97	C	ATOM	41594	NZ	ARG H	75	153.485	135.091	-20.158	1.00	45.25	C
ATOM	41545	CG	ARG H	69	148.355	139.954	-12.717	1.00	80.97	C	ATOM	41595	NH1	ARG H	75	153.067	134.375	-21.195	1.00	45.25	N
ATOM	41546	CD	ARG H	69	148.776	138.554	-12.320	1.00	80.97	C	ATOM	41596	NH2	ARG H	75	154.489	134.662	-19.409	1.00	45.25	N
ATOM	41547	NE	ARG H	69	149.807	138.038	-13.216	1.00	80.97	N	ATOM	41597	N	PRO H	76	147.869	138.949	-17.474	1.00	34.11	N



Table 1: Sheet 418/521

ATOM	41598	CA	PRO H	76	146.601	138.694	-16.797	1.00	34.11	C	ATOM	41648	CA	HIS H	82	141.757	124.790	-17.490	1.00	40.41	C
ATOM	41599	C	PRO H	76	146.387	137.231	-16.448	1.00	34.11	C	ATOM	41649	C	HIS H	82	140.659	124.581	-18.498	1.00	40.41	C
ATOM	41600	O	PRO H	76	146.814	136.349	-17.191	1.00	34.11	O	ATOM	41650	O	HIS H	82	139.784	125.420	-18.639	1.00	40.41	O
ATOM	41601	CB	PRO H	76	145.559	133.169	-17.817	1.00	23.82	C	ATOM	41651	CB	HIS H	82	141.496	123.919	-16.285	1.00	46.15	C
ATOM	41602	CG	PRO H	76	146.318	140.084	-18.708	1.00	23.82	C	ATOM	41652	CG	HIS H	82	141.722	122.470	-16.522	1.00	46.15	C
ATOM	41603	CD	PRO H	76	147.638	139.412	-18.846	1.00	23.82	C	ATOM	41653	ND1	HIS H	82	142.981	121.910	-16.536	1.00	46.15	N
ATOM	41604	N	GLU H	77	145.721	136.986	-15.322	1.00	36.79	N	ATOM	41654	CD2	HIS H	82	140.851	121.452	-16.710	1.00	46.15	C
ATOM	41605	CA	GLU H	77	145.387	135.628	-14.912	1.00	36.79	C	ATOM	41655	CE1	HIS H	82	142.876	120.607	-16.720	1.00	46.15	C
ATOM	41606	C	GLU H	77	144.312	135.181	-15.889	1.00	36.79	C	ATOM	41656	NE2	HIS H	82	141.594	120.304	-16.828	1.00	46.15	N
ATOM	41607	O	GLU H	77	143.456	135.976	-16.266	1.00	36.79	O	ATOM	41657	N	ILE H	83	140.699	123.453	-19.187	1.00	30.74	N
ATOM	41608	CB	GLU H	77	144.804	135.609	-13.507	1.00	73.07	C	ATOM	41658	CA	ILE H	83	139.695	123.102	-20.183	1.00	30.74	C
ATOM	41609	CG	GLU H	77	144.249	134.261	-13.127	1.00	73.07	C	ATOM	41659	C	ILE H	83	140.229	121.875	-20.912	1.00	30.74	C
ATOM	41610	CD	GLU H	77	143.719	134.230	-11.716	1.00	73.07	C	ATOM	41660	O	ILE H	83	140.961	121.997	-21.892	1.00	30.74	O
ATOM	41611	OE1	GLU H	77	144.308	134.907	-10.848	1.00	73.07	O	ATOM	41661	CB	ILE H	83	139.426	124.274	-21.183	1.00	20.59	C
ATOM	41612	OE2	GLU H	77	142.726	133.516	-11.465	1.00	73.07	O	ATOM	41662	CG1	ILE H	83	138.357	123.850	-22.190	1.00	20.59	C
ATOM	41613	N	GLN H	78	144.347	133.925	-16.313	1.00	53.72	N	ATOM	41663	CG2	ILE H	83	140.702	124.700	-21.898	1.00	20.59	C
ATOM	41614	CA	GLN H	78	143.339	133.452	-17.253	1.00	53.72	C	ATOM	41664	CD1	ILE H	83	137.949	124.947	-23.131	1.00	20.59	C
ATOM	41615	C	GLN H	78	142.022	133.274	-16.520	1.00	53.72	C	ATOM	41665	N	ARG H	84	139.859	120.693	-20.414	1.00	37.34	N
ATOM	41616	O	GLN H	78	141.997	133.106	-15.300	1.00	53.72	O	ATOM	41666	CA	ARG H	84	140.323	119.413	-20.955	1.00	37.34	C
ATOM	41617	CB	GLN H	78	143.749	132.112	-17.847	1.00	48.98	C	ATOM	41667	C	ARG H	84	139.238	118.475	-21.513	1.00	37.34	C
ATOM	41618	CG	GLN H	78	145.076	132.121	-18.566	1.00	48.98	C	ATOM	41668	O	ARG H	84	138.219	118.258	-20.866	1.00	37.34	O
ATOM	41619	CD	GLN H	78	144.988	132.700	-19.957	1.00	48.98	C	ATOM	41669	CB	ARG H	84	141.103	118.682	-19.855	1.00	79.86	C
ATOM	41620	OE1	GLN H	78	143.982	132.531	-20.642	1.00	48.98	C	ATOM	41670	CG	ARG H	84	141.940	117.536	-20.354	1.00	79.86	C
ATOM	41621	NE2	GLN H	78	146.055	133.367	-20.396	1.00	48.98	N	ATOM	41671	CD	ARG H	84	141.515	116.221	-19.753	1.00	79.86	C
ATOM	41622	N	VAL H	79	140.926	133.328	-17.265	1.00	62.49	N	ATOM	41672	NE	ARG H	84	141.722	116.191	-18.314	1.00	79.86	N
ATOM	41623	CA	VAL H	79	139.617	133.118	-16.670	1.00	62.49	C	ATOM	41673	NH1	ARG H	84	141.920	115.074	-17.621	1.00	79.86	C
ATOM	41624	C	VAL H	79	139.410	131.626	-16.845	1.00	62.49	C	ATOM	41674	NH2	ARG H	84	141.939	113.902	-18.241	1.00	79.86	N
ATOM	41625	O	VAL H	79	138.758	130.973	-16.026	1.00	62.49	O	ATOM	41675	NH2	ARG H	84	142.105	115.128	-16.310	1.00	79.86	N
ATOM	41626	CB	VAL H	79	138.532	133.876	-17.419	1.00	42.37	C	ATOM	41676	N	ARG H	85	139.464	117.910	-22.701	1.00	51.33	N
ATOM	41627	CG1	VAL H	79	137.214	133.726	-16.722	1.00	42.37	C	ATOM	41677	CA	ARG H	85	138.502	116.977	-23.295	1.00	51.33	C
ATOM	41628	CG2	VAL H	79	138.908	135.324	-17.509	1.00	42.37	C	ATOM	41678	C	ARG H	85	138.520	115.680	-22.523	1.00	51.33	C
ATOM	41629	N	ILE H	80	139.987	131.105	-17.930	1.00	26.85	N	ATOM	41679	O	ARG H	85	139.571	115.242	-22.051	1.00	51.33	O
ATOM	41630	CA	ILE H	80	139.942	129.684	-18.244	1.00	26.85	C	ATOM	41680	CB	ARG H	85	138.836	116.658	-24.743	1.00	35.22	C
ATOM	41631	C	ILE H	80	141.290	129.092	-17.884	1.00	26.85	C	ATOM	41681	CG	ARG H	85	137.712	117.039	-25.678	1.00	35.22	C
ATOM	41632	O	ILE H	80	142.158	128.966	-18.745	1.00	26.85	O	ATOM	41682	CD	ARG H	85	137.138	115.875	-26.448	1.00	35.22	C
ATOM	41633	CB	ILE H	80	139.717	129.438	-19.732	1.00	12.32	C	ATOM	41683	NE	ARG H	85	135.710	115.748	-26.203	1.00	35.22	N
ATOM	41634	CG1	ILE H	80	138.304	129.881	-20.128	1.00	12.32	C	ATOM	41684	C2	ARG H	85	134.832	115.363	-27.119	1.00	35.22	C
ATOM	41635	CG2	ILE H	80	139.939	127.972	-20.039	1.00	12.32	C	ATOM	41685	NH1	ARG H	85	135.240	115.082	-28.351	1.00	35.22	N
ATOM	41636	CD1	ILE H	80	137.895	129.488	-21.550	1.00	12.32	C	ATOM	41686	NH2	ARG H	85	133.550	115.223	-26.795	1.00	35.22	N
ATOM	41637	N	HIS H	81	141.476	128.748	-16.614	1.00	40.43	N	ATOM	41687	N	ILE H	86	137.362	115.048	-22.408	1.00	43.14	N
ATOM	41638	CA	HIS H	81	142.739	128.178	-16.175	1.00	40.43	C	ATOM	41688	CA	ILE H	86	137.276	113.808	-21.662	1.00	43.14	C
ATOM	41639	C	HIS H	81	142.883	126.781	-16.734	1.00	40.43	C	ATOM	41689	C	ILE H	86	136.781	112.675	-22.528	1.00	43.14	O
ATOM	41640	O	HIS H	81	143.992	126.273	-16.892	1.00	40.43	O	ATOM	41690	O	ILE H	86	137.525	111.749	-22.844	1.00	43.14	O
ATOM	41641	CB	HIS H	81	142.802	128.033	-14.662	1.00	52.86	C	ATOM	41691	CB	ILE H	86	136.362	113.982	-20.467	1.00	31.83	C
ATOM	41642	CG	HIS H	81	142.532	129.289	-13.908	1.00	52.86	C	ATOM	41692	CG1	ILE H	86	137.031	114.905	-19.458	1.00	31.83	C
ATOM	41643	ND1	HIS H	81	141.312	129.926	-13.939	1.00	52.86	N	ATOM	41693	CG2	ILE H	86	136.055	112.635	-19.856	1.00	31.83	C
ATOM	41644	CD2	HIS H	81	143.304	129.990	-13.045	1.00	52.86	C	ATOM	41694	CD1	ILE H	86	136.169	115.223	-18.311	1.00	31.83	C
ATOM	41645	CE1	HIS H	81	141.342	130.965	-13.124	1.00	52.86	C	ATOM	41695	N	SER H	87	135.510	112.716	-22.883	1.00	25.24	N
ATOM	41646	NE2	HIS H	81	142.539	131.026	-12.569	1.00	52.86	N	ATOM	41696	CA	SER H	87	135.004	111.691	-23.764	1.00	25.24	C
ATOM	41647	N	HIS H	82	141.754	126.161	-17.035	1.00	40.41	N	ATOM	41697	C	SER H	87	135.778	112.008	-25.050	1.00	25.24	C



ATOM	41698	O	SER	H	87	135.976	113.170	-25.383	1.00	25.24	O	ATOM	41748	CG1	VAL	H	93	133.497	109.473	-19.410	1.00	13.99	C
ATOM	41699	CB	SER	H	87	133.492	111.863	-23.967	1.00	22.91	C	ATOM	41749	CG2	VAL	H	93	135.200	108.428	-20.915	1.00	13.99	C
ATOM	41700	OG	SER	H	87	132.965	110.882	-24.847	1.00	22.91	O	ATOM	41750	N	TYR	H	94	130.642	108.019	-20.656	1.00	41.19	N
ATOM	41701	N	LYS	H	88	136.272	110.989	-25.736	1.00	34.24	N	ATOM	41751	CA	TYR	H	94	129.296	108.388	-20.225	1.00	41.19	C
ATOM	41702	CA	LYS	H	88	136.993	111.203	-26.987	1.00	34.24	C	ATOM	41752	C	TYR	H	94	129.124	108.192	-18.730	1.00	41.19	C
ATOM	41703	C	LYS	H	88	136.691	109.977	-27.791	1.00	34.24	C	ATOM	41753	O	TYR	H	94	129.736	107.303	-18.152	1.00	41.19	C
ATOM	41704	O	LYS	H	88	136.405	108.917	-27.228	1.00	34.24	O	ATOM	41754	CB	TYR	H	94	128.257	107.545	-20.937	1.00	35.68	C
ATOM	41705	CB	LYS	H	88	138.509	111.264	-26.801	1.00	31.75	C	ATOM	41755	CG	TYR	H	94	128.522	107.369	-22.392	1.00	35.68	C
ATOM	41706	CD	LYS	H	88	138.984	111.777	-25.471	1.00	31.75	C	ATOM	41756	CD1	TYR	H	94	129.125	106.208	-22.880	1.00	35.68	C
ATOM	41707	CE	LYS	H	88	140.381	112.342	-25.620	1.00	31.75	C	ATOM	41757	CD2	TYR	H	94	128.142	108.344	-23.295	1.00	35.68	C
ATOM	41708	CE	LYS	H	88	141.161	112.295	-24.328	1.00	31.75	C	ATOM	41758	CE1	TYR	H	94	129.333	106.025	-24.248	1.00	35.68	C
ATOM	41709	NZ	LYS	H	88	141.367	110.866	-23.970	1.00	31.75	N	ATOM	41759	CE2	TYR	H	94	128.347	108.177	-24.658	1.00	35.68	C
ATOM	41710	N	PRO	H	89	136.745	110.096	-29.118	1.00	29.40	N	ATOM	41760	CZ	TYR	H	94	128.937	107.019	-25.127	1.00	35.68	C
ATOM	41711	CA	PRO	H	89	136.474	108.959	-30.010	1.00	29.40	C	ATOM	41761	OH	TYR	H	94	129.096	106.876	-26.480	1.00	35.68	O
ATOM	41712	C	PRO	H	89	137.391	107.821	-29.596	1.00	29.40	C	ATOM	41762	N	VAL	H	95	128.286	109.021	-18.114	1.00	44.23	N
ATOM	41713	O	PRO	H	89	138.512	108.060	-29.141	1.00	29.40	O	ATOM	41763	CA	VAL	H	95	128.039	108.914	-16.681	1.00	44.23	C
ATOM	41714	CB	PRO	H	89	136.798	109.517	-31.389	1.00	12.82	C	ATOM	41764	C	VAL	H	95	126.569	108.975	-16.278	1.00	44.23	C
ATOM	41715	CG	PRO	H	89	137.741	110.706	-31.087	1.00	12.82	C	ATOM	41765	O	VAL	H	95	125.760	109.654	-16.912	1.00	44.23	C
ATOM	41716	CD	PRO	H	89	137.148	111.296	-29.863	1.00	12.82	C	ATOM	41766	CB	VAL	H	95	128.761	110.019	-15.889	1.00	28.32	C
ATOM	41717	N	GLY	H	90	136.939	106.585	-29.719	1.00	53.58	N	ATOM	41767	CG1	VAL	H	95	130.260	109.846	-15.988	1.00	28.32	C
ATOM	41718	CA	GLY	H	90	137.812	105.510	-29.281	1.00	53.58	C	ATOM	41768	CG2	VAL	H	95	128.325	111.375	-16.407	1.00	28.32	C
ATOM	41719	C	GLY	H	90	138.194	105.710	-27.815	1.00	53.58	O	ATOM	41769	N	GLY	H	96	126.241	108.245	-15.216	1.00	47.26	N
ATOM	41720	O	GLY	H	90	139.372	105.736	-27.444	1.00	53.58	C	ATOM	41770	CA	GLY	H	96	124.892	108.256	-14.695	1.00	47.26	C
ATOM	41721	N	ARG	H	91	137.152	105.887	-27.005	1.00	47.71	N	ATOM	41771	C	GLY	H	96	124.761	109.546	-13.905	1.00	47.26	C
ATOM	41722	CA	ARG	H	91	137.193	106.066	-25.558	1.00	47.71	C	ATOM	41772	O	GLY	H	96	125.760	110.198	-13.602	1.00	47.26	O
ATOM	41723	C	ARG	H	91	136.127	107.037	-25.116	1.00	47.71	C	ATOM	41773	N	VAL	H	97	123.542	109.925	-13.559	1.00	66.77	N
ATOM	41724	O	ARG	H	91	136.396	108.043	-24.453	1.00	47.71	O	ATOM	41774	CA	VAL	H	97	123.344	111.170	-12.832	1.00	66.77	C
ATOM	41725	CB	ARG	H	91	138.537	106.543	-25.059	1.00	47.85	C	ATOM	41775	C	VAL	H	97	123.973	111.108	-11.444	1.00	66.77	C
ATOM	41726	CG	ARG	H	91	139.072	105.688	-23.905	1.00	47.85	C	ATOM	41776	O	VAL	H	97	124.196	112.135	-11.806	1.00	66.77	O
ATOM	41727	CD	ARG	H	91	138.219	105.674	-22.637	1.00	47.85	C	ATOM	41777	CB	VAL	H	97	121.835	111.512	-12.754	1.00	45.58	C
ATOM	41728	NE	ARG	H	91	139.091	105.374	-21.501	1.00	47.85	N	ATOM	41778	CG1	VAL	H	97	121.099	110.404	-12.069	1.00	45.58	C
ATOM	41729	CZ	ARG	H	91	138.681	105.088	-20.270	1.00	47.85	C	ATOM	41779	CG2	VAL	H	97	121.628	112.823	-12.052	1.00	45.58	C
ATOM	41730	NH1	ARG	H	91	137.386	105.059	-19.987	1.00	47.85	N	ATOM	41780	N	LYS	H	98	124.280	109.900	-10.988	1.00	34.91	N
ATOM	41731	NH2	ARG	H	91	139.569	104.809	-19.325	1.00	47.85	N	ATOM	41781	CA	LYS	H	98	124.907	109.728	-9.681	1.00	34.91	C
ATOM	41732	N	ARG	H	92	134.906	106.710	-25.510	1.00	34.61	N	ATOM	41782	C	LYS	H	98	126.441	109.794	-9.804	1.00	34.91	C
ATOM	41733	CA	ARG	H	92	133.737	107.479	-25.157	1.00	34.61	C	ATOM	41783	O	LYS	H	98	127.148	109.886	-8.801	1.00	34.91	O
ATOM	41734	C	ARG	H	92	133.523	107.359	-23.640	1.00	34.61	C	ATOM	41784	CB	LYS	H	98	124.530	108.375	-9.079	1.00	103.26	C
ATOM	41735	O	ARG	H	92	133.762	106.305	-23.042	1.00	34.61	O	ATOM	41785	CG	LYS	H	98	123.051	108.064	-9.042	1.00	103.26	C
ATOM	41736	CB	ARG	H	92	132.532	106.911	-25.898	1.00	36.61	C	ATOM	41786	CD	LYS	H	98	122.860	106.574	-8.776	1.00	103.26	C
ATOM	41737	CG	ARG	H	92	131.888	107.870	-26.864	1.00	36.61	C	ATOM	41787	CE	LYS	H	98	121.399	106.146	-8.831	1.00	103.26	C
ATOM	41738	CD	ARG	H	92	132.750	108.148	-28.060	1.00	36.61	C	ATOM	41788	NZ	LYS	H	98	120.624	106.600	-7.643	1.00	103.26	N
ATOM	41739	NE	ARG	H	92	132.532	109.519	-28.502	1.00	36.61	N	ATOM	41789	N	GLU	H	99	126.944	109.741	-11.037	1.00	69.21	N
ATOM	41740	CZ	ARG	H	92	132.798	109.956	-29.723	1.00	36.61	C	ATOM	41790	CA	GLU	H	99	128.383	109.758	-11.298	1.00	69.21	C
ATOM	41741	NH1	ARG	H	92	133.287	109.126	-30.631	1.00	36.61	N	ATOM	41791	C	GLU	H	99	128.915	111.070	-11.894	1.00	69.21	C
ATOM	41742	NH2	ARG	H	92	132.585	111.224	-30.031	1.00	36.61	N	ATOM	41792	O	GLU	H	99	130.102	111.185	-12.190	1.00	69.21	O
ATOM	41743	N	VAL	H	93	133.070	108.436	-23.015	1.00	52.88	N	ATOM	41793	CB	GLU	H	99	128.739	108.611	-12.239	1.00	93.44	C
ATOM	41744	CA	VAL	H	93	132.840	108.403	-21.583	1.00	52.88	C	ATOM	41794	CG	GLU	H	99	128.315	107.238	-11.759	1.00	93.44	C
ATOM	41745	C	VAL	H	93	131.473	108.916	-21.187	1.00	52.88	C	ATOM	41795	CD	GLU	H	99	128.504	106.171	-12.830	1.00	93.44	C
ATOM	41746	O	VAL	H	93	131.180	110.102	-21.355	1.00	52.88	O	ATOM	41796	OE1	GLU	H	99	127.816	106.239	-13.876	1.00	93.44	O
ATOM	41747	CB	VAL	H	93	133.913	109.204	-20.857	1.00	13.99	C	ATOM	41797	OE2	GLU	H	99	129.345	105.264	-12.632	1.00	93.44	O



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ATOM	41798	N	ILE H 100	128.043	112.054	-12.084	1.00	49.01	N	ATOM	41848	CD	ARG H 105	136.678	119.659	-3.550	1.00	78.40	C
ATOM	41799	CA	ILE H 100	128.456	113.333	-12.645	1.00	49.01	C	ATOM	41849	NE	ARG H 105	137.058	118.901	-2.363	1.00	78.40	N
ATOM	41800	C	ILE H 100	129.465	113.953	-11.694	1.00	49.01	C	ATOM	41850	CZ	ARG H 105	136.249	118.659	-1.339	1.00	78.40	C
ATOM	41801	O	ILE H 100	129.124	114.351	-10.588	1.00	49.01	O	ATOM	41851	NH1	ARG H 105	135.004	119.115	-1.350	1.00	78.40	N
ATOM	41802	CB	ILE H 100	127.259	114.278	-12.793	1.00	56.81	C	ATOM	41852	NH2	ARG H 105	136.691	117.964	-0.300	1.00	78.40	N
ATOM	41803	CG1	ILE H 100	126.119	113.549	-13.501	1.00	56.81	C	ATOM	41853	N	GLY H 106	133.546	122.315	-6.996	1.00	36.61	N
ATOM	41804	CG2	ILE H 100	127.648	115.480	-13.612	1.00	56.81	C	ATOM	41854	CA	GLY H 106	132.447	123.214	-7.285	1.00	36.61	C
ATOM	41805	CD1	ILE H 100	124.840	114.333	-13.579	1.00	56.81	C	ATOM	41855	C	GLY H 106	132.804	124.497	-8.004	1.00	36.61	O
ATOM	41806	N	PRO H 101	130.731	114.044	-12.113	1.00	50.16	N	ATOM	41856	O	GLY H 106	131.935	125.083	-8.637	1.00	36.61	C
ATOM	41807	CA	PRO H 101	131.781	114.620	-11.268	1.00	50.16	C	ATOM	41857	N	LEU H 107	134.057	124.939	-7.921	1.00	31.04	N
ATOM	41808	C	PRO H 101	131.520	116.000	-10.692	1.00	50.16	C	ATOM	41858	CA	LEU H 107	134.465	126.177	-8.587	1.00	31.04	C
ATOM	41809	O	PRO H 101	130.662	116.736	-11.175	1.00	50.16	O	ATOM	41859	C	LEU H 107	134.665	126.027	-10.091	1.00	31.04	C
ATOM	41810	CB	PRO H 101	133.004	114.601	-12.179	1.00	50.90	C	ATOM	41860	O	LEU H 107	134.851	127.012	-10.803	1.00	31.04	O
ATOM	41811	CG	PRO H 101	132.411	114.593	-13.572	1.00	50.90	C	ATOM	41861	CB	LEU H 107	135.754	126.714	-7.975	1.00	34.90	C
ATOM	41812	CD	PRO H 101	131.272	113.644	-13.421	1.00	50.90	C	ATOM	41862	CG	LEU H 107	135.761	126.799	-6.457	1.00	34.90	C
ATOM	41813	N	ARG H 102	132.254	116.323	-9.630	1.00	58.15	N	ATOM	41863	CD1	LEU H 107	136.983	127.579	-5.996	1.00	34.90	C
ATOM	41814	CA	ARG H 102	132.171	117.623	-8.977	1.00	58.15	C	ATOM	41864	CD2	LEU H 107	134.488	127.462	-5.994	1.00	34.90	C
ATOM	41815	C	ARG H 102	133.518	118.261	-9.256	1.00	58.15	C	ATOM	41865	N	GLY H 108	134.652	124.794	-10.571	1.00	48.67	N
ATOM	41816	O	ARG H 102	134.490	118.050	-8.534	1.00	58.15	O	ATOM	41866	CA	GLY H 108	134.816	124.575	-11.993	1.00	48.67	C
ATOM	41817	CB	ARG H 102	131.952	117.482	-7.471	1.00	164.45	C	ATOM	41867	C	GLY H 108	133.593	123.846	-12.494	1.00	48.67	C
ATOM	41818	CG	ARG H 102	130.508	117.227	-7.103	1.00	164.45	C	ATOM	41868	O	GLY H 108	132.749	123.440	-11.703	1.00	48.67	O
ATOM	41819	CD	ARG H 102	130.291	117.196	-5.601	1.00	164.45	C	ATOM	41869	N	ILE H 109	133.466	123.674	-13.797	1.00	41.90	N
ATOM	41820	NE	ARG H 102	128.871	117.062	-5.283	1.00	164.45	N	ATOM	41870	CA	ILE H 109	132.306	122.966	-14.280	1.00	41.90	C
ATOM	41821	CZ	ARG H 102	128.378	116.980	-4.051	1.00	164.45	C	ATOM	41871	C	ILE H 109	132.675	121.754	-15.110	1.00	41.90	C
ATOM	41822	NH1	ARG H 102	129.190	117.016	-3.003	1.00	164.45	N	ATOM	41872	O	ILE H 109	133.848	121.400	-15.255	1.00	41.90	O
ATOM	41823	NH2	ARG H 102	127.069	116.863	-3.868	1.00	164.45	N	ATOM	41873	CB	ILE H 109	132.038	124.056	-16.505	1.00	29.26	C
ATOM	41824	N	VAL H 103	133.569	119.029	-10.336	1.00	27.22	N	ATOM	41874	CG1	ILE H 109	131.253	125.182	-14.449	1.00	29.26	C
ATOM	41825	CA	VAL H 103	134.784	119.701	-10.775	1.00	27.22	C	ATOM	41875	CG2	ILE H 109	131.025	124.466	-17.525	1.00	29.26	C
ATOM	41826	C	VAL H 103	135.302	120.801	-9.859	1.00	27.22	C	ATOM	41876	CD1	ILE H 109	131.652	121.121	-15.653	1.00	41.78	N
ATOM	41827	O	VAL H 103	134.551	121.673	-9.420	1.00	27.22	O	ATOM	41877	N	ALA H 110	131.832	119.957	-16.480	1.00	41.78	C
ATOM	41828	CB	VAL H 103	134.575	120.309	-12.156	1.00	16.00	C	ATOM	41878	CA	ALA H 110	130.679	120.007	-17.451	1.00	41.78	C
ATOM	41829	CG1	VAL H 103	135.901	120.697	-12.745	1.00	16.00	C	ATOM	41879	C	ALA H 110	129.532	120.124	-17.048	1.00	41.78	O
ATOM	41830	CG2	VAL H 103	133.831	119.318	-13.043	1.00	16.00	C	ATOM	41880	O	ALA H 110	131.754	118.736	-15.644	1.00	12.21	C
ATOM	41831	N	ARG H 104	136.605	120.747	-9.599	1.00	53.35	N	ATOM	41881	CB	ALA H 110	130.965	119.930	-18.735	1.00	43.18	N
ATOM	41832	CA	ARG H 104	137.287	121.729	-8.764	1.00	53.35	C	ATOM	41882	N	ILE H 111	129.899	120.001	-19.710	1.00	43.18	C
ATOM	41833	C	ARG H 104	136.470	122.125	-7.548	1.00	53.35	C	ATOM	41883	CA	ILE H 111	129.484	118.629	-20.199	1.00	43.18	C
ATOM	41834	O	ARG H 104	136.231	123.312	-7.323	1.00	53.35	O	ATOM	41884	C	ILE H 111	130.286	117.910	-20.790	1.00	43.18	O
ATOM	41835	CB	ARG H 104	137.609	122.977	-9.590	1.00	63.00	C	ATOM	41885	O	ILE H 111	130.336	120.861	-20.895	1.00	22.62	C
ATOM	41836	CG	ARG H 104	139.080	123.176	-9.946	1.00	63.00	C	ATOM	41886	CB	ILE H 111	130.667	122.265	-20.399	1.00	22.62	C
ATOM	41837	CD	ARG H 104	139.793	123.886	-8.824	1.00	63.00	C	ATOM	41887	CG1	ILE H 111	129.258	120.862	-21.978	1.00	22.62	C
ATOM	41838	NE	ARG H 104	141.067	124.481	-9.228	1.00	63.00	N	ATOM	41888	CG2	ILE H 111	130.882	123.257	-21.509	1.00	22.62	C
ATOM	41839	CZ	ARG H 104	142.115	123.795	-9.671	1.00	63.00	C	ATOM	41889	CD1	ILE H 111	128.231	118.263	-19.946	1.00	38.32	N
ATOM	41840	NH1	ARG H 104	142.055	122.474	-9.786	1.00	63.00	N	ATOM	41890	N	LEU H 112	127.738	116.968	-20.386	1.00	38.32	C
ATOM	41841	NH2	ARG H 104	143.239	124.432	-9.964	1.00	63.00	N	ATOM	41891	CA	LEU H 112	126.829	117.160	-21.561	1.00	38.32	C
ATOM	41842	N	ARG H 105	136.048	121.127	-6.773	1.00	43.47	N	ATOM	41892	C	LEU H 112	126.382	118.271	-21.830	1.00	38.32	O
ATOM	41843	CA	ARG H 105	135.258	121.360	-5.565	1.00	43.47	C	ATOM	41893	O	LEU H 112	126.922	116.269	-19.306	1.00	33.52	C
ATOM	41844	C	ARG H 105	134.124	122.340	-5.803	1.00	43.47	C	ATOM	41894	CB	LEU H 112	127.401	116.174	-17.869	1.00	33.52	C
ATOM	41845	O	ARG H 105	133.792	123.125	-4.925	1.00	43.47	O	ATOM	41895	CG	LEU H 112	126.814	114.903	-17.271	1.00	33.52	C
ATOM	41846	CB	ARG H 105	136.144	121.904	-4.444	1.00	78.40	C	ATOM	41896	CD1	LEU H 112	128.916	116.118	-17.803	1.00	33.52	C
ATOM	41847	CG	ARG H 105	136.174	121.048	-3.207	1.00	78.40	C	ATOM	41897	CD2	LEU H 112						



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ATOM	41898	N	SER H 113	126.558	116.067	-22.262	1.00	32.06	N	ATOM	41948	O	THR H 120	125.177	120.352	-15.828	1.00	25.00	O
ATOM	41899	CA	SER H 113	125.632	116.083	-23.385	1.00	32.06	C	ATOM	41949	CB	THR H 120	126.830	123.146	-16.350	1.00	29.65	C
ATOM	41900	C	SER H 113	124.591	115.025	-23.018	1.00	32.06	C	ATOM	41950	OG1	THR H 120	125.892	123.276	-15.276	1.00	29.65	O
ATOM	41901	O	SER H 113	124.880	113.833	-23.009	1.00	32.06	C	ATOM	41951	CG2	THR H 120	126.622	124.274	-17.345	1.00	29.65	C
ATOM	41902	CB	SER H 113	126.337	115.715	-24.687	1.00	25.75	O	ATOM	41952	N	ASP H 121	127.333	120.335	-15.203	1.00	50.30	N
ATOM	41903	OG	SER H 113	125.423	115.694	-25.766	1.00	25.75	O	ATOM	41953	CA	ASP H 121	127.095	119.329	-14.176	1.00	50.30	C
ATOM	41904	N	THR H 114	123.385	115.478	-22.696	1.00	37.92	N	ATOM	41954	C	ASP H 121	125.958	119.723	-13.238	1.00	50.30	C
ATOM	41905	CA	THR H 114	122.296	114.599	-22.283	1.00	37.92	C	ATOM	41955	O	ASP H 121	125.111	118.902	-12.915	1.00	50.30	O
ATOM	41906	C	THR H 114	121.168	114.565	-23.295	1.00	37.92	C	ATOM	41956	CB	ASP H 121	128.394	118.998	-13.401	1.00	72.19	C
ATOM	41907	O	THR H 114	121.098	115.422	-24.170	1.00	37.92	O	ATOM	41957	CG	ASP H 121	129.129	120.230	-12.882	1.00	72.19	C
ATOM	41908	CB	THR H 114	121.724	115.093	-20.984	1.00	37.23	C	ATOM	41958	OD1	ASP H 121	129.142	121.265	-13.580	1.00	72.19	O
ATOM	41909	OG1	THR H 114	121.045	116.335	-21.218	1.00	37.23	C	ATOM	41959	OD2	ASP H 121	129.722	120.146	-11.777	1.00	72.19	O
ATOM	41910	CG2	THR H 114	122.854	115.328	-19.984	1.00	37.23	C	ATOM	41960	N	ARG H 122	125.906	120.980	-12.823	1.00	53.12	N
ATOM	41911	N	SER H 115	120.275	113.587	-23.178	1.00	55.54	N	ATOM	41961	CA	ARG H 122	124.825	121.392	-11.946	1.00	53.12	C
ATOM	41912	CA	SER H 115	119.157	113.516	-24.111	1.00	55.54	C	ATOM	41962	C	ARG H 122	123.478	121.280	-12.652	1.00	53.12	C
ATOM	41913	C	SER H 115	118.242	114.710	-23.853	1.00	55.54	C	ATOM	41963	O	ARG H 122	122.528	120.730	-12.097	1.00	53.12	O
ATOM	41914	O	SER H 115	117.239	114.897	-24.538	1.00	55.54	O	ATOM	41964	CB	ARG H 122	125.050	122.817	-11.458	1.00	82.83	C
ATOM	41915	CB	SER H 115	118.387	112.195	-23.970	1.00	53.86	C	ATOM	41965	CG	ARG H 122	126.361	124.281	-9.910	1.00	82.83	C
ATOM	41916	OG	SER H 115	117.725	112.076	-22.726	1.00	53.86	O	ATOM	41966	CD	ARG H 122	127.355	124.257	-8.839	1.00	82.83	N
ATOM	41917	N	LYS H 116	118.609	115.513	-22.855	1.00	44.09	N	ATOM	41967	NE	ARG H 122	127.481	126.547	-8.632	1.00	82.83	N
ATOM	41918	CA	LYS H 116	117.881	116.728	-22.510	1.00	44.09	C	ATOM	41968	CZ	ARG H 122	128.758	125.201	-7.285	1.00	82.83	N
ATOM	41919	C	LYS H 116	118.695	117.935	-22.957	1.00	44.09	C	ATOM	41969	NH1	ARG H 122	123.396	121.791	-13.875	1.00	37.91	N
ATOM	41920	O	LYS H 116	118.411	119.054	-22.531	1.00	44.09	O	ATOM	41970	NH2	ARG H 122	122.153	121.745	-14.642	1.00	37.91	C
ATOM	41921	CB	LYS H 116	117.663	116.846	-21.002	1.00	76.59	C	ATOM	41971	N	GLU H 123	121.662	120.307	-14.792	1.00	37.91	C
ATOM	41922	CG	LYS H 116	116.376	116.242	-20.484	1.00	76.59	C	ATOM	41972	CA	GLU H 123	120.481	120.007	-14.609	1.00	37.91	O
ATOM	41923	CD	LYS H 116	116.106	116.721	-19.066	1.00	76.59	C	ATOM	41973	C	GLU H 123	122.371	122.335	-16.035	1.00	88.53	C
ATOM	41924	CE	LYS H 116	114.760	116.238	-18.572	1.00	76.59	C	ATOM	41974	O	GLU H 123	122.534	123.833	-16.084	1.00	88.53	C
ATOM	41925	N2	LYS H 116	114.408	116.861	-17.269	1.00	76.59	N	ATOM	41975	CB	GLU H 123	123.016	124.304	-17.443	1.00	88.53	C
ATOM	41926	N	GLY H 117	119.718	117.702	-23.787	1.00	41.76	N	ATOM	41976	CG	GLU H 123	122.654	123.672	-18.460	1.00	88.53	O
ATOM	41927	CA	GLY H 117	120.566	118.782	-24.282	1.00	41.76	C	ATOM	41977	CD	GLU H 123	123.751	125.312	-17.500	1.00	88.53	O
ATOM	41928	C	GLY H 117	121.926	118.922	-23.609	1.00	41.76	C	ATOM	41978	OE1	GLU H 123	122.587	119.422	-15.140	1.00	45.50	N
ATOM	41929	O	GLY H 117	122.280	118.145	-22.724	1.00	41.76	O	ATOM	41979	OE2	GLU H 123	122.271	118.017	-15.339	1.00	45.50	C
ATOM	41930	N	VAL H 118	122.699	119.921	-24.022	1.00	40.25	N	ATOM	41980	N	ALA H 124	121.708	117.394	-14.068	1.00	45.50	C
ATOM	41931	CA	VAL H 118	124.023	120.133	-23.440	1.00	40.25	C	ATOM	41981	CA	ALA H 124	120.673	116.727	-14.089	1.00	45.50	O
ATOM	41932	C	VAL H 118	123.852	120.949	-22.174	1.00	40.25	C	ATOM	41982	C	ALA H 124	123.525	117.273	-15.781	1.00	40.79	C
ATOM	41933	O	VAL H 118	123.350	122.061	-22.236	1.00	40.25	O	ATOM	41983	O	ALA H 124	122.407	117.616	-12.962	1.00	49.62	N
ATOM	41934	CB	VAL H 118	124.966	120.907	-24.426	1.00	40.79	C	ATOM	41984	CB	ALA H 124	121.989	117.074	-11.693	1.00	49.62	C
ATOM	41935	CG1	VAL H 118	126.224	121.353	-23.717	1.00	40.79	C	ATOM	41985	N	ARG H 125	120.572	117.550	-11.400	1.00	49.62	C
ATOM	41936	CG2	VAL H 118	125.344	120.023	-25.605	1.00	40.79	C	ATOM	41986	CA	ARG H 125	119.717	116.760	-10.996	1.00	49.62	O
ATOM	41937	N	LEU H 119	124.254	120.405	-21.029	1.00	31.71	N	ATOM	41987	C	ARG H 125	122.954	117.510	-10.604	1.00	80.14	C
ATOM	41938	CA	LEU H 119	124.118	121.129	-19.762	1.00	31.71	C	ATOM	41988	O	ARG H 125	123.158	116.436	-9.574	1.00	80.14	C
ATOM	41939	C	LEU H 119	125.404	121.041	-18.971	1.00	31.71	C	ATOM	41989	CB	ARG H 125	124.428	116.654	-8.814	1.00	80.14	C
ATOM	41940	O	LEU H 119	126.313	120.293	-19.321	1.00	31.71	O	ATOM	41990	CG	ARG H 125	125.527	117.009	-9.704	1.00	80.14	N
ATOM	41941	CB	LEU H 119	123.002	120.539	-18.888	1.00	51.94	C	ATOM	41991	CD	ARG H 125	126.810	116.925	-9.365	1.00	80.14	C
ATOM	41942	CG	LEU H 119	121.897	119.667	-19.493	1.00	51.94	C	ATOM	41992	CE	ARG H 125	127.143	116.488	-8.153	1.00	80.14	N
ATOM	41943	CD1	LEU H 119	121.074	119.001	-18.387	1.00	51.94	C	ATOM	41993	NH1	ARG H 125	127.759	117.286	-10.225	1.00	80.14	N
ATOM	41944	CD2	LEU H 119	121.029	120.520	-20.392	1.00	51.94	C	ATOM	41994	NH2	ARG H 125	120.321	118.840	-11.613	1.00	61.32	N
ATOM	41945	N	THR H 120	125.471	121.808	-17.892	1.00	25.00	N	ATOM	41995	N	LYS H 126	118.990	119.385	-11.394	1.00	61.32	C
ATOM	41946	CA	THR H 120	126.636	121.798	-17.030	1.00	25.00	C	ATOM	41996	N	LYS H 126						
ATOM	41947	C	THR H 120	126.328	120.760	-15.966	1.00	25.00	C	ATOM	41997	CA	LYS H 126						



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ATOM	41998	C	LYS H 126	118.008	118.536	-12.196	1.00	61.32	C	ATOM	42048	CD2	LEU H 133	132.667	115.065	-18.229	1.00	31.13	C
ATOM	41999	O	LYS H 126	117.204	117.804	-11.627	1.00	61.32	O	ATOM	42049	N	ILE H 134	131.402	115.324	-22.178	1.00	51.30	N
ATOM	42000	CB	LYS H 126	118.918	120.840	-11.860	1.00	111.71	C	ATOM	42050	CA	ILE H 134	132.157	116.149	-23.121	1.00	51.30	C
ATOM	42001	CG	LYS H 126	117.520	121.432	-11.758	1.00	111.71	C	ATOM	42051	C	ILE H 134	133.473	116.748	-22.653	1.00	51.30	C
ATOM	42002	CD	LYS H 126	117.490	122.923	-12.067	1.00	111.71	C	ATOM	42052	O	ILE H 134	134.500	116.532	-23.279	1.00	51.30	O
ATOM	42003	CE	LYS H 126	116.102	123.499	-11.801	1.00	111.71	C	ATOM	42053	CB	ILE H 134	131.290	117.281	-23.627	1.00	39.16	C
ATOM	42004	NZ	LYS H 126	116.076	124.985	-11.878	1.00	111.71	N	ATOM	42054	CG1	ILE H 134	130.153	116.684	-24.449	1.00	39.16	C
ATOM	42005	N	LEU H 127	118.093	118.625	-13.520	1.00	37.30	N	ATOM	42055	CG2	ILE H 134	132.132	118.275	-24.414	1.00	39.16	C
ATOM	42006	CA	LEU H 127	117.229	117.864	-14.415	1.00	37.30	C	ATOM	42056	CD1	ILE H 134	128.934	117.555	-24.507	1.00	39.16	C
ATOM	42007	C	LEU H 127	117.367	116.357	-14.182	1.00	37.30	C	ATOM	42057	N	CYS H 135	133.445	117.525	-21.580	1.00	40.62	N
ATOM	42008	O	LEU H 127	116.753	115.553	-14.898	1.00	37.30	O	ATOM	42058	CA	CYS H 135	134.672	118.125	-21.087	1.00	40.62	C
ATOM	42009	CB	LEU H 127	117.588	118.164	-15.871	1.00	35.60	C	ATOM	42059	C	CYS H 135	134.635	118.621	-19.638	1.00	40.62	C
ATOM	42010	CG	LEU H 127	117.282	119.523	-16.498	1.00	35.60	C	ATOM	42060	O	CYS H 135	133.697	118.360	-18.892	1.00	40.62	O
ATOM	42011	CD1	LEU H 127	115.802	119.588	-16.795	1.00	35.60	C	ATOM	42061	CB	CYS H 135	135.101	119.263	-22.014	1.00	42.01	C
ATOM	42012	CD2	LEU H 127	117.723	120.669	-15.580	1.00	35.60	C	ATOM	42062	SG	CYS H 135	133.971	120.642	-22.070	1.00	42.01	S
ATOM	42013	N	GLY H 128	118.190	115.977	-13.203	1.00	41.54	N	ATOM	42063	N	GLU H 136	135.666	119.357	-19.257	1.00	50.18	N
ATOM	42014	CA	GLY H 128	118.406	114.571	-12.891	1.00	41.54	C	ATOM	42064	CA	GLU H 136	135.813	119.847	-17.900	1.00	50.18	C
ATOM	42015	C	GLY H 128	118.723	113.639	-14.056	1.00	41.54	C	ATOM	42065	O	GLU H 136	136.471	121.211	-18.011	1.00	50.18	C
ATOM	42016	O	GLY H 128	118.065	112.619	-14.234	1.00	41.54	O	ATOM	42066	C	GLU H 136	137.486	121.353	-18.680	1.00	50.18	O
ATOM	42017	N	VAL H 129	119.737	113.968	-14.850	1.00	68.91	N	ATOM	42067	CB	GLU H 136	136.705	118.851	-17.160	1.00	71.67	C
ATOM	42018	CA	VAL H 129	120.094	113.123	-15.985	1.00	68.91	C	ATOM	42068	CG	GLU H 136	137.364	119.322	-15.896	1.00	71.67	C
ATOM	42019	C	VAL H 129	121.599	112.997	-16.133	1.00	68.91	C	ATOM	42069	CD	GLU H 136	138.498	118.389	-15.465	1.00	71.67	C
ATOM	42020	O	VAL H 129	122.358	113.748	-15.525	1.00	68.91	O	ATOM	42070	OE1	GLU H 136	139.566	118.395	-16.119	1.00	71.67	O
ATOM	42021	CB	VAL H 129	119.540	113.688	-17.300	1.00	30.89	C	ATOM	42071	OE2	GLU H 136	138.318	117.642	-14.477	1.00	71.67	O
ATOM	42022	CG1	VAL H 129	118.019	113.759	-17.247	1.00	30.89	C	ATOM	42072	N	VAL H 137	135.900	122.221	-17.367	1.00	49.14	N
ATOM	42023	CG2	VAL H 129	120.127	115.058	-17.545	1.00	30.89	C	ATOM	42073	CA	VAL H 137	136.459	123.569	-17.445	1.00	49.14	C
ATOM	42024	N	GLY H 130	122.019	112.040	-16.953	1.00	46.50	N	ATOM	42074	C	VAL H 137	136.515	124.224	-16.087	1.00	49.14	C
ATOM	42025	CA	GLY H 130	123.434	111.826	-17.185	1.00	46.50	C	ATOM	42075	O	VAL H 137	135.591	124.058	-15.297	1.00	49.14	O
ATOM	42026	C	GLY H 130	123.702	111.819	-18.675	1.00	46.50	C	ATOM	42076	CB	VAL H 137	135.594	124.492	-18.313	1.00	36.34	C
ATOM	42027	O	GLY H 130	122.826	112.203	-19.452	1.00	46.50	O	ATOM	42077	CG1	VAL H 137	136.255	125.834	-18.434	1.00	36.34	C
ATOM	42028	N	GLY H 131	124.899	111.392	-19.078	1.00	64.83	N	ATOM	42078	CG2	VAL H 137	135.364	123.888	-19.670	1.00	36.34	C
ATOM	42029	CA	GLY H 131	125.230	111.344	-20.493	1.00	64.83	C	ATOM	42079	N	TRP H 138	137.587	124.967	-15.817	1.00	37.93	N
ATOM	42030	C	GLY H 131	126.702	111.550	-20.771	1.00	64.83	C	ATOM	42080	CA	TRP H 138	137.719	125.695	-14.554	1.00	37.93	C
ATOM	42031	O	GLY H 131	127.471	111.780	-19.844	1.00	64.83	O	ATOM	42081	C	TRP H 138	138.830	126.729	-14.515	1.00	37.93	C
ATOM	42032	N	GLU H 132	127.090	111.467	-22.044	1.00	43.74	N	ATOM	42082	O	TRP H 138	139.323	127.090	-15.600	1.00	37.93	O
ATOM	42033	CA	GLU H 132	128.485	111.652	-22.462	1.00	43.74	C	ATOM	42083	CB	TRP H 138	137.842	124.753	-13.341	1.00	43.89	C
ATOM	42034	C	GLU H 132	129.115	112.848	-21.766	1.00	43.74	C	ATOM	42084	CG	TRP H 138	138.781	123.596	-13.451	1.00	43.89	C
ATOM	42035	O	GLU H 132	128.543	113.936	-21.754	1.00	43.74	O	ATOM	42085	CD1	TRP H 138	138.452	122.278	-13.682	1.00	43.89	C
ATOM	42036	CB	GLU H 132	128.567	111.845	-23.974	1.00	57.05	C	ATOM	42086	CD2	TRP H 138	140.186	123.616	-13.223	1.00	43.89	C
ATOM	42037	CG	GLU H 132	129.973	111.752	-24.510	1.00	57.05	C	ATOM	42087	NE1	TRP H 138	139.573	121.478	-13.596	1.00	43.89	N
ATOM	42038	CD	GLU H 132	130.011	111.522	-26.006	1.00	57.05	C	ATOM	42088	CE2	TRP H 138	140.650	122.275	-13.316	1.00	43.89	C
ATOM	42039	OE1	GLU H 132	129.292	110.616	-26.493	1.00	57.05	O	ATOM	42089	CE3	TRP H 138	141.100	124.631	-12.950	1.00	43.89	C
ATOM	42040	OE2	GLU H 132	130.770	112.242	-26.695	1.00	57.05	O	ATOM	42090	C22	TRP H 138	141.973	121.935	-13.141	1.00	43.89	C
ATOM	42041	N	LEU H 133	130.297	112.634	-21.193	1.00	57.62	N	ATOM	42091	C23	TRP H 138	142.412	124.299	-12.780	1.00	43.89	C
ATOM	42042	CA	LEU H 133	131.018	113.667	-20.453	1.00	57.62	C	ATOM	42092	CH2	TRP H 138	142.844	122.957	-12.874	1.00	43.89	C
ATOM	42043	C	LEU H 133	131.968	114.453	-21.352	1.00	57.62	C	ATOM	42093	OXT	TRP H 138	139.165	127.197	-13.407	1.00	72.86	O
ATOM	42044	O	LEU H 133	133.182	114.282	-21.287	1.00	57.62	O	TER	42094		TRP H 138						
ATOM	42045	CB	LEU H 133	131.802	113.013	-19.312	1.00	31.13	C	ATOM	42095	N	GLU I 2	241.802	180.829	-6.576	1.00	151.59	N
ATOM	42046	CG	LEU H 133	131.936	113.777	-17.996	1.00	31.13	C	ATOM	42096	CA	GLU I 2	242.666	180.510	-5.404	1.00	151.59	C
ATOM	42047	CD1	LEU H 133	132.668	112.934	-16.980	1.00	31.13	C	ATOM	42097	C	GLU I 2	242.686	179.000	-5.191	1.00	151.59	C



ATOM	42098	O	GLU I	2	243.754	178.389	-5.144	1.00151.59	O	ATOM	42148	N	GLY I	8	233.704	163.306	-4.484	1.00102.37	N
ATOM	42099	CB	GLU I	2	242.129	181.211	-4.148	1.00115.15	C	ATOM	42149	CA	GLY I	8	233.784	162.176	-5.390	1.00102.37	C
ATOM	42100	CG	GLU I	2	243.163	181.474	-3.041	1.00115.15	C	ATOM	42150	C	GLY I	8	233.857	160.839	-4.675	1.00102.37	C
ATOM	42101	CD	GLU I	2	243.537	180.236	-2.236	1.00115.15	C	ATOM	42151	O	GLY I	8	234.838	160.538	-3.986	1.00102.37	O
ATOM	42102	OE1	GLU I	2	244.085	179.274	-2.816	1.00115.15	O	ATOM	42152	N	ARG I	9	232.807	160.036	-4.832	1.00 69.01	N
ATOM	42103	OE2	GLU I	2	243.285	180.232	-1.011	1.00115.15	O	ATOM	42153	CA	ARG I	9	232.751	158.721	-4.210	1.00 69.01	C
ATOM	42104	N	GLN I	3	241.502	178.403	-5.074	1.00123.77	N	ATOM	42154	C	ARG I	9	232.403	157.635	-5.234	1.00 69.01	C
ATOM	42105	CA	GLN I	3	241.390	176.960	-4.862	1.00123.77	C	ATOM	42155	O	ARG I	9	231.610	157.849	-6.154	1.00 69.01	O
ATOM	42106	C	GLN I	3	239.995	176.448	-5.216	1.00123.77	C	ATOM	42156	CB	ARG I	9	231.743	158.726	-3.049	1.00 68.76	C
ATOM	42107	O	GLN I	3	239.019	177.196	-5.174	1.00123.77	O	ATOM	42157	CG	ARG I	9	232.263	159.426	-1.792	1.00 68.76	C
ATOM	42108	CB	GLN I	3	241.694	176.625	-3.402	1.00 90.00	C	ATOM	42158	CD	ARG I	9	231.223	159.481	-0.669	1.00 68.76	C
ATOM	42109	CG	GLN I	3	241.984	175.158	-3.143	1.00 90.00	C	ATOM	42159	NE	ARG I	9	230.163	160.461	-0.915	1.00 68.76	N
ATOM	42110	CD	GLN I	3	242.087	174.845	-1.663	1.00 90.00	C	ATOM	42160	NH1	ARG I	9	230.273	161.771	-0.692	1.00 68.76	N
ATOM	42111	OE1	GLN I	3	242.539	173.770	-1.272	1.00 90.00	O	ATOM	42161	NH2	ARG I	9	231.402	162.268	-0.210	1.00 68.76	C
ATOM	42112	NE2	GLN I	3	241.655	175.784	-0.829	1.00 90.00	N	ATOM	42162	NH2	ARG I	9	229.255	162.589	-0.953	1.00 68.76	N
ATOM	42113	N	TYR I	4	239.906	175.168	-5.564	1.00126.71	N	ATOM	42163	N	ARG I	10	233.024	156.470	-5.077	1.00 56.12	N
ATOM	42114	CA	TYR I	4	238.624	174.566	-5.915	1.00126.71	C	ATOM	42164	CA	ARG I	10	232.791	155.348	-5.975	1.00 56.12	C
ATOM	42115	C	TYR I	4	238.455	173.162	-5.344	1.00126.71	C	ATOM	42165	C	ARG I	10	233.012	154.013	-5.287	1.00 56.12	C
ATOM	42116	O	TYR I	4	239.419	172.403	-5.206	1.00126.71	O	ATOM	42166	O	ARG I	10	234.001	153.826	-4.582	1.00 56.12	O
ATOM	42117	CB	TYR I	4	238.439	174.561	-7.433	1.00 99.48	C	ATOM	42167	CB	ARG I	10	233.717	155.432	-7.193	1.00 82.94	C
ATOM	42118	CG	TYR I	4	238.477	175.954	-8.009	1.00 99.48	C	ATOM	42168	CG	ARG I	10	233.737	154.166	-8.038	1.00 82.94	C
ATOM	42119	CD1	TYR I	4	239.681	176.536	-8.400	1.00 99.48	C	ATOM	42169	CD	ARG I	10	232.372	153.898	-8.645	1.00 82.94	C
ATOM	42120	CD2	TYR I	4	237.319	176.718	-8.095	1.00 99.48	C	ATOM	42170	NE	ARG I	10	232.082	152.471	-8.732	1.00 82.94	N
ATOM	42121	CE1	TYR I	4	239.729	177.842	-8.859	1.00 99.48	C	ATOM	42171	C2	ARG I	10	232.745	151.618	-9.502	1.00 82.94	C
ATOM	42122	CE2	TYR I	4	237.357	178.028	-8.551	1.00 99.48	C	ATOM	42172	NH1	ARG I	10	233.742	152.036	-10.268	1.00 82.94	N
ATOM	42123	C2	TYR I	4	238.563	178.582	-8.931	1.00 99.48	C	ATOM	42173	NH2	ARG I	10	232.416	150.340	-9.493	1.00 82.94	N
ATOM	42124	OH	TYR I	4	238.594	179.876	-9.389	1.00 99.48	O	ATOM	42174	N	LYS I	11	232.081	153.092	-5.503	1.00 90.69	N
ATOM	42125	N	TYR I	5	237.211	172.826	-5.022	1.00120.42	N	ATOM	42175	CA	LYS I	11	232.172	151.752	-4.945	1.00 90.69	C
ATOM	42126	CA	TYR I	5	236.892	171.546	-4.412	1.00120.42	C	ATOM	42176	C	LYS I	11	232.836	151.755	-3.571	1.00 90.69	C
ATOM	42127	C	TYR I	5	235.862	170.704	-5.162	1.00120.42	C	ATOM	42177	O	LYS I	11	233.682	150.917	-3.272	1.00 90.69	O
ATOM	42128	O	TYR I	5	235.142	171.182	-6.035	1.00120.42	O	ATOM	42178	CB	LYS I	11	232.955	150.859	-5.917	1.00 58.59	C
ATOM	42129	CB	TYR I	5	236.394	171.793	-2.989	1.00 92.98	C	ATOM	42179	CG	LYS I	11	233.092	149.418	-5.472	1.00 58.59	C
ATOM	42130	CG	TYR I	5	236.295	170.567	-2.125	1.00 92.98	C	ATOM	42180	CD	LYS I	11	233.841	148.589	-6.492	1.00 58.59	C
ATOM	42131	CD1	TYR I	5	235.438	170.540	-1.032	1.00 92.98	C	ATOM	42181	CE	LYS I	11	233.985	147.170	-5.999	1.00 58.59	C
ATOM	42132	CD2	TYR I	5	237.066	169.440	-2.388	1.00 92.98	C	ATOM	42182	N2	LYS I	11	234.607	146.362	-7.050	1.00 58.59	N
ATOM	42133	CE1	TYR I	5	235.347	169.422	-0.223	1.00 92.98	C	ATOM	42183	N	GLU I	12	232.447	152.713	-2.743	1.00 64.33	N
ATOM	42134	CE2	TYR I	5	236.984	168.315	-1.590	1.00 92.98	C	ATOM	42184	CA	GLU I	12	232.991	152.844	-1.392	1.00 64.33	C
ATOM	42135	C2	TYR I	5	236.120	168.309	-0.507	1.00 92.98	C	ATOM	42185	C	GLU I	12	234.416	153.414	-1.291	1.00 64.33	C
ATOM	42136	OH	TYR I	5	236.020	167.181	0.279	1.00 92.98	O	ATOM	42186	O	GLU I	12	235.315	152.819	-0.675	1.00 64.33	O
ATOM	42137	N	GLY I	6	235.808	169.437	-4.779	1.00104.14	N	ATOM	42187	CB	GLU I	12	232.944	151.514	-0.658	1.00 84.28	C
ATOM	42138	CA	GLY I	6	234.897	168.475	-5.359	1.00104.14	C	ATOM	42188	CG	GLU I	12	233.108	151.699	0.821	1.00 84.28	C
ATOM	42139	C	GLY I	6	235.265	167.178	-4.674	1.00104.14	C	ATOM	42189	CD	GLU I	12	233.395	150.413	1.525	1.00 84.28	C
ATOM	42140	O	GLY I	6	236.431	166.788	-4.692	1.00104.14	O	ATOM	42190	OE1	GLU I	12	234.430	149.796	1.191	1.00 84.28	O
ATOM	42141	N	THR I	7	234.302	166.514	-4.048	1.00188.50	N	ATOM	42191	OE2	GLU I	12	232.592	150.025	-2.408	1.00 84.28	O
ATOM	42142	CA	THR I	7	234.614	165.269	-3.365	1.00188.50	C	ATOM	42192	N	ALA I	13	234.588	150.593	-1.881	1.00 74.97	N
ATOM	42143	C	THR I	7	234.751	164.108	-4.344	1.00188.50	C	ATOM	42193	CA	ALA I	13	235.852	155.302	-1.889	1.00 74.97	C
ATOM	42144	O	THR I	7	235.794	163.946	-4.974	1.00188.50	O	ATOM	42194	C	ALA I	13	235.542	156.789	-1.862	1.00 74.97	C
ATOM	42145	CB	THR I	7	233.556	164.936	-2.296	1.00 69.19	C	ATOM	42195	O	ALA I	13	234.590	157.245	-2.504	1.00 74.97	O
ATOM	42146	OG1	THR I	7	233.578	165.946	-1.279	1.00 69.19	O	ATOM	42196	CB	ALA I	13	236.625	154.966	-3.139	1.00 27.95	C
ATOM	42147	CG2	THR I	7	233.856	163.596	-1.645	1.00 69.19	C	ATOM	42197	N	VAL I	14	236.344	157.539	-1.111	1.00 76.10	N



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ATOM	42198	CA	VAL I	14	236.174	158.982	-1.006	1.00	76.10	C	ATOM	42248	C	ARG I	20	245.359	175.484	-9.344	1.00	112.33	C
ATOM	42199	C	VAL I	14	237.464	159.673	-1.438	1.00	76.10	C	ATOM	42249	O	ARG I	20	246.292	174.795	-9.750	1.00	112.33	O
ATOM	42200	O	VAL I	14	238.551	159.336	-0.969	1.00	76.10	C	ATOM	42250	CB	ARG I	20	245.578	174.943	-6.920	1.00	89.10	C
ATOM	42201	CB	VAL I	14	235.845	159.401	0.430	1.00	94.79	C	ATOM	42251	CG	ARG I	20	244.908	174.613	-5.599	1.00	89.10	C
ATOM	42202	CG1	VAL I	14	235.529	160.878	0.464	1.00	94.79	C	ATOM	42252	CD	ARG I	20	245.864	173.947	-4.632	1.00	89.10	C
ATOM	42203	CG2	VAL I	14	234.673	158.592	0.954	1.00	94.79	C	ATOM	42253	NE	ARG I	20	245.239	173.678	-3.338	1.00	89.10	N
ATOM	42204	N	ALA I	15	237.338	160.638	-2.339	1.00	133.82	N	ATOM	42254	CE	ARG I	20	245.838	173.037	-2.336	1.00	89.10	C
ATOM	42205	CA	ALA I	15	238.503	161.349	-2.835	1.00	133.82	C	ATOM	42255	NH1	ARG I	20	247.081	172.590	-2.473	1.00	89.10	N
ATOM	42206	C	ALA I	15	238.342	162.854	-2.702	1.00	133.82	C	ATOM	42256	NH2	ARG I	20	245.201	172.848	-1.191	1.00	89.10	N
ATOM	42207	O	ALA I	15	237.421	163.432	-3.272	1.00	133.82	O	ATOM	42257	N	PRO I	21	244.970	176.606	-9.974	1.00	125.53	N
ATOM	42208	CB	ALA I	15	238.742	160.983	-4.292	1.00	51.25	C	ATOM	42258	CA	PRO I	21	245.648	177.058	-11.195	1.00	125.53	C
ATOM	42209	N	ARG I	16	239.231	163.490	-1.946	1.00	85.50	N	ATOM	42259	C	PRO I	21	247.160	176.900	-11.084	1.00	125.53	C
ATOM	42210	CA	ARG I	16	239.168	164.936	-1.791	1.00	85.50	C	ATOM	42260	O	PRO I	21	247.793	177.514	-10.225	1.00	125.53	O
ATOM	42211	C	ARG I	16	239.960	165.533	-2.946	1.00	85.50	C	ATOM	42261	CB	PRO I	21	245.218	178.516	-11.306	1.00	98.85	C
ATOM	42212	O	ARG I	16	241.176	165.357	-3.031	1.00	85.50	O	ATOM	42262	CG	PRO I	21	243.829	178.491	-10.733	1.00	98.85	C
ATOM	42213	CB	ARG I	16	239.784	165.362	-0.464	1.00	107.29	C	ATOM	42263	CD	PRO I	21	244.006	177.619	-9.504	1.00	98.85	C
ATOM	42214	CD	ARG I	16	239.214	164.654	0.737	1.00	107.29	C	ATOM	42264	N	GLY I	22	247.731	176.064	-11.947	1.00	104.81	N
ATOM	42215	CD	ARG I	16	239.651	165.347	2.009	1.00	107.29	C	ATOM	42265	CA	GLY I	22	249.164	175.839	-11.906	1.00	104.81	C
ATOM	42216	NE	ARG I	16	239.694	164.429	3.142	1.00	107.29	N	ATOM	42266	C	GLY I	22	249.724	175.075	-13.091	1.00	104.81	C
ATOM	42217	CZ	ARG I	16	240.044	164.786	4.371	1.00	107.29	C	ATOM	42267	O	GLY I	22	249.294	175.277	-14.229	1.00	104.81	O
ATOM	42218	NH1	ARG I	16	240.375	166.047	4.619	1.00	107.29	N	ATOM	42268	N	ASN I	23	250.687	174.194	-12.817	1.00	122.89	N
ATOM	42219	NH2	ARG I	16	240.078	163.884	5.345	1.00	107.29	N	ATOM	42269	CA	ASN I	23	251.346	173.386	-13.845	1.00	122.89	C
ATOM	42220	N	VAL I	17	239.270	166.226	-3.843	1.00	92.50	N	ATOM	42270	C	ASN I	23	250.458	172.278	-14.422	1.00	122.89	C
ATOM	42221	CA	VAL I	17	239.930	166.823	-4.994	1.00	92.50	C	ATOM	42271	O	ASN I	23	250.190	172.240	-15.629	1.00	122.89	O
ATOM	42222	C	VAL I	17	240.069	168.332	-4.867	1.00	92.50	C	ATOM	42272	CB	ASN I	23	252.621	172.763	-13.266	1.00	114.83	C
ATOM	42223	O	VAL I	17	239.074	169.057	-4.808	1.00	92.50	O	ATOM	42273	CG	ASN I	23	253.328	171.843	-14.253	1.00	114.83	C
ATOM	42224	CB	VAL I	17	239.177	166.484	-6.302	1.00	79.86	C	ATOM	42274	OD1	ASN I	23	254.323	171.201	-13.913	1.00	114.83	O
ATOM	42225	CG1	VAL I	17	239.763	167.267	-7.473	1.00	79.86	C	ATOM	42275	ND2	ASN I	23	252.819	171.778	-15.480	1.00	114.83	N
ATOM	42226	CG2	VAL I	17	239.281	164.993	-6.575	1.00	79.86	C	ATOM	42276	N	GLY I	24	250.023	171.370	-13.553	1.00	130.84	N
ATOM	42227	N	PHE I	18	241.318	168.791	-4.832	1.00	75.95	N	ATOM	42277	CA	GLY I	24	249.181	170.270	-13.985	1.00	130.84	C
ATOM	42228	CA	PHE I	18	241.635	170.211	-4.715	1.00	75.95	C	ATOM	42278	O	GLY I	24	249.532	168.990	-13.257	1.00	130.84	O
ATOM	42229	C	PHE I	18	242.396	170.708	-5.935	1.00	75.95	C	ATOM	42279	C	GLY I	24	249.008	167.920	-13.570	1.00	130.84	C
ATOM	42230	O	PHE I	18	243.574	170.404	-6.107	1.00	75.95	O	ATOM	42280	N	LYS I	25	250.425	169.105	-12.279	1.00	88.82	N
ATOM	42231	CB	PHE I	18	242.479	170.451	-3.460	1.00	76.44	C	ATOM	42281	CA	LYS I	25	250.854	167.955	-11.499	1.00	88.82	C
ATOM	42232	CG	PHE I	18	241.715	170.310	-2.170	1.00	76.44	C	ATOM	42282	C	LYS I	25	249.766	167.540	-10.521	1.00	88.82	C
ATOM	42233	CD1	PHE I	18	242.358	169.875	-1.013	1.00	76.44	C	ATOM	42283	O	LYS I	25	248.817	168.291	-10.277	1.00	88.82	O
ATOM	42234	CD2	PHE I	18	240.365	170.648	-2.098	1.00	76.44	C	ATOM	42284	CB	LYS I	25	252.144	168.271	-10.736	1.00	101.53	C
ATOM	42235	CE1	PHE I	18	241.671	169.779	0.196	1.00	76.44	C	ATOM	42285	CG	LYS I	25	252.020	169.387	-9.717	1.00	101.53	C
ATOM	42236	CE2	PHE I	18	239.673	170.556	-0.897	1.00	76.44	C	ATOM	42286	CD	LYS I	25	253.319	169.571	-8.943	1.00	101.53	C
ATOM	42237	CZ	PHE I	18	240.328	170.122	0.252	1.00	76.44	C	ATOM	42287	CE	LYS I	25	254.473	169.957	-9.863	1.00	101.53	C
ATOM	42238	N	PHE I	19	241.713	171.463	-6.784	1.00	99.41	N	ATOM	42288	NZ	LYS I	25	255.742	170.160	-9.107	1.00	101.53	N
ATOM	42239	CA	LEU I	19	242.340	172.018	-7.975	1.00	99.41	C	ATOM	42289	N	VAL I	26	249.911	166.342	-9.961	1.00	91.66	N
ATOM	42240	C	LEU I	19	242.922	173.382	-7.614	1.00	99.41	C	ATOM	42290	CA	VAL I	26	248.930	165.816	-9.023	1.00	91.66	C
ATOM	42241	O	LEU I	19	242.445	174.042	-6.689	1.00	99.41	O	ATOM	42291	C	VAL I	26	249.564	165.066	-7.865	1.00	91.66	C
ATOM	42242	CB	LEU I	19	241.311	172.172	-9.095	1.00	102.55	C	ATOM	42292	O	VAL I	26	250.322	164.118	-8.059	1.00	91.66	O
ATOM	42243	CG	LEU I	19	240.723	170.881	-9.667	1.00	102.55	C	ATOM	42293	CB	VAL I	26	247.965	164.850	-9.718	1.00	54.87	C
ATOM	42244	CD1	LEU I	19	239.559	171.199	-10.593	1.00	102.55	C	ATOM	42294	CG1	VAL I	26	246.862	164.450	-8.748	1.00	54.87	C
ATOM	42245	CD2	LEU I	19	241.812	170.123	-10.406	1.00	102.55	C	ATOM	42295	CG2	VAL I	26	247.401	165.486	-10.985	1.00	54.87	C
ATOM	42246	N	ARG I	20	243.952	173.802	-8.341	1.00	112.33	N	ATOM	42296	N	THR I	27	249.237	165.490	-6.656	1.00	92.51	N
ATOM	42247	CA	ARG I	20	244.603	175.083	-8.088	1.00	112.33	C	ATOM	42297	CA	THR I	27	249.773	164.847	-5.475	1.00	92.51	C



ATOM	42298	C	THR	I	27	248.682	164.014	-4.840	1.00	92.51	C	ATOM	42348	CE2	PHE	I	33	246.697	160.158	-13.014	1.00	90.30	C
ATOM	42299	O	THR	I	27	247.816	164.543	-4.146	1.00	92.51	O	ATOM	42349	CZ	PHE	I	33	245.589	159.993	-12.196	1.00	90.30	C
ATOM	42300	CB	THR	I	27	250.256	165.877	-4.446	1.00	200.93	C	ATOM	42350	N	ASN	I	34	251.435	159.404	-10.646	1.00	66.72	N
ATOM	42301	OG1	THR	I	27	251.343	166.628	-4.997	1.00	200.93	O	ATOM	42351	CA	ASN	I	34	252.068	158.233	-11.240	1.00	66.72	C
ATOM	42302	CG2	THR	I	27	250.713	165.183	-3.173	1.00	200.93	C	ATOM	42352	C	ASN	I	34	252.812	157.403	-10.212	1.00	66.72	C
ATOM	42303	N	VAL	I	28	248.713	162.711	-5.083	1.00	74.10	N	ATOM	42353	O	ASN	I	34	253.313	156.336	-10.524	1.00	66.72	O
ATOM	42304	CA	VAL	I	28	247.712	161.832	-4.498	1.00	74.10	C	ATOM	42354	CB	ASN	I	34	253.041	158.687	-12.321	1.00	99.11	C
ATOM	42305	C	VAL	I	28	248.234	161.236	-3.199	1.00	74.10	C	ATOM	42355	OG	ASN	I	34	252.542	159.909	-13.067	1.00	99.11	C
ATOM	42306	O	VAL	I	28	249.071	160.333	-3.216	1.00	74.10	O	ATOM	42356	CD1	ASN	I	34	251.545	159.850	-13.788	1.00	99.11	C
ATOM	42307	CB	VAL	I	28	247.329	160.684	-5.453	1.00	73.35	C	ATOM	42357	ND2	ASN	I	34	253.231	161.033	-12.884	1.00	99.11	N
ATOM	42308	CG1	VAL	I	28	246.299	159.777	-4.788	1.00	73.35	C	ATOM	42358	N	GLU	I	35	252.880	157.889	-8.982	1.00	60.95	N
ATOM	42309	CG2	VAL	I	28	246.774	161.253	-6.752	1.00	73.35	C	ATOM	42359	CA	GLU	I	35	253.589	157.172	-7.936	1.00	60.95	C
ATOM	42310	N	ASN	I	29	247.737	161.756	-2.079	1.00	85.51	N	ATOM	42360	C	GLU	I	35	252.653	156.327	-7.083	1.00	60.95	C
ATOM	42311	CA	ASN	I	29	248.133	161.279	-0.760	1.00	85.51	C	ATOM	42361	O	GLU	I	35	253.024	155.231	-6.663	1.00	60.95	O
ATOM	42312	C	ASN	I	29	249.614	161.458	-0.501	1.00	85.51	C	ATOM	42362	CB	GLU	I	35	254.360	158.156	-7.052	1.00	144.74	C
ATOM	42313	O	ASN	I	29	250.205	160.741	0.310	1.00	85.51	O	ATOM	42363	CG	GLU	I	35	255.347	157.493	-6.107	1.00	144.74	C
ATOM	42314	CB	ASN	I	29	247.771	159.803	-0.601	1.00	71.33	C	ATOM	42364	CD	GLU	I	35	256.259	156.511	-6.820	1.00	144.74	C
ATOM	42315	CG	ASN	I	29	246.536	159.602	0.234	1.00	71.33	C	ATOM	42365	OE1	GLU	I	35	256.861	156.893	-7.846	1.00	144.74	O
ATOM	42316	OD1	ASN	I	29	245.470	160.129	-0.079	1.00	71.33	O	ATOM	42366	OE2	GLU	I	35	256.376	155.358	-6.354	1.00	144.74	O
ATOM	42317	ND2	ASN	I	29	246.672	158.839	1.313	1.00	71.33	N	ATOM	42367	N	TYR	I	36	251.445	156.829	-6.826	1.00	83.17	N
ATOM	42318	N	GLY	I	30	250.214	162.418	-1.191	1.00	97.10	N	ATOM	42368	CA	TYR	I	36	250.461	156.092	-6.026	1.00	83.17	C
ATOM	42319	CA	GLY	I	30	251.630	162.655	-1.011	1.00	97.10	C	ATOM	42369	C	TYR	I	36	249.877	154.971	-6.892	1.00	83.17	C
ATOM	42320	C	GLY	I	30	252.409	162.224	-2.231	1.00	97.10	C	ATOM	42370	O	TYR	I	36	249.675	153.846	-6.427	1.00	83.17	C
ATOM	42321	O	GLY	I	30	253.097	163.035	-2.850	1.00	97.10	O	ATOM	42371	CB	TYR	I	36	249.339	157.036	-5.553	1.00	76.23	C
ATOM	42322	N	GLN	I	31	252.300	160.949	-2.588	1.00	72.71	N	ATOM	42372	CG	TYR	I	36	248.340	156.411	-4.585	1.00	76.23	C
ATOM	42323	CA	GLN	I	31	253.011	160.434	-3.750	1.00	72.71	C	ATOM	42373	CD1	TYR	I	36	248.743	155.942	-3.329	1.00	76.23	C
ATOM	42324	C	GLN	I	31	252.524	161.132	-5.011	1.00	72.71	C	ATOM	42374	CD2	TYR	I	36	246.995	156.273	-4.932	1.00	76.23	C
ATOM	42325	O	GLN	I	31	251.477	161.782	-5.007	1.00	72.71	O	ATOM	42375	CE1	TYR	I	36	247.831	155.349	-2.445	1.00	76.23	C
ATOM	42326	CB	GLN	I	31	252.796	158.931	-3.871	1.00	96.05	C	ATOM	42376	CE2	TYR	I	36	246.076	155.682	-4.060	1.00	76.23	C
ATOM	42327	CG	GLN	I	31	253.211	158.161	-2.640	1.00	96.05	C	ATOM	42377	CZ	TYR	I	36	246.501	155.222	-2.821	1.00	76.23	C
ATOM	42328	CD	GLN	I	31	253.029	156.669	-2.810	1.00	96.05	C	ATOM	42378	OH	TYR	I	36	245.604	154.621	-1.967	1.00	76.23	O
ATOM	42329	OE1	GLN	I	31	251.921	156.195	-3.057	1.00	96.05	O	ATOM	42379	N	PHE	I	37	249.626	155.301	-8.159	1.00	85.30	N
ATOM	42330	NE2	GLN	I	31	254.121	155.917	-2.682	1.00	96.05	N	ATOM	42380	CA	PHE	I	37	249.075	154.373	-9.145	1.00	85.30	C
ATOM	42331	N	ASP	I	32	253.293	161.014	-6.086	1.00	70.20	N	ATOM	42381	C	PHE	I	37	250.209	153.818	-10.003	1.00	85.30	C
ATOM	42332	CA	ASP	I	32	252.899	161.636	-7.339	1.00	70.20	C	ATOM	42382	O	PHE	I	37	250.120	153.779	-11.231	1.00	85.30	O
ATOM	42333	C	ASP	I	32	251.759	160.801	-7.923	1.00	70.20	C	ATOM	42383	CB	PHE	I	37	248.072	155.104	-10.043	1.00	97.39	C
ATOM	42334	O	ASP	I	32	251.613	159.622	-7.592	1.00	70.20	O	ATOM	42384	CG	PHE	I	37	246.914	155.709	-9.299	1.00	97.39	C
ATOM	42335	CB	ASP	I	32	254.084	161.677	-8.311	1.00	115.82	C	ATOM	42385	CD1	PHE	I	37	246.288	156.856	-9.781	1.00	97.39	C
ATOM	42336	CG	ASP	I	32	253.853	162.626	-9.478	1.00	115.82	C	ATOM	42386	CD2	PHE	I	37	246.438	155.128	-8.124	1.00	97.39	C
ATOM	42337	OD1	ASP	I	32	252.935	162.381	-10.291	1.00	115.82	O	ATOM	42387	CE1	PHE	I	37	245.208	157.419	-9.106	1.00	97.39	C
ATOM	42338	OD2	ASP	I	32	254.593	163.625	-9.579	1.00	115.82	O	ATOM	42388	CE2	PHE	I	37	245.359	155.682	-7.444	1.00	97.39	C
ATOM	42339	N	PHE	I	33	250.942	161.409	-8.776	1.00	111.30	N	ATOM	42389	CZ	PHE	I	37	244.743	156.830	-7.935	1.00	97.39	C
ATOM	42340	CA	PHE	I	33	249.831	160.691	-9.389	1.00	111.30	C	ATOM	42390	N	GLN	I	38	251.276	153.388	-9.344	1.00	123.49	N
ATOM	42341	C	PHE	I	33	250.336	159.347	-9.897	1.00	111.30	C	ATOM	42391	CA	GLN	I	38	252.435	152.853	-10.040	1.00	123.49	C
ATOM	42342	O	PHE	I	33	249.761	158.298	-9.604	1.00	111.30	O	ATOM	42392	C	GLN	I	38	252.097	151.571	-10.799	1.00	123.49	C
ATOM	42343	CB	PHE	I	33	249.270	161.497	-10.558	1.00	90.30	C	ATOM	42393	O	GLN	I	38	252.079	150.483	-10.224	1.00	123.49	O
ATOM	42344	CG	PHE	I	33	247.993	160.941	-11.125	1.00	90.30	C	ATOM	42394	CB	GLN	I	38	253.565	152.584	-9.039	1.00	90.45	C
ATOM	42345	CD1	PHE	I	33	246.874	160.766	-10.315	1.00	90.30	C	ATOM	42395	CG	GLN	I	38	254.960	152.836	-9.588	1.00	90.45	C
ATOM	42346	CD2	PHE	I	33	247.893	160.631	-12.477	1.00	90.30	C	ATOM	42396	CD	GLN	I	38	255.254	152.041	-10.848	1.00	90.45	C
ATOM	42347	CE1	PHE	I	33	245.678	160.296	-10.843	1.00	90.30	C	ATOM	42397	OE1	GLN	I	38	254.555	152.162	-11.856	1.00	90.45	O



ATOM	42398	NE2	GLN	I	38	256.299	151.227	-10.797	1.00	90.45	N	ATOM	42448	C	ALA	I	46	240.928	161.255	-13.783	1.00	80.25	C
ATOM	42399	N	GLY	I	39	251.826	151.707	-12.092	1.00	87.81	N	ATOM	42449	O	ALA	I	46	240.064	162.082	-13.492	1.00	80.25	O
ATOM	42400	CA	GLY	I	39	251.515	150.542	-12.899	1.00	87.81	C	ATOM	42450	CB	ALA	I	46	241.817	159.677	-12.062	1.00	60.72	C
ATOM	42401	C	GLY	I	39	250.081	150.054	-12.805	1.00	87.81	C	ATOM	42451	N	LEU	I	47	241.959	161.542	-14.569	1.00	73.84	N
ATOM	42402	O	GLY	I	39	249.816	148.996	-12.236	1.00	87.81	O	ATOM	42452	CA	LEU	I	47	242.167	162.875	-15.129	1.00	73.84	C
ATOM	42403	N	LEU	I	40	249.162	150.832	-13.370	1.00	58.33	N	ATOM	42453	C	LEU	I	47	241.389	163.141	-16.411	1.00	73.84	C
ATOM	42404	CA	LEU	I	40	247.739	150.508	-13.391	1.00	58.33	C	ATOM	42454	O	LEU	I	47	241.492	164.222	-16.990	1.00	73.84	O
ATOM	42405	C	LEU	I	40	247.165	151.114	-14.659	1.00	58.33	C	ATOM	42455	CB	LEU	I	47	243.656	163.079	-15.406	1.00	89.03	C
ATOM	42406	O	LEU	I	40	246.783	152.284	-14.675	1.00	58.33	O	ATOM	42456	CG	LEU	I	47	244.605	162.648	-14.287	1.00	89.03	C
ATOM	42407	CB	LEU	I	40	247.026	151.105	-12.176	1.00	44.80	C	ATOM	42457	CD1	LEU	I	47	246.025	162.593	-14.817	1.00	89.03	C
ATOM	42408	CG	LEU	I	40	247.430	150.583	-10.792	1.00	44.80	C	ATOM	42458	CD2	LEU	I	47	244.490	163.609	-13.121	1.00	89.03	C
ATOM	42409	CD1	LEU	I	40	246.501	151.174	-9.748	1.00	44.80	C	ATOM	42459	N	GLU	I	48	240.616	162.162	-16.862	1.00	91.82	N
ATOM	42410	CD2	LEU	I	40	247.351	149.069	-10.747	1.00	44.80	C	ATOM	42460	CA	GLU	I	48	239.846	162.333	-18.084	1.00	91.82	C
ATOM	42411	N	VAL	I	41	247.106	150.309	-15.714	1.00	77.39	N	ATOM	42461	C	GLU	I	48	238.919	163.551	-18.029	1.00	91.82	C
ATOM	42412	CA	VAL	I	41	246.610	150.747	-17.017	1.00	77.39	C	ATOM	42462	O	GLU	I	48	238.717	164.222	-19.040	1.00	91.82	O
ATOM	42413	C	VAL	I	41	245.338	151.614	-17.005	1.00	77.39	C	ATOM	42463	CB	GLU	I	48	239.031	161.075	-18.385	1.00	128.90	C
ATOM	42414	O	VAL	I	41	244.969	152.205	-18.027	1.00	77.39	O	ATOM	42464	CG	GLU	I	48	238.491	161.025	-19.805	1.00	128.90	C
ATOM	42415	CB	VAL	I	41	246.353	149.524	-17.927	1.00	118.23	C	ATOM	42465	CD	GLU	I	48	239.594	160.924	-20.845	1.00	128.90	C
ATOM	42416	CG1	VAL	I	41	246.214	149.967	-19.376	1.00	118.23	C	ATOM	42466	OE1	GLU	I	48	240.501	161.783	-20.841	1.00	128.90	C
ATOM	42417	CG2	VAL	I	41	247.477	148.519	-17.773	1.00	118.23	C	ATOM	42467	OE2	GLU	I	48	239.553	159.987	-21.672	1.00	128.90	O
ATOM	42418	N	ARG	I	42	244.669	151.689	-15.860	1.00	80.13	N	ATOM	42468	N	PRO	I	49	238.340	163.856	-16.853	1.00	91.75	N
ATOM	42419	CA	ARG	I	42	243.438	152.466	-15.746	1.00	80.13	C	ATOM	42469	CA	PRO	I	49	237.458	165.025	-16.806	1.00	91.75	C
ATOM	42420	C	ARG	I	42	243.634	153.896	-15.257	1.00	80.13	C	ATOM	42470	C	PRO	I	49	238.211	166.320	-17.116	1.00	91.75	C
ATOM	42421	O	ARG	I	42	242.943	154.810	-15.710	1.00	80.13	O	ATOM	42471	O	PRO	I	49	237.605	167.326	-17.486	1.00	91.75	O
ATOM	42422	CB	ARG	I	42	242.469	151.746	-14.814	1.00	77.41	C	ATOM	42472	CB	PRO	I	49	236.907	164.983	-15.382	1.00	60.32	C
ATOM	42423	CG	ARG	I	42	241.500	150.829	-15.529	1.00	77.41	C	ATOM	42473	CG	PRO	I	49	238.022	164.352	-14.608	1.00	60.32	C
ATOM	42424	CD	ARG	I	42	240.100	151.359	-15.359	1.00	77.41	C	ATOM	42474	CD	PRO	I	49	238.436	163.228	-15.523	1.00	60.32	C
ATOM	42425	NE	ARG	I	42	239.742	151.417	-13.947	1.00	77.41	N	ATOM	42475	N	LEU	I	50	239.533	166.287	-16.963	1.00	79.12	N
ATOM	42426	CZ	ARG	I	42	238.804	152.211	-13.449	1.00	77.41	C	ATOM	42476	CA	LEU	I	50	240.366	167.454	-17.242	1.00	79.12	C
ATOM	42427	NH1	ARG	I	42	238.125	153.025	-14.246	1.00	77.41	N	ATOM	42477	C	LEU	I	50	240.469	167.622	-18.751	1.00	79.12	C
ATOM	42428	NH2	ARG	I	42	238.544	152.188	-12.153	1.00	77.41	N	ATOM	42478	O	LEU	I	50	239.998	168.620	-19.304	1.00	79.12	O
ATOM	42429	N	ALA	I	43	244.575	154.067	-14.329	1.00	73.83	N	ATOM	42479	CB	LEU	I	50	241.758	167.274	-16.631	1.00	70.30	C
ATOM	42430	CA	ALA	I	43	244.903	155.360	-13.728	1.00	73.83	C	ATOM	42480	CG	LEU	I	50	241.791	167.291	-15.096	1.00	70.30	C
ATOM	42431	C	ALA	I	43	244.544	156.549	-14.606	1.00	73.83	C	ATOM	42481	CD1	LEU	I	50	243.072	166.651	-14.566	1.00	70.30	C
ATOM	42432	O	ALA	I	43	243.832	157.460	-14.180	1.00	73.83	O	ATOM	42482	CD2	LEU	I	50	241.648	168.727	-14.617	1.00	70.30	C
ATOM	42433	CB	ALA	I	43	246.387	155.399	-13.384	1.00	128.52	C	ATOM	42483	N	ARG	I	51	241.067	166.631	-19.412	1.00	72.73	N
ATOM	42434	N	VAL	I	44	245.054	156.527	-15.832	1.00	77.67	N	ATOM	42484	CA	ARG	I	51	241.222	166.647	-20.868	1.00	72.73	C
ATOM	42435	CA	VAL	I	44	244.809	157.579	-16.811	1.00	77.67	C	ATOM	42485	C	ARG	I	51	239.868	166.948	-21.491	1.00	72.73	C
ATOM	42436	C	VAL	I	44	243.382	158.107	-16.767	1.00	77.67	C	ATOM	42486	O	ARG	I	51	239.770	167.349	-22.654	1.00	72.73	O
ATOM	42437	O	VAL	I	44	243.140	159.279	-17.046	1.00	77.67	O	ATOM	42487	CB	ARG	I	51	241.704	165.285	-21.361	1.00	117.70	C
ATOM	42438	CB	VAL	I	44	245.091	157.062	-18.229	1.00	98.23	C	ATOM	42488	CG	ARG	I	51	242.910	164.773	-20.628	1.00	117.70	C
ATOM	42439	CG1	VAL	I	44	244.584	158.050	-19.260	1.00	98.23	C	ATOM	42489	CD	ARG	I	51	243.032	163.286	-20.798	1.00	117.70	C
ATOM	42440	CG2	VAL	I	44	246.580	156.831	-18.399	1.00	98.23	C	ATOM	42490	NE	ARG	I	51	243.996	162.729	-19.859	1.00	117.70	N
ATOM	42441	N	ALA	I	45	242.445	157.235	-16.415	1.00	82.89	N	ATOM	42491	CZ	ARG	I	51	244.085	161.437	-19.562	1.00	117.70	C
ATOM	42442	CA	ALA	I	45	241.032	157.592	-16.343	1.00	82.89	C	ATOM	42492	NH1	ARG	I	51	243.261	160.565	-20.132	1.00	117.70	N
ATOM	42443	C	ALA	I	45	240.730	158.815	-15.474	1.00	82.89	C	ATOM	42493	NH2	ARG	I	51	244.995	161.017	-18.692	1.00	117.70	N
ATOM	42444	O	ALA	I	45	240.174	159.800	-15.957	1.00	82.89	O	ATOM	42494	N	ALA	I	52	238.827	166.734	-20.693	1.00	80.63	N
ATOM	42445	CB	ALA	I	45	240.231	156.397	-15.848	1.00	81.98	C	ATOM	42495	CA	ALA	I	52	237.461	166.966	-21.109	1.00	80.63	C
ATOM	42446	N	ALA	I	46	241.093	158.741	-14.197	1.00	80.25	N	ATOM	42496	C	ALA	I	52	237.291	168.397	-21.589	1.00	80.63	C
ATOM	42447	CA	ALA	I	46	240.855	159.822	-13.237	1.00	80.25	C	ATOM	42497	O	ALA	I	52	236.693	168.639	-22.641	1.00	80.63	O



ATOM	42498	CB	ALA I	52	236.528	166.696	-19.954	1.00	87.44	C	ATOM	42548	CD1	PHE I	59	242.250	173.779	-14.385	1.00	83.44	C
ATOM	42499	N	VAL I	53	237.824	169.338	-20.813	1.00	117.88	N	ATOM	42549	CD2	PHE I	59	242.364	173.998	-12.000	1.00	83.44	C
ATOM	42500	CA	VAL I	53	237.734	170.759	-21.141	1.00	117.88	C	ATOM	42550	CE1	PHE I	59	241.106	174.576	-14.413	1.00	83.44	C
ATOM	42501	C	VAL I	53	239.104	171.433	-21.278	1.00	117.88	C	ATOM	42551	CE2	PHE I	59	241.223	174.795	-12.013	1.00	83.44	C
ATOM	42502	O	VAL I	53	239.241	172.641	-21.067	1.00	117.88	C	ATOM	42552	CZ	PHE I	59	240.591	175.086	-13.224	1.00	83.44	C
ATOM	42503	CB	VAL I	53	236.898	171.510	-20.079	1.00	87.25	C	ATOM	42553	N	ASP I	60	246.114	172.110	-11.497	1.00	66.08	N
ATOM	42504	CG1	VAL I	53	235.474	171.725	-20.590	1.00	87.25	C	ATOM	42554	CA	ASP I	60	247.031	171.378	-10.637	1.00	66.08	C
ATOM	42505	CG2	VAL I	53	236.871	170.706	-18.780	1.00	87.25	C	ATOM	42555	O	ASP I	60	246.097	170.722	-9.632	1.00	66.08	C
ATOM	42506	N	ASP I	54	240.108	170.641	-21.644	1.00	125.16	N	ATOM	42556	O	ASP I	60	244.988	171.217	-9.420	1.00	66.08	O
ATOM	42507	CA	ASP I	54	241.475	171.125	-21.825	1.00	125.16	C	ATOM	42557	CB	ASP I	60	247.979	172.352	-9.937	1.00	126.22	C
ATOM	42508	C	ASP I	54	242.092	171.711	-20.560	1.00	125.16	C	ATOM	42558	CG	ASP I	60	249.233	171.680	-9.428	1.00	126.22	C
ATOM	42509	O	ASP I	54	242.495	172.872	-20.526	1.00	125.16	O	ATOM	42559	OD1	ASP I	60	249.119	170.760	-8.591	1.00	126.22	O
ATOM	42510	CB	ASP I	54	241.527	172.154	-22.955	1.00	136.44	C	ATOM	42560	OD2	ASP I	60	250.334	172.074	-9.868	1.00	126.22	O
ATOM	42511	CG	ASP I	54	241.319	171.526	-24.317	1.00	136.44	C	ATOM	42561	N	ALA I	61	246.510	169.619	-9.015	1.00	77.55	N
ATOM	42512	OD1	ASP I	54	242.105	170.624	-24.682	1.00	136.44	O	ATOM	42562	CA	ALA I	61	245.613	168.965	-8.069	1.00	77.55	C
ATOM	42513	OD2	ASP I	54	240.370	171.931	-25.022	1.00	136.44	O	ATOM	42563	C	ALA I	61	246.231	168.249	-6.879	1.00	77.55	C
ATOM	42514	N	ALA I	55	242.166	170.888	-19.521	1.00	95.86	N	ATOM	42564	O	ALA I	61	247.130	167.412	-7.019	1.00	77.55	O
ATOM	42515	CA	ALA I	55	242.742	171.299	-18.255	1.00	95.86	C	ATOM	42565	CB	ALA I	61	244.696	168.000	-8.817	1.00	109.79	C
ATOM	42516	C	ALA I	55	244.120	170.666	-18.130	1.00	95.86	C	ATOM	42566	N	TYR I	62	245.730	168.602	-5.700	1.00	78.71	N
ATOM	42517	O	ALA I	55	244.831	170.523	-19.125	1.00	95.86	O	ATOM	42567	CA	TYR I	62	246.161	167.982	-4.462	1.00	78.71	C
ATOM	42518	CB	ALA I	55	241.850	170.858	-17.105	1.00	131.33	C	ATOM	42568	C	TYR I	62	244.989	167.077	-4.148	1.00	78.71	C
ATOM	42519	N	LEU I	56	244.476	170.268	-16.911	1.00	166.04	N	ATOM	42569	O	TYR I	62	243.842	167.533	-4.135	1.00	78.71	O
ATOM	42520	CA	LEU I	56	245.777	169.669	-16.624	1.00	166.04	C	ATOM	42570	CB	TYR I	62	246.320	169.013	-3.352	1.00	71.28	C
ATOM	42521	C	LEU I	56	246.810	170.775	-16.828	1.00	166.04	C	ATOM	42571	CG	TYR I	62	246.745	168.398	-2.042	1.00	71.28	C
ATOM	42522	O	LEU I	56	247.188	171.461	-15.877	1.00	166.04	O	ATOM	42572	CD1	TYR I	62	247.989	167.780	-1.914	1.00	71.28	C
ATOM	42523	CB	LEU I	56	246.061	168.494	-17.567	1.00	143.03	C	ATOM	42573	CD2	TYR I	62	245.888	168.390	-0.941	1.00	71.28	C
ATOM	42524	CG	LEU I	56	247.112	167.469	-17.117	1.00	143.03	C	ATOM	42574	CE1	TYR I	62	248.369	167.161	-0.715	1.00	71.28	C
ATOM	42525	CD1	LEU I	56	247.285	166.436	-18.211	1.00	143.03	C	ATOM	42575	CE2	TYR I	62	246.254	167.776	0.257	1.00	71.28	C
ATOM	42526	CD2	LEU I	56	248.442	168.142	-16.815	1.00	143.03	C	ATOM	42576	CZ	TYR I	62	247.495	167.162	0.364	1.00	71.28	C
ATOM	42527	N	GLY I	57	247.262	170.945	-18.068	1.00	167.42	N	ATOM	42577	OH	TYR I	62	247.856	166.537	1.536	1.00	71.28	O
ATOM	42528	CA	GLY I	57	248.217	171.998	-18.364	1.00	167.42	C	ATOM	42578	N	ILE I	63	245.265	165.802	-3.898	1.00	80.68	N
ATOM	42529	C	GLY I	57	247.446	173.299	-18.285	1.00	167.42	C	ATOM	42579	CA	ILE I	63	244.191	164.857	-2.639	1.00	80.68	C
ATOM	42530	O	GLY I	57	247.232	173.986	-19.287	1.00	167.42	O	ATOM	42580	C	ILE I	63	244.397	163.891	-2.481	1.00	80.68	C
ATOM	42531	N	ARG I	58	247.017	173.625	-17.072	1.00	116.08	N	ATOM	42581	O	ILE I	63	245.435	163.240	-2.370	1.00	80.68	O
ATOM	42532	CA	ARG I	58	246.233	174.818	-16.819	1.00	116.08	C	ATOM	42582	CB	ILE I	63	243.906	164.030	-4.907	1.00	72.04	C
ATOM	42533	C	ARG I	58	245.894	174.804	-15.327	1.00	116.08	C	ATOM	42583	CG1	ILE I	63	243.514	164.966	-6.063	1.00	72.04	C
ATOM	42534	O	ARG I	58	245.802	175.853	-14.688	1.00	116.08	O	ATOM	42584	CG2	ILE I	63	242.821	163.008	-4.616	1.00	72.04	C
ATOM	42535	CB	ARG I	58	244.960	174.765	-17.671	1.00	109.03	C	ATOM	42585	CD1	ILE I	63	243.368	164.290	-7.418	1.00	72.04	C
ATOM	42536	CG	ARG I	58	244.173	176.057	-17.788	1.00	109.03	C	ATOM	42586	N	THR I	64	243.388	163.809	-1.620	1.00	102.66	N
ATOM	42537	CD	ARG I	58	243.603	176.508	-16.454	1.00	109.03	C	ATOM	42587	CA	THR I	64	243.407	162.896	-0.486	1.00	102.66	C
ATOM	42538	NE	ARG I	58	242.384	177.291	-16.622	1.00	109.03	N	ATOM	42588	O	THR I	64	242.456	161.791	-0.881	1.00	102.66	C
ATOM	42539	CZ	ARG I	58	242.269	178.337	-17.432	1.00	109.03	C	ATOM	42589	O	THR I	64	241.341	162.062	-1.328	1.00	102.66	C
ATOM	42540	NH1	ARG I	58	243.301	178.740	-18.159	1.00	109.03	N	ATOM	42590	CB	THR I	64	242.864	163.536	0.795	1.00	109.33	O
ATOM	42541	NH2	ARG I	58	241.116	178.981	-17.519	1.00	109.03	N	ATOM	42591	OG1	THR I	64	243.725	164.607	1.190	1.00	109.33	O
ATOM	42542	N	PHE I	59	245.718	173.603	-14.777	1.00	99.07	N	ATOM	42592	CG2	THR I	64	242.793	162.504	1.919	1.00	109.33	C
ATOM	42543	CA	PHE I	59	245.406	173.443	-13.358	1.00	99.07	C	ATOM	42593	N	VAL I	65	242.892	160.548	-0.716	1.00	88.32	N
ATOM	42544	C	PHE I	59	246.507	172.738	-12.595	1.00	99.07	C	ATOM	42594	CA	VAL I	65	242.064	159.410	-1.081	1.00	88.32	C
ATOM	42545	O	PHE I	59	247.671	172.755	-12.983	1.00	99.07	O	ATOM	42595	C	VAL I	65	242.157	158.301	-0.038	1.00	88.32	C
ATOM	42546	CB	PHE I	59	244.118	172.649	-13.159	1.00	83.44	C	ATOM	42596	O	VAL I	65	243.239	157.793	0.251	1.00	88.32	O
ATOM	42547	CG	PHE I	59	242.886	173.485	-13.183	1.00	83.44	C	ATOM	42597	CB	VAL I	65	242.481	158.873	-2.471	1.00	83.63	C



Table 1: Sheet 428/521

ATOM	42598	CG1 VAL I 65	243.839	158.192	-2.393	1.00	83.63	C	ATOM	42548	CD GLN I 73	242.249	154.489	-2.998	1.00	54.43	C
ATOM	42599	CG2 VAL I 65	241.427	157.941	-3.000	1.00	83.63	C	ATOM	42649	OE1 GLN I 73	243.350	154.544	-3.559	1.00	54.43	O
ATOM	42600	N ARG I 66	241.014	157.940	0.536	1.00	77.12	N	ATOM	42650	NE2 GLN I 73	242.122	154.351	-1.675	1.00	54.43	N
ATOM	42601	CA ARG I 66	240.964	156.889	1.545	1.00	77.12	C	ATOM	42651	N ILE I 74	240.398	155.465	-8.146	1.00	71.24	N
ATOM	42602	C ARG I 66	239.682	156.072	1.409	1.00	77.12	C	ATOM	42652	CA ILE I 74	240.580	156.074	-9.465	1.00	71.24	C
ATOM	42603	O ARG I 66	238.586	156.632	1.351	1.00	77.12	O	ATOM	42653	C ILE I 74	239.280	156.644	-10.012	1.00	71.24	C
ATOM	42604	CB ARG I 66	241.022	157.498	2.942	1.00	118.20	C	ATOM	42654	O ILE I 74	239.307	157.586	-10.803	1.00	71.24	O
ATOM	42605	CG ARG I 66	241.127	156.473	4.059	1.00	118.20	C	ATOM	42655	CB ILE I 74	241.117	155.087	-10.532	1.00	61.70	C
ATOM	42606	CD ARG I 66	240.245	156.864	5.230	1.00	118.20	C	ATOM	42656	CG1 ILE I 74	242.480	154.540	-10.121	1.00	61.70	C
ATOM	42607	NE ARG I 66	240.388	158.275	5.587	1.00	118.20	N	ATOM	42657	CG2 ILE I 74	241.278	155.812	-11.872	1.00	61.70	C
ATOM	42608	CZ ARG I 66	241.452	158.799	6.185	1.00	118.20	C	ATOM	42658	CD1 ILE I 74	243.088	153.592	-11.139	1.00	61.70	C
ATOM	42609	NH1 ARG I 66	242.486	158.032	6.508	1.00	118.20	N	ATOM	42659	N ASP I 75	238.144	156.073	-9.613	1.00	71.49	N
ATOM	42610	NH2 ARG I 66	241.484	160.096	6.456	1.00	118.20	N	ATOM	42660	CA ASP I 75	236.858	156.576	-10.090	1.00	71.49	C
ATOM	42611	N GLY I 67	239.822	154.749	1.350	1.00	97.15	N	ATOM	42661	C ASP I 75	236.306	157.682	-9.194	1.00	71.49	C
ATOM	42612	CA GLY I 67	238.652	153.893	1.240	1.00	97.15	C	ATOM	42662	O ASP I 75	235.575	158.561	-9.657	1.00	71.49	O
ATOM	42613	C GLY I 67	238.538	153.078	-0.033	1.00	97.15	C	ATOM	42663	CB ASP I 75	235.844	155.439	-10.216	1.00	146.57	C
ATOM	42614	O GLY I 67	238.622	153.613	-1.138	1.00	97.15	O	ATOM	42664	CG ASP I 75	236.108	154.561	-11.422	1.00	146.57	C
ATOM	42615	N GLY I 68	238.346	151.772	0.133	1.00	91.38	N	ATOM	42665	OD1 ASP I 75	236.307	155.115	-12.524	1.00	146.57	O
ATOM	42616	CA GLY I 68	238.202	150.879	-1.004	1.00	91.38	C	ATOM	42666	OD2 ASP I 75	236.111	153.322	-11.273	1.00	146.57	O
ATOM	42617	C GLY I 68	239.465	150.274	-1.598	1.00	91.38	C	ATOM	42667	N ALA I 76	236.660	157.637	-7.913	1.00	75.86	N
ATOM	42618	O GLY I 68	240.259	149.621	-0.911	1.00	91.38	O	ATOM	42668	CA ALA I 76	236.220	158.655	-6.966	1.00	75.86	C
ATOM	42619	N GLY I 69	239.630	150.477	-2.901	1.00	58.08	N	ATOM	42669	C ALA I 76	236.949	159.934	-7.360	1.00	75.86	C
ATOM	42620	CA GLY I 69	240.786	149.957	-3.612	1.00	58.08	C	ATOM	42670	O ALA I 76	236.344	161.004	-7.520	1.00	75.86	O
ATOM	42621	C GLY I 69	241.245	150.965	-4.651	1.00	58.08	C	ATOM	42671	CB ALA I 76	236.596	158.243	-5.545	1.00	39.52	C
ATOM	42622	O GLY I 69	240.455	151.785	-5.128	1.00	58.08	O	ATOM	42672	N ILE I 77	238.261	159.794	-7.520	1.00	55.56	N
ATOM	42623	N LYS I 70	242.518	150.900	-5.021	1.00	64.57	N	ATOM	42673	CA ILE I 77	239.130	160.886	-7.916	1.00	55.56	C
ATOM	42624	CA LYS I 70	243.067	151.845	-5.984	1.00	64.57	C	ATOM	42674	C ILE I 77	238.664	161.451	-9.257	1.00	55.56	C
ATOM	42625	C LYS I 70	242.281	151.956	-7.281	1.00	64.57	C	ATOM	42675	O ILE I 77	238.668	162.662	-9.469	1.00	55.56	O
ATOM	42626	O LYS I 70	242.529	152.847	-8.082	1.00	64.57	O	ATOM	42676	CB ILE I 77	240.594	160.389	-8.013	1.00	57.61	C
ATOM	42627	CB LYS I 70	244.542	151.524	-6.265	1.00	74.81	C	ATOM	42677	CG1 ILE I 77	241.203	160.350	-6.607	1.00	57.61	C
ATOM	42628	CG LYS I 70	245.409	151.578	-5.005	1.00	74.81	C	ATOM	42678	CG2 ILE I 77	241.397	161.248	-8.980	1.00	57.61	C
ATOM	42629	CD LYS I 70	246.887	151.741	-5.315	1.00	74.81	C	ATOM	42679	CD1 ILE I 77	242.636	159.854	-6.558	1.00	57.61	C
ATOM	42630	CE LYS I 70	247.699	151.718	-4.025	1.00	74.81	C	ATOM	42680	N LYS I 78	238.251	160.573	-10.160	1.00	63.61	N
ATOM	42631	NZ LYS I 70	249.162	151.989	-4.206	1.00	74.81	N	ATOM	42681	CA LYS I 78	237.773	161.012	-11.460	1.00	63.61	C
ATOM	42632	N SER I 71	241.327	151.060	-7.492	1.00	61.83	N	ATOM	42682	C LYS I 78	236.531	161.888	-11.272	1.00	63.61	C
ATOM	42633	CA SER I 71	240.517	151.137	-8.699	1.00	61.83	C	ATOM	42683	O LYS I 78	236.342	162.869	-11.999	1.00	63.61	O
ATOM	42634	C SER I 71	239.324	152.026	-8.390	1.00	61.83	C	ATOM	42684	CB LYS I 78	237.439	159.798	-12.325	1.00	82.00	C
ATOM	42635	O SER I 71	238.970	152.905	-9.176	1.00	61.83	O	ATOM	42685	CG LYS I 78	237.151	160.116	-13.781	1.00	82.00	C
ATOM	42636	CB SER I 71	240.033	149.753	-9.131	1.00	86.80	C	ATOM	42686	CD LYS I 78	235.722	159.751	-14.164	1.00	82.00	C
ATOM	42637	OG SER I 71	239.253	149.851	-10.309	1.00	86.80	O	ATOM	42687	CE LYS I 78	235.366	158.319	-13.749	1.00	82.00	C
ATOM	42638	N GLY I 72	238.711	151.797	-7.233	1.00	80.41	N	ATOM	42688	NZ LYS I 78	236.272	157.273	-14.320	1.00	82.00	N
ATOM	42639	CA GLY I 72	237.569	152.599	-6.835	1.00	80.41	C	ATOM	42689	N LEU I 79	235.693	161.537	-10.293	1.00	73.53	N
ATOM	42640	C GLY I 72	238.002	154.031	-6.598	1.00	80.41	C	ATOM	42690	CA LEU I 79	234.473	162.299	-10.018	1.00	73.53	C
ATOM	42641	O GLY I 72	237.269	154.982	-6.885	1.00	80.41	O	ATOM	42691	C LEU I 79	234.835	163.581	-9.290	1.00	73.53	C
ATOM	42642	N GLN I 73	239.210	154.178	-6.065	1.00	65.48	N	ATOM	42692	O LEU I 79	234.226	164.626	-9.527	1.00	73.53	O
ATOM	42643	CA GLN I 73	239.749	155.488	-5.799	1.00	65.48	C	ATOM	42693	CB LEU I 79	233.481	161.474	-9.172	1.00	49.30	C
ATOM	42644	C GLN I 73	239.915	156.185	-7.133	1.00	65.48	C	ATOM	42694	CG LEU I 79	231.988	161.868	-8.982	1.00	49.30	C
ATOM	42645	O GLN I 73	239.578	157.358	-7.252	1.00	65.48	O	ATOM	42695	CD1 LEU I 79	231.795	162.459	-7.614	1.00	49.30	C
ATOM	42646	CB GLN I 73	241.079	155.366	-5.072	1.00	54.43	C	ATOM	42696	CD2 LEU I 79	231.498	162.836	-10.074	1.00	49.30	C
ATOM	42647	CG GLN I 73	240.956	154.554	-3.800	1.00	54.43	C	ATOM	42697	N GLY I 80	235.825	163.503	-8.403	1.00	74.79	N



ATOM	42698	CA	GLY I	80	236.243	164.696	-7.686	1.00	74.79	C	ATOM	42748	O	GLN I	87	233.338	177.351	-9.427	1.00145.03	O	
ATOM	42699	C	GLY I	80	236.650	165.774	-8.678	1.00	74.79	C	ATOM	42749	CB	GLN I	87	233.454	174.685	-7.538	1.00104.16	C	
ATOM	42700	O	GLY I	80	236.065	166.861	-8.719	1.00	74.79	O	ATOM	42750	CG	GLN I	87	232.533	173.866	-6.662	1.00104.16	C	
ATOM	42701	N	ILE I	81	237.658	165.450	-9.483	1.00	64.52	N	ATOM	42751	CD	GLN I	87	232.900	173.962	-5.189	1.00104.16	C	
ATOM	42702	CA	ILE I	81	238.182	166.335	-10.513	1.00	64.52	C	ATOM	42752	OE1	GLN I	87	234.041	173.705	-4.802	1.00104.16	O	
ATOM	42703	C	ILE I	81	237.065	166.824	-11.431	1.00	64.52	C	ATOM	42753	NE2	GLN I	87	231.930	174.333	-4.360	1.00104.16	N	
ATOM	42704	O	ILE I	81	237.169	167.887	-12.043	1.00	64.52	O	ATOM	42754	N	TYR I	88	234.781	175.783	-10.143	1.00	88.57	N
ATOM	42705	CB	ILE I	81	239.243	165.592	-11.348	1.00	63.31	C	ATOM	42755	CA	TYR I	88	235.643	176.730	-10.824	1.00	88.57	C
ATOM	42706	CG1	ILE I	81	240.401	165.179	-10.429	1.00	63.31	C	ATOM	42756	C	TYR I	88	234.762	177.434	-11.843	1.00	88.57	C
ATOM	42707	CG2	ILE I	81	239.718	166.456	-12.505	1.00	63.31	C	ATOM	42757	O	TYR I	88	234.349	178.567	-11.636	1.00	88.57	O
ATOM	42708	CD1	ILE I	81	241.530	164.424	-11.123	1.00	63.31	C	ATOM	42758	CB	TYR I	88	236.780	175.991	-11.522	1.00102.34	C	
ATOM	42709	N	ALA I	82	235.992	166.045	-11.524	1.00	90.25	N	ATOM	42759	CG	TYR I	88	237.587	176.853	-12.456	1.00102.34	C	
ATOM	42710	CA	ALA I	82	234.860	166.406	-12.366	1.00	90.25	C	ATOM	42760	CD1	TYR I	88	238.460	177.818	-11.967	1.00102.34	C	
ATOM	42711	C	ALA I	82	233.973	167.431	-11.669	1.00	90.25	C	ATOM	42761	CD2	TYR I	88	237.459	176.715	-13.835	1.00102.34	C	
ATOM	42712	O	ALA I	82	233.465	168.347	-12.307	1.00	90.25	O	ATOM	42762	CE1	TYR I	88	239.186	178.627	-12.824	1.00102.34	C	
ATOM	42713	CB	ALA I	82	234.055	165.162	-12.715	1.00131.77	C	ATOM	42763	CE2	TYR I	88	238.178	177.516	-14.704	1.00102.34	C		
ATOM	42714	N	ARG I	83	233.787	167.267	-10.361	1.00	79.91	N	ATOM	42764	CZ	TYR I	88	239.039	178.472	-14.194	1.00102.34	C	
ATOM	42715	CA	ARG I	83	232.967	168.186	-9.574	1.00	79.91	C	ATOM	42765	OH	TYR I	88	239.743	179.277	-15.061	1.00102.34	O	
ATOM	42716	C	ARG I	83	233.684	169.512	-9.409	1.00	79.91	C	ATOM	42766	N	ASN I	89	234.464	176.755	-12.941	1.00	80.31	N
ATOM	42717	O	ARG I	83	233.133	170.567	-9.720	1.00	79.91	O	ATOM	42767	CA	ASN I	89	233.603	177.327	-13.960	1.00	80.31	C
ATOM	42718	CB	ARG I	83	232.689	167.611	-8.187	1.00	82.16	C	ATOM	42768	C	ASN I	89	232.366	176.446	-14.101	1.00	80.31	C
ATOM	42719	CG	ARG I	83	231.544	166.623	-8.120	1.00	82.16	C	ATOM	42769	O	ASN I	89	232.443	175.315	-14.589	1.00	80.31	O
ATOM	42720	CD	ARG I	83	231.472	165.985	-6.736	1.00	82.16	C	ATOM	42770	CB	ASN I	89	234.344	177.427	-15.296	1.00	86.36	C
ATOM	42721	NE	ARG I	83	230.189	165.330	-6.499	1.00	82.16	N	ATOM	42771	CG	ASN I	89	233.452	177.931	-16.426	1.00	86.36	C
ATOM	42722	CZ	ARG I	83	229.861	164.723	-5.363	1.00	82.16	C	ATOM	42772	OD1	ASN I	89	232.505	178.682	-16.194	1.00	86.36	O
ATOM	42723	NH1	ARG I	83	230.734	164.687	-4.363	1.00	82.16	N	ATOM	42773	ND2	ASN I	89	233.762	177.530	-17.654	1.00	86.36	N
ATOM	42724	NH2	ARG I	83	228.660	164.171	-5.221	1.00	82.16	N	ATOM	42774	N	PRO I	90	231.201	176.953	-13.668	1.00109.11	N	
ATOM	42725	N	ALA I	84	234.912	169.453	-8.906	1.00	76.97	N	ATOM	42775	CA	PRO I	90	229.950	176.198	-13.750	1.00109.11	C	
ATOM	42726	CA	ALA I	84	235.704	170.654	-8.706	1.00	76.97	C	ATOM	42776	C	PRO I	90	229.567	175.907	-15.188	1.00109.11	C	
ATOM	42727	C	ALA I	84	235.721	171.491	-9.970	1.00	76.97	C	ATOM	42777	O	PRO I	90	228.969	174.878	-15.479	1.00109.11	O	
ATOM	42728	O	ALA I	84	235.471	172.690	-9.924	1.00	76.97	O	ATOM	42778	CB	PRO I	90	228.952	177.127	-13.080	1.00	85.11	C
ATOM	42729	CB	ALA I	84	237.117	170.294	-8.312	1.00	73.24	C	ATOM	42779	CG	PRO I	90	229.442	178.467	-13.506	1.00	85.11	C
ATOM	42730	N	LEU I	85	236.013	170.862	-11.101	1.00	71.73	N	ATOM	42780	CD	PRO I	90	230.937	178.343	-13.258	1.00	85.11	C
ATOM	42731	CA	LEU I	85	236.058	171.577	-12.371	1.00	71.73	C	ATOM	42781	N	ASP I	91	229.923	176.828	-16.079	1.00	98.06	N
ATOM	42732	C	LEU I	85	234.786	172.398	-12.615	1.00	71.73	C	ATOM	42782	CA	ASP I	91	229.617	176.718	-17.503	1.00	98.06	C
ATOM	42733	O	LEU I	85	234.757	173.252	-13.500	1.00	71.73	O	ATOM	42783	C	ASP I	91	230.095	175.422	-18.155	1.00	98.06	C
ATOM	42734	CB	LEU I	85	236.260	170.590	-13.527	1.00109.21	C	ATOM	42784	O	ASP I	91	229.668	175.089	-19.260	1.00	98.06	O	
ATOM	42735	CG	LEU I	85	237.479	170.809	-14.427	1.00109.21	C	ATOM	42785	CB	ASP I	91	230.213	177.915	-18.250	1.00138.21	C		
ATOM	42736	CD1	LEU I	85	238.743	170.636	-13.609	1.00109.21	C	ATOM	42786	CG	ASP I	91	229.677	179.242	-17.745	1.00138.21	C		
ATOM	42737	CD2	LEU I	85	237.462	169.819	-15.577	1.00109.21	C	ATOM	42787	OD1	ASP I	91	229.847	179.541	-16.543	1.00138.21	O		
ATOM	42738	N	VAL I	86	233.738	172.140	-11.835	1.00114.93	N	ATOM	42788	OD2	ASP I	91	229.083	179.987	-18.552	1.00138.21	O		
ATOM	42739	CA	VAL I	86	232.482	172.873	-11.990	1.00114.93	C	ATOM	42789	N	TYR I	92	230.973	174.697	-17.468	1.00148.58	N		
ATOM	42740	C	VAL I	86	232.389	174.084	-11.059	1.00114.93	C	ATOM	42790	CA	TYR I	92	231.516	173.438	-17.978	1.00148.58	C		
ATOM	42741	O	VAL I	86	231.873	175.131	-11.456	1.00114.93	O	ATOM	42791	C	TYR I	92	230.469	172.359	-18.234	1.00148.58	C		
ATOM	42742	CB	VAL I	86	231.263	171.956	-11.760	1.00	72.77	C	ATOM	42792	O	TYR I	92	230.362	171.849	-19.348	1.00148.58	O	
ATOM	42743	CG1	VAL I	86	229.984	172.765	-11.845	1.00	72.77	C	ATOM	42793	CB	TYR I	92	232.558	172.886	-17.009	1.00110.97	C	
ATOM	42744	CG2	VAL I	86	231.239	170.864	-12.810	1.00	72.77	C	ATOM	42794	CG	TYR I	92	233.916	173.537	-17.113	1.00110.97	C	
ATOM	42745	N	GLN I	87	232.873	173.944	-9.825	1.00145.03	N	ATOM	42795	CD1	TYR I	92	234.877	173.321	-16.130	1.00110.97	C		
ATOM	42746	CA	GLN I	87	232.852	175.067	-8.890	1.00145.03	C	ATOM	42796	CD2	TYR I	92	234.249	174.359	-18.193	1.00110.97	C		
ATOM	42747	C	GLN I	87	233.680	176.174	-9.516	1.00145.03	C	ATOM	42797	CE1	TYR I	92	236.134	173.904	-16.206	1.00110.97	C		



Table 1: Sheet 430/521

ATOM	42798	CE2	TYR	I	92	235.510	174.949	-18.284	1.00110.97	C	ATOM	42848	CG	PRO	I	98	226.866	166.733	-22.431	1.00105.85	C
ATOM	42799	CZ	TYR	I	92	236.446	174.718	-17.283	1.00110.97	C	ATOM	42849	CD	PRO	I	98	227.590	166.844	-21.102	1.00105.85	C
ATOM	42800	OH	TYR	I	92	237.690	175.304	-17.339	1.00110.97	C	ATOM	42850	N	LEU	I	99	229.103	163.353	-20.973	1.00 75.23	N
ATOM	42801	N	ARG	I	93	229.723	172.004	-17.189	1.00 84.09	N	ATOM	42851	CA	LEU	I	99	230.032	162.230	-20.841	1.00 75.23	C
ATOM	42802	CA	ARG	I	93	228.679	170.990	-17.268	1.00 84.09	C	ATOM	42852	C	LEU	I	99	229.662	161.445	-19.591	1.00 75.23	C
ATOM	42803	C	ARG	I	93	228.266	170.632	-18.683	1.00 84.09	C	ATOM	42853	O	LEU	I	99	230.015	160.275	-19.447	1.00 75.23	O
ATOM	42804	O	ARG	I	93	228.380	169.483	-19.086	1.00 84.09	O	ATOM	42854	CB	LEU	I	99	231.469	162.734	-20.708	1.00 85.77	C
ATOM	42805	CB	ARG	I	93	227.444	171.445	-16.495	1.00109.85	C	ATOM	42855	CG	LEU	I	99	232.246	163.107	-21.971	1.00 85.77	C
ATOM	42806	CG	ARG	I	93	227.705	171.646	-15.027	1.00109.85	C	ATOM	42856	CD1	LEU	I	99	232.542	161.838	-22.750	1.00 85.77	C
ATOM	42807	CD	ARG	I	93	226.437	171.495	-14.228	1.00109.85	C	ATOM	42857	CD2	LEU	I	99	231.454	164.106	-22.815	1.00 85.77	C
ATOM	42808	NE	ARG	I	93	226.741	171.043	-12.877	1.00109.85	N	ATOM	42858	N	GLY	I	100	228.972	162.120	-18.678	1.00 78.83	N
ATOM	42809	CZ	ARG	I	93	225.834	170.597	-12.016	1.00109.85	C	ATOM	42859	CA	GLY	I	100	228.520	161.494	-17.452	1.00 78.83	C
ATOM	42810	NH1	ARG	I	93	224.560	170.547	-12.372	1.00109.85	N	ATOM	42860	C	GLY	I	100	229.499	161.475	-16.305	1.00 78.83	C
ATOM	42812	N	ALA	I	94	227.792	171.623	-19.431	1.00 87.55	N	ATOM	42862	N	PHE	I	101	230.567	162.258	-16.391	1.00 91.19	N
ATOM	42813	CA	ALA	I	94	227.345	171.424	-20.810	1.00 87.55	C	ATOM	42863	CA	PHE	I	101	231.547	162.280	-15.310	1.00 91.19	C
ATOM	42814	O	ALA	I	94	228.130	170.380	-21.601	1.00 87.55	O	ATOM	42864	C	PHE	I	101	230.941	162.787	-14.004	1.00 91.19	C
ATOM	42815	O	ALA	I	94	227.562	169.701	-22.457	1.00 87.55	O	ATOM	42865	O	PHE	I	101	231.477	162.527	-12.923	1.00 91.19	C
ATOM	42816	CB	ALA	I	94	227.357	172.752	-21.558	1.00 62.76	C	ATOM	42866	CB	PHE	I	101	232.745	163.160	-15.673	1.00105.05	C
ATOM	42817	N	LYS	I	95	229.428	170.255	-21.326	1.00116.42	N	ATOM	42867	CG	PHE	I	101	233.568	162.635	-16.811	1.00105.05	C
ATOM	42818	CA	LYS	I	95	230.272	169.282	-22.025	1.00116.42	C	ATOM	42868	CD1	PHE	I	101	233.417	163.149	-18.094	1.00105.05	C
ATOM	42819	C	LYS	I	95	230.812	168.210	-21.087	1.00116.42	C	ATOM	42869	CD2	PHE	I	101	234.512	161.640	-16.593	1.00105.05	C
ATOM	42820	O	LYS	I	95	231.128	167.097	-21.511	1.00116.42	O	ATOM	42870	CE1	PHE	I	101	234.198	162.684	-19.145	1.00105.05	C
ATOM	42821	CB	LYS	I	95	231.448	169.983	-22.714	1.00125.02	C	ATOM	42871	CE2	PHE	I	101	235.297	161.167	-17.637	1.00105.05	C
ATOM	42822	CG	LYS	I	95	231.308	170.089	-24.226	1.00125.02	C	ATOM	42872	CZ	PHE	I	101	235.140	161.693	-18.918	1.00105.05	C
ATOM	42823	CD	LYS	I	95	231.193	168.710	-24.876	1.00125.02	C	ATOM	42873	NA	LEU	I	102	229.825	163.507	-14.106	1.00 82.30	N
ATOM	42824	CE	LYS	I	95	231.057	168.817	-26.389	1.00125.02	C	ATOM	42874	CA	LEU	I	102	229.168	164.059	-12.925	1.00 82.30	C
ATOM	42825	NZ	LYS	I	95	230.963	167.480	-27.036	1.00125.02	N	ATOM	42875	C	LEU	I	102	228.101	163.156	-12.334	1.00 82.30	C
ATOM	42826	N	LEU	I	96	230.910	168.556	-19.811	1.00103.26	N	ATOM	42876	O	LEU	I	102	227.134	163.624	-11.746	1.00 82.30	O
ATOM	42827	CA	LEU	I	96	231.416	167.644	-18.799	1.00103.26	C	ATOM	42877	CB	LEU	I	102	228.573	165.434	-13.246	1.00 85.55	C
ATOM	42828	O	LEU	I	96	230.398	166.563	-18.414	1.00103.26	C	ATOM	42878	CG	LEU	I	102	229.618	166.546	-13.402	1.00 85.55	C
ATOM	42830	CB	LEU	I	96	230.778	165.473	-17.984	1.00103.48	C	ATOM	42879	CD1	LEU	I	102	228.942	167.811	-13.870	1.00 85.55	C
ATOM	42831	CG	LEU	I	96	231.821	168.448	-17.564	1.00103.48	C	ATOM	42880	CD2	LEU	I	102	230.344	166.784	-12.077	1.00 85.55	C
ATOM	42832	CD1	LEU	I	96	232.535	167.706	-16.440	1.00103.48	C	ATOM	42881	N	THR	I	103	228.296	161.854	-12.491	1.00 80.04	N
ATOM	42833	CD2	LEU	I	96	233.784	167.041	-16.981	1.00103.48	C	ATOM	42882	CA	THR	I	103	227.377	160.856	-11.965	1.00 80.04	C
ATOM	42834	N	LYS	I	97	232.886	168.689	-15.337	1.00103.48	C	ATOM	42883	C	THR	I	103	228.127	160.077	-10.897	1.00 80.04	C
ATOM	42835	CA	LYS	I	97	229.110	166.863	-18.578	1.00101.67	N	ATOM	42884	O	THR	I	103	229.354	159.996	-10.936	1.00 80.04	O
ATOM	42836	C	LYS	I	97	228.046	165.918	-18.234	1.00101.67	C	ATOM	42885	CB	THR	I	103	226.944	159.863	-13.055	1.00 75.59	C
ATOM	42837	O	LYS	I	97	227.616	164.979	-19.345	1.00101.67	C	ATOM	42886	OG1	THR	I	103	226.278	160.561	-14.117	1.00 75.59	O
ATOM	42838	CB	LYS	I	97	227.344	163.817	-19.084	1.00101.67	O	ATOM	42887	CG2	THR	I	103	226.020	158.817	-12.469	1.00 75.59	C
ATOM	42839	CG	LYS	I	97	226.811	166.650	-17.712	1.00181.50	C	ATOM	42888	NA	ARG	I	104	227.406	159.508	-9.940	1.00 92.24	N
ATOM	42840	CD	LYS	I	97	226.932	167.099	-16.274	1.00181.50	C	ATOM	42889	CA	ARG	I	104	228.064	158.735	-8.900	1.00 92.24	C
ATOM	42841	CE	LYS	I	97	225.605	167.610	-15.738	1.00181.50	C	ATOM	42890	C	ARG	I	104	227.686	157.268	-9.048	1.00 92.24	C
ATOM	42842	NZ	LYS	I	97	225.725	168.019	-14.276	1.00181.50	N	ATOM	42891	O	ARG	I	104	226.688	156.813	-8.486	1.00 92.24	O
ATOM	42843	N	PRO	I	98	224.418	168.418	-13.691	1.00181.50	N	ATOM	42892	CG	ARG	I	104	227.668	159.251	-7.517	1.00 64.82	C
ATOM	42844	CA	PRO	I	98	227.514	165.465	-20.591	1.00 81.27	N	ATOM	42893	CB	ARG	I	104	228.588	158.787	-6.387	1.00 64.82	C
ATOM	42845	C	PRO	I	98	227.103	164.544	-21.652	1.00 81.27	C	ATOM	42894	CD	ARG	I	104	228.206	157.430	-5.830	1.00 64.82	C
ATOM	42846	O	PRO	I	98	227.961	163.279	-21.653	1.00 81.27	C	ATOM	42895	NE	ARG	I	104	229.210	156.917	-4.900	1.00 64.82	N
ATOM	42847	CB	PRO	I	98	227.597	162.269	-22.250	1.00 81.27	O	ATOM	42896	CZ	ARG	I	104	229.000	155.913	-4.052	1.00 64.82	C
ATOM	42847	CB	PRO	I	98	227.277	165.383	-22.907	1.00105.85	C	ATOM	42897	NH1	ARG	I	104	227.816	155.318	-4.012	1.00 64.82	N



ATOM	42898	NH2	ARG I 104	229.970	155.487	-3.247	1.00	64.82	N	ATOM	42948	C	ARG I 111	224.883	140.078	0.058	1.00	62.45	C
ATOM	42899	N	ASP I 105	228.483	156.542	-9.828	1.00	80.86	N	ATOM	42949	O	ARG I 111	224.462	139.603	-0.989	1.00	62.45	O
ATOM	42900	CA	ASP I 105	228.260	155.124	-10.066	1.00	80.86	C	ATOM	42950	CB	ARG I 111	223.504	141.963	1.029	1.00	89.61	C
ATOM	42901	C	ASP I 105	227.814	154.484	-8.752	1.00	80.86	C	ATOM	42951	CD	ARG I 111	223.279	141.347	2.395	1.00	89.61	C
ATOM	42902	O	ASP I 105	228.610	154.339	-7.819	1.00	80.86	O	ATOM	42952	CG	ARG I 111	222.922	139.891	2.272	1.00	89.61	C
ATOM	42903	CB	ASP I 105	229.560	154.494	-10.576	1.00	107.44	C	ATOM	42953	NE	ARG I 111	222.225	139.390	3.445	1.00	89.61	N
ATOM	42904	CG	ASP I 105	229.414	153.025	-10.900	1.00	107.44	C	ATOM	42954	CZ	ARG I 111	221.079	139.888	3.889	1.00	89.61	C
ATOM	42905	OD1	ASP I 105	229.305	152.213	-9.957	1.00	107.44	O	ATOM	42955	NH1	ARG I 111	220.506	140.906	3.256	1.00	89.61	N
ATOM	42906	OD2	ASP I 105	229.407	152.684	-12.102	1.00	107.44	O	ATOM	42956	NH2	ARG I 111	220.501	139.358	4.957	1.00	89.61	N
ATOM	42907	N	ALA I 106	226.535	154.116	-8.677	1.00	60.78	N	ATOM	42957	N	LYS I 112	225.440	139.346	1.013	1.00	47.35	N
ATOM	42908	CA	ALA I 106	225.979	153.523	-7.458	1.00	60.78	C	ATOM	42958	CA	LYS I 112	225.576	137.900	0.916	1.00	47.35	C
ATOM	42909	C	ALA I 106	226.139	151.998	-7.316	1.00	60.78	C	ATOM	42959	C	LYS I 112	224.365	137.272	1.593	1.00	47.35	C
ATOM	42910	O	ALA I 106	225.561	151.382	-6.413	1.00	60.78	O	ATOM	42960	O	LYS I 112	224.324	137.182	2.819	1.00	47.35	O
ATOM	42911	CB	ALA I 106	224.511	153.910	-7.332	1.00	39.73	C	ATOM	42961	CB	LYS I 112	226.858	137.467	1.632	1.00	45.00	C
ATOM	42912	N	ARG I 107	226.936	151.401	-8.199	1.00	50.94	N	ATOM	42962	CG	LYS I 112	227.230	135.996	1.506	1.00	45.00	C
ATOM	42913	CA	ARG I 107	227.180	149.968	-8.180	1.00	50.94	C	ATOM	42963	CD	LYS I 112	226.352	135.102	2.345	1.00	45.00	C
ATOM	42914	C	ARG I 107	228.056	149.621	-6.982	1.00	50.94	C	ATOM	42964	CE	LYS I 112	226.753	133.634	2.225	1.00	45.00	C
ATOM	42915	O	ARG I 107	229.210	150.029	-6.904	1.00	50.94	O	ATOM	42965	NZ	LYS I 112	225.886	132.724	3.036	1.00	45.00	N
ATOM	42916	CB	ARG I 107	227.821	149.554	-9.510	1.00	65.62	C	ATOM	42966	N	LYS I 113	223.375	136.848	0.810	1.00	40.52	N
ATOM	42917	CG	ARG I 107	227.035	150.136	-10.683	1.00	65.62	C	ATOM	42967	CA	LYS I 113	222.170	136.242	1.380	1.00	40.52	C
ATOM	42918	CD	ARG I 107	227.381	149.579	-12.049	1.00	65.62	C	ATOM	42968	C	LYS I 113	222.401	134.832	1.902	1.00	40.52	C
ATOM	42919	NE	ARG I 107	228.749	149.871	-12.453	1.00	65.62	N	ATOM	42969	O	LYS I 113	223.278	134.124	1.425	1.00	40.52	O
ATOM	42920	CZ	ARG I 107	229.732	148.979	-12.423	1.00	65.62	C	ATOM	42970	CB	LYS I 113	221.049	136.216	0.354	1.00	42.83	C
ATOM	42921	NH1	ARG I 107	229.485	147.744	-12.008	1.00	65.62	N	ATOM	42971	CG	LYS I 113	220.557	137.585	-0.034	1.00	42.83	C
ATOM	42922	NH2	ARG I 107	230.956	149.318	-12.809	1.00	65.62	N	ATOM	42972	CD	LYS I 113	221.542	138.275	-0.919	1.00	42.83	C
ATOM	42923	N	VAL I 108	227.478	148.880	-6.041	1.00	50.66	N	ATOM	42973	CE	LYS I 113	220.875	139.392	-1.690	1.00	42.83	C
ATOM	42924	CA	VAL I 108	228.151	148.474	-4.805	1.00	50.66	C	ATOM	42974	NZ	LYS I 113	221.676	139.681	-2.919	1.00	42.83	N
ATOM	42925	C	VAL I 108	228.065	146.956	-4.638	1.00	50.66	C	ATOM	42975	N	TYR I 114	221.615	134.416	2.889	1.00	54.91	N
ATOM	42926	O	VAL I 108	227.256	146.303	-5.290	1.00	50.66	O	ATOM	42976	CA	TYR I 114	221.803	133.085	3.445	1.00	54.91	C
ATOM	42927	CB	VAL I 108	227.456	149.127	-3.575	1.00	52.68	C	ATOM	42977	C	TYR I 114	221.258	132.060	2.484	1.00	54.91	C
ATOM	42928	CG1	VAL I 108	228.312	148.977	-2.323	1.00	52.68	C	ATOM	42978	O	TYR I 114	220.585	132.413	1.519	1.00	54.91	O
ATOM	42929	CG2	VAL I 108	227.164	150.580	-3.865	1.00	52.68	C	ATOM	42979	CB	TYR I 114	221.147	132.969	4.827	1.00	75.70	C
ATOM	42930	N	VAL I 109	228.894	146.394	-3.766	1.00	60.10	N	ATOM	42980	CG	TYR I 114	219.670	133.266	4.876	1.00	75.70	C
ATOM	42931	CA	VAL I 109	228.865	144.956	-3.519	1.00	60.10	C	ATOM	42981	CD1	TYR I 114	218.737	132.315	4.475	1.00	75.70	C
ATOM	42932	C	VAL I 109	227.460	144.575	-3.084	1.00	60.10	C	ATOM	42982	CD2	TYR I 114	219.200	134.485	5.361	1.00	75.70	C
ATOM	42933	O	VAL I 109	226.798	145.349	-2.380	1.00	60.10	O	ATOM	42983	CE1	TYR I 114	217.366	132.567	4.561	1.00	75.70	C
ATOM	42934	CB	VAL I 109	229.813	144.552	-2.376	1.00	31.66	C	ATOM	42984	CE2	TYR I 114	217.834	134.746	5.452	1.00	75.70	C
ATOM	42935	CG1	VAL I 109	229.641	143.078	-2.040	1.00	31.66	C	ATOM	42985	CZ	TYR I 114	216.922	133.781	5.052	1.00	75.70	C
ATOM	42936	CG2	VAL I 109	231.234	144.844	-2.760	1.00	31.66	C	ATOM	42986	OH	TYR I 114	215.567	134.018	5.148	1.00	75.70	O
ATOM	42937	N	GLU I 110	227.014	143.385	-3.491	1.00	51.79	N	ATOM	42987	N	GLY I 115	221.574	130.793	2.734	1.00	52.22	N
ATOM	42938	CA	GLU I 110	225.691	142.897	-3.125	1.00	51.79	C	ATOM	42988	CA	GLY I 115	221.117	129.725	1.861	1.00	52.22	C
ATOM	42939	C	GLU I 110	225.782	142.033	-1.878	1.00	51.79	C	ATOM	42989	C	GLY I 115	221.910	129.665	0.568	1.00	52.22	C
ATOM	42940	O	GLU I 110	226.657	141.176	-1.756	1.00	51.79	O	ATOM	42990	O	GLY I 115	221.947	128.642	-0.103	1.00	52.22	O
ATOM	42941	CB	GLU I 110	225.070	142.096	-4.264	1.00	80.12	C	ATOM	42991	N	LYS I 116	222.544	130.774	0.216	1.00	55.16	N
ATOM	42942	CG	GLU I 110	223.660	141.630	-3.975	1.00	80.12	C	ATOM	42992	CA	LYS I 116	223.337	130.842	-0.992	1.00	55.16	C
ATOM	42943	CD	GLU I 110	222.931	141.199	-5.230	1.00	80.12	C	ATOM	42993	C	LYS I 116	224.796	131.122	-0.674	1.00	55.16	C
ATOM	42944	OE1	GLU I 110	222.874	142.009	-6.181	1.00	80.12	O	ATOM	42994	O	LYS I 116	225.120	131.726	0.346	1.00	55.16	O
ATOM	42945	OE2	GLU I 110	222.414	140.061	-5.269	1.00	80.12	O	ATOM	42995	CB	LYS I 116	222.750	131.892	-1.912	1.00	41.81	C
ATOM	42946	N	ARG I 111	224.874	142.294	-0.947	1.00	62.45	N	ATOM	42996	CG	LYS I 116	221.333	131.515	-2.297	1.00	41.81	C
ATOM	42947	CA	ARG I 111	224.808	141.579	0.316	1.00	62.45	C	ATOM	42997	CD	LYS I 116	220.846	132.343	-3.460	1.00	41.81	C



Table 1: Sheet 432/521

ATOM	42998	CE	LYS I 116	220.099	131.493	-4.492	1.00	41.81	C	ATOM	43048	C	ALA I 122	224.084	127.641	-5.292	1.00	39.19	C
ATOM	42999	NZ	LYS I 116	220.237	132.091	-5.879	1.00	41.81	N	ATOM	43049	O	ALA I 122	224.679	127.222	-6.277	1.00	39.19	O
ATOM	43000	N	HIS I 117	225.679	130.662	-1.550	1.00	46.59	N	ATOM	43050	CB	ALA I 122	222.009	128.848	-5.940	1.00	79.03	C
ATOM	43001	CA	HIS I 117	227.114	130.818	-1.360	1.00	46.59	C	ATOM	43051	N	PRO I 123	224.035	126.948	-4.146	1.00	49.34	N
ATOM	43002	C	HIS I 117	227.673	132.210	-1.497	1.00	46.59	C	ATOM	43052	CA	PRO I 123	224.676	125.635	-4.032	1.00	49.34	C
ATOM	43003	O	HIS I 117	228.666	132.529	-0.864	1.00	46.59	O	ATOM	43053	C	PRO I 123	224.096	124.681	-5.062	1.00	49.34	C
ATOM	43004	CB	HIS I 117	227.861	129.930	-2.337	1.00	57.75	C	ATOM	43054	O	PRO I 123	222.943	124.849	-5.473	1.00	49.34	O
ATOM	43005	CG	HIS I 117	227.840	128.486	-1.971	1.00	57.75	C	ATOM	43055	CB	PRO I 123	224.372	125.218	-2.589	1.00	31.44	C
ATOM	43006	ND1	HIS I 117	228.349	128.018	-0.779	1.00	57.75	N	ATOM	43056	CG	PRO I 123	223.166	126.028	-2.227	1.00	31.44	C
ATOM	43007	CD2	HIS I 117	227.416	127.398	-2.655	1.00	57.75	C	ATOM	43057	CD	PRO I 123	223.433	127.350	-2.867	1.00	31.44	C
ATOM	43008	CE1	HIS I 117	228.244	126.701	-0.748	1.00	57.75	C	ATOM	43058	N	GLN I 124	224.892	123.692	-5.478	1.00	58.08	N
ATOM	43009	NE2	HIS I 117	227.681	126.300	-1.874	1.00	57.75	N	ATOM	43059	CA	GLN I 124	224.473	122.725	-6.501	1.00	58.08	C
ATOM	43010	N	LYS I 118	227.045	133.044	-2.311	1.00	48.38	N	ATOM	43060	C	GLN I 124	223.994	121.394	-5.959	1.00	58.08	C
ATOM	43011	CA	LYS I 118	227.595	134.362	-2.532	1.00	48.38	C	ATOM	43061	O	GLN I 124	224.425	120.954	-4.893	1.00	58.08	O
ATOM	43012	C	LYS I 118	226.603	135.454	-2.918	1.00	48.38	C	ATOM	43062	CB	GLN I 124	225.614	122.435	-7.490	1.00	40.67	C
ATOM	43013	O	LYS I 118	226.942	136.320	-3.736	1.00	48.38	O	ATOM	43063	CG	GLN I 124	226.606	121.368	-7.014	1.00	40.67	C
ATOM	43014	CB	LYS I 118	228.663	134.260	-3.629	1.00	24.91	C	ATOM	43064	CD	GLN I 124	227.446	120.781	-8.149	1.00	40.67	C
ATOM	43015	CG	LYS I 118	229.866	133.383	-3.282	1.00	24.91	C	ATOM	43065	OE1	GLN I 124	227.876	121.502	-9.061	1.00	40.67	O
ATOM	43016	CD	LYS I 118	230.850	133.201	-4.451	1.00	24.91	C	ATOM	43066	NE2	GLN I 124	227.697	119.470	-8.087	1.00	40.67	N
ATOM	43017	CE	LYS I 118	231.291	134.524	-5.098	1.00	24.91	C	ATOM	43067	N	TYR I 125	223.124	120.747	-6.731	1.00	48.31	N
ATOM	43018	NZ	LYS I 118	230.255	135.149	-5.980	1.00	24.91	N	ATOM	43068	CA	TYR I 125	222.573	119.445	-6.370	1.00	48.31	C
ATOM	43019	N	ALA I 119	225.405	135.437	-2.344	1.00	70.19	N	ATOM	43069	C	TYR I 125	222.916	118.397	-7.420	1.00	48.31	C
ATOM	43020	CA	ALA I 119	224.396	136.443	-2.685	1.00	70.19	C	ATOM	43070	O	TYR I 125	223.375	118.722	-8.517	1.00	48.31	O
ATOM	43021	C	ALA I 119	223.526	135.923	-3.810	1.00	70.19	C	ATOM	43071	CB	TYR I 125	221.070	119.553	-6.229	1.00	66.77	C
ATOM	43022	O	ALA I 119	222.327	136.205	-3.879	1.00	70.19	O	ATOM	43072	CG	TYR I 125	220.481	120.322	-7.354	1.00	66.77	C
ATOM	43023	CB	ALA I 119	225.051	137.752	-3.126	1.00	24.78	C	ATOM	43073	CD1	TYR I 125	219.871	119.672	-8.414	1.00	66.77	C
ATOM	43024	N	ARG I 120	224.150	135.181	-4.713	1.00	48.75	N	ATOM	43074	CD2	TYR I 125	220.581	121.709	-7.390	1.00	66.77	C
ATOM	43025	CA	ARG I 120	223.437	134.602	-5.831	1.00	48.75	C	ATOM	43075	CE1	TYR I 125	219.367	120.382	-9.494	1.00	66.77	C
ATOM	43026	C	ARG I 120	223.916	133.187	-6.091	1.00	48.75	C	ATOM	43076	CE2	TYR I 125	220.087	122.436	-8.462	1.00	66.77	C
ATOM	43027	O	ARG I 120	223.112	132.262	-6.154	1.00	48.75	O	ATOM	43077	CE3	TYR I 125	219.479	121.766	-9.515	1.00	66.77	C
ATOM	43028	CB	ARG I 120	223.615	135.468	-7.066	1.00	28.84	C	ATOM	43078	OH	TYR I 125	218.985	122.476	-10.587	1.00	66.77	O
ATOM	43029	CG	ARG I 120	223.090	136.843	-6.863	1.00	28.84	C	ATOM	43079	N	SER I 126	222.682	117.138	-7.072	1.00	86.07	N
ATOM	43030	CD	ARG I 120	222.659	137.480	-8.160	1.00	28.84	C	ATOM	43080	CA	SER I 126	222.979	116.026	-7.962	1.00	86.07	C
ATOM	43031	NE	ARG I 120	222.323	138.877	-7.923	1.00	28.84	N	ATOM	43081	C	SER I 126	221.725	115.451	-8.595	1.00	86.07	C
ATOM	43032	CZ	ARG I 120	221.825	139.702	-8.835	1.00	28.84	C	ATOM	43082	O	SER I 126	221.021	116.127	-9.351	1.00	86.07	O
ATOM	43033	NH1	ARG I 120	221.591	139.283	-10.072	1.00	28.84	N	ATOM	43083	CB	SER I 126	223.683	114.922	-7.185	1.00	198.05	C
ATOM	43034	NH2	ARG I 120	221.555	140.954	-8.503	1.00	28.84	N	ATOM	43084	OG	SER I 126	222.845	114.418	-6.155	1.00	198.05	O
ATOM	43035	N	ARG I 121	225.227	133.025	-6.231	1.00	55.78	N	ATOM	43085	N	LYS I 127	221.454	114.188	-8.278	1.00	90.09	N
ATOM	43036	CA	ARG I 121	225.801	131.713	-6.471	1.00	55.78	C	ATOM	43086	CA	LYS I 127	220.290	113.498	-8.811	1.00	90.09	C
ATOM	43037	C	ARG I 121	225.063	130.749	-5.536	1.00	55.78	O	ATOM	43087	O	LYS I 127	218.995	114.015	-8.204	1.00	90.09	O
ATOM	43038	O	ARG I 121	225.274	130.755	-4.323	1.00	55.78	C	ATOM	43088	C	LYS I 127	218.210	113.246	-7.648	1.00	90.09	C
ATOM	43039	CB	ARG I 121	227.309	131.748	-6.175	1.00	77.25	C	ATOM	43089	CB	LYS I 127	220.409	111.990	-8.574	1.00	86.22	C
ATOM	43040	CG	ARG I 121	228.102	130.546	-6.680	1.00	77.25	C	ATOM	43090	CG	LYS I 127	221.511	111.311	-9.382	1.00	86.22	C
ATOM	43041	CD	ARG I 121	227.802	129.294	-5.865	1.00	77.25	C	ATOM	43091	CD	LYS I 127	222.910	111.721	-8.941	1.00	86.22	C
ATOM	43042	NE	ARG I 121	228.401	128.075	-6.417	1.00	77.25	N	ATOM	43092	CE	LYS I 127	223.952	111.108	-9.860	1.00	86.22	C
ATOM	43043	CZ	ARG I 121	228.182	127.615	-7.647	1.00	77.25	C	ATOM	43093	NZ	LYS I 127	225.340	111.256	-9.359	1.00	86.22	N
ATOM	43044	NH1	ARG I 121	227.380	128.271	-8.475	1.00	77.25	N	ATOM	43094	N	ARG I 128	218.789	115.327	-8.312	1.00	105.24	N
ATOM	43045	NH2	ARG I 121	228.748	126.485	-8.044	1.00	77.25	N	ATOM	43095	CA	ARG I 128	217.579	115.957	-7.811	1.00	105.24	C
ATOM	43046	N	ALA I 122	224.170	129.944	-6.108	1.00	39.19	N	ATOM	43096	C	ARG I 128	216.400	115.298	-8.521	1.00	105.24	C
ATOM	43047	CA	ALA I 122	223.390	128.992	-5.331	1.00	39.19	C	ATOM	43097	O	ARG I 128	216.648	114.558	-9.499	1.00	105.24	O



ATOM	43098	CB	ARG I 128	217.595	117.462	-8.115	1.00117.47	C	ATOM	43148	CG	LYS J	7	231.125	157.485	26.306	1.00	96.73	C	
ATOM	43099	CG	ARG I 128	216.226	118.136	-8.017	1.00117.47	C	ATOM	43149	CD	LYS J	7	232.249	156.451	26.405	1.00	96.73	C	
ATOM	43100	CD	ARG I 128	216.268	119.640	-8.278	1.00117.47	C	ATOM	43150	CE	LYS J	7	232.739	155.990	25.029	1.00	96.73	C	
ATOM	43101	NE	ARG I 128	216.807	120.397	-7.146	1.00117.47	N	ATOM	43151	NZ	LYS J	7	233.489	157.054	24.291	1.00	96.73	N	
ATOM	43102	CZ	ARG I 128	216.772	121.725	-7.046	1.00117.47	C	ATOM	43152	N	LEU J	8	227.289	158.667	26.947	1.00100.17	N		
ATOM	43103	NH1	ARG I 128	216.225	122.453	-8.011	1.00117.47	N	ATOM	43153	CA	LEU J	8	225.950	158.096	26.973	1.00100.17	C		
ATOM	43104	NH2	ARG I 128	217.277	122.329	-5.976	1.00117.47	N	ATOM	43154	C	LEU J	8	225.745	156.982	25.956	1.00100.17	O		
ATOM	43105	OXT	ARG I 128	215.245	115.528	-8.103	1.00146.44	O	ATOM	43155	O	LEU J	8	226.034	157.147	24.774	1.00100.17	O		
TER	43106	ARG I 128							ATOM	43156	CB	LEU J	8	224.920	159.198	26.724	1.00112.85	C		
ATOM	43107	N	LYS J	3	235.811	170.317	32.584	1.00119.06	N	ATOM	43157	CG	LEU J	8	224.539	160.044	27.936	1.00112.85	C	
ATOM	43108	CA	LYS J	3	236.234	169.172	31.729	1.00119.06	C	ATOM	43158	CD1	LEU J	8	223.733	161.264	27.515	1.00112.85	C	
ATOM	43109	C	LYS J	3	235.600	167.872	32.208	1.00119.06	C	ATOM	43159	CD2	LEU J	8	223.743	159.171	28.887	1.00112.85	C	
ATOM	43110	O	LYS J	3	236.292	166.951	32.642	1.00119.06	O	ATOM	43160	N	ARG J	9	225.240	155.847	26.425	1.00	95.39	N
ATOM	43111	CB	LYS J	3	237.761	169.052	31.739	1.00148.46	C	ATOM	43161	CA	ARG J	9	224.980	154.714	25.548	1.00	95.39	C
ATOM	43112	CG	LYS J	3	238.458	170.300	31.225	1.00148.46	C	ATOM	43162	C	ARG J	9	223.554	154.228	25.772	1.00	95.39	C
ATOM	43113	CD	LYS J	3	239.959	170.257	31.434	1.00148.46	C	ATOM	43163	O	ARG J	9	223.016	154.330	26.873	1.00	95.39	O
ATOM	43114	CE	LYS J	3	240.588	171.587	31.036	1.00148.46	C	ATOM	43164	CB	ARG J	9	225.978	153.576	25.813	1.00	92.22	C
ATOM	43115	NZ	LYS J	3	242.050	171.640	31.314	1.00148.46	N	ATOM	43165	CG	ARG J	9	225.907	152.989	27.209	1.00	92.22	C
ATOM	43116	N	ILE J	4	234.275	167.811	32.132	1.00120.45	N	ATOM	43166	CD	ARG J	9	226.941	151.885	27.442	1.00	92.22	C
ATOM	43117	CA	ILE J	4	233.537	166.625	32.540	1.00120.45	C	ATOM	43167	NE	ARG J	9	228.330	152.346	27.391	1.00	92.22	N
ATOM	43118	C	ILE J	4	233.098	165.849	31.302	1.00120.45	C	ATOM	43168	CZ	ARG J	9	229.060	152.419	26.282	1.00	92.22	C
ATOM	43119	O	ILE J	4	232.146	166.235	30.620	1.00120.45	O	ATOM	43169	NH1	ARG J	9	228.539	152.061	25.117	1.00	92.22	N
ATOM	43120	CB	ILE J	4	232.292	166.997	33.370	1.00128.94	C	ATOM	43170	NH2	ARG J	9	230.316	152.843	26.337	1.00	92.22	N
ATOM	43121	CG1	ILE J	4	232.725	167.603	34.706	1.00128.94	C	ATOM	43171	N	GLY J	10	222.942	153.713	24.712	1.00145.21	N	
ATOM	43122	CG2	ILE J	4	231.434	165.767	33.600	1.00128.94	C	ATOM	43172	CA	GLY J	10	221.582	153.224	24.808	1.00145.21	C	
ATOM	43123	CD1	ILE J	4	231.576	167.963	35.627	1.00128.94	C	ATOM	43173	C	GLY J	10	221.186	152.418	23.588	1.00145.21	C	
ATOM	43124	N	ARG J	5	233.804	164.756	31.021	1.00114.54	N	ATOM	43174	O	GLY J	10	221.911	152.368	22.591	1.00145.21	O	
ATOM	43125	CA	ARG J	5	233.518	163.912	29.863	1.00114.54	C	ATOM	43175	N	PHE J	11	220.024	151.784	23.671	1.00120.74	N	
ATOM	43126	C	ARG J	5	232.404	162.915	30.156	1.00114.54	C	ATOM	43176	CA	PHE J	11	219.515	150.968	22.581	1.00120.74	C	
ATOM	43127	O	ARG J	5	232.559	162.003	30.974	1.00114.54	O	ATOM	43177	C	PHE J	11	218.644	151.781	21.641	1.00120.74	C	
ATOM	43128	CB	ARG J	5	234.780	163.160	29.436	1.00	96.19	ATOM	43178	O	PHE J	11	218.663	151.573	20.427	1.00120.74	O	
ATOM	43129	CG	ARG J	5	234.595	162.286	28.214	1.00	96.19	ATOM	43179	CB	PHE J	11	218.728	149.795	23.158	1.00	67.11	C
ATOM	43130	CD	ARG J	5	235.780	161.347	28.003	1.00	96.19	ATOM	43180	CG	PHE J	11	219.593	148.752	23.798	1.00	67.11	C
ATOM	43131	NE	ARG J	5	236.855	161.933	27.204	1.00	96.19	ATOM	43181	CD1	PHE J	11	219.064	147.865	24.723	1.00	67.11	C
ATOM	43132	CZ	ARG J	5	237.984	161.298	26.899	1.00	96.19	ATOM	43182	CD2	PHE J	11	220.936	148.633	23.444	1.00	67.11	C
ATOM	43133	NH1	ARG J	5	238.182	160.059	27.333	1.00	96.19	ATOM	43183	CE1	PHE J	11	219.859	146.861	25.292	1.00	67.11	C
ATOM	43134	NH2	ARG J	5	238.912	161.890	26.154	1.00	96.19	ATOM	43184	CE2	PHE J	11	221.743	147.640	23.999	1.00	67.11	C
ATOM	43135	N	ILE J	6	231.281	163.097	29.473	1.00144.65	N	ATOM	43185	CZ	PHE J	11	221.203	146.747	24.929	1.00	67.11	C
ATOM	43136	CA	ILE J	6	230.126	162.231	29.646	1.00144.65	C	ATOM	43186	N	ASP J	12	217.887	152.712	22.211	1.00	74.43	N
ATOM	43137	C	ILE J	6	230.033	161.276	28.462	1.00144.65	C	ATOM	43187	CA	ASP J	12	217.006	153.569	21.429	1.00	74.43	C
ATOM	43138	O	ILE J	6	230.266	161.677	27.324	1.00144.65	O	ATOM	43188	C	ASP J	12	217.750	154.832	21.002	1.00	74.43	O
ATOM	43139	CB	ILE J	6	228.833	163.050	29.691	1.00	98.80	ATOM	43189	O	ASP J	12	218.273	155.562	21.837	1.00	74.43	C
ATOM	43140	CG1	ILE J	6	229.122	164.442	30.250	1.00	98.80	ATOM	43190	CB	ASP J	12	215.782	153.948	22.260	1.00	95.15	C
ATOM	43141	CG2	ILE J	6	227.799	162.336	30.554	1.00	98.80	ATOM	43191	CG	ASP J	12	214.694	154.599	21.430	1.00	95.15	C
ATOM	43142	CD1	ILE J	6	227.944	165.384	30.167	1.00	98.80	ATOM	43192	OD1	ASP J	12	215.000	155.543	20.668	1.00	95.15	O
ATOM	43143	N	LYS J	7	229.701	160.016	28.724	1.00113.04	N	ATOM	43193	OD2	ASP J	12	213.527	154.167	21.547	1.00	95.15	O
ATOM	43144	CA	LYS J	7	229.568	159.036	27.650	1.00113.04	C	ATOM	43194	N	HIS J	13	217.793	155.094	19.702	1.00	86.82	N
ATOM	43145	C	LYS J	7	228.231	158.322	27.819	1.00113.04	C	ATOM	43195	CA	HIS J	13	218.491	156.274	19.214	1.00	86.82	C
ATOM	43146	O	LYS J	7	228.056	157.496	28.717	1.00113.04	O	ATOM	43196	C	HIS J	13	217.717	157.556	19.510	1.00	86.82	C
ATOM	43147	CB	LYS J	7	230.723	158.024	27.683	1.00	96.73	ATOM	43197	O	HIS J	13	218.109	158.638	19.077	1.00	86.82	O



Table 1: Sheet 434/S21

ATOM	43198	CB	HIS J	13	218.729	156.176	17.709	1.00100.60	C	ATOM	43248	CA	ALA J	20	221.898	163.549	26.028	1.00112.04	C
ATOM	43199	CG	HIS J	13	217.561	156.618	16.890	1.00100.60	C	ATOM	43249	C	ALA J	20	221.561	164.991	25.665	1.00112.04	C
ATOM	43200	ND1	HIS J	13	216.406	155.875	16.776	1.00100.60	N	ATOM	43250	O	ALA J	20	222.341	165.891	25.962	1.00112.04	O
ATOM	43201	CD2	HIS J	13	217.350	157.753	16.185	1.00100.60	C	ATOM	43251	CB	ALA J	20	222.812	162.953	24.969	1.00178.85	C
ATOM	43202	CE1	HIS J	13	215.534	156.535	16.035	1.00100.60	C	ATOM	43252	N	GLN J	21	220.417	165.224	25.027	1.00102.40	N
ATOM	43203	NE2	HIS J	13	216.082	157.678	15.664	1.00100.60	N	ATOM	43253	CA	GLN J	21	220.064	166.593	24.666	1.00102.40	C
ATOM	43204	N	LYS J	14	216.607	157.437	20.229	1.0084.09	N	ATOM	43254	C	GLN J	21	219.649	167.400	25.885	1.00102.40	C
ATOM	43205	CA	LYS J	14	215.806	158.605	20.572	1.0084.09	C	ATOM	43255	O	GLN J	21	219.810	168.618	25.902	1.00102.40	O
ATOM	43206	C	LYS J	14	215.893	158.811	22.074	1.0084.09	C	ATOM	43256	CB	GLN J	21	218.945	166.636	23.629	1.00142.38	C
ATOM	43207	O	LYS J	14	215.891	159.938	22.568	1.0084.09	O	ATOM	43257	CG	GLN J	21	218.602	168.053	23.189	1.00142.38	C
ATOM	43208	CB	LYS J	14	214.347	158.397	20.166	1.00109.59	C	ATOM	43258	CD	GLN J	21	217.634	168.091	22.026	1.00142.38	C
ATOM	43209	CG	LYS J	14	214.145	158.112	18.691	1.00109.59	C	ATOM	43259	OE1	GLN J	21	216.530	167.549	22.101	1.00142.38	O
ATOM	43210	CD	LYS J	14	212.673	158.192	18.310	1.00109.59	C	ATOM	43260	NE2	GLN J	21	218.042	168.739	20.940	1.00142.38	N
ATOM	43211	CE	LYS J	14	212.127	159.603	18.522	1.00109.59	C	ATOM	43261	N	LYS J	22	219.103	166.732	26.899	1.00157.99	N
ATOM	43212	NZ	LYS J	14	210.685	159.738	18.166	1.00109.59	N	ATOM	43262	CA	LYS J	22	218.708	167.433	28.118	1.00157.99	C
ATOM	43213	N	THR J	15	215.978	157.699	22.791	1.0091.35	N	ATOM	43263	C	LYS J	22	219.998	167.961	28.724	1.00157.99	C
ATOM	43214	CA	THR J	15	216.068	157.716	24.237	1.0091.35	C	ATOM	43264	O	LYS J	22	220.152	169.155	28.982	1.00157.99	O
ATOM	43215	C	THR J	15	217.436	158.289	24.645	1.0091.35	C	ATOM	43265	CB	LYS J	22	218.064	166.487	29.137	1.00105.52	C
ATOM	43216	O	THR J	15	217.718	158.500	25.830	1.0091.35	O	ATOM	43266	CG	LYS J	22	216.780	165.799	28.719	1.00105.52	C
ATOM	43217	CB	THR J	15	215.851	156.282	24.793	1.0074.42	C	ATOM	43267	CD	LYS J	22	216.196	165.053	29.920	1.00105.52	C
ATOM	43218	CG1	THR J	15	215.089	156.352	26.002	1.0074.42	C	ATOM	43268	CE	LYS J	22	215.106	164.063	29.528	1.00105.52	C
ATOM	43219	CG2	THR J	15	217.193	155.569	25.053	1.0074.42	O	ATOM	43269	NZ	LYS J	22	215.641	162.861	28.823	1.00105.52	N
ATOM	43220	N	LEU J	16	218.286	158.533	23.652	1.00106.25	N	ATOM	43270	N	ILE J	23	220.924	167.035	28.940	1.0077.66	N
ATOM	43221	CA	LEU J	16	219.593	159.124	23.902	1.00106.25	C	ATOM	43271	CA	ILE J	23	222.224	167.327	29.520	1.0077.66	C
ATOM	43222	C	LEU J	16	219.548	160.562	23.431	1.00106.25	C	ATOM	43272	C	ILE J	23	222.941	168.494	28.831	1.0077.66	C
ATOM	43223	O	LEU J	16	219.824	161.482	24.199	1.00106.25	O	ATOM	43273	O	ILE J	23	223.788	169.150	29.432	1.0077.66	O
ATOM	43224	CB	LEU J	16	220.705	158.392	23.158	1.0086.61	C	ATOM	43274	CB	ILE J	23	223.107	166.035	29.509	1.0058.21	C
ATOM	43225	CG	LEU J	16	221.215	157.077	23.743	1.0086.61	C	ATOM	43275	CG1	ILE J	23	222.657	165.098	30.633	1.0058.21	C
ATOM	43226	CD1	LEU J	16	222.696	156.963	23.390	1.0086.61	C	ATOM	43276	CG2	ILE J	23	224.575	166.370	29.684	1.0058.21	C
ATOM	43227	CD2	LEU J	16	221.024	157.031	25.256	1.0086.61	C	ATOM	43277	CD1	ILE J	23	221.198	164.683	30.552	1.0058.21	C
ATOM	43228	N	ASP J	17	219.204	160.760	22.163	1.0098.13	N	ATOM	43278	N	VAL J	24	222.595	168.771	27.580	1.00161.51	N
ATOM	43229	CA	ASP J	17	219.108	162.112	21.634	1.0098.13	C	ATOM	43279	CA	VAL J	24	223.237	169.872	26.872	1.00161.51	C
ATOM	43230	C	ASP J	17	218.220	162.927	22.569	1.0098.13	C	ATOM	43280	C	VAL J	24	222.576	171.211	27.195	1.00161.51	C
ATOM	43231	O	ASP J	17	218.376	164.137	22.687	1.0098.13	O	ATOM	43281	O	VAL J	24	223.260	172.196	27.460	1.00161.51	O
ATOM	43232	CB	ASP J	17	218.529	162.099	20.218	1.00137.91	C	ATOM	43282	CB	VAL J	24	223.956	170.785	24.648	1.00184.48	C
ATOM	43233	CG	ASP J	17	219.551	161.681	19.179	1.00137.91	C	ATOM	43283	CG1	VAL J	24	223.836	168.317	25.002	1.00184.48	C
ATOM	43234	OD1	ASP J	17	220.593	162.360	19.070	1.00137.91	O	ATOM	43284	CG2	VAL J	24	221.246	171.242	27.175	1.00142.77	N
ATOM	43235	OD2	ASP J	17	219.317	160.680	18.473	1.00137.91	O	ATOM	43285	N	GLU J	25	220.504	172.466	27.468	1.00142.77	C
ATOM	43236	N	ALA J	18	217.283	162.258	23.234	1.00116.81	N	ATOM	43286	CA	GLU J	25	220.662	172.869	28.930	1.00142.77	C
ATOM	43237	CA	ALA J	18	216.418	162.935	24.190	1.00116.81	C	ATOM	43287	C	GLU J	25	220.723	174.055	29.257	1.00142.77	C
ATOM	43238	C	ALA J	18	217.297	163.168	25.413	1.00116.81	C	ATOM	43288	O	GLU J	25	219.019	172.273	27.155	1.00160.35	O
ATOM	43239	O	ALA J	18	217.601	164.307	25.770	1.00116.81	O	ATOM	43289	CB	GLU J	25	218.711	172.045	25.686	1.00160.35	C
ATOM	43240	CB	ALA J	18	215.233	162.054	24.555	1.0081.10	C	ATOM	43290	CG	GLU J	25	217.243	171.758	25.444	1.00160.35	C
ATOM	43241	N	SER J	19	217.714	162.066	26.033	1.0070.22	N	ATOM	43291	OE1	GLU J	25	216.403	172.603	25.818	1.00160.35	O
ATOM	43242	CA	SER J	19	218.575	162.097	27.205	1.0070.22	C	ATOM	43292	OE1	GLU J	25	216.931	170.688	24.880	1.00160.35	O
ATOM	43243	C	SER J	19	219.759	163.060	27.058	1.0070.22	C	ATOM	43293	OE2	GLU J	25	220.725	171.873	29.807	1.00158.08	N
ATOM	43244	O	SER J	19	219.797	164.113	27.695	1.0070.22	O	ATOM	43294	N	ALA J	26	220.873	172.119	31.234	1.00158.08	C
ATOM	43245	CB	SER J	19	219.097	160.690	27.495	1.00110.40	C	ATOM	43295	CA	ALA J	26	222.160	172.883	31.535	1.00158.08	C
ATOM	43246	OG	SER J	19	220.059	160.717	28.533	1.00110.40	O	ATOM	43296	C	ALA J	26	222.134	174.092	31.760	1.00158.08	O
ATOM	43247	N	ALA J	20	220.726	162.703	26.221	1.00112.04	N	ATOM	43297	O	ALA J	26					



ATOM	43298	CB	ALA	J	26	220.857	170.795	31.995	1.00	82.64	C	ATOM	43348	OE1	GLN	J	33	228.635	178.635	22.811	1.00142.59	O	
ATOM	43299	N	ALA	J	27	223.283	172.173	31.523	1.00115.30	N		ATOM	43349	NE2	GLN	J	33	227.354	179.762	24.271	1.00142.59	N	
ATOM	43300	CA	ALA	J	27	224.582	172.772	31.810	1.00115.30	C		ATOM	43350	N	VAL	J	34	229.373	173.551	26.357	1.00118.79	N	
ATOM	43301	C	ALA	J	27	224.958	173.975	30.939	1.00115.30	C		ATOM	43351	CA	VAL	J	34	229.249	172.174	25.893	1.00118.79	C	
ATOM	43302	O	ALA	J	27	225.972	174.623	31.194	1.00115.30	O		ATOM	43352	C	VAL	J	34	229.745	171.970	24.456	1.00118.79	C	
ATOM	43303	CB	ALA	J	27	225.663	171.713	31.720	1.00	54.17	C	ATOM	43353	O	VAL	J	34	229.587	172.848	23.602	1.00118.79	O	
ATOM	43304	N	ARG	J	28	224.159	174.275	29.916	1.00135.37	N		ATOM	43354	CB	VAL	J	34	227.775	171.714	25.990	1.00	70.92	C
ATOM	43305	CA	ARG	J	28	224.431	175.423	29.045	1.00135.37	C		ATOM	43355	CG1	VAL	J	34	227.689	170.210	25.871	1.00	70.92	C
ATOM	43306	C	ARG	J	28	224.030	176.708	29.765	1.00135.37	C		ATOM	43356	CG2	VAL	J	34	227.171	172.172	27.304	1.00	70.92	C
ATOM	43307	O	ARG	J	28	223.813	177.745	29.138	1.00135.37	O		ATOM	43357	N	SER	J	35	230.346	170.804	24.206	1.00134.67	N	
ATOM	43308	CB	ARG	J	28	223.637	175.315	27.735	1.00155.46	C		ATOM	43358	CA	SER	J	35	230.871	170.448	22.883	1.00134.67	C	
ATOM	43309	CG	ARG	J	28	224.376	174.658	26.570	1.00155.46	C		ATOM	43359	C	SER	J	35	229.787	169.852	21.990	1.00134.67	C	
ATOM	43310	CD	ARG	J	28	223.433	174.438	25.382	1.00155.46	C		ATOM	43360	O	SER	J	35	230.092	169.196	20.995	1.00134.67	O	
ATOM	43311	NE	ARG	J	28	224.092	173.831	24.223	1.00155.46	N		ATOM	43361	CB	SER	J	35	232.009	169.422	23.004	1.00111.92	C	
ATOM	43312	CZ	ARG	J	28	224.873	174.485	23.366	1.00155.46	C		ATOM	43362	OG	SER	J	35	233.161	169.966	23.620	1.00111.92	O	
ATOM	43313	NH1	ARG	J	28	225.101	175.781	23.524	1.00155.46	N		ATOM	43363	N	GLY	J	36	228.526	170.082	22.342	1.00152.78	N	
ATOM	43314	NH2	ARG	J	28	225.426	173.841	22.346	1.00155.46	N		ATOM	43364	CA	GLY	J	36	227.431	169.538	21.558	1.00152.78	C	
ATOM	43315	N	ARG	J	29	223.931	176.628	31.088	1.00156.90	N		ATOM	43365	C	GLY	J	36	227.441	168.026	21.665	1.00152.78	C	
ATOM	43316	CA	ARG	J	29	223.539	177.771	31.902	1.00156.90	C		ATOM	43366	O	GLY	J	36	228.510	167.429	21.781	1.00152.78	O	
ATOM	43317	C	ARG	J	29	224.192	177.661	33.280	1.00156.90	C		ATOM	43367	N	PRO	J	37	226.273	167.369	21.638	1.00157.54	N	
ATOM	43318	O	ARG	J	29	223.606	178.061	34.286	1.00156.90	O		ATOM	43368	CA	PRO	J	37	226.282	165.908	21.742	1.00157.54	C	
ATOM	43319	CB	ARG	J	29	222.015	177.787	32.062	1.00125.31	C		ATOM	43369	C	PRO	J	37	226.875	165.241	20.502	1.00157.54	C	
ATOM	43320	CG	ARG	J	29	221.253	177.297	30.834	1.00125.31	C		ATOM	43370	O	PRO	J	37	226.187	165.061	19.498	1.00157.54	O	
ATOM	43321	CD	ARG	J	29	219.786	177.033	31.146	1.00125.31	C		ATOM	43371	CB	PRO	J	37	224.806	165.573	21.947	1.00112.75	C	
ATOM	43322	NE	ARG	J	29	219.103	176.359	30.043	1.00125.31	N		ATOM	43372	CG	PRO	J	37	224.116	166.635	21.148	1.00112.75	C	
ATOM	43323	C2	ARG	J	29	217.806	176.066	30.032	1.00125.31	C		ATOM	43373	CD	PRO	J	37	224.898	167.883	21.516	1.00112.75	C	
ATOM	43324	NH1	ARG	J	29	217.042	176.387	31.066	1.00125.31	N		ATOM	43374	N	ILE	J	38	228.157	164.893	20.571	1.00	85.38	N
ATOM	43325	NH2	ARG	J	29	217.271	175.451	28.988	1.00125.31	N		ATOM	43375	CA	ILE	J	38	228.821	164.238	19.452	1.00	85.38	C
ATOM	43326	N	SER	J	30	225.403	177.115	33.325	1.00134.56	N		ATOM	43376	C	ILE	J	38	228.387	162.777	19.407	1.00	85.38	C
ATOM	43327	CA	SER	J	30	226.108	176.946	34.592	1.00134.56	C		ATOM	43377	O	ILE	J	38	228.441	162.068	20.420	1.00	85.38	O
ATOM	43328	C	SER	J	30	227.572	176.537	34.429	1.00134.56	C		ATOM	43378	CB	ILE	J	38	230.357	164.305	19.574	1.00	97.63	C
ATOM	43329	O	SER	J	30	228.278	176.340	35.418	1.00134.56	O		ATOM	43379	CG1	ILE	J	38	230.780	163.948	20.995	1.00	97.63	C
ATOM	43330	CB	SER	J	30	225.384	175.907	35.445	1.00	93.11	C	ATOM	43380	CG2	ILE	J	38	230.854	165.686	19.203	1.00	97.63	C
ATOM	43331	OG	SER	J	30	225.215	174.697	34.728	1.00	93.11	O	ATOM	43381	CD1	ILE	J	38	232.274	164.055	21.232	1.00	97.63	C
ATOM	43332	N	GLY	J	31	228.017	176.405	33.183	1.00155.13	N		ATOM	43382	N	PRO	J	39	227.952	162.313	18.220	1.00109.10	N	
ATOM	43333	CA	GLY	J	31	229.395	176.030	32.906	1.00155.13	C		ATOM	43383	CA	PRO	J	39	227.480	160.951	17.946	1.00109.10	C	
ATOM	43334	C	GLY	J	31	229.807	176.606	31.566	1.00155.13	C		ATOM	43384	C	PRO	J	39	228.337	159.796	18.447	1.00109.10	C	
ATOM	43335	O	GLY	J	31	229.359	177.693	31.202	1.00155.13	O		ATOM	43385	O	PRO	J	39	228.231	159.404	19.602	1.00109.10	O	
ATOM	43336	N	ALA	J	32	230.656	175.897	30.826	1.00152.15	N		ATOM	43386	CB	PRO	J	39	227.312	160.939	16.421	1.00	64.75	C
ATOM	43337	CA	ALA	J	32	231.079	176.375	29.513	1.00152.15	C		ATOM	43387	CG	PRO	J	39	228.027	163.008	16.968	1.00	64.75	C
ATOM	43338	C	ALA	J	32	229.858	176.397	28.596	1.00152.15	C		ATOM	43388	CD	PRO	J	39	228.243	162.006	16.968	1.00	64.75	C
ATOM	43339	O	ALA	J	32	228.775	176.818	29.009	1.00152.15	O		ATOM	43389	N	LEU	J	40	229.171	159.262	17.561	1.00	97.20	N
ATOM	43340	CB	ALA	J	32	232.153	175.464	28.936	1.00	87.74	C	ATOM	43390	CA	LEU	J	40	230.058	158.122	17.829	1.00	97.20	C
ATOM	43341	N	GLN	J	33	230.020	175.940	27.358	1.00173.48	N		ATOM	43391	C	LEU	J	40	229.467	156.846	17.228	1.00	97.20	C
ATOM	43342	CA	GLN	J	33	228.898	175.924	26.427	1.00173.48	C		ATOM	43392	O	LEU	J	40	228.299	156.519	17.451	1.00	97.20	O
ATOM	43343	C	GLN	J	33	228.687	174.548	25.805	1.00173.48	C		ATOM	43393	CB	LEU	J	40	230.313	157.907	19.329	1.00	82.85	C
ATOM	43344	O	GLN	J	33	227.926	174.395	24.849	1.00173.48	O		ATOM	43394	CG	LEU	J	40	231.276	158.855	20.063	1.00	82.85	C
ATOM	43345	CB	GLN	J	33	229.096	176.974	25.333	1.00142.59	C		ATOM	43395	CD1	LEU	J	40	231.517	158.335	21.485	1.00	82.85	C
ATOM	43346	CG	GLN	J	33	227.795	177.424	24.692	1.00142.59	C		ATOM	43396	CD2	LEU	J	40	232.600	158.953	19.313	1.00	82.85	C
ATOM	43347	CD	GLN	J	33	227.963	178.662	23.841	1.00142.59	C		ATOM	43397	N	PRO	J	41	230.280	156.102	16.462	1.00103.00	N	



Table 1: Sheet 436/521

ATOM	43398	CA	PRO J	41	229.859	154.863	15.812	1.00103.00	C	ATOM	43448	CZ	ARG J	46	223.190	144.001	11.154	1.00	88.17	C
ATOM	43399	C	PRO J	41	229.041	153.928	16.690	1.00103.00	C	ATOM	43449	NH1	ARG J	46	222.223	144.305	12.008	1.00	88.17	N
ATOM	43400	O	PRO J	41	229.225	153.875	17.906	1.00103.00	O	ATOM	43450	NH2	ARG J	46	223.376	144.757	10.080	1.00	88.17	N
ATOM	43401	CB	PRO J	41	231.185	154.249	15.372	1.00 72.82	C	ATOM	43451	N	PHE J	47	222.735	138.019	15.248	1.00	86.30	N
ATOM	43402	CG	PRO J	41	232.135	154.743	16.393	1.00 72.82	C	ATOM	43452	CA	PHE J	47	222.441	136.685	15.738	1.00	86.30	C
ATOM	43403	CD	PRO J	41	231.749	156.189	16.458	1.00 72.82	C	ATOM	43453	C	PHE J	47	221.704	136.037	14.595	1.00	86.30	C
ATOM	43404	N	THR J	42	228.141	153.190	16.047	1.00 73.07	N	ATOM	43454	O	PHE J	47	220.525	136.308	14.373	1.00	86.30	O
ATOM	43405	CA	THR J	42	227.267	152.238	16.721	1.00 73.07	C	ATOM	43455	CB	PHE J	47	221.538	136.720	16.962	1.00	84.42	C
ATOM	43406	C	THR J	42	227.789	150.819	16.544	1.00 73.07	C	ATOM	43456	CG	PHE J	47	222.090	137.522	18.081	1.00	84.42	C
ATOM	43407	O	THR J	42	228.168	150.447	15.441	1.00 73.07	O	ATOM	43457	CD1	PHE J	47	221.871	138.896	18.139	1.00	84.42	C
ATOM	43408	CB	THR J	42	225.867	152.284	16.111	1.00 78.50	C	ATOM	43458	CD2	PHE J	47	222.866	136.917	19.064	1.00	84.42	C
ATOM	43409	CG1	THR J	42	225.367	153.625	16.163	1.00 78.50	C	ATOM	43459	CE1	PHE J	47	222.421	139.662	19.164	1.00	84.42	C
ATOM	43410	CG2	THR J	42	224.934	151.343	16.851	1.00 78.50	O	ATOM	43460	CE2	PHE J	47	223.425	137.671	20.096	1.00	84.42	C
ATOM	43411	N	ARG J	43	227.813	150.022	17.608	1.00101.59	N	ATOM	43461	CZ	PHE J	47	223.202	139.048	20.146	1.00	84.42	C
ATOM	43412	CA	ARG J	43	228.281	148.641	17.477	1.00101.59	C	ATOM	43462	N	THR J	48	222.408	135.208	13.840	1.00	55.23	N
ATOM	43413	C	ARG J	43	227.107	147.675	17.406	1.00101.59	C	ATOM	43463	CA	THR J	48	221.782	134.541	12.720	1.00	55.23	C
ATOM	43414	O	ARG J	43	226.343	147.547	18.366	1.00101.59	O	ATOM	43464	C	THR J	48	221.385	133.164	13.196	1.00	55.23	C
ATOM	43415	CB	ARG J	43	229.199	148.247	18.638	1.00105.34	C	ATOM	43465	O	THR J	48	222.231	132.327	13.507	1.00	55.23	O
ATOM	43416	CG	ARG J	43	230.633	148.724	18.473	1.00105.34	C	ATOM	43466	CB	THR J	48	222.729	134.464	11.529	1.00	69.64	C
ATOM	43417	CD	ARG J	43	231.582	147.916	19.343	1.00105.34	C	ATOM	43467	CG1	THR J	48	223.039	135.798	11.094	1.00	69.64	O
ATOM	43418	CE	ARG J	43	232.973	148.340	19.191	1.00105.34	N	ATOM	43468	CG2	THR J	48	222.084	133.690	10.390	1.00	69.64	C
ATOM	43419	CZ	ARG J	43	234.005	147.746	19.785	1.00105.34	C	ATOM	43469	N	VAL J	49	220.074	132.956	13.251	1.00	72.33	N
ATOM	43420	NH1	ARG J	43	233.805	146.697	20.573	1.00105.34	N	ATOM	43470	CA	VAL J	49	219.502	131.715	13.738	1.00	72.33	C
ATOM	43421	NH2	ARG J	43	235.238	148.200	19.594	1.00105.34	N	ATOM	43471	C	VAL J	49	218.678	130.963	12.700	1.00	72.33	C
ATOM	43422	N	VAL J	44	226.977	146.990	16.268	1.00 69.75	N	ATOM	43472	O	VAL J	49	218.065	131.567	11.841	1.00	72.33	O
ATOM	43423	CA	VAL J	44	225.881	146.045	16.056	1.00 69.75	C	ATOM	43473	CB	VAL J	49	218.604	132.021	14.939	1.00	46.42	C
ATOM	43424	C	VAL J	44	226.242	144.587	16.327	1.00 69.75	C	ATOM	43474	CG1	VAL J	49	218.200	130.747	15.631	1.00	46.42	C
ATOM	43425	O	VAL J	44	227.331	144.135	15.995	1.00 69.75	O	ATOM	43475	CG2	VAL J	49	219.329	132.933	15.886	1.00	46.42	C
ATOM	43426	CB	VAL J	44	225.344	146.136	14.617	1.00 66.34	C	ATOM	43476	N	ILE J	50	218.690	129.638	12.785	1.00	49.00	N
ATOM	43427	CG1	VAL J	44	224.158	145.206	14.460	1.00 66.34	C	ATOM	43477	CA	ILE J	50	217.906	128.787	11.896	1.00	49.00	C
ATOM	43428	CG2	VAL J	44	224.954	147.575	14.280	1.00 66.34	C	ATOM	43478	C	ILE J	50	216.468	129.014	12.334	1.00	49.00	C
ATOM	43429	N	ARG J	45	225.305	143.862	16.929	1.00 77.40	N	ATOM	43479	O	ILE J	50	216.183	128.942	13.525	1.00	49.00	O
ATOM	43430	CA	ARG J	45	225.474	142.449	17.248	1.00 77.40	C	ATOM	43480	CB	ILE J	50	218.236	127.299	12.132	1.00	35.59	C
ATOM	43431	C	ARG J	45	224.485	141.643	16.411	1.00 77.40	C	ATOM	43481	CG1	ILE J	50	219.599	126.967	11.534	1.00	35.59	C
ATOM	43432	O	ARG J	45	223.277	141.814	16.567	1.00 77.40	O	ATOM	43482	CG2	ILE J	50	217.124	126.412	11.584	1.00	35.59	C
ATOM	43433	CB	ARG J	45	225.154	142.191	18.717	1.00113.00	C	ATOM	43483	CD1	ILE J	50	220.004	125.540	11.784	1.00	35.59	C
ATOM	43434	CG	ARG J	45	226.113	142.792	19.709	1.00113.00	C	ATOM	43484	N	ARG J	51	215.559	129.261	11.397	1.00	55.01	N
ATOM	43435	CD	ARG J	45	227.427	142.051	19.683	1.00113.00	C	ATOM	43485	CA	ARG J	51	214.168	129.513	11.756	1.00	55.01	C
ATOM	43436	NE	ARG J	45	227.965	141.828	21.022	1.00113.00	N	ATOM	43486	C	ARG J	51	213.447	128.451	12.552	1.00	55.01	C
ATOM	43437	CZ	ARG J	45	227.400	141.039	21.928	1.00113.00	C	ATOM	43487	O	ARG J	51	212.912	128.739	13.624	1.00	55.01	O
ATOM	43438	NH1	ARG J	45	226.276	140.395	21.639	1.00113.00	N	ATOM	43488	CB	ARG J	51	213.343	129.822	10.525	1.00	33.39	C
ATOM	43439	NH2	ARG J	45	227.965	140.887	23.118	1.00113.00	N	ATOM	43489	CG	ARG J	51	213.230	131.278	10.260	1.00	33.39	C
ATOM	43440	N	ARG J	46	224.980	140.775	15.529	1.00 58.44	N	ATOM	43490	CD	ARG J	51	212.901	131.496	8.835	1.00	33.39	C
ATOM	43441	CA	ARG J	46	224.096	139.943	14.710	1.00 58.44	C	ATOM	43491	NE	ARG J	51	213.027	132.896	8.468	1.00	33.39	N
ATOM	43442	C	ARG J	46	223.948	138.551	15.326	1.00 58.44	C	ATOM	43492	CZ	ARG J	51	212.120	133.812	8.775	1.00	33.39	C
ATOM	43443	O	ARG J	46	224.901	137.983	15.875	1.00 58.44	O	ATOM	43493	NH1	ARG J	51	211.031	133.451	9.460	1.00	33.39	N
ATOM	43444	CB	ARG J	46	224.631	139.774	13.281	1.00 88.17	C	ATOM	43494	NH2	ARG J	51	212.289	135.072	8.379	1.00	33.39	N
ATOM	43445	CG	ARG J	46	224.968	141.048	12.530	1.00 88.17	C	ATOM	43495	N	GLY J	52	213.402	127.229	12.050	1.00	39.71	N
ATOM	43446	CD	ARG J	46	223.820	142.025	12.487	1.00 88.17	C	ATOM	43496	CA	GLY J	52	212.690	126.220	12.810	1.00	39.71	C
ATOM	43447	NE	ARG J	46	223.958	142.937	11.358	1.00 88.17	N	ATOM	43497	C	GLY J	52	213.595	125.260	13.541	1.00	39.71	C



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ATOM	43498	O	GLY J	52	214.820	125.350	13.421	1.00	39.71	O	ATOM	43548	O	ASP J	58	216.936	129.047	4.649	1.00	45.55	O
ATOM	43499	N	PRO J	53	213.034	124.358	14.352	1.00	48.31	N	ATOM	43549	CB	ASP J	58	218.482	127.129	3.607	1.00	70.48	C
ATOM	43500	CA	PRO J	53	213.895	123.401	15.054	1.00	48.31	C	ATOM	43550	CG	ASP J	58	219.668	126.336	3.115	1.00	70.48	C
ATOM	43501	C	PRO J	53	214.168	122.328	14.010	1.00	48.31	C	ATOM	43551	OD1	ASP J	58	220.788	126.894	3.060	1.00	70.48	O
ATOM	43502	O	PRO J	53	213.764	122.475	12.857	1.00	48.31	O	ATOM	43552	OD2	ASP J	58	219.475	125.144	2.796	1.00	70.48	O
ATOM	43503	CB	PRO J	53	212.998	122.884	16.159	1.00	34.39	C	ATOM	43553	N	SER J	59	216.872	128.148	6.717	1.00	90.78	N
ATOM	43504	CG	PRO J	53	211.629	122.888	15.496	1.00	34.39	C	ATOM	43554	CA	SER J	59	215.770	128.991	7.179	1.00	90.78	C
ATOM	43505	CD	PRO J	53	211.631	124.232	14.781	1.00	34.39	C	ATOM	43555	C	SER J	59	216.327	130.367	7.532	1.00	90.78	C
ATOM	43506	N	PHE J	54	214.833	121.252	14.390	1.00	65.13	N	ATOM	43556	O	SER J	59	216.125	131.338	6.805	1.00	90.78	O
ATOM	43507	CA	PHE J	54	215.115	120.163	13.453	1.00	65.13	C	ATOM	43557	CB	SER J	59	215.114	128.368	8.413	1.00	133.23	C
ATOM	43508	C	PHE J	54	215.284	120.509	11.961	1.00	65.13	C	ATOM	43558	OG	SER J	59	214.595	127.079	8.139	1.00	133.23	O
ATOM	43509	O	PHE J	54	214.315	120.844	11.266	1.00	65.13	O	ATOM	43559	N	ARG J	60	217.012	130.435	8.669	1.00	114.72	N
ATOM	43510	CB	PHE J	54	214.031	119.107	13.566	1.00	65.37	C	ATOM	43560	CA	ARG J	60	217.654	131.652	9.153	1.00	114.72	C
ATOM	43511	CG	PHE J	54	214.517	117.734	13.280	1.00	65.37	C	ATOM	43561	C	ARG J	60	216.879	132.798	9.813	1.00	114.72	C
ATOM	43512	CD1	PHE J	54	215.182	117.005	14.262	1.00	65.37	C	ATOM	43562	O	ARG J	60	216.350	132.625	10.907	1.00	114.72	O
ATOM	43513	CD2	PHE J	54	214.327	117.167	12.034	1.00	65.37	C	ATOM	43563	CB	ARG J	60	218.571	132.210	8.065	1.00	64.81	C
ATOM	43514	CE1	PHE J	54	215.650	115.728	14.009	1.00	65.37	C	ATOM	43564	CG	ARG J	60	219.966	131.585	8.103	1.00	64.81	C
ATOM	43515	CE2	PHE J	54	214.790	115.892	11.768	1.00	65.37	C	ATOM	43565	CD	ARG J	60	219.888	130.071	8.276	1.00	64.81	C
ATOM	43516	CZ	PHE J	54	215.454	115.170	12.761	1.00	65.37	C	ATOM	43566	NE	ARG J	60	221.064	129.507	8.941	1.00	64.81	N
ATOM	43517	N	LYS J	55	216.525	120.386	11.486	1.00	57.62	N	ATOM	43567	CZ	ARG J	60	222.196	129.165	8.330	1.00	64.81	C
ATOM	43518	CA	LYS J	55	216.925	120.639	10.099	1.00	57.62	C	ATOM	43568	NH1	ARG J	60	222.331	129.318	7.020	1.00	64.81	N
ATOM	43519	C	LYS J	55	216.484	121.941	9.440	1.00	57.62	C	ATOM	43569	NH2	ARG J	60	223.199	128.662	9.032	1.00	64.81	N
ATOM	43520	O	LYS J	55	216.286	122.941	10.113	1.00	57.62	O	ATOM	43570	N	GLU J	61	216.811	133.960	9.166	1.00	53.68	N
ATOM	43521	CB	LYS J	55	216.550	119.443	9.214	1.00	59.89	C	ATOM	43571	CA	GLU J	61	216.181	135.153	9.774	1.00	53.68	C
ATOM	43522	CG	LYS J	55	215.080	119.150	9.026	1.00	59.89	C	ATOM	43572	C	GLU J	61	217.187	135.789	10.768	1.00	53.68	C
ATOM	43523	CD	LYS J	55	214.944	117.768	8.391	1.00	59.89	C	ATOM	43573	O	GLU J	61	217.637	135.151	11.738	1.00	53.68	O
ATOM	43524	CE	LYS J	55	213.518	117.426	7.967	1.00	59.89	C	ATOM	43574	CB	GLU J	61	214.888	134.827	10.535	1.00	73.14	C
ATOM	43525	NZ	LYS J	55	213.075	118.177	6.765	1.00	59.89	N	ATOM	43575	CG	GLU J	61	214.325	136.040	11.296	1.00	73.14	C
ATOM	43526	N	HIS J	56	216.359	121.927	8.116	1.00	57.31	N	ATOM	43576	CD	GLU J	61	213.244	135.678	12.300	1.00	73.14	C
ATOM	43527	CA	HIS J	56	215.983	123.116	7.348	1.00	57.31	C	ATOM	43577	OE1	GLU J	61	213.505	134.815	13.164	1.00	73.14	O
ATOM	43528	C	HIS J	56	217.112	124.153	7.395	1.00	57.31	C	ATOM	43578	OE2	GLU J	61	212.140	136.262	12.234	1.00	73.14	O
ATOM	43529	O	HIS J	56	216.870	125.357	7.462	1.00	57.31	O	ATOM	43579	N	HIS J	62	217.508	137.058	10.514	1.00	73.11	N
ATOM	43530	CB	HIS J	56	214.689	123.739	7.889	1.00	70.47	C	ATOM	43580	CA	HIS J	62	218.475	137.830	11.294	1.00	73.11	C
ATOM	43531	CG	HIS J	56	213.479	122.864	7.741	1.00	70.47	C	ATOM	43581	C	HIS J	62	217.969	138.734	12.418	1.00	73.11	C
ATOM	43532	ND1	HIS J	56	213.104	122.306	6.539	1.00	70.47	N	ATOM	43582	O	HIS J	62	216.937	139.392	12.300	1.00	73.11	O
ATOM	43533	CD2	HIS J	56	212.546	122.474	8.642	1.00	70.47	C	ATOM	43583	CB	HIS J	62	219.309	138.673	10.332	1.00	70.44	C
ATOM	43534	CE1	HIS J	56	211.994	121.609	6.704	1.00	70.47	C	ATOM	43584	CG	HIS J	62	220.266	137.873	9.509	1.00	70.44	C
ATOM	43535	NE2	HIS J	56	211.635	121.696	7.971	1.00	70.47	N	ATOM	43585	ND1	HIS J	62	220.697	138.275	8.263	1.00	70.44	N
ATOM	43536	N	LYS J	57	218.347	123.659	7.348	1.00	48.95	N	ATOM	43586	CD2	HIS J	62	220.886	136.696	9.763	1.00	70.44	C
ATOM	43537	CA	LYS J	57	219.563	124.480	7.386	1.00	48.95	C	ATOM	43587	CE1	HIS J	62	221.540	137.377	7.783	1.00	70.44	C
ATOM	43538	C	LYS J	57	219.480	125.862	6.743	1.00	48.95	C	ATOM	43588	NE2	HIS J	62	221.672	136.410	8.674	1.00	70.44	N
ATOM	43539	O	LYS J	57	220.245	126.748	7.108	1.00	48.95	O	ATOM	43589	N	PHE J	63	218.748	138.773	13.496	1.00	68.08	N
ATOM	43540	CB	LYS J	57	220.747	123.720	6.737	1.00	95.35	C	ATOM	43590	CA	PHE J	63	218.466	139.574	14.682	1.00	68.08	C
ATOM	43541	CG	LYS J	57	220.525	123.294	5.251	1.00	95.35	C	ATOM	43591	C	PHE J	63	219.704	140.375	15.064	1.00	68.08	C
ATOM	43542	CD	LYS J	57	221.830	122.970	4.437	1.00	95.35	C	ATOM	43592	O	PHE J	63	220.782	139.803	15.230	1.00	68.08	O
ATOM	43543	CE	LYS J	57	222.479	124.220	3.777	1.00	95.35	C	ATOM	43593	CB	PHE J	63	218.127	138.665	15.857	1.00	65.60	C
ATOM	43544	NZ	LYS J	57	223.570	123.938	2.783	1.00	95.35	N	ATOM	43594	CG	PHE J	63	216.820	137.963	15.727	1.00	65.60	C
ATOM	43545	N	ASP J	58	218.570	126.057	5.797	1.00	45.55	N	ATOM	43595	CD1	PHE J	63	216.709	136.618	16.080	1.00	65.60	C
ATOM	43546	CA	ASP J	58	218.506	127.339	5.116	1.00	45.55	C	ATOM	43596	CD2	PHE J	63	215.688	138.649	15.289	1.00	65.60	C
ATOM	43547	C	ASP J	58	217.363	128.249	5.483	1.00	45.55	C	ATOM	43597	CE1	PHE J	63	215.483	135.955	16.002	1.00	65.60	C



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ATOM	43598	CE2	PHE	J	63	214.460	138.007	15.206	1.00	65.60	C	ATOM	43648	O	ASN	J	69	226.308	158.064	20.555	1.00105.50	O	
ATOM	43599	CZ	PHE	J	63	214.354	136.651	15.565	1.00	65.60	C	ATOM	43649	CB	ASN	J	69	228.279	155.690	21.707	1.00102.40	C	
ATOM	43600	N	GLU	J	64	219.554	141.687	15.224	1.00	80.16	N	ATOM	43650	CG	ASN	J	69	228.468	154.180	21.686	1.00102.40	C	
ATOM	43601	CA	GLU	J	64	220.678	142.533	15.617	1.00	80.16	C	ATOM	43651	OD1	ASN	J	69	228.090	153.478	22.624	1.00102.40	O	
ATOM	43602	C	GLU	J	64	220.360	143.392	16.843	1.00	80.16	C	ATOM	43652	ND2	ASN	J	69	229.056	153.675	20.607	1.00102.40	N	
ATOM	43603	O	GLU	J	64	219.247	143.895	16.988	1.00	80.16	O	ATOM	43653	N	ARG	J	70	226.983	158.367	22.691	1.00	99.20	N
ATOM	43604	CB	GLU	J	64	221.101	143.417	14.449	1.00	83.88	C	ATOM	43654	CA	ARG	J	70	226.934	159.831	22.683	1.00	99.20	C
ATOM	43605	CG	GLU	J	64	219.945	144.081	13.738	1.00	83.88	C	ATOM	43655	C	ARG	J	70	228.025	160.331	23.630	1.00	99.20	C
ATOM	43606	CD	GLU	J	64	219.809	145.560	14.056	1.00	83.88	C	ATOM	43656	O	ARG	J	70	228.438	159.605	24.534	1.00	99.20	O
ATOM	43607	OE1	GLU	J	64	219.613	145.904	15.243	1.00	83.88	O	ATOM	43657	CB	ARG	J	70	225.562	160.318	23.151	1.00135.54	C	
ATOM	43608	OE2	GLU	J	64	219.894	146.378	13.111	1.00	83.88	O	ATOM	43658	CG	ARG	J	70	224.405	159.804	22.306	1.00135.54	C	
ATOM	43609	N	LEU	J	65	221.344	143.540	17.729	1.00	72.81	N	ATOM	43659	CD	ARG	J	70	224.542	160.246	20.861	1.00135.54	C	
ATOM	43610	CA	LEU	J	65	221.205	144.339	18.950	1.00	72.81	C	ATOM	43660	NE	ARG	J	70	223.463	159.732	20.023	1.00135.54	N	
ATOM	43611	C	LEU	J	65	222.162	145.530	18.890	1.00	72.81	C	ATOM	43661	CZ	ARG	J	70	223.355	159.971	18.719	1.00135.54	C	
ATOM	43612	O	LEU	J	65	223.223	145.505	19.499	1.00	72.81	O	ATOM	43662	NH1	ARG	J	70	224.263	160.716	18.101	1.00135.54	N	
ATOM	43613	CB	LEU	J	65	221.523	143.467	20.170	1.00	76.74	C	ATOM	43663	NH2	ARG	J	70	222.334	159.474	18.034	1.00135.54	N	
ATOM	43614	CG	LEU	J	65	221.486	144.044	21.589	1.00	76.74	C	ATOM	43664	N	LEU	J	71	228.489	161.563	23.439	1.00151.24	N	
ATOM	43615	CD1	LEU	J	65	221.214	142.924	22.577	1.00	76.74	C	ATOM	43665	CA	LEU	J	71	229.556	162.079	24.291	1.00151.24	C	
ATOM	43616	CD2	LEU	J	65	222.795	144.723	21.922	1.00	76.74	C	ATOM	43666	C	LEU	J	71	229.276	163.404	25.006	1.00151.24	C	
ATOM	43617	N	ARG	J	66	221.781	146.571	18.154	1.00	87.06	N	ATOM	43667	O	LEU	J	71	229.240	163.450	26.237	1.00151.24	O	
ATOM	43618	CA	ARG	J	66	222.630	147.748	17.991	1.00	87.06	C	ATOM	43668	CB	LEU	J	71	230.838	162.193	23.468	1.00107.02	C	
ATOM	43619	C	ARG	J	66	222.726	148.667	19.202	1.00	87.06	C	ATOM	43669	CG	LEU	J	71	232.138	161.646	24.063	1.00107.02	C	
ATOM	43620	O	ARG	J	66	221.714	149.096	19.755	1.00	87.06	O	ATOM	43670	CD1	LEU	J	71	232.560	162.497	25.240	1.00107.02	C	
ATOM	43621	CB	ARG	J	66	222.177	148.545	16.766	1.00117.57	C	ATOM	43671	CD2	LEU	J	71	231.945	160.192	24.478	1.00107.02	C		
ATOM	43622	CG	ARG	J	66	220.671	148.645	16.594	1.00117.57	C	ATOM	43672	N	VAL	J	72	229.097	164.480	24.244	1.00156.25	N		
ATOM	43623	CD	ARG	J	66	220.326	149.307	15.269	1.00117.57	N	ATOM	43673	CA	VAL	J	72	228.820	165.799	24.821	1.00156.25	C		
ATOM	43624	NE	ARG	J	66	221.120	148.749	14.175	1.00117.57	N	ATOM	43674	C	VAL	J	72	230.090	166.570	25.213	1.00156.25	C		
ATOM	43625	CZ	ARG	J	66	220.981	149.078	12.892	1.00117.57	C	ATOM	43675	O	VAL	J	72	230.595	167.367	24.422	1.00156.25	O		
ATOM	43626	NH1	ARG	J	66	220.071	149.970	12.520	1.00117.57	N	ATOM	43676	CB	VAL	J	72	227.895	165.680	26.057	1.00	99.21	C	
ATOM	43627	NH2	ARG	J	66	221.760	148.516	11.977	1.00117.57	N	ATOM	43677	CG1	VAL	J	72	227.579	167.053	26.617	1.00	99.21	C	
ATOM	43628	N	THR	J	67	223.962	148.968	19.597	1.00128.90	N	ATOM	43678	CG2	VAL	J	72	226.615	164.953	25.669	1.00	99.21	C	
ATOM	43629	CA	THR	J	67	224.255	149.837	20.739	1.00128.90	C	ATOM	43679	N	ASP	J	73	230.589	166.342	26.430	1.00	94.83	N	
ATOM	43630	C	THR	J	67	224.721	151.206	20.259	1.00128.90	C	ATOM	43680	CA	ASP	J	73	231.805	167.007	26.928	1.00	94.83	C	
ATOM	43631	O	THR	J	67	225.700	151.303	19.522	1.00128.90	O	ATOM	43681	C	ASP	J	73	231.612	168.446	27.426	1.00	94.83	C	
ATOM	43632	CB	THR	J	67	225.380	149.251	21.604	1.00	56.30	C	ATOM	43682	O	ASP	J	73	231.434	169.375	26.634	1.00	94.83	O
ATOM	43633	OG1	THR	J	67	224.947	148.013	22.183	1.00	56.30	O	ATOM	43683	CB	ASP	J	73	232.894	166.988	25.850	1.00	92.85	C
ATOM	43634	CG2	THR	J	67	225.778	150.234	22.696	1.00	56.30	C	ATOM	43684	CG	ASP	J	73	234.138	166.241	26.290	1.00	92.85	C
ATOM	43635	N	HIS	J	68	224.041	152.261	20.694	1.00101.20	N	ATOM	43685	OD1	ASP	J	73	234.009	165.210	26.995	1.00	92.85	O	
ATOM	43636	CA	HIS	J	68	224.410	153.611	20.275	1.00101.20	C	ATOM	43686	OD2	ASP	J	73	235.247	166.680	25.913	1.00	92.85	O	
ATOM	43637	C	HIS	J	68	225.179	154.370	21.351	1.00101.20	C	ATOM	43687	N	ILE	J	74	231.661	168.616	28.747	1.00	92.85	N	
ATOM	43638	O	HIS	J	68	225.030	154.101	22.544	1.00101.20	O	ATOM	43688	CA	ILE	J	74	231.503	169.926	29.381	1.00131.68	C		
ATOM	43639	CB	HIS	J	68	223.162	154.391	19.879	1.00	75.25	C	ATOM	43689	C	ILE	J	74	232.805	170.370	30.034	1.00131.68	C	
ATOM	43640	CG	HIS	J	68	222.254	153.636	18.964	1.00	75.25	C	ATOM	43690	O	ILE	J	74	233.103	169.964	31.157	1.00131.68	O	
ATOM	43641	ND1	HIS	J	68	221.779	154.165	17.784	1.00	75.25	N	ATOM	43691	CB	ILE	J	74	230.438	169.904	30.503	1.00115.69	C	
ATOM	43642	CD2	HIS	J	68	221.727	152.392	19.060	1.00	75.25	C	ATOM	43692	CG1	ILE	J	74	229.084	169.463	29.955	1.00115.69	C	
ATOM	43643	CE1	HIS	J	68	220.998	153.279	17.192	1.00	75.25	C	ATOM	43693	CG2	ILE	J	74	230.318	171.285	31.123	1.00115.69	C	
ATOM	43644	NE2	HIS	J	68	220.950	152.194	17.946	1.00	75.25	N	ATOM	43694	CD1	ILE	J	74	228.027	169.305	31.030	1.00115.69	C	
ATOM	43645	N	ASN	J	69	225.998	155.325	20.921	1.00105.50	N	ATOM	43695	N	ILE	J	75	233.584	171.191	29.340	1.00172.02	N		
ATOM	43646	CA	ASN	J	69	226.809	156.100	21.849	1.00105.50	C	ATOM	43696	CA	ILE	J	75	234.830	171.680	29.915	1.00172.02	C		
ATOM	43647	C	ASN	J	69	226.677	157.608	21.638	1.00105.50	C	ATOM	43697	C	ILE	J	75	234.476	172.926	30.722	1.00172.02	C		



ATOM	43698	O	ILE J 75	233.552	173.653	30.361	1.00172.02	O	ATOM	43748	C	THR J 81	226.168	171.402	36.871	1.00200.93	C
ATOM	43699	CB	ILE J 75	235.875	172.014	28.819	1.00174.88	C	ATOM	43749	O	THR J 81	225.208	170.732	36.488	1.00200.93	O
ATOM	43700	CG1	ILE J 75	236.359	170.717	28.159	1.00174.88	C	ATOM	43750	CB	THR J 81	227.890	172.632	35.567	1.00171.56	C
ATOM	43701	CG2	ILE J 75	237.055	172.771	29.426	1.00174.88	C	ATOM	43751	OG1	THR J 81	228.277	173.911	35.051	1.00171.56	O
ATOM	43702	CD1	ILE J 75	237.457	170.904	27.129	1.00174.88	C	ATOM	43752	CG2	THR J 81	227.859	171.624	34.428	1.00171.56	C
ATOM	43703	N	ASN J 76	235.198	173.156	31.818	1.00 95.75	N	ATOM	43753	N	ILE J 82	226.973	171.038	37.866	1.00124.74	N
ATOM	43704	CA	ASN J 76	234.940	174.299	32.694	1.00 95.75	C	ATOM	43754	CA	ILE J 82	226.796	169.798	38.611	1.00124.74	C
ATOM	43705	C	ASN J 76	233.646	174.071	33.483	1.00 95.75	C	ATOM	43755	C	ILE J 82	225.530	169.914	39.454	1.00124.74	C
ATOM	43706	O	ASN J 76	232.617	174.709	33.228	1.00 95.75	O	ATOM	43756	O	ILE J 82	225.301	169.122	40.371	1.00124.74	O
ATOM	43707	CB	ASN J 76	234.839	175.597	31.884	1.00187.55	C	ATOM	43757	CB	ILE J 82	228.001	169.539	39.547	1.00 86.88	C
ATOM	43708	CG	ASN J 76	236.103	175.897	31.103	1.00187.55	C	ATOM	43758	CG1	ILE J 82	229.303	169.599	38.742	1.00 86.88	C
ATOM	43709	OD1	ASN J 76	237.198	175.953	31.665	1.00187.55	O	ATOM	43759	CG2	ILE J 82	227.856	168.182	40.228	1.00 86.88	C
ATOM	43710	ND2	ASN J 76	235.957	176.094	29.798	1.00187.55	N	ATOM	43760	CD1	ILE J 82	230.556	169.304	39.553	1.00 86.88	C
ATOM	43711	N	PRO J 77	233.686	173.136	34.447	1.00154.69	N	ATOM	43761	N	GLU J 83	224.711	170.912	39.134	1.00128.12	N
ATOM	43712	CA	PRO J 77	232.544	172.791	35.297	1.00154.69	C	ATOM	43762	CA	GLU J 83	223.466	171.159	39.850	1.00128.12	C
ATOM	43713	C	PRO J 77	232.357	173.868	36.358	1.00154.69	C	ATOM	43763	C	GLU J 83	222.298	170.876	38.912	1.00128.12	C
ATOM	43714	O	PRO J 77	233.335	174.435	36.845	1.00154.69	O	ATOM	43764	O	GLU J 83	221.361	170.151	39.261	1.00128.12	O
ATOM	43715	CB	PRO J 77	232.964	171.458	35.899	1.00115.87	C	ATOM	43765	CB	GLU J 83	223.415	172.618	40.316	1.00172.61	C
ATOM	43716	CG	PRO J 77	234.437	171.658	36.095	1.00115.87	C	ATOM	43766	CG	GLU J 83	222.409	172.905	41.415	1.00172.61	C
ATOM	43717	CD	PRO J 77	234.858	172.305	34.787	1.00115.87	C	ATOM	43767	CD	GLU J 83	223.073	173.131	42.760	1.00172.61	C
ATOM	43718	N	ASN J 78	231.112	174.148	36.724	1.00101.05	N	ATOM	43768	OB1	GLU J 83	222.851	174.205	43.357	1.00172.61	O
ATOM	43719	CA	ASN J 78	230.859	175.176	37.721	1.00101.05	C	ATOM	43769	OB2	GLU J 83	222.851	174.205	43.357	1.00172.61	O
ATOM	43720	C	ASN J 78	229.660	174.908	38.621	1.00101.05	C	ATOM	43770	N	GLN J 84	222.370	171.456	37.717	1.00178.05	N
ATOM	43721	O	ASN J 78	228.558	175.363	38.324	1.00101.05	O	ATOM	43771	CA	GLN J 84	221.336	171.282	36.705	1.00178.05	C
ATOM	43722	CB	ASN J 78	230.673	176.530	37.032	1.00187.79	C	ATOM	43772	C	GLN J 84	221.362	169.864	36.143	1.00178.05	C
ATOM	43723	OD1	ASN J 78	231.906	176.974	36.273	1.00187.79	C	ATOM	43773	O	GLN J 84	220.439	169.451	35.442	1.00178.05	O
ATOM	43724	ND2	ASN J 78	232.942	177.270	36.869	1.00187.79	O	ATOM	43774	CB	GLN J 84	221.545	172.279	35.564	1.00132.32	C
ATOM	43725	N	ARG J 79	231.803	177.018	34.948	1.00187.79	N	ATOM	43775	CG	GLN J 84	221.482	173.738	35.980	1.00132.32	C
ATOM	43726	CA	ARG J 79	229.892	174.182	39.715	1.00127.27	N	ATOM	43776	CD	GLN J 84	221.626	174.695	34.801	1.00132.32	C
ATOM	43727	C	ARG J 79	228.865	173.862	40.711	1.00127.27	C	ATOM	43777	OB1	GLN J 84	220.863	174.592	33.835	1.00132.32	O
ATOM	43728	O	ARG J 79	227.425	173.783	40.207	1.00127.27	C	ATOM	43778	NE2	GLN J 84	222.603	175.592	34.881	1.00132.32	N
ATOM	43729	O	ARG J 79	226.796	172.731	40.301	1.00127.27	O	ATOM	43779	N	LEU J 85	222.423	169.125	36.455	1.00135.40	N
ATOM	43730	CB	ARG J 79	228.944	174.870	41.862	1.00165.02	C	ATOM	43780	CA	LEU J 85	222.578	167.757	35.969	1.00135.40	C
ATOM	43731	CG	ARG J 79	229.993	174.537	42.911	1.00165.02	C	ATOM	43781	C	LEU J 85	222.463	166.728	37.093	1.00135.40	C
ATOM	43732	CD	ARG J 79	229.438	173.551	43.926	1.00165.02	C	ATOM	43782	O	LEU J 85	221.604	165.847	37.061	1.00135.40	O
ATOM	43733	NE	ARG J 79	230.467	172.997	44.801	1.00165.02	N	ATOM	43783	CB	LEU J 85	223.945	167.589	35.290	1.00128.44	C
ATOM	43734	CZ	ARG J 79	231.409	172.152	44.400	1.00165.02	C	ATOM	43784	CG	LEU J 85	224.469	168.677	34.342	1.00128.44	C
ATOM	43735	NH1	ARG J 79	231.456	171.760	43.134	1.00165.02	N	ATOM	43785	CD1	LEU J 85	225.833	168.255	33.810	1.00128.44	C
ATOM	43736	NH2	ARG J 79	232.301	171.692	45.267	1.00165.02	N	ATOM	43786	CD2	LEU J 85	223.497	168.907	33.196	1.00128.44	C
ATOM	43737	N	LYS J 80	226.899	174.898	39.702	1.00166.00	N	ATOM	43787	N	MET J 86	223.343	166.865	38.081	1.00135.34	N
ATOM	43738	CA	LYS J 80	225.535	174.952	39.174	1.00166.00	C	ATOM	43788	CA	MET J 86	223.431	165.964	39.229	1.00135.34	C
ATOM	43739	C	LYS J 80	225.390	173.958	38.018	1.00166.00	C	ATOM	43789	C	MET J 86	222.169	165.238	39.681	1.00135.34	C
ATOM	43740	O	LYS J 80	224.297	173.455	37.744	1.00166.00	O	ATOM	43790	O	MET J 86	222.258	164.129	40.209	1.00135.34	O
ATOM	43741	CB	LYS J 80	225.211	176.368	38.683	1.00107.53	C	ATOM	43791	CB	MET J 86	224.022	166.700	40.431	1.00142.01	C
ATOM	43742	CD	LYS J 80	223.724	176.640	38.484	1.00107.53	C	ATOM	43792	CG	MET J 86	224.649	165.773	41.454	1.00142.01	C
ATOM	43743	CE	LYS J 80	222.986	176.664	39.817	1.00107.53	C	ATOM	43793	SD	MET J 86	226.011	164.823	40.729	1.00142.01	S
ATOM	43744	CE	LYS J 80	223.487	177.797	40.705	1.00107.53	C	ATOM	43794	CE	MET J 86	225.172	163.306	40.213	1.00142.01	C
ATOM	43745	NZ	LYS J 80	222.851	177.794	42.053	1.00107.53	N	ATOM	43795	N	THR J 87	221.002	165.844	39.496	1.00135.25	N
ATOM	43746	N	THR J 81	226.500	173.692	37.333	1.00200.93	N	ATOM	43796	CA	THR J 87	219.772	165.186	39.920	1.00135.25	C
ATOM	43747	CA	THR J 81	226.501	172.737	36.232	1.00200.93	C	ATOM	43797	C	THR J 87	218.556	165.602	39.102	1.00135.25	C



Table 1: Sheet 440/521

ATOM	43798	O	THR	J	87	217.520	165.972	39.658	1.00135.25	O	ATOM	43848	CB	VAL	J	94	219.682	156.243	28.924	1.00	42.21	C	
ATOM	43799	CB	THR	J	87	219.483	165.465	41.409	1.00193.48	C	ATOM	43849	CG1	VAL	J	94	221.090	156.791	28.729	1.00	42.21	C	
ATOM	43800	OG1	THR	J	87	220.690	165.311	42.169	1.00104.27	O	ATOM	43850	CG2	VAL	J	94	218.767	156.667	27.767	1.00	42.21	C	
ATOM	43801	CG2	THR	J	87	218.429	164.490	41.938	1.00104.27	C	ATOM	43851	N	GLU	J	95	221.876	154.501	30.151	1.00	89.73	N	
ATOM	43802	N	LEU	J	88	218.684	165.532	37.781	1.00168.09	N	ATOM	43852	CA	GLU	J	95	222.800	154.222	31.237	1.00	89.73	C	
ATOM	43803	CA	LEU	J	88	217.590	165.901	36.888	1.00168.09	C	ATOM	43853	C	GLU	J	95	224.077	155.000	30.934	1.00	89.73	C	
ATOM	43804	C	LEU	J	88	217.613	165.098	35.585	1.00168.09	C	ATOM	43854	O	GLU	J	95	224.759	154.741	29.941	1.00	89.73	C	
ATOM	43805	O	LEU	J	88	217.712	165.664	34.497	1.00168.09	O	ATOM	43855	CB	GLU	J	95	223.057	152.715	31.317	1.00	102.64	C	
ATOM	43806	CB	LEU	J	88	217.640	167.408	36.598	1.00166.43	C	ATOM	43856	CG	GLU	J	95	224.017	152.282	32.398	1.00	102.64	C	
ATOM	43807	CG	LEU	J	88	217.259	168.368	37.727	1.00	90.55	C	ATOM	43857	CD	GLU	J	95	225.367	151.889	31.836	1.00	102.64	C
ATOM	43808	CD1	LEU	J	88	217.640	169.802	37.361	1.00	90.55	C	ATOM	43858	OE1	GLU	J	95	226.028	152.750	31.216	1.00	102.64	O
ATOM	43809	CD2	LEU	J	88	215.760	168.252	38.010	1.00	90.55	C	ATOM	43859	OE2	GLU	J	95	225.764	150.715	32.009	1.00	102.64	O
ATOM	43810	N	ASP	J	89	217.517	163.777	35.710	1.00179.55	N	ATOM	43860	N	ILE	J	96	224.380	155.969	31.795	1.00	171.97	N	
ATOM	43811	CA	ASP	J	89	217.513	162.871	34.561	1.00179.55	C	ATOM	43861	CA	ILE	J	96	225.547	156.829	31.623	1.00	171.97	C	
ATOM	43812	C	ASP	J	89	216.109	162.307	34.344	1.00179.55	C	ATOM	43862	C	ILE	J	96	226.805	156.348	32.317	1.00	171.97	C	
ATOM	43813	O	ASP	J	89	215.202	162.600	35.125	1.00179.55	O	ATOM	43863	O	ILE	J	96	226.797	155.409	33.116	1.00	171.97	O	
ATOM	43814	CB	ASP	J	89	218.519	161.735	34.783	1.00200.93	C	ATOM	43864	CB	ILE	J	96	225.297	158.256	32.165	1.00	72.92	C	
ATOM	43815	CG	ASP	J	89	218.517	161.219	36.213	1.00173.16	C	ATOM	43865	CG1	ILE	J	96	223.842	158.657	31.941	1.00	72.92	C	
ATOM	43816	OD1	ASP	J	89	218.839	162.002	37.136	1.00173.16	O	ATOM	43866	CG2	ILE	J	96	226.243	159.251	31.485	1.00	72.92	C	
ATOM	43817	OD2	ASP	J	89	218.196	160.029	36.415	1.00173.16	O	ATOM	43867	CD1	ILE	J	96	223.472	159.979	32.580	1.00	72.92	C	
ATOM	43818	N	LEU	J	90	215.921	161.501	33.298	1.00194.83	N	ATOM	43868	N	GLU	J	97	227.884	157.047	31.990	1.00	110.72	N	
ATOM	43819	CA	LEU	J	90	214.591	160.955	33.028	1.00194.83	C	ATOM	43869	CA	GLU	J	97	229.208	156.825	32.533	1.00	110.72	C	
ATOM	43820	C	LEU	J	90	214.461	159.568	32.361	1.00194.83	C	ATOM	43870	C	GLU	J	97	229.902	158.158	32.334	1.00	110.72	C	
ATOM	43821	O	LEU	J	90	213.786	158.689	32.899	1.00194.83	O	ATOM	43871	O	GLU	J	97	229.956	158.673	31.217	1.00	110.72	O	
ATOM	43822	CB	LEU	J	90	213.780	161.987	32.228	1.00172.74	C	ATOM	43872	CB	GLU	J	97	229.937	155.724	31.764	1.00	174.75	C	
ATOM	43823	CG	LEU	J	90	213.477	163.317	32.937	1.00112.20	C	ATOM	43873	CG	GLU	J	97	229.440	154.334	32.103	1.00	174.75	C	
ATOM	43824	CD1	LEU	J	90	212.937	164.335	31.949	1.00112.20	C	ATOM	43874	CD	GLU	J	97	229.568	154.030	33.583	1.00	174.75	C	
ATOM	43825	CD2	LEU	J	90	212.481	163.079	34.064	1.00112.20	C	ATOM	43875	OE1	GLU	J	97	230.714	153.937	34.071	1.00	174.75	O	
ATOM	43826	N	PRO	J	91	215.100	159.350	31.192	1.00	89.34	N	ATOM	43876	OE2	GLU	J	97	228.523	153.893	34.259	1.00	174.75	O
ATOM	43827	CA	PRO	J	91	215.009	158.055	30.498	1.00	89.34	C	ATOM	43877	N	ILE	J	98	230.395	158.738	33.422	1.00	149.79	N
ATOM	43828	C	PRO	J	91	215.425	156.793	31.267	1.00	89.34	O	ATOM	43878	CA	ILE	J	98	231.076	160.019	33.333	1.00	149.79	C
ATOM	43829	O	PRO	J	91	216.273	156.841	32.163	1.00	89.34	O	ATOM	43879	C	ILE	J	98	232.429	159.940	34.013	1.00	149.79	C
ATOM	43830	CB	PRO	J	91	215.845	158.281	29.234	1.00119.82	C	ATOM	43880	O	ILE	J	98	232.598	159.234	35.008	1.00	149.79	O	
ATOM	43831	CG	PRO	J	91	216.843	159.298	29.659	1.00100.73	C	ATOM	43881	CB	ILE	J	98	230.280	161.153	34.012	1.00	83.01	C	
ATOM	43832	CD	PRO	J	91	216.011	160.260	30.475	1.00100.73	C	ATOM	43882	CG1	ILE	J	98	228.781	160.993	33.753	1.00	83.01	C	
ATOM	43833	N	THR	J	92	214.812	155.667	30.892	1.00	82.93	N	ATOM	43883	CG2	ILE	J	98	230.742	162.497	33.456	1.00	83.01	C
ATOM	43834	CA	THR	J	92	215.062	154.362	31.514	1.00	82.93	C	ATOM	43884	CD1	ILE	J	98	227.922	162.015	34.484	1.00	83.01	C
ATOM	43835	C	THR	J	92	215.910	153.448	30.643	1.00	82.93	C	ATOM	43885	N	LYS	J	99	233.389	160.669	33.458	1.00	165.62	N
ATOM	43836	O	THR	J	92	216.646	152.607	31.155	1.00	82.93	O	ATOM	43886	CA	LYS	J	99	234.737	160.719	34.000	1.00	165.62	C
ATOM	43837	CB	THR	J	92	213.750	153.601	31.789	1.00	85.15	C	ATOM	43887	C	LYS	J	99	235.327	162.086	33.693	1.00	165.62	C
ATOM	43838	OG1	THR	J	92	212.868	154.419	32.567	1.00	85.15	O	ATOM	43888	O	LYS	J	99	235.921	162.294	32.635	1.00	165.62	O
ATOM	43839	CG2	THR	J	92	214.035	152.303	32.539	1.00	85.15	C	ATOM	43889	CB	LYS	J	99	235.609	159.619	33.387	1.00	152.27	C
ATOM	43840	N	GLY	J	93	215.783	153.597	29.327	1.00112.36	N	ATOM	43890	CG	LYS	J	99	235.283	158.211	33.875	1.00	152.27	C	
ATOM	43841	CA	GLY	J	93	216.546	152.771	28.406	1.00112.36	C	ATOM	43891	CD	LYS	J	99	236.270	157.195	33.314	1.00	152.27	C	
ATOM	43842	C	GLY	J	93	217.938	153.319	28.164	1.00112.36	C	ATOM	43892	CE	LYS	J	99	236.017	155.803	33.867	1.00	152.27	C	
ATOM	43843	O	GLY	J	93	218.560	153.042	27.136	1.00112.36	O	ATOM	43893	NZ	LYS	J	99	237.009	154.821	33.348	1.00	152.27	N	
ATOM	43844	N	VAL	J	94	218.421	154.107	29.121	1.00	88.05	N	ATOM	43894	N	THR	J	100	235.146	163.020	34.621	1.00	156.94	N
ATOM	43845	CA	VAL	J	94	219.745	154.706	29.039	1.00	88.05	C	ATOM	43895	CA	THR	J	100	235.655	164.373	34.456	1.00	156.94	C
ATOM	43846	C	VAL	J	94	220.561	154.371	30.280	1.00	88.05	C	ATOM	43896	C	THR	J	100	237.177	164.386	34.533	1.00	156.94	C
ATOM	43847	O	VAL	J	94	220.015	154.007	31.323	1.00	88.05	O	ATOM	43897	O	THR	J	100	237.769	163.303	34.737	1.00	156.94	O



ATOM	43898	CB	THR J 100	235.067	165.283	35.525	1.00	91.27	C	ATOM	43948	CA	GLY K 17	213.352	123.701	-77.050	1.00	76.39	C
TER	43899	THR J 100	THR J 100							ATOM	43949	C	GLY K 17	212.460	123.800	-75.825	1.00	76.39	C
ATOM	43900	N	LYS K 11	225.015	116.755	-79.271	1.00	00200.25	N	ATOM	43950	O	GLY K 17	212.121	124.898	-75.378	1.00	76.39	O
ATOM	43901	CA	LYS K 11	225.776	117.124	-80.498	1.00	00200.25	C	ATOM	43951	N	ARG K 18	212.083	122.637	-75.290	1.00	52.99	N
ATOM	43902	C	LYS K 11	224.893	117.056	-81.744	1.00	00200.25	C	ATOM	43952	CA	ARG K 18	211.227	122.539	-74.110	1.00	52.99	C
ATOM	43903	O	LYS K 11	224.923	116.078	-82.492	1.00	00200.25	O	ATOM	43953	C	ARG K 18	211.947	122.013	-72.864	1.00	52.99	C
ATOM	43904	CB	LYS K 11	226.985	116.197	-80.655	1.00	0154.39	C	ATOM	43954	O	ARG K 18	212.908	121.248	-72.956	1.00	52.99	O
ATOM	43905	CG	LYS K 11	227.965	116.269	-79.490	1.00	0154.39	C	ATOM	43955	CB	ARG K 18	210.028	121.640	-74.415	1.00	64.34	C
ATOM	43906	CD	LYS K 11	229.179	115.377	-79.715	1.00	0154.39	C	ATOM	43956	CG	ARG K 18	208.868	122.377	-75.038	1.00	64.34	C
ATOM	43907	CE	LYS K 11	230.184	115.512	-78.577	1.00	0154.39	C	ATOM	43957	CD	ARG K 18	208.388	121.765	-76.339	1.00	64.34	C
ATOM	43908	NZ	LYS K 11	231.405	114.685	-78.796	1.00	0154.39	N	ATOM	43958	NE	ARG K 18	207.680	120.503	-76.161	1.00	64.34	N
ATOM	43909	N	ARG K 12	224.109	118.111	-81.950	1.00	77.35	C	ATOM	43959	CZ	ARG K 18	206.963	119.922	-77.121	1.00	64.34	C
ATOM	43910	CA	ARG K 12	223.196	118.229	-83.080	1.00	77.35	C	ATOM	43960	NH1	ARG K 18	206.862	120.497	-78.312	1.00	64.34	N
ATOM	43911	C	ARG K 12	222.909	119.710	-83.274	1.00	77.35	C	ATOM	43961	NH2	ARG K 18	206.353	118.761	-76.903	1.00	64.34	N
ATOM	43912	O	ARG K 12	222.647	120.166	-84.385	1.00	77.35	O	ATOM	43962	N	ALA K 19	211.487	122.442	-71.693	1.00	60.30	N
ATOM	43913	CB	ARG K 12	221.890	117.486	-82.792	1.00	0147.72	C	ATOM	43963	CA	ALA K 19	212.066	121.981	-70.435	1.00	60.30	C
ATOM	43914	CG	ARG K 12	222.048	115.981	-82.713	1.00	0147.72	C	ATOM	43964	C	ALA K 19	210.926	121.515	-69.536	1.00	60.30	C
ATOM	43915	CD	ARG K 12	220.723	115.286	-82.463	1.00	0147.72	C	ATOM	43965	O	ALA K 19	210.074	122.309	-69.144	1.00	60.30	O
ATOM	43916	NE	ARG K 12	220.840	113.838	-82.629	1.00	0147.72	N	ATOM	43966	CB	ALA K 19	212.842	123.096	-69.763	1.00	25.08	C
ATOM	43917	CZ	ARG K 12	219.832	112.984	-82.489	1.00	0147.72	C	ATOM	43967	N	TYR K 20	210.908	120.221	-69.233	1.00	53.01	N
ATOM	43918	NH1	ARG K 12	218.621	113.427	-82.176	1.00	0147.72	N	ATOM	43968	CA	TYR K 20	209.875	119.652	-68.392	1.00	53.01	C
ATOM	43919	NH2	ARG K 12	220.031	111.686	-82.671	1.00	0147.72	N	ATOM	43969	C	TYR K 20	210.349	119.507	-66.956	1.00	53.01	C
ATOM	43920	N	GLN K 13	222.974	120.452	-82.173	1.00	88.78	N	ATOM	43970	O	TYR K 20	211.301	118.780	-66.662	1.00	53.01	O
ATOM	43921	CA	GLN K 13	222.734	121.892	-82.158	1.00	88.78	C	ATOM	43971	CB	TYR K 20	209.437	118.287	-68.924	1.00	57.66	C
ATOM	43922	C	GLN K 13	221.261	122.194	-82.416	1.00	88.78	C	ATOM	43972	CG	TYR K 20	208.652	118.350	-70.214	1.00	57.66	C
ATOM	43923	O	GLN K 13	220.819	122.344	-83.556	1.00	88.78	C	ATOM	43973	CD1	TYR K 20	209.294	118.422	-71.445	1.00	57.66	C
ATOM	43924	CB	GLN K 13	223.629	122.591	-83.184	1.00	83.30	C	ATOM	43974	CD2	TYR K 20	207.262	118.366	-70.201	1.00	57.66	C
ATOM	43925	CG	GLN K 13	225.100	122.140	-83.129	1.00	83.30	C	ATOM	43975	CE1	TYR K 20	208.570	118.510	-72.633	1.00	57.66	C
ATOM	43926	CD	GLN K 13	225.769	122.360	-81.768	1.00	83.30	C	ATOM	43976	CE2	TYR K 20	206.531	118.454	-71.382	1.00	57.66	C
ATOM	43927	OE1	GLN K 13	225.944	123.500	-81.325	1.00	83.30	O	ATOM	43977	CZ	TYR K 20	207.194	118.527	-72.591	1.00	57.66	C
ATOM	43928	NE2	GLN K 13	226.150	121.266	-81.107	1.00	83.30	N	ATOM	43978	OH	TYR K 20	206.474	118.630	-73.753	1.00	57.66	O
ATOM	43929	N	VAL K 14	220.512	122.278	-81.321	1.00	95.73	N	ATOM	43979	N	ILE K 21	209.680	120.215	-66.059	1.00	58.52	N
ATOM	43930	CA	VAL K 14	219.080	122.536	-81.347	1.00	95.73	C	ATOM	43980	CA	ILE K 21	210.014	120.153	-64.655	1.00	58.52	C
ATOM	43931	C	VAL K 14	218.735	124.006	-81.173	1.00	95.73	C	ATOM	43981	C	ILE K 21	208.957	119.307	-63.983	1.00	58.52	C
ATOM	43932	O	VAL K 14	218.122	124.612	-82.051	1.00	95.73	O	ATOM	43982	O	ILE K 21	207.791	119.672	-63.935	1.00	58.52	O
ATOM	43933	CB	VAL K 14	218.386	121.726	-80.244	1.00	49.51	C	ATOM	43983	CB	ILE K 21	210.043	121.548	-64.048	1.00	49.77	C
ATOM	43934	CG1	VAL K 14	216.944	122.161	-80.100	1.00	49.51	C	ATOM	43984	CG1	ILE K 21	211.042	122.400	-64.828	1.00	49.77	C
ATOM	43935	CG2	VAL K 14	218.473	120.239	-80.580	1.00	49.51	C	ATOM	43985	CG2	ILE K 21	210.432	121.472	-62.580	1.00	49.77	C
ATOM	43936	N	ALA K 15	219.122	124.558	-80.028	1.00	102.27	N	ATOM	43986	CD1	ILE K 21	211.331	123.741	-64.211	1.00	49.77	C
ATOM	43937	CA	ALA K 15	218.876	125.959	-79.698	1.00	102.27	C	ATOM	43987	N	ILE K 22	209.380	118.158	-63.482	1.00	41.28	N
ATOM	43938	C	ALA K 15	217.555	126.164	-78.969	1.00	102.27	C	ATOM	43988	CA	HIS K 22	208.506	117.207	-62.810	1.00	41.28	C
ATOM	43939	O	ALA K 15	217.537	126.335	-77.752	1.00	102.27	O	ATOM	43989	C	HIS K 22	208.766	117.161	-61.294	1.00	41.28	C
ATOM	43940	CB	ALA K 15	218.910	126.812	-80.953	1.00	52.84	C	ATOM	43990	O	HIS K 22	209.570	116.360	-60.811	1.00	41.28	O
ATOM	43941	N	SER K 16	216.452	126.146	-79.714	1.00	67.84	N	ATOM	43991	CB	HIS K 22	208.738	115.830	-63.420	1.00	58.04	C
ATOM	43942	CA	SER K 16	215.114	126.335	-79.148	1.00	67.84	C	ATOM	43992	CG	HIS K 22	208.142	114.711	-62.633	1.00	58.04	C
ATOM	43943	C	SER K 16	214.493	125.005	-78.723	1.00	67.84	C	ATOM	43993	ND1	HIS K 22	206.807	114.383	-62.700	1.00	58.04	N
ATOM	43944	O	SER K 16	214.486	124.050	-79.500	1.00	67.84	O	ATOM	43994	CD2	HIS K 22	208.701	113.848	-61.754	1.00	58.04	C
ATOM	43945	CB	SER K 16	214.206	126.993	-80.186	1.00	114.65	C	ATOM	43995	CE1	HIS K 22	206.568	113.361	-61.898	1.00	58.04	C
ATOM	43946	OG	SER K 16	214.073	126.160	-81.329	1.00	114.65	O	ATOM	43996	NE2	HIS K 22	207.702	113.018	-61.313	1.00	58.04	N
ATOM	43947	N	GLY K 17	213.957	124.942	-77.506	1.00	76.39	N	ATOM	43997	N	ALA K 23	208.080	118.018	-60.547	1.00	52.22	N



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ATOM 43998	CA	ALA K 23	208.241	118.072	-59.099	1.00	52.22	C	ATOM 44048	CG1	ILE K 29	212.997	113.823	-63.995	1.00	51.33	C
ATOM 43999	C	ALA K 23	207.422	117.000	-58.375	1.00	52.22	C	ATOM 44049	CG2	ILE K 29	212.274	113.615	-61.627	1.00	51.33	C
ATOM 44000	O	ALA K 23	206.486	116.434	-58.937	1.00	52.22	O	ATOM 44050	CD1	ILE K 29	213.017	112.366	-64.249	1.00	51.33	C
ATOM 44001	CB	ALA K 23	207.849	119.447	-58.599	1.00	55.33	C	ATOM 44051	N	VAL K 30	214.257	117.105	-64.114	1.00	39.43	N
ATOM 44002	N	SER K 24	207.791	116.720	-57.127	1.00	48.17	N	ATOM 44052	CA	VAL K 30	214.111	117.982	-65.263	1.00	39.43	C
ATOM 44003	CA	SER K 24	207.094	115.732	-56.299	1.00	48.17	C	ATOM 44053	C	VAL K 30	214.583	117.300	-66.529	1.00	39.43	C
ATOM 44004	C	SER K 24	207.625	115.817	-54.869	1.00	48.17	C	ATOM 44054	O	VAL K 30	215.641	116.690	-66.555	1.00	39.43	O
ATOM 44005	O	SER K 24	208.733	116.293	-54.641	1.00	48.17	C	ATOM 44055	CB	VAL K 30	214.949	119.260	-65.100	1.00	52.78	C
ATOM 44006	CB	SER K 24	207.306	114.321	-56.847	1.00	44.84	C	ATOM 44056	CG1	VAL K 30	214.491	120.293	-66.103	1.00	52.78	C
ATOM 44007	OG	SER K 24	208.230	113.592	-56.054	1.00	44.84	O	ATOM 44057	CG2	VAL K 30	214.852	119.787	-63.680	1.00	52.78	C
ATOM 44008	N	TYR K 25	206.853	115.364	-53.896	1.00	84.33	N	ATOM 44058	N	THR K 31	213.795	117.421	-67.584	1.00	42.65	N
ATOM 44009	CA	TYR K 25	207.338	115.463	-52.532	1.00	84.33	C	ATOM 44059	CA	THR K 31	214.130	116.814	-68.858	1.00	42.65	C
ATOM 44010	C	TYR K 25	208.420	114.450	-52.207	1.00	84.33	C	ATOM 44060	C	THR K 31	214.039	117.891	-69.908	1.00	42.65	C
ATOM 44011	O	TYR K 25	208.621	114.092	-51.047	1.00	84.33	O	ATOM 44061	O	THR K 31	212.998	118.530	-70.019	1.00	42.65	O
ATOM 44012	CB	TYR K 25	206.174	115.361	-51.545	1.00	100.04	C	ATOM 44062	CB	THR K 31	213.131	115.697	-69.223	1.00	44.08	C
ATOM 44013	CG	TYR K 25	205.289	116.589	-51.572	1.00	100.04	C	ATOM 44063	OG1	THR K 31	213.414	114.517	-68.454	1.00	44.08	O
ATOM 44014	CD1	TYR K 25	204.148	116.638	-52.374	1.00	100.04	C	ATOM 44064	CG2	THR K 31	213.212	115.379	-70.704	1.00	44.08	C
ATOM 44015	CD2	TYR K 25	205.626	117.728	-50.836	1.00	100.04	C	ATOM 44065	N	ILE K 32	215.113	118.109	-70.667	1.00	69.72	N
ATOM 44016	CE1	TYR K 25	203.366	117.790	-52.445	1.00	100.04	C	ATOM 44066	CA	ILE K 32	215.091	119.127	-71.724	1.00	69.72	C
ATOM 44017	CE2	TYR K 25	204.854	118.887	-50.901	1.00	100.04	C	ATOM 44067	C	ILE K 32	214.752	118.458	-73.064	1.00	69.72	C
ATOM 44018	CH	TYR K 25	203.725	118.911	-51.707	1.00	100.04	C	ATOM 44068	O	ILE K 32	215.209	117.351	-73.352	1.00	69.72	O
ATOM 44019	OZ	TYR K 25	202.955	120.052	-51.776	1.00	100.04	O	ATOM 44069	CB	ILE K 32	216.444	119.860	-71.870	1.00	46.11	C
ATOM 44020	N	ASN K 26	209.128	114.000	-53.239	1.00	56.17	N	ATOM 44070	CG1	ILE K 32	217.004	120.254	-70.499	1.00	46.11	C
ATOM 44021	CA	ASN K 26	210.210	113.030	-53.070	1.00	56.17	C	ATOM 44071	CG2	ILE K 32	216.243	121.108	-72.711	1.00	46.11	C
ATOM 44022	C	ASN K 26	211.447	113.335	-53.905	1.00	56.17	C	ATOM 44072	CD1	ILE K 32	216.250	121.353	-69.808	1.00	46.11	C
ATOM 44023	O	ASN K 26	212.567	112.975	-53.522	1.00	56.17	C	ATOM 44073	N	THR K 33	213.959	119.132	-73.885	1.00	54.22	N
ATOM 44024	CB	ASN K 26	209.736	111.616	-53.403	1.00	57.86	C	ATOM 44074	CA	THR K 33	213.553	118.552	-75.151	1.00	54.22	C
ATOM 44025	CG	ASN K 26	209.305	110.849	-52.178	1.00	57.86	C	ATOM 44075	C	THR K 33	213.659	119.489	-76.346	1.00	54.22	C
ATOM 44026	OD1	ASN K 26	209.762	111.129	-51.072	1.00	57.86	O	ATOM 44076	O	THR K 33	213.873	120.695	-76.203	1.00	54.22	O
ATOM 44027	ND2	ASN K 26	208.435	109.861	-52.366	1.00	57.86	N	ATOM 44077	CB	THR K 33	212.102	118.040	-75.064	1.00	68.99	O
ATOM 44028	N	ASN K 27	211.251	113.999	-55.038	1.00	46.67	N	ATOM 44078	OG1	THR K 33	212.001	116.805	-75.767	1.00	68.99	O
ATOM 44029	CA	ASN K 27	212.364	114.318	-55.915	1.00	46.67	C	ATOM 44079	CG2	THR K 33	211.126	119.026	-75.697	1.00	68.99	C
ATOM 44030	C	ASN K 27	211.922	115.202	-57.068	1.00	46.67	O	ATOM 44080	N	ASP K 34	213.489	118.913	-77.530	1.00	59.61	N
ATOM 44031	O	ASN K 27	210.733	115.341	-57.342	1.00	46.67	O	ATOM 44081	CA	ASP K 34	213.559	119.663	-78.773	1.00	59.61	C
ATOM 44032	CB	ASN K 27	212.975	113.015	-56.446	1.00	51.00	C	ATOM 44082	C	ASP K 34	212.177	120.218	-79.123	1.00	59.61	C
ATOM 44033	CG	ASN K 27	214.169	113.241	-57.343	1.00	51.00	C	ATOM 44083	O	ASP K 34	211.164	119.766	-78.588	1.00	59.61	O
ATOM 44034	OD1	ASN K 27	214.838	114.267	-57.267	1.00	51.00	O	ATOM 44084	CB	ASP K 34	214.064	118.745	-79.883	1.00	79.52	C
ATOM 44035	ND2	ASN K 27	214.457	112.262	-58.185	1.00	51.00	N	ATOM 44085	CG	ASP K 34	213.074	117.660	-80.229	1.00	79.52	C
ATOM 44036	N	THR K 28	212.897	115.810	-57.730	1.00	46.94	N	ATOM 44086	OD1	ASP K 34	212.423	117.123	-79.309	1.00	79.52	O
ATOM 44037	CA	THR K 28	212.626	116.683	-58.858	1.00	46.94	C	ATOM 44087	OD2	ASP K 34	212.953	117.336	-81.425	1.00	79.52	O
ATOM 44038	C	THR K 28	213.455	116.171	-60.008	1.00	46.94	C	ATOM 44088	N	PRO K 35	212.119	121.206	-80.029	1.00	77.71	N
ATOM 44039	O	THR K 28	214.629	115.853	-59.835	1.00	46.94	O	ATOM 44089	CA	PRO K 35	210.871	121.833	-80.456	1.00	77.71	C
ATOM 44040	CB	THR K 28	213.067	118.133	-58.594	1.00	65.01	C	ATOM 44090	C	PRO K 35	209.629	120.954	-80.544	1.00	77.71	C
ATOM 44041	OG1	THR K 28	212.811	118.471	-57.225	1.00	65.01	O	ATOM 44091	O	PRO K 35	208.517	121.478	-80.594	1.00	77.71	O
ATOM 44042	CG2	THR K 28	212.314	119.091	-59.511	1.00	65.01	C	ATOM 44092	CB	PRO K 35	211.250	122.450	-81.793	1.00	72.39	C
ATOM 44043	N	ILE K 29	212.848	116.083	-61.182	1.00	47.97	N	ATOM 44093	CG	PRO K 35	212.605	122.965	-81.498	1.00	72.39	C
ATOM 44044	CA	ILE K 29	213.577	115.623	-62.339	1.00	47.97	C	ATOM 44094	CD	PRO K 35	213.254	121.794	-80.761	1.00	72.39	C
ATOM 44045	C	ILE K 29	213.231	116.469	-63.559	1.00	47.97	C	ATOM 44095	N	ASP K 36	209.788	119.635	-80.570	1.00	71.00	N
ATOM 44046	O	ILE K 29	212.081	116.573	-63.960	1.00	47.97	O	ATOM 44096	CA	ASP K 36	208.606	118.790	-80.631	1.00	71.00	C
ATOM 44047	CB	ILE K 29	213.344	114.115	-62.553	1.00	51.33	C	ATOM 44097	C	ASP K 36	208.534	117.602	-79.669	1.00	71.00	C



ATOM	44098	O	ASP K	36	207.820	116.630	-79.924	1.00	71.00	O	ATOM	44148	CZ2	TRP K	42	218.645	109.582	-66.139	1.00	45.79	C
ATOM	44099	CB	ASP K	36	208.324	118.347	-82.077	1.00	97.77	C	ATOM	44149	CZ3	TRP K	42	217.576	111.073	-64.551	1.00	45.79	C
ATOM	44100	CG	ASP K	36	209.564	117.920	-82.813	1.00	97.77	C	ATOM	44150	CH2	TRP K	42	218.261	109.876	-64.856	1.00	45.79	C
ATOM	44101	OD1	ASP K	36	209.478	117.709	-84.043	1.00	97.77	O	ATOM	44151	N	SER K	43	218.112	115.489	-65.990	1.00	43.82	N
ATOM	44102	OD2	ASP K	36	210.621	117.791	-82.165	1.00	97.77	O	ATOM	44152	CA	SER K	43	218.776	115.476	-64.692	1.00	43.82	C
ATOM	44103	N	GLY K	37	209.275	117.674	-78.565	1.00	58.33	N	ATOM	44153	C	SER K	43	217.766	115.236	-63.579	1.00	43.82	C
ATOM	44104	CA	GLY K	37	209.165	116.626	-77.569	1.00	58.33	C	ATOM	44154	O	SER K	43	216.568	115.229	-63.812	1.00	43.82	O
ATOM	44105	C	GLY K	37	210.216	115.584	-77.262	1.00	58.33	C	ATOM	44155	CB	SER K	43	219.487	116.798	-64.437	1.00	39.62	C
ATOM	44106	O	GLY K	37	210.219	115.056	-76.146	1.00	58.33	O	ATOM	44156	OG	SER K	43	220.248	116.699	-63.245	1.00	39.62	O
ATOM	44107	N	ASN K	38	211.094	115.255	-78.203	1.00	62.83	N	ATOM	44157	N	SER K	44	218.251	115.050	-62.364	1.00	33.44	N
ATOM	44108	CA	ASN K	38	212.104	114.236	-77.915	1.00	62.83	C	ATOM	44158	CA	SER K	44	217.360	114.817	-61.239	1.00	33.44	C
ATOM	44109	C	ASN K	38	213.197	114.799	-77.018	1.00	62.83	C	ATOM	44159	C	SER K	44	218.113	114.978	-59.930	1.00	33.44	C
ATOM	44110	O	ASN K	38	213.785	115.842	-77.303	1.00	62.83	O	ATOM	44160	O	SER K	44	219.276	115.371	-59.919	1.00	33.44	O
ATOM	44111	CB	ASN K	38	212.680	113.680	-79.214	1.00	69.97	C	ATOM	44161	CB	SER K	44	216.796	113.405	-61.299	1.00	36.10	C
ATOM	44112	CG	ASN K	38	211.596	113.366	-80.222	1.00	69.97	C	ATOM	44162	OG	SER K	44	217.794	112.472	-60.925	1.00	36.10	O
ATOM	44113	OD1	ASN K	38	211.182	114.237	-80.983	1.00	69.97	O	ATOM	44163	N	GLY K	45	217.444	114.656	-58.827	1.00	53.00	N
ATOM	44114	ND2	ASN K	38	211.105	112.129	-80.210	1.00	69.97	O	ATOM	44164	CA	GLY K	45	218.077	114.754	-57.527	1.00	53.00	C
ATOM	44115	N	PRO K	39	213.466	114.121	-75.898	1.00	42.64	N	ATOM	44165	C	GLY K	45	219.082	113.632	-57.375	1.00	53.00	C
ATOM	44116	CA	PRO K	39	214.491	114.583	-74.961	1.00	42.64	C	ATOM	44166	O	GLY K	45	220.081	113.757	-56.667	1.00	53.00	O
ATOM	44117	C	PRO K	39	215.920	114.676	-75.471	1.00	42.64	C	ATOM	44167	N	GLY K	46	218.812	112.524	-58.051	1.00	76.75	N
ATOM	44118	O	PRO K	39	216.384	113.842	-76.237	1.00	42.64	O	ATOM	44168	CA	GLY K	46	219.713	111.394	-57.986	1.00	76.75	C
ATOM	44119	CB	PRO K	39	214.349	113.610	-73.787	1.00	40.00	C	ATOM	44169	C	GLY K	46	220.872	111.570	-58.948	1.00	76.75	C
ATOM	44120	CG	PRO K	39	213.802	112.371	-74.422	1.00	40.00	C	ATOM	44170	O	GLY K	46	222.019	111.295	-58.596	1.00	76.75	O
ATOM	44121	CD	PRO K	39	212.791	112.912	-75.391	1.00	40.00	C	ATOM	44171	N	VAL K	47	220.575	112.020	-60.167	1.00	66.16	N
ATOM	44122	N	ILE K	40	216.609	115.718	-75.035	1.00	55.24	N	ATOM	44172	CA	VAL K	47	221.608	112.233	-61.171	1.00	66.16	C
ATOM	44123	CA	ILE K	40	217.999	115.923	-75.398	1.00	55.24	C	ATOM	44173	C	VAL K	47	222.799	112.880	-60.501	1.00	66.16	C
ATOM	44124	C	ILE K	40	218.864	115.448	-74.230	1.00	55.24	C	ATOM	44174	O	VAL K	47	223.941	112.498	-60.735	1.00	66.16	O
ATOM	44125	O	ILE K	40	219.842	114.724	-74.423	1.00	55.24	O	ATOM	44175	CB	VAL K	47	221.102	113.135	-62.308	1.00	69.07	C
ATOM	44126	CB	ILE K	40	218.280	117.400	-75.654	1.00	61.10	C	ATOM	44176	CG1	VAL K	47	222.260	113.865	-62.967	1.00	69.07	C
ATOM	44127	CG1	ILE K	40	217.785	117.781	-77.043	1.00	61.10	C	ATOM	44177	CG2	VAL K	47	220.378	112.289	-63.334	1.00	69.07	C
ATOM	44128	CD1	ILE K	40	219.755	117.689	-75.472	1.00	61.10	C	ATOM	44178	N	ILE K	48	222.527	113.864	-59.658	1.00	69.06	N
ATOM	44129	CD1	ILE K	40	217.863	119.275	-77.321	1.00	61.10	C	ATOM	44179	CA	ILE K	48	223.588	114.532	-58.935	1.00	69.06	C
ATOM	44130	N	THR K	41	218.494	115.870	-73.022	1.00	72.88	N	ATOM	44180	C	ILE K	48	223.683	113.869	-57.575	1.00	69.06	C
ATOM	44131	CA	THR K	41	219.207	115.496	-71.804	1.00	72.88	C	ATOM	44181	O	ILE K	48	222.825	113.066	-57.208	1.00	69.06	O
ATOM	44132	C	THR K	41	218.241	115.557	-70.641	1.00	72.88	C	ATOM	44182	CB	ILE K	48	223.272	115.977	-58.711	1.00	40.25	C
ATOM	44133	O	THR K	41	217.185	116.178	-70.747	1.00	72.88	O	ATOM	44183	CG1	ILE K	48	222.711	116.580	-59.993	1.00	40.25	C
ATOM	44134	CB	THR K	41	220.356	116.468	-71.477	1.00	66.87	C	ATOM	44184	CG2	ILE K	48	224.533	116.697	-58.249	1.00	40.25	C
ATOM	44135	OG1	THR K	41	219.838	117.798	-71.393	1.00	66.87	O	ATOM	44185	CD1	ILE K	48	221.959	117.858	-59.749	1.00	40.25	C
ATOM	44136	CG2	THR K	41	221.431	116.414	-72.536	1.00	66.87	C	ATOM	44186	N	GLY K	49	224.715	114.227	-56.822	1.00	45.79	N
ATOM	44137	N	TRP K	42	218.612	114.923	-69.531	1.00	59.34	N	ATOM	44187	CA	GLY K	49	224.928	113.642	-55.504	1.00	45.79	C
ATOM	44138	CA	TRP K	42	217.784	114.925	-68.329	1.00	59.34	C	ATOM	44188	C	GLY K	49	223.772	112.931	-54.820	1.00	45.79	C
ATOM	44139	C	TRP K	42	218.613	114.855	-67.046	1.00	59.34	C	ATOM	44189	O	GLY K	49	223.587	111.734	-54.989	1.00	45.79	O
ATOM	44140	O	TRP K	42	219.676	114.235	-67.012	1.00	59.34	O	ATOM	44190	N	TYR K	50	223.009	113.699	-54.047	1.00	68.81	N
ATOM	44141	CB	TRP K	42	216.822	113.744	-68.339	1.00	45.79	C	ATOM	44191	CA	TYR K	50	221.849	113.261	-53.265	1.00	68.81	C
ATOM	44142	CG	TRP K	42	217.496	112.417	-68.118	1.00	45.79	C	ATOM	44192	C	TYR K	50	221.203	111.911	-53.577	1.00	68.81	C
ATOM	44143	CD1	TRP K	42	218.084	111.628	-69.065	1.00	45.79	C	ATOM	44193	O	TYR K	50	220.883	111.606	-54.723	1.00	68.81	O
ATOM	44144	CD2	TRP K	42	217.645	111.721	-66.868	1.00	45.79	C	ATOM	44194	CB	TYR K	50	220.811	114.374	-53.317	1.00	51.18	C
ATOM	44145	NE1	TRP K	42	218.585	110.481	-68.486	1.00	45.79	N	ATOM	44195	CG	TYR K	50	221.387	115.709	-52.886	1.00	51.18	C
ATOM	44146	CE2	TRP K	42	218.331	110.513	-67.140	1.00	45.79	C	ATOM	44196	CD1	TYR K	50	220.764	116.906	-53.226	1.00	51.18	C
ATOM	44147	CE3	TRP K	42	217.265	111.999	-65.548	1.00	45.79	C	ATOM	44197	CD2	TYR K	50	222.569	115.773	-52.146	1.00	51.18	C



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ATOM	44198	CE1	TYR	K	50	221.307	118.132	-52.846	1.00	51.18	C	ATOM	44248	O	THR	K	57	215.751	119.983	-53.499	1.00	55.28	O
ATOM	44199	CE2	TYR	K	50	223.117	116.991	-51.761	1.00	51.18	C	ATOM	44249	CB	THR	K	57	216.151	119.404	-50.490	1.00	70.20	C
ATOM	44200	CZ	TYR	K	50	222.482	118.163	-52.114	1.00	51.18	C	ATOM	44250	OG1	THR	K	57	216.434	120.756	-50.122	1.00	70.20	O
ATOM	44201	OH	TYR	K	50	223.025	119.366	-51.731	1.00	51.18	O	ATOM	44251	CG2	THR	K	57	217.339	118.876	-51.260	1.00	70.20	C
ATOM	44202	N	LYS	K	51	220.998	111.115	-52.531	1.00	70.68	N	ATOM	44252	N	PRO	K	58	214.562	121.550	-52.417	1.00	63.97	N
ATOM	44203	CA	LYS	K	51	220.420	109.789	-52.685	1.00	70.68	C	ATOM	44253	CA	PRO	K	58	214.687	122.581	-53.454	1.00	63.97	C
ATOM	44204	C	LYS	K	51	219.023	109.516	-52.111	1.00	70.68	C	ATOM	44254	C	PRO	K	58	216.114	122.782	-53.955	1.00	63.97	C
ATOM	44205	O	LYS	K	51	218.177	108.937	-52.798	1.00	70.68	O	ATOM	44255	O	PRO	K	58	216.334	123.086	-55.135	1.00	63.97	O
ATOM	44206	CB	LYS	K	51	221.379	108.733	-52.126	1.00	61.49	C	ATOM	44256	CB	PRO	K	58	214.139	123.829	-52.769	1.00	43.03	C
ATOM	44207	CG	LYS	K	51	222.114	107.931	-53.194	1.00	61.49	C	ATOM	44257	CG	PRO	K	58	214.447	123.579	-51.333	1.00	43.03	C
ATOM	44208	CD	LYS	K	51	222.645	106.589	-52.657	1.00	61.49	C	ATOM	44258	CD	PRO	K	58	214.039	122.137	-51.175	1.00	43.03	C
ATOM	44209	CE	LYS	K	51	221.499	105.628	-52.246	1.00	61.49	C	ATOM	44259	N	TYR	K	59	217.086	122.625	-53.064	1.00	62.63	N
ATOM	44210	NZ	LYS	K	51	221.948	104.254	-51.829	1.00	61.49	N	ATOM	44260	CA	TYR	K	59	218.463	122.791	-53.485	1.00	62.63	C
ATOM	44211	N	GLY	K	52	218.766	109.904	-50.864	1.00	54.63	N	ATOM	44261	C	TYR	K	59	218.715	121.820	-54.614	1.00	62.63	C
ATOM	44212	CA	GLY	K	52	217.462	109.598	-50.295	1.00	54.63	C	ATOM	44262	O	TYR	K	59	219.126	122.234	-55.694	1.00	62.63	O
ATOM	44213	C	GLY	K	52	216.499	110.749	-50.172	1.00	54.63	C	ATOM	44263	CB	TYR	K	59	219.432	122.519	-52.350	1.00	68.27	C
ATOM	44214	O	GLY	K	52	215.883	111.195	-51.143	1.00	54.63	O	ATOM	44264	CG	TYR	K	59	220.853	122.792	-52.750	1.00	68.27	C
ATOM	44215	N	SER	K	53	216.339	111.210	-48.944	1.00	61.04	N	ATOM	44265	CD1	TYR	K	59	221.178	123.938	-53.472	1.00	68.27	C
ATOM	44216	CA	SER	K	53	215.463	112.330	-48.698	1.00	61.04	C	ATOM	44266	CD2	TYR	K	59	221.879	121.919	-52.396	1.00	68.27	C
ATOM	44217	C	SER	K	53	216.005	113.583	-49.401	1.00	61.04	C	ATOM	44267	CE1	TYR	K	59	222.494	124.210	-53.833	1.00	68.27	C
ATOM	44218	O	SER	K	53	215.263	114.309	-50.062	1.00	61.04	O	ATOM	44268	CE2	TYR	K	59	223.205	122.179	-52.748	1.00	68.27	C
ATOM	44219	CB	SER	K	53	215.363	112.576	-47.198	1.00	56.63	C	ATOM	44269	CZ	TYR	K	59	223.507	123.329	-53.468	1.00	68.27	C
ATOM	44220	OG	SER	K	53	214.860	113.874	-46.944	1.00	56.63	O	ATOM	44270	OH	TYR	K	59	224.819	123.603	-53.811	1.00	68.27	O
ATOM	44221	N	ARG	K	54	217.308	113.815	-49.259	1.00	58.06	N	ATOM	44271	N	ALA	K	60	218.456	120.535	-54.365	1.00	41.94	N
ATOM	44222	CA	ARG	K	54	217.984	114.972	-49.841	1.00	58.06	C	ATOM	44272	CA	ALA	K	60	218.633	119.513	-55.391	1.00	41.94	C
ATOM	44223	C	ARG	K	54	217.565	115.212	-51.291	1.00	58.06	C	ATOM	44273	C	ALA	K	60	217.902	119.956	-56.654	1.00	41.94	C
ATOM	44224	O	ARG	K	54	217.439	116.345	-51.740	1.00	58.06	O	ATOM	44274	O	ALA	K	60	218.482	119.994	-57.736	1.00	41.94	O
ATOM	44225	CB	ARG	K	54	219.497	114.759	-49.784	1.00	102.33	C	ATOM	44275	CB	ALA	K	60	218.087	118.196	-54.925	1.00	17.12	C
ATOM	44226	CG	ARG	K	54	219.939	113.657	-48.826	1.00	102.33	C	ATOM	44276	N	ALA	K	61	216.624	120.290	-56.525	1.00	43.22	N
ATOM	44227	CD	ARG	K	54	220.145	114.158	-47.404	1.00	102.33	C	ATOM	44277	CA	ALA	K	61	215.874	120.758	-57.678	1.00	43.22	C
ATOM	44228	NE	ARG	K	54	221.536	114.534	-47.138	1.00	102.33	N	ATOM	44278	C	ALA	K	61	216.753	121.774	-58.398	1.00	43.22	C
ATOM	44229	CZ	ARG	K	54	222.162	115.570	-47.690	1.00	102.33	C	ATOM	44279	O	ALA	K	61	216.952	121.685	-59.604	1.00	43.22	O
ATOM	44230	NH1	ARG	K	54	221.528	116.356	-48.549	1.00	102.33	N	ATOM	44280	CB	ALA	K	61	214.577	121.411	-57.235	1.00	88.73	C
ATOM	44231	NH2	ARG	K	54	223.428	115.822	-47.381	1.00	102.33	N	ATOM	44281	N	GLN	K	62	217.301	122.727	-57.655	1.00	58.98	N
ATOM	44232	N	LYS	K	55	217.353	114.124	-52.015	1.00	47.44	N	ATOM	44282	CA	GLN	K	62	218.150	123.727	-58.280	1.00	58.98	C
ATOM	44233	CA	LYS	K	55	216.972	114.163	-53.422	1.00	47.44	C	ATOM	44283	C	GLN	K	62	219.295	123.083	-59.038	1.00	58.98	C
ATOM	44234	C	LYS	K	55	215.814	115.139	-53.718	1.00	47.44	C	ATOM	44284	O	GLN	K	62	219.398	123.225	-60.253	1.00	58.98	O
ATOM	44235	O	LYS	K	55	215.786	115.802	-54.757	1.00	47.44	O	ATOM	44285	CB	GLN	K	62	218.730	124.684	-57.251	1.00	71.65	C
ATOM	44236	CB	LYS	K	55	216.613	112.734	-53.841	1.00	28.15	C	ATOM	44286	CG	GLN	K	62	219.589	125.755	-57.891	1.00	71.65	C
ATOM	44237	CG	LYS	K	55	216.650	112.435	-55.318	1.00	28.15	C	ATOM	44287	CD	GLN	K	62	220.071	126.775	-56.896	1.00	71.65	C
ATOM	44238	CD	LYS	K	55	216.140	111.003	-55.591	1.00	28.15	C	ATOM	44288	OE1	GLN	K	62	220.889	126.473	-56.029	1.00	71.65	O
ATOM	44239	CE	LYS	K	55	217.019	109.947	-54.919	1.00	28.15	C	ATOM	44289	NE2	GLN	K	62	219.560	127.996	-57.007	1.00	71.65	N
ATOM	44240	NZ	LYS	K	55	216.410	108.583	-54.811	1.00	28.15	N	ATOM	44290	N	LEU	K	63	220.167	122.384	-58.325	1.00	60.23	N
ATOM	44241	N	GLY	K	56	214.863	115.236	-52.798	1.00	83.91	N	ATOM	44291	CA	LEU	K	63	221.287	121.734	-58.978	1.00	60.23	C
ATOM	44242	CA	GLY	K	56	213.736	116.127	-53.010	1.00	83.91	C	ATOM	44292	C	LEU	K	63	220.830	120.979	-60.230	1.00	60.23	C
ATOM	44243	C	GLY	K	56	214.081	117.598	-52.890	1.00	83.91	C	ATOM	44293	O	LEU	K	63	221.368	121.182	-61.319	1.00	60.23	O
ATOM	44244	O	GLY	K	56	213.981	118.345	-53.864	1.00	83.91	O	ATOM	44294	CB	LEU	K	63	221.997	120.781	-58.005	1.00	41.36	C
ATOM	44245	N	THR	K	57	214.485	117.997	-51.686	1.00	55.28	N	ATOM	44295	CG	LEU	K	63	222.790	121.455	-56.869	1.00	41.36	C
ATOM	44246	CA	THR	K	57	214.866	119.371	-51.354	1.00	55.28	C	ATOM	44296	CD1	LEU	K	63	223.737	120.459	-56.222	1.00	41.36	C
ATOM	44247	C	THR	K	57	215.088	120.322	-52.524	1.00	55.28	C	ATOM	44297	CD2	LEU	K	63	223.598	122.612	-57.411	1.00	41.36	C



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ATOM	44298	N	ALA K	64	219.822	120.130	-60.085	1.00	46.78	N	ATOM	44348	CG	LYS K	71	224.356	117.765	-68.730	1.00	43.42	C
ATOM	44299	CA	ALA K	64	219.325	119.356	-61.216	1.00	46.78	C	ATOM	44349	CD	LYS K	71	223.670	116.463	-68.326	1.00	43.42	C
ATOM	44300	C	ALA K	64	218.883	120.239	-62.384	1.00	46.78	C	ATOM	44350	CE	LYS K	71	224.426	115.732	-67.222	1.00	43.42	C
ATOM	44301	O	ALA K	64	219.116	119.908	-63.551	1.00	46.78	O	ATOM	44351	NZ	LYS K	71	223.847	114.375	-66.959	1.00	43.42	N
ATOM	44302	CB	ALA K	64	218.172	118.447	-60.766	1.00	22.87	C	ATOM	44352	N	ALA K	72	222.449	120.673	-71.713	1.00	55.39	N
ATOM	44303	N	ALA K	65	218.240	121.358	-62.076	1.00	51.08	N	ATOM	44353	CA	ALA K	72	221.700	121.023	-72.909	1.00	55.39	C
ATOM	44304	CA	ALA K	65	217.791	122.263	-63.125	1.00	51.08	C	ATOM	44354	C	ALA K	72	222.368	122.166	-73.654	1.00	55.39	C
ATOM	44305	C	ALA K	65	219.014	122.679	-63.924	1.00	51.08	C	ATOM	44355	O	ALA K	72	222.094	122.381	-74.836	1.00	55.39	O
ATOM	44306	O	ALA K	65	219.064	122.523	-65.148	1.00	51.08	O	ATOM	44356	CB	ALA K	72	220.274	121.397	-72.542	1.00	95.68	C
ATOM	44307	CB	ALA K	65	217.121	123.497	-62.514	1.00	38.19	C	ATOM	44357	N	MET K	73	223.233	122.905	-72.961	1.00	66.22	N
ATOM	44308	N	LEU K	66	220.002	123.202	-63.204	1.00	57.90	N	ATOM	44358	CA	MET K	73	223.951	124.018	-73.577	1.00	66.22	C
ATOM	44309	CA	LEU K	66	221.247	123.665	-63.798	1.00	57.90	C	ATOM	44359	C	MET K	73	224.852	123.417	-74.655	1.00	66.22	C
ATOM	44310	C	LEU K	66	221.889	122.560	-64.624	1.00	57.90	C	ATOM	44360	O	MET K	73	225.093	124.027	-75.700	1.00	66.22	O
ATOM	44311	O	LEU K	66	222.123	122.737	-65.819	1.00	57.90	O	ATOM	44361	CB	MET K	73	224.809	124.748	-72.536	1.00	109.08	C
ATOM	44312	CG	LEU K	66	222.192	124.132	-62.696	1.00	42.37	C	ATOM	44362	CG	MET K	73	224.043	125.261	-71.323	1.00	109.08	C
ATOM	44313	CB	LEU K	66	221.549	125.160	-61.759	1.00	42.37	C	ATOM	44363	SD	MET K	73	223.000	126.685	-71.676	1.00	109.08	S
ATOM	44314	CD1	LEU K	66	222.441	125.412	-60.558	1.00	42.37	C	ATOM	44364	CE	MET K	73	223.607	127.881	-70.470	1.00	109.08	C
ATOM	44315	CD2	LEU K	66	221.284	126.445	-62.524	1.00	42.37	C	ATOM	44365	N	ALA K	74	225.337	122.207	-74.383	1.00	85.63	N
ATOM	44316	N	ASP K	67	222.163	121.421	-63.989	1.00	52.05	N	ATOM	44366	CA	ALA K	74	226.205	121.476	-75.298	1.00	85.63	C
ATOM	44317	CA	ASP K	67	222.761	120.280	-64.679	1.00	52.05	C	ATOM	44367	C	ALA K	74	225.519	121.272	-76.645	1.00	85.63	C
ATOM	44318	C	ASP K	67	222.023	120.069	-65.995	1.00	52.05	C	ATOM	44368	O	ALA K	74	226.097	121.563	-77.690	1.00	85.63	O
ATOM	44319	O	ASP K	67	222.637	119.865	-67.033	1.00	52.05	O	ATOM	44369	CB	ALA K	74	226.573	120.137	-74.697	1.00	83.29	C
ATOM	44320	CB	ASP K	67	222.639	119.009	-63.836	1.00	73.97	C	ATOM	44370	N	TYR K	75	224.291	120.757	-76.623	1.00	66.29	N
ATOM	44321	CG	ASP K	67	223.329	117.812	-64.477	1.00	73.97	C	ATOM	44371	CA	TYR K	75	223.542	120.553	-77.859	1.00	66.29	C
ATOM	44322	OD1	ASP K	67	222.857	116.668	-64.291	1.00	73.97	O	ATOM	44372	C	TYR K	75	223.195	121.923	-78.444	1.00	66.29	C
ATOM	44323	OD2	ASP K	67	224.355	118.016	-65.156	1.00	73.97	O	ATOM	44373	O	TYR K	75	222.341	122.034	-79.324	1.00	66.29	O
ATOM	44324	N	ALA K	68	220.698	120.127	-65.945	1.00	46.29	N	ATOM	44374	CB	TYR K	75	222.429	119.776	-77.597	1.00	92.11	C
ATOM	44325	CA	ALA K	68	219.894	119.937	-67.141	1.00	46.29	C	ATOM	44375	CG	TYR K	75	222.402	118.278	-77.436	1.00	92.11	C
ATOM	44326	C	ALA K	68	220.239	120.973	-68.199	1.00	46.29	C	ATOM	44376	CD1	TYR K	75	223.346	117.739	-76.561	1.00	92.11	C
ATOM	44327	O	ALA K	68	220.490	120.625	-69.343	1.00	46.29	C	ATOM	44377	CD2	TYR K	75	221.543	117.399	-78.105	1.00	92.11	C
ATOM	44328	CB	ALA K	68	218.417	120.012	-66.795	1.00	118.28	C	ATOM	44378	CE1	TYR K	75	223.430	116.355	-76.350	1.00	92.11	C
ATOM	44329	N	ALA K	69	220.257	122.246	-67.821	1.00	63.49	N	ATOM	44379	CE2	TYR K	75	221.612	116.018	-77.900	1.00	92.11	C
ATOM	44330	CA	ALA K	69	220.569	123.302	-68.777	1.00	63.49	C	ATOM	44380	CZ	TYR K	75	222.557	115.500	-77.019	1.00	92.11	C
ATOM	44331	C	ALA K	69	221.998	123.164	-69.295	1.00	63.49	C	ATOM	44381	OH	TYR K	75	222.618	114.138	-76.792	1.00	92.11	O
ATOM	44332	O	ALA K	69	222.211	123.012	-70.497	1.00	63.49	O	ATOM	44382	N	GLY K	76	223.847	122.962	-77.927	1.00	61.19	N
ATOM	44333	CB	ALA K	69	220.371	124.658	-68.136	1.00	39.99	C	ATOM	44383	CA	GLY K	76	223.619	124.310	-78.412	1.00	61.19	C
ATOM	44334	N	LYS K	70	222.974	123.217	-68.389	1.00	72.55	N	ATOM	44384	C	GLY K	76	222.281	124.942	-78.073	1.00	61.19	C
ATOM	44335	CA	LYS K	70	224.381	123.085	-68.758	1.00	72.55	C	ATOM	44385	O	GLY K	76	221.834	125.839	-78.788	1.00	61.19	O
ATOM	44336	C	LYS K	70	224.536	122.009	-69.827	1.00	72.55	C	ATOM	44386	N	MET K	77	221.639	124.485	-76.999	1.00	80.27	N
ATOM	44337	O	LYS K	70	224.964	122.300	-70.935	1.00	72.55	O	ATOM	44387	CA	MET K	77	220.351	125.043	-76.581	1.00	80.27	C
ATOM	44338	CB	LYS K	70	225.221	122.731	-67.527	1.00	125.96	C	ATOM	44388	C	MET K	77	220.549	126.490	-76.165	1.00	80.27	C
ATOM	44339	CG	LYS K	70	225.135	123.769	-66.415	1.00	125.96	C	ATOM	44389	O	MET K	77	221.649	126.888	-75.783	1.00	80.27	O
ATOM	44340	CD	LYS K	70	225.764	123.277	-65.110	1.00	125.96	C	ATOM	44390	CB	MET K	77	219.768	124.269	-75.386	1.00	98.72	C
ATOM	44341	CE	LYS K	70	225.532	124.274	-63.972	1.00	125.96	C	ATOM	44391	CG	MET K	77	218.975	122.994	-75.716	1.00	98.72	C
ATOM	44342	NZ	LYS K	70	225.983	123.762	-62.645	1.00	125.96	N	ATOM	44392	SD	MET K	77	217.264	123.261	-76.272	1.00	98.72	S
ATOM	44343	N	LYS K	71	224.169	120.771	-69.504	1.00	55.44	N	ATOM	44393	CE	MET K	77	216.506	123.747	-74.776	1.00	98.72	C
ATOM	44344	CA	LYS K	71	224.268	119.666	-70.463	1.00	55.44	C	ATOM	44394	N	GLN K	78	219.477	127.269	-76.231	1.00	95.63	N
ATOM	44345	C	LYS K	71	223.581	119.985	-71.787	1.00	55.44	C	ATOM	44395	CA	GLN K	78	219.526	128.671	-75.848	1.00	95.63	C
ATOM	44346	O	LYS K	71	224.060	119.601	-72.854	1.00	55.44	O	ATOM	44396	C	GLN K	78	218.205	129.121	-75.226	1.00	95.63	C
ATOM	44347	CB	LYS K	71	223.636	118.391	-69.901	1.00	43.42	C	ATOM	44397	O	GLN K	78	218.171	129.596	-74.089	1.00	95.63	O



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ATOM 44398	CB	GLN K 78	219.850	129.531	-77.066	1.00	95.07	C	ATOM 44448	C	ARG K 85	204.254	118.635	-62.290	1.00	49.52	C
ATOM 44399	CG	GLN K 78	221.182	129.190	-77.697	1.00	95.07	C	ATOM 44449	O	ARG K 85	205.347	118.283	-61.834	1.00	49.52	O
ATOM 44400	CD	GLN K 78	221.655	130.249	-78.663	1.00	95.07	C	ATOM 44450	CB	ARG K 85	204.469	117.847	-64.619	1.00	65.73	C
ATOM 44401	OE1	GLN K 78	221.847	131.407	-78.285	1.00	95.07	O	ATOM 44451	CG	ARG K 85	204.317	118.070	-66.099	1.00	65.73	C
ATOM 44402	NE2	GLN K 78	221.850	129.861	-79.919	1.00	95.07	N	ATOM 44452	CD	ARG K 85	202.949	117.622	-66.584	1.00	65.73	C
ATOM 44403	N	SER K 79	217.122	128.960	-75.981	1.00	72.99	N	ATOM 44453	NE	ARG K 85	202.823	117.730	-68.036	1.00	65.73	N
ATOM 44404	CA	SER K 79	215.785	129.335	-75.533	1.00	72.99	C	ATOM 44454	CZ	ARG K 85	203.611	117.104	-68.902	1.00	65.73	C
ATOM 44405	C	SER K 79	214.987	128.077	-75.193	1.00	72.99	C	ATOM 44455	NH1	ARG K 85	204.583	116.321	-68.465	1.00	65.73	N
ATOM 44406	O	SER K 79	215.132	127.047	-75.852	1.00	72.99	O	ATOM 44456	NH2	ARG K 85	203.437	117.267	-70.205	1.00	65.73	N
ATOM 44407	CG	SER K 79	215.070	130.125	-76.634	1.00	122.65	C	ATOM 44457	N	GLY K 86	203.137	118.679	-61.568	1.00	52.00	N
ATOM 44408	OB	SER K 79	213.783	130.541	-76.220	1.00	122.65	C	ATOM 44458	CA	GLY K 86	203.137	118.279	-60.173	1.00	52.00	C
ATOM 44409	N	VAL K 80	214.146	128.163	-74.166	1.00	83.72	N	ATOM 44459	C	GLY K 86	203.536	119.373	-59.213	1.00	52.00	C
ATOM 44410	CA	VAL K 80	213.343	127.018	-73.752	1.00	83.72	C	ATOM 44460	O	THR K 87	203.975	120.442	-59.619	1.00	52.00	O
ATOM 44411	C	VAL K 80	211.992	127.430	-73.199	1.00	83.72	C	ATOM 44461	N	THR K 87	203.359	119.101	-57.929	1.00	91.54	N
ATOM 44412	O	VAL K 80	211.844	128.532	-72.680	1.00	83.72	O	ATOM 44462	CA	THR K 87	203.713	120.051	-56.893	1.00	91.54	C
ATOM 44413	CB	VAL K 80	214.031	126.218	-72.635	1.00	68.30	C	ATOM 44463	C	THR K 87	204.666	119.311	-56.004	1.00	91.54	C
ATOM 44414	CG1	VAL K 80	213.537	124.788	-72.651	1.00	68.30	C	ATOM 44464	O	THR K 87	204.544	118.094	-55.859	1.00	91.54	O
ATOM 44415	CG2	VAL K 80	215.534	126.280	-72.785	1.00	68.30	C	ATOM 44465	CB	THR K 87	202.519	120.428	-56.042	1.00	90.77	C
ATOM 44416	N	ASP K 81	211.013	126.533	-73.315	1.00	66.97	N	ATOM 44466	OG1	THR K 87	201.444	120.843	-56.890	1.00	90.77	O
ATOM 44417	CA	ASP K 81	209.670	126.752	-72.777	1.00	66.97	C	ATOM 44467	CG2	THR K 87	202.896	121.553	-55.090	1.00	90.77	C
ATOM 44418	C	ASP K 81	209.582	125.798	-71.599	1.00	66.97	O	ATOM 44468	N	GLY K 88	205.611	120.022	-55.403	1.00	55.45	N
ATOM 44419	O	ASP K 81	209.789	124.596	-71.748	1.00	66.97	O	ATOM 44469	CA	GLY K 88	206.537	119.328	-54.533	1.00	55.45	C
ATOM 44420	CB	ASP K 81	208.596	126.392	-73.796	1.00	93.79	C	ATOM 44470	C	GLY K 88	207.685	120.132	-53.985	1.00	55.45	C
ATOM 44421	CG	ASP K 81	208.750	127.152	-75.087	1.00	93.79	C	ATOM 44471	O	GLY K 88	207.829	121.321	-54.270	1.00	55.45	O
ATOM 44422	OD1	ASP K 81	209.778	126.946	-75.768	1.00	93.79	O	ATOM 44472	N	ALA K 89	208.501	119.458	-53.182	1.00	135.88	N
ATOM 44423	OD2	ASP K 81	207.852	127.955	-75.420	1.00	93.79	O	ATOM 44473	CA	ALA K 89	209.668	120.063	-52.570	1.00	135.88	C
ATOM 44424	N	VAL K 82	209.295	126.329	-70.422	1.00	55.55	N	ATOM 44474	C	ALA K 89	210.405	120.873	-53.628	1.00	135.88	C
ATOM 44425	CA	VAL K 82	209.218	125.480	-69.247	1.00	55.55	C	ATOM 44475	O	ALA K 89	210.977	120.311	-54.563	1.00	135.88	O
ATOM 44426	C	VAL K 82	207.812	124.952	-69.010	1.00	55.55	C	ATOM 44476	CB	ALA K 89	210.583	118.966	-51.994	1.00	63.50	C
ATOM 44427	O	VAL K 82	206.827	125.657	-69.197	1.00	55.55	O	ATOM 44477	N	GLY K 90	210.359	122.196	-53.494	1.00	58.56	N
ATOM 44428	CB	VAL K 82	209.697	126.225	-67.992	1.00	64.93	C	ATOM 44478	CA	GLY K 90	211.047	123.063	-54.437	1.00	58.56	C
ATOM 44429	CG1	VAL K 82	209.769	125.260	-66.817	1.00	64.93	C	ATOM 44479	C	GLY K 90	210.879	122.801	-55.933	1.00	58.56	C
ATOM 44430	CG2	VAL K 82	211.050	126.856	-68.257	1.00	64.93	C	ATOM 44480	O	GLY K 90	211.718	122.181	-56.590	1.00	58.56	O
ATOM 44431	N	ILE K 83	207.742	123.693	-68.602	1.00	48.04	N	ATOM 44481	N	ARG K 91	209.775	123.284	-56.477	1.00	67.88	N
ATOM 44432	CA	ILE K 83	206.480	123.029	-68.334	1.00	48.04	C	ATOM 44482	CA	ARG K 91	209.509	123.154	-57.894	1.00	67.88	C
ATOM 44433	C	ILE K 83	206.575	122.338	-66.988	1.00	48.04	C	ATOM 44483	C	ARG K 91	209.840	124.528	-58.454	1.00	67.88	C
ATOM 44434	O	ILE K 83	207.333	121.389	-66.807	1.00	48.04	O	ATOM 44484	O	ARG K 91	210.294	124.662	-59.584	1.00	67.88	O
ATOM 44435	CB	ILE K 83	206.187	121.998	-69.395	1.00	48.25	C	ATOM 44485	CB	ARG K 91	208.033	122.819	-58.126	1.00	78.74	C
ATOM 44436	CG1	ILE K 83	206.248	122.662	-70.768	1.00	48.25	C	ATOM 44486	CG	ARG K 91	207.511	123.240	-59.487	1.00	78.74	C
ATOM 44437	CG2	ILE K 83	204.836	121.367	-69.129	1.00	48.25	C	ATOM 44487	CD	ARG K 91	206.329	124.184	-59.342	1.00	78.74	C
ATOM 44438	CD1	ILE K 83	206.217	121.689	-71.903	1.00	48.25	C	ATOM 44488	NE	ARG K 91	205.114	123.476	-58.952	1.00	78.74	N
ATOM 44439	N	VAL K 84	205.789	122.828	-66.042	1.00	46.39	N	ATOM 44489	CZ	ARG K 91	204.026	124.062	-58.461	1.00	78.74	C
ATOM 44440	CA	VAL K 84	205.792	122.301	-64.696	1.00	46.39	C	ATOM 44490	NH1	ARG K 91	203.995	125.377	-58.290	1.00	78.74	N
ATOM 44441	C	VAL K 84	204.701	121.271	-64.512	1.00	46.39	C	ATOM 44491	NH2	ARG K 91	202.960	123.334	-58.155	1.00	78.74	N
ATOM 44442	O	VAL K 84	203.560	121.493	-64.873	1.00	46.39	O	ATOM 44492	N	GLU K 92	209.621	125.551	-57.637	1.00	68.91	N
ATOM 44443	CB	VAL K 84	205.623	123.447	-63.704	1.00	46.75	C	ATOM 44493	CA	GLU K 92	209.896	126.913	-58.054	1.00	68.91	C
ATOM 44444	CG1	VAL K 84	206.917	123.671	-62.956	1.00	46.75	C	ATOM 44494	C	GLU K 92	211.388	127.155	-58.179	1.00	68.91	C
ATOM 44445	CG2	VAL K 84	205.258	124.724	-64.459	1.00	46.75	C	ATOM 44495	O	GLU K 92	211.820	127.900	-59.055	1.00	68.91	O
ATOM 44446	N	ARG K 85	205.072	120.126	-63.967	1.00	49.52	N	ATOM 44496	CB	GLU K 92	209.280	127.905	-57.072	1.00	86.39	C
ATOM 44447	CA	ARG K 85	204.130	119.050	-63.740	1.00	49.52	C	ATOM 44497	CG	GLU K 92	208.232	128.813	-57.712	1.00	86.39	C



Table 1: Sheet 447/521

ATOM	44498	CD	GLU K	92	207.187	128.044	-58.521	1.00	86.39	C	ATOM	44548	CA	GLN K	99	215.823	131.290	-65.764	1.00	77.58	C
ATOM	44499	OE1	GLU K	92	206.676	127.015	-58.026	1.00	86.39	O	ATOM	44549	C	GLN K	99	217.226	131.859	-65.669	1.00	77.58	C
ATOM	44500	OE2	GLU K	92	206.868	128.474	-59.651	1.00	86.39	O	ATOM	44550	O	GLN K	99	217.625	132.671	-66.503	1.00	77.58	O
ATOM	44501	N	GLN K	93	212.175	126.529	-57.306	1.00	75.69	N	ATOM	44551	CB	GLN K	99	214.860	132.106	-64.913	1.00	70.71	C
ATOM	44502	CA	GLN K	93	213.628	126.677	-57.352	1.00	75.69	C	ATOM	44552	CG	GLN K	99	213.425	131.715	-65.155	1.00	70.71	C
ATOM	44503	C	GLN K	93	214.144	126.209	-58.704	1.00	75.69	C	ATOM	44553	CD	GLN K	99	212.450	132.623	-64.462	1.00	70.71	C
ATOM	44504	O	GLN K	93	215.060	126.802	-59.273	1.00	75.69	O	ATOM	44554	OE1	GLN K	99	212.422	132.701	-63.234	1.00	70.71	O
ATOM	44505	CB	GLN K	93	214.283	125.854	-56.248	1.00	92.73	C	ATOM	44555	NE2	GLN K	99	211.641	133.323	-65.245	1.00	70.71	N
ATOM	44506	CG	GLN K	93	214.668	126.667	-55.042	1.00	92.73	C	ATOM	44556	N	ALA K	100	217.979	131.412	-64.669	1.00	80.05	N
ATOM	44507	CD	GLN K	93	215.719	127.700	-55.371	1.00	92.73	C	ATOM	44557	CA	ALA K	100	219.347	131.879	-64.474	1.00	80.05	C
ATOM	44508	OE1	GLN K	93	216.826	127.362	-55.785	1.00	92.73	O	ATOM	44558	C	ALA K	100	220.373	131.079	-65.282	1.00	80.05	C
ATOM	44509	NE2	GLN K	93	215.379	128.971	-55.190	1.00	92.73	N	ATOM	44559	O	ALA K	100	221.230	131.652	-65.954	1.00	80.05	O
ATOM	44510	N	ALA K	94	213.547	125.134	-59.208	1.00	63.63	N	ATOM	44560	CB	ALA K	100	219.701	131.830	-62.999	1.00	28.52	C
ATOM	44511	CA	ALA K	94	213.920	124.578	-60.495	1.00	63.63	C	ATOM	44561	N	SER K	101	220.277	129.757	-65.201	1.00	91.91	N
ATOM	44512	C	ALA K	94	213.571	125.592	-61.572	1.00	63.63	C	ATOM	44562	CA	SER K	101	221.176	128.840	-65.899	1.00	91.91	C
ATOM	44513	O	ALA K	94	214.382	125.892	-62.439	1.00	63.63	O	ATOM	44563	C	SER K	101	221.934	129.477	-67.056	1.00	91.91	C
ATOM	44514	CB	ALA K	94	213.173	123.277	-60.733	1.00	23.92	C	ATOM	44564	O	SER K	101	223.143	129.300	-67.198	1.00	91.91	O
ATOM	44515	N	ILE K	95	212.360	126.125	-61.515	1.00	57.28	N	ATOM	44565	CB	SER K	101	220.386	127.652	-66.439	1.00	61.68	C
ATOM	44516	CA	ILE K	95	211.933	127.112	-62.494	1.00	57.28	C	ATOM	44566	OG	SER K	101	219.597	128.055	-67.543	1.00	61.68	O
ATOM	44517	C	ILE K	95	212.820	128.354	-62.429	1.00	57.28	C	ATOM	44567	N	GLY K	102	221.209	130.208	-67.889	1.00	94.31	N
ATOM	44518	O	ILE K	95	212.850	129.153	-63.361	1.00	57.28	O	ATOM	44568	CA	GLY K	102	221.822	130.851	-69.032	1.00	94.31	C
ATOM	44519	CB	ILE K	95	210.470	127.530	-62.253	1.00	52.28	C	ATOM	44569	C	GLY K	102	220.795	130.864	-70.135	1.00	94.31	C
ATOM	44520	CG1	ILE K	95	209.559	126.319	-62.445	1.00	52.28	C	ATOM	44570	O	GLY K	102	220.728	131.790	-70.944	1.00	94.31	O
ATOM	44521	CG2	ILE K	95	210.080	128.660	-63.196	1.00	52.28	C	ATOM	44571	N	LEU K	103	219.979	129.819	-70.152	1.00	82.87	N
ATOM	44522	CD1	ILE K	95	208.090	126.636	-62.346	1.00	52.28	C	ATOM	44572	CA	LEU K	103	218.921	129.686	-71.139	1.00	82.87	C
ATOM	44523	N	ARG K	96	213.540	128.519	-61.325	1.00	71.53	N	ATOM	44573	C	LEU K	103	217.878	130.773	-70.953	1.00	82.87	C
ATOM	44524	CA	ARG K	96	214.418	129.671	-61.169	1.00	71.53	C	ATOM	44574	O	LEU K	103	217.504	131.123	-69.831	1.00	44.23	O
ATOM	44525	C	ARG K	96	215.807	129.356	-61.696	1.00	71.53	C	ATOM	44575	CB	LEU K	103	218.241	128.331	-70.994	1.00	44.23	C
ATOM	44526	O	ARG K	96	216.361	130.104	-62.507	1.00	71.53	O	ATOM	44576	CG	LEU K	103	219.184	127.146	-71.094	1.00	44.23	C
ATOM	44527	CB	ARG K	96	214.467	130.098	-59.699	1.00	116.19	C	ATOM	44577	CD1	LEU K	103	218.490	125.877	-70.602	1.00	44.23	C
ATOM	44528	CG	ARG K	96	213.281	130.973	-59.312	1.00	116.19	C	ATOM	44578	CD2	LEU K	103	219.640	127.017	-72.540	1.00	44.23	C
ATOM	44529	CD	ARG K	96	212.714	130.653	-57.934	1.00	116.19	C	ATOM	44579	N	GLN K	104	217.414	131.319	-72.062	1.00	70.92	N
ATOM	44530	NE	ARG K	96	213.578	131.071	-56.833	1.00	116.19	N	ATOM	44580	CA	GLN K	104	216.393	132.331	-71.991	1.00	70.92	C
ATOM	44531	CZ	ARG K	96	213.220	131.030	-55.552	1.00	116.19	C	ATOM	44581	C	GLN K	104	215.102	131.540	-71.883	1.00	70.92	C
ATOM	44532	NH1	ARG K	96	212.013	130.590	-55.215	1.00	116.19	N	ATOM	44582	O	GLN K	104	214.784	130.751	-72.775	1.00	70.92	O
ATOM	44533	NH2	ARG K	96	214.066	131.430	-54.608	1.00	116.19	N	ATOM	44583	CB	GLN K	104	216.382	133.175	-73.258	1.00	103.61	C
ATOM	44534	N	ALA K	97	216.361	128.235	-61.249	1.00	68.78	N	ATOM	44584	CG	GLN K	104	215.330	134.255	-73.246	1.00	103.61	C
ATOM	44535	CA	ALA K	97	217.686	127.823	-61.689	1.00	68.78	C	ATOM	44585	CD	GLN K	104	215.085	134.831	-74.621	1.00	103.61	C
ATOM	44536	C	ALA K	97	217.745	127.820	-63.210	1.00	68.78	O	ATOM	44586	OE1	GLN K	104	214.836	134.092	-75.575	1.00	103.61	O
ATOM	44537	O	ALA K	97	218.812	127.988	-63.790	1.00	84.81	C	ATOM	44587	NE2	GLN K	104	215.147	136.156	-74.735	1.00	103.61	N
ATOM	44538	CB	ALA K	97	218.016	126.441	-61.147	1.00	84.81	C	ATOM	44588	N	VAL K	105	214.382	131.723	-70.778	1.00	53.95	N
ATOM	44539	N	LEU K	98	216.600	127.621	-63.858	1.00	69.48	N	ATOM	44589	CA	VAL K	105	213.113	131.037	-70.568	1.00	53.95	C
ATOM	44540	CA	LEU K	98	216.573	127.625	-65.308	1.00	69.48	C	ATOM	44590	C	VAL K	105	212.009	131.823	-71.270	1.00	53.95	C
ATOM	44541	C	LEU K	98	216.714	129.045	-65.774	1.00	69.48	C	ATOM	44591	O	VAL K	105	211.727	132.960	-70.906	1.00	53.95	O
ATOM	44542	O	LEU K	98	217.655	129.376	-66.487	1.00	69.48	O	ATOM	44592	CB	VAL K	105	212.772	130.947	-69.078	1.00	49.63	C
ATOM	44543	CB	LEU K	98	215.270	127.052	-65.856	1.00	47.22	C	ATOM	44593	CG1	VAL K	105	211.422	130.264	-68.899	1.00	49.63	C
ATOM	44544	CG	LEU K	98	215.205	125.527	-65.940	1.00	47.22	C	ATOM	44594	CG2	VAL K	105	213.864	130.193	-68.341	1.00	49.63	C
ATOM	44545	CD1	LEU K	98	214.064	125.103	-66.855	1.00	47.22	C	ATOM	44595	N	LYS K	106	211.395	131.216	-72.282	1.00	75.36	N
ATOM	44546	CD2	LEU K	98	216.526	124.997	-66.479	1.00	47.22	C	ATOM	44596	CA	LYS K	106	210.331	131.865	-73.041	1.00	75.36	C
ATOM	44547	N	GLN K	99	215.783	129.894	-65.362	1.00	77.58	N	ATOM	44597	C	LYS K	106	209.003	131.885	-72.303	1.00	75.36	C



Table 1: Sheet 448/521

ATOM	44598	O	LYS K 106	208.219	132.822	-72.445	1.00	75.36	O	208.219	132.822	-72.445	1.00	75.36	O	44648	N	PRO K 113	198.934	117.091	-64.511	1.00	70.34	N
ATOM	44599	CB	LYS K 106	210.143	131.176	-74.395	1.00	75.36	C	210.143	131.176	-74.395	1.00	75.36	C	44649	CA	PRO K 113	197.741	116.300	-64.817	1.00	70.34	C
ATOM	44600	CG	LYS K 106	211.227	131.499	-75.401	1.00	75.36	C	211.227	131.499	-75.401	1.00	75.36	C	44650	O	PRO K 113	196.789	116.142	-63.633	1.00	70.34	C
ATOM	44601	CD	LYS K 106	211.365	133.004	-75.565	1.00	75.36	C	211.365	133.004	-75.565	1.00	75.36	C	44651	C	PRO K 113	197.197	116.147	-62.475	1.00	70.34	O
ATOM	44602	CE	LYS K 106	212.391	133.363	-76.623	1.00	75.36	C	212.391	133.363	-76.623	1.00	75.36	C	44652	CB	PRO K 113	198.329	114.966	-65.248	1.00	49.76	C
ATOM	44603	NZ	LYS K 106	212.590	134.839	-76.722	1.00	75.36	N	212.590	134.839	-76.722	1.00	75.36	N	44653	CG	PRO K 113	199.496	114.831	-64.321	1.00	49.76	C
ATOM	44604	N	SER K 107	208.750	130.851	-71.512	1.00	73.18	N	208.750	130.851	-71.512	1.00	73.18	N	44654	CD	PRO K 113	200.115	116.217	-64.391	1.00	49.76	C
ATOM	44605	CA	SER K 107	207.501	130.783	-70.774	1.00	73.18	C	207.501	130.783	-70.774	1.00	73.18	C	44655	VAL K 114	VAL K 114	195.511	115.994	-63.935	1.00	57.70	N
ATOM	44606	C	SER K 107	207.451	129.626	-69.797	1.00	73.18	C	207.451	129.626	-69.797	1.00	73.18	C	44656	CA	VAL K 114	194.514	115.816	-62.900	1.00	57.70	C
ATOM	44607	O	SER K 107	208.049	128.575	-70.012	1.00	73.18	O	208.049	128.575	-70.012	1.00	73.18	O	44657	C	VAL K 114	193.374	115.015	-63.497	1.00	57.70	C
ATOM	44608	CB	SER K 107	206.341	130.634	-71.743	1.00	46.31	C	206.341	130.634	-71.743	1.00	46.31	C	44658	O	VAL K 114	192.900	115.313	-64.590	1.00	57.70	O
ATOM	44609	OG	SER K 107	206.381	129.346	-72.323	1.00	46.31	C	206.381	129.346	-72.323	1.00	46.31	C	44659	CB	VAL K 114	193.979	117.158	-62.408	1.00	45.65	C
ATOM	44610	N	ILE K 108	206.714	129.837	-68.718	1.00	51.31	N	206.714	129.837	-68.718	1.00	51.31	N	44660	CG1	VAL K 114	193.412	117.951	-63.567	1.00	45.65	C
ATOM	44611	CA	ILE K 108	206.531	128.815	-67.707	1.00	51.31	C	206.531	128.815	-67.707	1.00	51.31	C	44661	CG2	VAL K 114	192.907	116.924	-61.372	1.00	45.65	C
ATOM	44612	C	ILE K 108	205.045	128.444	-67.785	1.00	51.31	C	205.045	128.444	-67.785	1.00	51.31	C	44662	N	PRO K 115	192.910	113.982	-62.793	1.00	51.49	N
ATOM	44613	O	ILE K 108	204.180	129.313	-67.933	1.00	51.31	O	204.180	129.313	-67.933	1.00	51.31	O	44663	CA	PRO K 115	191.817	113.202	-63.364	1.00	51.49	C
ATOM	44614	CB	ILE K 108	206.904	129.350	-66.319	1.00	54.57	C	206.904	129.350	-66.319	1.00	54.57	C	44664	C	PRO K 115	190.528	114.945	-63.183	1.00	51.49	C
ATOM	44615	CG1	ILE K 108	208.254	130.070	-66.408	1.00	54.57	C	208.254	130.070	-66.408	1.00	54.57	C	44665	O	PRO K 115	190.435	114.863	-62.374	1.00	51.49	O
ATOM	44616	CG2	ILE K 108	206.998	128.194	-65.325	1.00	54.57	C	206.998	128.194	-65.325	1.00	54.57	C	44666	CB	PRO K 115	191.809	111.922	-62.530	1.00	27.37	C
ATOM	44617	CD1	ILE K 108	208.625	130.903	-65.183	1.00	54.57	C	208.625	130.903	-65.183	1.00	54.57	C	44667	CG	PRO K 115	193.059	112.013	-61.646	1.00	27.37	C
ATOM	44618	N	VAL K 109	204.758	127.150	-67.706	1.00	58.46	N	204.758	127.150	-67.706	1.00	58.46	N	44668	CD	PRO K 115	193.249	113.486	-61.456	1.00	27.37	C
ATOM	44619	CA	VAL K 109	203.393	126.672	-67.827	1.00	58.46	C	203.393	126.672	-67.827	1.00	58.46	C	44669	N	HIS K 116	189.530	113.540	-63.946	1.00	46.24	N
ATOM	44620	C	VAL K 109	203.099	125.447	-66.970	1.00	58.46	C	203.099	125.447	-66.970	1.00	58.46	C	44670	CA	HIS K 116	188.210	114.116	-63.820	1.00	46.24	C
ATOM	44621	O	VAL K 109	203.788	124.429	-67.066	1.00	58.46	O	203.788	124.429	-67.066	1.00	58.46	O	44671	C	HIS K 116	187.479	113.028	-63.022	1.00	46.24	C
ATOM	44622	CB	VAL K 109	203.094	126.345	-69.307	1.00	33.67	C	203.094	126.345	-69.307	1.00	33.67	C	44672	O	HIS K 116	186.319	112.696	-63.243	1.00	46.24	O
ATOM	44623	CG1	VAL K 109	201.818	125.553	-69.434	1.00	33.67	C	201.818	125.553	-69.434	1.00	33.67	C	44673	CB	HIS K 116	187.674	114.395	-65.220	1.00	45.27	C
ATOM	44624	CG2	VAL K 109	202.994	127.626	-70.094	1.00	33.67	C	202.994	127.626	-70.094	1.00	33.67	C	44674	CG	HIS K 116	188.442	115.484	-65.918	1.00	45.27	C
ATOM	44625	N	ASP K 110	202.072	125.554	-66.130	1.00	55.52	N	202.072	125.554	-66.130	1.00	55.52	N	44675	ND1	HIS K 116	189.538	116.095	-65.342	1.00	45.27	N
ATOM	44626	CA	ASP K 110	201.683	124.442	-65.284	1.00	55.52	C	201.683	124.442	-65.284	1.00	55.52	C	44676	CD2	HIS K 116	188.242	116.117	-67.101	1.00	45.27	N
ATOM	44627	C	ASP K 110	200.751	123.546	-66.079	1.00	55.52	C	200.751	123.546	-66.079	1.00	55.52	C	44677	CE1	HIS K 116	189.973	117.061	-66.135	1.00	45.27	C
ATOM	44628	O	ASP K 110	199.682	123.977	-66.494	1.00	55.52	O	199.682	123.977	-66.494	1.00	55.52	O	44678	NE2	HIS K 116	189.204	117.096	-67.207	1.00	45.27	N
ATOM	44629	CB	ASP K 110	200.955	124.926	-64.039	1.00	109.62	C	200.955	124.926	-64.039	1.00	109.62	C	44679	N	ASN K 117	188.252	112.513	-62.059	1.00	62.37	N
ATOM	44630	CG	ASP K 110	200.511	123.778	-63.156	1.00	109.62	C	200.511	123.778	-63.156	1.00	109.62	C	44680	CA	ASN K 117	187.894	111.454	-61.130	1.00	62.37	C
ATOM	44631	OD1	ASP K 110	199.862	122.842	-63.673	1.00	109.62	O	199.862	122.842	-63.673	1.00	109.62	O	44681	C	ASN K 117	187.791	110.134	-61.839	1.00	62.37	C
ATOM	44632	OD2	ASP K 110	200.806	123.805	-61.945	1.00	109.62	O	200.806	123.805	-61.945	1.00	109.62	O	44682	O	ASN K 117	186.745	109.802	-62.369	1.00	62.37	O
ATOM	44633	N	ASP K 111	201.167	122.303	-66.291	1.00	48.21	N	201.167	122.303	-66.291	1.00	48.21	N	44683	CB	ASN K 117	186.605	111.801	-60.422	1.00	80.66	C
ATOM	44634	CA	ASP K 111	200.380	121.328	-67.030	1.00	48.21	C	200.380	121.328	-67.030	1.00	48.21	C	44684	CG	ASN K 117	186.818	112.848	-59.368	1.00	80.66	C
ATOM	44635	C	ASP K 111	200.269	120.059	-66.185	1.00	48.21	C	200.269	120.059	-66.185	1.00	48.21	C	44685	OD1	ASN K 117	187.395	112.574	-58.311	1.00	80.66	O
ATOM	44636	O	ASP K 111	200.173	118.937	-66.706	1.00	48.21	O	200.173	118.937	-66.706	1.00	48.21	O	44686	ND2	ASN K 117	186.385	114.068	-59.655	1.00	80.66	N
ATOM	44637	CB	ASP K 111	201.043	121.018	-68.376	1.00	90.04	C	201.043	121.018	-68.376	1.00	90.04	C	44687	N	GLY K 118	188.887	109.380	-61.851	1.00	40.15	N
ATOM	44638	CG	ASP K 111	200.205	120.093	-69.248	1.00	90.04	C	200.205	120.093	-69.248	1.00	90.04	C	44688	CA	GLY K 118	188.878	108.109	-62.542	1.00	40.15	C
ATOM	44639	OD1	ASP K 111	198.966	120.265	-69.282	1.00	90.04	O	198.966	120.265	-69.282	1.00	90.04	O	44689	C	GLY K 118	189.282	106.874	-61.756	1.00	40.15	C
ATOM	44640	OD2	ASP K 111	200.782	119.204	-69.911	1.00	90.04	O	200.782	119.204	-69.911	1.00	90.04	O	44690	O	GLY K 118	188.498	105.919	-61.644	1.00	40.15	O
ATOM	44641	N	THR K 112	200.283	120.246	-64.868	1.00	65.75	N	200.283	120.246	-64.868	1.00	65.75	N	44691	N	CYS K 119	190.501	106.864	-61.219	1.00	34.51	N
ATOM	44642	CA	THR K 112	200.172	119.130	-63.942	1.00	65.75	C	200.172	119.130	-63.942	1.00	65.75	C	44692	CA	CYS K 119	190.977	105.701	-60.470	1.00	34.51	C
ATOM	44643	C	THR K 112	198.867	118.403	-64.244	1.00	65.75	C	198.867	118.403	-64.244	1.00	65.75	C	44693	C	CYS K 119	191.016	105.940	-58.976	1.00	34.51	C
ATOM	44644	O	THR K 112	197.802	119.008	-64.231	1.00	65.75	O	197.802	119.008	-64.231	1.00	65.75	O	44694	O	CYS K 119	191.453	107.008	-58.530	1.00	34.51	O
ATOM	44645	CB	THR K 112	200.133	119.613	-62.483	1.00	53.93	C	200.133	119.613	-62.483	1.00	53.93	C	44695	CG1	CYS K 119	192.377	105.302	-60.948	1.00	53.28	C
ATOM	44646	OG1	THR K 112	201.277	120.440	-62.204	1.00	53.93	O	201.277	120.440	-62.204	1.00	53.93	O	44696	SG	CYS K 119	192.474	104.828	-62.678	1.00	53.28	S
ATOM	44647	CG2	THR K 112	200.132	118.415	-61.549	1.00	53.93	C	200.132	118.415	-61.549	1.00	53.93	C	44697	N	ARG K 120	190.562	104.952	-58.199	1.00	32.74	N



Table 1: Sheet 449/521

ATOM	44698	CA	ARG K 120	190.588	105.108	-56.749	1.00	32.74	C	ATOM	44748	CD1	PHE K 125	198.828	108.768	-52.149	1.00	50.02	C
ATOM	44699	C	ARG K 120	192.047	105.237	-56.433	1.00	32.74	C	ATOM	44749	CD2	PHE K 125	198.667	111.066	-52.753	1.00	50.02	C
ATOM	44700	O	ARG K 120	192.858	104.448	-56.919	1.00	32.74	O	ATOM	44750	CE1	PHE K 125	200.217	108.850	-52.193	1.00	50.02	C
ATOM	44701	CB	ARG K 120	190.020	103.886	-56.009	1.00	37.88	C	ATOM	44751	CE2	PHE K 125	200.059	111.157	-52.801	1.00	50.02	C
ATOM	44702	CG	ARG K 120	190.576	103.755	-54.568	1.00	37.88	C	ATOM	44752	CZ	PHE K 125	200.832	110.048	-52.519	1.00	50.02	C
ATOM	44703	CD	ARG K 120	189.895	102.718	-53.658	1.00	37.88	C	ATOM	44753	CA	ARG K 126	193.783	108.895	-50.143	1.00	60.49	N
ATOM	44704	NE	ARG K 120	188.617	103.207	-53.132	1.00	37.88	N	ATOM	44754	C	ARG K 126	192.330	108.938	-50.140	1.00	60.49	C
ATOM	44705	CZ	ARG K 120	188.059	102.817	-51.980	1.00	37.88	C	ATOM	44755	C	ARG K 126	191.727	109.954	-49.196	1.00	60.49	C
ATOM	44706	NH1	ARG K 120	188.646	101.919	-51.192	1.00	37.88	N	ATOM	44756	O	ARG K 126	191.572	111.114	-49.566	1.00	60.49	O
ATOM	44707	NH2	ARG K 120	186.896	103.330	-51.607	1.00	37.88	N	ATOM	44757	CB	ARG K 126	191.744	107.575	-49.819	1.00	55.54	C
ATOM	44708	N	PRO K 121	192.422	106.267	-55.675	1.00	33.23	N	ATOM	44758	CG	ARG K 126	191.717	106.629	-50.985	1.00	55.54	C
ATOM	44709	CA	PRO K 121	193.836	106.408	-55.342	1.00	33.23	C	ATOM	44759	CD	ARG K 126	190.616	105.629	-50.773	1.00	55.54	C
ATOM	44710	C	PRO K 121	194.172	105.486	-54.183	1.00	33.23	C	ATOM	44760	NE	ARG K 126	189.319	106.212	-51.101	1.00	55.54	N
ATOM	44711	O	PRO K 121	193.264	105.007	-53.493	1.00	33.23	O	ATOM	44761	CZ	ARG K 126	188.201	105.984	-50.419	1.00	55.54	C
ATOM	44712	CB	PRO K 121	193.961	107.883	-54.991	1.00	37.83	C	ATOM	44762	NH1	ARG K 126	188.216	105.185	-49.354	1.00	55.54	N
ATOM	44713	CG	PRO K 121	192.629	108.224	-54.498	1.00	37.83	C	ATOM	44763	NH2	ARG K 126	187.066	106.547	-50.816	1.00	55.54	N
ATOM	44714	CD	PRO K 121	191.720	107.536	-55.465	1.00	37.83	C	ATOM	44764	N	LYS K 127	191.373	109.507	-47.990	1.00	187.48	N
ATOM	44715	N	LYS K 122	195.462	105.206	-53.990	1.00	31.27	N	ATOM	44765	CA	LYS K 127	190.750	110.356	-46.973	1.00	187.48	C
ATOM	44716	CA	LYS K 122	195.862	104.332	-52.890	1.00	31.27	C	ATOM	44766	C	LYS K 127	190.474	111.771	-47.448	1.00	187.48	C
ATOM	44717	C	LYS K 122	195.511	105.025	-51.585	1.00	31.27	C	ATOM	44767	O	LYS K 127	191.143	112.722	-47.043	1.00	187.48	O
ATOM	44718	O	LYS K 122	195.457	106.268	-51.517	1.00	31.27	O	ATOM	44768	CB	LYS K 127	191.604	110.384	-45.702	1.00	96.29	C
ATOM	44719	CB	LYS K 122	197.355	104.021	-52.948	1.00	59.56	C	ATOM	44769	CG	LYS K 127	191.404	109.151	-44.834	1.00	96.29	C
ATOM	44720	CG	LYS K 122	198.184	105.114	-53.585	1.00	59.56	C	ATOM	44770	CD	LYS K 127	189.915	108.915	-44.570	1.00	96.29	C
ATOM	44721	CD	LYS K 122	199.675	104.812	-53.481	1.00	59.56	C	ATOM	44771	CE	LYS K 127	189.671	107.621	-43.816	1.00	96.29	C
ATOM	44722	CE	LYS K 122	200.068	103.498	-54.149	1.00	59.56	C	ATOM	44772	NZ	LYS K 127	190.323	107.633	-42.478	1.00	96.29	N
ATOM	44723	NZ	LYS K 122	201.503	103.190	-53.880	1.00	59.56	N	ATOM	44773	N	ALA K 128	189.469	111.898	-48.308	1.00	168.27	N
ATOM	44724	N	LYS K 123	195.240	104.208	-50.569	1.00	35.89	N	ATOM	44774	CA	ALA K 128	189.101	113.184	-48.876	1.00	168.27	C
ATOM	44725	CA	LYS K 123	194.869	104.686	-49.240	1.00	35.89	C	ATOM	44775	C	ALA K 128	187.589	113.315	-49.074	1.00	168.27	C
ATOM	44726	C	LYS K 123	195.595	105.974	-48.915	1.00	35.89	C	ATOM	44776	O	ALA K 128	186.806	112.994	-48.178	1.00	168.27	O
ATOM	44727	O	LYS K 123	194.976	106.992	-48.651	1.00	35.89	O	ATOM	44777	CB	ALA K 128	189.827	113.370	-50.207	1.00	25.57	C
ATOM	44728	CB	LYS K 123	195.197	103.619	-48.198	1.00	35.56	C	ATOM	44778	N	SER K 129	187.196	113.795	-50.253	1.00	200.93	N
ATOM	44729	CG	LYS K 123	194.929	104.029	-46.777	1.00	35.56	C	ATOM	44779	CA	SER K 129	185.793	113.992	-50.620	1.00	200.93	C
ATOM	44730	CD	LYS K 123	195.116	102.844	-45.855	1.00	35.56	C	ATOM	44780	C	SER K 129	185.024	114.843	-49.613	1.00	200.93	C
ATOM	44731	CE	LYS K 123	195.075	103.246	-44.385	1.00	35.56	C	ATOM	44781	O	SER K 129	185.623	115.249	-48.595	1.00	200.93	O
ATOM	44732	NZ	LYS K 123	195.253	102.072	-43.458	1.00	35.56	N	ATOM	44782	CB	SER K 129	185.090	112.641	-50.795	1.00	103.56	C
ATOM	44733	N	LYS K 124	196.917	105.917	-48.951	1.00	41.71	N	ATOM	44783	OG	SER K 129	185.048	111.915	-49.579	1.00	103.56	O
ATOM	44734	CA	LYS K 124	197.769	107.065	-48.683	1.00	41.71	C	ATOM	44784	OXT	SER K 129	183.825	115.098	-49.858	1.00	132.53	O
ATOM	44735	C	LYS K 124	197.179	108.375	-49.205	1.00	41.71	C	TER	44785	SER K 129							
ATOM	44736	O	LYS K 124	197.308	109.404	-48.562	1.00	41.71	O	ATOM	44786	N	PRO L 5	150.862	103.851	-24.829	1.00	30.14	N
ATOM	44737	CB	LYS K 124	199.132	106.826	-49.337	1.00	134.81	C	ATOM	44787	CA	PRO L 5	150.078	102.895	-25.627	1.00	30.14	C
ATOM	44738	CG	LYS K 124	200.333	107.113	-48.467	1.00	134.81	C	ATOM	44788	C	PRO L 5	148.688	103.488	-25.744	1.00	30.14	C
ATOM	44739	CD	LYS K 124	200.708	108.575	-48.453	1.00	134.81	C	ATOM	44789	O	PRO L 5	148.175	104.031	-24.763	1.00	30.14	O
ATOM	44740	CE	LYS K 124	200.984	108.778	-47.649	1.00	134.81	C	ATOM	44790	CB	PRO L 5	150.005	101.589	-24.846	1.00	17.97	C
ATOM	44741	NZ	LYS K 124	202.431	110.198	-47.626	1.00	134.81	N	ATOM	44791	CG	PRO L 5	150.929	101.833	-23.655	1.00	17.97	C
ATOM	44742	N	PHE K 125	196.518	108.348	-50.358	1.00	50.58	N	ATOM	44792	CD	PRO L 5	150.975	103.350	-23.453	1.00	17.97	C
ATOM	44743	CA	PHE K 125	195.985	109.582	-50.926	1.00	50.58	C	ATOM	44793	N	THR L 6	148.083	103.375	-26.928	1.00	26.25	N
ATOM	44744	C	PHE K 125	194.468	109.679	-50.967	1.00	50.58	C	ATOM	44794	CA	THR L 6	146.739	103.897	-27.160	1.00	26.25	C
ATOM	44745	O	PHE K 125	193.919	110.476	-51.736	1.00	50.58	O	ATOM	44795	C	THR L 6	145.712	103.068	-26.393	1.00	26.25	C
ATOM	44746	CB	PHE K 125	196.531	109.795	-52.347	1.00	50.02	C	ATOM	44796	O	THR L 6	145.972	101.924	-26.026	1.00	26.25	O
ATOM	44747	CG	PHE K 125	198.038	109.875	-52.426	1.00	50.02	C	ATOM	44797	CB	THR L 6	146.347	103.830	-28.633	1.00	32.94	C



Table 1: Sheet 450/521

ATOM	44798	OG1	THR	L	6	145.971	102.490	-28.956	1.00	32.94	O	ATOM	44848	CZ	ARG	L	12	146.747	96.454	-31.793	1.00	42.83	C
ATOM	44799	CG2	THR	L	6	147.495	104.238	-29.511	1.00	32.94	C	ATOM	44849	NH1	ARG	L	12	147.345	95.289	-31.979	1.00	42.83	N
ATOM	44800	N	ILE	L	7	144.544	103.647	-26.149	1.00	40.38	N	ATOM	44850	NH2	ARG	L	12	147.446	97.573	-31.893	1.00	42.83	N
ATOM	44801	CA	ILE	L	7	143.508	102.923	-25.438	1.00	40.38	C	ATOM	44851	N	LYS	L	13	146.452	94.371	-26.449	1.00	35.50	N
ATOM	44802	C	ILE	L	7	143.178	101.653	-26.199	1.00	40.38	C	ATOM	44852	CA	LYS	L	13	147.492	93.697	-25.710	1.00	35.50	C
ATOM	44803	O	ILE	L	7	143.082	100.583	-25.613	1.00	40.38	O	ATOM	44853	C	LYS	L	13	147.354	93.820	-24.199	1.00	35.50	C
ATOM	44804	CB	ILE	L	7	142.240	103.790	-25.270	1.00	20.76	C	ATOM	44854	O	LYS	L	13	147.571	92.856	-23.482	1.00	35.50	O
ATOM	44805	CG1	ILE	L	7	142.358	104.596	-23.983	1.00	20.76	C	ATOM	44855	CB	LYS	L	13	148.850	94.187	-26.190	1.00	65.43	C
ATOM	44806	CG2	ILE	L	7	140.980	102.921	-25.239	1.00	20.76	C	ATOM	44856	CG	LYS	L	13	148.965	94.045	-27.689	1.00	65.43	C
ATOM	44807	CD1	ILE	L	7	142.403	103.745	-22.757	1.00	20.76	C	ATOM	44857	CD	LYS	L	13	150.263	94.574	-28.237	1.00	65.43	C
ATOM	44808	N	ASN	L	8	143.014	101.768	-27.509	1.00	36.58	N	ATOM	44858	CE	LYS	L	13	150.290	94.416	-29.753	1.00	65.43	C
ATOM	44809	CA	ASN	L	8	142.706	100.599	-28.309	1.00	36.58	C	ATOM	44859	NZ	LYS	L	13	151.555	94.925	-30.376	1.00	65.43	N
ATOM	44810	C	ASN	L	8	143.826	99.569	-28.202	1.00	36.58	C	ATOM	44860	N	GLY	L	14	147.000	94.990	-23.695	1.00	35.62	N
ATOM	44811	O	ASN	L	8	143.574	98.359	-28.266	1.00	36.58	O	ATOM	44861	CA	GLY	L	14	146.836	95.113	-22.254	1.00	35.62	N
ATOM	44812	CB	ASN	L	8	142.511	100.984	-29.765	1.00	43.38	C	ATOM	44862	C	GLY	L	14	148.104	95.023	-21.432	1.00	35.62	C
ATOM	44813	CG	ASN	L	8	142.106	99.811	-30.614	1.00	43.38	C	ATOM	44863	O	GLY	L	14	149.119	94.530	-21.904	1.00	35.62	O
ATOM	44814	OD1	ASN	L	8	141.078	99.192	-30.375	1.00	43.38	C	ATOM	44864	N	ARG	L	15	148.042	95.498	-20.192	1.00	41.25	N
ATOM	44815	ND2	ASN	L	8	142.915	99.493	-31.611	1.00	43.38	N	ATOM	44865	CA	ARG	L	15	149.207	95.484	-19.312	1.00	41.25	C
ATOM	44816	N	GLN	L	9	145.062	100.041	-28.050	1.00	26.46	N	ATOM	44866	C	ARG	L	15	149.561	94.088	-18.824	1.00	41.25	C
ATOM	44817	CA	GLN	L	9	146.184	99.124	-27.920	1.00	26.46	C	ATOM	44867	O	ARG	L	15	148.685	93.262	-18.611	1.00	41.25	O
ATOM	44818	C	GLN	L	9	146.033	98.409	-26.590	1.00	26.46	C	ATOM	44868	CB	ARG	L	15	148.970	96.401	-18.118	1.00	50.31	C
ATOM	44819	O	GLN	L	9	146.137	97.195	-26.512	1.00	26.46	C	ATOM	44869	CG	ARG	L	15	148.682	97.839	-18.503	1.00	50.31	C
ATOM	44820	CB	GLN	L	9	147.522	99.866	-27.957	1.00	31.55	C	ATOM	44870	CD	ARG	L	15	149.845	98.466	-19.236	1.00	50.31	C
ATOM	44821	CG	GLN	L	9	147.912	100.405	-29.331	1.00	31.55	C	ATOM	44871	NE	ARG	L	15	149.620	99.887	-19.488	1.00	50.31	N
ATOM	44822	CD	GLN	L	9	149.280	101.076	-29.338	1.00	31.55	C	ATOM	44872	CZ	ARG	L	15	150.517	100.711	-20.022	1.00	50.31	C
ATOM	44823	OE1	GLN	L	9	149.631	101.828	-28.423	1.00	31.55	C	ATOM	44873	NH1	ARG	L	15	151.721	100.263	-20.369	1.00	50.31	N
ATOM	44824	NE2	GLN	L	9	150.052	100.819	-30.383	1.00	31.55	N	ATOM	44874	NH2	ARG	L	15	150.211	101.988	-20.213	1.00	50.31	N
ATOM	44825	N	LEU	L	10	145.781	99.171	-25.535	1.00	33.90	N	ATOM	44875	N	GLU	L	16	150.854	93.828	-18.663	1.00	32.50	N
ATOM	44826	CA	LEU	L	10	145.611	98.590	-24.216	1.00	33.90	C	ATOM	44876	CA	GLU	L	16	151.336	92.533	-18.204	1.00	32.50	C
ATOM	44827	C	LEU	L	10	144.538	97.535	-24.285	1.00	33.90	C	ATOM	44877	C	GLU	L	16	151.695	92.675	-16.744	1.00	32.50	C
ATOM	44828	O	LEU	L	10	144.641	96.498	-23.659	1.00	33.90	C	ATOM	44878	O	GLU	L	16	152.478	93.552	-16.402	1.00	32.50	O
ATOM	44829	CB	LEU	L	10	145.210	99.664	-23.213	1.00	37.26	C	ATOM	44879	CB	GLU	L	16	152.568	92.125	-19.006	1.00	100.56	C
ATOM	44830	CG	LEU	L	10	146.357	100.489	-22.650	1.00	37.26	C	ATOM	44880	CG	GLU	L	16	153.594	91.358	-18.206	1.00	100.56	C
ATOM	44831	CD1	LEU	L	10	145.839	101.628	-21.795	1.00	37.26	C	ATOM	44881	CD	GLU	L	16	154.825	91.027	-19.019	1.00	100.56	C
ATOM	44832	CD2	LEU	L	10	147.228	99.571	-21.825	1.00	37.26	C	ATOM	44882	OE1	GLU	L	16	155.394	91.950	-19.645	1.00	100.56	O
ATOM	44833	N	VAL	L	11	143.499	97.797	-25.059	1.00	40.92	N	ATOM	44883	OE2	GLU	L	16	155.226	89.842	-19.027	1.00	100.56	O
ATOM	44834	CA	VAL	L	11	142.424	96.829	-25.172	1.00	40.92	C	ATOM	44884	N	LYS	L	17	151.131	91.824	-15.884	1.00	44.74	N
ATOM	44835	C	VAL	L	11	142.910	95.565	-25.839	1.00	40.92	C	ATOM	44885	CA	LYS	L	17	151.399	91.902	-14.448	1.00	44.74	C
ATOM	44836	O	VAL	L	11	142.501	94.475	-25.470	1.00	40.92	O	ATOM	44886	C	LYS	L	17	152.763	91.346	-14.063	1.00	44.74	C
ATOM	44837	CB	VAL	L	11	141.251	97.357	-25.990	1.00	19.88	C	ATOM	44887	O	LYS	L	17	153.191	90.314	-14.566	1.00	44.74	O
ATOM	44838	CG1	VAL	L	11	140.226	96.267	-26.131	1.00	19.88	C	ATOM	44888	CB	LYS	L	17	150.290	91.191	-13.668	1.00	113.31	C
ATOM	44839	CG2	VAL	L	11	140.636	98.563	-25.304	1.00	19.88	C	ATOM	44889	CG	LYS	L	17	148.936	91.912	-13.697	1.00	113.31	C
ATOM	44840	N	ARG	L	12	143.779	95.720	-26.831	1.00	43.89	N	ATOM	44890	CD	LYS	L	17	148.958	93.237	-12.919	1.00	113.31	C
ATOM	44841	CA	ARG	L	12	144.308	94.580	-27.559	1.00	43.89	C	ATOM	44891	CE	LYS	L	17	148.776	94.454	-13.829	1.00	113.31	C
ATOM	44842	C	ARG	L	12	145.318	93.784	-26.765	1.00	43.89	C	ATOM	44892	NZ	LYS	L	17	147.473	94.471	-14.551	1.00	113.31	C
ATOM	44843	O	ARG	L	12	145.071	92.636	-26.434	1.00	43.89	O	ATOM	44893	N	VAL	L	18	153.444	92.047	-13.165	1.00	88.40	N
ATOM	44844	CB	ARG	L	12	144.938	95.024	-28.875	1.00	42.83	C	ATOM	44894	CA	VAL	L	18	154.774	91.653	-12.711	1.00	88.40	C
ATOM	44845	CG	ARG	L	12	143.932	95.305	-29.969	1.00	42.83	C	ATOM	44895	C	VAL	L	18	154.792	90.356	-11.902	1.00	88.40	C
ATOM	44846	CD	ARG	L	12	144.594	95.341	-31.342	1.00	42.83	C	ATOM	44896	O	VAL	L	18	153.883	90.100	-11.114	1.00	88.40	O
ATOM	44847	NE	ARG	L	12	145.455	96.507	-31.494	1.00	42.83	N	ATOM	44897	CB	VAL	L	18	155.397	92.780	-11.855	1.00	100.04	C



Table 1: Sheet 451/521

ATOM	44898	CG1	VAL	L	18	156.742	92.336	-11.293	1.00100.04	C	ATOM	44948	CB	VAL	L	24	164.058	81.857	0.633	1.00	53.59	C	
ATOM	44899	CG2	VAL	L	18	155.549	94.047	-12.700	1.00100.04	C	ATOM	44949	CG1	VAL	L	24	164.067	80.677	1.600	1.00	53.59	C	
ATOM	44900	N	ARG	L	19	155.836	89.548	-12.101	1.00	80.12	N	ATOM	44950	CG2	VAL	L	24	164.959	82.944	1.170	1.00	53.59	C
ATOM	44901	CA	ARG	L	19	156.000	88.274	-11.390	1.00	80.12	C	ATOM	44951	N	PRO	L	25	164.433	79.362	-2.100	1.00	52.92	N
ATOM	44902	C	ARG	L	19	157.228	88.266	-10.489	1.00	80.12	C	ATOM	44952	CA	PRO	L	25	163.756	78.091	-2.414	1.00	52.92	C
ATOM	44903	O	ARG	L	19	158.348	88.174	-10.979	1.00	80.12	O	ATOM	44953	C	PRO	L	25	163.913	77.039	-1.293	1.00	52.92	C
ATOM	44904	CB	ARG	L	19	156.150	87.118	-12.375	1.00140.95	C	ATOM	44954	O	PRO	L	25	164.480	75.954	-1.467	1.00	52.92	O	
ATOM	44905	CG	ARG	L	19	154.900	86.719	-13.103	1.00140.95	C	ATOM	44955	CB	PRO	L	25	164.384	77.687	-3.736	1.00	30.45	C	
ATOM	44906	CD	ARG	L	19	155.236	85.632	-14.098	1.00140.95	C	ATOM	44956	CG	PRO	L	25	164.613	79.061	-4.401	1.00	30.45	C	
ATOM	44907	NE	ARG	L	19	154.064	85.181	-14.837	1.00140.95	N	ATOM	44957	CD	PRO	L	25	165.205	79.858	-3.261	1.00	30.45	C	
ATOM	44908	CZ	ARG	L	19	154.115	84.377	-15.895	1.00140.95	C	ATOM	44958	N	ALA	L	26	163.396	77.416	-0.123	1.00105.73	N		
ATOM	44909	NH1	ARG	L	19	155.285	83.937	-16.339	1.00140.95	N	ATOM	44959	CA	ALA	L	26	163.369	76.576	1.071	1.00105.73	C		
ATOM	44910	NH2	ARG	L	19	152.995	84.016	-16.509	1.00140.95	N	ATOM	44960	C	ALA	L	26	162.237	75.630	0.711	1.00105.73	C		
ATOM	44911	N	LYS	L	20	157.024	88.342	-9.180	1.00	65.02	N	ATOM	44961	O	ALA	L	26	161.625	75.008	1.575	1.00105.73	O	
ATOM	44912	CA	LYS	L	20	158.142	88.321	-8.239	1.00	65.02	C	ATOM	44962	CB	ALA	L	26	162.991	77.434	2.341	1.00	15.46	C
ATOM	44913	C	LYS	L	20	158.763	86.917	-8.192	1.00	65.02	C	ATOM	44963	N	LEU	L	27	161.976	75.563	-0.596	1.00	78.60	N
ATOM	44914	O	LYS	L	20	158.055	85.912	-8.288	1.00	65.02	O	ATOM	44964	CA	LEU	L	27	160.922	74.758	-1.210	1.00	78.60	C
ATOM	44915	CB	LYS	L	20	157.664	88.718	-6.838	1.00150.21	C	ATOM	44965	C	LEU	L	27	159.677	74.857	-0.369	1.00	78.60	C	
ATOM	44916	CG	LYS	L	20	157.089	90.127	-6.739	1.00150.21	C	ATOM	44966	O	LEU	L	27	159.673	75.549	0.646	1.00	78.60	O	
ATOM	44917	CD	LYS	L	20	156.584	90.427	-5.329	1.00150.21	C	ATOM	44967	CB	LEU	L	27	161.340	73.289	-1.348	1.00	87.57	C	
ATOM	44918	CE	LYS	L	20	155.983	91.822	-5.227	1.00150.21	C	ATOM	44968	CG	LEU	L	27	160.495	72.407	-2.280	1.00	87.57	C	
ATOM	44919	NZ	LYS	L	20	155.522	92.131	-3.844	1.00150.21	N	ATOM	44969	CD1	LEU	L	27	160.703	72.848	-3.726	1.00	87.57	C	
ATOM	44920	N	LYS	L	21	160.084	86.849	-8.049	1.00	63.82	N	ATOM	44970	CD2	LEU	L	27	160.892	70.945	-2.119	1.00	87.57	C
ATOM	44921	CA	LYS	L	21	160.780	85.563	-7.992	1.00	63.82	C	ATOM	44971	N	LYS	L	28	158.625	74.165	-0.791	1.00133.93	N	
ATOM	44922	C	LYS	L	21	161.289	85.364	-6.578	1.00	63.82	C	ATOM	44972	CA	LYS	L	28	157.360	74.187	-0.072	1.00133.93	C	
ATOM	44923	O	LYS	L	21	161.875	86.274	-5.998	1.00	63.82	O	ATOM	44973	C	LYS	L	28	157.050	75.603	0.388	1.00133.93	C	
ATOM	44924	CB	LYS	L	21	161.953	85.550	-8.980	1.00117.62	C	ATOM	44974	O	LYS	L	28	156.113	75.804	1.161	1.00133.93	O		
ATOM	44925	CG	LYS	L	21	161.520	85.736	-10.430	1.00117.62	C	ATOM	44975	CB	LYS	L	28	157.415	73.286	1.170	1.00164.98	C		
ATOM	44926	CD	LYS	L	21	162.697	85.875	-11.384	1.00117.62	C	ATOM	44976	CG	LYS	L	28	157.297	71.787	0.931	1.00164.98	C		
ATOM	44927	CE	LYS	L	21	162.210	86.108	-12.810	1.00117.62	C	ATOM	44977	CD	LYS	L	28	157.096	71.062	2.266	1.00164.98	C		
ATOM	44928	NZ	LYS	L	21	163.331	86.314	-13.769	1.00117.62	N	ATOM	44978	CE	LYS	L	28	156.975	69.554	2.099	1.00164.98	C		
ATOM	44929	N	SER	L	22	161.063	84.181	-6.018	1.00	65.96	N	ATOM	44979	N2	LYS	L	28	156.739	68.868	3.403	1.00164.98	N	
ATOM	44930	CA	SER	L	22	161.500	83.908	-4.652	1.00	65.96	C	ATOM	44979	N2	LYS	L	28	156.739	68.868	3.403	1.00164.98	N	
ATOM	44931	C	SER	L	22	162.985	84.077	-4.485	1.00	65.96	C	ATOM	44980	N	GLY	L	29	157.823	76.579	-0.091	1.00	47.71	N
ATOM	44932	O	SER	L	22	163.737	83.979	-5.446	1.00	65.96	O	ATOM	44981	CA	GLY	L	29	157.620	77.946	0.351	1.00	47.71	C
ATOM	44933	CB	SER	L	22	161.149	82.486	-4.232	1.00	62.03	C	ATOM	44982	C	GLY	L	29	157.332	77.878	1.838	1.00	47.71	C
ATOM	44934	OG	SER	L	22	161.803	82.170	-3.015	1.00	62.03	C	ATOM	44983	O	GLY	L	29	156.422	78.528	2.346	1.00	47.71	O
ATOM	44935	N	LYS	L	23	163.409	84.333	-3.256	1.00	46.48	N	ATOM	44984	N	ALA	L	30	158.102	77.045	2.530	1.00	44.24	N
ATOM	44936	CA	LYS	L	23	164.825	84.474	-2.976	1.00	46.48	C	ATOM	44985	CA	ALA	L	30	157.949	76.828	3.960	1.00	44.24	C
ATOM	44937	C	LYS	L	23	165.211	83.404	-1.972	1.00	46.48	C	ATOM	44986	C	ALA	L	30	158.644	77.917	4.735	1.00	44.24	C
ATOM	44938	O	LYS	L	23	166.313	83.400	-1.437	1.00	46.48	O	ATOM	44987	O	ALA	L	30	159.446	78.656	4.181	1.00	44.24	O
ATOM	44939	CB	LYS	L	23	165.130	85.868	-2.427	1.00	46.48	O	ATOM	44988	CB	ALA	L	30	158.527	75.503	4.325	1.00	17.95	C
ATOM	44940	CG	LYS	L	23	165.012	86.947	-3.484	1.00	75.02	C	ATOM	44989	N	PRO	L	31	158.321	78.049	6.028	1.00	21.95	N
ATOM	44941	CD	LYS	L	23	165.480	88.297	-2.992	1.00	75.02	C	ATOM	44990	CA	PRO	L	31	158.923	79.066	6.905	1.00	21.95	C
ATOM	44942	CE	LYS	L	23	165.212	89.359	-4.047	1.00	75.02	C	ATOM	44991	C	PRO	L	31	160.319	78.629	7.325	1.00	21.95	C
ATOM	44943	NZ	LYS	L	23	165.587	90.735	-3.605	1.00	75.02	N	ATOM	44992	O	PRO	L	31	161.205	79.446	7.526	1.00	21.95	O
ATOM	44944	N	VAL	L	24	164.300	82.470	-1.743	1.00	51.99	N	ATOM	44993	CB	PRO	L	31	157.967	79.115	8.101	1.00	41.92	C
ATOM	44945	CA	VAL	L	24	164.546	81.422	-0.778	1.00	51.99	C	ATOM	44994	CG	PRO	L	31	156.664	78.630	7.536	1.00	41.92	C
ATOM	44946	C	VAL	L	24	163.868	80.117	-1.142	1.00	51.99	C	ATOM	44995	CD	PRO	L	31	157.098	77.499	6.636	1.00	41.92	C
ATOM	44947	O	VAL	L	24	162.809	79.805	-0.608	1.00	51.99	O	ATOM	44996	N	PIE	L	32	160.492	77.322	7.466	1.00	55.94	N
ATOM	44947	O	VAL	L	24	162.809	79.805	-0.608	1.00	51.99	O	ATOM	44997	CA	PIE	L	32	161.763	76.740	7.862	1.00	55.94	C



Table 1: Sheet 452/521

ATOM 44998	C	PHE L 32	161.900	75.364	7.236	1.00 55.94	C	ATOM 45048	C	THR L 38	179.245	68.501	5.666	1.00 67.11	C
ATOM 44999	O	PHE L 32	160.916	74.732	6.831	1.00 55.94	O	ATOM 45049	O	THR L 38	180.161	67.700	5.828	1.00 67.11	O
ATOM 45000	CB	PHE L 32	161.831	76.567	9.371	1.00 32.78	C	ATOM 45050	CB	THR L 38	177.474	68.209	3.981	1.00 70.04	C
ATOM 45001	CG	PHE L 32	161.619	77.825	10.137	1.00 32.78	C	ATOM 45051	OG1	THR L 38	176.148	67.727	3.755	1.00 70.04	C
ATOM 45002	CD1	PHE L 32	162.661	78.719	10.327	1.00 32.78	C	ATOM 45052	CG2	THR L 38	178.453	67.447	3.109	1.00 70.04	C
ATOM 45003	CD2	PHE L 32	160.370	78.111	10.687	1.00 32.78	C	ATOM 45053	N	VAL L 39	179.411	69.815	5.667	1.00 72.33	N
ATOM 45004	CE1	PHE L 32	162.465	79.888	11.060	1.00 32.78	C	ATOM 45054	CA	VAL L 39	180.713	70.430	5.818	1.00 72.33	C
ATOM 45005	CE2	PHE L 32	160.159	79.271	11.419	1.00 32.78	C	ATOM 45055	C	VAL L 39	180.589	71.671	6.680	1.00 72.33	C
ATOM 45006	CZ	PHE L 32	161.209	80.164	11.608	1.00 32.78	C	ATOM 45056	O	VAL L 39	179.776	72.547	6.395	1.00 72.33	O
ATOM 45007	N	ARG L 33	163.134	74.894	7.172	1.00 61.70	N	ATOM 45057	CB	VAL L 39	181.235	70.864	4.455	1.00 39.73	C
ATOM 45008	CA	ARG L 33	163.396	73.586	6.623	1.00 61.70	C	ATOM 45058	CG1	VAL L 39	182.735	71.117	4.520	1.00 39.73	C
ATOM 45009	C	ARG L 33	164.552	73.030	7.421	1.00 61.70	C	ATOM 45059	CG2	VAL L 39	180.878	69.817	3.433	1.00 39.73	C
ATOM 45010	O	ARG L 33	165.462	73.774	7.786	1.00 61.70	O	ATOM 45060	N	VAL L 40	181.391	71.760	7.730	1.00 48.89	N
ATOM 45011	CB	ARG L 33	163.783	73.699	5.156	1.00 95.54	C	ATOM 45061	CA	VAL L 40	181.327	72.938	8.576	1.00 48.89	C
ATOM 45012	CD	ARG L 33	163.819	72.376	4.441	1.00 95.54	C	ATOM 45062	C	VAL L 40	182.536	73.816	8.279	1.00 48.89	C
ATOM 45013	CG	ARG L 33	162.574	72.170	3.596	1.00 95.54	C	ATOM 45063	O	VAL L 40	183.337	74.094	9.154	1.00 48.89	O
ATOM 45014	NE	ARG L 33	161.321	72.199	4.349	1.00 95.54	N	ATOM 45064	CB	VAL L 40	181.289	72.551	10.077	1.00 45.60	C
ATOM 45015	CZ	ARG L 33	160.131	71.944	3.805	1.00 95.54	C	ATOM 45065	CG1	VAL L 40	181.304	73.812	10.945	1.00 45.60	C
ATOM 45016	NH1	ARG L 33	160.046	71.643	2.513	1.00 95.54	N	ATOM 45066	CG2	VAL L 40	180.031	71.729	10.372	1.00 45.60	C
ATOM 45017	NH2	ARG L 33	159.026	71.987	4.543	1.00 95.54	N	ATOM 45067	N	ARG L 41	182.648	74.251	7.028	1.00 44.51	N
ATOM 45018	N	ARG L 34	164.503	71.733	7.721	1.00 45.33	N	ATOM 45068	CA	ARG L 41	183.752	75.087	6.558	1.00 44.51	C
ATOM 45019	CA	ARG L 34	165.589	71.097	8.459	1.00 45.33	C	ATOM 45069	C	ARG L 41	183.802	76.475	7.209	1.00 44.51	C
ATOM 45020	C	ARG L 34	166.443	70.236	7.527	1.00 45.33	C	ATOM 45070	O	ARG L 41	183.214	76.711	8.265	1.00 44.51	O
ATOM 45021	O	ARG L 34	165.935	69.520	6.659	1.00 45.33	O	ATOM 45071	CB	ARG L 41	183.651	75.238	5.039	1.00 87.72	C
ATOM 45022	CB	ARG L 34	165.061	70.233	9.598	1.00 77.12	C	ATOM 45072	CD	ARG L 41	184.816	75.941	4.379	1.00 87.72	C
ATOM 45023	CG	ARG L 34	164.450	68.956	9.134	1.00 77.12	C	ATOM 45073	CD	ARG L 41	184.578	76.013	2.903	1.00 87.72	C
ATOM 45024	CD	ARG L 34	164.697	67.881	10.139	1.00 77.12	C	ATOM 45074	NE	ARG L 41	184.287	74.678	2.389	1.00 87.72	N
ATOM 45025	NE	ARG L 34	164.085	66.642	9.698	1.00 77.12	N	ATOM 45075	CZ	ARG L 41	183.271	74.386	1.580	1.00 87.72	C
ATOM 45026	CZ	ARG L 34	164.170	65.497	10.357	1.00 77.12	C	ATOM 45076	NH1	ARG L 41	182.437	75.343	1.187	1.00 87.72	N
ATOM 45027	NH1	ARG L 34	164.849	65.432	11.495	1.00 77.12	N	ATOM 45077	NH2	ARG L 41	183.086	73.136	1.166	1.00 87.72	N
ATOM 45028	NH2	ARG L 34	163.563	64.419	9.879	1.00 77.12	N	ATOM 45078	N	THR L 42	184.524	77.385	6.565	1.00 66.04	N
ATOM 45029	N	GLY L 35	167.752	70.333	7.719	1.00 66.10	N	ATOM 45079	CA	THR L 42	184.672	78.756	7.028	1.00 66.04	C
ATOM 45030	CA	GLY L 35	168.681	69.584	6.906	1.00 66.10	C	ATOM 45080	C	THR L 42	185.166	79.628	5.891	1.00 66.04	C
ATOM 45031	C	GLY L 35	169.784	68.986	7.748	1.00 66.10	C	ATOM 45081	O	THR L 42	186.357	79.677	5.588	1.00 66.04	O
ATOM 45032	O	GLY L 35	169.803	69.127	8.976	1.00 66.10	O	ATOM 45082	CB	THR L 42	185.636	78.833	8.190	1.00 70.82	C
ATOM 45033	N	VAL L 36	170.712	68.313	7.080	1.00 46.08	N	ATOM 45083	OG1	THR L 42	184.982	78.313	9.350	1.00 70.82	C
ATOM 45034	CA	VAL L 36	171.820	67.683	7.769	1.00 46.08	C	ATOM 45084	CG2	THR L 42	186.064	80.266	8.446	1.00 70.82	C
ATOM 45035	C	VAL L 36	173.117	68.327	7.328	1.00 46.08	O	ATOM 45085	N	VAL L 43	184.216	80.315	5.271	1.00 49.45	N
ATOM 45036	O	VAL L 36	173.327	68.562	6.138	1.00 46.08	C	ATOM 45086	CA	VAL L 43	184.462	81.185	4.136	1.00 49.45	C
ATOM 45037	CB	VAL L 36	171.857	66.185	7.464	1.00 36.64	C	ATOM 45087	C	VAL L 43	185.042	82.534	4.533	1.00 49.45	C
ATOM 45038	CG1	VAL L 36	172.917	65.519	8.294	1.00 36.64	C	ATOM 45088	O	VAL L 43	185.059	82.901	5.706	1.00 49.45	O
ATOM 45039	CG2	VAL L 36	170.499	65.570	7.762	1.00 36.64	C	ATOM 45089	CB	VAL L 43	183.149	81.433	3.369	1.00 66.98	C
ATOM 45040	N	CYS L 37	173.976	68.636	8.292	1.00 63.86	N	ATOM 45090	CG1	VAL L 43	183.431	82.121	2.047	1.00 66.98	C
ATOM 45041	CA	CYS L 37	175.255	69.249	7.978	1.00 63.86	C	ATOM 45091	CG2	VAL L 43	182.429	80.123	3.149	1.00 66.98	C
ATOM 45042	C	CYS L 37	176.151	68.292	7.197	1.00 63.86	C	ATOM 45092	N	THR L 44	185.523	83.266	3.536	1.00 60.28	N
ATOM 45043	O	CYS L 37	176.135	67.086	7.417	1.00 63.86	O	ATOM 45093	CA	THR L 44	186.074	84.588	3.761	1.00 60.28	C
ATOM 45044	CB	CYS L 37	175.957	69.700	9.256	1.00 80.50	C	ATOM 45094	C	THR L 44	185.122	85.590	3.104	1.00 60.28	C
ATOM 45045	SG	CYS L 37	175.347	71.271	9.890	1.00 80.50	S	ATOM 45095	O	THR L 44	184.473	85.274	2.100	1.00 60.28	O
ATOM 45046	N	THR L 38	176.928	68.840	6.276	1.00 67.11	N	ATOM 45096	CB	THR L 44	187.481	84.740	3.131	1.00 69.99	C
ATOM 45047	CA	THR L 38	177.819	68.040	5.458	1.00 67.11	C	ATOM 45097	OG1	THR L 44	187.389	84.604	1.707	1.00 69.99	O



Table 1: Sheet 453/521

ATOM	45098	CG2	THR	L	44	188.429	83.689	3.680	1.00	69.99	C	ATOM	45148	O	ALA	L	51	186.988	85.771	7.153	1.00	53.20	O
ATOM	45099	N	PRO	L	45	185.027	86.810	3.668	1.00	51.68	N	ATOM	45149	CB	ALA	L	51	185.924	88.117	9.459	1.00	84.77	C
ATOM	45100	CA	PRO	L	45	184.169	87.892	3.174	1.00	51.68	C	ATOM	45150	N	LEU	L	52	186.582	85.293	9.297	1.00	78.97	N
ATOM	45101	C	PRO	L	45	184.483	88.341	1.744	1.00	51.68	C	ATOM	45151	CA	LEU	L	52	186.342	83.880	9.029	1.00	78.97	C
ATOM	45102	O	PRO	L	45	185.383	87.821	1.086	1.00	51.68	O	ATOM	45152	C	LEU	L	52	184.897	83.506	9.299	1.00	78.97	C
ATOM	45103	CB	PRO	L	45	184.417	89.017	4.175	1.00	87.87	C	ATOM	45153	O	LEU	L	52	184.579	82.938	10.344	1.00	78.97	O
ATOM	45104	CG	PRO	L	45	184.828	88.293	5.413	1.00	87.87	C	ATOM	45154	CB	LEU	L	52	187.255	83.008	9.895	1.00	74.16	C
ATOM	45105	CD	PRO	L	45	185.736	87.234	4.886	1.00	87.87	C	ATOM	45155	CG	LEU	L	52	188.740	82.982	9.540	1.00	74.16	C
ATOM	45106	N	LYS	L	46	183.745	89.348	1.298	1.00	37.54	N	ATOM	45156	CD1	LEU	L	52	189.484	82.209	10.611	1.00	74.16	C
ATOM	45107	CA	LYS	L	46	183.871	89.908	-0.045	1.00	37.54	C	ATOM	45157	CD2	LEU	L	52	188.944	82.356	8.158	1.00	74.16	C
ATOM	45108	C	LYS	L	46	184.275	91.413	-0.068	1.00	37.54	C	ATOM	45158	N	ARG	L	53	184.019	83.819	8.355	1.00	67.18	N
ATOM	45109	O	LYS	L	46	184.479	92.050	0.969	1.00	37.54	O	ATOM	45159	CA	ARG	L	53	182.609	83.510	8.527	1.00	67.18	C
ATOM	45110	CB	LYS	L	46	182.526	89.661	-0.766	1.00	81.24	C	ATOM	45160	C	ARG	L	53	182.350	82.011	8.631	1.00	67.18	C
ATOM	45111	CG	LYS	L	46	182.172	90.548	-1.948	1.00	81.24	C	ATOM	45161	O	ARG	L	53	182.745	81.248	7.752	1.00	67.18	O
ATOM	45112	CD	LYS	L	46	180.717	90.332	-2.333	1.00	81.24	C	ATOM	45162	CB	ARG	L	53	181.807	84.103	7.373	1.00	63.26	C
ATOM	45113	CE	LYS	L	46	180.189	91.446	-3.225	1.00	81.24	C	ATOM	45163	CG	ARG	L	53	181.115	85.403	7.729	1.00	63.26	C
ATOM	45114	NZ	LYS	L	46	180.893	91.512	-4.539	1.00	81.24	N	ATOM	45164	CD	ARG	L	53	181.761	86.612	7.101	1.00	63.26	C
ATOM	45115	N	LYS	L	47	184.388	91.963	-1.270	1.00	111.06	N	ATOM	45165	NE	ARG	L	53	181.913	87.690	8.078	1.00	63.26	N
ATOM	45116	CA	LYS	L	47	184.754	93.358	-1.457	1.00	111.06	C	ATOM	45166	CZ	ARG	L	53	181.882	88.982	7.771	1.00	63.26	C
ATOM	45117	C	LYS	L	47	185.644	93.900	-0.332	1.00	111.06	C	ATOM	45167	NH1	ARG	L	53	181.695	89.359	6.510	1.00	63.26	N
ATOM	45118	O	LYS	L	47	186.849	93.681	-0.368	1.00	111.06	O	ATOM	45168	NH2	ARG	L	53	182.052	89.581	8.718	1.00	63.26	N
ATOM	45119	CB	LYS	L	47	183.489	94.206	-1.655	1.00	112.42	C	ATOM	45169	N	LYS	L	54	181.694	81.589	9.710	1.00	49.33	N
ATOM	45120	CG	LYS	L	47	182.699	93.868	-2.911	1.00	112.42	C	ATOM	45170	CA	LYS	L	54	181.387	80.172	9.900	1.00	49.33	C
ATOM	45121	CD	LYS	L	47	181.576	94.868	-3.154	1.00	112.42	C	ATOM	45171	C	LYS	L	54	180.155	79.780	9.094	1.00	49.33	C
ATOM	45122	CE	LYS	L	47	180.950	94.675	-4.533	1.00	112.42	C	ATOM	45172	O	LYS	L	54	179.060	80.314	9.299	1.00	49.33	O
ATOM	45123	NZ	LYS	L	47	179.971	95.748	-4.874	1.00	112.42	N	ATOM	45173	CB	LYS	L	54	181.155	79.852	11.376	1.00	73.68	C
ATOM	45124	N	PRO	L	48	185.084	94.589	0.686	1.00	119.26	N	ATOM	45174	CG	LYS	L	54	182.423	79.813	12.215	1.00	73.68	C
ATOM	45125	CA	PRO	L	48	185.988	95.086	1.729	1.00	119.26	C	ATOM	45175	CD	LYS	L	54	183.132	81.155	12.234	1.00	73.68	C
ATOM	45126	C	PRO	L	48	186.216	94.121	2.884	1.00	119.26	C	ATOM	45176	CE	LYS	L	54	184.417	81.076	13.028	1.00	73.68	C
ATOM	45127	O	PRO	L	48	187.322	93.632	3.106	1.00	119.26	O	ATOM	45177	NZ	LYS	L	54	185.183	82.348	12.963	1.00	73.68	N
ATOM	45128	CB	PRO	L	48	185.287	96.353	2.197	1.00	32.00	C	ATOM	45178	N	VAL	L	55	180.342	78.832	8.183	1.00	60.66	N
ATOM	45129	CG	PRO	L	48	183.888	95.945	2.182	1.00	32.00	C	ATOM	45179	CA	VAL	L	55	179.266	78.382	7.320	1.00	60.66	C
ATOM	45130	CD	PRO	L	48	183.743	95.167	0.876	1.00	32.00	C	ATOM	45180	C	VAL	L	55	179.059	76.864	7.385	1.00	60.66	C
ATOM	45131	N	ASN	L	49	185.150	93.877	3.626	1.00	54.95	N	ATOM	45181	O	VAL	L	55	179.812	76.156	8.050	1.00	60.66	O
ATOM	45132	CA	ASN	L	49	185.170	92.994	4.774	1.00	54.95	C	ATOM	45182	CB	VAL	L	55	179.560	78.809	5.884	1.00	49.72	C
ATOM	45133	C	ASN	L	49	186.132	91.817	4.746	1.00	54.95	C	ATOM	45183	CG1	VAL	L	55	178.327	78.684	5.063	1.00	49.72	C
ATOM	45134	O	ASN	L	49	186.408	91.236	3.698	1.00	54.95	O	ATOM	45184	CG2	VAL	L	55	180.064	80.246	5.859	1.00	49.72	C
ATOM	45135	CB	ASN	L	49	183.754	92.499	5.035	1.00	59.28	C	ATOM	45185	N	ALA	L	56	178.040	76.363	6.690	1.00	54.39	N
ATOM	45136	CG	ASN	L	49	182.874	93.591	5.582	1.00	59.28	O	ATOM	45186	CA	ALA	L	56	177.746	74.933	6.707	1.00	54.39	C
ATOM	45137	OD1	ASN	L	49	181.676	93.408	5.765	1.00	59.28	O	ATOM	45187	C	ALA	L	56	176.928	74.439	5.514	1.00	54.39	C
ATOM	45138	ND2	ASN	L	49	183.479	94.752	5.860	1.00	59.28	N	ATOM	45188	O	ALA	L	56	175.863	74.973	5.231	1.00	54.39	O
ATOM	45139	N	SER	L	50	186.635	91.472	5.929	1.00	42.61	N	ATOM	45189	CB	ALA	L	56	177.006	74.591	7.994	1.00	14.54	C
ATOM	45140	CA	SER	L	50	187.564	90.372	6.106	1.00	42.61	C	ATOM	45190	N	LYS	L	57	177.423	73.424	4.809	1.00	83.63	N
ATOM	45141	C	SER	L	50	187.297	89.696	7.452	1.00	42.61	C	ATOM	45191	CA	LYS	L	57	176.665	72.862	3.694	1.00	83.63	C
ATOM	45142	O	SER	L	50	187.029	90.374	8.448	1.00	42.61	O	ATOM	45192	C	LYS	L	57	175.562	72.068	4.381	1.00	83.63	C
ATOM	45143	CB	SER	L	50	188.996	90.900	6.054	1.00	51.92	C	ATOM	45193	O	LYS	L	57	175.803	71.421	5.401	1.00	83.63	O
ATOM	45144	OG	SER	L	50	189.930	89.897	6.409	1.00	51.92	O	ATOM	45194	CB	LYS	L	57	177.520	71.913	2.842	1.00	82.14	C
ATOM	45145	N	ALA	L	51	187.362	88.365	7.474	1.00	53.20	N	ATOM	45195	CG	LYS	L	57	178.664	72.569	2.087	1.00	82.14	C
ATOM	45146	CA	ALA	L	51	187.130	87.581	8.693	1.00	53.20	C	ATOM	45196	CD	LYS	L	57	178.183	73.627	1.098	1.00	82.14	C
ATOM	45147	C	ALA	L	51	186.893	86.130	8.317	1.00	53.20	C	ATOM	45197	CE	LYS	L	57	179.368	74.273	0.374	1.00	82.14	C



Table 1: Sheet 454/521

ATOM	45198	NZ	LYS L 57	179.011	75.480	-0.436	1.00	82.14	N	ATOM	45248	CD1	TYR L 64	165.358	71.960	-3.015	1.00	90.07	C
ATOM	45199	N	VAL L 58	174.354	72.117	3.836	1.00	46.24	N	ATOM	45249	CD2	TYR L 64	166.796	73.662	-3.895	1.00	90.07	C
ATOM	45200	CA	VAL L 58	173.235	71.407	4.438	1.00	46.24	C	ATOM	45250	CE1	TYR L 64	164.380	72.294	-3.946	1.00	90.07	C
ATOM	45201	C	VAL L 58	172.429	70.649	3.402	1.00	46.24	C	ATOM	45251	CE2	TYR L 64	165.825	74.008	-4.833	1.00	90.07	C
ATOM	45202	O	VAL L 58	172.156	71.168	2.320	1.00	46.24	O	ATOM	45252	CZ	TYR L 64	164.617	73.320	-4.851	1.00	90.07	C
ATOM	45203	CB	VAL L 58	172.278	72.381	5.169	1.00	53.19	C	ATOM	45253	OH	TYR L 64	163.638	73.658	-5.759	1.00	90.07	O
ATOM	45204	CG1	VAL L 58	171.122	71.598	5.788	1.00	53.19	C	ATOM	45254	N	GLU L 65	170.510	71.033	-1.538	1.00	57.01	N
ATOM	45205	CG2	VAL L 58	173.037	73.180	6.231	1.00	53.19	C	ATOM	45255	CA	GLU L 65	171.778	71.020	-0.810	1.00	57.01	C
ATOM	45206	N	ARG L 59	172.059	69.417	3.740	1.00	60.01	N	ATOM	45256	C	GLU L 65	172.238	72.476	-0.805	1.00	57.01	C
ATOM	45207	CA	ARG L 59	171.260	68.580	2.855	1.00	60.01	C	ATOM	45257	O	GLU L 65	172.617	73.015	-1.844	1.00	57.01	O
ATOM	45208	C	ARG L 59	169.846	68.728	3.389	1.00	60.01	C	ATOM	45258	CB	GLU L 65	172.797	70.143	-1.549	1.00	87.01	C
ATOM	45209	O	ARG L 59	169.532	68.169	4.434	1.00	60.01	O	ATOM	45259	CG	GLU L 65	172.457	68.629	-1.649	1.00	87.01	C
ATOM	45210	CB	ARG L 59	171.702	67.120	2.970	1.00	116.01	C	ATOM	45260	CD	GLU L 65	171.266	68.266	-2.571	1.00	87.01	C
ATOM	45211	CG	ARG L 59	171.064	66.165	1.967	1.00	116.01	C	ATOM	45261	OE1	GLU L 65	171.134	68.845	-3.678	1.00	87.01	O
ATOM	45212	CD	ARG L 59	171.797	66.186	0.631	1.00	116.01	C	ATOM	45262	OE2	GLU L 65	170.474	67.368	-2.190	1.00	87.01	O
ATOM	45213	NE	ARG L 59	173.240	65.980	0.794	1.00	116.01	N	ATOM	45263	N	VAL L 66	172.196	73.114	0.362	1.00	65.63	N
ATOM	45214	CZ	ARG L 59	174.108	65.864	-0.211	1.00	116.01	C	ATOM	45264	CA	VAL L 66	172.572	74.522	0.463	1.00	65.63	C
ATOM	45215	NH1	ARG L 59	173.689	65.924	-1.469	1.00	116.01	N	ATOM	45265	C	VAL L 66	173.627	74.891	1.507	1.00	65.63	C
ATOM	45216	NH2	ARG L 59	175.402	65.702	0.042	1.00	116.01	N	ATOM	45266	O	VAL L 66	174.019	74.080	2.339	1.00	65.63	O
ATOM	45217	N	LEU L 60	169.003	69.484	2.690	1.00	72.89	N	ATOM	45267	CB	VAL L 66	171.328	75.393	0.729	1.00	55.39	C
ATOM	45218	CA	LEU L 60	167.627	69.705	3.142	1.00	72.89	C	ATOM	45268	CG1	VAL L 66	170.309	75.190	-0.384	1.00	55.39	C
ATOM	45219	C	LEU L 60	166.687	68.539	2.893	1.00	72.89	C	ATOM	45269	CG2	VAL L 66	170.728	75.051	2.084	1.00	55.39	C
ATOM	45220	O	LEU L 60	166.959	67.664	2.064	1.00	72.89	O	ATOM	45270	N	THR L 67	174.073	76.140	1.436	1.00	61.22	N
ATOM	45221	CB	LEU L 60	167.004	70.947	2.475	1.00	45.20	C	ATOM	45271	CA	THR L 67	175.071	76.706	2.340	1.00	61.22	C
ATOM	45222	CG	LEU L 60	167.335	72.387	2.872	1.00	45.20	C	ATOM	45272	C	THR L 67	174.335	77.667	3.272	1.00	61.22	C
ATOM	45223	CD1	LEU L 60	167.912	72.423	4.280	1.00	45.20	C	ATOM	45273	O	THR L 67	173.552	78.499	2.819	1.00	61.22	O
ATOM	45224	CD2	LEU L 60	168.296	72.976	1.863	1.00	45.20	C	ATOM	45274	CB	THR L 67	176.136	77.489	1.542	1.00	67.72	C
ATOM	45225	N	THR L 61	165.572	68.551	3.621	1.00	75.24	N	ATOM	45275	OG1	THR L 67	176.997	76.575	0.855	1.00	67.72	O
ATOM	45226	CA	THR L 61	164.542	67.534	3.476	1.00	75.24	C	ATOM	45276	CG2	THR L 67	176.946	78.361	2.446	1.00	67.72	C
ATOM	45227	C	THR L 61	163.735	67.935	2.254	1.00	75.24	C	ATOM	45277	N	ALA L 68	174.590	77.568	4.568	1.00	52.24	N
ATOM	45228	O	THR L 61	162.855	67.203	1.807	1.00	75.24	O	ATOM	45278	CA	ALA L 68	173.897	78.424	5.523	1.00	52.24	C
ATOM	45229	CB	THR L 61	163.590	67.485	4.694	1.00	83.16	C	ATOM	45279	C	ALA L 68	174.801	79.077	6.560	1.00	52.24	C
ATOM	45230	OG1	THR L 61	163.126	68.806	4.994	1.00	83.16	C	ATOM	45280	O	ALA L 68	175.741	78.455	7.054	1.00	52.24	O
ATOM	45231	CG2	THR L 61	164.288	66.903	5.903	1.00	83.16	C	ATOM	45281	CB	ALA L 68	172.824	77.616	6.223	1.00	27.87	C
ATOM	45232	N	SER L 62	164.040	69.115	1.724	1.00	77.12	N	ATOM	45282	N	TYR L 69	174.511	80.330	6.898	1.00	50.18	N
ATOM	45233	CA	SER L 62	163.354	69.617	0.545	1.00	77.12	C	ATOM	45283	CA	TYR L 69	175.308	81.028	7.892	1.00	50.18	C
ATOM	45234	C	SER L 62	164.082	69.168	-0.713	1.00	77.12	C	ATOM	45284	C	TYR L 69	175.024	80.464	9.283	1.00	50.18	C
ATOM	45235	O	SER L 62	163.734	69.582	-1.822	1.00	77.12	O	ATOM	45285	O	TYR L 69	173.940	79.929	9.542	1.00	50.18	O
ATOM	45236	CB	SER L 62	163.276	71.142	0.579	1.00	50.43	C	ATOM	45286	CB	TYR L 69	174.983	82.513	7.896	1.00	60.59	C
ATOM	45237	OG	SER L 62	164.558	71.735	0.633	1.00	50.43	C	ATOM	45287	CG	TYR L 69	175.972	83.324	8.696	1.00	60.59	C
ATOM	45238	N	GLY L 63	165.096	68.324	-0.529	1.00	70.87	N	ATOM	45288	CD1	TYR L 69	177.193	83.689	8.144	1.00	60.59	C
ATOM	45239	CA	GLY L 63	165.856	67.811	-1.650	1.00	70.87	C	ATOM	45289	CD2	TYR L 69	175.703	83.711	10.013	1.00	60.59	C
ATOM	45240	C	GLY L 63	167.002	68.700	-2.083	1.00	70.87	C	ATOM	45290	CE1	TYR L 69	178.131	84.421	8.874	1.00	60.59	C
ATOM	45241	O	GLY L 63	167.829	68.274	-2.887	1.00	70.87	O	ATOM	45291	CE2	TYR L 69	176.642	84.450	10.760	1.00	60.59	C
ATOM	45242	N	TYR L 64	167.061	69.924	-1.559	1.00	77.62	N	ATOM	45292	C2	TYR L 69	177.855	84.797	10.173	1.00	60.59	C
ATOM	45243	CA	TYR L 64	168.127	70.865	-1.914	1.00	77.62	C	ATOM	45293	OH	TYR L 69	178.812	85.501	10.859	1.00	60.59	O
ATOM	45244	C	TYR L 64	169.329	70.788	-0.972	1.00	77.62	C	ATOM	45294	N	ILE L 70	176.001	80.581	10.175	1.00	47.64	N
ATOM	45245	O	TYR L 64	169.188	70.522	0.226	1.00	77.62	O	ATOM	45295	CA	ILE L 70	175.847	80.107	11.550	1.00	47.64	C
ATOM	45246	CB	TYR L 64	167.613	72.311	-1.917	1.00	90.07	C	ATOM	45296	C	ILE L 70	176.108	81.317	12.446	1.00	47.64	C
ATOM	45247	CG	TYR L 64	166.577	72.638	-2.972	1.00	90.07	C	ATOM	45297	O	ILE L 70	177.249	81.599	12.819	1.00	47.64	O



Table 1: Sheet 455/521

ATOM	45298	CB	ILE L	70	176.874	78.997	11.890	1.00	52.08	C	ATOM	45348	CB	LEU L	77	177.499	73.100	13.499	1.00	49.74	C
ATOM	45299	CG1	ILE L	70	176.809	77.876	10.851	1.00	52.08	C	ATOM	45349	CG	LEU L	77	176.307	73.962	13.923	1.00	49.74	C
ATOM	45300	CG2	ILE L	70	176.573	78.413	13.256	1.00	52.08	C	ATOM	45350	CD1	LEU L	77	175.984	74.987	12.834	1.00	49.74	C
ATOM	45301	CD1	ILE L	70	177.898	76.844	10.998	1.00	52.08	C	ATOM	45351	CD2	LEU L	77	175.107	73.057	14.221	1.00	49.74	C
ATOM	45302	N	PRO L	71	175.050	82.061	12.799	1.00	56.79	N	ATOM	45352	N	GLN L	78	178.750	70.054	13.693	1.00	65.13	N
ATOM	45303	CA	PRO L	71	175.171	83.250	13.648	1.00	56.79	C	ATOM	45353	CA	GLN L	78	179.677	69.059	13.163	1.00	65.13	C
ATOM	45304	C	PRO L	71	175.681	82.933	15.040	1.00	56.79	C	ATOM	45354	C	GLN L	78	179.287	68.495	11.813	1.00	65.13	C
ATOM	45305	O	PRO L	71	175.619	81.790	15.481	1.00	56.79	O	ATOM	45355	O	GLN L	78	178.362	68.971	11.168	1.00	65.13	O
ATOM	45306	CB	PRO L	71	173.747	83.787	13.679	1.00	57.67	C	ATOM	45356	CB	GLN L	78	179.802	67.890	14.126	1.00	86.59	C
ATOM	45307	CG	PRO L	71	172.930	82.535	13.642	1.00	57.67	C	ATOM	45357	CG	GLN L	78	180.632	68.154	15.342	1.00	86.59	C
ATOM	45308	CD	PRO L	71	173.632	81.726	12.572	1.00	57.67	C	ATOM	45358	CD	GLN L	78	180.598	66.979	16.266	1.00	86.59	C
ATOM	45309	N	GLY L	72	176.195	83.941	15.730	1.00	68.45	N	ATOM	45359	OE1	GLN L	78	180.734	65.839	15.827	1.00	86.59	O
ATOM	45310	CA	GLY L	72	176.672	83.712	17.080	1.00	68.45	C	ATOM	45360	NE2	GLN L	78	180.410	67.239	17.553	1.00	86.59	N
ATOM	45311	C	GLY L	72	178.174	83.676	17.298	1.00	68.45	C	ATOM	45361	N	GLU L	79	179.992	67.440	11.419	1.00	93.28	N
ATOM	45312	O	GLY L	72	178.936	83.265	16.415	1.00	68.45	O	ATOM	45362	CA	GLU L	79	179.777	66.784	10.143	1.00	93.28	C
ATOM	45313	N	GLU L	73	178.585	84.095	18.497	1.00	87.70	N	ATOM	45363	C	GLU L	79	178.381	66.263	9.853	1.00	93.28	C
ATOM	45314	CA	GLU L	73	179.987	84.137	18.892	1.00	87.70	C	ATOM	45364	O	GLU L	79	177.925	66.390	8.725	1.00	93.28	O
ATOM	45315	C	GLU L	73	180.702	82.822	18.623	1.00	87.70	C	ATOM	45365	CB	GLU L	79	180.774	65.646	9.964	1.00	164.73	C
ATOM	45316	O	GLU L	73	181.776	82.824	18.030	1.00	87.70	O	ATOM	45366	CG	GLU L	79	182.177	66.114	9.662	1.00	164.73	C
ATOM	45317	CB	GLU L	73	180.109	84.514	20.372	1.00	84.26	C	ATOM	45367	CD	GLU L	79	183.111	64.959	9.389	1.00	164.73	C
ATOM	45318	CG	GLU L	73	179.849	86.005	20.689	1.00	84.26	C	ATOM	45368	OE1	GLU L	79	182.781	64.129	8.514	1.00	164.73	O
ATOM	45319	CD	GLU L	73	180.886	86.943	20.058	1.00	84.26	C	ATOM	45369	OE2	GLU L	79	184.173	64.882	10.044	1.00	164.73	O
ATOM	45320	OE1	GLU L	73	180.878	88.161	20.360	1.00	84.26	O	ATOM	45370	N	HIS L	80	177.695	65.681	10.833	1.00	67.80	N
ATOM	45321	OE2	GLU L	73	181.710	86.458	19.253	1.00	84.26	O	ATOM	45371	CA	HIS L	80	176.354	65.157	10.557	1.00	67.80	C
ATOM	45322	N	GLY L	74	180.118	81.706	19.056	1.00	47.20	N	ATOM	45372	C	HIS L	80	175.272	65.687	11.477	1.00	67.80	C
ATOM	45323	CA	GLY L	74	180.739	80.408	18.808	1.00	47.20	C	ATOM	45373	O	HIS L	80	174.295	64.991	11.762	1.00	67.80	O
ATOM	45324	C	GLY L	74	179.739	79.270	18.699	1.00	47.20	C	ATOM	45374	CB	HIS L	80	176.353	63.628	10.635	1.00	89.15	C
ATOM	45325	O	GLY L	74	178.784	79.230	19.479	1.00	47.20	O	ATOM	45375	CG	HIS L	80	177.424	62.986	9.820	1.00	89.15	C
ATOM	45326	N	HIS L	75	179.947	78.343	17.762	1.00	51.68	N	ATOM	45376	ND1	HIS L	80	177.587	63.242	8.476	1.00	89.15	N
ATOM	45327	CA	HIS L	75	179.018	77.221	17.589	1.00	51.68	C	ATOM	45377	CD2	HIS L	80	178.411	62.126	10.162	1.00	89.15	C
ATOM	45328	C	HIS L	75	179.553	75.842	17.957	1.00	51.68	C	ATOM	45378	CE1	HIS L	80	178.631	62.571	8.026	1.00	89.15	C
ATOM	45329	O	HIS L	75	180.683	75.703	18.406	1.00	51.68	O	ATOM	45379	NE2	HIS L	80	179.149	61.885	9.029	1.00	89.15	N
ATOM	45330	CB	HIS L	75	178.502	77.165	16.155	1.00	64.70	C	ATOM	45380	N	SER L	81	175.432	66.918	11.937	1.00	71.86	N
ATOM	45331	CG	HIS L	75	179.460	76.549	15.183	1.00	64.70	C	ATOM	45381	CA	SER L	81	174.451	67.487	12.845	1.00	71.86	C
ATOM	45332	ND1	HIS L	75	180.377	77.288	14.467	1.00	64.70	N	ATOM	45382	C	SER L	81	173.182	67.960	12.154	1.00	71.86	C
ATOM	45333	CD2	HIS L	75	179.622	75.265	14.788	1.00	64.70	C	ATOM	45383	O	SER L	81	173.232	68.608	11.102	1.00	71.86	O
ATOM	45334	CE1	HIS L	75	181.059	76.486	13.670	1.00	64.70	C	ATOM	45384	CB	SER L	81	175.077	68.636	13.635	1.00	70.64	C
ATOM	45335	NE2	HIS L	75	180.620	75.253	13.845	1.00	64.70	C	ATOM	45385	OG	SER L	81	176.296	69.048	13.040	1.00	70.64	O
ATOM	45336	N	ASN L	76	178.726	74.823	17.732	1.00	42.40	N	ATOM	45386	N	VAL L	82	172.045	67.605	12.746	1.00	63.28	N
ATOM	45337	CA	ASN L	76	179.050	73.428	18.055	1.00	42.40	C	ATOM	45387	CA	VAL L	82	170.743	68.008	12.229	1.00	63.28	C
ATOM	45338	C	ASN L	76	178.648	72.462	16.941	1.00	42.40	C	ATOM	45388	C	VAL L	82	170.559	69.483	12.565	1.00	63.28	C
ATOM	45339	O	ASN L	76	178.504	71.259	17.180	1.00	42.40	O	ATOM	45389	O	VAL L	82	170.868	69.921	13.679	1.00	63.28	O
ATOM	45340	CB	ASN L	76	178.295	73.001	19.317	1.00	50.32	C	ATOM	45390	CB	VAL L	82	169.610	67.220	12.880	1.00	49.14	C
ATOM	45341	CG	ASN L	76	176.789	72.849	19.074	1.00	50.32	C	ATOM	45391	CG1	VAL L	82	168.283	67.825	12.488	1.00	49.14	C
ATOM	45342	OD1	ASN L	76	176.103	73.809	18.731	1.00	50.32	O	ATOM	45392	CG2	VAL L	82	169.673	65.774	12.450	1.00	49.14	C
ATOM	45343	ND2	ASN L	76	176.279	71.639	19.246	1.00	50.32	N	ATOM	45393	N	VAL L	83	170.032	70.243	11.613	1.00	69.07	N
ATOM	45344	N	LEU L	77	178.454	72.987	15.737	1.00	64.23	N	ATOM	45394	CA	VAL L	83	169.869	71.670	11.819	1.00	69.07	C
ATOM	45345	CA	LEU L	77	178.034	72.182	14.596	1.00	64.23	C	ATOM	45395	C	VAL L	83	168.577	72.223	11.198	1.00	69.07	C
ATOM	45346	C	LEU L	77	179.131	71.284	14.035	1.00	64.23	C	ATOM	45396	O	VAL L	83	167.907	71.536	10.429	1.00	69.07	O
ATOM	45347	O	LEU L	77	180.285	71.700	13.903	1.00	64.23	O	ATOM	45397	CB	VAL L	83	171.114	72.399	11.231	1.00	49.93	C



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ATOM	45398	CG1 VAL L	83	171.071	72.386	9.713	1.00	49.93	C	ATOM	45448	C	VAL L	90	175.231	88.089	3.151	1.00	59.70	C
ATOM	45399	CG2 VAL L	83	171.196	73.800	11.754	1.00	49.93	C	ATOM	45449	O	VAL L	90	175.907	87.534	2.290	1.00	59.70	O
ATOM	45400	N LEU L	84	168.223	73.456	11.562	1.00	57.02	N	ATOM	45450	CB	VAL L	90	175.499	86.266	4.819	1.00	54.40	C
ATOM	45401	CA LEU L	84	167.041	74.116	11.011	1.00	57.02	C	ATOM	45451	CG1 VAL L	90	176.577	87.012	5.594	1.00	54.40	C	
ATOM	45402	C LEU L	84	167.477	75.389	10.274	1.00	57.02	C	ATOM	45452	CG2 VAL L	90	174.765	85.300	5.735	1.00	54.40	C	
ATOM	45403	O LEU L	84	168.241	76.192	10.801	1.00	57.02	O	ATOM	45453	N LYS L	91	175.085	89.407	3.215	1.00	60.36	N	
ATOM	45404	CB LEU L	84	166.043	74.481	12.124	1.00	47.01	C	ATOM	45454	CA LYS L	91	175.692	90.304	2.234	1.00	60.36	C	
ATOM	45405	CG LEU L	84	164.661	75.006	11.681	1.00	47.01	C	ATOM	45455	C LYS L	91	177.124	89.987	1.801	1.00	60.36	C	
ATOM	45406	CD1 LEU L	84	163.886	73.868	11.032	1.00	47.01	C	ATOM	45456	O LYS L	91	177.442	90.099	0.625	1.00	60.36	O	
ATOM	45407	CD2 LEU L	84	163.880	75.571	12.863	1.00	47.01	C	ATOM	45457	CB LYS L	91	175.633	91.746	2.744	1.00	106.96	C	
ATOM	45408	N ILE L	85	166.982	75.559	9.054	1.00	48.77	N	ATOM	45458	CG LYS L	91	175.660	92.796	1.646	1.00	106.96	C	
ATOM	45409	CA ILE L	85	167.299	76.717	8.214	1.00	48.77	C	ATOM	45459	CD LYS L	91	174.411	92.695	0.793	1.00	106.96	C	
ATOM	45410	C ILE L	85	166.173	77.756	8.213	1.00	48.77	C	ATOM	45460	CE LYS L	91	174.345	93.799	-0.249	1.00	106.96	C	
ATOM	45411	O ILE L	85	165.001	77.403	8.075	1.00	48.77	O	ATOM	45461	NZ LYS L	91	173.107	93.710	-1.088	1.00	106.96	N	
ATOM	45412	CB ILE L	85	167.550	76.250	6.775	1.00	64.22	C	ATOM	45462	N ASP L	92	177.982	89.589	2.736	1.00	64.99	N	
ATOM	45413	CG1 ILE L	85	168.954	75.681	6.675	1.00	64.22	C	ATOM	45463	CA ASP L	92	179.385	89.294	2.433	1.00	64.99	C	
ATOM	45414	CG2 ILE L	85	167.317	77.382	5.790	1.00	64.22	C	ATOM	45464	C ASP L	92	179.736	87.959	1.846	1.00	64.99	C	
ATOM	45415	CD1 ILE L	85	169.250	75.140	5.321	1.00	64.22	C	ATOM	45465	O ASP L	92	180.744	87.836	1.161	1.00	64.99	O	
ATOM	45416	N ARG L	86	166.513	79.035	8.336	1.00	73.31	N	ATOM	45466	CB ASP L	92	180.225	89.464	3.677	1.00	62.77	C	
ATOM	45417	CA ARG L	86	165.453	80.030	8.368	1.00	73.31	C	ATOM	45467	CG ASP L	92	180.352	90.883	4.054	1.00	62.77	C	
ATOM	45418	C ARG L	86	165.400	81.060	7.262	1.00	73.31	C	ATOM	45468	OD1 ASP L	92	179.888	91.727	3.243	1.00	62.77	O	
ATOM	45419	O ARG L	86	164.551	81.947	7.296	1.00	73.31	O	ATOM	45469	OD2 ASP L	92	180.913	91.154	5.136	1.00	62.77	O	
ATOM	45420	CB ARG L	86	165.439	80.767	9.705	1.00	42.60	C	ATOM	45470	N LEU L	93	178.924	86.955	2.132	1.00	75.11	N	
ATOM	45421	CG ARG L	86	166.484	81.825	9.855	1.00	42.60	C	ATOM	45471	CA LEU L	93	179.192	85.617	1.651	1.00	75.11	C	
ATOM	45422	CD ARG L	86	166.147	82.683	11.057	1.00	42.60	C	ATOM	45472	C LEU L	93	178.366	85.258	0.442	1.00	75.11	C	
ATOM	45423	NE ARG L	86	167.251	83.553	11.430	1.00	42.60	N	ATOM	45473	O LEU L	93	177.225	84.813	0.566	1.00	75.11	O	
ATOM	45424	CZ ARG L	86	167.845	84.386	10.590	1.00	42.60	C	ATOM	45474	CB LEU L	93	178.922	84.624	2.763	1.00	50.87	C	
ATOM	45425	NH1 ARG L	86	167.434	84.458	9.330	1.00	42.60	N	ATOM	45475	CG LEU L	93	179.691	84.951	4.036	1.00	50.87	C	
ATOM	45426	NH2 ARG L	86	168.857	85.137	11.004	1.00	42.60	N	ATOM	45476	CD1 LEU L	93	179.270	83.987	5.133	1.00	50.87	C	
ATOM	45427	N GLY L	87	166.281	80.973	6.280	1.00	33.50	N	ATOM	45477	CD2 LEU L	93	181.188	84.875	3.768	1.00	50.87	C	
ATOM	45428	CA GLY L	87	166.201	81.962	5.221	1.00	33.50	C	ATOM	45478	N PRO L	94	178.938	85.438	-0.754	1.00	73.25	N	
ATOM	45429	C GLY L	87	166.658	83.338	5.663	1.00	33.50	C	ATOM	45479	CA PRO L	94	178.177	85.104	-1.954	1.00	73.25	C	
ATOM	45430	O GLY L	87	166.230	83.867	6.684	1.00	33.50	O	ATOM	45480	C PRO L	94	177.851	83.626	-1.875	1.00	73.25	C	
ATOM	45431	N GLY L	88	167.536	83.922	4.864	1.00	41.86	N	ATOM	45481	O PRO L	94	178.732	82.816	-1.593	1.00	73.25	O	
ATOM	45432	CA GLY L	88	168.099	85.218	5.164	1.00	41.86	C	ATOM	45482	CB PRO L	94	179.158	85.413	-3.083	1.00	125.82	C	
ATOM	45433	C GLY L	88	169.511	85.108	4.637	1.00	41.86	C	ATOM	45483	CG PRO L	94	180.086	86.432	-2.480	1.00	125.82	C	
ATOM	45434	O GLY L	88	170.304	84.290	5.106	1.00	41.86	O	ATOM	45484	CD PRO L	94	180.296	85.883	-1.100	1.00	125.82	C	
ATOM	45435	N ARG L	89	169.823	85.907	3.634	1.00	44.01	N	ATOM	45485	N GLY L	95	176.589	83.276	-2.086	1.00	49.70	N	
ATOM	45436	CA ARG L	89	171.145	85.868	3.049	1.00	44.01	C	ATOM	45486	CA GLY L	95	176.223	81.875	-2.050	1.00	49.70	C	
ATOM	45437	C ARG L	89	172.165	86.570	3.957	1.00	44.01	C	ATOM	45487	O GLY L	95	175.576	81.382	-0.775	1.00	49.70	C	
ATOM	45438	O ARG L	89	171.824	87.040	5.051	1.00	44.01	O	ATOM	45488	O GLY L	95	175.232	80.200	-0.661	1.00	49.70	O	
ATOM	45439	CB ARG L	89	171.101	86.526	1.665	1.00	91.15	C	ATOM	45489	N VAL L	96	175.413	82.261	0.203	1.00	58.87	N	
ATOM	45440	CG ARG L	89	169.963	86.008	0.779	1.00	91.15	C	ATOM	45490	CA VAL L	96	174.774	81.840	1.436	1.00	58.87	C	
ATOM	45441	CD ARG L	89	170.377	85.988	-0.695	1.00	91.15	C	ATOM	45491	C VAL L	96	173.439	82.559	1.497	1.00	58.87	C	
ATOM	45442	NE ARG L	89	169.323	85.537	-1.611	1.00	91.15	N	ATOM	45492	O VAL L	96	173.390	83.781	1.651	1.00	58.87	O	
ATOM	45443	C2 ARG L	89	169.516	85.297	-2.909	1.00	91.15	C	ATOM	45493	CB VAL L	96	175.615	82.201	2.654	1.00	36.22	C	
ATOM	45444	NH1 ARG L	89	170.723	85.454	-3.446	1.00	91.15	N	ATOM	45494	CG1 VAL L	96	175.352	81.193	3.757	1.00	36.22	C	
ATOM	45445	NH2 ARG L	89	168.504	84.914	-3.677	1.00	91.15	N	ATOM	45495	CG2 VAL L	96	177.080	82.224	2.283	1.00	36.22	C	
ATOM	45446	N VAL L	90	173.416	86.608	3.501	1.00	59.70	N	ATOM	45496	N ARG L	97	172.358	81.793	1.370	1.00	54.53	N	
ATOM	45447	CA VAL L	90	174.507	87.272	4.209	1.00	59.70	C	ATOM	45497	CA ARG L	97	171.022	82.366	1.361	1.00	54.53	C	



Table 1: Sheet 457/521

ATOM	45498	C	ARG L 97	170.163	82.137	2.581	1.00	54.53	C	ATOM	45548	CB	ARG L 102	171.417	79.495	17.281	1.00	50.34	C
ATOM	45499	O	ARG L 97	169.056	82.655	2.647	1.00	54.53	O	ATOM	45549	CG	ARG L 102	172.389	79.760	16.165	1.00	50.34	C
ATOM	45500	CB	ARG L 97	170.252	81.865	0.148	1.00	71.94	C	ATOM	45550	CD	ARG L 102	173.779	80.040	16.671	1.00	50.34	C
ATOM	45501	CG	ARG L 97	170.868	82.240	-1.174	1.00	71.94	C	ATOM	45551	NE	ARG L 102	174.203	79.076	17.675	1.00	50.34	N
ATOM	45502	CD	ARG L 97	169.973	81.756	-2.282	1.00	71.94	C	ATOM	45552	CZ	ARG L 102	175.422	79.049	18.189	1.00	50.34	C
ATOM	45503	NE	ARG L 97	170.448	82.132	-3.607	1.00	71.94	N	ATOM	45553	NH1	ARG L 102	176.326	79.931	17.783	1.00	50.34	N
ATOM	45504	CZ	ARG L 97	169.760	81.893	-4.716	1.00	71.94	C	ATOM	45554	NH2	ARG L 102	175.728	78.150	19.112	1.00	50.34	N
ATOM	45505	NH1	ARG L 97	168.583	81.284	-4.638	1.00	71.94	N	ATOM	45555	N	GLY L 103	169.604	76.965	18.592	1.00	60.70	N
ATOM	45506	NH2	ARG L 97	170.242	82.263	-5.896	1.00	71.94	N	ATOM	45556	CA	GLY L 103	168.729	76.585	19.680	1.00	60.70	C
ATOM	45507	N	TYR L 98	170.641	81.363	3.542	1.00	43.26	N	ATOM	45557	C	GLY L 103	167.754	75.506	19.264	1.00	60.70	C
ATOM	45508	CA	TYR L 98	169.833	81.108	4.721	1.00	43.26	C	ATOM	45558	O	GLY L 103	166.898	75.093	20.054	1.00	60.70	O
ATOM	45509	C	TYR L 98	170.708	81.110	5.955	1.00	43.26	C	ATOM	45559	N	VAL L 104	167.883	75.047	18.024	1.00	60.78	N
ATOM	45510	O	TYR L 98	171.913	80.880	5.873	1.00	43.26	O	ATOM	45560	CA	VAL L 104	167.008	74.004	17.510	1.00	60.78	C
ATOM	45511	CB	TYR L 98	169.127	79.753	4.602	1.00	60.78	C	ATOM	45561	C	VAL L 104	167.827	72.813	17.035	1.00	60.78	C
ATOM	45512	CG	TYR L 98	168.664	79.399	3.201	1.00	60.78	C	ATOM	45562	O	VAL L 104	168.883	72.985	16.429	1.00	60.78	O
ATOM	45513	CD1	TYR L 98	169.567	78.943	2.238	1.00	60.78	C	ATOM	45563	CB	VAL L 104	166.140	74.532	16.342	1.00	52.67	C
ATOM	45514	CD2	TYR L 98	167.326	79.538	2.829	1.00	60.78	C	ATOM	45564	CG1	VAL L 104	165.324	73.403	15.733	1.00	52.67	C
ATOM	45515	CE1	TYR L 98	169.149	78.634	0.933	1.00	60.78	C	ATOM	45565	CG2	VAL L 104	165.212	75.618	16.846	1.00	52.67	C
ATOM	45516	CE2	TYR L 98	166.896	79.233	1.526	1.00	60.78	C	ATOM	45566	N	TYR L 105	167.332	71.613	17.332	1.00	78.81	N
ATOM	45517	CZ	TYR L 98	167.811	78.781	0.580	1.00	60.78	C	ATOM	45567	CA	TYR L 105	167.975	70.360	16.943	1.00	78.81	C
ATOM	45518	OH	TYR L 98	167.386	78.475	-0.706	1.00	60.78	O	ATOM	45568	C	TYR L 105	169.390	70.166	17.499	1.00	78.81	C
ATOM	45519	N	HIS L 99	170.098	81.389	7.099	1.00	52.33	N	ATOM	45569	O	TYR L 105	169.567	70.042	18.711	1.00	78.81	O
ATOM	45520	CA	HIS L 99	170.808	81.388	8.368	1.00	52.33	C	ATOM	45570	CB	TYR L 105	167.979	70.234	15.418	1.00	48.81	C
ATOM	45521	C	HIS L 99	170.410	80.104	9.076	1.00	52.33	C	ATOM	45571	CG	TYR L 105	166.590	70.218	14.801	1.00	48.81	C
ATOM	45522	O	HIS L 99	169.367	79.513	8.771	1.00	52.33	O	ATOM	45572	CD1	TYR L 105	166.313	70.941	13.635	1.00	48.81	C
ATOM	45523	CB	HIS L 99	170.364	82.562	9.237	1.00	47.33	C	ATOM	45573	CD2	TYR L 105	165.562	69.464	15.365	1.00	48.81	C
ATOM	45524	CG	HIS L 99	171.034	83.854	8.913	1.00	47.33	C	ATOM	45574	CE1	TYR L 105	165.047	70.912	13.045	1.00	48.81	C
ATOM	45525	ND1	HIS L 99	171.075	84.373	7.639	1.00	47.33	N	ATOM	45575	CE2	TYR L 105	164.294	69.425	14.785	1.00	48.81	C
ATOM	45526	CD2	HIS L 99	171.673	84.748	9.705	1.00	47.33	C	ATOM	45576	CZ	TYR L 105	164.040	70.149	13.623	1.00	48.81	C
ATOM	45527	CE1	HIS L 99	171.711	85.533	7.658	1.00	47.33	C	ATOM	45577	OH	TYR L 105	162.790	70.095	13.029	1.00	48.81	O
ATOM	45528	NE2	HIS L 99	172.084	85.783	8.900	1.00	47.33	N	ATOM	45578	N	ASP L 106	170.391	70.134	16.623	1.00	50.81	N
ATOM	45529	N	IIE L 100	171.231	79.662	10.018	1.00	56.44	N	ATOM	45579	CA	ASP L 106	171.773	69.931	17.050	1.00	50.81	C
ATOM	45530	CA	IIE L 100	170.881	78.475	10.778	1.00	56.44	C	ATOM	45580	C	ASP L 106	172.555	71.212	17.277	1.00	50.81	C
ATOM	45531	C	IIE L 100	170.253	78.917	12.083	1.00	56.44	C	ATOM	45581	O	ASP L 106	173.574	71.212	17.974	1.00	50.81	O
ATOM	45532	O	IIE L 100	170.752	79.816	12.747	1.00	56.44	O	ATOM	45582	CB	ASP L 106	172.509	69.082	16.026	1.00	67.10	C
ATOM	45533	CB	IIE L 100	172.095	77.597	11.073	1.00	44.07	C	ATOM	45583	CG	ASP L 106	172.000	67.669	15.983	1.00	67.10	C
ATOM	45534	CG1	IIE L 100	172.314	76.654	9.893	1.00	44.07	C	ATOM	45584	OD1	ASP L 106	172.270	66.976	14.977	1.00	67.10	O
ATOM	45535	CG2	IIE L 100	171.886	76.830	12.378	1.00	44.07	C	ATOM	45585	OD2	ASP L 106	171.337	67.251	16.961	1.00	67.10	O
ATOM	45536	CD1	IIE L 100	173.533	75.787	10.024	1.00	44.07	C	ATOM	45586	N	ALA L 107	172.098	72.301	16.672	1.00	69.26	N
ATOM	45537	N	VAL L 101	169.144	78.288	12.433	1.00	50.19	N	ATOM	45587	CA	ALA L 107	172.773	73.577	16.827	1.00	69.26	C
ATOM	45538	CA	VAL L 101	168.443	78.615	13.654	1.00	50.19	C	ATOM	45588	C	ALA L 107	172.439	74.136	18.200	1.00	69.26	C
ATOM	45539	C	VAL L 101	169.147	78.036	14.855	1.00	50.19	C	ATOM	45589	O	ALA L 107	171.314	74.566	18.453	1.00	69.26	O
ATOM	45540	O	VAL L 101	169.170	76.824	15.042	1.00	50.19	O	ATOM	45590	CB	ALA L 107	172.326	74.542	15.742	1.00	100.20	C
ATOM	45541	CB	VAL L 101	167.026	78.074	13.623	1.00	37.61	C	ATOM	45591	N	ALA L 108	173.415	74.110	19.096	1.00	55.46	N
ATOM	45542	CG1	VAL L 101	166.452	78.037	15.022	1.00	37.61	C	ATOM	45592	CA	ALA L 108	173.207	74.629	20.432	1.00	55.46	C
ATOM	45543	CG2	VAL L 101	166.179	78.943	12.728	1.00	37.61	C	ATOM	45593	C	ALA L 108	173.134	76.146	20.355	1.00	55.46	C
ATOM	45544	N	ARG L 102	169.709	78.904	15.680	1.00	53.27	N	ATOM	45594	O	ALA L 108	173.566	76.757	19.372	1.00	55.46	O
ATOM	45545	CA	ARG L 102	170.405	78.446	16.860	1.00	53.27	C	ATOM	45595	CB	ALA L 108	174.349	74.208	21.335	1.00	56.06	C
ATOM	45546	C	ARG L 102	169.437	78.134	17.989	1.00	53.27	C	ATOM	45596	N	GLY L 109	172.575	76.752	21.395	1.00	54.04	N
ATOM	45547	O	ARG L 102	168.550	78.926	18.304	1.00	53.27	O	ATOM	45597	CA	GLY L 109	172.474	78.196	21.435	1.00	54.04	C



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ATOM	45598	C	GLY L 109	173.810	78.803	21.808	1.00	54.04	C	ATOM	45648	CB	LYS L 115	171.971	91.365	24.375	1.00	49.32	C
ATOM	45599	O	GLY L 109	174.731	78.097	22.203	1.00	54.04	O	ATOM	45649	CB	LYS L 115	172.961	92.102	25.244	1.00	49.32	C
ATOM	45600	N	VAL L 110	173.924	80.117	21.688	1.00	68.83	N	ATOM	45650	CD	LYS L 115	172.688	93.590	25.355	1.00	49.32	C
ATOM	45601	CA	VAL L 110	175.170	80.782	22.019	1.00	68.83	C	ATOM	45651	CE	LYS L 115	173.749	94.233	26.250	1.00	49.32	C
ATOM	45602	C	VAL L 110	175.350	80.880	23.531	1.00	68.83	C	ATOM	45652	NZ	LYS L 115	173.556	95.702	26.428	1.00	49.32	N
ATOM	45603	O	VAL L 110	174.450	81.297	24.252	1.00	68.83	O	ATOM	45653	N	SER L 116	170.293	89.975	22.934	1.00	50.25	N
ATOM	45604	CB	VAL L 110	175.227	82.197	21.405	1.00	50.26	C	ATOM	45654	CA	SER L 116	169.344	89.525	21.925	1.00	50.25	C
ATOM	45605	CG1	VAL L 110	176.589	82.828	21.684	1.00	50.26	C	ATOM	45655	C	SER L 116	169.163	88.015	21.873	1.00	50.25	C
ATOM	45606	CG2	VAL L 110	174.967	82.124	19.905	1.00	50.26	C	ATOM	45656	O	SER L 116	169.127	87.433	20.796	1.00	50.25	C
ATOM	45607	N	LYS L 111	176.526	80.485	24.003	1.00	88.01	N	ATOM	45657	CB	SER L 116	169.791	90.039	20.558	1.00	52.20	O
ATOM	45608	CA	LYS L 111	176.829	80.532	25.425	1.00	88.01	C	ATOM	45658	OG	SER L 116	169.983	91.445	20.579	1.00	52.20	O
ATOM	45609	C	LYS L 111	177.213	81.949	25.818	1.00	88.01	C	ATOM	45659	N	ARG L 117	169.016	87.393	23.038	1.00	38.93	N
ATOM	45610	O	LYS L 111	177.936	82.629	25.086	1.00	88.01	O	ATOM	45660	CA	ARG L 117	168.868	85.942	23.153	1.00	38.93	C
ATOM	45611	CB	LYS L 111	177.990	79.588	25.748	1.00	88.41	C	ATOM	45661	C	ARG L 117	167.742	85.311	22.339	1.00	38.93	C
ATOM	45612	CG	LYS L 111	177.753	78.136	25.357	1.00	88.41	C	ATOM	45662	O	ARG L 117	167.847	84.148	21.972	1.00	38.93	O
ATOM	45613	CD	LYS L 111	179.032	77.320	25.482	1.00	88.41	C	ATOM	45663	CG	ARG L 117	168.687	85.533	24.621	1.00	63.23	C
ATOM	45614	CE	LYS L 111	178.881	75.935	24.871	1.00	88.41	C	ATOM	45664	CG	ARG L 117	169.674	86.133	25.614	1.00	63.23	C
ATOM	45615	NZ	LYS L 111	180.200	75.256	24.711	1.00	88.41	N	ATOM	45665	CD	ARG L 117	169.689	85.290	26.871	1.00	63.23	C
ATOM	45616	N	ASP L 112	176.716	82.390	26.971	1.00	75.57	N	ATOM	45666	NE	ARG L 117	168.335	84.975	27.308	1.00	63.23	N
ATOM	45617	CA	ASP L 112	177.025	83.717	27.501	1.00	75.57	C	ATOM	45667	CZ	ARG L 117	167.552	85.834	27.947	1.00	63.23	C
ATOM	45618	O	ASP L 112	176.337	84.859	26.765	1.00	75.57	O	ATOM	45668	NH1	ARG L 117	167.999	87.054	28.227	1.00	63.23	N
ATOM	45619	O	ASP L 112	176.803	86.000	26.788	1.00	75.57	O	ATOM	45669	NH2	ARG L 117	166.323	85.484	28.290	1.00	63.23	N
ATOM	45620	CB	ASP L 112	178.544	83.940	27.501	1.00	87.79	C	ATOM	45670	N	SER L 118	166.660	86.042	22.081	1.00	53.28	N
ATOM	45621	CG	ASP L 112	179.267	83.051	28.504	1.00	87.79	C	ATOM	45671	CA	SER L 118	165.553	85.493	21.299	1.00	53.28	C
ATOM	45622	OD1	ASP L 112	180.488	82.840	28.339	1.00	87.79	O	ATOM	45672	C	SER L 118	166.178	84.862	20.054	1.00	53.28	C
ATOM	45623	OD2	ASP L 112	178.620	82.572	29.463	1.00	87.79	O	ATOM	45673	O	SER L 118	165.779	83.791	19.604	1.00	53.28	O
ATOM	45624	N	ARG L 113	175.224	84.548	26.115	1.00	77.06	N	ATOM	45674	CB	SER L 118	164.580	86.605	20.905	1.00	106.71	O
ATOM	45625	CA	ARG L 113	174.471	85.560	25.392	1.00	77.06	C	ATOM	45675	OG	SER L 118	163.496	86.101	20.153	1.00	106.71	O
ATOM	45626	C	ARG L 113	173.519	86.231	26.367	1.00	77.06	C	ATOM	45676	N	LYS L 119	167.168	85.546	19.502	1.00	54.03	N
ATOM	45627	O	ARG L 113	172.515	85.649	26.772	1.00	77.06	O	ATOM	45677	CA	LYS L 119	167.903	85.057	18.348	1.00	54.03	C
ATOM	45628	CB	ARG L 113	173.693	84.915	24.246	1.00	66.81	C	ATOM	45678	C	LYS L 119	169.096	84.445	19.064	1.00	54.03	C
ATOM	45629	CG	ARG L 113	174.085	85.462	22.889	1.00	66.81	C	ATOM	45679	O	LYS L 119	169.425	84.892	20.159	1.00	54.03	O
ATOM	45630	CD	ARG L 113	173.682	86.906	22.777	1.00	66.81	C	ATOM	45680	CB	LYS L 119	168.319	86.248	17.508	1.00	39.21	C
ATOM	45631	CE	ARG L 113	174.365	87.569	21.680	1.00	66.81	C	ATOM	45681	CG	LYS L 119	167.422	87.462	17.767	1.00	39.21	C
ATOM	45632	CZ	ARG L 113	173.976	88.727	21.171	1.00	66.81	C	ATOM	45682	CD	LYS L 119	167.659	88.582	16.775	1.00	39.21	C
ATOM	45633	NH1	ARG L 113	172.906	89.341	21.661	1.00	66.81	N	ATOM	45683	CE	LYS L 119	166.733	89.758	17.043	1.00	39.21	C
ATOM	45634	NH2	ARG L 113	174.657	89.272	20.181	1.00	66.81	N	ATOM	45684	NZ	LYS L 119	166.826	90.818	15.983	1.00	39.21	N
ATOM	45635	N	LYS L 114	173.834	87.464	26.740	1.00	72.07	N	ATOM	45685	N	TYR L 120	169.754	83.445	18.496	1.00	61.27	N
ATOM	45636	CA	LYS L 114	173.011	88.181	27.699	1.00	72.07	C	ATOM	45686	CA	TYR L 120	170.884	82.804	19.202	1.00	61.27	C
ATOM	45637	C	LYS L 114	172.077	89.222	27.093	1.00	72.07	C	ATOM	45687	C	TYR L 120	170.316	81.882	20.283	1.00	61.27	C
ATOM	45638	O	LYS L 114	171.365	89.901	27.820	1.00	72.07	O	ATOM	45688	O	TYR L 120	171.010	81.513	21.215	1.00	61.27	O
ATOM	45639	CB	LYS L 114	173.920	88.813	28.757	1.00	89.44	C	ATOM	45689	CB	TYR L 120	171.798	83.840	19.882	1.00	38.69	C
ATOM	45640	CG	LYS L 114	174.861	87.790	29.391	1.00	89.44	C	ATOM	45690	CG	TYR L 120	172.210	84.977	18.980	1.00	38.69	C
ATOM	45641	CD	LYS L 114	175.877	88.425	30.324	1.00	89.44	C	ATOM	45691	CD1	TYR L 120	171.986	86.308	19.347	1.00	38.69	C
ATOM	45642	CE	LYS L 114	175.238	88.908	31.617	1.00	89.44	C	ATOM	45692	CD2	TYR L 120	172.779	84.720	17.732	1.00	38.69	C
ATOM	45643	NZ	LYS L 114	176.215	89.631	32.484	1.00	89.44	N	ATOM	45693	CE1	TYR L 120	172.313	87.355	18.481	1.00	38.69	C
ATOM	45644	N	LYS L 115	172.060	89.344	25.769	1.00	82.10	N	ATOM	45694	CA	TYR L 120	173.112	85.756	16.858	1.00	38.69	C
ATOM	45645	CA	LYS L 115	171.175	90.318	25.145	1.00	82.10	C	ATOM	45695	CZ	TYR L 120	172.875	87.070	17.230	1.00	38.69	C
ATOM	45646	C	LYS L 115	170.122	89.735	24.226	1.00	82.10	C	ATOM	45696	OH	TYR L 120	173.170	88.073	16.323	1.00	38.69	O
ATOM	45647	O	LYS L 115	169.175	89.087	24.676	1.00	82.10	O	ATOM	45697	N	GLY L 121	169.040	81.540	20.141	1.00	66.45	N



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ATOM	45698	CA	GLY L 121	168.345	80.669	21.072	1.00	66.45	C	ATOM	45748	CD	GLU L 127	167.942	88.921	37.728	1.00173.29	C	
ATOM	45699	C	GLY L 121	168.963	80.286	22.408	1.00	66.45	C	ATOM	45749	OE1	GLU L 127	168.290	89.894	38.430	1.00173.29	O	
ATOM	45700	O	GLY L 121	169.245	79.109	22.636	1.00	66.45	O	ATOM	45750	OE2	GLU L 127	167.166	89.027	36.756	1.00173.29	O	
ATOM	45701	N	THR L 122	169.160	81.260	23.295	1.00	54.04	N	ATOM	45751	N	ALA L 128	171.843	85.417	39.911	1.00174.98	N	
ATOM	45702	CA	THR L 122	169.718	80.996	24.624	1.00	54.04	C	ATOM	45752	CA	ALA L 128	172.089	84.986	41.283	1.00174.98	C	
ATOM	45703	C	THR L 122	168.689	81.309	25.723	1.00	54.04	C	ATOM	45753	C	ALA L 128	171.297	85.787	42.311	1.00174.98	C	
ATOM	45704	O	THR L 122	168.113	82.409	25.769	1.00	54.04	O	ATOM	45754	O	ALA L 128	170.652	86.784	41.923	1.00174.98	O	
ATOM	45705	CB	THR L 122	170.967	81.838	24.883	1.00	60.05	C	ATOM	45755	CB	ALA L 128	173.583	85.072	41.591	1.00	92.51	C
ATOM	45706	OG1	THR L 122	170.593	83.207	25.037	1.00	60.05	O	TER	45756		ALA L 128						
ATOM	45707	CG2	THR L 122	171.917	81.734	23.729	1.00	60.05	C	ATOM	45757	N	ALA M 2	278.050	116.884	-9.742	1.00	71.78	N
ATOM	45708	N	LYS L 123	168.465	80.336	26.607	1.00	48.59	N	ATOM	45758	CA	ALA M 2	279.030	116.144	-8.898	1.00	71.78	C
ATOM	45709	CA	LYS L 123	167.501	80.491	27.692	1.00	48.59	C	ATOM	45759	C	ALA M 2	278.338	115.099	-8.034	1.00	71.78	C
ATOM	45710	C	LYS L 123	167.847	81.667	28.597	1.00	48.59	C	ATOM	45760	O	ALA M 2	277.256	115.342	-7.506	1.00	71.78	O
ATOM	45711	O	LYS L 123	168.947	82.222	28.535	1.00	48.59	O	ATOM	45761	CB	ALA M 2	279.788	117.120	-8.016	1.00124.79	C	
ATOM	45712	CB	LYS L 123	167.434	79.221	28.535	1.00	53.90	C	ATOM	45762	N	ARG M 3	278.963	113.934	-7.890	1.00	75.96	N
ATOM	45713	CG	LYS L 123	167.296	77.937	27.742	1.00	53.90	C	ATOM	45763	CA	ARG M 3	278.393	112.869	-7.076	1.00	75.96	C
ATOM	45714	CD	LYS L 123	165.894	77.702	27.203	1.00	53.90	C	ATOM	45764	C	ARG M 3	278.638	113.159	-5.603	1.00	75.96	C
ATOM	45715	CE	LYS L 123	165.867	76.402	26.400	1.00	53.90	C	ATOM	45765	O	ARG M 3	279.780	113.316	-5.189	1.00	75.96	O
ATOM	45716	NZ	LYS L 123	164.529	76.081	25.850	1.00	53.90	N	ATOM	45766	CB	ARG M 3	279.019	111.524	-7.439	1.00168.21	C	
ATOM	45717	N	LYS L 124	166.894	82.030	29.448	1.00	65.05	N	ATOM	45767	CG	ARG M 3	278.920	111.183	-8.907	1.00168.21	C	
ATOM	45718	CA	LYS L 124	167.059	83.141	30.375	1.00	65.05	C	ATOM	45768	CD	ARG M 3	279.294	109.740	-9.157	1.00168.21	C	
ATOM	45719	C	LYS L 124	168.024	82.806	31.501	1.00	65.05	C	ATOM	45769	NE	ARG M 3	279.345	109.437	-10.583	1.00168.21	N	
ATOM	45720	O	LYS L 124	167.765	81.909	32.307	1.00	65.05	O	ATOM	45770	CZ	ARG M 3	279.635	108.239	-11.079	1.00168.21	N	
ATOM	45721	CB	LYS L 124	165.702	83.519	30.972	1.00	58.85	C	ATOM	45771	NH1	ARG M 3	279.896	107.227	-10.262	1.00168.21	N	
ATOM	45722	CG	LYS L 124	165.747	84.639	32.006	1.00	58.85	C	ATOM	45772	NH2	ARG M 3	279.681	108.056	-12.391	1.00168.21	N	
ATOM	45723	CD	LYS L 124	165.685	86.034	31.387	1.00	58.85	C	ATOM	45773	N	ILE M 4	277.573	113.232	-4.810	1.00111.84	N	
ATOM	45724	CE	LYS L 124	165.463	87.077	32.473	1.00	58.85	C	ATOM	45774	CA	ILE M 4	277.735	113.509	-3.390	1.00111.84	C	
ATOM	45725	NZ	LYS L 124	165.166	88.426	31.943	1.00	58.85	N	ATOM	45775	C	ILE M 4	277.419	112.338	-2.464	1.00111.84	C	
ATOM	45726	N	PRO L 125	169.153	83.528	31.576	1.00	69.14	N	ATOM	45776	O	ILE M 4	278.277	111.480	-2.252	1.00111.84	O	
ATOM	45727	CA	PRO L 125	170.127	83.272	32.634	1.00	69.14	C	ATOM	45777	CB	ILE M 4	276.927	114.758	-2.966	1.00	55.17	C
ATOM	45728	C	PRO L 125	169.516	83.652	33.980	1.00	69.14	C	ATOM	45778	CG1	ILE M 4	277.624	116.014	-3.505	1.00	55.17	C
ATOM	45729	O	PRO L 125	168.915	84.724	34.131	1.00	69.14	O	ATOM	45779	CG2	ILE M 4	276.836	114.855	-1.457	1.00	55.17	C
ATOM	45730	CB	PRO L 125	171.293	84.170	32.245	1.00	73.04	C	ATOM	45780	CD1	ILE M 4	277.176	117.331	-2.851	1.00	55.17	C
ATOM	45731	CG	PRO L 125	170.605	85.349	31.642	1.00	73.04	C	ATOM	45781	N	ALA M 5	276.210	112.280	-1.913	1.00	67.66	N
ATOM	45732	CD	PRO L 125	169.556	84.692	30.766	1.00	73.04	C	ATOM	45782	CA	ALA M 5	275.878	111.193	-0.988	1.00	67.66	C
ATOM	45733	N	LYS L 126	169.652	82.752	34.946	1.00133.01	N	ATOM	45783	C	ALA M 5	275.703	109.857	-1.692	1.00	67.66	C	
ATOM	45734	CA	LYS L 126	169.130	82.946	36.295	1.00133.01	C	ATOM	45784	O	ALA M 5	275.765	109.779	-2.921	1.00	67.66	O	
ATOM	45735	C	LYS L 126	170.068	83.821	37.117	1.00133.01	C	ATOM	45785	CB	ALA M 5	274.624	111.536	-0.195	1.00	70.03	C	
ATOM	45736	O	LYS L 126	171.068	83.341	37.651	1.00133.01	O	ATOM	45786	N	GLY M 6	275.494	108.809	-0.902	1.00153.10	N		
ATOM	45737	CB	LYS L 126	168.958	81.587	36.973	1.00107.16	C	ATOM	45787	CA	GLY M 6	275.314	107.482	-1.460	1.00153.10	C		
ATOM	45738	CG	LYS L 126	169.756	80.473	36.292	1.00107.16	C	ATOM	45788	C	GLY M 6	274.754	107.495	-2.871	1.00153.10	C		
ATOM	45739	CD	LYS L 126	171.240	80.836	36.152	1.00107.16	C	ATOM	45789	O	GLY M 6	273.557	107.692	-3.072	1.00153.10	O		
ATOM	45740	CE	LYS L 126	171.931	80.003	35.080	1.00107.16	C	ATOM	45790	N	VAL M 7	275.637	107.301	-3.847	1.00140.62	N		
ATOM	45741	NZ	LYS L 126	173.326	80.469	34.852	1.00107.16	N	ATOM	45791	CA	VAL M 7	275.280	107.269	-5.263	1.00140.62	C		
ATOM	45742	N	GLU L 127	169.745	85.107	37.208	1.00122.72	N	ATOM	45792	C	VAL M 7	274.464	108.473	-5.739	1.00140.62	C		
ATOM	45743	CA	GLU L 127	170.560	86.045	37.965	1.00122.72	C	ATOM	45793	O	VAL M 7	273.612	108.347	-6.618	1.00140.62	O		
ATOM	45744	C	GLU L 127	170.620	85.621	39.424	1.00122.72	C	ATOM	45794	CB	VAL M 7	274.519	105.951	-5.617	1.00143.53	C		
ATOM	45745	O	GLU L 127	169.589	85.478	40.085	1.00122.72	O	ATOM	45795	CG1	VAL M 7	275.288	104.753	-5.069	1.00143.53	C		
ATOM	45746	CB	GLU L 127	169.989	87.459	37.839	1.00173.29	C	ATOM	45796	CG2	VAL M 7	273.094	105.973	-5.068	1.00143.53	C		
ATOM	45747	CG	GLU L 127	168.493	87.550	38.065	1.00173.29	C	ATOM	45797	N	GLU M 8	274.740	109.643	-5.169	1.00	82.11	N	



Table 1: Sheet 460/521

ATOM	45798	CA	GLU	M	8	274.028	110.865	-5.544	1.00	82.11	C	ATOM	45848	NZ	LYS	M	13	266.516	119.430	-13.724	1.00	80.26	N
ATOM	45799	C	GLU	M	8	274.733	111.615	-6.671	1.00	82.11	C	ATOM	45849	N	ARG	M	14	270.682	124.242	-10.522	1.00	48.69	N
ATOM	45800	O	GLU	M	8	275.925	111.888	-6.588	1.00	82.11	C	ATOM	45850	CA	ARG	M	14	271.185	124.990	-9.380	1.00	48.69	C
ATOM	45801	CB	GLU	M	8	273.883	111.784	-4.331	1.00	82.11	C	ATOM	45851	C	ARG	M	14	271.568	123.968	-8.299	1.00	48.69	C
ATOM	45802	CG	GLU	M	8	272.971	111.225	-3.259	1.00	82.11	C	ATOM	45852	O	ARG	M	14	270.900	122.952	-8.137	1.00	48.69	O
ATOM	45803	CD	GLU	M	8	271.582	110.928	-3.787	1.00	82.11	C	ATOM	45853	CB	ARG	M	14	270.102	125.938	-8.879	1.00	56.59	C
ATOM	45804	OE1	GLU	M	8	270.896	111.877	-4.219	1.00	82.11	C	ATOM	45854	CG	ARG	M	14	269.756	126.987	-9.888	1.00	56.59	C
ATOM	45805	OE2	GLU	M	8	271.177	109.746	-3.778	1.00	82.11	C	ATOM	45855	CD	ARG	M	14	268.519	127.734	-9.490	1.00	56.59	C
ATOM	45806	N	ILE	M	9	273.990	111.958	-7.718	1.00	102.47	N	ATOM	45856	NE	ARG	M	14	268.757	129.159	-9.260	1.00	56.59	C
ATOM	45807	CA	ILE	M	9	274.569	112.659	-8.857	1.00	102.47	C	ATOM	45857	CZ	ARG	M	14	269.036	129.689	-8.072	1.00	56.59	N
ATOM	45808	C	ILE	M	9	273.635	113.726	-9.438	1.00	102.47	C	ATOM	45858	NH1	ARG	M	14	269.116	128.906	-7.000	1.00	56.59	N
ATOM	45809	O	ILE	M	9	273.129	113.577	-10.549	1.00	102.47	O	ATOM	45859	NH2	ARG	M	14	269.213	131.003	-7.949	1.00	56.59	N
ATOM	45810	CB	ILE	M	9	274.931	111.667	-10.002	1.00	107.93	C	ATOM	45860	N	VAL	M	15	272.649	124.226	-7.574	1.00	79.68	N
ATOM	45811	CG1	ILE	M	9	274.944	110.222	-9.485	1.00	107.93	C	ATOM	45861	CA	VAL	M	15	273.105	123.296	-6.547	1.00	79.68	C
ATOM	45812	CG2	ILE	M	9	276.291	112.025	-10.590	1.00	107.93	C	ATOM	45862	C	VAL	M	15	272.056	123.000	-5.483	1.00	79.68	C
ATOM	45813	CD1	ILE	M	9	273.567	109.573	-9.380	1.00	107.93	C	ATOM	45863	O	VAL	M	15	271.906	121.853	-5.060	1.00	79.68	O
ATOM	45814	N	PRO	M	10	273.393	114.817	-8.695	1.00	108.15	N	ATOM	45864	CB	VAL	M	15	274.385	123.809	-5.872	1.00	67.08	C
ATOM	45815	CA	PRO	M	10	272.511	115.885	-9.184	1.00	108.15	C	ATOM	45865	CG1	VAL	M	15	274.951	122.750	-4.944	1.00	67.08	C
ATOM	45816	C	PRO	M	10	273.298	116.740	-10.164	1.00	108.15	C	ATOM	45866	CG2	VAL	M	15	275.396	124.177	-6.935	1.00	67.08	C
ATOM	45817	O	PRO	M	10	274.384	117.205	-9.818	1.00	108.15	O	ATOM	45867	N	ASP	M	16	271.337	124.025	-5.038	1.00	114.17	N
ATOM	45818	CB	PRO	M	10	272.180	116.644	-7.912	1.00	93.21	C	ATOM	45868	CA	ASP	M	16	270.295	123.815	-4.040	1.00	114.17	C
ATOM	45819	CG	PRO	M	10	273.489	116.576	-7.156	1.00	93.21	C	ATOM	45869	C	ASP	M	16	269.173	121.692	-4.093	1.00	114.17	C
ATOM	45820	CD	PRO	M	10	273.904	115.127	-7.345	1.00	93.21	C	ATOM	45870	O	ASP	M	16	269.573	125.129	-3.733	1.00	82.87	C
ATOM	45821	N	ARG	M	11	272.786	116.968	-11.370	1.00	76.24	N	ATOM	45871	CB	ASP	M	16	269.533	126.064	-4.925	1.00	82.87	C
ATOM	45822	CA	ARG	M	11	273.577	117.769	-12.305	1.00	76.24	C	ATOM	45872	CG	ASP	M	16	269.566	125.566	-6.072	1.00	82.87	O
ATOM	45823	C	ARG	M	11	272.843	118.803	-13.143	1.00	76.24	C	ATOM	45873	OD1	ASP	M	16	269.457	127.295	-4.717	1.00	82.87	O
ATOM	45824	O	ARG	M	11	271.619	118.814	-13.196	1.00	76.24	C	ATOM	45874	OD2	ASP	M	16	268.638	123.197	-5.687	1.00	75.18	N
ATOM	45825	CB	ARG	M	11	274.371	116.855	-13.243	1.00	170.34	C	ATOM	45875	N	VAL	M	17	267.678	122.348	-6.388	1.00	75.18	C
ATOM	45826	CG	ARG	M	11	275.455	117.596	-14.009	1.00	170.34	C	ATOM	45876	CA	VAL	M	17	268.223	120.931	-6.470	1.00	75.18	C
ATOM	45827	CD	ARG	M	11	276.062	116.774	-15.126	1.00	170.34	C	ATOM	45877	C	VAL	M	17	267.587	119.966	-6.036	1.00	75.18	O
ATOM	45828	NE	ARG	M	11	277.022	117.569	-15.888	1.00	170.34	N	ATOM	45878	O	VAL	M	17	267.472	122.848	-7.839	1.00	36.24	C
ATOM	45829	CZ	ARG	M	11	277.573	117.189	-17.037	1.00	170.34	C	ATOM	45879	CB	VAL	M	17	266.741	121.806	-8.648	1.00	36.24	C
ATOM	45830	NH1	ARG	M	11	277.261	116.016	-17.569	1.00	170.34	N	ATOM	45880	CG1	VAL	M	17	266.716	124.178	-7.843	1.00	36.24	C
ATOM	45831	NH2	ARG	M	11	278.433	117.986	-17.657	1.00	170.34	N	ATOM	45881	CG2	VAL	M	17	269.420	120.842	-7.038	1.00	59.37	N
ATOM	45832	N	ASN	M	12	273.623	119.676	-13.782	1.00	68.17	N	ATOM	45882	N	ALA	M	18	270.125	119.593	-7.248	1.00	59.37	C
ATOM	45833	CA	ASN	M	12	273.134	120.737	-14.665	1.00	68.17	C	ATOM	45883	CA	ALA	M	18	270.334	118.747	-5.989	1.00	59.37	C
ATOM	45834	C	ASN	M	12	271.987	121.620	-14.149	1.00	68.17	C	ATOM	45884	C	ALA	M	18	270.163	117.522	-6.009	1.00	59.37	O
ATOM	45835	O	ASN	M	12	271.244	122.211	-14.935	1.00	68.17	O	ATOM	45885	O	ALA	M	18	271.457	119.888	-7.906	1.00	49.64	C
ATOM	45836	CB	ASN	M	12	272.737	120.138	-16.019	1.00	86.44	C	ATOM	45886	CB	ALA	M	18	270.718	119.385	-4.894	1.00	59.66	N
ATOM	45837	CG	ASN	M	12	272.933	121.115	-17.167	1.00	86.44	C	ATOM	45887	N	LEU	M	19	270.933	118.640	-3.664	1.00	59.66	C
ATOM	45838	OD1	ASN	M	12	272.295	122.168	-17.226	1.00	86.44	O	ATOM	45888	CA	LEU	M	19	269.617	118.015	-3.218	1.00	59.66	C
ATOM	45839	ND2	ASN	M	12	273.828	120.772	-18.085	1.00	86.44	N	ATOM	45889	C	LEU	M	19	269.605	116.983	-2.542	1.00	59.66	O
ATOM	45840	N	LYS	M	13	271.847	121.718	-12.834	1.00	88.73	N	ATOM	45890	O	LEU	M	19	271.479	119.576	-2.590	1.00	70.27	C
ATOM	45841	CA	LYS	M	13	270.802	122.539	-12.235	1.00	88.73	C	ATOM	45891	CB	LEU	M	19	272.928	120.006	-2.823	1.00	70.27	C
ATOM	45842	C	LYS	M	13	271.427	123.302	-11.090	1.00	88.73	C	ATOM	45892	CG	LEU	M	19	273.213	121.340	-2.152	1.00	70.27	C
ATOM	45843	O	LYS	M	13	272.570	123.042	-10.722	1.00	88.73	O	ATOM	45893	CD1	LEU	M	19	273.840	118.913	-2.297	1.00	70.27	C
ATOM	45844	CB	LYS	M	13	269.679	121.671	-11.663	1.00	80.26	C	ATOM	45894	CD2	LEU	M	19	268.514	118.647	-3.621	1.00	62.93	N
ATOM	45845	CG	LYS	M	13	268.576	121.290	-12.627	1.00	80.26	C	ATOM	45895	N	THR	M	20	267.370	120.771	-11.857	1.00	80.26	C
ATOM	45846	CD	LYS	M	13	267.370	120.771	-11.857	1.00	80.26	C	ATOM	45896	CA	THR	M	20	267.171	118.186	-3.287	1.00	62.93	C
ATOM	45847	CE	LYS	M	13	266.192	120.514	-12.768	1.00	80.26	C	ATOM	45897	C	THR	M	20	266.967	116.773	-3.790	1.00	62.93	C



Table 1: Sheet 461/521

ATOM 45898	O	THR M	20	266.243	115.978	-3.168	1.00	62.93	O	ATOM 45948	C	GLY M	26	265.284	120.565	0.811	1.00	51.09	C
ATOM 45899	CB	THR M	20	266.101	119.072	-3.929	1.00	110.63	C	ATOM 45949	O	GLY M	26	266.420	120.929	1.071	1.00	51.09	O
ATOM 45900	OG1	THR M	20	266.291	120.425	-3.507	1.00	110.63	O	ATOM 45950	N	LYS M	27	264.362	121.381	0.303	1.00	66.95	N
ATOM 45901	CG2	THR M	20	264.715	118.610	-3.523	1.00	110.63	C	ATOM 45951	CA	LYS M	27	264.648	122.785	0.020	1.00	66.95	C
ATOM 45902	N	TYR M	21	267.610	116.473	-4.921	1.00	49.36	N	ATOM 45952	C	LYS M	27	265.219	123.488	1.244	1.00	66.95	C
ATOM 45903	CA	TYR M	21	267.529	115.152	-5.545	1.00	49.36	C	ATOM 45953	O	LYS M	27	265.788	124.571	1.135	1.00	66.95	O
ATOM 45904	C	TYR M	21	268.104	114.022	-4.694	1.00	49.36	C	ATOM 45954	CB	LYS M	27	263.377	123.510	-0.441	1.00	123.28	C
ATOM 45905	O	TYR M	21	268.136	112.867	-5.122	1.00	49.36	O	ATOM 45955	CG	LYS M	27	263.226	123.645	-1.956	1.00	123.28	C
ATOM 45906	CB	TYR M	21	268.195	115.171	-6.921	1.00	95.54	C	ATOM 45956	CD	LYS M	27	264.266	124.603	-2.549	1.00	123.28	C
ATOM 45907	CG	TYR M	21	267.369	115.893	-7.955	1.00	95.54	C	ATOM 45957	CE	LYS M	27	264.028	124.843	-4.043	1.00	123.28	C
ATOM 45908	CD1	TYR M	21	267.099	117.253	-7.831	1.00	95.54	C	ATOM 45958	NZ	LYS M	27	264.966	125.848	-4.624	1.00	123.28	N
ATOM 45909	CD2	TYR M	21	266.845	115.216	-9.053	1.00	95.54	C	ATOM 45959	N	ALA M	28	265.065	122.871	2.410	1.00	78.02	N
ATOM 45910	CE1	TYR M	21	266.327	117.926	-8.780	1.00	95.54	C	ATOM 45960	CA	ALA M	28	265.573	123.454	3.641	1.00	78.02	C
ATOM 45911	CE2	TYR M	21	266.068	115.877	-10.009	1.00	95.54	C	ATOM 45961	C	ALA M	28	267.068	123.179	3.785	1.00	78.02	C
ATOM 45912	CZ	TYR M	21	265.813	117.235	-9.869	1.00	95.54	C	ATOM 45962	O	ALA M	28	267.882	124.098	3.761	1.00	78.02	O
ATOM 45914	N	ILE M	22	268.541	114.360	-3.485	1.00	68.23	N	ATOM 45963	CB	ALA M	28	264.820	122.894	4.823	1.00	41.01	C
ATOM 45915	CA	ILE M	22	269.079	113.375	-2.561	1.00	68.23	C	ATOM 45964	N	ARG M	29	267.433	121.914	3.931	1.00	52.77	N
ATOM 45916	C	ILE M	22	267.943	112.951	-1.624	1.00	68.23	C	ATOM 45965	CA	ARG M	29	268.836	121.557	4.064	1.00	52.77	C
ATOM 45917	O	ILE M	22	266.998	113.716	-1.379	1.00	68.23	C	ATOM 45966	C	ARG M	29	269.646	122.056	2.874	1.00	52.77	C
ATOM 45918	CB	ILE M	22	270.257	113.966	-1.770	1.00	69.01	C	ATOM 45967	O	ARG M	29	270.865	122.185	2.958	1.00	52.77	O
ATOM 45919	CG1	ILE M	22	271.321	114.446	-2.760	1.00	69.01	C	ATOM 45968	CB	ARG M	29	268.972	120.044	4.198	1.00	43.43	C
ATOM 45920	CG2	ILE M	22	270.828	112.929	-0.803	1.00	69.01	C	ATOM 45969	CG	ARG M	29	268.273	119.529	5.431	1.00	43.43	C
ATOM 45921	CD1	ILE M	22	272.547	115.042	-2.122	1.00	69.01	C	ATOM 45970	CD	ARG M	29	268.429	118.047	5.622	1.00	43.43	C
ATOM 45922	N	TYR M	23	268.026	111.730	-1.108	1.00	110.95	N	ATOM 45971	NE	ARG M	29	268.509	117.775	7.048	1.00	43.43	N
ATOM 45923	CA	TYR M	23	266.972	111.221	-0.250	1.00	110.95	C	ATOM 45972	CZ	ARG M	29	268.521	116.564	7.587	1.00	43.43	C
ATOM 45924	C	TYR M	23	266.662	112.046	0.982	1.00	110.95	C	ATOM 45973	NH1	ARG M	29	268.445	115.482	6.821	1.00	43.43	N
ATOM 45925	O	TYR M	23	265.505	112.366	1.233	1.00	110.95	C	ATOM 45974	NH2	ARG M	29	268.653	116.435	8.900	1.00	43.43	N
ATOM 45926	CB	TYR M	23	267.257	109.784	0.177	1.00	79.36	C	ATOM 45975	N	ALA M	30	268.961	122.344	1.772	1.00	77.27	N
ATOM 45927	CG	TYR M	23	266.093	109.180	0.918	1.00	79.36	C	ATOM 45976	CA	ALA M	30	269.607	122.837	0.560	1.00	77.27	C
ATOM 45928	CD1	TYR M	23	264.798	109.270	0.403	1.00	79.36	C	ATOM 45977	C	ALA M	30	270.332	124.148	0.830	1.00	77.27	C
ATOM 45929	CD2	TYR M	23	266.270	108.552	2.148	1.00	79.36	C	ATOM 45978	O	ALA M	30	271.557	124.206	0.730	1.00	77.27	O
ATOM 45930	CE1	TYR M	23	263.702	108.757	1.096	1.00	79.36	C	ATOM 45979	CB	ALA M	30	268.572	123.032	-0.545	1.00	134.97	C
ATOM 45931	CE2	TYR M	23	265.176	108.030	2.854	1.00	79.36	C	ATOM 45980	N	LYS M	31	269.574	125.192	1.170	1.00	73.81	N
ATOM 45932	CZ	TYR M	23	263.896	108.139	2.320	1.00	79.36	C	ATOM 45981	CA	LYS M	31	270.142	126.510	1.459	1.00	73.81	C
ATOM 45933	OH	TYR M	23	262.818	107.633	3.011	1.00	79.36	O	ATOM 45982	C	LYS M	31	271.109	126.500	2.635	1.00	73.81	C
ATOM 45934	N	GLY M	24	267.679	112.393	-1.758	1.00	71.97	N	ATOM 45983	O	LYS M	31	271.978	127.368	2.729	1.00	73.81	O
ATOM 45935	CA	GLY M	24	267.424	113.164	2.963	1.00	71.97	C	ATOM 45984	CB	LYS M	31	269.039	127.533	1.737	1.00	112.24	C
ATOM 45936	C	GLY M	24	267.552	114.671	2.849	1.00	71.97	C	ATOM 45985	CG	LYS M	31	268.346	128.063	0.499	1.00	112.24	C
ATOM 45937	O	GLY M	24	267.625	115.355	3.865	1.00	71.97	O	ATOM 45986	CD	LYS M	31	267.222	129.023	0.884	1.00	112.24	C
ATOM 45938	N	ILE M	25	267.581	115.211	1.638	1.00	78.72	N	ATOM 45987	CE	LYS M	31	266.345	129.378	-0.319	1.00	112.24	C
ATOM 45939	CA	ILE M	25	267.709	116.654	1.505	1.00	78.72	C	ATOM 45988	NZ	LYS M	31	265.178	130.241	0.044	1.00	112.24	N
ATOM 45940	C	ILE M	25	266.485	117.311	0.889	1.00	78.72	C	ATOM 45989	N	GLU M	32	270.963	125.533	3.538	1.00	61.36	N
ATOM 45941	O	ILE M	25	265.962	116.858	-0.138	1.00	78.72	O	ATOM 45990	CA	GLU M	32	271.863	125.456	4.677	1.00	61.36	C
ATOM 45942	CB	ILE M	25	268.942	117.039	0.669	1.00	61.26	C	ATOM 45991	C	GLU M	32	273.210	124.891	4.246	1.00	61.36	C
ATOM 45943	CG1	ILE M	25	270.175	116.331	1.223	1.00	61.26	C	ATOM 45992	O	GLU M	32	274.231	125.563	4.364	1.00	61.36	O
ATOM 45944	CG2	ILE M	25	269.162	118.557	0.718	1.00	61.26	C	ATOM 45993	CB	GLU M	32	271.289	124.582	5.780	1.00	101.15	C
ATOM 45945	CD1	ILE M	25	271.435	116.675	0.485	1.00	61.26	C	ATOM 45994	CG	GLU M	32	272.054	124.741	7.069	1.00	101.15	C
ATOM 45946	N	GLY M	26	266.036	118.382	1.539	1.00	51.09	N	ATOM 45995	CD	GLU M	32	271.613	123.773	8.134	1.00	101.15	C
ATOM 45947	CA	GLY M	26	264.885	119.127	1.065	1.00	51.09	C	ATOM 45996	OE1	GLU M	32	271.910	122.566	8.004	1.00	101.15	O
										ATOM 45997	OE2	GLU M	32	270.962	124.218	9.102	1.00	101.15	O



ATOM	45998	N	ALA	M	33	273.218	123.660	3.744	1.00	95.39	N	ATOM	46048	N	ASN	M	40	277.572	129.657	-3.675	1.00103.46	N	
ATOM	45999	CA	ALA	M	33	274.463	123.038	3.296	1.00	95.39	C	ATOM	46049	CA	ASN	M	40	276.410	130.305	-4.249	1.00103.46	C	
ATOM	46000	O	ALA	M	33	275.247	123.985	2.395	1.00	95.39	C	ATOM	46050	C	ASN	M	40	275.433	129.171	-4.506	1.00103.46	C	
ATOM	46001	C	ALA	M	33	276.472	123.928	2.338	1.00	95.39	C	ATOM	46051	O	ASN	M	40	275.822	128.103	-4.981	1.00103.46	C	
ATOM	46002	CB	ALA	M	33	274.171	121.740	2.563	1.00	92.14	C	ATOM	46052	CB	ASN	M	40	276.767	130.990	-5.562	1.00103.46	C	
ATOM	46003	N	LEU	M	34	274.535	124.853	1.685	1.00	73.85	N	ATOM	46053	CG	ASN	M	40	275.583	131.697	-6.190	1.00	85.14	C
ATOM	46004	CA	LEU	M	34	275.179	125.825	0.812	1.00	73.85	C	ATOM	46054	OD1	ASN	M	40	275.711	132.317	-7.246	1.00	85.14	O
ATOM	46005	C	LEU	M	34	275.552	127.036	1.650	1.00	73.85	C	ATOM	46055	ND2	ASN	M	40	274.423	131.610	-5.547	1.00	85.14	N
ATOM	46006	O	LEU	M	34	276.570	127.682	1.412	1.00	73.85	O	ATOM	46056	N	PRO	M	41	274.153	129.371	-4.174	1.00	99.55	N
ATOM	46007	CB	LEU	M	34	274.239	126.243	-0.318	1.00	75.69	C	ATOM	46057	CA	PRO	M	41	273.211	128.278	-4.419	1.00	99.55	C
ATOM	46008	CG	LEU	M	34	273.964	125.176	-1.382	1.00	75.69	C	ATOM	46058	C	PRO	M	41	272.870	128.227	-5.893	1.00	99.55	C
ATOM	46009	CD1	LEU	M	34	272.875	125.670	-2.305	1.00	75.69	C	ATOM	46059	O	PRO	M	41	272.595	127.168	-6.448	1.00	99.55	O
ATOM	46010	CD2	LEU	M	34	275.229	124.865	-2.174	1.00	75.69	C	ATOM	46060	CB	PRO	M	41	271.999	128.666	-3.580	1.00	57.39	C
ATOM	46011	N	GLU	M	35	274.707	127.332	2.634	1.00	70.63	N	ATOM	46061	CG	PRO	M	41	272.545	129.660	-2.577	1.00	57.39	C
ATOM	46012	CA	GLU	M	35	274.920	128.444	3.553	1.00	70.63	C	ATOM	46062	CD	PRO	M	41	273.520	130.441	-3.389	1.00	57.39	C
ATOM	46013	C	GLU	M	35	276.267	128.233	4.237	1.00	70.63	C	ATOM	46063	N	ALA	M	42	272.907	129.399	-6.513	1.00	72.93	N
ATOM	46014	O	GLU	M	35	277.219	128.976	4.000	1.00	70.63	O	ATOM	46064	CA	ALA	M	42	272.907	129.399	-7.917	1.00	72.93	C
ATOM	46015	CB	GLU	M	35	273.811	128.463	4.607	1.00158.64	C	ATOM	46065	C	ALA	M	42	273.551	128.939	-8.916	1.00	72.93	C	
ATOM	46016	CG	GLU	M	35	273.874	129.632	5.566	1.00158.64	C	ATOM	46066	O	ALA	M	42	273.191	128.729	-10.073	1.00	72.93	O	
ATOM	46017	CD	GLU	M	35	273.453	130.933	4.921	1.00158.64	C	ATOM	46067	CB	ALA	M	42	272.429	131.005	-8.215	1.00	21.05	C	
ATOM	46018	OE1	GLU	M	35	272.284	131.025	4.488	1.00158.64	O	ATOM	46068	N	THR	M	43	274.778	128.659	-8.497	1.00	76.97	N	
ATOM	46019	OE2	GLU	M	35	274.288	131.861	4.846	1.00158.64	O	ATOM	46069	CA	THR	M	43	275.736	128.071	-9.424	1.00	76.97	C	
ATOM	46020	N	LYS	M	36	276.329	127.199	5.074	1.00	79.58	N	ATOM	46070	C	THR	M	43	275.205	126.754	-9.982	1.00	76.97	O
ATOM	46021	CA	LYS	M	36	277.535	126.848	5.820	1.00	79.58	C	ATOM	46071	O	THR	M	43	274.678	125.925	-9.234	1.00	76.97	C
ATOM	46022	C	LYS	M	36	278.768	126.690	4.940	1.00	79.58	C	ATOM	46072	CB	THR	M	43	277.097	127.809	-8.745	1.00	97.17	C
ATOM	46023	O	LYS	M	36	279.783	127.360	5.142	1.00	79.58	O	ATOM	46073	CG1	THR	M	43	276.896	127.047	-7.549	1.00	97.17	O
ATOM	46024	CB	LYS	M	36	277.324	125.542	6.584	1.00	81.29	C	ATOM	46074	CG2	THR	M	43	277.786	129.123	-8.408	1.00	97.17	C
ATOM	46025	CD	LYS	M	36	276.191	125.559	7.578	1.00	81.29	C	ATOM	46075	N	ARG	M	44	275.329	126.574	-11.298	1.00	60.71	N
ATOM	46026	CG	LYS	M	36	276.105	124.207	8.260	1.00	81.29	C	ATOM	46076	CA	ARG	M	44	274.884	125.342	-11.949	1.00	60.71	C
ATOM	46027	CE	LYS	M	36	274.948	124.123	9.249	1.00	81.29	C	ATOM	46077	C	ARG	M	44	275.825	124.238	-11.480	1.00	60.71	C
ATOM	46028	NZ	LYS	M	36	274.893	122.791	9.932	1.00	81.29	N	ATOM	46078	O	ARG	M	44	277.036	124.416	-11.507	1.00	60.71	O
ATOM	46029	N	THR	M	37	278.684	125.784	3.972	1.00	79.89	N	ATOM	46079	CB	ARG	M	44	274.952	125.493	-13.473	1.00110.80	C	
ATOM	46030	CA	THR	M	37	279.800	125.526	3.070	1.00	79.89	C	ATOM	46080	CG	ARG	M	44	273.612	125.311	-14.174	1.00110.80	C	
ATOM	46031	C	THR	M	37	280.081	126.733	2.167	1.00	79.89	C	ATOM	46081	CD	ARG	M	44	272.597	126.334	-13.694	1.00110.80	C	
ATOM	46032	O	THR	M	37	280.924	126.683	1.274	1.00	79.89	O	ATOM	46082	NE	ARG	M	44	271.224	125.890	-13.912	1.00110.80	N	
ATOM	46033	CB	THR	M	37	279.523	124.249	2.242	1.00	79.71	C	ATOM	46083	CZ	ARG	M	44	270.154	126.540	-13.467	1.00110.80	C	
ATOM	46034	OG1	THR	M	37	279.450	123.124	3.128	1.00	79.71	O	ATOM	46084	NH1	ARG	M	44	270.296	127.665	-12.782	1.00110.80	N	
ATOM	46035	CG2	THR	M	37	280.624	124.000	1.236	1.00	79.71	C	ATOM	46085	NH2	ARG	M	44	268.941	126.063	-13.699	1.00110.80	N	
ATOM	46036	N	GLY	M	38	279.375	127.826	2.434	1.00	67.97	N	ATOM	46086	N	VAL	M	45	275.279	123.110	-11.038	1.00	72.64	N
ATOM	46037	CA	GLY	M	38	279.557	129.046	1.670	1.00	67.97	C	ATOM	46087	CA	VAL	M	45	276.113	122.018	-10.543	1.00	72.64	C
ATOM	46038	C	GLY	M	38	279.756	128.851	0.182	1.00	67.97	C	ATOM	46088	C	VAL	M	45	277.353	121.778	-11.399	1.00	72.64	C
ATOM	46039	O	GLY	M	38	280.874	128.955	-0.322	1.00	67.97	O	ATOM	46089	O	VAL	M	45	278.419	121.444	-10.873	1.00	72.64	O
ATOM	46040	N	ILE	M	39	278.667	128.555	-0.519	1.00	93.14	N	ATOM	46090	CB	VAL	M	45	275.314	120.696	-10.425	1.00	65.96	C
ATOM	46041	CA	ILE	M	39	278.695	128.360	-1.966	1.00	93.14	C	ATOM	46091	CG1	VAL	M	45	276.235	119.549	-9.992	1.00	65.96	C
ATOM	46042	C	ILE	M	39	277.463	129.050	-2.503	1.00	93.14	C	ATOM	46092	CG2	VAL	M	45	274.184	120.875	-9.941	1.00	65.96	C
ATOM	46043	O	ILE	M	39	276.419	129.038	-1.856	1.00	93.14	O	ATOM	46093	N	LYS	M	46	277.224	121.957	-12.710	1.00	87.93	N
ATOM	46044	CB	ILE	M	39	278.567	126.876	-2.374	1.00	49.51	C	ATOM	46094	CA	LYS	M	46	278.364	121.759	-13.598	1.00	87.93	C
ATOM	46045	CG1	ILE	M	39	279.558	126.014	-1.596	1.00	49.51	C	ATOM	46095	C	LYS	M	46	279.437	122.826	-13.378	1.00	87.93	C
ATOM	46046	CG2	ILE	M	39	278.791	126.735	-3.883	1.00	49.51	C	ATOM	46096	O	LYS	M	46	280.623	122.513	-13.279	1.00	87.93	O
ATOM	46047	CD1	ILE	M	39	279.472	124.553	-1.947	1.00	49.51	C	ATOM	46097	CB	LYS	M	46	277.914	121.769	-15.060	1.00	83.07	C



Table 1: Sheet 463/521

ATOM	46098	CG	LYS M	46	277.139	122.998	-15.469	1.00	83.07	C	ATOM	46148	N	VAL M	53	282.802	121.240	-4.272	1.00	55.18	N
ATOM	46099	CD	LYS M	46	277.329	123.277	-16.945	1.00	83.07	C	ATOM	46149	CA	VAL M	53	282.231	119.905	-4.314	1.00	55.18	C
ATOM	46100	CE	LYS M	46	278.808	123.551	-17.250	1.00	83.07	C	ATOM	46150	C	VAL M	53	282.789	119.022	-3.200	1.00	55.18	C
ATOM	46101	NZ	LYS M	46	279.097	123.827	-18.697	1.00	83.07	N	ATOM	46151	O	VAL M	53	282.206	117.992	-2.867	1.00	55.18	O
ATOM	46102	N	ASP M	47	279.011	124.084	-13.290	1.00	78.27	N	ATOM	46152	CB	VAL M	53	282.487	119.241	-5.692	1.00	52.98	C
ATOM	46103	CA	ASP M	47	279.924	125.203	-13.088	1.00	78.27	C	ATOM	46153	CG1	VAL M	53	281.961	117.800	-5.697	1.00	52.98	C
ATOM	46104	C	ASP M	47	280.547	125.233	-11.693	1.00	78.27	C	ATOM	46154	CG2	VAL M	53	281.805	120.054	-6.782	1.00	52.98	C
ATOM	46105	O	ASP M	47	281.296	126.150	-11.370	1.00	78.27	O	ATOM	46155	N	VAL M	54	283.912	119.422	-2.617	1.00	75.60	N
ATOM	46106	CB	ASP M	47	279.208	126.536	-13.348	1.00	91.81	C	ATOM	46156	CA	VAL M	54	284.494	118.633	-1.541	1.00	75.60	C
ATOM	46107	CG	ASP M	47	278.833	126.733	-14.812	1.00	91.81	C	ATOM	46157	C	VAL M	54	283.957	119.101	-0.188	1.00	75.60	C
ATOM	46108	OD1	ASP M	47	279.718	126.591	-15.681	1.00	91.81	O	ATOM	46158	O	VAL M	54	283.671	118.284	0.686	1.00	75.60	O
ATOM	46109	OD2	ASP M	47	277.655	127.047	-15.095	1.00	91.81	O	ATOM	46159	CB	VAL M	54	286.041	118.716	-1.542	1.00	57.58	C
ATOM	46110	N	LEU M	48	280.244	124.242	-10.863	1.00	71.83	N	ATOM	46160	CG1	VAL M	54	286.612	117.847	-0.420	1.00	57.58	C
ATOM	46111	CA	LEU M	48	280.810	124.198	-9.515	1.00	71.83	C	ATOM	46161	CG2	VAL M	54	286.582	118.268	-2.892	1.00	57.58	C
ATOM	46112	C	LEU M	48	282.330	124.056	-9.534	1.00	71.83	C	ATOM	46162	N	ARG M	55	283.818	120.413	-0.020	1.00	87.85	N
ATOM	46113	O	LEU M	48	282.934	123.928	-10.597	1.00	71.83	O	ATOM	46163	CA	ARG M	55	283.297	120.967	1.226	1.00	87.85	C
ATOM	46114	CB	LEU M	48	280.221	123.031	-8.723	1.00	70.83	C	ATOM	46164	C	ARG M	55	281.824	120.577	1.353	1.00	87.85	C
ATOM	46115	CG	LEU M	48	279.025	123.303	-7.813	1.00	70.83	C	ATOM	46165	O	ARG M	55	281.318	120.372	2.459	1.00	87.85	O
ATOM	46116	CD1	LEU M	48	278.589	121.993	-7.177	1.00	70.83	C	ATOM	46166	CB	ARG M	55	283.433	122.487	1.223	1.00	77.61	C
ATOM	46117	CD2	LEU M	48	279.396	124.323	-6.738	1.00	70.83	C	ATOM	46167	CG	ARG M	55	284.823	122.975	0.884	1.00	77.61	C
ATOM	46118	N	THR M	49	282.938	124.074	-8.349	1.00	76.98	N	ATOM	46168	CD	ARG M	55	284.892	124.489	0.925	1.00	77.61	C
ATOM	46119	CA	THR M	49	284.387	123.932	-8.199	1.00	76.98	C	ATOM	46169	NE	ARG M	55	284.104	125.123	-0.128	1.00	77.61	N
ATOM	46120	C	THR M	49	284.703	122.635	-7.470	1.00	76.98	C	ATOM	46170	CZ	ARG M	55	283.939	126.438	-0.232	1.00	77.61	C
ATOM	46121	O	THR M	49	283.919	122.176	-6.642	1.00	76.98	O	ATOM	46171	NH1	ARG M	55	284.507	127.241	0.657	1.00	77.61	N
ATOM	46122	CB	THR M	49	284.992	125.108	-7.403	1.00	67.13	C	ATOM	46172	NH2	ARG M	55	283.217	126.952	-1.218	1.00	77.61	N
ATOM	46123	OG1	THR M	49	285.100	126.248	-8.256	1.00	67.13	C	ATOM	46173	N	LEU M	56	281.148	120.488	0.207	1.00	85.76	N
ATOM	46124	CG2	THR M	49	286.368	124.760	-6.872	1.00	67.13	C	ATOM	46174	CA	LEU M	56	279.742	120.097	0.136	1.00	85.76	C
ATOM	46125	N	GLU M	50	285.856	122.050	-7.777	1.00	74.98	N	ATOM	46175	C	LEU M	56	279.657	118.607	0.397	1.00	85.76	C
ATOM	46126	CA	GLU M	50	286.255	120.800	-7.148	1.00	74.98	C	ATOM	46176	O	LEU M	56	278.938	118.154	1.281	1.00	85.76	O
ATOM	46127	C	GLU M	50	286.449	121.020	-5.659	1.00	74.98	C	ATOM	46177	CB	LEU M	56	279.173	120.369	-1.255	1.00	70.86	C
ATOM	46128	O	GLU M	50	286.333	120.096	-4.860	1.00	74.98	O	ATOM	46178	CG	LEU M	56	278.231	121.558	-1.416	1.00	70.86	C
ATOM	46129	CB	GLU M	50	287.548	120.282	-7.773	1.00	140.49	C	ATOM	46179	CD1	LEU M	56	277.834	121.683	-2.879	1.00	70.86	C
ATOM	46130	CG	GLU M	50	287.698	118.783	-7.647	1.00	140.49	C	ATOM	46180	CD2	LEU M	56	277.005	121.375	-0.534	1.00	70.86	C
ATOM	46131	CD	GLU M	50	286.518	118.045	-8.254	1.00	140.49	C	ATOM	46181	N	ARG M	57	280.403	117.853	-0.398	1.00	66.17	N
ATOM	46132	OE1	GLU M	50	286.311	118.157	-9.483	1.00	140.49	O	ATOM	46182	CA	ARG M	57	280.435	116.407	-0.280	1.00	66.17	C
ATOM	46133	OE2	GLU M	50	285.794	117.359	-7.500	1.00	140.49	O	ATOM	46183	C	ARG M	57	280.748	115.996	1.147	1.00	66.17	C
ATOM	46134	N	ALA M	51	286.746	122.258	-5.296	1.00	95.39	N	ATOM	46184	O	ARG M	57	280.154	115.054	1.662	1.00	66.17	O
ATOM	46135	CA	ALA M	51	286.947	122.616	-3.906	1.00	95.39	C	ATOM	46185	CB	ARG M	57	281.410	114.316	-1.231	1.00	107.33	C
ATOM	46136	C	ALA M	51	285.591	122.658	-3.204	1.00	95.39	C	ATOM	46186	CG	ARG M	57	281.486	115.821	-1.399	1.00	107.33	C
ATOM	46137	O	ALA M	51	285.429	122.127	-2.105	1.00	95.39	O	ATOM	46187	CD	ARG M	57	282.386	113.811	-2.457	1.00	107.33	C
ATOM	46138	CB	ALA M	51	287.633	123.971	-3.821	1.00	79.40	C	ATOM	46188	NE	ARG M	57	282.184	114.451	-3.758	1.00	107.33	N
ATOM	46139	N	GLU M	52	284.618	123.290	-3.857	1.00	82.09	N	ATOM	46189	CZ	ARG M	57	282.806	114.090	-4.881	1.00	107.33	C
ATOM	46140	CA	GLU M	52	283.265	123.414	-3.325	1.00	82.09	C	ATOM	46190	NH1	ARG M	57	283.675	113.085	-4.871	1.00	107.33	N
ATOM	46141	C	GLU M	52	282.605	122.048	-3.238	1.00	82.09	C	ATOM	46191	NH2	ARG M	57	282.563	114.740	-6.018	1.00	107.33	N
ATOM	46142	O	GLU M	52	281.933	121.732	-2.262	1.00	82.09	O	ATOM	46192	N	GLU M	58	281.669	116.708	1.791	1.00	86.81	N
ATOM	46143	CB	GLU M	52	282.444	124.318	-4.234	1.00	76.30	C	ATOM	46193	CA	GLU M	58	282.053	116.373	3.159	1.00	86.81	C
ATOM	46144	CG	GLU M	52	283.135	125.625	-4.510	1.00	76.30	C	ATOM	46194	C	GLU M	58	281.090	116.920	4.201	1.00	86.81	C
ATOM	46145	CD	GLU M	52	282.300	126.487	-5.485	1.00	76.30	C	ATOM	46195	O	GLU M	58	290.697	116.203	5.126	1.00	86.81	O
ATOM	46146	OE1	GLU M	52	282.187	126.050	-6.638	1.00	76.30	O	ATOM	46196	CB	GLU M	58	283.477	116.858	3.458	1.00	143.46	C
ATOM	46147	OE2	GLU M	52	281.903	127.608	-5.098	1.00	76.30	O	ATOM	46197	CG	GLU M	58	284.552	116.313	2.510	1.00	143.46	C



Table 1: Sheet 464/521

ATOM	46198	CD	GLU M	58	284.594	114.789	2.428	1.00143.46	C	ATOM	46248	CB	TRP M	64	272.173	115.137	7.130	1.00	38.52	C
ATOM	46199	OE1	GLU M	58	285.462	114.264	1.696	1.00143.46	O	ATOM	46249	CG	TRP M	64	272.020	116.582	7.347	1.00	38.52	C
ATOM	46200	OE2	GLU M	58	283.770	114.115	3.084	1.00143.46	O	ATOM	46250	CD1	TRP M	64	271.653	117.194	8.499	1.00	38.52	C
ATOM	46201	N	TYR M	59	280.702	118.183	4.065	1.00 71.75	N	ATOM	46251	CD2	TRP M	64	272.155	117.615	6.361	1.00	38.52	C
ATOM	46202	CA	TYR M	59	279.771	118.749	5.031	1.00 71.75	C	ATOM	46252	NE1	TRP M	64	271.545	118.553	8.299	1.00	38.52	N
ATOM	46203	C	TYR M	59	278.453	117.976	5.078	1.00 71.75	C	ATOM	46253	CE2	TRP M	64	271.848	118.839	6.994	1.00	38.52	C
ATOM	46204	O	TYR M	59	277.983	117.599	6.146	1.00 71.75	O	ATOM	46254	CE3	TRP M	64	272.502	117.626	5.000	1.00	38.52	C
ATOM	46205	CB	TYR M	59	279.458	120.217	4.737	1.00 99.74	C	ATOM	46255	CZ2	TRP M	64	271.877	120.077	6.315	1.00	38.52	C
ATOM	46206	CG	TYR M	59	278.269	120.678	5.542	1.00 99.74	C	ATOM	46256	CZ3	TRP M	64	272.531	118.868	4.318	1.00	38.52	C
ATOM	46207	CD1	TYR M	59	278.259	120.539	6.929	1.00 99.74	C	ATOM	46257	CH2	TRP M	64	272.219	120.072	4.987	1.00	38.52	C
ATOM	46208	CD2	TYR M	59	277.113	121.138	4.919	1.00 99.74	C	ATOM	46258	N	LYS M	65	271.956	112.203	8.216	1.00	99.57	N
ATOM	46209	CE1	TYR M	59	277.129	120.830	7.672	1.00 99.74	C	ATOM	46259	CA	LYS M	65	271.794	110.788	7.916	1.00	99.57	C
ATOM	46210	CE2	TYR M	59	275.972	121.434	5.657	1.00 99.74	C	ATOM	46260	C	LYS M	65	270.973	110.776	6.633	1.00	99.57	C
ATOM	46211	CZ	TYR M	59	275.988	121.273	7.033	1.00 99.74	C	ATOM	46261	O	LYS M	65	269.786	111.094	6.651	1.00	99.57	O
ATOM	46212	OH	TYR M	59	274.858	121.530	7.771	1.00 99.74	O	ATOM	46262	CB	LYS M	65	271.036	110.113	9.059	1.00	97.58	C
ATOM	46213	N	VAL M	60	277.861	117.749	3.912	1.00 70.61	N	ATOM	46263	CG	LYS M	65	271.138	108.605	9.091	1.00	97.58	C
ATOM	46214	CA	VAL M	60	276.597	117.039	3.816	1.00 70.61	C	ATOM	46264	CD	LYS M	65	270.746	108.074	10.467	1.00	97.58	C
ATOM	46215	C	VAL M	60	276.675	115.595	4.275	1.00 70.61	C	ATOM	46265	CE	LYS M	65	270.971	106.572	10.578	1.00	97.58	C
ATOM	46216	O	VAL M	60	276.010	115.214	5.236	1.00 70.61	O	ATOM	46266	NZ	LYS M	65	270.698	106.069	11.953	1.00	97.58	N
ATOM	46217	CB	VAL M	60	276.070	117.042	2.381	1.00 58.90	C	ATOM	46267	N	LEU M	66	271.609	110.424	5.521	1.00	87.87	N
ATOM	46218	CG1	VAL M	60	274.790	116.246	2.311	1.00 58.90	C	ATOM	46268	CA	LEU M	66	270.938	110.428	4.222	1.00	87.87	C
ATOM	46219	CG2	VAL M	60	275.847	118.471	1.912	1.00 58.90	C	ATOM	46269	C	LEU M	66	270.828	109.070	3.541	1.00	87.87	C
ATOM	46220	N	GLU M	61	277.475	114.790	3.581	1.00 90.78	N	ATOM	46270	O	LEU M	66	271.230	108.041	4.088	1.00	87.87	O
ATOM	46221	CA	GLU M	61	277.606	113.377	3.924	1.00 90.78	C	ATOM	46271	CB	LEU M	66	271.669	111.388	3.282	1.00	46.80	C
ATOM	46222	C	GLU M	61	277.804	113.173	5.413	1.00 90.78	C	ATOM	46272	CG	LEU M	66	271.942	112.792	3.828	1.00	46.80	C
ATOM	46223	O	GLU M	61	277.310	112.199	5.986	1.00 90.78	O	ATOM	46273	CD1	LEU M	66	273.238	113.313	3.254	1.00	46.80	C
ATOM	46224	CB	GLU M	61	278.755	112.732	3.147	1.00107.79	C	ATOM	46274	CD2	LEU M	66	270.795	113.723	3.494	1.00	46.80	C
ATOM	46225	CG	GLU M	61	278.458	112.574	1.663	1.00107.79	C	ATOM	46275	N	GLU M	67	270.271	109.097	2.333	1.00	75.81	N
ATOM	46226	CD	GLU M	61	279.478	111.717	0.942	1.00107.79	C	ATOM	46276	CA	GLU M	67	270.087	107.914	1.498	1.00	75.81	C
ATOM	46227	OE1	GLU M	61	279.592	110.517	1.273	1.00107.79	O	ATOM	46277	C	GLU M	67	269.846	106.580	2.200	1.00	75.81	C
ATOM	46228	OE2	GLU M	61	280.165	112.244	0.043	1.00107.79	O	ATOM	46278	O	GLU M	67	269.326	106.529	3.309	1.00	75.81	O
ATOM	46229	N	ASN M	62	278.525	114.102	6.035	1.00108.03	N	ATOM	46279	CB	GLU M	67	271.277	107.768	0.548	1.00	95.05	C
ATOM	46230	CA	ASN M	62	278.780	114.048	7.467	1.00108.03	C	ATOM	46280	CG	GLU M	67	271.268	108.752	-0.604	1.00	95.05	C
ATOM	46231	C	ASN M	62	278.188	115.273	8.147	1.00108.03	C	ATOM	46281	CD	GLU M	67	269.985	108.678	-1.408	1.00	95.05	C
ATOM	46232	O	ASN M	62	278.849	116.298	8.292	1.00108.03	O	ATOM	46282	OE1	GLU M	67	269.475	107.553	-1.610	1.00	95.05	O
ATOM	46233	CB	ASN M	62	280.282	113.960	7.737	1.00137.44	C	ATOM	46283	OE2	GLU M	67	269.490	109.739	-1.845	1.00	95.05	O
ATOM	46234	CG	ASN M	62	280.812	112.540	7.625	1.00137.44	C	ATOM	46284	N	GLY M	68	270.227	105.506	1.517	1.00	70.79	N
ATOM	46235	OD1	ASN M	62	282.022	112.314	7.656	1.00137.44	O	ATOM	46285	CA	GLY M	68	270.057	104.159	2.032	1.00	70.79	C
ATOM	46236	ND2	ASN M	62	279.904	111.574	7.506	1.00137.44	N	ATOM	46286	C	GLY M	68	270.042	103.976	3.537	1.00	70.79	C
ATOM	46237	N	THR M	63	276.928	115.145	8.549	1.00 91.41	N	ATOM	46287	O	GLY M	68	269.121	103.348	4.066	1.00	70.79	O
ATOM	46238	CA	THR M	63	276.176	116.205	9.214	1.00 91.41	C	ATOM	46288	N	GLU M	69	271.055	104.501	4.227	1.00	84.55	N
ATOM	46239	C	THR M	63	274.717	115.736	9.268	1.00 91.41	C	ATOM	46289	CA	GLU M	69	271.143	104.379	5.682	1.00	84.55	C
ATOM	46240	O	THR M	63	273.966	116.082	10.181	1.00 91.41	O	ATOM	46290	C	GLU M	69	269.889	104.925	6.356	1.00	84.55	C
ATOM	46241	CB	THR M	63	276.270	117.549	8.427	1.00 97.17	C	ATOM	46291	O	GLU M	69	269.465	104.426	7.397	1.00	84.55	O
ATOM	46242	OG1	THR M	63	275.770	118.625	9.231	1.00 97.17	O	ATOM	46292	CB	GLU M	69	272.361	105.138	6.201	1.00	129.72	C
ATOM	46243	CG2	THR M	63	275.459	117.479	7.147	1.00 97.17	C	ATOM	46293	CG	GLU M	69	272.469	105.153	7.715	1.00	129.72	C
ATOM	46244	N	TRP M	64	274.334	114.927	8.282	1.00 70.00	N	ATOM	46294	CD	GLU M	69	273.623	106.004	8.205	1.00	129.72	C
ATOM	46245	CA	TRP M	64	272.981	114.390	8.187	1.00 70.00	C	ATOM	46295	OE1	GLU M	69	274.766	105.761	7.767	1.00	129.72	O
ATOM	46246	C	TRP M	64	272.999	112.912	7.798	1.00 70.00	C	ATOM	46296	OE2	GLU M	69	273.393	106.914	9.028	1.00	129.72	O
ATOM	46247	O	TRP M	64	273.920	112.435	7.127	1.00 70.00	O	ATOM	46297	N	LEU M	70	269.309	105.956	5.748	1.00	88.51	N



Table 1: Sheet 465/521

ATOM 46298	CA	LEU M	70	268.099	106.597	6.253	1.00	88.51	C	ATOM	46348	CA	ASN M	77	261.243	102.296	12.939	1.00	87.11	C
ATOM 46299	C	LEU M	70	266.886	105.689	6.042	1.00	88.51	C	ATOM	46349	C	ASN M	77	259.949	101.515	12.812	1.00	87.11	C
ATOM 46300	O	LEU M	70	266.159	105.389	6.987	1.00	88.51	O	ATOM	46350	O	ASN M	77	259.560	100.785	13.723	1.00	87.11	O
ATOM 46301	CB	LEU M	70	267.873	107.923	5.527	1.00	53.20	C	ATOM	46351	CB	ASN M	77	260.945	103.759	12.632	1.00	96.46	C
ATOM 46302	CG	LEU M	70	267.140	109.030	6.289	1.00	53.20	C	ATOM	46352	CG	ASN M	77	261.982	104.688	13.188	1.00	96.46	C
ATOM 46303	CD1	LEU M	70	266.582	110.042	5.288	1.00	53.20	C	ATOM	46353	OD1	ASN M	77	262.260	104.684	14.388	1.00	96.46	O
ATOM 46304	CD2	LEU M	70	266.021	108.437	7.133	1.00	53.20	C	ATOM	46354	ND2	ASN M	77	262.563	105.505	12.320	1.00	96.46	N
ATOM 46305	N	ARG M	71	266.662	105.268	4.799	1.00	76.43	N	ATOM	46355	N	ILE M	78	259.285	101.688	11.670	1.00	78.83	N
ATOM 46306	CA	ARG M	71	265.545	104.379	4.483	1.00	76.43	C	ATOM	46356	CA	ILE M	78	258.025	101.016	11.369	1.00	78.83	C
ATOM 46307	C	ARG M	71	265.657	103.170	5.390	1.00	76.43	C	ATOM	46357	C	ILE M	78	258.003	99.565	11.851	1.00	78.83	C
ATOM 46308	O	ARG M	71	264.664	102.520	5.708	1.00	76.43	O	ATOM	46358	O	ILE M	78	257.057	99.129	12.511	1.00	78.83	O
ATOM 46309	CB	ARG M	71	265.619	103.895	3.038	1.00	71.18	C	ATOM	46359	CB	ILE M	78	257.749	101.079	9.858	1.00	64.40	C
ATOM 46310	CG	ARG M	71	265.670	104.976	2.011	1.00	71.18	C	ATOM	46360	CG1	ILE M	78	257.360	102.510	9.487	1.00	64.40	C
ATOM 46311	CD	ARG M	71	266.046	104.385	0.681	1.00	71.18	C	ATOM	46361	CG2	ILE M	78	256.674	100.088	9.470	1.00	64.40	C
ATOM 46312	NE	ARG M	71	266.180	105.405	-0.353	1.00	71.18	N	ATOM	46362	CD1	ILE M	78	256.938	102.687	8.059	1.00	64.40	C
ATOM 46313	CZ	ARG M	71	265.157	106.047	-0.909	1.00	71.18	C	ATOM	46363	N	LYS M	79	259.058	98.832	11.522	1.00	60.21	N
ATOM 46314	NH1	ARG M	71	263.912	105.774	-0.533	1.00	71.18	N	ATOM	46364	CA	LYS M	79	259.199	97.439	11.916	1.00	60.21	C
ATOM 46315	NH2	ARG M	71	265.382	106.964	-1.841	1.00	71.18	N	ATOM	46365	C	LYS M	79	258.966	97.304	13.419	1.00	60.21	C
ATOM 46316	N	ALA M	72	266.887	102.861	5.780	1.00	65.73	N	ATOM	46366	O	LYS M	79	258.310	96.372	13.878	1.00	60.21	O
ATOM 46317	CA	ALA M	72	267.144	101.737	6.656	1.00	65.73	C	ATOM	46367	CB	LYS M	79	260.610	96.960	11.564	1.00	67.25	C
ATOM 46318	C	ALA M	72	266.535	102.051	8.018	1.00	65.73	C	ATOM	46368	CG	LYS M	79	260.708	95.520	11.078	1.00	67.25	C
ATOM 46319	O	ALA M	72	265.854	101.214	8.622	1.00	65.73	O	ATOM	46369	CD	LYS M	79	260.586	94.510	12.194	1.00	67.25	C
ATOM 46320	CB	ALA M	72	268.641	101.513	6.786	1.00	146.28	C	ATOM	46370	CE	LYS M	79	260.694	93.100	11.643	1.00	67.25	C
ATOM 46321	N	GLU M	73	266.784	103.268	8.495	1.00	90.80	N	ATOM	46371	NZ	LYS M	79	260.535	92.064	12.703	1.00	67.25	N
ATOM 46322	CA	GLU M	73	266.267	103.714	9.782	1.00	90.80	C	ATOM	46372	N	ARG M	80	259.499	98.254	14.175	1.00	72.01	N
ATOM 46323	C	GLU M	73	264.746	103.681	9.749	1.00	90.80	C	ATOM	46373	CA	ARG M	80	259.389	98.270	15.631	1.00	72.01	C
ATOM 46324	O	GLU M	73	264.119	102.883	10.444	1.00	90.80	O	ATOM	46374	C	ARG M	80	257.957	98.400	16.171	1.00	72.01	C
ATOM 46325	CB	GLU M	73	266.751	105.132	10.078	1.00	95.36	C	ATOM	46375	O	ARG M	80	257.431	97.473	16.811	1.00	72.01	O
ATOM 46326	CG	GLU M	73	266.469	105.597	11.489	1.00	95.36	C	ATOM	46376	CB	ARG M	80	260.260	99.403	16.176	1.00	98.36	C
ATOM 46327	CD	GLU M	73	267.126	106.928	11.807	1.00	95.36	C	ATOM	46377	CG	ARG M	80	260.066	99.728	17.630	1.00	98.36	C
ATOM 46328	OE1	GLU M	73	266.698	107.959	11.242	1.00	95.36	O	ATOM	46378	CD	ARG M	80	260.501	101.151	17.869	1.00	98.36	C
ATOM 46329	OE2	GLU M	73	268.077	106.942	12.620	1.00	95.36	O	ATOM	46379	NE	ARG M	80	259.942	101.687	19.103	1.00	98.36	N
ATOM 46330	N	VAL M	74	264.158	104.549	8.932	1.00	70.32	N	ATOM	46380	CZ	ARG M	80	259.769	102.983	19.337	1.00	98.36	C
ATOM 46331	CA	VAL M	74	262.708	104.616	8.795	1.00	70.32	C	ATOM	46381	NH1	ARG M	80	260.112	103.875	18.411	1.00	98.36	N
ATOM 46332	C	VAL M	74	262.091	103.218	8.762	1.00	70.32	C	ATOM	46382	NH2	ARG M	80	259.251	103.389	20.492	1.00	98.36	N
ATOM 46333	O	VAL M	74	261.230	102.887	9.577	1.00	70.32	O	ATOM	46383	N	LEU M	81	257.330	99.548	15.926	1.00	98.36	N
ATOM 46334	CB	VAL M	74	262.306	105.377	7.508	1.00	49.60	C	ATOM	46384	CA	LEU M	81	255.971	99.771	16.403	1.00	79.08	C
ATOM 46335	CG1	VAL M	74	260.822	105.190	7.229	1.00	49.60	C	ATOM	46385	C	LEU M	81	255.033	98.763	15.770	1.00	79.08	C
ATOM 46336	CG2	VAL M	74	262.611	106.855	7.665	1.00	49.60	C	ATOM	46386	O	LEU M	81	253.851	98.693	16.098	1.00	79.08	O
ATOM 46337	N	ALA M	75	262.529	102.398	7.817	1.00	59.29	N	ATOM	46387	CB	LEU M	81	255.511	101.217	16.121	1.00	50.97	C
ATOM 46338	CA	ALA M	75	262.006	101.048	7.711	1.00	59.29	C	ATOM	46388	CG	LEU M	81	255.619	101.888	14.750	1.00	50.97	C
ATOM 46339	C	ALA M	75	262.157	100.369	9.068	1.00	59.29	C	ATOM	46389	CD1	LEU M	81	255.408	103.393	14.894	1.00	50.97	C
ATOM 46340	O	ALA M	75	261.254	99.671	9.538	1.00	59.29	O	ATOM	46390	CD2	LEU M	81	256.979	101.646	14.181	1.00	50.97	C
ATOM 46341	CB	ALA M	75	262.768	100.275	6.643	1.00	128.73	C	ATOM	46391	N	MET M	82	255.589	97.958	14.876	1.00	58.41	N
ATOM 46342	N	ALA M	76	263.310	100.585	9.692	1.00	100.01	N	ATOM	46392	CA	MET M	82	254.830	96.931	14.189	1.00	58.41	C
ATOM 46343	CA	ALA M	76	263.592	100.001	10.991	1.00	100.01	C	ATOM	46393	C	MET M	82	255.016	95.597	14.911	1.00	58.41	C
ATOM 46344	C	ALA M	76	262.556	100.461	12.013	1.00	100.01	C	ATOM	46394	O	MET M	82	254.117	94.754	14.916	1.00	58.41	O
ATOM 46345	O	ALA M	76	262.055	99.649	12.790	1.00	100.01	O	ATOM	46395	CB	MET M	82	255.312	96.823	12.747	1.00	92.59	C
ATOM 46346	CB	ALA M	76	264.991	100.388	11.440	1.00	107.81	C	ATOM	46396	CG	MET M	82	254.398	96.042	11.842	1.00	92.59	C
ATOM 46347	N	ASN M	77	262.240	101.756	12.015	1.00	87.11	N	ATOM	46397	SD	MET M	82	255.102	95.946	10.197	1.00	92.59	S



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ATOM	46398	CE	MET M	82	254.648	97.505	9.539	1.00	92.59	C	ATOM	46448	N	GLY M	89	251.179	100.382	14.926	1.00	83.26	N
ATOM	46399	N	ASP M	83	256.184	95.410	15.524	1.00	91.69	N	ATOM	46449	CA	GLY M	89	251.900	99.380	14.165	1.00	83.26	C
ATOM	46400	CA	ASP M	83	256.469	94.177	16.247	1.00	91.69	C	ATOM	46450	C	GLY M	89	250.956	98.482	13.393	1.00	83.26	C
ATOM	46401	C	ASP M	83	255.758	94.162	17.577	1.00	91.69	C	ATOM	46451	O	GLY M	89	251.281	98.005	12.301	1.00	83.26	O
ATOM	46402	O	ASP M	83	255.322	93.111	18.047	1.00	91.69	O	ATOM	46452	N	LEU M	90	249.782	98.243	13.970	1.00	88.67	N
ATOM	46403	CB	ASP M	83	257.961	94.017	16.466	1.00	91.00	C	ATOM	46453	CA	LEU M	90	248.777	97.409	13.329	1.00	48.67	C
ATOM	46404	CG	ASP M	83	258.697	93.781	15.179	1.00	91.00	C	ATOM	46454	C	LEU M	90	248.251	98.144	12.109	1.00	48.67	C
ATOM	46405	OD1	ASP M	83	258.325	92.834	14.452	1.00	91.00	O	ATOM	46455	O	LEU M	90	247.950	97.530	11.092	1.00	48.67	O
ATOM	46406	OD2	ASP M	83	259.642	94.541	14.893	1.00	91.00	O	ATOM	46456	CB	LEU M	90	247.639	97.103	14.307	1.00	80.99	C
ATOM	46407	N	ILE M	84	255.653	95.333	18.190	1.00	96.27	N	ATOM	46457	CG	LEU M	90	248.102	96.392	15.585	1.00	80.99	C
ATOM	46408	CA	ILE M	84	254.950	95.449	19.454	1.00	96.27	C	ATOM	46458	CD1	LEU M	90	246.913	96.158	16.503	1.00	80.99	C
ATOM	46409	C	ILE M	84	253.485	95.726	19.121	1.00	96.27	C	ATOM	46459	CD2	LEU M	90	248.782	95.071	15.229	1.00	80.99	C
ATOM	46410	O	ILE M	84	253.184	96.415	18.141	1.00	96.27	O	ATOM	46460	N	ARG M	91	248.159	99.468	12.203	1.00	60.23	N
ATOM	46411	CB	ILE M	84	255.537	96.578	20.300	1.00	70.90	C	ATOM	46461	CA	ARG M	91	247.680	100.262	11.078	1.00	60.23	C
ATOM	46412	CG1	ILE M	84	255.584	97.878	19.492	1.00	70.90	C	ATOM	46462	C	ARG M	91	248.630	100.107	9.905	1.00	60.23	C
ATOM	46413	CG2	ILE M	84	256.932	96.195	20.733	1.00	70.90	C	ATOM	46463	O	ARG M	91	248.260	100.323	8.755	1.00	60.23	O
ATOM	46414	CD1	ILE M	84	256.108	99.076	20.267	1.00	70.90	C	ATOM	46464	CB	ARG M	91	247.549	101.737	11.469	1.00	69.95	C
ATOM	46415	N	GLY M	85	252.583	95.167	19.924	1.00	106.03	N	ATOM	46465	CG	ARG M	91	246.487	101.981	12.521	1.00	69.95	C
ATOM	46416	CA	GLY M	85	251.153	95.328	19.699	1.00	106.03	C	ATOM	46466	CD	ARG M	91	245.132	101.422	12.087	1.00	69.95	C
ATOM	46417	C	GLY M	85	250.684	96.722	19.335	1.00	106.03	C	ATOM	46467	NE	ARG M	91	244.382	102.347	11.236	1.00	69.95	N
ATOM	46418	O	GLY M	85	249.500	96.936	19.081	1.00	106.03	O	ATOM	46468	NH1	ARG M	91	243.131	102.137	10.828	1.00	69.95	C
ATOM	46419	N	CYS M	86	251.617	97.665	19.316	1.00	70.38	O	ATOM	46469	CZ	ARG M	91	242.498	101.030	11.192	1.00	69.95	N
ATOM	46420	CA	CYS M	86	251.341	99.054	18.986	1.00	70.38	C	ATOM	46470	NH2	ARG M	91	242.508	103.039	10.076	1.00	69.95	N
ATOM	46421	C	CYS M	86	250.272	99.214	17.911	1.00	70.38	C	ATOM	46471	N	HIS M	92	249.866	99.732	10.139	1.00	63.25	N
ATOM	46422	O	CYS M	86	250.476	98.820	16.761	1.00	70.38	O	ATOM	46472	CA	HIS M	92	250.835	99.521	9.141	1.00	63.25	C
ATOM	46423	CB	CYS M	86	252.629	99.730	18.526	1.00	77.49	C	ATOM	46473	C	HIS M	92	250.574	98.150	8.530	1.00	63.25	C
ATOM	46424	SG	CYS M	86	252.426	101.435	18.019	1.00	77.49	S	ATOM	46474	O	HIS M	92	250.486	98.019	7.312	1.00	63.25	O
ATOM	46425	N	TYR M	87	249.132	99.785	18.303	1.00	82.99	N	ATOM	46475	CB	HIS M	92	252.246	99.613	9.703	1.00	58.27	C
ATOM	46426	CA	TYR M	87	248.556	100.644	16.114	1.00	82.99	C	ATOM	46476	CG	HIS M	92	252.755	101.013	9.794	1.00	58.27	C
ATOM	46427	C	TYR M	87	248.006	100.036	17.396	1.00	82.99	C	ATOM	46477	ND1	HIS M	92	253.103	101.748	8.681	1.00	58.27	N
ATOM	46428	O	TYR M	87	248.320	100.154	15.009	1.00	82.99	O	ATOM	46478	CD2	HIS M	92	252.939	101.829	10.859	1.00	58.27	C
ATOM	46429	CB	TYR M	87	247.024	101.013	18.059	1.00	73.21	C	ATOM	46479	CE1	HIS M	92	253.481	102.958	9.057	1.00	58.27	C
ATOM	46430	CG	TYR M	87	246.023	101.670	17.124	1.00	73.21	C	ATOM	46480	NE2	HIS M	92	253.389	103.033	10.373	1.00	58.27	N
ATOM	46431	CD1	TYR M	87	244.944	100.952	16.587	1.00	73.21	C	ATOM	46481	N	ARG M	93	250.428	97.140	9.384	1.00	72.02	N
ATOM	46433	CE1	TYR M	87	244.016	101.573	15.747	1.00	73.21	C	ATOM	46482	CA	ARG M	93	250.154	95.783	8.931	1.00	72.02	C
ATOM	46434	CE2	TYR M	87	245.229	103.647	15.949	1.00	73.21	C	ATOM	46483	O	ARG M	93	248.913	95.794	8.057	1.00	72.02	C
ATOM	46435	CZ	TYR M	87	244.169	102.923	15.435	1.00	73.21	C	ATOM	46484	O	ARG M	93	248.970	95.432	6.887	1.00	72.02	O
ATOM	46436	OH	TYR M	87	243.263	103.566	14.622	1.00	66.41	N	ATOM	46485	CB	ARG M	93	249.890	94.857	10.114	1.00	123.24	C
ATOM	46437	N	TYR M	88	249.295	101.728	16.294	1.00	66.41	C	ATOM	46486	CG	ARG M	93	251.018	94.708	11.096	1.00	123.24	C
ATOM	46438	CA	ARG M	88	249.930	102.444	15.204	1.00	66.41	C	ATOM	46487	CG	ARG M	93	250.598	93.715	12.154	1.00	123.24	C
ATOM	46439	C	ARG M	88	250.678	101.450	14.319	1.00	66.41	C	ATOM	46488	NE	ARG M	93	251.638	93.472	13.143	1.00	123.24	N
ATOM	46440	O	ARG M	88	250.800	101.644	13.115	1.00	66.41	O	ATOM	46489	CZ	ARG M	93	251.519	92.604	14.143	1.00	123.24	C
ATOM	46441	CB	ARG M	88	250.900	103.462	15.792	1.00	89.48	C	ATOM	46490	NH1	ARG M	93	250.401	91.899	14.279	1.00	123.24	N
ATOM	46442	CG	ARG M	88	251.551	104.377	14.803	1.00	89.48	C	ATOM	46491	NH2	ARG M	93	252.514	92.442	15.008	1.00	123.24	N
ATOM	46443	CD	ARG M	88	252.573	105.212	15.518	1.00	89.48	C	ATOM	46492	CA	ARG M	94	247.790	96.202	8.644	1.00	81.58	N
ATOM	46444	NE	ARG M	88	253.155	106.222	14.651	1.00	89.48	N	ATOM	46493	CA	ARG M	94	246.512	96.262	7.939	1.00	81.58	C
ATOM	46445	CZ	ARG M	88	254.203	106.965	14.985	1.00	89.48	C	ATOM	46494	C	ARG M	94	246.560	97.204	6.752	1.00	81.58	C
ATOM	46446	NH1	ARG M	88	254.785	106.804	16.168	1.00	89.48	N	ATOM	46495	O	ARG M	94	245.631	97.250	5.952	1.00	81.58	O
ATOM	46447	NH2	ARG M	88	254.659	107.879	14.140	1.00	89.48	N	ATOM	46496	CB	ARG M	94	245.392	96.704	8.885	1.00	109.68	C
ATOM	46448										ATOM	46497	CG	ARG M	94	244.817	95.591	9.739	1.00	109.68	C



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ATOM	46498	CD	ARG M	94	244.245	94.499	8.859	1.00109.68	C	ATOM	46548	CB	GLN M	101	242.748	110.009	8.215	1.00	55.98	C	
ATOM	46499	NE	ARG M	94	243.620	93.431	9.632	1.00109.68	N	ATOM	46549	CG	GLN M	101	244.063	110.787	8.383	1.00	55.98	C	
ATOM	46500	CZ	ARG M	94	243.197	92.282	9.111	1.00109.68	C	ATOM	46550	CD	GLN M	101	245.304	109.898	8.347	1.00	55.98	C	
ATOM	46501	NH1	ARG M	94	243.330	92.046	7.811	1.00109.68	N	ATOM	46551	OE1	GLN M	101	245.342	108.831	8.964	1.00	55.98	C	
ATOM	46502	NH2	ARG M	94	242.647	91.364	9.892	1.00109.68	N	ATOM	46552	NE2	GLN M	101	246.330	110.345	7.630	1.00	55.98	N	
ATOM	46503	N	GLY M	95	247.641	97.965	6.647	1.00	49.06	N	ATOM	46553	N	ARG M	102	239.811	109.371	8.511	1.00	64.18	N
ATOM	46504	CA	GLY M	95	247.786	98.892	5.544	1.00	49.06	C	ATOM	46554	CA	ARG M	102	238.602	108.593	8.245	1.00	64.18	C
ATOM	46505	C	GLY M	95	246.783	100.029	5.481	1.00	49.06	C	ATOM	46555	C	ARG M	102	238.876	107.495	7.248	1.00	64.18	O
ATOM	46506	O	GLY M	95	246.457	100.485	4.395	1.00	49.06	O	ATOM	46556	O	ARG M	102	239.548	107.732	6.253	1.00	64.18	O
ATOM	46507	N	LEU M	96	246.293	100.496	6.624	1.00	50.00	N	ATOM	46557	CB	ARG M	102	237.488	109.496	7.702	1.00	69.47	C
ATOM	46508	CA	LEU M	96	245.338	101.606	6.653	1.00	50.00	C	ATOM	46558	CG	ARG M	102	237.986	110.689	6.913	1.00	69.47	C
ATOM	46509	C	LEU M	96	246.005	102.865	7.191	1.00	50.00	C	ATOM	46559	CD	ARG M	102	236.981	111.150	5.864	1.00	69.47	C
ATOM	46510	O	LEU M	96	247.064	102.793	7.808	1.00	50.00	O	ATOM	46560	NE	ARG M	102	235.643	111.447	6.382	1.00	69.47	C
ATOM	46511	CB	LEU M	96	244.150	101.239	7.526	1.00	59.38	C	ATOM	46561	CZ	ARG M	102	234.675	110.551	6.542	1.00	69.47	C
ATOM	46512	CG	LEU M	96	243.401	100.035	6.971	1.00	59.38	C	ATOM	46562	NH1	ARG M	102	234.880	109.275	6.231	1.00	69.47	N
ATOM	46513	CD1	LEU M	96	242.431	99.501	8.008	1.00	59.38	C	ATOM	46563	NH2	ARG M	102	233.489	110.939	6.986	1.00	69.47	N
ATOM	46514	CD2	LEU M	96	242.687	100.453	5.687	1.00	59.38	C	ATOM	46564	N	THR M	103	238.369	106.294	7.506	1.00	57.81	N
ATOM	46515	N	PRO M	97	245.401	104.041	6.969	1.00	57.97	N	ATOM	46565	CA	THR M	103	238.589	105.204	6.570	1.00	57.81	C
ATOM	46516	CA	PRO M	97	246.060	105.247	7.491	1.00	57.97	C	ATOM	46566	C	THR M	103	237.290	104.707	5.939	1.00	57.81	C
ATOM	46517	C	PRO M	97	246.332	105.187	8.996	1.00	57.97	C	ATOM	46567	O	THR M	103	237.219	103.573	5.440	1.00	57.81	O
ATOM	46518	O	PRO M	97	245.529	104.682	9.785	1.00	57.97	O	ATOM	46568	CB	THR M	103	239.305	104.014	7.227	1.00	64.13	C
ATOM	46519	CB	PRO M	97	245.126	106.386	7.061	1.00	39.11	C	ATOM	46569	OG1	THR M	103	238.527	103.538	8.322	1.00	64.13	O
ATOM	46520	CG	PRO M	97	243.798	105.716	6.891	1.00	39.11	C	ATOM	46570	CG2	THR M	103	240.674	104.418	7.722	1.00	64.13	C
ATOM	46521	CD	PRO M	97	244.128	104.362	6.306	1.00	39.11	C	ATOM	46571	N	ARG M	104	236.266	105.558	5.969	1.00	46.06	N
ATOM	46522	N	VAL M	98	247.493	105.697	9.375	1.00	74.57	N	ATOM	46572	CA	ARG M	104	234.974	105.228	5.388	1.00	46.06	C
ATOM	46523	CA	VAL M	98	247.934	105.671	10.756	1.00	74.57	C	ATOM	46573	C	ARG M	104	235.000	105.754	3.974	1.00	46.06	C
ATOM	46524	C	VAL M	98	247.599	106.902	11.585	1.00	74.57	C	ATOM	46574	O	ARG M	104	234.310	105.249	3.105	1.00	46.06	O
ATOM	46525	O	VAL M	98	247.195	106.785	12.738	1.00	74.57	O	ATOM	46575	CB	ARG M	104	233.845	105.899	6.166	1.00	82.17	C
ATOM	46526	CB	VAL M	98	249.448	105.469	10.807	1.00	91.76	C	ATOM	46576	CG	ARG M	104	232.449	105.652	5.599	1.00	82.17	C
ATOM	46527	CG1	VAL M	98	249.896	105.313	12.237	1.00	91.76	C	ATOM	46577	CD	ARG M	104	231.383	106.184	6.545	1.00	82.17	C
ATOM	46528	CG2	VAL M	98	249.835	104.262	9.975	1.00	91.76	C	ATOM	46578	NE	ARG M	104	230.025	106.009	6.042	1.00	82.17	C
ATOM	46529	N	ARG M	99	247.771	108.078	10.997	1.00	59.04	N	ATOM	46579	CZ	ARG M	104	228.933	106.355	6.719	1.00	82.17	C
ATOM	46530	CA	ARG M	99	247.521	109.332	11.699	1.00	59.04	C	ATOM	46580	NH1	ARG M	104	229.041	106.893	7.925	1.00	82.17	N
ATOM	46531	C	ARG M	99	246.054	109.680	11.942	1.00	59.04	C	ATOM	46581	NH2	ARG M	104	227.732	106.169	6.193	1.00	82.17	N
ATOM	46532	O	ARG M	99	245.635	110.831	11.798	1.00	59.04	O	ATOM	46582	N	THR M	105	235.801	106.784	3.755	1.00	69.10	N
ATOM	46533	CB	ARG M	99	248.246	110.463	10.968	1.00	64.35	C	ATOM	46583	CA	THR M	105	235.943	107.379	2.437	1.00	69.10	C
ATOM	46534	CG	ARG M	99	249.686	110.071	10.693	1.00	64.35	C	ATOM	46584	C	THR M	105	237.264	108.121	2.475	1.00	69.10	C
ATOM	46535	CD	ARG M	99	250.584	111.219	10.309	1.00	64.35	C	ATOM	46585	O	THR M	105	237.699	108.508	3.551	1.00	69.10	O
ATOM	46536	CE	ARG M	99	251.964	110.746	10.258	1.00	64.35	N	ATOM	46586	CB	THR M	105	234.801	108.392	2.119	1.00	35.38	C
ATOM	46537	CZ	ARG M	99	253.006	111.482	9.889	1.00	64.35	C	ATOM	46587	OG1	THR M	105	234.837	109.480	3.048	1.00	35.38	O
ATOM	46538	NH1	ARG M	99	252.846	112.751	9.528	1.00	64.35	N	ATOM	46588	CG2	THR M	105	233.454	107.721	2.179	1.00	35.38	C
ATOM	46539	NH2	ARG M	99	254.213	110.935	9.875	1.00	64.35	N	ATOM	46589	N	ASN M	106	237.900	108.311	1.321	1.00	59.21	N
ATOM	46540	N	GLY M	100	245.292	108.662	12.334	1.00	68.12	N	ATOM	46590	CA	ASN M	106	239.182	109.021	1.235	1.00	59.21	C
ATOM	46541	CA	GLY M	100	243.879	108.819	12.642	1.00	68.12	C	ATOM	46591	C	ASN M	106	240.331	108.367	2.005	1.00	59.21	C
ATOM	46542	C	GLY M	100	243.030	109.635	11.692	1.00	68.12	C	ATOM	46592	O	ASN M	106	240.672	108.791	3.118	1.00	59.21	O
ATOM	46543	O	GLY M	100	242.587	110.731	12.034	1.00	68.12	O	ATOM	46593	CB	ASN M	106	239.052	110.463	1.736	1.00	65.57	C
ATOM	46544	N	GLN M	101	242.804	109.107	10.496	1.00	78.86	N	ATOM	46594	CG	ASN M	106	237.964	111.224	1.046	1.00	65.57	C
ATOM	46545	CA	GLN M	101	241.979	109.795	9.520	1.00	78.86	C	ATOM	46595	OD1	ASN M	106	237.890	111.257	-0.176	1.00	65.57	O
ATOM	46546	C	GLN M	101	240.772	108.900	9.298	1.00	78.86	C	ATOM	46596	ND2	ASN M	106	237.110	111.857	1.829	1.00	65.57	N
ATOM	46547	O	GLN M	101	240.705	107.801	9.855	1.00	78.86	O	ATOM	46597	N	ALA M	107	240.943	107.354	1.413	1.00	65.67	N



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ATOM	46598	CA	ALA M 107	242.062	106.675	2.051	1.00	65.67	C	ATOM	46648	CB	PRO M 113	243.212	100.974	-7.576	1.00	73.74	C
ATOM	46599	C	ALA M 107	242.756	105.942	0.940	1.00	65.67	C	ATOM	46649	CG	PRO M 113	244.716	100.957	-7.548	1.00	73.74	C
ATOM	46600	O	ALA M 107	243.518	105.004	1.171	1.00	65.67	O	ATOM	46650	CD	PRO M 113	244.987	100.608	-6.122	1.00	73.74	C
ATOM	46601	CB	ALA M 107	241.561	105.685	3.086	1.00	48.71	C	ATOM	46651	N	ARG M 114	240.432	101.799	-6.006	1.00	83.48	N
ATOM	46602	N	ARG M 108	242.469	106.392	-0.275	1.00	73.12	N	ATOM	46652	CA	ARG M 114	239.170	101.332	-5.446	1.00	83.48	C
ATOM	46603	CA	ARG M 108	242.996	105.779	-1.478	1.00	73.12	C	ATOM	46653	O	ARG M 114	238.947	99.882	-5.830	1.00	83.48	C
ATOM	46604	C	ARG M 108	244.505	105.847	-1.588	1.00	73.12	C	ATOM	46654	O	ARG M 114	239.200	99.479	-6.966	1.00	83.48	O
ATOM	46605	O	ARG M 108	245.144	104.948	-2.135	1.00	73.12	C	ATOM	46655	CB	ARG M 114	237.992	102.177	-5.924	1.00	64.54	C
ATOM	46606	CB	ARG M 108	242.343	106.421	-2.706	1.00	50.36	C	ATOM	46656	CG	ARG M 114	237.901	103.536	-5.274	1.00	64.54	C
ATOM	46607	CG	ARG M 108	240.802	106.480	-2.661	1.00	50.36	C	ATOM	46657	CD	ARG M 114	236.539	104.165	-5.507	1.00	64.54	C
ATOM	46608	CD	ARG M 108	240.145	105.265	-1.987	1.00	50.36	C	ATOM	46658	NE	ARG M 114	236.632	105.618	-5.564	1.00	64.54	N
ATOM	46609	NE	ARG M 108	240.765	103.995	-2.352	1.00	50.36	N	ATOM	46659	C2	ARG M 114	236.949	106.398	-4.536	1.00	64.54	C
ATOM	46610	C2	ARG M 108	240.263	102.799	-2.057	1.00	50.36	C	ATOM	46660	NH1	ARG M 114	237.198	105.869	-3.343	1.00	64.54	N
ATOM	46611	NH1	ARG M 108	239.121	102.687	-1.393	1.00	50.36	N	ATOM	46661	NH2	ARG M 114	237.051	107.712	-4.715	1.00	64.54	N
ATOM	46612	NH2	ARG M 108	240.909	101.705	-2.424	1.00	50.36	N	ATOM	46662	N	LYS M 115	238.460	99.106	-4.872	1.00	64.62	N
ATOM	46613	N	THR M 109	245.074	106.915	-1.057	1.00	50.75	N	ATOM	46663	CA	LYS M 115	238.224	97.688	-5.080	1.00	64.62	C
ATOM	46614	CA	THR M 109	246.520	107.099	-1.101	1.00	50.75	C	ATOM	46664	O	LYS M 115	236.728	97.402	-5.038	1.00	64.62	C
ATOM	46615	C	THR M 109	247.210	106.012	-0.265	1.00	50.75	C	ATOM	46665	O	LYS M 115	236.256	96.623	-4.210	1.00	64.62	O
ATOM	46616	O	THR M 109	248.383	105.720	-0.446	1.00	50.75	O	ATOM	46666	CB	LYS M 115	238.948	96.914	-3.985	1.00	58.80	C
ATOM	46617	CB	THR M 109	246.889	108.503	-0.558	1.00	41.56	C	ATOM	46667	CG	LYS M 115	240.235	97.608	-3.542	1.00	58.80	C
ATOM	46618	CG	THR M 109	248.230	108.837	-0.919	1.00	41.56	O	ATOM	46668	CD	LYS M 115	240.820	96.982	-2.300	1.00	58.80	C
ATOM	46619	CG2	THR M 109	246.767	108.525	0.943	1.00	41.56	C	ATOM	46669	CE	LYS M 115	241.036	95.515	-2.541	1.00	58.80	C
ATOM	46620	N	ARG M 110	246.453	105.401	0.637	1.00	47.59	N	ATOM	46670	N2	LYS M 115	241.551	95.302	-3.929	1.00	58.80	N
ATOM	46621	CA	ARG M 110	246.979	104.376	1.525	1.00	47.59	C	ATOM	46671	N	THR M 116	235.998	98.030	-5.955	1.00	47.12	N
ATOM	46622	C	ARG M 110	246.429	102.995	1.193	1.00	47.59	C	ATOM	46672	CA	THR M 116	234.544	97.899	-6.050	1.00	47.12	C
ATOM	46623	O	ARG M 110	247.059	101.990	1.494	1.00	47.59	O	ATOM	46673	O	THR M 116	233.970	96.500	-5.791	1.00	47.12	C
ATOM	46624	CB	ARG M 110	246.618	104.722	2.973	1.00	63.29	C	ATOM	46674	O	THR M 116	234.584	95.493	-6.126	1.00	47.12	O
ATOM	46625	CG	ARG M 110	247.499	104.068	4.005	1.00	63.29	C	ATOM	46675	CB	THR M 116	234.054	98.424	-7.416	1.00	47.32	C
ATOM	46626	CD	ARG M 110	248.512	105.064	4.544	1.00	63.29	C	ATOM	46676	OG1	THR M 116	234.377	99.820	-7.533	1.00	47.32	O
ATOM	46627	NE	ARG M 110	249.815	104.450	4.783	1.00	63.29	N	ATOM	46677	CG2	THR M 116	232.555	98.255	-7.546	1.00	47.32	C
ATOM	46628	C2	ARG M 110	250.016	103.355	5.513	1.00	63.29	C	ATOM	46678	N	VAL M 117	232.792	96.464	-5.169	1.00	64.64	N
ATOM	46629	NH1	ARG M 110	249.000	102.728	6.092	1.00	63.29	N	ATOM	46679	CA	VAL M 117	232.093	95.222	-4.828	1.00	64.64	C
ATOM	46630	NH2	ARG M 110	251.245	102.884	5.667	1.00	63.29	N	ATOM	46680	C	VAL M 117	230.622	95.420	-5.187	1.00	64.64	C
ATOM	46631	N	LYS M 111	245.245	102.953	0.597	1.00	63.29	N	ATOM	46681	O	VAL M 117	230.214	96.532	-5.512	1.00	64.64	O
ATOM	46632	CA	LYS M 111	244.596	101.692	0.226	1.00	77.38	C	ATOM	46682	CB	VAL M 117	232.176	94.925	-3.296	1.00	50.61	C
ATOM	46633	C	LYS M 111	244.955	101.214	-1.181	1.00	77.38	C	ATOM	46683	CG1	VAL M 117	231.614	93.535	-2.986	1.00	50.61	C
ATOM	46634	O	LYS M 111	245.049	100.012	-1.439	1.00	77.38	O	ATOM	46684	CG2	VAL M 117	233.608	-95.045	-2.817	1.00	50.61	C
ATOM	46635	CB	LYS M 111	243.076	101.835	0.264	1.00	60.54	C	ATOM	46685	N	ALA M 118	229.829	94.353	-5.134	1.00	105.67	N
ATOM	46636	CG	LYS M 111	242.401	102.005	1.605	1.00	60.54	C	ATOM	46686	CA	ALA M 118	228.402	94.466	-5.426	1.00	105.67	C
ATOM	46637	CD	LYS M 111	240.927	101.694	1.377	1.00	60.54	C	ATOM	46687	O	ALA M 118	227.775	95.201	-4.236	1.00	105.67	C
ATOM	46638	CE	LYS M 111	240.057	101.999	2.554	1.00	60.54	C	ATOM	46688	O	ALA M 118	228.371	95.238	-3.158	1.00	105.67	O
ATOM	46639	N2	LYS M 111	238.652	101.678	2.203	1.00	60.54	N	ATOM	46689	CB	ALA M 118	227.783	93.079	-5.593	1.00	76.77	C
ATOM	46640	N	GLY M 112	245.124	102.164	-2.093	1.00	51.12	N	ATOM	46690	N	GLY M 119	226.589	95.783	-4.416	1.00	87.64	N
ATOM	46641	CA	GLY M 112	245.430	101.824	-3.465	1.00	51.12	C	ATOM	46691	CA	GLY M 119	225.980	96.512	-3.314	1.00	87.64	C
ATOM	46642	C	GLY M 112	244.216	102.156	-4.310	1.00	51.12	C	ATOM	46692	O	GLY M 119	224.468	96.628	-3.279	1.00	87.64	C
ATOM	46643	O	GLY M 112	243.455	103.063	-3.969	1.00	51.12	O	ATOM	46693	C	GLY M 119	223.762	95.943	-4.018	1.00	87.64	O
ATOM	46644	N	PRO M 113	244.004	101.451	-5.428	1.00	75.27	N	ATOM	46694	N	LYS M 120	223.983	97.512	-2.407	1.00	151.70	N
ATOM	46645	CA	PRO M 113	242.850	101.715	-6.295	1.00	75.27	C	ATOM	46695	CA	LYS M 120	222.553	97.758	-2.212	1.00	151.70	C
ATOM	46646	C	PRO M 113	241.564	101.183	-5.675	1.00	75.27	C	ATOM	46696	C	LYS M 120	222.090	99.071	-2.453	1.00	151.70	C
ATOM	46647	O	PRO M 113	241.599	100.221	-4.904	1.00	75.27	O	ATOM	46697	O	LYS M 120	222.486	100.158	-2.423	1.00	151.70	O



ATOM	46698	CB	LYS M 120	222.248	97.774	-0.712	1.00109.69	C	ATOM	46748	CB	LYS M 126	222.295	110.199	-3.228	1.00	98.49	C	
ATOM	46699	CG	LYS M 120	220.835	98.193	-0.341	1.00109.69	C	ATOM	46749	CG	LYS M 126	221.485	109.538	-4.342	1.00	98.49	C	
ATOM	46700	CD	LYS M 120	220.624	98.046	1.158	1.00109.69	C	ATOM	46750	CD	LYS M 126	220.511	110.531	-4.975	1.00	98.49	C	
ATOM	46701	CE	LYS M 120	219.325	98.679	1.631	1.00109.69	C	ATOM	46751	CE	LYS M 126	219.606	109.866	-6.014	1.00	98.49	C	
ATOM	46702	NZ	LYS M 120	219.209	98.617	3.118	1.00109.69	N	ATOM	46752	NZ	LYS M 126	218.603	110.809	-6.611	1.00	98.49	N	
ATOM	46703	N	LYS M 121	221.232	98.957	-3.867	1.00116.88	N	ATOM	46753	OXT	LYS M 126	224.554	109.636	-0.575	1.00127.46	O		
ATOM	46704	CA	LYS M 121	220.720	100.116	-4.602	1.00116.88	C	TER	46754		LYS M 126							
ATOM	46705	C	LYS M 121	219.696	100.973	-3.849	1.00116.88	C	ATOM	46755	N	ALA N 2	217.667	116.732	27.376	1.00	72.66	N	
ATOM	46706	O	LYS M 121	220.061	101.724	-2.941	1.00116.88	O	ATOM	46756	CA	ALA N 2	217.101	117.755	28.291	1.00	72.66	C	
ATOM	46707	CB	LYS M 121	220.120	99.671	-5.948	1.00129.36	C	ATOM	46757	C	ALA N 2	216.237	117.061	29.340	1.00	72.66	C	
ATOM	46708	CG	LYS M 121	221.125	99.102	-6.964	1.00129.36	C	ATOM	46758	O	ALA N 2	215.018	117.253	29.421	1.00	72.66	O	
ATOM	46709	CD	LYS M 121	221.639	97.717	-6.563	1.00129.36	C	ATOM	46759	CB	ALA N 2	216.285	118.788	27.502	1.00	31.64	C	
ATOM	46710	CE	LYS M 121	222.612	97.153	-7.592	1.00129.36	C	ATOM	46760	N	ARG N 3	216.900	116.231	30.133	1.00122.72	N		
ATOM	46711	NZ	LYS M 121	223.145	95.823	-7.179	1.00129.36	N	ATOM	46761	CA	ARG N 3	216.264	115.499	31.209	1.00122.72	C		
ATOM	46712	N	LYS M 122	218.424	100.865	-4.244	1.00200.93	N	ATOM	46762	C	ARG N 3	216.733	116.153	32.502	1.00122.72	C		
ATOM	46713	CA	LYS M 122	217.332	101.631	-3.635	1.00200.93	C	ATOM	46763	O	ARG N 3	217.916	116.464	32.638	1.00122.72	O		
ATOM	46714	C	LYS M 122	217.416	101.699	-2.115	1.00200.93	C	ATOM	46764	CB	ARG N 3	216.707	114.042	31.172	1.00	83.79	C	
ATOM	46715	O	LYS M 122	216.925	100.827	-1.394	1.00200.93	O	ATOM	46765	CG	ARG N 3	216.383	113.360	29.863	1.00	83.79	C	
ATOM	46716	CB	LYS M 122	215.968	101.064	-4.059	1.00	88.93	C	ATOM	46766	CD	ARG N 3	217.629	112.812	29.192	1.00	83.79	C
ATOM	46717	CG	LYS M 122	214.752	101.645	-3.308	1.00	88.93	C	ATOM	46767	NE	ARG N 3	218.332	111.841	30.030	1.00	83.79	N
ATOM	46718	CD	LYS M 122	214.532	103.148	-3.536	1.00	88.93	C	ATOM	46768	CZ	ARG N 3	219.420	111.173	29.652	1.00	83.79	C
ATOM	46719	CE	LYS M 122	213.281	103.625	-2.798	1.00	88.93	C	ATOM	46769	NH1	ARG N 3	219.941	111.363	28.446	1.00	83.79	N
ATOM	46720	NZ	LYS M 122	212.965	105.057	-3.032	1.00	88.93	N	ATOM	46770	NH2	ARG N 3	219.993	110.319	30.485	1.00	83.79	N
ATOM	46721	N	ALA M 123	218.054	102.768	-1.659	1.00200.93	N	ATOM	46771	N	LYS N 4	215.813	116.389	33.435	1.00	90.19	N	
ATOM	46722	CA	ALA M 123	218.277	103.082	-0.253	1.00200.93	C	ATOM	46772	CA	LYS N 4	216.184	117.002	34.703	1.00	90.19	C	
ATOM	46723	C	ALA M 123	219.177	104.306	-0.380	1.00200.93	C	ATOM	46773	C	LYS N 4	217.529	116.412	35.093	1.00	90.19	C	
ATOM	46724	O	ALA M 123	220.294	104.328	0.141	1.00200.93	O	ATOM	46774	O	LYS N 4	218.508	117.129	35.305	1.00	90.19	O	
ATOM	46725	CB	ALA M 123	219.016	101.932	0.459	1.00	90.55	C	ATOM	46775	CB	LYS N 4	215.155	116.669	35.788	1.00118.45	C	
ATOM	46726	N	PRO M 124	218.682	105.347	-1.081	1.00200.93	N	ATOM	46776	CG	LYS N 4	213.926	117.562	35.822	1.00118.45	C		
ATOM	46727	CA	PRO M 124	219.389	106.603	-1.331	1.00200.93	C	ATOM	46777	CD	LYS N 4	213.082	117.238	37.052	1.00118.45	C		
ATOM	46728	C	PRO M 124	220.790	106.718	-0.738	1.00200.93	C	ATOM	46778	CE	LYS N 4	211.978	118.264	37.291	1.00118.45	C		
ATOM	46729	O	PRO M 124	221.018	107.433	0.241	1.00200.93	O	ATOM	46779	NZ	LYS N 4	211.192	117.975	38.537	1.00118.45	N		
ATOM	46730	CB	PRO M 124	218.405	107.634	-0.807	1.00174.24	C	ATOM	46780	N	ALA N 5	217.560	115.085	35.144	1.00	71.19	N	
ATOM	46731	CG	PRO M 124	217.113	107.094	-1.375	1.00174.24	C	ATOM	46781	CA	ALA N 5	218.752	114.337	35.507	1.00	71.19	C	
ATOM	46732	CD	PRO M 124	217.224	105.567	-1.200	1.00174.24	C	ATOM	46782	C	ALA N 5	220.027	114.859	34.841	1.00	71.19	C	
ATOM	46733	N	ARG M 125	221.725	105.992	-1.350	1.00200.93	N	ATOM	46783	O	ALA N 5	221.078	114.946	35.484	1.00	71.19	O	
ATOM	46734	CA	ARG M 125	223.118	106.003	-0.927	1.00200.93	C	ATOM	46784	CB	ALA N 5	218.546	112.859	35.173	1.00	45.80	C	
ATOM	46735	C	ARG M 125	223.784	107.237	-1.519	1.00200.93	C	ATOM	46785	N	LEU N 6	219.934	115.201	33.557	1.00109.47	N		
ATOM	46736	O	ARG M 125	225.008	107.378	-1.480	1.00200.93	O	ATOM	46786	CA	LEU N 6	221.093	115.694	32.820	1.00109.47	C		
ATOM	46737	CB	ARG M 125	223.842	104.723	-1.395	1.00129.36	C	ATOM	46787	C	LEU N 6	221.301	117.192	32.914	1.00109.47	C		
ATOM	46738	CG	ARG M 125	223.832	104.453	-2.905	1.00129.36	C	ATOM	46788	O	LEU N 6	221.982	117.785	32.078	1.00109.47	O		
ATOM	46739	CD	ARG M 125	224.751	105.400	-3.671	1.00129.36	C	ATOM	46789	CB	LEU N 6	221.032	115.272	31.348	1.00	86.25	C	
ATOM	46740	NE	ARG M 125	224.798	105.105	-5.102	1.00129.36	N	ATOM	46790	CG	LEU N 6	221.370	113.806	31.052	1.00	86.25	C	
ATOM	46741	CZ	ARG M 125	223.763	105.203	-5.929	1.00129.36	C	ATOM	46791	CD1	LEU N 6	221.324	113.584	29.560	1.00	86.25	C	
ATOM	46742	NH1	ARG M 125	222.580	105.595	-5.475	1.00129.36	N	ATOM	46792	CD2	LEU N 6	222.758	113.460	31.585	1.00	86.25	C	
ATOM	46743	NH2	ARG M 125	223.912	104.902	-7.213	1.00129.36	N	ATOM	46793	N	ILE N 7	220.691	117.813	33.915	1.00	96.21	N	
ATOM	46744	N	LYS M 126	222.962	108.129	-2.070	1.00200.93	N	ATOM	46794	CA	ILE N 7	220.904	119.233	34.131	1.00	96.21	C	
ATOM	46745	CA	LYS M 126	223.456	109.358	-2.677	1.00200.93	C	ATOM	46795	C	ILE N 7	221.642	119.294	35.465	1.00	96.21	C	
ATOM	46746	C	LYS M 126	224.226	110.178	-1.651	1.00200.93	C	ATOM	46796	O	ILE N 7	221.232	119.952	36.426	1.00	96.21	O	
ATOM	46747	O	LYS M 126	224.506	111.355	-1.942	1.00200.93	O	ATOM	46797	CB	ILE N 7	219.601	120.030	34.178	1.00	46.81	C	



Table 1: Sheet 470/521

ATOM	46798	CG1	ILE	N	7	218.759	119.699	32.945	1.00	46.81	C	ATOM	46848	CB	THR	N	13	230.926	119.424	41.389	1.00134.40	C
ATOM	46799	CG2	ILE	N	7	219.922	121.521	34.181	1.00	46.81	C	ATOM	46849	OG1	THR	N	13	230.367	120.070	42.539	1.00134.40	O
ATOM	46800	CD1	ILE	N	7	217.599	120.612	32.755	1.00	46.81	C	ATOM	46850	CG2	THR	N	13	231.890	118.327	41.858	1.00134.40	C
ATOM	46801	N	GLU	N	8	222.730	118.528	35.482	1.00	99.58	N	ATOM	46851	N	PRO	N	14	232.907	120.500	38.418	1.00184.17	N
ATOM	46802	CA	GLU	N	8	223.651	118.401	36.595	1.00	99.58	C	ATOM	46852	CA	PRO	N	14	233.331	119.887	37.167	1.00184.17	C
ATOM	46803	C	GLU	N	8	224.757	119.343	36.160	1.00	99.58	C	ATOM	46853	C	PRO	N	14	234.387	118.829	37.443	1.00184.17	C
ATOM	46804	O	GLU	N	8	225.836	119.370	36.737	1.00	99.58	O	ATOM	46854	O	PRO	N	14	234.722	118.033	36.566	1.00184.17	O
ATOM	46805	CB	GLU	N	8	224.196	116.975	36.659	1.00	93.17	C	ATOM	46855	CB	PRO	N	14	233.879	121.073	36.397	1.00111.52	C
ATOM	46806	CG	GLU	N	8	225.264	116.684	35.599	1.00	93.17	C	ATOM	46856	CG	PRO	N	14	234.557	121.851	37.482	1.00111.52	C
ATOM	46807	CD	GLU	N	8	225.285	115.230	35.129	1.00	93.17	C	ATOM	46857	CD	PRO	N	14	233.543	121.818	38.602	1.00111.52	C
ATOM	46808	OE1	GLU	N	8	225.424	114.314	35.974	1.00	93.17	O	ATOM	46858	N	LYS	N	15	234.895	118.821	38.674	1.00104.73	N
ATOM	46809	OE2	GLU	N	8	225.170	115.006	33.901	1.00	93.17	O	ATOM	46859	CA	LYS	N	15	235.946	117.894	39.081	1.00104.73	C
ATOM	46810	N	LYS	N	9	224.474	120.085	35.095	1.00	94.70	N	ATOM	46860	C	LYS	N	15	237.172	118.388	38.315	1.00104.73	C
ATOM	46811	CA	LYS	N	9	225.410	121.048	34.545	1.00	94.70	C	ATOM	46861	O	LYS	N	15	238.304	118.303	38.790	1.00104.73	O
ATOM	46812	C	LYS	N	9	225.567	122.200	35.526	1.00	94.70	C	ATOM	46862	CB	LYS	N	15	235.590	116.459	38.676	1.00 88.47	C
ATOM	46813	O	LYS	N	9	226.647	122.785	35.661	1.00	94.70	C	ATOM	46863	CG	LYS	N	15	236.098	115.362	39.616	1.00 88.47	C
ATOM	46814	CB	LYS	N	9	224.891	121.570	33.204	1.00	80.49	C	ATOM	46864	CD	LYS	N	15	235.631	113.984	39.121	1.00 88.47	C
ATOM	46815	CG	LYS	N	9	225.733	122.692	32.595	1.00	80.49	C	ATOM	46865	CE	LYS	N	15	235.621	112.909	40.215	1.00 88.47	C
ATOM	46816	CD	LYS	N	9	225.430	124.066	33.203	1.00	80.49	C	ATOM	46866	NZ	LYS	N	15	236.967	112.520	40.719	1.00 88.47	N
ATOM	46817	CE	LYS	N	9	226.446	125.104	32.740	1.00	80.49	C	ATOM	46867	N	PHE	N	16	236.907	118.913	37.120	1.00 60.30	N
ATOM	46818	NZ	LYS	N	9	226.042	126.483	33.119	1.00	80.49	N	ATOM	46868	CA	PHE	N	16	237.900	119.488	36.213	1.00 60.30	C
ATOM	46819	N	ALA	N	10	224.476	122.527	36.207	1.00	92.74	N	ATOM	46869	C	PHE	N	16	237.019	120.448	35.415	1.00 60.30	C
ATOM	46820	CA	ALA	N	10	224.488	123.604	37.177	1.00	92.74	C	ATOM	46870	O	PHE	N	16	236.005	120.025	34.865	1.00 60.30	C
ATOM	46821	C	ALA	N	10	225.283	123.179	38.415	1.00	92.74	C	ATOM	46871	CB	PHE	N	16	238.495	118.427	35.277	1.00 61.43	C
ATOM	46822	O	ALA	N	10	225.550	123.992	39.303	1.00	92.74	O	ATOM	46872	CG	PHE	N	16	238.689	117.074	35.917	1.00 61.43	C
ATOM	46823	CB	ALA	N	10	223.058	123.969	37.557	1.00	96.79	C	ATOM	46873	CD1	PHE	N	16	237.648	116.145	35.945	1.00 61.43	C
ATOM	46824	N	LYS	N	11	225.671	121.906	38.457	1.00142.17	N	N	ATOM	46874	CD2	PHE	N	16	239.915	116.717	36.470	1.00 61.43	C
ATOM	46825	CA	LYS	N	11	226.424	121.358	39.585	1.00142.17	C	C	ATOM	46875	CE1	PHE	N	16	237.825	114.879	36.511	1.00 61.43	C
ATOM	46826	C	LYS	N	11	227.839	121.886	39.780	1.00142.17	C	C	ATOM	46876	CE2	PHE	N	16	240.103	115.453	37.040	1.00 61.43	C
ATOM	46827	O	LYS	N	11	228.544	121.387	40.556	1.00142.17	O	O	ATOM	46877	CZ	PHE	N	16	239.053	114.534	37.057	1.00 61.43	C
ATOM	46828	CB	LYS	N	11	226.534	119.835	39.482	1.00 70.09	C	C	ATOM	46878	N	LYS	N	17	237.393	121.724	35.346	1.00100.28	N
ATOM	46829	CG	LYS	N	11	225.364	119.032	40.019	1.00 70.09	C	C	ATOM	46879	CA	LYS	N	17	236.561	122.720	34.666	1.00100.28	C
ATOM	46830	CD	LYS	N	11	225.712	117.533	39.991	1.00 70.09	C	C	ATOM	46880	C	LYS	N	17	236.315	122.599	33.164	1.00100.28	C
ATOM	46831	CE	LYS	N	11	224.516	116.640	40.331	1.00 70.09	C	C	ATOM	46881	O	LYS	N	17	235.716	123.492	32.559	1.00100.28	O
ATOM	46832	NZ	LYS	N	11	224.823	115.180	40.185	1.00 70.09	N	N	ATOM	46882	CB	LYS	N	17	237.065	124.135	34.975	1.00103.77	C
ATOM	46833	N	ARG	N	12	228.267	122.875	38.998	1.00119.56	C	C	ATOM	46883	CG	LYS	N	17	238.365	124.530	34.300	1.00103.77	C
ATOM	46834	CA	ARG	N	12	229.634	123.378	39.145	1.00119.56	C	C	ATOM	46884	CD	LYS	N	17	238.230	125.912	33.671	1.00103.77	C
ATOM	46835	C	ARG	N	12	230.532	122.155	39.093	1.00119.56	C	C	ATOM	46885	CE	LYS	N	17	237.676	126.924	34.665	1.00103.77	C
ATOM	46836	O	ARG	N	12	230.903	121.688	38.016	1.00119.56	O	O	ATOM	46886	NZ	LYS	N	17	237.399	128.243	34.039	1.00103.77	N
ATOM	46837	CB	ARG	N	12	229.832	124.064	40.502	1.00113.98	C	C	ATOM	46887	N	VAL	N	18	236.537	121.507	32.556	1.00112.11	N
ATOM	46838	CG	ARG	N	12	229.173	125.408	40.645	1.00113.98	C	C	ATOM	46888	CA	VAL	N	18	236.757	121.507	32.556	1.00112.11	N
ATOM	46839	CD	ARG	N	12	229.786	126.404	39.686	1.00113.98	C	C	ATOM	46889	C	VAL	N	18	235.233	120.591	30.856	1.00112.11	C
ATOM	46840	NE	ARG	N	12	229.303	127.756	39.942	1.00113.98	N	N	ATOM	46890	O	VAL	N	18	234.745	120.570	29.723	1.00112.11	O
ATOM	46841	CZ	ARG	N	12	229.575	128.808	39.176	1.00113.98	C	C	ATOM	46891	CB	VAL	N	18	237.707	120.578	30.470	1.00 66.22	C
ATOM	46842	NH1	ARG	N	12	230.332	128.670	38.091	1.00113.98	N	N	ATOM	46892	CG1	VAL	N	18	238.869	121.537	30.289	1.00 66.22	C
ATOM	46843	NH2	ARG	N	12	229.093	130.003	39.500	1.00113.98	N	N	ATOM	46893	CG2	VAL	N	18	238.121	119.369	31.326	1.00 66.22	C
ATOM	46844	N	THR	N	13	230.847	121.651	40.289	1.00132.71	N	N	ATOM	46894	N	ARG	N	19	234.669	119.997	31.904	1.00 55.85	N
ATOM	46845	CA	THR	N	13	231.677	120.469	40.516	1.00132.71	C	C	ATOM	46895	CA	ARG	N	19	233.414	119.269	31.787	1.00 55.85	C
ATOM	46846	C	THR	N	13	232.105	119.801	39.219	1.00132.71	C	C	ATOM	46896	C	ARG	N	19	232.194	120.189	31.900	1.00 55.85	C
ATOM	46847	O	THR	N	13	231.732	118.663	38.931	1.00132.71	O	O	ATOM	46897	O	ARG	N	19	231.063	119.714	31.967	1.00 55.85	O



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ATOM	46898	CB	ARG N	19	233.332	118.177	32.850	1.00	62.56	C	ATOM	46948	C	VAL N	25	217.073	128.796	30.524	1.00	73.35	C
ATOM	46899	CG	ARG N	19	234.404	117.121	32.737	1.00	62.56	C	ATOM	46949	O	VAL N	25	216.477	129.635	31.195	1.00	73.35	O
ATOM	46900	CD	ARG N	19	234.098	115.957	33.653	1.00	62.56	C	ATOM	46950	CB	VAL N	25	219.232	130.013	30.989	1.00	80.21	C
ATOM	46901	NE	ARG N	19	235.021	114.851	33.443	1.00	62.56	N	ATOM	46951	CG1	VAL N	25	218.608	131.152	30.195	1.00	80.21	C
ATOM	46902	CZ	ARG N	19	235.003	113.717	34.138	1.00	62.56	C	ATOM	46952	CG2	VAL N	25	219.109	130.229	32.475	1.00	80.21	C
ATOM	46903	NH1	ARG N	19	234.103	113.537	35.095	1.00	62.56	N	ATOM	46953	N	ARG N	26	216.450	127.954	29.707	1.00	72.47	N
ATOM	46904	NH2	ARG N	19	235.886	112.762	33.877	1.00	62.56	N	ATOM	46954	CA	ARG N	26	215.001	127.986	29.551	1.00	72.47	C
ATOM	46905	N	ALA N	20	232.436	121.500	31.900	1.00	80.34	N	ATOM	46955	C	ARG N	26	214.400	126.691	29.038	1.00	72.47	C
ATOM	46906	CA	ALA N	20	231.376	122.508	32.003	1.00	80.34	C	ATOM	46956	O	ARG N	26	213.277	126.347	29.409	1.00	72.47	O
ATOM	46907	C	ALA N	20	230.715	122.758	30.650	1.00	80.34	C	ATOM	46957	CB	ARG N	26	214.590	129.112	28.617	1.00	55.12	C
ATOM	46908	O	ALA N	20	231.407	122.778	29.633	1.00	80.34	O	ATOM	46958	CG	ARG N	26	213.152	129.037	28.226	1.00	55.12	C
ATOM	46909	CB	ALA N	20	231.964	123.803	32.521	1.00	58.52	C	ATOM	46959	CD	ARG N	26	212.767	130.221	27.396	1.00	55.12	C
ATOM	46910	N	TYR N	21	229.393	122.959	30.625	1.00	76.49	N	ATOM	46960	NE	ARG N	26	211.483	129.984	26.754	1.00	55.12	N
ATOM	46911	CA	TYR N	21	228.714	123.205	29.349	1.00	76.49	C	ATOM	46961	CZ	ARG N	26	210.872	130.851	25.956	1.00	55.12	C
ATOM	46912	C	TYR N	21	227.413	124.007	29.295	1.00	76.49	C	ATOM	46962	NH1	ARG N	26	211.425	132.028	25.700	1.00	55.12	N
ATOM	46913	O	TYR N	21	226.354	123.533	29.692	1.00	76.49	O	ATOM	46963	NH2	ARG N	26	209.714	130.526	25.403	1.00	55.12	N
ATOM	46914	CB	TYR N	21	228.486	121.888	28.593	1.00	55.56	C	ATOM	46964	N	CYS N	27	215.130	125.990	28.171	1.00	61.50	N
ATOM	46915	CG	TYR N	21	227.590	120.878	29.264	1.00	55.56	C	ATOM	46965	CA	CYS N	27	214.653	124.718	27.620	1.00	61.50	C
ATOM	46916	CD1	TYR N	21	228.112	119.939	30.139	1.00	55.56	C	ATOM	46966	C	CYS N	27	215.686	123.619	27.822	1.00	61.50	C
ATOM	46917	CD2	TYR N	21	226.225	120.828	28.975	1.00	55.56	C	ATOM	46967	O	CYS N	27	215.381	122.436	27.670	1.00	61.50	O
ATOM	46918	CE1	TYR N	21	227.305	118.966	30.708	1.00	55.56	C	ATOM	46968	CB	CYS N	27	214.336	124.857	26.127	1.00	40.15	C
ATOM	46919	CE2	TYR N	21	225.403	119.860	29.530	1.00	55.56	C	ATOM	46969	SG	CYS N	27	215.752	125.231	25.099	1.00	40.15	S
ATOM	46920	CZ	TYR N	21	225.949	118.929	30.404	1.00	55.56	C	ATOM	46970	N	GLY N	28	216.907	124.028	28.166	1.00	74.20	N
ATOM	46921	OH	TYR N	21	225.154	117.953	30.966	1.00	55.56	O	ATOM	46971	CA	GLY N	28	217.987	123.081	28.394	1.00	74.20	C
ATOM	46922	CA	THR N	22	227.521	125.214	28.748	1.00	88.87	N	ATOM	46972	C	GLY N	28	218.703	122.707	27.113	1.00	74.20	C
ATOM	46923	C	THR N	22	226.419	126.156	28.559	1.00	88.87	C	ATOM	46973	O	GLY N	28	219.673	121.947	27.124	1.00	74.20	O
ATOM	46924	C	THR N	22	224.973	125.806	28.961	1.00	88.87	C	ATOM	46974	N	ARG N	29	218.216	123.252	26.006	1.00	47.78	N
ATOM	46925	O	THR N	22	224.489	126.284	29.996	1.00	88.87	O	ATOM	46975	CA	ARG N	29	218.790	122.979	24.701	1.00	47.78	C
ATOM	46926	CB	THR N	22	226.385	126.615	27.102	1.00	68.69	C	ATOM	46976	C	ARG N	29	220.293	123.220	24.671	1.00	47.78	C
ATOM	46927	OG1	THR N	22	226.619	125.487	26.243	1.00	68.69	O	ATOM	46977	O	ARG N	29	220.758	124.277	24.252	1.00	47.78	O
ATOM	46928	CG2	THR N	22	227.427	127.685	26.853	1.00	68.69	C	ATOM	46978	CB	ARG N	29	218.122	123.846	23.640	1.00	81.44	C
ATOM	46929	N	ARG N	23	224.283	125.012	28.134	1.00	66.41	N	ATOM	46979	CG	ARG N	29	218.481	123.430	22.238	1.00	81.44	C
ATOM	46930	CA	ARG N	23	222.877	124.624	28.370	1.00	66.41	C	ATOM	46980	CD	ARG N	29	217.813	122.117	21.896	1.00	81.44	C
ATOM	46931	C	ARG N	23	221.921	125.810	28.307	1.00	66.41	C	ATOM	46981	NE	ARG N	29	218.435	121.463	20.753	1.00	81.44	N
ATOM	46932	O	ARG N	23	222.241	126.910	28.767	1.00	66.41	O	ATOM	46982	CZ	ARG N	29	218.665	122.047	19.582	1.00	81.44	C
ATOM	46933	CB	ARG N	23	222.694	123.952	29.725	1.00	61.49	C	ATOM	46983	NH1	ARG N	29	218.329	123.313	19.383	1.00	81.44	N
ATOM	46934	CG	ARG N	23	223.138	122.523	29.787	1.00	61.49	C	ATOM	46984	NH2	ARG N	29	219.231	121.356	18.603	1.00	81.44	N
ATOM	46935	CD	ARG N	23	222.099	121.588	29.235	1.00	61.49	C	ATOM	46985	N	ALA N	30	221.046	122.223	25.114	1.00	67.79	N
ATOM	46936	NE	ARG N	23	222.481	120.211	29.516	1.00	61.49	N	ATOM	46986	CA	ALA N	30	222.503	122.282	25.145	1.00	67.79	C
ATOM	46937	CZ	ARG N	23	221.913	119.153	28.955	1.00	61.49	C	ATOM	46987	C	ALA N	30	223.138	122.560	23.776	1.00	67.79	C
ATOM	46938	NH1	ARG N	23	220.927	119.324	28.075	1.00	61.49	N	ATOM	46988	O	ALA N	30	224.138	123.271	23.671	1.00	67.79	O
ATOM	46939	NH2	ARG N	23	222.335	117.927	29.267	1.00	61.49	N	ATOM	46989	CB	ALA N	30	223.043	120.955	25.694	1.00	25.10	C
ATOM	46940	N	CYS N	24	220.738	125.581	27.746	1.00	95.13	N	ATOM	46990	N	ARG N	31	222.525	122.000	22.738	1.00	68.14	N
ATOM	46941	CA	CYS N	24	219.763	126.652	27.637	1.00	95.13	C	ATOM	46991	CA	ARG N	31	223.006	122.070	21.366	1.00	68.14	C
ATOM	46942	C	CYS N	24	219.217	126.950	29.009	1.00	95.13	C	ATOM	46992	C	ARG N	31	223.404	123.349	20.669	1.00	68.14	C
ATOM	46943	O	CYS N	24	218.920	126.041	29.785	1.00	95.13	O	ATOM	46993	O	ARG N	31	224.298	123.299	19.831	1.00	68.14	O
ATOM	46944	CB	CYS N	24	218.614	126.273	26.711	1.00	82.97	C	ATOM	46994	CB	ARG N	31	222.037	121.356	20.435	1.00	60.88	C
ATOM	46945	SG	CYS N	24	217.550	127.679	26.352	1.00	82.97	S	ATOM	46995	CG	ARG N	31	222.747	120.703	19.257	1.00	60.88	C
ATOM	46946	N	VAL N	25	219.088	128.235	29.302	1.00	73.35	N	ATOM	46996	CD	ARG N	31	223.143	119.300	19.616	1.00	60.88	C
ATOM	46947	CA	VAL N	25	218.589	128.665	30.592	1.00	73.35	C	ATOM	46997	NE	ARG N	31	224.339	118.862	18.924	1.00	60.88	N



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ATOM 46998	CZ	ARG N 31	224.770	117.607	18.942	1.00 60.88	C	ATOM 47048	N	PHE N 37	223.047	135.466	25.822	1.00 60.59	N
ATOM 46999	NH1	ARG N 31	224.086	116.685	19.614	1.00 60.88	N	ATOM 47049	CA	PHE N 37	221.675	135.343	26.295	1.00 60.59	C
ATOM 47000	NH2	ARG N 31	225.888	117.280	18.308	1.00 60.88	N	ATOM 47050	C	PHE N 37	221.431	134.186	27.247	1.00 60.59	C
ATOM 47001	N	SER N 32	222.758	124.477	20.930	1.00 45.41	N	ATOM 47051	O	PHE N 37	220.501	134.230	28.046	1.00 60.59	O
ATOM 47002	CA	SER N 32	223.186	125.685	20.222	1.00 45.41	C	ATOM 47052	CB	PHE N 37	220.714	135.188	25.124	1.00 54.51	C
ATOM 47003	C	SER N 32	222.865	126.928	21.010	1.00 45.41	C	ATOM 47053	CG	PHE N 37	220.636	136.386	24.237	1.00 54.51	C
ATOM 47004	O	SER N 32	222.237	127.864	20.502	1.00 45.41	O	ATOM 47054	CD1	PHE N 37	221.102	136.332	22.929	1.00 54.51	C
ATOM 47005	CB	SER N 32	222.536	125.764	18.840	1.00122.95	C	ATOM 47055	CD2	PHE N 37	220.048	137.560	24.682	1.00 54.51	C
ATOM 47006	OG	SER N 32	221.129	125.831	18.949	1.00122.95	O	ATOM 47056	CE1	PHE N 37	220.976	137.431	22.074	1.00 54.51	C
ATOM 47007	N	VAL N 33	223.328	126.920	22.256	1.00 78.91	N	ATOM 47057	CE2	PHE N 37	219.919	138.665	23.830	1.00 54.51	C
ATOM 47008	CA	VAL N 33	223.127	127.999	23.217	1.00 78.91	C	ATOM 47058	CZ	PHE N 37	220.383	138.597	22.525	1.00 54.51	C
ATOM 47009	C	VAL N 33	224.035	129.197	23.017	1.00 78.91	C	ATOM 47059	GLY N 38	GLY N 38	222.253	133.148	27.166	1.00 65.14	N
ATOM 47010	O	VAL N 33	225.255	129.072	23.093	1.00 78.91	O	ATOM 47060	CA	GLY N 38	222.045	131.984	28.013	1.00 65.14	C
ATOM 47011	CB	VAL N 33	223.377	127.489	24.633	1.00 70.08	C	ATOM 47061	C	GLY N 38	220.960	131.129	27.379	1.00 65.14	C
ATOM 47012	CG1	VAL N 33	222.220	126.646	25.107	1.00 70.08	C	ATOM 47062	O	GLY N 38	220.629	130.037	27.850	1.00 65.14	O
ATOM 47013	CG2	VAL N 33	224.629	126.651	24.630	1.00 70.08	C	ATOM 47063	N	LEU N 39	220.418	131.644	26.280	1.00 65.29	N
ATOM 47014	N	TYR N 34	223.445	130.359	22.773	1.00 68.67	N	ATOM 47064	CA	LEU N 39	219.360	130.990	25.529	1.00 65.29	C
ATOM 47015	CA	TYR N 34	224.237	131.567	22.609	1.00 68.67	C	ATOM 47065	C	LEU N 39	219.865	130.254	24.288	1.00 65.29	C
ATOM 47016	C	TYR N 34	224.667	132.008	24.007	1.00 68.67	C	ATOM 47066	O	LEU N 39	220.904	130.607	23.734	1.00 65.29	O
ATOM 47017	O	TYR N 34	223.948	131.768	24.970	1.00 68.67	O	ATOM 47067	CB	LEU N 39	218.334	132.038	25.107	1.00 54.59	C
ATOM 47018	CB	TYR N 34	223.411	132.655	21.933	1.00 77.21	C	ATOM 47068	CG	LEU N 39	217.422	132.582	26.205	1.00 54.59	C
ATOM 47019	CG	TYR N 34	223.351	132.537	20.428	1.00 77.21	C	ATOM 47069	CD1	LEU N 39	216.652	133.802	25.683	1.00 54.59	C
ATOM 47020	CD1	TYR N 34	222.782	131.428	19.810	1.00 77.21	C	ATOM 47070	CD2	LEU N 39	216.475	131.470	26.663	1.00 54.59	C
ATOM 47021	CE1	TYR N 34	223.831	133.560	19.622	1.00 77.21	C	ATOM 47071	N	CYS N 40	219.111	129.238	23.858	1.00 69.37	N
ATOM 47022	CE2	TYR N 34	222.686	131.346	18.415	1.00 77.21	C	ATOM 47072	CA	CYS N 40	219.426	128.441	22.665	1.00 69.37	C
ATOM 47023	CE2	TYR N 34	223.745	133.494	18.215	1.00 77.21	C	ATOM 47073	C	CYS N 40	218.814	129.135	21.447	1.00 69.37	C
ATOM 47024	CZ	TYR N 34	223.170	132.390	17.631	1.00 77.21	C	ATOM 47074	O	CYS N 40	217.855	129.900	21.580	1.00 69.37	O
ATOM 47025	OH	TYR N 34	223.065	132.360	16.252	1.00 77.21	O	ATOM 47075	CB	CYS N 40	218.821	127.048	22.775	1.00 64.36	C
ATOM 47026	N	ARG N 35	225.841	132.629	24.124	1.00 66.74	N	ATOM 47076	SG	CYS N 40	217.025	127.054	22.564	1.00 64.36	S
ATOM 47027	CA	ARG N 35	226.361	132.683	25.419	1.00 66.74	C	ATOM 47077	N	ARG N 41	219.356	128.839	20.267	1.00 64.98	N
ATOM 47028	C	ARG N 35	225.658	134.328	25.948	1.00 66.74	O	ATOM 47078	CA	ARG N 41	218.902	129.443	19.009	1.00 64.98	C
ATOM 47029	O	ARG N 35	225.103	134.339	27.049	1.00 66.74	O	ATOM 47079	C	ARG N 41	217.384	129.557	18.863	1.00 64.98	C
ATOM 47030	CB	ARG N 35	227.852	133.394	25.303	1.00 86.19	C	ATOM 47080	O	ARG N 41	216.884	130.498	18.235	1.00 64.98	O
ATOM 47031	CG	ARG N 35	228.769	132.199	25.206	1.00 86.19	C	ATOM 47081	CB	ARG N 41	219.483	128.676	17.802	1.00 68.86	C
ATOM 47032	CD	ARG N 35	230.193	132.683	25.008	1.00 86.19	C	ATOM 47082	CG	ARG N 41	218.799	127.335	17.458	1.00 68.86	C
ATOM 47033	NE	ARG N 35	231.176	131.619	25.174	1.00 86.19	N	ATOM 47083	CD	ARG N 41	218.313	127.307	15.991	1.00 68.86	C
ATOM 47034	CZ	ARG N 35	232.923	132.902	24.399	1.00 86.19	C	ATOM 47084	NE	ARG N 41	217.590	126.084	15.648	1.00 68.86	N
ATOM 47035	NH1	ARG N 35	233.303	130.734	25.069	1.00 86.19	N	ATOM 47085	CZ	ARG N 41	218.161	124.889	15.532	1.00 68.86	C
ATOM 47036	NH2	ARG N 36	225.718	135.380	25.142	1.00 56.66	N	ATOM 47086	NH1	ARG N 41	219.466	124.762	15.729	1.00 68.86	N
ATOM 47037	N	PHE N 36	225.132	136.674	25.446	1.00 56.66	C	ATOM 47087	NH2	ARG N 41	217.429	123.820	15.233	1.00 68.86	N
ATOM 47038	CA	PHE N 36	223.709	136.610	25.962	1.00 56.66	C	ATOM 47088	N	ILE N 42	216.652	128.607	19.442	1.00 48.23	N
ATOM 47039	C	PHE N 36	223.212	137.599	26.485	1.00 56.66	O	ATOM 47089	CA	ILE N 42	215.193	128.630	19.355	1.00 48.23	C
ATOM 47040	O	PHE N 36	223.212	137.599	26.485	1.00 56.66	O	ATOM 47090	C	ILE N 42	214.558	129.701	20.257	1.00 48.23	C
ATOM 47041	CB	PHE N 36	225.190	137.531	24.190	1.00 45.66	C	ATOM 47091	O	ILE N 42	213.907	130.642	19.775	1.00 48.23	O
ATOM 47042	CG	PHE N 36	224.684	138.930	24.364	1.00 45.66	C	ATOM 47092	CB	ILE N 42	214.584	127.278	19.745	1.00 29.98	C
ATOM 47043	CD1	PHE N 36	223.322	139.196	24.452	1.00 45.66	C	ATOM 47093	CG1	ILE N 42	215.102	126.179	18.823	1.00 29.98	C
ATOM 47044	CD2	PHE N 36	225.572	139.998	24.338	1.00 45.66	C	ATOM 47094	CG2	ILE N 42	213.060	127.368	19.668	1.00 29.98	C
ATOM 47045	CE1	PHE N 36	222.854	140.511	24.501	1.00 45.66	C	ATOM 47095	CD1	ILE N 42	214.602	124.794	19.206	1.00 29.98	C
ATOM 47046	CE2	PHE N 36	225.116	141.317	24.384	1.00 45.66	C	ATOM 47096	N	CYS N 43	214.751	129.535	21.566	1.00 37.92	N
ATOM 47047	CZ	PHE N 36	223.754	141.574	24.464	1.00 45.66	C	ATOM 47097	CA	CYS N 43	214.215	130.454	22.555	1.00 37.92	C



Table 1: Sheet 473/521

ATOM	47098	C	CYS N	43	214.626	131.880	22.223	1.00	37.92	C	ATOM	47148	CG	HIS N	49	209.518	136.098	16.701	1.00	71.18	C
ATOM	47099	O	CYS N	43	213.825	132.806	22.334	1.00	37.92	O	ATOM	47149	ND1	HIS N	49	209.943	136.968	15.719	1.00	71.18	N
ATOM	47100	CB	CYS N	43	214.695	130.019	23.925	1.00	55.01	C	ATOM	47150	CD2	HIS N	49	209.792	134.853	16.246	1.00	71.18	C
ATOM	47101	SG	CYS N	43	214.119	128.337	24.275	1.00	55.01	S	ATOM	47151	CE1	HIS N	49	210.456	136.280	14.715	1.00	71.18	C
ATOM	47102	N	LEU N	44	215.875	132.056	21.803	1.00	46.76	N	ATOM	47152	NE2	HIS N	49	210.375	134.995	15.009	1.00	71.18	N
ATOM	47103	CA	LEU N	44	216.356	133.376	21.396	1.00	46.76	C	ATOM	47153	N	LYS N	50	208.605	138.173	20.773	1.00	83.46	N
ATOM	47104	C	LEU N	44	215.390	133.947	20.344	1.00	46.76	C	ATOM	47154	CA	LYS N	50	207.715	138.737	21.777	1.00	83.46	N
ATOM	47105	O	LEU N	44	214.987	135.109	20.421	1.00	46.76	O	ATOM	47155	C	LYS N	50	208.098	140.167	22.149	1.00	83.46	C
ATOM	47106	CB	LEU N	44	217.792	133.264	20.831	1.00	34.57	C	ATOM	47156	O	LYS N	50	207.226	141.012	22.373	1.00	83.46	O
ATOM	47107	CD	LEU N	44	218.402	134.210	19.770	1.00	34.57	C	ATOM	47157	CB	LYS N	50	207.731	137.878	23.032	1.00	51.68	C
ATOM	47108	CD1	LEU N	44	217.819	135.613	19.809	1.00	34.57	C	ATOM	47158	CG	LYS N	50	207.128	136.523	22.841	1.00	51.68	C
ATOM	47109	CD2	LEU N	44	219.915	134.260	19.991	1.00	34.57	C	ATOM	47159	CD	LYS N	50	207.068	135.788	24.157	1.00	51.68	C
ATOM	47110	N	ARG N	45	215.009	133.114	19.378	1.00	72.47	N	ATOM	47160	CE	LYS N	50	206.238	134.524	24.036	1.00	51.68	C
ATOM	47111	CA	ARG N	45	214.098	133.526	18.310	1.00	72.47	C	ATOM	47161	NZ	LYS N	50	206.087	133.847	25.350	1.00	51.68	N
ATOM	47112	C	ARG N	45	212.670	133.729	18.817	1.00	72.47	C	ATOM	47162	N	GLY N	51	209.402	140.429	22.211	1.00	80.61	N
ATOM	47113	O	ARG N	45	211.986	134.655	18.383	1.00	72.47	O	ATOM	47163	CA	GLY N	51	209.887	141.750	22.568	1.00	80.61	C
ATOM	47114	CB	ARG N	45	214.117	132.484	17.182	1.00	58.49	C	ATOM	47164	C	GLY N	51	210.537	141.705	23.935	1.00	80.61	C
ATOM	47115	CG	ARG N	45	213.169	132.741	16.001	1.00	58.49	C	ATOM	47165	O	GLY N	51	210.950	142.724	24.485	1.00	80.61	O
ATOM	47116	CD	ARG N	45	213.081	131.473	15.130	1.00	58.49	C	ATOM	47166	N	GLN N	52	210.621	140.503	24.486	1.00	72.64	N
ATOM	47117	NE	ARG N	45	211.797	131.304	14.448	1.00	58.49	N	ATOM	47167	CA	GLN N	52	211.219	140.307	25.789	1.00	72.64	C
ATOM	47118	CZ	ARG N	45	211.378	132.060	13.440	1.00	58.49	C	ATOM	47168	C	GLN N	52	212.740	140.328	25.741	1.00	72.64	C
ATOM	47119	NH1	ARG N	45	212.139	133.041	12.985	1.00	58.49	N	ATOM	47169	O	GLN N	52	213.407	140.070	26.744	1.00	72.64	O
ATOM	47120	NH2	ARG N	45	210.196	131.838	12.890	1.00	58.49	N	ATOM	47170	CB	GLN N	52	210.692	139.013	26.403	1.00	55.59	C
ATOM	47121	N	GLU N	46	212.222	132.867	19.731	1.00	78.16	N	ATOM	47171	CG	GLN N	52	209.266	139.181	26.865	1.00	55.59	C
ATOM	47122	CA	GLU N	46	210.870	132.977	20.283	1.00	78.16	C	ATOM	47172	CD	GLN N	52	208.615	137.895	27.313	1.00	55.59	C
ATOM	47123	C	GLU N	46	210.720	134.296	21.023	1.00	78.16	C	ATOM	47173	OE1	GLN N	52	209.276	136.996	27.839	1.00	55.59	O
ATOM	47124	O	GLU N	46	209.789	135.058	20.762	1.00	78.16	O	ATOM	47174	NE2	GLN N	52	207.297	137.806	27.128	1.00	55.59	N
ATOM	47125	CB	GLU N	46	210.574	131.816	21.237	1.00	75.38	C	ATOM	47175	N	LEU N	53	213.290	140.627	24.569	1.00	69.53	N
ATOM	47126	CG	GLU N	46	210.764	130.439	20.606	1.00	75.38	C	ATOM	47176	CA	LEU N	53	214.738	140.736	24.431	1.00	69.53	C
ATOM	47127	CD	GLU N	46	210.295	129.299	21.500	1.00	75.38	C	ATOM	47177	C	LEU N	53	215.011	142.204	24.158	1.00	69.53	C
ATOM	47128	OE1	GLU N	46	210.498	129.375	22.732	1.00	75.38	O	ATOM	47178	O	LEU N	53	214.983	142.660	23.009	1.00	69.53	O
ATOM	47129	OE2	GLU N	46	209.738	128.316	20.971	1.00	75.38	O	ATOM	47179	CB	LEU N	53	215.279	139.880	23.285	1.00	81.58	C
ATOM	47130	N	LEU N	47	211.651	134.567	21.933	1.00	58.00	N	ATOM	47180	CG	LEU N	53	215.394	138.368	23.500	1.00	81.58	C
ATOM	47131	CA	LEU N	47	211.635	135.801	22.714	1.00	58.00	C	ATOM	47181	CD1	LEU N	53	216.515	137.859	22.617	1.00	81.58	C
ATOM	47132	C	LEU N	47	211.858	137.060	21.887	1.00	58.00	C	ATOM	47182	CD2	LEU N	53	215.697	138.032	24.945	1.00	81.58	C
ATOM	47133	O	LEU N	47	211.258	138.094	22.149	1.00	58.00	O	ATOM	47183	N	PRO N	54	215.271	142.967	25.234	1.00	72.64	N
ATOM	47134	CB	LEU N	47	212.672	135.723	23.832	1.00	61.68	C	ATOM	47184	CA	PRO N	54	215.555	144.406	25.233	1.00	72.64	C
ATOM	47135	CG	LEU N	47	212.333	134.619	24.836	1.00	61.68	C	ATOM	47185	C	PRO N	54	216.441	144.897	24.102	1.00	72.64	C
ATOM	47136	CD1	LEU N	47	213.396	134.540	25.910	1.00	61.68	C	ATOM	47186	O	PRO N	54	217.607	144.528	24.005	1.00	72.64	O
ATOM	47137	CD2	LEU N	47	210.972	134.896	25.454	1.00	61.68	C	ATOM	47187	CB	PRO N	54	216.172	144.640	26.614	1.00	64.49	C
ATOM	47138	N	ALA N	48	212.721	136.985	20.888	1.00	69.07	N	ATOM	47188	CG	PRO N	54	216.617	143.256	27.071	1.00	64.49	C
ATOM	47139	CA	ALA N	48	212.962	138.157	20.064	1.00	69.07	C	ATOM	47189	CD	PRO N	54	215.526	142.387	26.567	1.00	64.49	C
ATOM	47140	C	ALA N	48	211.647	138.573	19.423	1.00	69.07	C	ATOM	47190	N	GLY N	55	215.870	145.735	23.246	1.00	106.56	N
ATOM	47141	O	ALA N	48	211.417	139.755	19.179	1.00	69.07	O	ATOM	47191	CA	GLY N	55	216.623	146.274	22.130	1.00	106.56	C
ATOM	47142	CB	ALA N	48	213.995	137.847	18.995	1.00	64.42	C	ATOM	47192	C	GLY N	55	217.165	145.227	21.172	1.00	106.56	O
ATOM	47143	N	HIS N	49	210.782	137.593	19.166	1.00	93.00	N	ATOM	47193	O	GLY N	55	218.267	145.383	20.644	1.00	106.56	C
ATOM	47144	CA	HIS N	49	209.488	137.857	18.541	1.00	93.00	C	ATOM	47194	N	VAL N	56	216.402	144.158	20.951	1.00	85.92	N
ATOM	47145	C	HIS N	49	208.495	138.505	19.492	1.00	93.00	C	ATOM	47195	CA	VAL N	56	216.812	143.099	20.029	1.00	85.92	C
ATOM	47146	O	HIS N	49	207.641	139.287	19.071	1.00	93.00	O	ATOM	47196	C	VAL N	56	215.819	143.068	18.867	1.00	85.92	C
ATOM	47147	CB	HIS N	49	208.877	136.564	17.972	1.00	71.18	C	ATOM	47197	O	VAL N	56	214.965	142.192	18.781	1.00	85.92	O



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ATOM	47198	CB	VAL	N	56	216.834	141.719	20.724	1.00	93.57	C	ATOM	47248	N	PRO	O	2	154.291	107.893	-73.497	1.00	101.44	N
ATOM	47199	CG1	VAL	N	56	217.429	140.683	19.798	1.00	93.57	C	ATOM	47249	CA	PRO	O	2	153.422	108.732	-72.643	1.00	101.44	C
ATOM	47200	CG2	VAL	N	56	217.644	141.791	21.999	1.00	93.57	C	ATOM	47250	C	PRO	O	2	151.996	108.754	-73.180	1.00	101.44	C
ATOM	47201	N	ARG	N	57	215.938	144.046	17.979	1.00	83.34	N	ATOM	47251	O	PRO	O	2	151.693	108.115	-74.190	1.00	101.44	O
ATOM	47202	CA	ARG	N	57	215.060	144.174	16.825	1.00	83.34	C	ATOM	47252	CB	PRO	O	2	154.021	110.130	-72.646	1.00	60.19	C
ATOM	47203	C	ARG	N	57	215.425	143.138	15.759	1.00	83.34	C	ATOM	47253	CG	PRO	O	2	155.484	109.829	-72.945	1.00	60.19	C
ATOM	47204	O	ARG	N	57	216.336	142.327	15.950	1.00	83.34	C	ATOM	47254	CD	PRO	O	2	155.434	108.693	-73.972	1.00	60.19	C
ATOM	47205	CB	ARG	N	57	215.208	145.585	16.257	1.00	96.46	C	ATOM	47255	N	ILE	O	3	151.122	109.493	-72.503	1.00	66.28	N
ATOM	47206	CG	ARG	N	57	214.066	146.083	15.408	1.00	96.46	C	ATOM	47256	CA	ILE	O	3	149.734	109.581	-72.924	1.00	66.28	C
ATOM	47207	CD	ARG	N	57	214.442	147.437	14.833	1.00	96.46	C	ATOM	47257	C	ILE	O	3	149.418	110.991	-73.388	1.00	66.28	C
ATOM	47208	NE	ARG	N	57	213.322	148.118	14.190	1.00	96.46	N	ATOM	47258	O	ILE	O	3	149.373	111.914	-72.578	1.00	66.28	O
ATOM	47209	CZ	ARG	N	57	213.448	149.185	13.404	1.00	96.46	C	ATOM	47259	CB	ILE	O	3	148.761	109.245	-71.783	1.00	79.77	C
ATOM	47210	NH1	ARG	N	57	214.649	149.692	13.160	1.00	96.46	N	ATOM	47260	CG1	ILE	O	3	149.293	108.090	-70.931	1.00	79.77	C
ATOM	47211	NH2	ARG	N	57	212.377	149.753	12.862	1.00	96.46	N	ATOM	47261	CG2	ILE	O	3	147.415	108.876	-72.369	1.00	79.77	C
ATOM	47212	N	LYS	N	58	214.703	143.160	14.642	1.00	60.81	N	ATOM	47262	CD1	ILE	O	3	150.080	108.538	-69.711	1.00	79.77	C
ATOM	47213	CA	LYS	N	58	214.970	142.240	13.540	1.00	60.81	C	ATOM	47263	N	THR	O	4	149.190	111.151	-74.689	1.00	88.93	N
ATOM	47214	C	LYS	N	58	215.964	142.908	12.601	1.00	60.81	C	ATOM	47264	CA	THR	O	4	148.880	112.456	-75.272	1.00	88.93	C
ATOM	47215	O	LYS	N	58	215.801	144.077	12.237	1.00	60.81	O	ATOM	47265	C	THR	O	4	147.611	113.078	-74.682	1.00	88.93	C
ATOM	47216	CB	LYS	N	58	213.688	141.927	12.759	1.00	78.45	C	ATOM	47266	O	THR	O	4	146.781	112.375	-74.105	1.00	88.93	O
ATOM	47217	CG	LYS	N	58	212.639	141.104	13.510	1.00	78.45	C	ATOM	47267	CB	THR	O	4	148.704	112.343	-76.810	1.00	84.50	C
ATOM	47218	CD	LYS	N	58	212.408	139.742	12.851	1.00	78.45	C	ATOM	47268	OG1	THR	O	4	147.769	111.297	-77.115	1.00	84.50	O
ATOM	47219	CE	LYS	N	58	211.929	139.879	11.416	1.00	78.45	C	ATOM	47269	CG2	THR	O	4	150.034	112.040	-77.479	1.00	84.50	C
ATOM	47220	N2	LYS	N	58	212.052	138.578	10.712	1.00	78.45	N	ATOM	47270	N	LYS	O	5	147.467	114.396	-74.816	1.00	65.02	N
ATOM	47221	N	ALA	N	59	216.991	142.160	12.212	1.00	76.96	C	ATOM	47271	CA	LYS	O	5	146.274	115.073	-74.316	1.00	65.02	C
ATOM	47222	CA	ALA	N	59	218.016	142.665	9.865	1.00	76.96	C	ATOM	47272	C	LYS	O	5	145.114	114.403	-75.031	1.00	65.02	C
ATOM	47223	C	ALA	N	59	217.525	142.709	9.865	1.00	76.96	C	ATOM	47273	O	LYS	O	5	144.034	114.217	-74.462	1.00	65.02	O
ATOM	47224	O	ALA	N	59	216.529	142.086	9.512	1.00	76.96	O	ATOM	47274	CB	LYS	O	5	146.292	116.562	-74.669	1.00	98.60	C
ATOM	47225	CB	ALA	N	59	219.250	141.799	11.399	1.00	101.92	C	ATOM	47275	CG	LYS	O	5	147.495	117.318	-74.138	1.00	98.60	C
ATOM	47226	N	SER	N	60	218.243	143.446	9.034	1.00	65.05	N	ATOM	47276	CD	LYS	O	5	147.545	118.731	-74.701	1.00	98.60	C
ATOM	47227	CA	SER	N	60	217.896	143.589	7.627	1.00	65.05	C	ATOM	47277	CE	LYS	O	5	148.930	119.346	-74.521	1.00	98.60	C
ATOM	47228	C	SER	N	60	218.794	144.652	7.019	1.00	65.05	C	ATOM	47278	N2	LYS	O	5	149.102	120.599	-75.310	1.00	98.60	N
ATOM	47229	O	SER	N	60	218.990	145.705	7.619	1.00	65.05	O	ATOM	47279	N	GLU	O	6	145.367	114.037	-76.288	1.00	58.34	N
ATOM	47230	CB	SER	N	60	216.438	144.022	7.483	1.00	59.50	C	ATOM	47280	CA	GLU	O	6	144.389	113.365	-77.139	1.00	58.34	C
ATOM	47231	OG	SER	N	60	216.211	144.627	6.220	1.00	59.50	O	ATOM	47281	C	GLU	O	6	144.013	112.061	-76.456	1.00	58.34	C
ATOM	47232	N	TRP	N	61	219.343	144.385	5.840	1.00	109.12	N	ATOM	47282	O	GLU	O	6	142.878	111.878	-76.017	1.00	58.34	O
ATOM	47233	CA	TRP	N	61	220.215	145.354	5.193	1.00	109.12	C	ATOM	47283	CB	GLU	O	6	144.995	113.055	-78.511	1.00	151.31	C
ATOM	47234	C	TRP	N	61	220.578	144.923	3.779	1.00	109.12	C	ATOM	47284	CG	GLU	O	6	146.186	113.923	-78.887	1.00	151.31	C
ATOM	47235	O	TRP	N	61	220.601	145.804	2.893	1.00	109.12	O	ATOM	47285	CD	GLU	O	6	145.904	115.403	-78.726	1.00	151.31	C
ATOM	47236	CB	TRP	N	61	221.478	145.568	6.034	1.00	56.75	C	ATOM	47286	OE1	GLU	O	6	144.919	115.889	-79.321	1.00	151.31	O
ATOM	47237	CG	TRP	N	61	222.402	144.385	6.111	1.00	56.75	C	ATOM	47287	OE2	GLU	O	6	146.668	116.079	-78.005	1.00	151.31	O
ATOM	47238	CD1	TRP	N	61	223.571	144.221	5.425	1.00	56.75	C	ATOM	47288	N	GLU	O	7	144.982	111.158	-76.366	1.00	71.94	N
ATOM	47239	CD2	TRP	N	61	222.244	143.205	6.915	1.00	56.75	C	ATOM	47289	CA	GLU	O	7	144.766	109.872	-75.724	1.00	71.94	C
ATOM	47240	CE1	TRP	N	61	224.152	143.013	5.750	1.00	56.75	N	ATOM	47290	C	GLU	O	7	144.010	110.047	-74.411	1.00	71.94	C
ATOM	47241	NE2	TRP	N	61	223.360	142.373	6.661	1.00	56.75	C	ATOM	47291	O	GLU	O	7	143.167	109.222	-74.050	1.00	71.94	O
ATOM	47242	CE3	TRP	N	61	221.273	142.768	7.823	1.00	56.75	C	ATOM	47292	CB	GLU	O	7	146.108	109.186	-75.456	1.00	173.69	C
ATOM	47243	C22	TRP	N	61	223.530	141.128	7.284	1.00	56.75	C	ATOM	47293	CG	GLU	O	7	146.376	107.995	-76.353	1.00	173.69	C
ATOM	47244	C23	TRP	N	61	221.445	141.525	8.444	1.00	56.75	C	ATOM	47294	CD	GLU	O	7	145.321	106.907	-76.207	1.00	173.69	C
ATOM	47245	CH2	TRP	N	61	222.565	140.724	8.168	1.00	56.75	C	ATOM	47295	OE1	GLU	O	7	144.125	107.185	-76.451	1.00	173.69	O
ATOM	47246	OXT	TRP	N	61	220.834	143.713	3.576	1.00	73.07	O	ATOM	47296	OE2	GLU	O	7	145.687	105.768	-75.847	1.00	173.69	O
TER	47247	TRP	N		61							ATOM	47297	N	LYS	O	8	144.305	111.137	-73.711	1.00	74.67	N



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ATOM 47298	CA	LYS	O	8	143.670	111.416	-72.434	1.00	74.67	C	ATOM 47348	N	GLU	O	14	135.014	109.610	-73.216	1.00	62.11	N
ATOM 47299	C	LYS	O	8	142.204	111.797	-72.567	1.00	74.67	C	ATOM 47349	CA	GLU	O	14	134.463	108.268	-73.361	1.00	62.11	C
ATOM 47300	O	LYS	O	8	141.316	111.032	-72.184	1.00	74.67	O	ATOM 47350	C	GLU	O	14	133.869	107.705	-72.072	1.00	62.11	C
ATOM 47301	CB	LYS	O	8	144.413	112.534	-71.713	1.00	56.95	C	ATOM 47351	O	GLU	O	14	133.205	106.669	-72.091	1.00	62.11	O
ATOM 47302	CD	LYS	O	8	144.098	112.584	-70.243	1.00	56.95	C	ATOM 47352	CB	GLU	O	14	135.540	107.313	-73.894	1.00	119.05	C
ATOM 47303	CG	LYS	O	8	144.972	113.579	-69.524	1.00	56.95	C	ATOM 47353	CG	GLU	O	14	135.188	105.832	-73.763	1.00	119.05	C
ATOM 47304	CE	LYS	O	8	144.779	113.464	-68.025	1.00	56.95	C	ATOM 47354	CD	GLU	O	14	133.903	105.457	-74.484	1.00	119.05	C
ATOM 47305	NZ	LYS	O	8	145.627	114.433	-67.281	1.00	56.95	N	ATOM 47355	OE1	GLU	O	14	133.321	104.397	-74.158	1.00	119.05	O
ATOM 47306	N	GLN	O	9	141.952	112.983	-73.105	1.00	75.48	N	ATOM 47356	OE2	GLU	O	14	133.480	106.216	-75.381	1.00	119.05	O
ATOM 47307	CA	GLN	O	9	140.586	113.450	-73.268	1.00	75.48	C	ATOM 47357	N	PHE	O	15	134.102	108.376	-70.950	1.00	64.95	N
ATOM 47308	C	GLN	O	9	139.706	112.407	-73.953	1.00	75.48	C	ATOM 47358	CA	PHE	O	15	133.573	107.886	-69.683	1.00	64.95	C
ATOM 47309	O	GLN	O	9	138.519	112.288	-73.645	1.00	75.48	O	ATOM 47359	C	PHE	O	15	132.696	108.870	-68.954	1.00	64.95	C
ATOM 47310	CB	GLN	O	9	140.580	114.768	-74.033	1.00	123.04	C	ATOM 47360	O	PHE	O	15	131.775	108.469	-68.249	1.00	64.95	O
ATOM 47311	CG	GLN	O	9	141.463	115.809	-73.368	1.00	123.04	C	ATOM 47361	CB	PHE	O	15	134.707	107.431	-68.764	1.00	43.16	C
ATOM 47312	CD	GLN	O	9	141.117	117.224	-73.774	1.00	123.04	C	ATOM 47362	CG	PHE	O	15	135.221	106.065	-69.094	1.00	43.16	C
ATOM 47313	OE1	GLN	O	9	139.999	117.689	-73.550	1.00	123.04	C	ATOM 47363	CD1	PHE	O	15	136.121	105.881	-70.136	1.00	43.16	C
ATOM 47314	NE2	GLN	O	9	142.079	117.923	-74.371	1.00	123.04	N	ATOM 47364	CD2	PHE	O	15	134.723	104.947	-68.429	1.00	43.16	C
ATOM 47315	N	LYS	O	10	140.288	111.644	-74.872	1.00	70.65	N	ATOM 47365	CE1	PHE	O	15	136.507	104.611	-70.518	1.00	43.16	C
ATOM 47316	CA	LYS	O	10	139.538	110.601	-75.558	1.00	70.65	C	ATOM 47366	CE2	PHE	O	15	135.107	103.666	-68.807	1.00	43.16	C
ATOM 47317	C	LYS	O	10	138.879	109.704	-74.508	1.00	70.65	C	ATOM 47367	CZ	PHE	O	15	135.999	103.498	-69.856	1.00	43.16	C
ATOM 47318	O	LYS	O	10	137.710	109.326	-74.636	1.00	70.65	O	ATOM 47368	N	ALA	O	16	132.981	110.155	-69.131	1.00	46.35	N
ATOM 47319	CB	LYS	O	10	140.477	109.778	-76.449	1.00	114.51	C	ATOM 47369	CA	ALA	O	16	132.212	111.217	-68.490	1.00	46.35	C
ATOM 47320	CG	LYS	O	10	139.999	108.363	-76.755	1.00	114.51	C	ATOM 47370	C	ALA	O	16	130.732	110.861	-68.332	1.00	46.35	C
ATOM 47321	CD	LYS	O	10	138.622	108.347	-77.394	1.00	114.51	C	ATOM 47371	O	ALA	O	16	130.139	110.252	-69.216	1.00	46.35	O
ATOM 47322	CE	LYS	O	10	138.111	106.917	-77.543	1.00	114.51	C	ATOM 47372	CB	ALA	O	16	132.354	112.497	-69.289	1.00	27.77	C
ATOM 47323	NZ	LYS	O	10	136.727	106.866	-78.091	1.00	114.51	N	ATOM 47373	N	ARG	O	17	130.143	111.235	-67.200	1.00	82.49	N
ATOM 47324	N	VAL	O	11	139.633	109.378	-73.462	1.00	59.69	N	ATOM 47374	CA	ARG	O	17	128.734	110.947	-66.940	1.00	82.49	C
ATOM 47325	CA	VAL	O	11	139.125	108.529	-72.389	1.00	59.69	C	ATOM 47375	C	ARG	O	17	127.856	111.887	-67.754	1.00	82.49	C
ATOM 47326	C	VAL	O	11	138.177	109.308	-71.494	1.00	59.69	C	ATOM 47376	O	ARG	O	17	126.708	111.572	-68.062	1.00	82.49	O
ATOM 47327	O	VAL	O	11	137.145	108.792	-71.069	1.00	59.69	O	ATOM 47377	CB	ARG	O	17	128.412	111.131	-65.453	1.00	79.01	C
ATOM 47328	CB	VAL	O	11	140.264	107.984	-71.512	1.00	65.80	C	ATOM 47378	CG	ARG	O	17	129.205	110.249	-64.503	1.00	79.01	C
ATOM 47329	CG1	VAL	O	11	139.704	107.014	-70.489	1.00	65.80	C	ATOM 47379	CD	ARG	O	17	128.798	108.784	-64.581	1.00	79.01	C
ATOM 47330	CG2	VAL	O	11	141.302	107.306	-72.372	1.00	65.80	C	ATOM 47380	NE	ARG	O	17	127.393	108.533	-64.245	1.00	79.01	N
ATOM 47331	N	ILE	O	12	138.539	110.550	-71.203	1.00	46.94	N	ATOM 47381	CZ	ARG	O	17	126.749	109.043	-63.193	1.00	79.01	C
ATOM 47332	CA	ILE	O	12	137.709	111.387	-70.362	1.00	46.94	C	ATOM 47382	NH1	ARG	O	17	127.366	109.863	-62.340	1.00	79.01	N
ATOM 47333	C	ILE	O	12	136.322	111.561	-70.965	1.00	46.94	C	ATOM 47383	NH2	ARG	O	17	125.479	108.712	-62.985	1.00	79.01	N
ATOM 47334	O	ILE	O	12	135.315	111.436	-70.269	1.00	46.94	O	ATOM 47384	N	PHE	O	18	128.411	113.043	-68.100	1.00	63.09	N
ATOM 47335	CB	ILE	O	12	138.359	112.757	-70.140	1.00	46.39	C	ATOM 47385	CA	PHE	O	18	127.683	114.045	-68.862	1.00	63.09	C
ATOM 47336	CG1	ILE	O	12	139.662	112.565	-69.347	1.00	46.39	C	ATOM 47386	C	PHE	O	18	128.634	115.106	-69.408	1.00	63.09	C
ATOM 47337	CG2	ILE	O	12	137.387	113.692	-69.431	1.00	46.39	C	ATOM 47387	O	PHE	O	18	129.744	115.281	-68.902	1.00	63.09	O
ATOM 47338	CD1	ILE	O	12	140.431	113.850	-69.008	1.00	46.39	C	ATOM 47388	CB	PHE	O	18	126.639	114.694	-67.964	1.00	79.69	C
ATOM 47339	N	GLN	O	13	136.250	111.840	-72.259	1.00	90.80	N	ATOM 47389	CG	PHE	O	18	127.174	115.090	-66.630	1.00	79.69	C
ATOM 47340	CA	GLN	O	13	134.946	112.005	-72.882	1.00	90.80	C	ATOM 47390	CD1	PHE	O	18	127.943	116.240	-66.489	1.00	79.69	C
ATOM 47341	C	GLN	O	13	134.237	110.667	-73.006	1.00	90.80	C	ATOM 47391	CD2	PHE	O	18	126.964	114.277	-65.519	1.00	79.69	C
ATOM 47342	O	GLN	O	13	133.016	110.592	-72.900	1.00	90.80	O	ATOM 47392	CE1	PHE	O	18	128.503	116.577	-65.257	1.00	79.69	C
ATOM 47343	CB	GLN	O	13	135.090	112.648	-74.254	1.00	134.88	C	ATOM 47393	CE2	PHE	O	18	127.517	114.602	-64.288	1.00	79.69	C
ATOM 47344	CG	GLN	O	13	135.444	114.114	-74.184	1.00	134.88	C	ATOM 47394	CZ	PHE	O	18	128.291	115.756	-64.155	1.00	79.69	C
ATOM 47345	CD	GLN	O	13	135.555	114.739	-75.551	1.00	134.88	C	ATOM 47395	N	PRO	O	19	128.203	115.833	-70.451	1.00	86.68	N
ATOM 47346	OE1	GLN	O	13	135.724	115.950	-75.679	1.00	134.88	O	ATOM 47396	CA	PRO	O	19	129.001	116.883	-71.083	1.00	86.68	C
ATOM 47347	NE2	GLN	O	13	135.466	113.913	-76.588	1.00	134.88	N	ATOM 47397	C	PRO	O	19	129.748	117.755	-70.090	1.00	86.68	C



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ATOM	47398	O	PRO	O	19	129.142	118.551	-69.378	1.00	86.68	O	ATOM	47448	CA	VAL	O	27	136.367	108.919	-65.283	1.00	38.26	C
ATOM	47399	CB	PRO	O	19	127.960	117.666	-71.865	1.00	88.89	C	ATOM	47449	C	VAL	O	27	137.686	108.600	-64.596	1.00	38.26	C
ATOM	47400	CG	PRO	O	19	127.049	116.584	-72.324	1.00	88.89	C	ATOM	47450	O	VAL	O	27	138.550	107.921	-65.163	1.00	38.26	C
ATOM	47401	CD	PRO	O	19	126.872	115.751	-71.076	1.00	88.89	C	ATOM	47451	CB	VAL	O	27	136.218	110.460	-65.404	1.00	37.27	C
ATOM	47402	N	GLY	O	20	131.068	117.591	-70.046	1.00	79.79	N	ATOM	47452	CG1	VAL	O	27	137.487	111.065	-65.979	1.00	37.27	C
ATOM	47403	CA	GLY	O	20	131.882	118.384	-69.145	1.00	79.79	C	ATOM	47453	CG2	VAL	O	27	135.037	110.804	-66.310	1.00	37.27	C
ATOM	47404	C	GLY	O	20	132.283	117.670	-67.873	1.00	79.79	C	ATOM	47454	N	GLN	O	28	137.838	109.083	-63.370	1.00	48.60	N
ATOM	47405	O	GLY	O	20	132.892	118.266	-66.987	1.00	79.79	C	ATOM	47455	CA	GLN	O	28	139.054	108.841	-62.624	1.00	48.60	C
ATOM	47406	N	ASP	O	21	131.944	116.392	-67.769	1.00	92.07	N	ATOM	47456	C	GLN	O	28	139.498	107.407	-62.773	1.00	48.60	C
ATOM	47407	CA	ASP	O	21	132.294	115.524	-66.583	1.00	92.07	C	ATOM	47457	O	GLN	O	28	140.613	107.153	-63.224	1.00	48.60	O
ATOM	47408	C	ASP	O	21	133.777	115.276	-66.587	1.00	92.07	C	ATOM	47458	CB	GLN	O	28	138.838	109.175	-61.166	1.00	63.85	C
ATOM	47409	O	ASP	O	21	134.217	114.440	-67.377	1.00	92.07	C	ATOM	47459	CG	GLN	O	28	138.725	110.647	-60.935	1.00	63.85	C
ATOM	47410	CB	ASP	O	21	131.497	114.331	-66.533	1.00	87.66	C	ATOM	47460	CD	GLN	O	28	138.370	110.956	-59.517	1.00	63.85	C
ATOM	47411	CG	ASP	O	21	131.941	113.439	-65.407	1.00	87.66	C	ATOM	47461	OE1	GLN	O	28	139.018	110.479	-58.588	1.00	63.85	O
ATOM	47412	OD1	ASP	O	21	131.786	112.206	-65.519	1.00	87.66	O	ATOM	47462	NE2	GLN	O	28	137.330	111.756	-59.330	1.00	63.85	N
ATOM	47413	OD2	ASP	O	21	132.447	113.981	-64.402	1.00	87.66	O	ATOM	47463	N	VAL	O	29	138.629	106.467	-62.420	1.00	36.82	N
ATOM	47414	N	THR	O	22	134.549	115.894	-65.699	1.00	59.01	N	ATOM	47464	CA	VAL	O	29	138.988	105.063	-62.544	1.00	36.82	C
ATOM	47415	CA	THR	O	22	135.980	115.620	-65.655	1.00	59.01	C	ATOM	47465	C	VAL	O	29	139.494	104.757	-63.940	1.00	36.82	O
ATOM	47416	C	THR	O	22	136.439	114.802	-64.456	1.00	59.01	C	ATOM	47466	O	VAL	O	29	140.482	104.038	-64.098	1.00	36.82	O
ATOM	47417	O	THR	O	22	137.505	114.194	-64.504	1.00	59.01	C	ATOM	47467	CB	VAL	O	29	137.810	104.134	-62.233	1.00	31.62	C
ATOM	47418	CB	THR	O	22	136.819	116.928	-65.672	1.00	55.60	O	ATOM	47468	CG1	VAL	O	29	138.170	102.697	-62.565	1.00	31.62	C
ATOM	47419	OG1	THR	O	22	136.412	117.783	-64.594	1.00	55.60	O	ATOM	47469	CG2	VAL	O	29	137.476	104.230	-60.764	1.00	31.62	C
ATOM	47420	CG2	THR	O	22	136.655	117.654	-66.988	1.00	55.60	C	ATOM	47470	N	ALA	O	30	138.834	105.307	-64.955	1.00	41.64	N
ATOM	47421	N	GLY	O	23	135.645	114.780	-63.387	1.00	47.41	N	ATOM	47471	CA	ALA	O	30	139.253	105.059	-66.333	1.00	41.64	C
ATOM	47422	CA	GLY	O	23	136.050	114.051	-62.194	1.00	47.41	C	ATOM	47472	C	ALA	O	30	140.690	105.530	-66.563	1.00	41.64	C
ATOM	47423	C	GLY	O	23	135.084	113.055	-61.587	1.00	47.41	C	ATOM	47473	O	ALA	O	30	141.540	104.752	-67.015	1.00	41.64	O
ATOM	47424	O	GLY	O	23	135.047	112.893	-60.372	1.00	47.41	O	ATOM	47474	CB	ALA	O	30	138.302	105.755	-67.309	1.00	59.80	C
ATOM	47425	N	SER	O	24	134.291	112.388	-62.414	1.00	69.61	N	ATOM	47475	N	LEU	O	31	140.947	106.797	-66.238	1.00	49.64	N
ATOM	47426	CA	SER	O	24	133.370	111.395	-61.898	1.00	69.61	C	ATOM	47476	CA	LEU	O	31	142.269	107.404	-66.392	1.00	49.64	C
ATOM	47427	C	SER	O	24	134.207	110.182	-61.590	1.00	69.61	C	ATOM	47477	C	LEU	O	31	143.356	106.619	-65.650	1.00	49.64	C
ATOM	47428	O	SER	O	24	135.220	109.950	-62.242	1.00	69.61	O	ATOM	47478	O	LEU	O	31	144.480	106.479	-66.144	1.00	49.64	O
ATOM	47429	CB	SER	O	24	132.327	111.020	-62.943	1.00	96.49	C	ATOM	47479	CB	LEU	O	31	142.249	108.847	-65.883	1.00	61.18	C
ATOM	47430	OG	SER	O	24	131.407	112.072	-63.120	1.00	96.49	O	ATOM	47480	CG	LEU	O	31	141.534	109.911	-66.717	1.00	61.18	C
ATOM	47431	N	THR	O	25	133.796	109.409	-60.597	1.00	60.01	N	ATOM	47481	CD1	LEU	O	31	140.184	109.396	-67.131	1.00	61.18	C
ATOM	47432	CA	THR	O	25	134.529	108.209	-60.255	1.00	60.01	C	ATOM	47482	CD2	LEU	O	31	141.380	111.195	-65.917	1.00	61.18	C
ATOM	47433	C	THR	O	25	135.925	106.952	-61.731	1.00	60.01	C	ATOM	47483	N	LEU	O	32	143.022	106.118	-64.462	1.00	56.91	N
ATOM	47434	O	THR	O	25	135.734	107.339	-59.328	1.00	43.78	C	ATOM	47484	CA	LEU	O	32	143.963	105.333	-63.668	1.00	56.91	C
ATOM	47435	CB	THR	O	25	133.734	107.339	-59.328	1.00	43.78	C	ATOM	47485	C	LEU	O	32	144.202	103.988	-64.322	1.00	56.91	C
ATOM	47436	OG1	THR	O	25	133.250	108.138	-58.244	1.00	43.78	C	ATOM	47486	O	LEU	O	32	145.317	103.481	-64.331	1.00	56.91	O
ATOM	47437	CG2	THR	O	25	134.598	106.221	-58.798	1.00	43.78	C	ATOM	47487	CB	LEU	O	32	143.422	105.113	-62.264	1.00	55.61	C
ATOM	47438	N	GLU	O	26	133.792	107.237	-62.351	1.00	64.38	N	ATOM	47488	CG	LEU	O	32	143.525	106.331	-61.359	1.00	55.61	C
ATOM	47439	CA	GLU	O	26	133.981	106.491	-63.587	1.00	64.38	C	ATOM	47489	CD1	LEU	O	32	142.631	106.147	-60.154	1.00	55.61	C
ATOM	47440	C	GLU	O	26	135.209	107.008	-64.324	1.00	64.38	C	ATOM	47490	CD2	LEU	O	32	144.970	106.525	-60.952	1.00	55.61	C
ATOM	47441	O	GLU	O	26	136.111	106.234	-64.658	1.00	64.38	O	ATOM	47491	N	THR	O	33	143.145	103.401	-64.863	1.00	56.56	N
ATOM	47442	CB	GLU	O	26	132.756	106.610	-64.504	1.00	61.11	C	ATOM	47492	CA	THR	O	33	143.286	102.119	-65.522	1.00	56.56	C
ATOM	47443	CG	GLU	O	26	131.598	105.676	-64.171	1.00	61.11	C	ATOM	47493	C	THR	O	33	144.229	102.318	-66.690	1.00	56.56	C
ATOM	47444	CD	GLU	O	26	130.754	106.157	-63.002	1.00	61.11	C	ATOM	47494	O	THR	O	33	145.019	101.435	-67.029	1.00	56.56	O
ATOM	47445	OE1	GLU	O	26	129.742	105.489	-62.694	1.00	61.11	O	ATOM	47495	CB	THR	O	33	141.956	101.631	-66.054	1.00	54.50	C
ATOM	47446	OE2	GLU	O	26	131.093	107.198	-62.392	1.00	61.11	O	ATOM	47496	OG1	THR	O	33	140.949	101.870	-65.066	1.00	54.50	O
ATOM	47447	N	VAL	O	27	135.247	108.317	-64.565	1.00	38.26	N	ATOM	47497	CG2	THR	O	33	142.029	100.132	-66.366	1.00	54.50	C



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ATOM	47498	N	LEU	O	34	144.148	103.494	-67.299	1.00	45.76	N	152.679	101.913	-64.979	1.00	58.17	C
ATOM	47499	CA	LEU	O	34	145.003	103.795	-68.430	1.00	45.76	C	153.833	102.465	-64.125	1.00	58.17	C
ATOM	47500	C	LEU	O	34	146.453	103.931	-67.980	1.00	45.76	C	153.334	102.778	-62.731	1.00	58.17	C
ATOM	47501	O	LEU	O	34	147.339	103.293	-68.543	1.00	45.76	O	154.959	101.462	-64.050	1.00	58.17	C
ATOM	47502	CB	LEU	O	34	144.547	105.082	-69.128	1.00	44.44	C	152.186	99.114	-66.119	1.00	40.65	N
ATOM	47503	CG	LEU	O	34	145.122	105.369	-70.522	1.00	44.44	C	152.306	97.659	-66.038	1.00	40.65	C
ATOM	47504	CD1	LEU	O	34	144.593	106.696	-70.996	1.00	44.44	C	153.103	97.171	-67.241	1.00	40.65	C
ATOM	47505	CD2	LEU	O	34	146.643	105.401	-70.496	1.00	44.44	C	153.882	96.218	-67.146	1.00	40.65	O
ATOM	47506	N	ARG	O	35	146.702	104.759	-66.973	1.00	38.68	N	150.928	97.007	-66.048	1.00	73.98	C
ATOM	47507	CA	ARG	O	35	148.068	104.939	-66.502	1.00	38.68	C	150.171	97.432	-64.937	1.00	73.98	O
ATOM	47508	C	ARG	O	35	148.656	103.612	-66.039	1.00	38.68	C	152.886	97.850	-68.367	1.00	53.12	N
ATOM	47509	O	ARG	O	35	149.815	103.305	-66.335	1.00	38.68	O	153.554	97.551	-69.619	1.00	53.12	C
ATOM	47510	CB	ARG	O	35	148.131	105.947	-65.350	1.00	67.67	C	155.028	97.883	-69.455	1.00	53.12	C
ATOM	47511	CG	ARG	O	35	147.676	107.346	-65.706	1.00	67.67	C	155.880	96.994	-69.481	1.00	53.12	O
ATOM	47512	CD	ARG	O	35	147.974	108.314	-64.579	1.00	67.67	C	152.955	98.395	-70.738	1.00	105.58	C
ATOM	47513	NE	ARG	O	35	149.414	108.478	-64.395	1.00	67.67	N	153.117	97.787	-72.103	1.00	105.58	C
ATOM	47514	C2	ARG	O	35	150.037	108.398	-63.223	1.00	67.67	C	152.484	96.413	-72.187	1.00	105.58	C
ATOM	47515	NH1	ARG	O	35	149.346	108.154	-62.113	1.00	67.67	N	152.458	95.836	-73.296	1.00	105.58	O
ATOM	47516	NH2	ARG	O	35	151.352	108.557	-63.163	1.00	67.67	N	152.014	95.906	-71.144	1.00	105.58	O
ATOM	47517	N	ILE	O	36	147.855	102.837	-65.312	1.00	34.98	N	155.324	99.169	-69.290	1.00	49.51	N
ATOM	47518	CA	ILE	O	36	148.289	101.553	-64.801	1.00	34.98	C	156.696	99.622	-69.093	1.00	49.51	C
ATOM	47519	C	ILE	O	36	148.784	100.678	-65.931	1.00	34.98	C	157.434	98.616	-68.231	1.00	49.51	C
ATOM	47520	O	ILE	O	36	149.943	100.246	-65.952	1.00	34.98	O	158.546	98.221	-68.544	1.00	49.51	O
ATOM	47521	CB	ILE	O	36	147.150	100.824	-64.081	1.00	35.17	C	156.710	100.978	-68.385	1.00	56.64	C
ATOM	47522	CG1	ILE	O	36	146.836	101.537	-62.768	1.00	35.17	C	158.042	101.346	-67.806	1.00	56.64	C
ATOM	47523	CG2	ILE	O	36	147.537	99.386	-63.802	1.00	35.17	C	159.132	101.673	-68.583	1.00	56.64	N
ATOM	47524	CD1	ILE	O	36	145.864	100.775	-61.863	1.00	35.17	C	158.459	101.443	-66.521	1.00	56.64	C
ATOM	47525	N	ASN	O	37	147.907	100.419	-66.887	1.00	46.22	N	160.161	101.959	-67.806	1.00	56.64	C
ATOM	47526	CA	ASN	O	37	148.275	99.581	-68.004	1.00	46.22	C	159.779	101.826	-66.549	1.00	56.64	C
ATOM	47527	C	ASN	O	37	149.580	99.993	-68.653	1.00	46.22	C	157.373	97.259	-66.207	1.00	40.07	C
ATOM	47528	O	ASN	O	37	150.447	99.152	-68.863	1.00	46.22	O	157.486	95.803	-66.653	1.00	40.07	C
ATOM	47529	CB	ASN	O	37	147.126	99.558	-68.981	1.00	53.53	C	158.170	95.016	-65.989	1.00	40.07	O
ATOM	47530	CG	ASN	O	37	145.963	98.779	-68.433	1.00	53.53	C	156.620	97.324	-64.878	1.00	47.88	C
ATOM	47531	OD1	ASN	O	37	144.843	98.880	-68.919	1.00	53.53	O	156.804	98.577	-64.018	1.00	47.88	C
ATOM	47532	ND2	ASN	O	37	146.230	97.976	-67.405	1.00	53.53	N	155.916	98.485	-62.777	1.00	47.88	C
ATOM	47533	N	ARG	O	38	149.738	101.277	-68.949	1.00	44.04	N	158.265	98.717	-63.620	1.00	47.88	C
ATOM	47534	CA	ARG	O	38	150.984	101.748	-69.541	1.00	44.04	C	156.830	95.413	-67.744	1.00	50.76	N
ATOM	47535	C	ARG	O	38	152.137	101.345	-68.629	1.00	44.04	O	156.965	94.023	-68.188	1.00	50.76	C
ATOM	47536	O	ARG	O	38	153.123	100.752	-69.081	1.00	44.04	O	158.410	93.891	-68.630	1.00	50.76	C
ATOM	47537	CB	ARG	O	38	150.993	103.269	-69.679	1.00	76.95	C	159.012	92.821	-68.571	1.00	50.76	O
ATOM	47538	CG	ARG	O	38	149.951	103.835	-70.612	1.00	76.95	C	155.983	93.697	-69.314	1.00	99.98	C
ATOM	47539	CD	ARG	O	38	150.031	103.208	-71.991	1.00	76.95	C	154.571	93.529	-68.781	1.00	99.98	C
ATOM	47540	NE	ARG	O	38	149.483	104.093	-73.014	1.00	76.95	N	153.594	92.986	-69.803	1.00	99.98	C
ATOM	47541	C2	ARG	O	38	150.130	105.146	-73.506	1.00	76.95	C	152.205	92.870	-69.179	1.00	99.98	C
ATOM	47542	NH1	ARG	O	38	151.353	105.437	-73.073	1.00	76.95	N	151.200	92.301	-70.111	1.00	99.98	N
ATOM	47543	NH2	ARG	O	38	149.547	105.919	-74.417	1.00	76.95	N	158.949	95.023	-69.056	1.00	78.02	N
ATOM	47544	N	LEU	O	39	152.004	101.668	-67.341	1.00	32.52	C	160.340	95.158	-69.441	1.00	78.02	C
ATOM	47545	CA	LEU	O	39	153.043	101.365	-66.364	1.00	32.52	C	160.771	95.984	-68.239	1.00	78.02	C
ATOM	47546	C	LEU	O	39	153.262	99.876	-66.275	1.00	32.52	C	159.919	96.384	-67.453	1.00	78.02	O
ATOM	47547	O	LEU	O	39	154.393	99.421	-66.340	1.00	32.52	O						



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ATOM	47598	CB	VAL	O	45	160.493	96.038	-70.678	1.00	37.95	C	ATOM	47648	CA	HIS	O	51	161.117	102.984	-58.142	1.00	41.81	C
ATOM	47599	CG1	VAL	O	45	161.929	95.975	-71.175	1.00	37.95	C	ATOM	47649	C	HIS	O	51	159.799	103.292	-58.796	1.00	41.81	C
ATOM	47600	CG2	VAL	O	45	159.487	95.633	-71.733	1.00	37.95	C	ATOM	47650	C	HIS	O	51	158.894	103.795	-58.141	1.00	41.81	O
ATOM	47601	N	HIS	O	46	162.055	96.261	-68.067	1.00	69.17	N	ATOM	47651	CB	HIS	O	51	162.156	104.030	-58.494	1.00	53.92	C
ATOM	47602	CA	HIS	O	46	162.460	97.075	-66.916	1.00	69.17	C	ATOM	47652	CG	HIS	O	51	163.273	104.090	-57.507	1.00	53.92	C
ATOM	47603	C	HIS	O	46	161.958	96.511	-65.580	1.00	69.17	C	ATOM	47653	ND1	HIS	O	51	164.027	102.985	-57.181	1.00	53.92	N
ATOM	47604	O	HIS	O	46	161.383	97.225	-64.755	1.00	61.60	C	ATOM	47654	CE1	HIS	O	51	163.724	105.099	-56.727	1.00	53.92	C
ATOM	47605	CB	HIS	O	46	161.933	98.498	-67.088	1.00	61.60	C	ATOM	47655	CE2	HIS	O	51	164.894	103.311	-56.239	1.00	53.92	C
ATOM	47606	CG	HIS	O	46	162.335	99.130	-68.379	1.00	61.60	C	ATOM	47656	NE2	HIS	O	51	164.731	104.588	-55.946	1.00	53.92	N
ATOM	47607	ND1	HIS	O	46	161.993	98.596	-69.600	1.00	61.60	N	ATOM	47657	N	SER	O	52	159.679	102.974	-60.078	1.00	37.49	C
ATOM	47608	CD2	HIS	O	46	163.066	100.238	-68.842	1.00	61.60	C	ATOM	47658	CA	SER	O	52	158.438	103.225	-60.796	1.00	37.49	C
ATOM	47609	CE1	HIS	O	46	162.497	99.349	-70.561	1.00	61.60	C	ATOM	47659	C	SER	O	52	157.342	102.290	-60.286	1.00	37.49	C
ATOM	47610	NE2	HIS	O	46	163.153	100.353	-70.007	1.00	61.60	N	ATOM	47660	C	SER	O	52	156.167	102.661	-60.211	1.00	37.49	O
ATOM	47611	N	LYS	O	47	162.183	95.225	-65.369	1.00	60.17	N	ATOM	47661	CB	SER	O	52	158.648	103.019	-62.298	1.00	37.49	C
ATOM	47612	CA	LYS	O	47	161.751	94.593	-64.146	1.00	60.17	C	ATOM	47662	OG	SER	O	52	159.383	104.093	-62.861	1.00	37.49	O
ATOM	47613	C	LYS	O	47	162.555	95.109	-62.957	1.00	60.17	C	ATOM	47663	CA	HIS	O	53	157.740	101.081	-59.915	1.00	46.11	N
ATOM	47614	O	LYS	O	47	162.226	94.814	-61.911	1.00	60.17	O	ATOM	47664	CA	HIS	O	53	156.802	100.089	-59.432	1.00	46.11	C
ATOM	47615	CB	LYS	O	47	161.896	93.081	-64.287	1.00	66.25	C	ATOM	47665	C	HIS	O	53	156.000	100.553	-58.215	1.00	46.11	C
ATOM	47616	CG	LYS	O	47	161.136	92.544	-65.480	1.00	66.25	C	ATOM	47666	O	HIS	O	53	154.825	100.194	-58.051	1.00	46.11	O
ATOM	47617	CD	LYS	O	47	161.239	91.039	-65.607	1.00	66.25	C	ATOM	47667	CB	HIS	O	53	157.548	98.801	-59.120	1.00	42.09	C
ATOM	47618	CE	LYS	O	47	160.403	90.547	-66.784	1.00	66.25	C	ATOM	47668	CG	HIS	O	53	156.669	97.714	-58.599	1.00	42.09	C
ATOM	47619	NZ	LYS	O	47	160.460	89.065	-66.938	1.00	66.25	N	ATOM	47669	ND1	HIS	O	53	156.571	97.417	-57.257	1.00	42.09	N
ATOM	47620	N	LYS	O	48	163.600	95.886	-63.232	1.00	57.78	N	ATOM	47670	CD2	HIS	O	53	155.818	96.878	-59.235	1.00	42.09	C
ATOM	47621	CA	LYS	O	48	164.451	96.439	-62.177	1.00	57.78	C	ATOM	47671	CE1	HIS	O	53	155.695	96.444	-57.089	1.00	42.09	C
ATOM	47622	C	LYS	O	48	164.009	97.827	-61.717	1.00	57.78	C	ATOM	47672	NE2	HIS	O	53	155.223	96.099	-58.274	1.00	42.09	N
ATOM	47623	O	LYS	O	48	164.345	98.255	-60.611	1.00	57.78	O	ATOM	47673	N	ARG	O	54	156.629	101.334	-57.345	1.00	47.77	N
ATOM	47624	CB	LYS	O	48	165.891	96.559	-62.648	1.00	79.91	C	ATOM	47674	CA	ARG	O	54	155.915	101.845	-56.186	1.00	47.77	C
ATOM	47625	CG	LYS	O	48	166.624	95.282	-62.952	1.00	79.91	C	ATOM	47675	C	ARG	O	54	154.806	102.747	-56.731	1.00	47.77	O
ATOM	47626	CD	LYS	O	48	167.978	95.689	-63.530	1.00	79.91	C	ATOM	47676	O	ARG	O	54	153.674	102.730	-56.251	1.00	47.77	O
ATOM	47627	CE	LYS	O	48	168.767	94.527	-64.067	1.00	79.91	C	ATOM	47677	CB	ARG	O	54	156.864	102.636	-55.280	1.00	36.45	C
ATOM	47628	NZ	LYS	O	48	169.996	94.970	-64.788	1.00	79.91	N	ATOM	47678	CG	ARG	O	54	156.179	103.630	-54.363	1.00	36.45	C
ATOM	47629	N	ASP	O	49	163.288	98.542	-62.575	1.00	41.74	N	ATOM	47679	CD	ARG	O	54	156.966	103.826	-53.095	1.00	36.45	C
ATOM	47630	CA	ASP	O	49	162.815	99.880	-62.233	1.00	41.74	C	ATOM	47680	NE	ARG	O	54	156.415	104.867	-52.222	1.00	36.45	N
ATOM	47631	C	ASP	O	49	161.790	99.773	-61.107	1.00	41.74	C	ATOM	47681	CZ	ARG	O	54	156.427	106.168	-52.507	1.00	36.45	C
ATOM	47632	O	ASP	O	49	160.592	99.984	-61.313	1.00	41.74	C	ATOM	47682	NH1	ARG	O	54	156.958	106.591	-53.649	1.00	36.45	N
ATOM	47633	CB	ASP	O	49	162.193	100.553	-63.466	1.00	44.39	C	ATOM	47683	NH2	ARG	O	54	155.929	107.046	-51.642	1.00	36.45	N
ATOM	47634	CG	ASP	O	49	161.692	101.962	-63.186	1.00	44.39	C	ATOM	47684	N	GLY	O	55	155.140	103.524	-57.753	1.00	48.19	N
ATOM	47635	OD1	ASP	O	49	161.977	102.497	-62.100	1.00	44.39	O	ATOM	47685	CA	GLY	O	55	154.157	104.398	-58.342	1.00	48.19	C
ATOM	47636	OD2	ASP	O	49	161.017	102.538	-64.061	1.00	44.39	O	ATOM	47686	C	GLY	O	55	152.942	103.591	-58.753	1.00	48.19	C
ATOM	47637	N	HIS	O	50	162.279	99.438	-59.915	1.00	49.98	N	ATOM	47687	O	GLY	O	55	151.811	104.058	-58.613	1.00	48.19	O
ATOM	47638	CA	HIS	O	50	161.433	99.282	-58.745	1.00	49.98	C	ATOM	47688	N	LEU	O	56	153.170	102.381	-59.260	1.00	36.08	N
ATOM	47639	C	HIS	O	50	160.822	100.606	-58.338	1.00	49.98	C	ATOM	47689	CA	LEU	O	56	152.079	101.519	-59.692	1.00	36.08	C
ATOM	47640	O	HIS	O	50	159.681	100.668	-57.871	1.00	49.98	O	ATOM	47690	C	LEU	O	56	151.279	101.057	-58.487	1.00	36.08	C
ATOM	47641	CB	HIS	O	50	162.248	98.754	-57.582	1.00	43.46	C	ATOM	47691	O	LEU	O	56	150.052	101.140	-58.476	1.00	36.08	O
ATOM	47642	CG	HIS	O	50	162.948	97.470	-57.871	1.00	43.46	C	ATOM	47692	CB	LEU	O	56	152.624	100.301	-60.422	1.00	24.67	C
ATOM	47643	ND1	HIS	O	50	162.305	96.384	-58.416	1.00	43.46	N	ATOM	47693	CG	LEU	O	56	151.608	99.278	-60.937	1.00	24.67	C
ATOM	47644	CD2	HIS	O	50	164.227	97.085	-57.659	1.00	43.46	C	ATOM	47694	CD1	LEU	O	56	151.170	99.609	-62.346	1.00	24.67	C
ATOM	47645	CE1	HIS	O	50	163.159	95.381	-58.526	1.00	43.46	C	ATOM	47695	CD2	LEU	O	56	152.262	97.937	-60.946	1.00	24.67	C
ATOM	47646	NE2	HIS	O	50	164.332	95.780	-58.073	1.00	43.46	N	ATOM	47696	N	LEU	O	57	151.979	100.562	-57.471	1.00	52.66	N
ATOM	47647	N	HIS	O	51	161.596	101.670	-58.503	1.00	41.81	N	ATOM	47697	CA	LEU	O	57	151.332	100.094	-56.250	1.00	52.66	C



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ATOM	47698	C	LEU	O	57	150.341	101.114	-55.760	1.00	52.66	C	ATOM	47748	CZ	ARG	O	63	142.832	99.137	-62.322	1.00	45.91	C
ATOM	47699	O	LEU	O	57	149.285	100.770	-55.240	1.00	52.66	O	ATOM	47749	NH1	ARG	O	63	142.655	99.556	-63.563	1.00	45.91	N
ATOM	47700	CB	LEU	O	57	152.370	99.852	-55.168	1.00	40.69	C	ATOM	47750	NH2	ARG	O	63	143.417	97.973	-62.107	1.00	45.91	N
ATOM	47701	CG	LEU	O	57	152.600	98.388	-54.822	1.00	40.69	C	ATOM	47751	N	ARG	O	64	141.585	100.831	-56.657	1.00	46.70	N
ATOM	47702	CD1	LEU	O	57	152.549	97.526	-56.059	1.00	40.69	C	ATOM	47752	CA	ARG	O	64	140.782	99.853	-55.939	1.00	46.70	C
ATOM	47703	CD2	LEU	O	57	153.942	98.264	-54.147	1.00	40.69	C	ATOM	47753	C	ARG	O	64	140.044	100.516	-54.796	1.00	46.70	C
ATOM	47704	N	MET	O	58	150.696	102.377	-55.935	1.00	50.85	N	ATOM	47754	O	ARG	O	64	139.064	99.984	-54.290	1.00	46.70	O
ATOM	47705	CA	MET	O	58	149.848	103.471	-55.513	1.00	50.85	C	ATOM	47755	CB	ARG	O	64	141.647	98.687	-55.434	1.00	115.37	C
ATOM	47706	C	MET	O	58	148.670	103.686	-56.460	1.00	50.85	C	ATOM	47756	CG	ARG	O	64	142.737	99.064	-54.453	1.00	115.37	C
ATOM	47707	O	MET	O	58	147.537	103.858	-56.009	1.00	50.85	O	ATOM	47757	CD	ARG	O	64	143.648	97.877	-54.171	1.00	115.37	C
ATOM	47708	CB	MET	O	58	150.673	104.749	-55.401	1.00	43.84	C	ATOM	47758	NE	ARG	O	64	142.912	96.718	-53.672	1.00	115.37	N
ATOM	47709	CG	MET	O	58	151.883	104.602	-54.501	1.00	43.84	C	ATOM	47759	CZ	ARG	O	64	142.239	96.692	-52.525	1.00	115.37	C
ATOM	47710	SD	MET	O	58	152.564	106.196	-54.001	1.00	43.84	S	ATOM	47760	NH1	ARG	O	64	142.202	97.766	-51.747	1.00	115.37	N
ATOM	47711	CE	MET	O	58	153.244	106.787	-55.522	1.00	43.84	C	ATOM	47761	NH2	ARG	O	64	141.609	95.585	-52.148	1.00	115.37	N
ATOM	47712	N	MET	O	59	148.926	103.683	-57.766	1.00	45.23	N	ATOM	47762	CA	ARG	O	65	140.494	101.699	-54.407	1.00	38.45	N
ATOM	47713	CA	MET	O	59	147.851	103.874	-58.735	1.00	45.23	C	ATOM	47763	CA	ARG	O	65	139.844	102.402	-53.315	1.00	38.45	C
ATOM	47714	C	MET	O	59	146.814	102.791	-58.477	1.00	45.23	C	ATOM	47764	C	ARG	O	65	138.668	103.271	-53.810	1.00	38.45	C
ATOM	47715	O	MET	O	59	145.641	103.072	-58.220	1.00	45.23	O	ATOM	47765	O	ARG	O	65	137.699	103.491	-53.083	1.00	38.45	O
ATOM	47716	CB	MET	O	59	148.397	103.775	-60.160	1.00	68.37	C	ATOM	47766	CB	ARG	O	65	140.884	103.228	-52.556	1.00	63.14	C
ATOM	47717	CG	MET	O	59	149.637	104.626	-60.360	1.00	68.37	C	ATOM	47767	CG	ARG	O	65	140.440	103.636	-51.176	1.00	63.14	C
ATOM	47718	SD	MET	O	59	150.080	104.971	-62.068	1.00	68.37	S	ATOM	47768	CD	ARG	O	65	141.618	103.941	-50.273	1.00	63.14	C
ATOM	47719	CE	MET	O	59	150.095	103.335	-62.765	1.00	68.37	C	ATOM	47769	NE	ARG	O	65	142.608	104.804	-50.904	1.00	63.14	C
ATOM	47720	N	VAL	O	60	147.266	101.547	-58.519	1.00	45.35	N	ATOM	47770	CZ	ARG	O	65	143.738	104.358	-51.442	1.00	63.14	C
ATOM	47721	CA	VAL	O	60	146.389	100.424	-58.272	1.00	45.35	C	ATOM	47771	NH1	ARG	O	65	144.013	103.058	-51.418	1.00	63.14	N
ATOM	47722	C	VAL	O	60	145.689	100.646	-56.956	1.00	45.35	C	ATOM	47772	NH2	ARG	O	65	144.593	105.208	-52.001	1.00	63.14	N
ATOM	47723	O	VAL	O	60	144.506	100.361	-56.821	1.00	45.35	O	ATOM	47773	N	LEU	O	66	138.750	103.767	-55.043	1.00	54.95	N
ATOM	47724	CB	VAL	O	60	147.182	99.106	-58.221	1.00	29.01	C	ATOM	47774	CA	LEU	O	66	137.663	104.562	-55.607	1.00	54.95	C
ATOM	47725	CG1	VAL	O	60	146.363	98.000	-57.546	1.00	29.01	C	ATOM	47775	C	LEU	O	66	136.552	103.587	-55.982	1.00	54.95	C
ATOM	47726	CG2	VAL	O	60	147.548	98.699	-59.639	1.00	29.01	C	ATOM	47776	O	LEU	O	66	135.374	103.849	-55.751	1.00	54.95	O
ATOM	47727	N	GLY	O	61	146.422	101.166	-55.985	1.00	45.28	N	ATOM	47777	CB	LEU	O	66	138.126	105.324	-56.855	1.00	43.91	C
ATOM	47728	CA	GLY	O	61	145.824	101.415	-54.687	1.00	45.28	C	ATOM	47778	CG	LEU	O	66	138.786	106.701	-56.693	1.00	43.91	C
ATOM	47729	C	GLY	O	61	144.667	102.390	-54.758	1.00	45.28	C	ATOM	47779	CD1	LEU	O	66	139.266	107.194	-58.038	1.00	43.91	C
ATOM	47730	O	GLN	O	62	143.535	102.043	-54.420	1.00	45.28	O	ATOM	47780	CD2	LEU	O	66	137.803	107.696	-56.103	1.00	43.91	C
ATOM	47731	N	GLN	O	62	144.955	103.610	-55.211	1.00	69.61	N	ATOM	47781	N	LEU	O	67	136.939	102.457	-56.565	1.00	50.89	N
ATOM	47732	CA	GLN	O	62	143.948	104.657	-55.324	1.00	69.61	C	ATOM	47782	CA	LEU	O	67	135.982	101.435	-56.950	1.00	50.89	C
ATOM	47733	O	GLN	O	62	142.768	104.222	-56.169	1.00	69.61	C	ATOM	47783	C	LEU	O	67	135.226	100.953	-55.724	1.00	50.89	C
ATOM	47734	CB	GLN	O	62	141.660	104.715	-55.990	1.00	59.48	C	ATOM	47784	O	LEU	O	67	134.015	100.741	-55.767	1.00	50.89	O
ATOM	47735	CB	GLN	O	62	144.557	105.918	-55.932	1.00	59.48	C	ATOM	47785	CB	LEU	O	67	136.698	100.250	-57.578	1.00	40.75	C
ATOM	47736	CG	GLN	O	62	143.648	107.146	-55.906	1.00	59.48	C	ATOM	47786	CG	LEU	O	67	137.305	100.510	-58.944	1.00	40.75	C
ATOM	47737	CD	GLN	O	62	143.217	107.536	-54.495	1.00	59.48	C	ATOM	47787	CD1	LEU	O	67	137.943	99.243	-59.438	1.00	40.75	C
ATOM	47738	OE1	GLN	O	62	143.947	107.314	-53.523	1.00	59.48	O	ATOM	47788	CD2	LEU	O	67	136.227	100.962	-59.906	1.00	40.75	C
ATOM	47739	NE2	GLN	O	62	142.029	108.136	-54.381	1.00	59.48	N	ATOM	47789	N	ARG	O	68	135.948	100.760	-54.629	1.00	51.58	N
ATOM	47740	N	ARG	O	63	142.991	103.305	-57.099	1.00	44.13	N	ATOM	47790	CA	ARG	O	68	135.317	100.303	-53.406	1.00	51.58	C
ATOM	47741	CA	ARG	O	63	141.891	102.864	-57.934	1.00	44.13	C	ATOM	47791	C	ARG	O	68	134.193	101.266	-53.064	1.00	51.58	C
ATOM	47742	C	ARG	O	63	141.006	101.905	-57.176	1.00	44.13	C	ATOM	47792	O	ARG	O	68	133.125	100.860	-52.611	1.00	51.58	O
ATOM	47743	O	ARG	O	63	139.811	102.133	-57.055	1.00	44.13	O	ATOM	47793	CB	ARG	O	68	136.331	100.266	-52.273	1.00	88.40	C
ATOM	47744	CB	ARG	O	63	142.391	102.185	-59.208	1.00	45.91	C	ATOM	47794	CG	ARG	O	68	135.703	100.063	-50.923	1.00	88.40	C
ATOM	47745	CG	ARG	O	63	141.266	101.728	-60.125	1.00	45.91	C	ATOM	47795	CD	ARG	O	68	136.711	100.328	-49.835	1.00	88.40	C
ATOM	47746	CD	ARG	O	63	141.776	101.180	-61.448	1.00	45.91	C	ATOM	47796	NE	ARG	O	68	137.641	99.221	-49.671	1.00	88.40	N
ATOM	47747	NE	ARG	O	63	142.426	99.684	-61.300	1.00	45.91	N	ATOM	47797	CZ	ARG	O	68	138.879	99.356	-49.209	1.00	88.40	C



Table 1: Sheet 480/521

ATOM	47798	NH1	ARG	O	68	139.337	100.560	-48.875	1.00	88.40	N	ATOM	47848	OE2	GLU	O	73	128.628	105.430	-50.559	1.00	95.21	O
ATOM	47799	NH2	ARG	O	68	139.649	98.284	-49.064	1.00	88.40	N	ATOM	47849	N	ASP	O	74	126.642	103.437	-55.735	1.00	57.14	N
ATOM	47800	N	TYR	O	69	134.450	102.547	-53.305	1.00	56.63	N	ATOM	47850	CA	ASP	O	74	125.810	102.857	-56.784	1.00	57.14	C
ATOM	47801	CA	TYR	O	69	133.490	103.611	-53.036	1.00	56.63	C	ATOM	47851	C	ASP	O	74	126.371	101.509	-57.239	1.00	57.14	C
ATOM	47802	C	TYR	O	69	132.280	103.552	-53.960	1.00	56.63	C	ATOM	47852	O	ASP	O	74	127.252	101.457	-58.092	1.00	57.14	O
ATOM	47803	CB	TYR	O	69	131.191	103.983	-53.588	1.00	56.63	O	ATOM	47853	CB	ASP	O	74	125.726	103.808	-57.978	1.00	91.03	C
ATOM	47804	CB	TYR	O	69	134.163	104.975	-53.194	1.00	53.82	C	ATOM	47854	CG	ASP	O	74	124.778	103.312	-59.049	1.00	91.03	C
ATOM	47805	CG	TYR	O	69	133.179	106.109	-53.245	1.00	53.82	C	ATOM	47855	OD1	ASP	O	74	124.922	102.148	-59.478	1.00	91.03	O
ATOM	47806	CD1	TYR	O	69	132.577	106.583	-52.088	1.00	53.82	C	ATOM	47856	OD2	ASP	O	74	123.890	104.086	-59.464	1.00	91.03	O
ATOM	47807	CD2	TYR	O	69	132.806	106.674	-54.461	1.00	53.82	C	ATOM	47857	N	PRO	O	75	125.857	100.397	-56.686	1.00	42.95	N
ATOM	47808	CE1	TYR	O	69	131.623	107.595	-52.136	1.00	53.82	C	ATOM	47858	CA	PRO	O	75	126.336	99.058	-57.061	1.00	42.95	C
ATOM	47809	CE2	TYR	O	69	131.851	107.683	-54.523	1.00	53.82	C	ATOM	47859	C	PRO	O	75	126.129	98.724	-58.543	1.00	42.95	C
ATOM	47810	C2	TYR	O	69	131.263	108.139	-53.356	1.00	53.82	C	ATOM	47860	O	PRO	O	75	126.684	97.749	-59.047	1.00	42.95	O
ATOM	47811	OH	TYR	O	69	130.311	109.131	-53.405	1.00	53.82	O	ATOM	47861	CB	PRO	O	75	125.538	98.137	-56.147	1.00	51.31	C
ATOM	47812	N	LEU	O	70	132.484	103.033	-55.168	1.00	55.84	N	ATOM	47862	CG	PRO	O	75	124.221	98.867	-56.038	1.00	51.31	C
ATOM	47813	CA	LEU	O	70	131.415	102.925	-56.155	1.00	55.84	C	ATOM	47863	CD	PRO	O	75	124.663	100.306	-55.826	1.00	51.31	C
ATOM	47814	C	LEU	O	70	130.378	101.899	-55.713	1.00	55.84	C	ATOM	47864	N	GLU	O	76	125.330	99.538	-59.232	1.00	73.71	N
ATOM	47815	O	LEU	O	70	129.200	102.228	-55.658	1.00	55.84	C	ATOM	47865	CA	GLU	O	76	125.061	99.328	-60.650	1.00	73.71	C
ATOM	47816	CB	LEU	O	70	131.988	102.540	-57.523	1.00	66.63	C	ATOM	47866	C	GLU	O	76	126.181	99.914	-61.515	1.00	73.71	C
ATOM	47817	CG	LEU	O	70	131.326	103.109	-58.786	1.00	66.63	C	ATOM	47867	O	GLU	O	76	126.819	99.192	-62.290	1.00	73.71	O
ATOM	47818	CD1	LEU	O	70	129.842	102.840	-58.754	1.00	66.63	C	ATOM	47868	CB	GLU	O	76	123.720	99.961	-61.031	1.00	142.75	C
ATOM	47819	CD2	LEU	O	70	131.573	104.597	-58.882	1.00	66.63	C	ATOM	47869	CG	GLU	O	76	123.347	99.776	-62.492	1.00	142.75	C
ATOM	47820	N	GLN	O	71	130.802	100.669	-55.403	1.00	49.34	N	ATOM	47870	CD	GLU	O	76	123.328	98.316	-62.902	1.00	142.75	C
ATOM	47821	CA	GLN	O	71	129.860	99.641	-54.950	1.00	49.34	C	ATOM	47871	OE1	GLU	O	76	122.535	97.546	-62.319	1.00	142.75	O
ATOM	47822	C	GLN	O	71	129.010	100.269	-53.881	1.00	49.34	C	ATOM	47872	OE2	GLU	O	76	124.106	97.940	-63.806	1.00	142.75	O
ATOM	47823	O	GLN	O	71	127.815	100.484	-54.062	1.00	49.34	C	ATOM	47873	N	ARG	O	77	126.410	101.221	-61.379	1.00	71.10	N
ATOM	47824	CB	GLN	O	71	130.547	98.470	-54.284	1.00	82.06	C	ATOM	47874	CA	ARG	O	77	127.458	101.902	-62.134	1.00	71.10	C
ATOM	47825	CG	GLN	O	71	131.305	97.561	-55.161	1.00	82.06	C	ATOM	47875	C	ARG	O	77	128.753	101.138	-61.959	1.00	71.10	C
ATOM	47826	CD	GLN	O	71	131.900	96.439	-54.347	1.00	82.06	C	ATOM	47876	O	ARG	O	77	129.589	101.088	-62.856	1.00	71.10	O
ATOM	47827	OE1	GLN	O	71	132.425	96.669	-53.251	1.00	82.06	N	ATOM	47877	CB	ARG	O	77	127.655	103.326	-61.625	1.00	68.83	C
ATOM	47828	NE2	GLN	O	71	131.828	95.218	-54.868	1.00	82.06	N	ATOM	47878	CG	ARG	O	77	126.495	104.248	-61.898	1.00	68.83	C
ATOM	47829	N	ARG	O	72	129.652	100.550	-52.752	1.00	60.54	N	ATOM	47879	CD	ARG	O	77	126.918	105.695	-61.746	1.00	68.83	C
ATOM	47830	CA	ARG	O	72	128.997	101.162	-51.608	1.00	60.54	C	ATOM	47880	NE	ARG	O	77	127.214	106.041	-60.361	1.00	68.83	N
ATOM	47831	C	ARG	O	72	127.878	102.117	-52.045	1.00	60.54	C	ATOM	47881	C2	ARG	O	77	127.822	107.162	-59.983	1.00	68.83	C
ATOM	47832	O	ARG	O	72	126.743	101.992	-51.581	1.00	60.54	O	ATOM	47882	NH1	ARG	O	77	128.209	108.052	-60.884	1.00	68.83	N
ATOM	47833	CB	ARG	O	72	130.044	101.887	-50.763	1.00	73.02	C	ATOM	47883	NH2	ARG	O	77	128.030	107.406	-58.696	1.00	68.83	N
ATOM	47834	CG	ARG	O	72	129.541	102.402	-49.440	1.00	73.02	C	ATOM	47884	N	TYR	O	78	128.900	100.545	-60.782	1.00	67.75	N
ATOM	47835	CD	ARG	O	72	130.523	102.055	-48.344	1.00	73.02	C	ATOM	47885	CA	TYR	O	78	130.073	99.760	-60.441	1.00	67.75	C
ATOM	47836	NE	ARG	O	72	131.897	102.431	-48.678	1.00	73.02	N	ATOM	47886	C	TYR	O	78	130.277	98.623	-61.437	1.00	67.75	C
ATOM	47837	C2	ARG	O	72	132.320	103.684	-48.836	1.00	73.02	C	ATOM	47887	O	TYR	O	78	131.237	98.625	-62.206	1.00	67.75	O
ATOM	47838	NH1	ARG	O	72	131.467	104.699	-48.694	1.00	73.02	N	ATOM	47888	CB	TYR	O	78	129.914	99.186	-59.036	1.00	58.90	C
ATOM	47839	NH2	ARG	O	72	133.601	103.925	-49.117	1.00	73.02	N	ATOM	47889	CG	TYR	O	78	131.048	98.287	-58.644	1.00	58.90	C
ATOM	47840	N	GLU	O	73	128.180	103.049	-52.951	1.00	61.17	N	ATOM	47890	CD1	TYR	O	78	132.324	98.800	-58.435	1.00	58.90	C
ATOM	47841	CA	GLU	O	73	127.166	103.987	-53.420	1.00	61.17	C	ATOM	47891	CD2	TYR	O	78	130.862	96.915	-58.538	1.00	58.90	C
ATOM	47842	C	GLU	O	73	126.250	103.379	-54.469	1.00	61.17	C	ATOM	47892	CE1	TYR	O	78	133.390	97.964	-58.137	1.00	58.90	C
ATOM	47843	O	GLU	O	73	125.186	102.858	-54.134	1.00	61.17	O	ATOM	47893	CE2	TYR	O	78	131.916	96.075	-58.241	1.00	58.90	C
ATOM	47844	CB	GLU	O	73	127.812	105.260	-53.953	1.00	95.21	C	ATOM	47894	C2	TYR	O	78	133.177	96.602	-58.046	1.00	58.90	C
ATOM	47845	CG	GLU	O	73	128.522	106.038	-52.869	1.00	95.21	C	ATOM	47895	OH	TYR	O	78	134.230	95.760	-57.790	1.00	58.90	O
ATOM	47846	CD	GLU	O	73	127.896	105.814	-51.499	1.00	95.21	C	ATOM	47896	N	ARG	O	79	129.368	97.652	-61.414	1.00	91.39	N
ATOM	47847	OE1	GLU	O	73	126.670	106.016	-51.363	1.00	95.21	O	ATOM	47897	CA	ARG	O	79	129.441	96.510	-62.317	1.00	91.39	C



Table 1: Sheet 481/521

ATOM	47898	C	ARG	O	79	129.571	97.029	-63.737	1.00	91.39	C	ATOM	47948	C	LEU	O	85	137.749	97.701	-68.499	1.00	71.94	C
ATOM	47899	O	ARG	O	79	130.163	96.379	-64.599	1.00	91.39	O	ATOM	47949	O	LEU	O	85	138.860	97.565	-69.002	1.00	71.94	O
ATOM	47900	CB	ARG	O	79	128.175	95.663	-62.201	1.00	144.78	C	ATOM	47950	CB	LEU	O	85	137.508	99.642	-67.025	1.00	63.22	C
ATOM	47901	CG	ARG	O	79	127.880	95.195	-60.794	1.00	144.78	C	ATOM	47951	CG	LEU	O	85	137.403	101.141	-66.791	1.00	63.22	C
ATOM	47902	CD	ARG	O	79	126.421	94.812	-60.646	1.00	144.78	C	ATOM	47952	CD1	LEU	O	85	137.855	101.428	-65.376	1.00	63.22	C
ATOM	47903	NE	ARG	O	79	126.028	94.747	-59.242	1.00	144.78	N	ATOM	47953	CD2	LEU	O	85	138.269	101.900	-67.780	1.00	63.22	C
ATOM	47904	CZ	ARG	O	79	124.769	94.701	-58.821	1.00	144.78	C	ATOM	47954	N	GLY	O	86	137.044	96.685	-68.013	1.00	90.24	N
ATOM	47905	NH1	ARG	O	79	123.772	94.710	-59.699	1.00	144.78	N	ATOM	47955	CA	GLY	O	86	137.565	95.332	-68.047	1.00	90.24	C
ATOM	47906	NH2	ARG	O	79	124.508	94.656	-57.522	1.00	144.78	N	ATOM	47956	C	GLY	O	86	138.475	95.064	-66.858	1.00	90.24	C
ATOM	47907	N	ALA	O	80	129.010	98.212	-63.966	1.00	67.93	N	ATOM	47957	O	GLY	O	86	139.525	94.441	-67.010	1.00	90.24	O
ATOM	47908	CA	ALA	O	80	130.458	98.843	-65.652	1.00	67.93	C	ATOM	47958	N	ILE	O	87	138.073	95.530	-65.674	1.00	70.64	N
ATOM	47909	C	ALA	O	80	130.458	99.279	-65.652	1.00	67.93	C	ATOM	47959	CA	ILE	O	87	138.857	95.353	-64.449	1.00	70.64	C
ATOM	47910	O	ALA	O	80	130.926	99.016	-66.760	1.00	67.93	O	ATOM	47960	C	ILE	O	87	138.511	94.080	-63.677	1.00	70.64	C
ATOM	47911	CB	ALA	O	80	128.134	100.035	-65.292	1.00	25.40	C	ATOM	47961	O	ILE	O	87	137.399	93.564	-63.782	1.00	70.64	O
ATOM	47912	N	LEU	O	81	131.123	99.953	-64.720	1.00	60.27	N	ATOM	47962	CB	ILE	O	87	138.697	96.577	-63.510	1.00	77.05	C
ATOM	47913	CA	LEU	O	81	132.477	100.448	-64.940	1.00	60.27	C	ATOM	47963	CG1	ILE	O	87	139.402	97.784	-64.129	1.00	77.05	C
ATOM	47914	C	LEU	O	81	133.440	99.291	-65.156	1.00	60.27	C	ATOM	47964	CG2	ILE	O	87	139.270	96.280	-62.130	1.00	77.05	C
ATOM	47915	O	LEU	O	81	134.223	99.295	-66.106	1.00	60.27	O	ATOM	47965	CD1	ILE	O	87	139.438	99.000	-63.235	1.00	77.05	C
ATOM	47916	CB	LEU	O	81	132.941	101.273	-63.735	1.00	37.51	C	ATOM	47966	N	ARG	O	88	139.488	93.600	-62.904	1.00	170.96	N
ATOM	47917	CG	LEU	O	81	133.765	102.527	-64.022	1.00	37.51	C	ATOM	47967	CA	ARG	O	88	139.411	92.383	-62.086	1.00	170.96	C
ATOM	47918	CD1	LEU	O	81	134.499	102.959	-62.767	1.00	37.51	C	ATOM	47968	C	ARG	O	88	140.373	91.364	-62.696	1.00	170.96	C
ATOM	47919	CD2	LEU	O	81	134.743	102.235	-65.132	1.00	37.51	C	ATOM	47969	O	ARG	O	88	141.539	91.676	-62.943	1.00	170.96	O
ATOM	47920	N	ILE	O	82	133.384	98.311	-64.258	1.00	67.14	N	ATOM	47970	CB	ARG	O	88	137.994	91.797	-62.058	1.00	147.53	C
ATOM	47921	CA	ILE	O	82	134.244	97.139	-64.346	1.00	67.14	C	ATOM	47971	CG	ARG	O	88	136.990	92.563	-61.207	1.00	147.53	C
ATOM	47922	C	ILE	O	82	134.158	96.543	-65.743	1.00	67.14	C	ATOM	47972	CD	ARG	O	88	137.051	92.151	-59.745	1.00	147.53	C
ATOM	47923	O	ILE	O	82	135.096	96.648	-66.526	1.00	67.14	O	ATOM	47973	NE	ARG	O	88	135.850	92.572	-59.026	1.00	147.53	C
ATOM	47924	CB	ILE	O	82	133.820	96.048	-63.355	1.00	82.39	C	ATOM	47974	CZ	ARG	O	88	135.509	92.146	-57.812	1.00	147.53	C
ATOM	47925	CG1	ILE	O	82	133.986	96.538	-61.924	1.00	82.39	C	ATOM	47975	NH1	ARG	O	88	136.279	91.280	-57.164	1.00	147.53	N
ATOM	47926	CG2	ILE	O	82	134.648	94.795	-63.579	1.00	82.39	C	ATOM	47976	NH2	ARG	O	88	134.389	92.579	-57.247	1.00	147.53	N
ATOM	47927	CD1	ILE	O	82	133.618	95.483	-60.915	1.00	82.39	C	ATOM	47977	N	GLY	O	89	139.883	90.153	-62.941	1.00	200.84	N
ATOM	47928	N	GLU	O	83	133.021	95.915	-66.037	1.00	86.30	N	ATOM	47978	CA	GLY	O	89	140.716	89.120	-63.532	1.00	200.84	C
ATOM	47929	CA	GLU	O	83	132.778	95.285	-67.330	1.00	86.30	C	ATOM	47979	C	GLY	O	89	141.376	88.197	-62.525	1.00	200.84	C
ATOM	47930	C	GLU	O	83	133.400	96.099	-68.458	1.00	86.30	C	ATOM	47980	O	GLY	O	89	141.044	86.993	-62.521	1.00	200.84	O
ATOM	47931	O	GLU	O	83	134.183	95.579	-69.260	1.00	86.30	O	ATOM	47981	OXT	GLY	O	89	142.225	88.671	-61.740	1.00	106.87	O
ATOM	47932	CB	GLU	O	83	131.269	95.137	-67.554	1.00	159.65	C	TER	47982										
ATOM	47933	CG	GLU	O	83	130.858	94.422	-68.839	1.00	159.65	C	ATOM	47983	N	MET	P	1	110.527	66.677	2.540	1.00	86.61	N
ATOM	47934	CD	GLU	O	83	130.890	95.321	-70.064	1.00	159.65	C	ATOM	47984	CA	MET	P	1	109.235	67.260	3.007	1.00	86.61	C
ATOM	47935	OE1	GLU	O	83	131.991	95.614	-70.575	1.00	159.65	O	ATOM	47985	C	MET	P	1	109.509	68.597	3.675	1.00	86.61	C
ATOM	47936	OE2	GLU	O	83	129.804	95.740	-70.517	1.00	159.65	O	ATOM	47986	O	MET	P	1	110.354	68.688	4.565	1.00	86.61	O
ATOM	47937	N	LYS	O	84	133.046	97.379	-68.509	1.00	60.98	N	ATOM	47987	CB	MET	P	1	108.570	66.324	4.004	1.00	61.36	C
ATOM	47938	CA	LYS	O	84	133.556	98.285	-69.526	1.00	60.98	C	ATOM	47988	CG	MET	P	1	107.272	66.848	4.561	1.00	61.36	C
ATOM	47939	C	LYS	O	84	135.086	98.302	-69.478	1.00	60.98	C	ATOM	47989	SD	MET	P	1	106.919	66.052	6.128	1.00	61.36	S
ATOM	47940	CB	LYS	O	84	135.739	97.663	-70.299	1.00	60.98	O	ATOM	47990	CE	MET	P	1	108.162	66.854	7.166	1.00	61.36	C
ATOM	47941	CG	LYS	O	84	132.985	99.673	-69.281	1.00	50.34	C	ATOM	47991	N	VAL	P	2	108.782	69.627	3.255	1.00	48.01	N
ATOM	47942	CG	LYS	O	84	133.181	100.639	-70.406	1.00	50.34	C	ATOM	47992	CA	VAL	P	2	108.975	70.969	3.792	1.00	48.01	C
ATOM	47943	CD	LYS	O	84	132.374	101.898	-70.144	1.00	50.34	C	ATOM	47993	C	VAL	P	2	108.543	71.109	5.243	1.00	48.01	C
ATOM	47944	CE	LYS	O	84	132.533	102.912	-71.261	1.00	50.34	C	ATOM	47994	O	VAL	P	2	107.428	70.747	5.614	1.00	48.01	O
ATOM	47945	NZ	LYS	O	84	131.660	104.093	-71.042	1.00	50.34	N	ATOM	47995	CB	VAL	P	2	108.250	72.008	2.916	1.00	61.33	C
ATOM	47946	N	LEU	O	85	135.660	99.017	-68.515	1.00	71.94	N	ATOM	47996	CG1	VAL	P	2	106.935	71.427	2.405	1.00	61.33	C
ATOM	47947	CA	LEU	O	85	137.114	99.075	-68.381	1.00	71.94	C	ATOM	47997	CG2	VAL	P	2	108.020	73.285	3.706	1.00	61.33	C



Table 1: Sheet 482/521

ATOM	47998	N	LVS P	3	109.441	71.644	6.061	1.00	44.58	N	ATOM	48048	NH1 ARG P	8	124.404	77.113	20.405	1.00	49.32	N
ATOM	47999	CA	LVS P	3	109.168	71.816	7.476	1.00	44.58	C	ATOM	48049	NH2 ARG P	8	123.321	75.771	21.937	1.00	49.32	N
ATOM	48000	C	LVS P	3	109.243	73.241	8.031	1.00	44.58	C	ATOM	48050	N PHE P	9	121.265	79.635	15.789	1.00	49.94	N
ATOM	48001	O	LVS P	3	109.724	74.172	7.379	1.00	44.58	O	ATOM	48051	CA PHE P	9	121.975	80.812	15.316	1.00	49.94	C
ATOM	48002	CB	LVS P	3	110.122	70.947	8.285	1.00	60.81	C	ATOM	48052	C PHE P	9	122.649	81.560	16.440	1.00	49.94	C
ATOM	48003	CG	LVS P	3	109.865	69.461	8.197	1.00	60.81	C	ATOM	48053	O PHE P	9	123.308	82.569	16.209	1.00	49.94	O
ATOM	48004	CD	LVS P	3	110.256	68.847	9.524	1.00	60.81	C	ATOM	48054	CB PHE P	9	121.026	81.750	14.586	1.00	44.86	C
ATOM	48005	CE	LVS P	3	110.491	67.363	9.435	1.00	60.81	C	ATOM	48055	CG PHE P	9	121.064	81.590	13.115	1.00	44.86	C
ATOM	48006	NZ	LVS P	3	111.154	66.882	10.684	1.00	60.81	N	ATOM	48056	CD1 PHE P	9	122.059	82.189	12.376	1.00	44.86	C
ATOM	48007	N	ILE P	4	108.737	73.397	9.250	1.00	41.18	N	ATOM	48057	CD2 PHE P	9	120.132	80.797	12.469	1.00	44.86	C
ATOM	48008	CA	ILE P	4	108.783	74.664	9.964	1.00	41.18	C	ATOM	48058	CE1 PHE P	9	122.135	82.001	11.006	1.00	44.86	C
ATOM	48009	C	ILE P	4	109.520	74.244	11.213	1.00	41.18	C	ATOM	48059	CE2 PHE P	9	120.193	80.595	11.096	1.00	44.86	C
ATOM	48010	O	ILE P	4	108.978	73.503	12.028	1.00	41.18	O	ATOM	48060	CZ PHE P	9	121.199	81.200	10.361	1.00	44.86	C
ATOM	48011	CB	ILE P	4	107.387	75.175	10.349	1.00	34.45	C	ATOM	48061	N GLY P	10	122.507	81.057	17.657	1.00	30.70	N
ATOM	48012	CG1	ILE P	4	106.536	75.352	9.084	1.00	34.45	C	ATOM	48062	CA GLY P	10	123.108	81.754	18.773	1.00	30.70	C
ATOM	48013	CG2	ILE P	4	107.509	76.485	11.114	1.00	34.45	C	ATOM	48063	C GLY P	10	124.622	81.822	18.775	1.00	30.70	C
ATOM	48014	CD1	ILE P	4	105.109	75.867	9.335	1.00	34.45	C	ATOM	48064	O GLY P	10	125.255	82.490	17.955	1.00	30.70	O
ATOM	48015	N	ARG P	5	110.765	74.678	11.351	1.00	40.04	N	ATOM	48065	N SER P	11	125.184	81.112	19.746	1.00	56.63	N
ATOM	48016	CA	ARG P	5	111.548	74.283	12.513	1.00	40.04	C	ATOM	48066	CA SER P	11	126.612	81.007	19.973	1.00	56.63	C
ATOM	48017	C	ARG P	5	112.516	75.355	12.964	1.00	40.04	C	ATOM	48067	C SER P	11	126.699	80.163	21.231	1.00	56.63	C
ATOM	48018	O	ARG P	5	112.577	76.430	12.378	1.00	40.04	O	ATOM	48068	O SER P	11	125.677	79.839	21.833	1.00	56.63	O
ATOM	48019	CB	ARG P	5	112.324	72.999	12.200	1.00	53.29	C	ATOM	48069	CB SER P	11	127.215	82.373	20.223	1.00	41.58	C
ATOM	48020	CG	ARG P	5	113.489	73.188	11.257	1.00	53.29	C	ATOM	48070	OG SER P	11	126.553	82.972	21.307	1.00	41.58	O
ATOM	48021	CD	ARG P	5	113.865	71.887	10.589	1.00	53.29	C	ATOM	48071	N LYS P	12	127.910	79.811	21.637	1.00	59.03	N
ATOM	48022	NE	ARG P	5	115.140	71.981	9.877	1.00	53.29	N	ATOM	48072	CA LYS P	12	128.067	78.964	22.805	1.00	59.03	C
ATOM	48023	CZ	ARG P	5	115.542	71.136	8.929	1.00	53.29	C	ATOM	48073	C LYS P	12	127.318	79.495	24.018	1.00	59.03	C
ATOM	48024	NH1	ARG P	5	114.772	70.121	8.562	1.00	53.29	N	ATOM	48074	O LYS P	12	127.535	80.623	24.469	1.00	59.03	O
ATOM	48025	NH2	ARG P	5	116.718	71.311	8.344	1.00	53.29	N	ATOM	48075	CB LYS P	12	129.540	78.801	23.144	1.00	56.75	C
ATOM	48026	N	LEU P	6	113.270	75.036	14.008	1.00	42.94	N	ATOM	48076	CG LYS P	12	130.037	77.368	23.244	1.00	56.75	C
ATOM	48027	CA	LEU P	6	114.264	75.941	14.557	1.00	42.94	C	ATOM	48077	CD LYS P	12	131.396	77.405	23.914	1.00	56.75	C
ATOM	48028	C	LEU P	6	115.633	75.777	13.889	1.00	42.94	C	ATOM	48078	CE LYS P	12	132.291	76.263	23.521	1.00	56.75	C
ATOM	48029	O	LEU P	6	115.961	74.702	13.377	1.00	42.94	O	ATOM	48079	NZ LYS P	12	133.628	76.458	24.160	1.00	56.75	N
ATOM	48030	CB	LEU P	6	114.394	75.717	16.065	1.00	47.65	C	ATOM	48080	N HIS P	13	126.429	78.656	24.533	1.00	69.58	N
ATOM	48031	CG	LEU P	6	113.281	76.335	16.915	1.00	47.65	C	ATOM	48081	CA HIS P	13	125.628	78.980	25.696	1.00	69.58	C
ATOM	48032	CD1	LEU P	6	111.920	75.911	16.378	1.00	47.65	C	ATOM	48082	C HIS P	13	124.727	80.165	25.484	1.00	69.58	C
ATOM	48033	CD2	LEU P	6	113.463	75.925	18.363	1.00	47.65	C	ATOM	48083	O HIS P	13	124.050	80.596	26.406	1.00	69.58	O
ATOM	48034	N	ALA P	7	116.418	76.855	13.892	1.00	39.73	N	ATOM	48084	CB HIS P	13	126.535	79.221	26.889	1.00	75.86	C
ATOM	48035	CA	ALA P	7	117.755	76.868	13.301	1.00	39.73	C	ATOM	48085	CG HIS P	13	127.386	78.043	27.220	1.00	75.86	C
ATOM	48036	C	ALA P	7	118.715	77.538	14.281	1.00	39.73	O	ATOM	48086	ND1 HIS P	13	126.862	76.778	27.388	1.00	75.86	N
ATOM	48037	O	ALA P	7	118.585	78.721	14.596	1.00	39.73	O	ATOM	48087	CD2 HIS P	13	128.724	77.925	27.392	1.00	75.86	C
ATOM	48038	CB	ALA P	7	117.723	77.622	12.005	1.00	8.98	C	ATOM	48088	CE1 HIS P	13	127.843	75.931	27.649	1.00	75.86	C
ATOM	48039	N	ARG P	8	119.672	76.777	14.781	1.00	62.08	N	ATOM	48089	NE2 HIS P	13	128.983	76.602	27.657	1.00	75.86	N
ATOM	48040	CA	ARG P	8	120.617	77.319	15.740	1.00	62.08	C	ATOM	48090	N ASN P	14	124.708	80.680	24.263	1.00	35.50	N
ATOM	48041	C	ARG P	8	121.376	78.477	15.152	1.00	62.08	C	ATOM	48091	CA ASN P	14	123.872	81.829	23.931	1.00	35.50	C
ATOM	48042	O	ARG P	8	122.055	78.327	14.138	1.00	62.08	O	ATOM	48092	C ASN P	14	123.070	81.499	22.680	1.00	35.50	C
ATOM	48043	CB	ARG P	8	121.605	76.248	16.164	1.00	49.32	C	ATOM	48093	O ASN P	14	123.063	82.248	21.708	1.00	35.50	O
ATOM	48044	CG	ARG P	8	121.486	75.844	17.598	1.00	49.32	C	ATOM	48094	CB ASN P	14	124.738	83.078	23.707	1.00	74.28	C
ATOM	48045	CD	ARG P	8	122.439	76.622	18.479	1.00	49.32	C	ATOM	48095	CG ASN P	14	123.914	84.352	23.595	1.00	74.28	C
ATOM	48046	NE	ARG P	8	122.438	76.075	19.831	1.00	49.32	N	ATOM	48096	OD1 ASN P	14	122.990	84.577	24.380	1.00	74.28	O
ATOM	48047	CZ	ARG P	8	123.383	76.322	20.728	1.00	49.32	C	ATOM	48097	ND2 ASN P	14	124.253	85.199	22.624	1.00	74.28	N



Table 1: Sheet 483/521

ATOM	48098	N	PRO	P	15	122.365	80.365	22.704	1.00	47.62	N	ATOM	48148	C	VAL	P	20	111.428	77.689	8.767	1.00	45.63	C
ATOM	48099	CA	PRO	P	15	121.538	79.875	21.602	1.00	47.62	C	ATOM	48149	O	VAL	P	20	110.993	76.668	9.278	1.00	45.63	O
ATOM	48100	C	PRO	P	15	120.438	80.845	21.253	1.00	47.62	C	ATOM	48150	CB	VAL	P	20	113.713	78.430	9.355	1.00	38.46	C
ATOM	48101	O	PRO	P	15	119.848	81.439	22.143	1.00	47.62	O	ATOM	48151	CG1	VAL	P	20	113.917	77.598	8.120	1.00	38.46	C
ATOM	48102	CB	PRO	P	15	120.957	78.598	22.168	1.00	40.86	C	ATOM	48152	CG2	VAL	P	20	114.440	79.742	9.293	1.00	38.46	C
ATOM	48103	CG	PRO	P	15	120.739	78.991	23.582	1.00	40.86	C	ATOM	48153	N	VAL	P	21	111.251	77.985	7.484	1.00	36.76	N
ATOM	48104	CD	PRO	P	15	122.061	79.618	23.933	1.00	40.86	C	ATOM	48154	CA	VAL	P	21	110.545	77.083	6.573	1.00	36.76	C
ATOM	48105	N	HIS	P	16	120.169	80.987	19.960	1.00	38.91	N	ATOM	48155	O	VAL	P	21	111.592	76.526	5.621	1.00	36.76	C
ATOM	48106	CA	HIS	P	16	119.112	81.852	19.437	1.00	38.91	C	ATOM	48156	O	VAL	P	21	111.954	77.186	4.651	1.00	36.76	O
ATOM	48107	C	HIS	P	16	118.622	81.175	18.174	1.00	38.91	C	ATOM	48157	CB	VAL	P	21	109.495	77.815	5.714	1.00	50.76	C
ATOM	48108	O	HIS	P	16	119.340	81.134	17.179	1.00	38.91	O	ATOM	48158	CG1	VAL	P	21	108.896	76.857	4.681	1.00	50.76	C
ATOM	48109	CB	HIS	P	16	119.647	83.244	19.087	1.00	55.99	C	ATOM	48159	CG2	VAL	P	21	108.414	78.393	6.604	1.00	50.76	C
ATOM	48110	CG	HIS	P	16	119.806	84.146	20.269	1.00	55.99	C	ATOM	48160	N	THR	P	22	112.075	75.317	5.885	1.00	56.94	N
ATOM	48111	ND1	HIS	P	16	120.781	83.957	21.224	1.00	55.99	N	ATOM	48161	CA	THR	P	22	113.105	74.717	5.045	1.00	56.94	C
ATOM	48112	CD2	HIS	P	16	119.097	85.229	20.665	1.00	55.99	C	ATOM	48162	C	THR	P	22	112.690	73.332	4.564	1.00	56.94	C
ATOM	48113	CE1	HIS	P	16	120.668	84.885	22.159	1.00	55.99	C	ATOM	48163	O	THR	P	22	111.618	72.856	4.904	1.00	56.94	O
ATOM	48114	NE2	HIS	P	16	119.653	85.670	21.843	1.00	55.99	N	ATOM	48164	CB	THR	P	22	114.449	74.632	5.836	1.00	51.71	C
ATOM	48115	N	TYR	P	17	117.407	80.644	18.199	1.00	41.60	N	ATOM	48165	OG1	THR	P	22	115.495	74.169	4.974	1.00	51.71	O
ATOM	48116	CA	TYR	P	17	116.901	79.944	17.028	1.00	41.60	C	ATOM	48166	CG2	THR	P	22	114.323	73.704	7.029	1.00	51.71	C
ATOM	48117	C	TYR	P	17	116.148	80.843	16.057	1.00	41.60	C	ATOM	48167	N	ASP	P	23	113.520	72.700	3.744	1.00	36.61	N
ATOM	48118	O	TYR	P	17	115.815	81.979	16.384	1.00	41.60	C	ATOM	48168	CA	ASP	P	23	113.231	71.348	3.267	1.00	36.61	C
ATOM	48119	CB	TYR	P	17	116.003	78.788	17.467	1.00	60.06	C	ATOM	48169	C	ASP	P	23	113.805	70.412	4.348	1.00	36.61	C
ATOM	48120	CG	TYR	P	17	116.671	77.850	18.436	1.00	60.06	C	ATOM	48170	O	ASP	P	23	114.891	70.652	4.869	1.00	41.59	O
ATOM	48121	CD1	TYR	P	17	116.953	78.249	19.739	1.00	60.06	C	ATOM	48171	CB	ASP	P	23	113.751	69.674	1.404	1.00	41.59	C
ATOM	48122	CD2	TYR	P	17	117.035	76.568	18.051	1.00	60.06	C	ATOM	48172	CG	ASP	P	23	113.906	71.108	1.906	1.00	41.59	C
ATOM	48123	CE1	TYR	P	17	117.581	77.389	20.641	1.00	60.06	C	ATOM	48173	OD1	ASP	P	23	114.262	68.729	2.051	1.00	41.59	O
ATOM	48124	CE2	TYR	P	17	117.665	75.698	18.945	1.00	60.06	C	ATOM	48174	OD2	ASP	P	23	113.123	69.484	0.349	1.00	41.59	O
ATOM	48125	CZ	TYR	P	17	117.932	76.115	20.239	1.00	60.06	C	ATOM	48175	N	ALA	P	24	113.072	69.354	4.688	1.00	44.91	N
ATOM	48126	OH	TYR	P	17	118.541	75.260	21.127	1.00	60.06	O	ATOM	48176	CA	ALA	P	24	113.496	68.418	5.727	1.00	44.91	C
ATOM	48127	N	ARG	P	18	115.898	80.331	14.857	1.00	47.42	N	ATOM	48177	C	ALA	P	24	114.945	67.973	5.613	1.00	44.91	C
ATOM	48128	CA	ARG	P	18	115.162	81.076	13.851	1.00	47.42	C	ATOM	48178	O	ALA	P	24	115.627	67.771	6.621	1.00	44.91	O
ATOM	48129	C	ARG	P	18	114.057	80.211	13.290	1.00	47.42	C	ATOM	48179	CB	ALA	P	24	112.582	67.200	5.726	1.00	43.52	N
ATOM	48130	O	ARG	P	18	114.319	79.362	12.447	1.00	47.42	O	ATOM	48180	N	ARG	P	25	115.416	67.844	4.379	1.00	43.52	N
ATOM	48131	CB	ARG	P	18	116.058	81.491	12.686	1.00	54.81	C	ATOM	48181	CA	ARG	P	25	116.772	67.377	4.106	1.00	43.52	C
ATOM	48132	CG	ARG	P	18	117.004	82.618	12.967	1.00	54.81	C	ATOM	48182	C	ARG	P	25	117.975	68.327	4.314	1.00	43.52	C
ATOM	48133	CD	ARG	P	18	117.560	83.188	11.670	1.00	54.81	C	ATOM	48183	O	ARG	P	25	119.116	67.877	4.258	1.00	43.52	O
ATOM	48134	NE	ARG	P	18	118.635	84.151	11.915	1.00	54.81	N	ATOM	48184	CB	ARG	P	25	116.800	66.815	2.681	1.00	40.62	C
ATOM	48135	CZ	ARG	P	18	119.303	84.793	10.960	1.00	54.81	C	ATOM	48185	CG	ARG	P	25	115.773	65.729	2.466	1.00	40.62	C
ATOM	48136	NH1	ARG	P	18	119.014	84.590	9.683	1.00	54.81	N	ATOM	48186	CD	ARG	P	25	115.559	65.355	1.002	1.00	40.62	C
ATOM	48137	NH2	ARG	P	18	120.280	85.625	11.282	1.00	54.81	N	ATOM	48187	NE	ARG	P	25	114.831	66.390	0.270	1.00	40.62	N
ATOM	48138	N	ILE	P	19	112.828	80.412	13.743	1.00	33.85	N	ATOM	48188	CZ	ARG	P	25	114.337	66.244	-0.960	1.00	40.62	C
ATOM	48139	CA	ILE	P	19	111.704	79.636	13.218	1.00	33.85	C	ATOM	48189	NH1	ARG	P	25	114.483	65.095	-1.611	1.00	40.62	N
ATOM	48140	O	ILE	P	19	111.760	79.784	11.701	1.00	33.85	C	ATOM	48190	NH2	ARG	P	25	113.709	67.261	-1.544	1.00	40.62	N
ATOM	48141	C	ILE	P	19	111.545	80.863	11.157	1.00	33.85	O	ATOM	48191	N	ARG	P	26	117.760	69.615	4.563	1.00	38.91	N
ATOM	48142	CB	ILE	P	19	110.379	80.161	13.787	1.00	48.11	C	ATOM	48192	CA	ARG	P	26	118.910	70.500	6.721	1.00	38.91	C
ATOM	48143	CG1	ILE	P	19	110.350	79.864	15.289	1.00	48.11	C	ATOM	48193	C	ARG	P	26	119.604	70.392	6.043	1.00	38.91	C
ATOM	48144	CG2	ILE	P	19	109.198	79.556	13.045	1.00	48.11	C	ATOM	48194	O	ARG	P	26	119.092	69.767	6.955	1.00	38.91	O
ATOM	48145	CD1	ILE	P	19	109.174	80.430	16.011	1.00	48.11	C	ATOM	48195	CB	ARG	P	26	118.521	71.960	4.528	1.00	46.35	C
ATOM	48146	N	VAL	P	20	112.028	78.675	11.027	1.00	45.63	N	ATOM	48196	CG	ARG	P	26	118.376	72.329	3.096	1.00	46.35	C
ATOM	48147	CA	VAL	P	20	112.229	78.683	9.592	1.00	45.63	C	ATOM	48197	CD	ARG	P	26	118.956	73.684	2.800	1.00	46.35	C



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ATOM 48198	NE	ARG	P	26	118.586	74.044	1.437	1.00	46.35	N	ATOM 48248	CG	TYR	P	32	116.112	79.739	6.248	1.00	47.15	C
ATOM 48199	CZ	ARG	P	26	119.218	73.614	0.354	1.00	46.35	C	ATOM 48249	CD1	TYR	P	32	117.205	79.755	7.119	1.00	47.15	C
ATOM 48200	NH1	ARG	P	26	120.274	72.824	0.482	1.00	46.35	N	ATOM 48250	CD2	TYR	P	32	115.543	80.955	5.877	1.00	47.15	C
ATOM 48201	NH2	ARG	P	26	118.765	73.933	-0.855	1.00	46.35	N	ATOM 48251	CE1	TYR	P	32	117.711	80.957	7.619	1.00	47.15	C
ATOM 48202	N	LYS	P	27	120.787	70.994	6.137	1.00	46.42	N	ATOM 48252	CE2	TYR	P	32	116.041	82.163	6.367	1.00	47.15	C
ATOM 48203	CA	LYS	P	27	121.510	71.029	7.399	1.00	46.42	C	ATOM 48253	CZ	TYR	P	32	117.120	82.156	7.238	1.00	47.15	C
ATOM 48204	O	LYS	P	27	120.505	71.784	8.262	1.00	46.42	C	ATOM 48254	OH	TYR	P	32	117.590	83.344	7.738	1.00	47.15	O
ATOM 48205	C	LYS	P	27	119.645	72.488	7.720	1.00	46.42	C	ATOM 48255	N	ILE	P	33	114.008	78.278	3.280	1.00	43.91	N
ATOM 48206	CB	LYS	P	27	122.771	71.890	7.298	1.00	41.81	C	ATOM 48256	CA	ILE	P	33	113.145	78.801	2.222	1.00	43.91	C
ATOM 48207	CG	LYS	P	27	123.741	71.564	6.172	1.00	41.81	C	ATOM 48257	C	ILE	P	33	112.622	80.174	2.600	1.00	43.91	C
ATOM 48208	CD	LYS	P	27	124.961	72.491	6.252	1.00	41.81	C	ATOM 48258	O	ILE	P	33	112.419	81.022	1.739	1.00	43.91	O
ATOM 48209	CE	LYS	P	27	126.012	72.060	5.275	1.00	41.81	C	ATOM 48259	CB	ILE	P	33	111.954	77.868	1.982	1.00	35.95	C
ATOM 48210	NZ	LYS	P	27	125.371	71.751	3.962	1.00	41.81	C	ATOM 48260	CG1	ILE	P	33	112.467	76.465	1.667	1.00	35.95	C
ATOM 48211	N	ARG	P	28	120.590	71.671	9.581	1.00	62.24	N	ATOM 48261	CG2	ILE	P	33	111.126	78.360	0.832	1.00	35.95	C
ATOM 48212	CA	ARG	P	28	119.621	72.396	10.380	1.00	62.24	C	ATOM 48262	CD1	ILE	P	33	111.436	75.381	1.854	1.00	35.95	C
ATOM 48213	O	ARG	P	28	119.945	73.866	10.259	1.00	62.24	C	ATOM 48263	N	GLU	P	34	112.409	80.381	3.894	1.00	44.33	N
ATOM 48214	C	ARG	P	28	119.052	74.712	10.291	1.00	62.24	O	ATOM 48264	CA	GLU	P	34	111.920	81.646	4.406	1.00	44.33	C
ATOM 48215	CB	ARG	P	28	119.654	71.969	11.849	1.00	28.18	C	ATOM 48265	C	GLU	P	34	112.023	81.672	5.913	1.00	44.33	C
ATOM 48216	CG	ARG	P	28	120.762	72.544	12.697	1.00	28.18	C	ATOM 48266	O	GLU	P	34	111.959	80.630	6.564	1.00	44.33	O
ATOM 48217	CD	ARG	P	28	120.263	72.651	14.120	1.00	28.18	C	ATOM 48267	CB	GLU	P	34	110.467	81.850	4.028	1.00	48.01	C
ATOM 48218	NE	ARG	P	28	121.253	72.266	15.128	1.00	28.18	N	ATOM 48268	CG	GLU	P	34	109.915	83.162	4.519	1.00	48.01	C
ATOM 48219	CZ	ARG	P	28	122.385	72.923	15.376	1.00	28.18	C	ATOM 48269	CD	GLU	P	34	108.434	83.326	4.222	1.00	48.01	C
ATOM 48220	NH1	ARG	P	28	122.682	74.011	14.684	1.00	28.18	N	ATOM 48270	OE1	GLU	P	34	107.984	82.891	3.133	1.00	48.01	O
ATOM 48221	NH2	ARG	P	28	123.220	72.495	16.318	1.00	28.18	N	ATOM 48271	OE2	GLU	P	34	107.728	83.907	5.078	1.00	48.01	O
ATOM 48222	N	ASP	P	29	121.230	74.160	10.094	1.00	37.92	N	ATOM 48272	N	LYS	P	35	112.198	82.861	6.472	1.00	65.55	N
ATOM 48223	CA	ASP	P	29	121.688	75.539	9.980	1.00	37.92	C	ATOM 48273	CA	LYS	P	35	112.268	83.004	7.916	1.00	65.55	C
ATOM 48224	C	ASP	P	29	121.944	75.937	8.540	1.00	37.92	C	ATOM 48274	C	LYS	P	35	110.868	83.456	8.284	1.00	65.55	C
ATOM 48225	O	ASP	P	29	122.640	76.920	8.278	1.00	37.92	O	ATOM 48275	O	LYS	P	35	110.240	84.196	7.527	1.00	65.55	O
ATOM 48226	CB	ASP	P	29	122.972	75.736	10.783	1.00	51.10	C	ATOM 48276	CB	LYS	P	35	113.282	84.076	8.302	1.00	48.36	C
ATOM 48227	CG	ASP	P	29	122.744	75.656	12.277	1.00	51.10	C	ATOM 48277	CG	LYS	P	35	113.512	84.201	9.796	1.00	48.36	C
ATOM 48228	OD1	ASP	P	29	123.745	75.705	13.025	1.00	51.10	O	ATOM 48278	CD	LYS	P	35	114.507	85.319	10.135	1.00	48.36	C
ATOM 48229	OD2	ASP	P	29	121.568	75.553	12.702	1.00	51.10	O	ATOM 48279	CE	LYS	P	35	114.918	85.274	11.614	1.00	48.36	C
ATOM 48230	N	GLY	P	30	121.375	75.174	7.612	1.00	55.42	N	ATOM 48280	NZ	LYS	P	35	115.876	86.349	12.043	1.00	48.36	N
ATOM 48231	CA	GLY	P	30	121.571	75.448	6.201	1.00	55.42	C	ATOM 48281	N	ILE	P	36	110.349	83.002	9.416	1.00	45.39	N
ATOM 48232	C	GLY	P	30	120.625	76.482	5.637	1.00	55.42	C	ATOM 48282	CA	ILE	P	36	109.009	83.419	9.798	1.00	45.39	C
ATOM 48233	O	GLY	P	30	119.925	77.172	6.381	1.00	55.42	O	ATOM 48283	C	ILE	P	36	108.940	83.719	11.274	1.00	45.39	C
ATOM 48234	N	LYS	P	31	120.595	76.576	4.311	1.00	38.75	N	ATOM 48284	O	ILE	P	36	107.878	84.025	11.801	1.00	45.39	O
ATOM 48235	CA	LYS	P	31	119.742	77.535	3.622	1.00	38.75	C	ATOM 48285	CB	ILE	P	36	107.952	82.359	9.463	1.00	33.09	C
ATOM 48236	C	LYS	P	31	118.262	77.234	3.738	1.00	38.75	C	ATOM 48286	CG1	ILE	P	36	108.341	81.029	10.114	1.00	33.09	C
ATOM 48237	O	LYS	P	31	117.802	76.216	3.247	1.00	38.75	O	ATOM 48287	CG2	ILE	P	36	107.788	82.245	7.959	1.00	33.09	C
ATOM 48238	CB	LYS	P	31	120.098	77.595	2.137	1.00	55.79	C	ATOM 48288	CD1	ILE	P	36	107.325	79.908	9.907	1.00	33.09	C
ATOM 48239	CG	LYS	P	31	119.121	78.438	1.349	1.00	55.79	C	ATOM 48289	N	GLY	P	37	110.078	83.644	11.946	1.00	42.33	N
ATOM 48240	CD	LYS	P	31	119.592	78.710	-0.049	1.00	55.79	C	ATOM 48290	CA	GLY	P	37	110.081	83.951	13.361	1.00	42.33	C
ATOM 48241	CE	LYS	P	31	119.484	77.484	-0.916	1.00	55.79	C	ATOM 48291	C	GLY	P	37	111.424	83.684	13.986	1.00	42.33	C
ATOM 48242	NZ	LYS	P	31	119.987	77.768	-2.299	1.00	55.79	N	ATOM 48292	O	GLY	P	37	112.356	83.265	13.309	1.00	42.33	O
ATOM 48243	N	TYR	P	32	117.506	78.121	4.368	1.00	37.40	N	ATOM 48293	N	TYR	P	38	111.526	83.947	15.278	1.00	55.51	N
ATOM 48244	CA	TYR	P	32	116.073	77.893	4.474	1.00	37.40	C	ATOM 48294	CA	TYR	P	38	112.753	83.694	16.000	1.00	55.51	C
ATOM 48245	C	TYR	P	32	115.315	78.519	3.317	1.00	37.40	C	ATOM 48295	C	TYR	P	38	112.366	83.368	17.436	1.00	55.51	C
ATOM 48246	O	TYR	P	32	115.900	79.203	2.476	1.00	37.40	O	ATOM 48296	O	TYR	P	38	111.288	83.677	17.896	1.00	55.51	O
ATOM 48247	CB	TYR	P	32	115.520	78.435	5.780	1.00	47.15	C	ATOM 48297	CB	TYR	P	38	113.709	84.808	15.904	1.00	61.01	C



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ATOM	48298	CG	TYR	P	38	113.222	86.194	16.489	1.00	61.01	C	ATOM	48348	CG	LYS	P	43	112.174	83.396	28.080	1.00	58.44	C
ATOM	48299	CD1	TYR	P	38	113.269	86.430	17.865	1.00	61.01	C	ATOM	48349	CD	LYS	P	43	112.669	82.294	28.999	1.00	58.44	C
ATOM	48300	CD2	TYR	P	38	112.768	87.222	15.658	1.00	61.01	C	ATOM	48350	CE	LYS	P	43	111.810	81.045	28.882	1.00	58.44	C
ATOM	48301	CE1	TYR	P	38	112.881	87.664	18.402	1.00	61.01	C	ATOM	48351	NZ	LYS	P	43	112.371	79.955	29.736	1.00	58.44	N
ATOM	48302	CE2	TYR	P	38	112.375	88.461	16.177	1.00	61.01	C	ATOM	48352	N	THR	P	44	116.163	86.288	27.353	1.00	77.68	N
ATOM	48303	CZ	TYR	P	38	112.435	88.677	17.550	1.00	61.01	C	ATOM	48353	CA	THR	P	44	117.100	87.291	27.865	1.00	77.68	C
ATOM	48304	OH	TYR	P	38	112.059	89.903	18.064	1.00	61.01	C	ATOM	48354	C	THR	P	44	116.590	88.714	27.665	1.00	77.68	C
ATOM	48305	N	TYR	P	39	113.306	82.733	18.144	1.00	43.72	N	ATOM	48355	O	THR	P	44	117.180	89.674	28.165	1.00	77.68	C
ATOM	48306	CA	TYR	P	39	113.042	82.325	19.505	1.00	43.72	C	ATOM	48356	CB	THR	P	44	118.487	87.172	27.198	1.00	77.34	O
ATOM	48307	C	TYR	P	39	114.284	82.359	20.383	1.00	43.72	C	ATOM	48357	OG1	THR	P	44	118.359	87.353	25.782	1.00	77.34	O
ATOM	48308	O	TYR	P	39	115.327	81.783	20.030	1.00	43.72	C	ATOM	48358	CG2	THR	P	44	119.095	85.816	27.486	1.00	77.34	C
ATOM	48309	CB	TYR	P	39	112.445	80.911	19.476	1.00	60.45	C	ATOM	48359	N	THR	P	45	115.493	88.839	26.924	1.00	66.06	N
ATOM	48310	CG	TYR	P	39	112.510	80.164	20.786	1.00	60.45	C	ATOM	48360	CA	THR	P	45	114.885	90.134	26.662	1.00	66.06	C
ATOM	48311	CD1	TYR	P	39	112.023	80.731	21.958	1.00	60.45	C	ATOM	48361	C	THR	P	45	113.371	89.968	26.671	1.00	66.06	C
ATOM	48312	CD2	TYR	P	39	113.024	78.878	20.847	1.00	60.45	C	ATOM	48362	O	THR	P	45	112.865	88.872	26.448	1.00	66.06	O
ATOM	48313	CE1	TYR	P	39	112.042	80.037	23.150	1.00	60.45	C	ATOM	48363	CB	THR	P	45	115.321	90.671	25.315	1.00	64.02	C
ATOM	48314	CE2	TYR	P	39	113.046	78.178	22.032	1.00	60.45	C	ATOM	48364	OG1	THR	P	45	114.749	89.866	24.278	1.00	64.02	O
ATOM	48315	CZ	TYR	P	39	112.550	78.760	23.182	1.00	60.45	C	ATOM	48365	CG2	THR	P	45	116.838	90.630	25.213	1.00	64.02	O
ATOM	48316	OH	TYR	P	39	112.530	78.060	24.367	1.00	60.45	O	ATOM	48366	N	PRO	P	46	112.628	91.059	26.914	1.00	66.31	N
ATOM	48317	N	ASP	P	40	114.160	83.042	21.524	1.00	48.52	N	ATOM	48367	CA	PRO	P	46	111.164	91.051	26.962	1.00	66.31	C
ATOM	48318	CA	ASP	P	40	115.248	83.155	22.496	1.00	48.52	C	ATOM	48368	C	PRO	P	46	110.549	90.569	25.668	1.00	66.31	C
ATOM	48319	C	ASP	P	40	114.916	82.244	23.678	1.00	48.52	C	ATOM	48369	O	PRO	P	46	109.390	90.174	25.631	1.00	66.31	O
ATOM	48320	O	ASP	P	40	114.141	82.605	24.565	1.00	48.52	O	ATOM	48370	CB	PRO	P	46	110.833	92.506	27.221	1.00	61.91	C
ATOM	48321	CB	ASP	P	40	115.389	84.595	22.974	1.00	61.42	C	ATOM	48371	CG	PRO	P	46	111.867	93.191	26.410	1.00	61.91	C
ATOM	48322	CG	ASP	P	40	116.481	84.759	24.006	1.00	61.42	C	ATOM	48372	CD	PRO	P	46	113.117	92.445	26.825	1.00	61.91	C
ATOM	48323	OD1	ASP	P	40	116.662	85.898	24.498	1.00	61.42	O	ATOM	48373	N	ASP	P	47	111.333	90.623	24.604	1.00	81.80	N
ATOM	48324	OD2	ASP	P	40	117.153	83.754	24.323	1.00	61.42	O	ATOM	48374	CA	ASP	P	47	110.865	90.201	23.302	1.00	81.80	C
ATOM	48325	N	PRO	P	41	115.512	81.045	23.700	1.00	54.05	N	ATOM	48375	C	ASP	P	47	111.595	88.931	22.893	1.00	81.80	C
ATOM	48326	CA	PRO	P	41	115.308	80.041	24.740	1.00	54.05	C	ATOM	48376	O	ASP	P	47	112.418	88.953	21.976	1.00	81.80	O
ATOM	48327	C	PRO	P	41	115.368	80.583	26.153	1.00	54.05	C	ATOM	48377	CB	ASP	P	47	111.133	91.308	22.286	1.00	116.78	C
ATOM	48328	O	PRO	P	41	114.578	80.195	27.011	1.00	54.05	O	ATOM	48378	CG	ASP	P	47	110.692	90.936	20.894	1.00	116.78	C
ATOM	48329	CB	PRO	P	41	116.433	79.046	24.481	1.00	100.75	C	ATOM	48379	OD1	ASP	P	47	110.961	91.720	19.960	1.00	116.78	O
ATOM	48330	CG	PRO	P	41	116.629	79.141	23.030	1.00	100.75	C	ATOM	48380	OD2	ASP	P	47	110.074	89.862	20.735	1.00	116.78	O
ATOM	48331	CD	PRO	P	41	116.582	80.620	22.784	1.00	100.75	C	ATOM	48381	N	TRP	P	48	111.293	87.821	23.562	1.00	59.12	N
ATOM	48332	N	ARG	P	42	116.305	81.488	26.392	1.00	54.44	N	ATOM	48382	CA	TRP	P	48	111.963	86.564	23.249	1.00	59.12	C
ATOM	48333	CA	ARG	P	42	116.490	82.022	27.727	1.00	54.44	C	ATOM	48383	C	TRP	P	48	111.238	85.605	22.322	1.00	59.12	C
ATOM	48334	C	ARG	P	42	115.792	83.334	28.038	1.00	54.44	C	ATOM	48384	O	TRP	P	48	111.578	84.429	22.285	1.00	59.12	O
ATOM	48335	O	ARG	P	42	116.074	83.970	29.054	1.00	54.44	O	ATOM	48385	CB	TRP	P	48	112.348	85.811	24.530	1.00	74.55	C
ATOM	48336	CB	ARG	P	42	117.984	82.123	27.999	1.00	54.35	C	ATOM	48386	CG	TRP	P	48	111.222	85.535	25.480	1.00	74.55	C
ATOM	48337	CG	ARG	P	42	118.681	80.804	27.740	1.00	54.35	C	ATOM	48387	CD1	TRP	P	48	110.795	86.339	26.491	1.00	74.55	C
ATOM	48338	CD	ARG	P	42	120.127	80.894	28.056	1.00	54.35	C	ATOM	48388	CD2	TRP	P	48	110.429	84.342	25.556	1.00	74.55	C
ATOM	48339	NE	ARG	P	42	120.733	81.969	27.297	1.00	54.35	N	ATOM	48389	NE1	TRP	P	48	109.795	85.723	27.201	1.00	74.55	N
ATOM	48340	CZ	ARG	P	42	121.857	82.570	27.653	1.00	54.35	C	ATOM	48390	CE2	TRP	P	48	109.551	84.495	26.649	1.00	74.55	C
ATOM	48341	NH1	ARG	P	42	122.486	82.188	28.758	1.00	54.35	N	ATOM	48391	CE3	TRP	P	48	110.377	83.158	24.810	1.00	74.55	C
ATOM	48342	NH2	ARG	P	42	122.344	83.555	26.912	1.00	54.35	N	ATOM	48392	CZ2	TRP	P	48	108.635	83.508	27.018	1.00	74.55	C
ATOM	48343	N	LYS	P	43	114.866	83.722	27.171	1.00	66.99	N	ATOM	48393	CZ3	TRP	P	48	109.460	82.175	25.179	1.00	74.55	C
ATOM	48344	CA	LYS	P	43	114.118	84.950	27.364	1.00	66.99	C	ATOM	48394	CH2	TRP	P	48	108.605	82.360	26.274	1.00	74.55	C
ATOM	48345	C	LYS	P	43	115.018	86.022	27.981	1.00	66.99	C	ATOM	48395	N	LEU	P	49	110.260	86.084	21.565	1.00	56.26	N
ATOM	48346	O	LYS	P	43	114.679	86.590	29.025	1.00	66.99	O	ATOM	48396	CA	LEU	P	49	109.560	85.189	20.652	1.00	56.26	C
ATOM	48347	CB	LYS	P	43	112.936	84.700	28.303	1.00	58.44	C	ATOM	48397	C	LEU	P	49	108.583	85.861	19.700	1.00	56.26	C



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ATOM 48398	O	LEU P 49	107.438	86.113	20.054	1.00	56.26	O	ATOM 48448	CG	ARG P 55	104.649	85.292	6.320	1.00	50.00	C
ATOM 48399	CB	LEU P 49	108.815	84.105	21.439	1.00	37.98	C	ATOM 48449	CD	ARG P 55	105.152	85.072	4.910	1.00	50.00	C
ATOM 48400	CG	LEU P 49	107.994	83.172	20.546	1.00	37.98	C	ATOM 48450	NE	ARG P 55	104.107	84.620	4.005	1.00	50.00	N
ATOM 48401	CD1	LEU P 49	108.931	82.350	19.696	1.00	37.98	C	ATOM 48451	C2	ARG P 55	104.353	83.953	2.889	1.00	50.00	C
ATOM 48402	CD2	LEU P 49	107.121	82.275	21.382	1.00	37.98	C	ATOM 48452	NH1	ARG P 55	105.601	83.658	2.564	1.00	50.00	N
ATOM 48403	N	LYS P 50	109.029	86.145	18.485	1.00	41.85	N	ATOM 48453	NH2	ARG P 55	103.361	83.606	2.085	1.00	50.00	N
ATOM 48404	CA	LYS P 50	108.161	87.842	17.488	1.00	41.85	C	ATOM 48454	N	ALA P 56	103.152	81.746	8.764	1.00	60.14	N
ATOM 48405	C	LYS P 50	107.756	85.617	16.575	1.00	41.85	C	ATOM 48455	CA	ALA P 56	103.102	80.357	9.215	1.00	60.14	C
ATOM 48406	O	LYS P 50	108.488	84.629	16.481	1.00	41.85	O	ATOM 48456	C	ALA P 56	101.875	79.702	8.591	1.00	60.14	C
ATOM 48407	CB	LYS P 50	108.936	87.842	16.715	1.00	93.07	C	ATOM 48457	O	ALA P 56	101.989	78.777	7.788	1.00	60.14	O
ATOM 48408	CG	LYS P 50	108.227	88.401	15.491	1.00	93.07	C	ATOM 48458	CB	ALA P 56	103.003	80.297	10.731	1.00	25.48	C
ATOM 48409	CD	LYS P 50	109.153	89.324	14.700	1.00	93.07	C	ATOM 48459	N	ARG P 57	100.704	80.210	8.960	1.00	54.65	N
ATOM 48410	CE	LYS P 50	108.741	89.417	13.229	1.00	93.07	C	ATOM 48460	CA	ARG P 57	99.441	79.704	8.450	1.00	54.65	C
ATOM 48411	NZ	LYS P 50	108.894	88.119	12.488	1.00	93.07	N	ATOM 48461	C	ARG P 57	99.531	79.481	6.956	1.00	54.65	C
ATOM 48412	N	VAL P 51	106.606	85.705	15.911	1.00	46.97	N	ATOM 48462	O	ARG P 57	98.890	78.579	6.419	1.00	54.65	O
ATOM 48413	CA	VAL P 51	106.229	84.589	15.056	1.00	46.97	C	ATOM 48463	CB	ARG P 57	98.309	80.685	8.752	1.00	73.73	C
ATOM 48414	C	VAL P 51	105.561	84.880	13.729	1.00	46.97	C	ATOM 48464	CG	ARG P 57	97.982	80.843	10.233	1.00	73.73	C
ATOM 48415	O	VAL P 51	105.472	83.993	12.901	1.00	46.97	O	ATOM 48465	CD	ARG P 57	97.022	82.011	10.452	1.00	73.73	C
ATOM 48416	CB	VAL P 51	105.357	83.563	15.826	1.00	56.32	C	ATOM 48466	NE	ARG P 57	96.719	82.219	11.863	1.00	73.73	N
ATOM 48417	CG1	VAL P 51	104.945	82.414	14.907	1.00	56.32	C	ATOM 48467	C2	ARG P 57	95.677	81.690	12.486	1.00	73.73	C
ATOM 48418	CG2	VAL P 51	106.136	83.015	17.026	1.00	56.32	C	ATOM 48468	NH1	ARG P 57	94.823	80.921	11.824	1.00	73.73	N
ATOM 48419	N	ASP P 52	105.091	86.092	13.494	1.00	48.68	N	ATOM 48469	NH2	ARG P 57	95.500	81.919	13.777	1.00	73.73	N
ATOM 48420	CA	ASP P 52	104.459	86.373	12.197	1.00	48.68	C	ATOM 48470	N	TYR P 58	100.312	80.302	6.266	1.00	53.12	N
ATOM 48421	C	ASP P 52	103.485	85.267	11.806	1.00	48.68	C	ATOM 48471	CA	TYR P 58	100.431	80.089	4.835	1.00	53.12	C
ATOM 48422	O	ASP P 52	103.631	84.611	10.764	1.00	48.68	O	ATOM 48472	C	TYR P 58	101.179	78.794	4.570	1.00	53.12	C
ATOM 48423	CB	ASP P 52	105.530	86.526	11.105	1.00	80.23	C	ATOM 48473	O	TYR P 58	100.728	77.959	3.791	1.00	53.12	O
ATOM 48424	CG	ASP P 52	104.948	86.489	9.695	1.00	80.23	C	ATOM 48474	CB	TYR P 58	101.182	81.215	4.123	1.00	38.44	C
ATOM 48425	OD1	ASP P 52	104.080	87.317	9.344	1.00	80.23	O	ATOM 48475	CG	TYR P 58	101.570	80.775	2.724	1.00	38.44	C
ATOM 48426	OD2	ASP P 52	105.373	85.612	8.930	1.00	80.23	O	ATOM 48476	CD1	TYR P 58	102.887	80.418	2.412	1.00	38.44	C
ATOM 48427	N	VAL P 53	102.487	85.078	12.659	1.00	61.40	N	ATOM 48477	CD2	TYR P 58	100.596	80.617	1.735	1.00	38.44	C
ATOM 48428	CA	VAL P 53	101.479	84.052	12.460	1.00	61.40	C	ATOM 48478	CE1	TYR P 58	103.220	79.907	1.143	1.00	38.44	C
ATOM 48429	C	VAL P 53	100.855	84.083	11.075	1.00	61.40	C	ATOM 48479	CE2	TYR P 58	100.914	80.111	0.469	1.00	38.44	C
ATOM 48430	O	VAL P 53	100.328	83.079	10.602	1.00	61.40	O	ATOM 48480	C2	TYR P 58	102.223	79.756	0.175	1.00	38.44	C
ATOM 48431	CB	VAL P 53	100.367	84.179	13.507	1.00	32.30	C	ATOM 48481	OH	TYR P 58	102.519	79.248	-1.081	1.00	38.44	O
ATOM 48432	CG1	VAL P 53	100.938	84.832	14.779	1.00	32.30	C	ATOM 48482	N	TRP P 59	102.336	78.639	5.203	1.00	64.93	N
ATOM 48433	CG2	VAL P 53	99.180	84.940	12.933	1.00	32.30	C	ATOM 48483	CA	TRP P 59	103.125	77.442	4.984	1.00	64.93	C
ATOM 48434	N	GLU P 54	100.904	85.235	10.423	1.00	57.75	N	ATOM 48484	C	TRP P 59	102.371	76.181	5.374	1.00	64.93	C
ATOM 48435	CA	GLU P 54	100.336	85.344	9.092	1.00	57.75	C	ATOM 48485	O	TRP P 59	102.357	75.204	4.613	1.00	64.93	O
ATOM 48436	C	GLU P 54	100.959	84.307	8.160	1.00	57.75	C	ATOM 48486	CB	TRP P 59	104.482	77.559	5.689	1.00	49.47	C
ATOM 48437	O	GLU P 54	100.267	83.430	7.632	1.00	57.75	O	ATOM 48487	CG	TRP P 59	105.438	78.390	4.854	1.00	49.47	C
ATOM 48438	CB	GLU P 54	100.562	86.752	8.532	1.00	151.01	C	ATOM 48488	CD1	TRP P 59	105.939	79.632	5.152	1.00	49.47	C
ATOM 48439	CG	GLU P 54	100.064	86.931	7.107	1.00	151.01	C	ATOM 48489	CD2	TRP P 59	105.888	78.089	3.528	1.00	49.47	C
ATOM 48440	CD	GLU P 54	98.705	86.289	6.883	1.00	151.01	C	ATOM 48490	NE1	TRP P 59	106.659	80.119	4.088	1.00	49.47	N
ATOM 48441	OE1	GLU P 54	97.753	86.621	7.621	1.00	151.01	O	ATOM 48491	CE2	TRP P 59	106.642	79.191	3.080	1.00	49.47	C
ATOM 48442	OE2	GLU P 54	98.589	85.448	5.967	1.00	151.01	O	ATOM 48492	CE3	TRP P 59	105.720	76.997	2.673	1.00	49.47	C
ATOM 48443	N	ARG P 55	102.272	84.406	7.983	1.00	72.21	N	ATOM 48493	C22	TRP P 59	107.225	79.229	1.812	1.00	49.47	C
ATOM 48444	CA	ARG P 55	103.011	83.513	7.102	1.00	72.21	C	ATOM 48494	C23	TRP P 59	106.301	77.035	1.415	1.00	49.47	C
ATOM 48445	C	ARG P 55	102.969	82.043	7.480	1.00	72.21	C	ATOM 48495	CH2	TRP P 59	107.042	78.141	0.996	1.00	49.47	C
ATOM 48446	O	ARG P 55	102.801	81.184	6.611	1.00	72.21	O	ATOM 48496	N	LEU P 60	101.729	76.197	6.538	1.00	49.94	N
ATOM 48447	CB	ARG P 55	104.454	83.965	7.023	1.00	50.00	C	ATOM 48497	CA	LEU P 60	100.932	75.050	6.955	1.00	49.94	C



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ATOM	48498	C	LEU	P	60	99.872	74.848	5.877	1.00	49.94	C	ATOM	48548	CG2	THR	P	67	110.878	70.030	16.094	1.00	56.37	C
ATOM	48499	O	LEU	P	60	99.482	73.729	5.571	1.00	49.94	O	ATOM	48549	N	ASP	P	68	108.213	69.422	16.688	1.00	47.75	N
ATOM	48500	CB	LEU	P	60	100.258	75.342	8.273	1.00	29.82	C	ATOM	48550	CA	ASP	P	68	107.347	69.566	17.835	1.00	47.75	C
ATOM	48501	CG	LEU	P	60	101.243	75.629	9.387	1.00	29.82	C	ATOM	48551	C	ASP	P	68	107.622	70.930	18.465	1.00	47.75	C
ATOM	48502	CD1	LEU	P	60	100.540	76.459	10.448	1.00	29.82	C	ATOM	48552	O	ASP	P	68	106.752	71.807	18.439	1.00	47.75	O
ATOM	48503	CD2	LEU	P	60	101.796	74.319	9.965	1.00	29.82	C	ATOM	48553	CB	ASP	P	68	107.532	68.417	18.830	1.00	90.58	C
ATOM	48504	N	SER	P	61	99.407	75.952	5.306	1.00	54.53	N	ATOM	48554	CG	ASP	P	68	106.689	67.192	18.461	1.00	90.58	C
ATOM	48505	CA	SER	P	61	98.424	75.898	4.245	1.00	54.53	C	ATOM	48555	OD1	ASP	P	68	105.577	67.384	17.924	1.00	90.58	O
ATOM	48506	C	SER	P	61	98.879	74.940	3.144	1.00	54.53	C	ATOM	48556	OD2	ASP	P	68	107.118	66.045	18.711	1.00	90.58	O
ATOM	48507	O	SER	P	61	98.058	74.454	2.363	1.00	54.53	O	ATOM	48557	N	THR	P	69	108.832	71.136	18.977	1.00	56.72	N
ATOM	48508	CB	SER	P	61	98.210	77.298	3.655	1.00	84.84	C	ATOM	48558	CA	THR	P	69	109.187	72.415	19.598	1.00	56.72	C
ATOM	48509	OG	SER	P	61	97.647	77.248	2.351	1.00	84.84	O	ATOM	48559	C	THR	P	69	108.807	73.635	18.762	1.00	56.72	C
ATOM	48510	N	VAL	P	62	100.179	74.659	3.069	1.00	65.97	N	ATOM	48560	O	THR	P	69	108.479	74.683	19.306	1.00	56.72	O
ATOM	48511	CA	VAL	P	62	100.650	73.762	2.020	1.00	65.97	C	ATOM	48561	CB	THR	P	69	110.688	72.498	19.896	1.00	65.60	C
ATOM	48512	C	VAL	P	62	101.670	72.690	2.383	1.00	65.97	C	ATOM	48562	OG1	THR	P	69	111.050	71.430	20.773	1.00	65.60	O
ATOM	48513	O	VAL	P	62	102.700	72.549	1.723	1.00	65.97	O	ATOM	48563	CG2	THR	P	69	111.030	73.822	20.560	1.00	65.60	C
ATOM	48514	CB	VAL	P	62	101.204	74.546	0.817	1.00	35.54	C	ATOM	48564	N	ALA	P	70	108.857	73.514	17.443	1.00	55.46	N
ATOM	48515	CG1	VAL	P	62	100.508	74.056	-0.457	1.00	35.54	C	ATOM	48565	CA	ALA	P	70	108.491	74.639	16.598	1.00	55.46	C
ATOM	48516	CG2	VAL	P	62	101.037	76.055	1.032	1.00	35.54	C	ATOM	48566	C	ALA	P	70	106.997	74.897	16.730	1.00	55.46	C
ATOM	48517	N	GLY	P	63	101.386	71.930	3.431	1.00	53.33	N	ATOM	48567	O	ALA	P	70	106.573	76.044	16.846	1.00	55.46	O
ATOM	48518	CA	GLY	P	63	102.277	70.852	3.807	1.00	53.33	C	ATOM	48568	CB	ALA	P	70	108.841	74.352	15.151	1.00	46.11	C
ATOM	48519	C	GLY	P	63	103.403	71.126	4.773	1.00	53.33	C	ATOM	48569	N	ARG	P	71	106.204	73.828	16.716	1.00	58.43	N
ATOM	48520	O	GLY	P	63	104.126	70.205	5.125	1.00	53.33	O	ATOM	48570	CA	ARG	P	71	104.754	73.944	16.837	1.00	58.43	C
ATOM	48521	N	ALA	P	64	103.591	72.367	5.195	1.00	58.17	N	ATOM	48571	C	ARG	P	71	104.342	74.574	18.164	1.00	58.43	C
ATOM	48522	CA	ALA	P	64	104.663	72.633	6.141	1.00	58.17	C	ATOM	48572	O	ARG	P	71	103.416	75.390	18.229	1.00	58.43	O
ATOM	48524	O	ALA	P	64	104.346	71.804	7.387	1.00	58.17	C	ATOM	48573	CB	ARG	P	71	104.108	72.569	16.719	1.00	48.69	C
ATOM	48524	O	ALA	P	64	103.237	71.870	7.929	1.00	58.17	O	ATOM	48574	CG	ARG	P	71	102.636	72.580	17.039	1.00	48.69	C
ATOM	48525	CB	ALA	P	64	104.720	74.112	6.483	1.00	97.75	C	ATOM	48575	CD	ARG	P	71	102.044	71.196	16.989	1.00	48.69	C
ATOM	48526	N	GLN	P	65	105.313	71.005	7.822	1.00	44.76	N	ATOM	48576	NE	ARG	P	71	101.444	70.903	15.689	1.00	48.69	N
ATOM	48527	CA	GLN	P	65	105.124	70.164	8.986	1.00	44.76	C	ATOM	48577	CZ	ARG	P	71	101.898	69.972	14.855	1.00	48.69	C
ATOM	48528	C	GLN	P	65	106.069	70.660	10.046	1.00	44.76	C	ATOM	48578	NH1	ARG	P	71	102.966	69.251	15.199	1.00	48.69	N
ATOM	48529	O	GLN	P	65	107.281	70.541	9.912	1.00	44.76	O	ATOM	48579	NH2	ARG	P	71	101.283	69.749	13.693	1.00	48.69	N
ATOM	48530	CB	GLN	P	65	105.459	68.722	8.651	1.00	44.46	C	ATOM	48580	N	ARG	P	72	105.032	74.174	19.222	1.00	64.65	N
ATOM	48531	CG	GLN	P	65	104.562	67.718	9.335	1.00	44.46	C	ATOM	48581	CA	ARG	P	72	104.771	74.673	20.561	1.00	64.65	C
ATOM	48532	CD	GLN	P	65	103.170	67.714	8.741	1.00	44.46	C	ATOM	48582	C	ARG	P	72	104.979	76.184	20.666	1.00	64.65	C
ATOM	48533	OE1	GLN	P	65	103.003	67.704	7.518	1.00	44.46	O	ATOM	48583	O	ARG	P	72	104.351	76.854	21.492	1.00	64.65	O
ATOM	48534	NE2	GLN	P	65	102.161	67.710	9.601	1.00	44.46	N	ATOM	48584	CB	ARG	P	72	105.688	73.958	21.543	1.00	62.50	C
ATOM	48535	N	PRO	P	66	105.531	71.234	11.117	1.00	49.19	N	ATOM	48585	CG	ARG	P	72	105.832	74.654	22.863	1.00	62.50	C
ATOM	48536	CA	PRO	P	66	106.357	71.758	12.211	1.00	49.19	C	ATOM	48586	CD	ARG	P	72	107.244	74.499	23.341	1.00	62.50	C
ATOM	48537	C	PRO	P	66	106.988	70.765	13.163	1.00	49.19	C	ATOM	48587	NE	ARG	P	72	107.542	75.449	24.399	1.00	62.50	N
ATOM	48538	O	PRO	P	66	106.351	69.791	13.568	1.00	49.19	O	ATOM	48588	CZ	ARG	P	72	108.767	75.688	24.846	1.00	62.50	C
ATOM	48539	CB	PRO	P	66	105.399	72.687	12.952	1.00	37.15	C	ATOM	48589	NH1	ARG	P	72	109.796	75.032	24.313	1.00	62.50	N
ATOM	48540	CG	PRO	P	66	104.061	72.060	12.689	1.00	37.15	C	ATOM	48590	NH2	ARG	P	72	108.959	76.588	25.811	1.00	62.50	N
ATOM	48541	CD	PRO	P	66	104.143	71.710	11.229	1.00	37.15	C	ATOM	48591	N	LEU	P	73	105.887	76.713	19.850	1.00	63.38	N
ATOM	48542	N	THR	P	67	108.244	71.029	13.520	1.00	55.14	N	ATOM	48592	CA	LEU	P	73	106.167	78.143	19.845	1.00	63.38	N
ATOM	48543	CA	THR	P	67	108.954	70.209	14.497	1.00	55.14	C	ATOM	48593	C	LEU	P	73	105.121	78.789	18.967	1.00	63.38	C
ATOM	48544	C	THR	P	67	108.052	70.302	15.713	1.00	55.14	C	ATOM	48594	O	LEU	P	73	104.644	79.876	19.262	1.00	63.38	O
ATOM	48545	O	THR	P	67	107.206	71.195	15.781	1.00	55.14	O	ATOM	48595	CB	LEU	P	73	107.562	78.429	19.282	1.00	60.12	C
ATOM	48546	CB	THR	P	67	110.284	70.837	14.941	1.00	56.37	C	ATOM	48596	CG	LEU	P	73	108.749	77.865	20.065	1.00	60.12	C
ATOM	48547	OG1	THR	P	67	111.204	70.887	13.845	1.00	56.37	O	ATOM	48597	CD1	LEU	P	73	110.047	78.359	19.441	1.00	60.12	C



Table 1: Sheet 488/521

ATOM	48598	CD2	LEU P	73	108.660	78.291	21.524	1.00	60.12	C	ATOM	48648	CG	PHE P	80	98.186	75.818	15.963	1.00	50.85	C
ATOM	48599	N	LEU P	74	104.769	78.114	17.881	1.00	50.06	N	ATOM	48649	CD1	PHE P	80	99.346	75.948	16.745	1.00	50.85	C
ATOM	48600	CA	LEU P	74	103.757	78.640	16.995	1.00	50.06	C	ATOM	48650	CD2	PHE P	80	98.280	75.246	14.692	1.00	50.85	C
ATOM	48601	C	LEU P	74	102.430	78.677	17.745	1.00	50.06	C	ATOM	48651	CE1	PHE P	80	100.586	75.513	16.268	1.00	50.85	C
ATOM	48602	O	LEU P	74	101.592	79.552	17.498	1.00	50.06	O	ATOM	48652	CE2	PHE P	80	99.496	74.813	14.203	1.00	50.85	C
ATOM	48603	CB	LEU P	74	103.592	77.770	15.752	1.00	46.32	C	ATOM	48653	CZ	PHE P	80	100.660	74.944	14.993	1.00	50.85	C
ATOM	48604	CG	LEU P	74	104.759	77.643	14.790	1.00	46.32	C	ATOM	48654	N	ARG P	81	95.162	78.908	17.483	1.00	64.06	N
ATOM	48605	CD1	LEU P	74	104.265	77.127	13.432	1.00	46.32	C	ATOM	48655	CA	ARG P	81	93.955	79.421	18.124	1.00	64.06	C
ATOM	48606	CD2	LEU P	74	105.388	78.998	14.633	1.00	46.32	C	ATOM	48656	C	ARG P	81	92.971	79.843	17.040	1.00	64.06	C
ATOM	48607	N	ARG P	75	102.217	77.728	18.652	1.00	63.98	N	ATOM	48657	O	ARG P	81	93.150	80.862	16.384	1.00	64.06	O
ATOM	48608	CA	ARG P	75	100.964	77.733	19.392	1.00	63.98	C	ATOM	48658	CB	ARG P	81	94.311	80.606	19.019	1.00	71.51	C
ATOM	48609	C	ARG P	75	100.967	78.961	20.290	1.00	63.98	C	ATOM	48659	CD	ARG P	81	93.141	81.470	19.401	1.00	71.51	C
ATOM	48610	O	ARG P	75	99.990	79.699	20.332	1.00	63.98	C	ATOM	48660	CG	ARG P	81	93.567	82.509	20.400	1.00	71.51	C
ATOM	48611	CB	ARG P	75	100.813	76.463	20.229	1.00	64.37	C	ATOM	48661	NE	ARG P	81	93.582	81.970	21.753	1.00	71.51	C
ATOM	48612	CG	ARG P	75	99.387	76.223	20.750	1.00	64.37	C	ATOM	48662	CZ	ARG P	81	94.647	81.962	22.549	1.00	71.51	C
ATOM	48613	CD	ARG P	75	99.279	74.908	21.535	1.00	64.37	C	ATOM	48663	NH1	ARG P	81	95.808	82.462	22.127	1.00	71.51	N
ATOM	48614	NE	ARG P	75	99.601	73.731	20.727	1.00	64.37	N	ATOM	48664	NH2	ARG P	81	91.931	79.044	16.852	1.00	102.28	N
ATOM	48615	CZ	ARG P	75	98.929	73.362	19.641	1.00	64.37	C	ATOM	48665	N	GLN P	82	91.542	81.466	23.780	1.00	71.51	N
ATOM	48616	NH1	ARG P	75	97.891	74.076	19.231	1.00	64.37	N	ATOM	48666	CA	GLN P	82	90.951	79.317	15.816	1.00	102.28	C
ATOM	48617	NH2	ARG P	75	99.297	72.287	18.960	1.00	64.37	N	ATOM	48667	C	GLN P	82	89.703	80.031	16.305	1.00	102.28	C
ATOM	48618	N	GLN P	76	102.075	79.178	20.995	1.00	49.22	N	ATOM	48668	O	GLN P	82	88.726	80.149	15.559	1.00	102.28	O
ATOM	48619	CA	GLN P	76	102.215	80.326	21.884	1.00	49.22	C	ATOM	48669	CB	GLN P	82	90.573	78.005	15.136	1.00	80.08	C
ATOM	48620	C	GLN P	76	101.813	81.631	21.208	1.00	49.22	C	ATOM	48670	CG	GLN P	82	90.197	76.905	16.110	1.00	80.08	C
ATOM	48621	O	GLN P	76	101.171	82.481	21.817	1.00	49.22	O	ATOM	48671	CD	GLN P	82	90.133	75.552	15.437	1.00	80.08	C
ATOM	48622	CB	GLN P	76	103.651	80.462	22.373	1.00	63.99	C	ATOM	48672	OE1	GLN P	82	89.663	75.435	14.302	1.00	80.08	O
ATOM	48623	CG	GLN P	76	103.989	79.635	23.580	1.00	63.99	C	ATOM	48673	NE2	GLN P	82	90.594	74.516	16.133	1.00	80.08	N
ATOM	48624	CD	GLN P	76	105.191	80.196	24.319	1.00	63.99	C	ATOM	48674	N	GLU P	83	89.751	80.517	17.546	1.00	97.53	N
ATOM	48625	OE1	GLN P	76	105.242	81.393	24.609	1.00	63.99	O	ATOM	48675	CA	GLU P	83	88.632	81.229	18.175	1.00	97.53	C
ATOM	48626	NE2	GLN P	76	106.163	79.339	24.634	1.00	63.99	N	ATOM	48676	C	GLU P	83	87.564	81.715	17.198	1.00	97.53	C
ATOM	48627	N	ALA P	77	102.209	81.805	19.954	1.00	54.36	N	ATOM	48677	O	GLU P	83	87.511	82.893	16.843	1.00	97.53	O
ATOM	48628	CA	ALA P	77	101.871	83.018	19.221	1.00	54.36	C	ATOM	48678	CB	GLU P	83	89.151	82.417	18.991	1.00	101.82	C
ATOM	48629	C	ALA P	77	100.525	82.798	18.578	1.00	54.36	C	ATOM	48679	CG	GLU P	83	90.038	82.026	20.158	1.00	101.82	C
ATOM	48630	O	ALA P	77	100.184	83.430	17.588	1.00	54.36	O	ATOM	48680	CD	GLU P	83	89.392	80.991	21.055	1.00	101.82	C
ATOM	48631	CB	ALA P	77	102.918	83.307	18.160	1.00	32.75	C	ATOM	48681	OE1	GLU P	83	88.244	81.219	21.490	1.00	101.82	O
ATOM	48632	N	GLY P	78	99.772	81.873	19.153	1.00	55.98	N	ATOM	48682	OE2	GLU P	83	90.030	79.951	21.327	1.00	101.82	O
ATOM	48633	CA	GLY P	78	98.449	81.561	18.652	1.00	55.98	C	TER	48683		GLU P	83						
ATOM	48634	C	GLY P	78	98.340	81.442	17.148	1.00	55.98	C	ATOM	48684	N	PRO Q	2	112.519	85.507	-20.789	1.00	49.39	N
ATOM	48635	O	GLY P	78	97.610	82.202	16.511	1.00	55.98	O	ATOM	48685	CA	PRO Q	2	112.234	85.666	-22.222	1.00	49.39	C
ATOM	48636	N	VAL P	79	99.068	80.499	16.567	1.00	61.74	N	ATOM	48686	C	PRO Q	2	113.232	84.877	-23.025	1.00	49.39	C
ATOM	48637	CA	VAL P	79	98.991	80.308	15.132	1.00	61.74	C	ATOM	48687	O	PRO Q	2	114.435	84.961	-22.780	1.00	49.39	O
ATOM	48638	C	VAL P	79	97.832	79.360	14.902	1.00	61.74	C	ATOM	48688	CB	PRO Q	2	112.386	87.136	-22.566	1.00	47.36	C
ATOM	48639	O	VAL P	79	97.243	79.316	13.820	1.00	61.74	O	ATOM	48689	CG	PRO Q	2	112.272	87.785	-21.218	1.00	47.36	C
ATOM	48640	CB	VAL P	79	100.259	79.653	14.568	1.00	48.29	C	ATOM	48690	CD	PRO Q	2	112.888	86.810	-20.217	1.00	47.36	C
ATOM	48641	CG1	VAL P	79	100.128	79.508	13.058	1.00	48.29	C	ATOM	48691	N	LYS Q	3	112.740	84.095	-23.976	1.00	50.96	N
ATOM	48642	CG2	VAL P	79	101.471	80.483	14.915	1.00	48.29	C	ATOM	48692	CA	LYS Q	3	113.643	83.359	-24.826	1.00	50.96	C
ATOM	48643	N	PHE P	80	97.498	78.608	15.944	1.00	73.91	N	ATOM	48693	C	LYS Q	3	114.404	84.470	-25.542	1.00	50.96	C
ATOM	48644	CA	PHE P	80	96.425	77.638	15.837	1.00	73.91	C	ATOM	48694	O	LYS Q	3	113.799	85.334	-26.185	1.00	50.96	O
ATOM	48645	C	PHE P	80	95.100	78.094	16.432	1.00	73.91	C	ATOM	48695	CB	LYS Q	3	112.874	82.502	-25.825	1.00	45.17	C
ATOM	48646	O	PHE P	80	94.037	77.705	15.947	1.00	73.91	O	ATOM	48696	CG	LYS Q	3	112.234	81.274	-25.216	1.00	45.17	C
ATOM	48647	CB	PHE P	80	96.866	76.321	16.474	1.00	50.85	C	ATOM	48697	CD	LYS Q	3	111.591	80.381	-26.289	1.00	45.17	C



Table 1: Sheet 489/521

ATOM	48698	CE	LYS Q	3	111.036	79.086	-25.686	1.00	45.17	C	ATOM	48748	CG2	VAL Q	10	121.143	83.996	-42.675	1.00	40.86	C
ATOM	48699	NZ	LYS Q	3	110.053	79.324	-24.572	1.00	45.17	N	ATOM	48749	N	VAL Q	11	125.972	83.901	-42.701	1.00	39.86	N
ATOM	48700	N	LYS Q	4	115.725	84.455	-25.380	1.00	44.20	N	ATOM	48750	CA	VAL Q	11	127.242	83.864	-43.392	1.00	39.86	C
ATOM	48701	CA	LYS Q	4	116.637	85.428	-25.969	1.00	44.20	C	ATOM	48751	C	VAL Q	11	127.470	82.497	-44.027	1.00	39.86	C
ATOM	48702	C	LYS Q	4	116.490	85.523	-27.485	1.00	44.20	C	ATOM	48752	O	VAL Q	11	128.459	82.287	-44.727	1.00	39.86	O
ATOM	48703	O	LYS Q	4	116.473	84.504	-28.187	1.00	44.20	C	ATOM	48753	CB	VAL Q	11	128.385	84.185	-42.429	1.00	24.87	C
ATOM	48704	CB	LYS Q	4	118.070	85.032	-25.624	1.00	64.51	O	ATOM	48754	CG1	VAL Q	11	128.099	85.489	-41.732	1.00	24.87	C
ATOM	48705	CG	LYS Q	4	119.135	85.983	-26.109	1.00	64.51	C	ATOM	48755	CG2	VAL Q	11	128.546	83.077	-41.414	1.00	24.87	C
ATOM	48706	CD	LYS Q	4	119.180	87.201	-25.234	1.00	64.51	C	ATOM	48756	N	SER Q	12	126.549	81.567	-43.796	1.00	73.54	N
ATOM	48707	CE	LYS Q	4	120.307	88.115	-25.641	1.00	64.51	C	ATOM	48757	CA	SER Q	12	126.689	80.234	-44.364	1.00	73.54	C
ATOM	48708	NZ	LYS Q	4	120.325	89.357	-27.817	1.00	64.51	N	ATOM	48758	C	SER Q	12	125.372	79.501	-44.567	1.00	73.54	C
ATOM	48709	N	VAL Q	5	116.382	86.751	-27.988	1.00	48.44	N	ATOM	48759	O	SER Q	12	124.546	79.412	-43.653	1.00	73.54	O
ATOM	48710	CA	VAL Q	5	116.258	86.972	-29.424	1.00	48.44	C	ATOM	48760	CB	SER Q	12	127.597	79.387	-43.487	1.00	42.44	C
ATOM	48711	O	VAL Q	5	117.486	87.738	-29.905	1.00	48.44	C	ATOM	48761	OG	SER Q	12	127.519	78.022	-43.856	1.00	42.44	O
ATOM	48712	C	VAL Q	5	117.902	88.704	-29.273	1.00	48.44	O	ATOM	48762	N	ASP Q	13	125.202	78.966	-45.775	1.00	85.03	N
ATOM	48713	CB	VAL Q	5	114.984	87.775	-29.761	1.00	34.05	C	ATOM	48763	CA	ASP Q	13	124.009	78.223	-46.155	1.00	85.03	C
ATOM	48714	CG1	VAL Q	5	114.848	87.936	-31.267	1.00	34.05	C	ATOM	48764	C	ASP Q	13	124.446	76.834	-46.620	1.00	85.03	C
ATOM	48715	CG2	VAL Q	5	113.774	87.067	-29.201	1.00	34.05	C	ATOM	48765	O	ASP Q	13	123.711	76.128	-47.312	1.00	85.03	O
ATOM	48716	N	LEU Q	6	118.064	87.307	-31.021	1.00	42.32	N	ATOM	48766	CB	ASP Q	13	123.291	78.960	-47.288	1.00	164.19	C
ATOM	48717	CA	LEU Q	6	119.256	87.955	-31.550	1.00	42.32	C	ATOM	48767	CG	ASP Q	13	121.936	78.361	-47.616	1.00	164.19	C
ATOM	48718	C	LEU Q	6	119.133	88.267	-33.034	1.00	42.32	C	ATOM	48768	OD1	ASP Q	13	121.221	78.960	-48.446	1.00	164.19	O
ATOM	48719	O	LEU Q	6	118.302	87.682	-33.729	1.00	42.32	O	ATOM	48769	OD2	ASP Q	13	121.584	77.299	-47.054	1.00	164.19	O
ATOM	48720	CB	LEU Q	6	120.463	87.050	-31.348	1.00	42.08	C	ATOM	48770	N	LYS Q	14	125.645	76.438	-46.209	1.00	60.16	N
ATOM	48721	CD1	LEU Q	6	121.888	85.530	-29.931	1.00	42.08	C	ATOM	48771	CA	LYS Q	14	126.210	75.155	-46.605	1.00	60.16	C
ATOM	48722	CD2	LEU Q	6	121.516	87.883	-29.263	1.00	42.08	C	ATOM	48772	C	LYS Q	14	125.658	72.784	-45.961	1.00	60.16	C
ATOM	48724	N	THR Q	7	119.967	89.194	-33.513	1.00	40.49	N	ATOM	48773	O	LYS Q	14	126.058	72.884	-46.342	1.00	60.16	O
ATOM	48725	CA	THR Q	7	119.976	89.570	-34.926	1.00	40.49	C	ATOM	48774	CB	LYS Q	14	127.731	75.186	-46.423	1.00	91.05	C
ATOM	48726	C	THR Q	7	121.378	89.448	-35.488	1.00	40.49	C	ATOM	48775	CG	LYS Q	14	128.434	76.113	-47.397	1.00	91.05	C
ATOM	48727	O	THR Q	7	122.348	89.900	-34.884	1.00	40.49	O	ATOM	48776	CD	LYS Q	14	129.937	75.979	-47.302	1.00	91.05	C
ATOM	48728	CB	THR Q	7	119.528	91.008	-35.151	1.00	47.56	C	ATOM	48777	CE	LYS Q	14	130.618	76.790	-48.394	1.00	91.05	C
ATOM	48729	OG1	THR Q	7	118.251	91.224	-34.544	1.00	47.56	O	ATOM	48778	NZ	LYS Q	14	132.096	76.575	-48.428	1.00	91.05	N
ATOM	48730	CG2	THR Q	7	119.411	91.272	-36.625	1.00	47.56	C	ATOM	48779	N	MET Q	15	124.750	74.008	-44.998	1.00	62.82	N
ATOM	48731	N	GLY Q	8	121.481	88.841	-36.658	1.00	41.83	N	ATOM	48780	CA	MET Q	15	124.203	72.820	-44.353	1.00	62.82	C
ATOM	48732	CA	GLY Q	8	122.780	88.670	-37.264	1.00	41.83	C	ATOM	48781	C	MET Q	15	122.732	72.629	-44.662	1.00	62.82	C
ATOM	48733	C	GLY Q	8	122.637	88.414	-38.740	1.00	41.83	C	ATOM	48782	O	MET Q	15	122.070	73.541	-45.174	1.00	62.82	O
ATOM	48734	O	GLY Q	8	121.551	88.581	-39.291	1.00	41.83	O	ATOM	48783	CB	MET Q	15	124.379	72.901	-42.844	1.00	59.89	C
ATOM	48735	N	VAL Q	9	123.725	88.009	-39.387	1.00	50.96	N	ATOM	48784	CG	MET Q	15	125.808	72.950	-42.379	1.00	59.89	C
ATOM	48736	CA	VAL Q	9	123.681	87.750	-40.813	1.00	50.96	C	ATOM	48785	SD	MET Q	15	125.854	72.995	-40.581	1.00	59.89	S
ATOM	48737	C	VAL Q	9	123.986	86.310	-41.064	1.00	50.96	C	ATOM	48786	CE	MET Q	15	125.465	74.741	-40.252	1.00	59.89	C
ATOM	48738	O	VAL Q	9	124.747	85.698	-40.324	1.00	50.96	O	ATOM	48787	N	GLN Q	16	122.233	71.435	-44.344	1.00	58.91	N
ATOM	48739	CB	VAL Q	9	124.726	88.542	-41.579	1.00	47.76	C	ATOM	48788	CA	GLN Q	16	120.830	71.081	-44.558	1.00	58.91	C
ATOM	48740	CG1	VAL Q	9	124.339	88.598	-43.034	1.00	47.76	C	ATOM	48789	C	GLN Q	16	119.976	71.575	-43.392	1.00	58.91	C
ATOM	48741	CG2	VAL Q	9	124.862	89.920	-41.003	1.00	47.76	C	ATOM	48790	O	GLN Q	16	120.284	71.306	-42.236	1.00	58.91	O
ATOM	48742	N	VAL Q	10	123.391	85.777	-42.121	1.00	51.58	N	ATOM	48791	CB	GLN Q	16	120.691	69.568	-44.690	1.00	56.41	C
ATOM	48743	CA	VAL Q	10	123.612	84.398	-42.507	1.00	51.58	C	ATOM	48792	CG	GLN Q	16	121.456	68.996	-45.863	1.00	56.41	C
ATOM	48744	C	VAL Q	10	124.903	84.392	-43.306	1.00	51.58	C	ATOM	48793	CD	GLN Q	16	121.487	67.472	-45.877	1.00	56.41	C
ATOM	48745	O	VAL Q	10	124.938	84.842	-44.451	1.00	51.58	O	ATOM	48794	OE1	GLN Q	16	122.029	66.860	-46.805	1.00	56.41	O
ATOM	48746	CB	VAL Q	10	122.473	83.873	-43.401	1.00	40.86	C	ATOM	48795	NE2	GLN Q	16	120.915	66.853	-44.849	1.00	54.82	N
ATOM	48747	CG1	VAL Q	10	122.740	82.431	-43.784	1.00	40.86	C	ATOM	48797	CA	LYS Q	17	118.908	72.302	-43.709	1.00	54.82	N
																117.992	72.857	-42.711	1.00	54.82	C



ATOM	48798	C	LYS Q	17	118.676	73.671	-41.603	1.00	54.82	C	ATOM	48848	N	GLU Q	24	126.520	90.171	-34.140	1.00	48.60	N
ATOM	48799	O	LYS Q	17	118.078	73.938	-40.552	1.00	54.82	O	ATOM	48849	CA	GLU Q	24	127.507	91.125	-33.627	1.00	48.60	C
ATOM	48800	CB	LYS Q	17	117.154	71.740	-42.074	1.00	69.18	C	ATOM	48850	C	GLU Q	24	127.061	91.672	-32.262	1.00	48.60	C
ATOM	48801	CG	LYS Q	17	116.258	70.987	-43.047	1.00	69.18	C	ATOM	48851	O	GLU Q	24	125.868	91.693	-31.947	1.00	48.60	O
ATOM	48802	CD	LYS Q	17	115.171	70.216	-42.310	1.00	69.18	C	ATOM	48852	CB	GLU Q	24	127.709	92.259	-34.636	1.00	93.77	C
ATOM	48803	CE	LYS Q	17	114.374	69.327	-43.249	1.00	69.18	C	ATOM	48853	CG	GLU Q	24	129.160	92.698	-34.813	1.00	93.77	C
ATOM	48804	NZ	LYS Q	17	115.197	68.191	-43.764	1.00	69.18	N	ATOM	48854	CD	GLU Q	24	129.398	93.393	-36.152	1.00	93.77	C
ATOM	48805	N	THR Q	18	119.921	74.076	-41.841	1.00	61.16	N	ATOM	48855	OE1	GLU Q	24	129.025	92.808	-37.191	1.00	93.77	O
ATOM	48806	CA	THR Q	18	120.667	74.845	-40.851	1.00	61.16	C	ATOM	48856	OE2	GLU Q	24	129.958	94.512	-36.177	1.00	93.77	O
ATOM	48807	C	THR Q	18	121.419	76.005	-41.502	1.00	61.16	C	ATOM	48857	N	ARG Q	25	128.020	92.114	-31.455	1.00	50.34	N
ATOM	48808	O	THR Q	18	121.875	75.888	-42.639	1.00	61.16	O	ATOM	48858	CA	ARG Q	25	127.722	92.611	-30.116	1.00	50.34	C
ATOM	48809	CB	THR Q	18	121.713	73.956	-40.146	1.00	68.04	C	ATOM	48859	C	ARG Q	25	128.675	93.716	-29.714	1.00	50.34	C
ATOM	48810	OG1	THR Q	18	121.196	72.629	-39.985	1.00	68.04	O	ATOM	48860	O	ARG Q	25	129.822	93.713	-30.134	1.00	50.34	O
ATOM	48811	CG2	THR Q	18	122.059	74.531	-38.780	1.00	68.04	C	ATOM	48861	CB	ARG Q	25	127.848	91.453	-29.126	1.00	43.59	C
ATOM	48812	N	VAL Q	19	121.536	77.126	-40.794	1.00	62.19	N	ATOM	48862	CG	ARG Q	25	127.875	91.856	-27.662	1.00	43.59	C
ATOM	48813	CA	VAL Q	19	122.289	78.269	-41.315	1.00	62.19	C	ATOM	48863	CD	ARG Q	25	127.783	90.635	-26.753	1.00	43.59	C
ATOM	48814	C	VAL Q	19	123.192	78.831	-40.228	1.00	62.19	C	ATOM	48864	NE	ARG Q	25	128.962	89.784	-26.860	1.00	43.59	N
ATOM	48815	O	VAL Q	19	122.925	78.658	-39.036	1.00	62.19	O	ATOM	48865	CZ	ARG Q	25	129.970	89.817	-26.002	1.00	43.59	C
ATOM	48816	CB	VAL Q	19	121.383	79.424	-41.846	1.00	62.21	C	ATOM	48866	NH1	ARG Q	25	129.931	90.658	-24.975	1.00	43.59	N
ATOM	48817	CG1	VAL Q	19	120.768	79.026	-43.175	1.00	32.21	C	ATOM	48867	NH2	ARG Q	25	131.014	89.021	-26.175	1.00	43.59	N
ATOM	48818	CG2	VAL Q	19	120.315	79.784	-40.821	1.00	32.21	C	ATOM	48868	N	GLN Q	26	128.219	94.661	-28.901	1.00	38.07	N
ATOM	48819	N	THR Q	20	124.276	79.483	-40.643	1.00	45.43	N	ATOM	48869	CA	GLN Q	26	129.093	95.751	-28.460	1.00	38.07	C
ATOM	48820	CA	THR Q	20	125.200	80.074	-39.692	1.00	45.43	C	ATOM	48870	C	GLN Q	26	129.012	95.898	-26.963	1.00	38.07	C
ATOM	48821	C	THR Q	20	124.961	81.563	-39.617	1.00	45.43	C	ATOM	48871	O	GLN Q	26	128.113	95.363	-26.337	1.00	38.07	O
ATOM	48822	O	THR Q	20	125.246	82.288	-40.562	1.00	45.43	O	ATOM	48872	CB	GLN Q	26	128.692	97.071	-29.095	1.00	68.37	C
ATOM	48823	CB	THR Q	20	126.653	79.868	-40.092	1.00	52.48	C	ATOM	48873	CG	GLN Q	26	128.519	96.988	-30.575	1.00	68.37	C
ATOM	48824	OG1	THR Q	20	126.916	78.470	-40.281	1.00	52.48	O	ATOM	48874	CD	GLN Q	26	128.691	98.328	-31.235	1.00	68.37	O
ATOM	48825	CG2	THR Q	20	127.560	80.414	-39.001	1.00	52.48	C	ATOM	48875	OE1	GLN Q	26	128.159	99.337	-30.765	1.00	68.37	C
ATOM	48826	N	VAL Q	21	124.425	82.012	-38.493	1.00	39.70	N	ATOM	48876	NE2	GLN Q	26	129.432	98.354	-32.340	1.00	68.37	N
ATOM	48827	CA	VAL Q	21	124.163	83.424	-38.293	1.00	39.70	C	ATOM	48877	N	PHE Q	27	129.943	96.639	-26.384	1.00	32.85	N
ATOM	48828	C	VAL Q	21	125.275	84.059	-37.463	1.00	39.70	C	ATOM	48878	CA	PHE Q	27	129.955	96.835	-24.942	1.00	32.85	C
ATOM	48829	O	VAL Q	21	125.647	83.568	-36.389	1.00	39.70	O	ATOM	48879	C	PHE Q	27	129.526	97.512	-24.517	1.00	32.85	C
ATOM	48830	CB	VAL Q	21	122.815	83.650	-37.594	1.00	28.12	C	ATOM	48880	O	PHE Q	27	132.213	97.518	-25.237	1.00	32.85	O
ATOM	48831	CG1	VAL Q	21	122.557	85.145	-37.425	1.00	28.12	C	ATOM	48881	CB	PHE Q	27	129.859	95.502	-24.213	1.00	37.90	C
ATOM	48832	CG2	VAL Q	21	121.713	82.992	-38.403	1.00	28.12	C	ATOM	48882	CG	PHE Q	27	131.055	94.634	-24.393	1.00	37.90	C
ATOM	48833	N	LEU Q	22	125.800	85.160	-37.979	1.00	43.86	N	ATOM	48883	CD1	PHE Q	27	132.148	94.758	-23.557	1.00	37.90	C
ATOM	48834	CA	LEU Q	22	126.876	85.864	-37.326	1.00	43.86	C	ATOM	48884	CD2	PHE Q	27	131.085	93.676	-25.399	1.00	37.90	C
ATOM	48835	C	LEU Q	22	126.350	87.083	-36.578	1.00	43.86	C	ATOM	48885	CE1	PHE Q	27	133.262	93.932	-23.715	1.00	37.90	C
ATOM	48836	O	LEU Q	22	126.187	88.152	-37.145	1.00	43.86	O	ATOM	48886	CE2	PHE Q	27	132.195	92.844	-25.568	1.00	37.90	C
ATOM	48837	CB	LEU Q	22	127.890	86.263	-38.379	1.00	31.45	C	ATOM	48887	CZ	PHE Q	27	133.283	92.973	-24.722	1.00	37.90	C
ATOM	48838	CG	LEU Q	22	129.033	87.156	-37.931	1.00	31.45	C	ATOM	48888	N	PRO Q	28	131.221	98.082	-23.319	1.00	40.90	N
ATOM	48839	CD1	LEU Q	22	129.806	86.518	-36.791	1.00	31.45	C	ATOM	48889	CA	PRO Q	28	132.373	98.780	-22.763	1.00	40.90	C
ATOM	48840	CD2	LEU Q	22	129.911	87.389	-39.137	1.00	31.45	C	ATOM	48890	C	PRO Q	28	133.340	97.842	-22.110	1.00	40.90	C
ATOM	48841	N	VAL Q	23	126.098	86.902	-35.291	1.00	44.14	N	ATOM	48891	O	PRO Q	28	132.970	96.999	-21.300	1.00	40.90	O
ATOM	48842	CA	VAL Q	23	125.555	87.946	-34.423	1.00	44.14	C	ATOM	48892	CB	PRO Q	28	131.749	99.706	-21.750	1.00	28.87	C
ATOM	48843	C	VAL Q	23	126.624	88.875	-33.859	1.00	44.14	C	ATOM	48893	CG	PRO Q	28	130.681	98.846	-21.208	1.00	28.87	C
ATOM	48844	O	VAL Q	23	127.521	88.424	-33.156	1.00	44.14	O	ATOM	48894	CD	PRO Q	28	130.057	98.230	-22.439	1.00	28.87	C
ATOM	48845	CB	VAL Q	23	124.789	87.291	-33.237	1.00	42.59	C	ATOM	48895	N	HIS Q	29	134.593	97.994	-22.479	1.00	23.70	N
ATOM	48846	CG1	VAL Q	23	124.339	80.332	-32.251	1.00	42.59	C	ATOM	48896	CA	HIS Q	29	135.644	97.189	-21.910	1.00	23.70	C
ATOM	48847	CG2	VAL Q	23	123.608	86.510	-33.755	1.00	42.59	C	ATOM	48897	C	HIS Q	29	135.581	97.375	-20.391	1.00	23.70	C



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ATOM	48898	O	HIS Q	29	135.538	98.496	-19.891	1.00	23.70	O	ATOM	48948	O	VAL Q	35	134.358	99.939	-28.697	1.00	38.42	O
ATOM	48899	CB	HIS Q	29	136.975	97.691	-22.453	1.00	50.25	C	ATOM	48949	CB	VAL Q	35	132.083	101.085	-27.271	1.00	24.74	C
ATOM	48900	CG	HIS Q	29	138.130	96.814	-22.119	1.00	50.25	C	ATOM	48950	CG1	VAL Q	35	131.177	100.031	-27.905	1.00	24.74	C
ATOM	48901	ND1	HIS Q	29	138.668	96.749	-20.854	1.00	50.25	N	ATOM	48951	CG2	VAL Q	35	131.315	101.890	-26.252	1.00	24.74	C
ATOM	48902	CD2	HIS Q	29	138.843	95.958	-22.885	1.00	50.25	C	ATOM	48952	N	ILE Q	36	134.084	98.221	-27.283	1.00	39.54	N
ATOM	48903	CE1	HIS Q	29	139.667	95.888	-20.856	1.00	50.25	C	ATOM	48953	CA	ILE Q	36	134.709	97.271	-28.174	1.00	39.54	C
ATOM	48904	NE2	HIS Q	29	139.794	95.395	-22.076	1.00	50.25	N	ATOM	48954	C	ILE Q	36	133.585	96.496	-28.813	1.00	39.54	C
ATOM	48905	N	PRO Q	30	135.562	96.273	-19.641	1.00	32.47	N	ATOM	48955	O	ILE Q	36	132.449	96.570	-28.356	1.00	39.54	O
ATOM	48906	CA	PRO Q	30	135.501	96.349	-18.184	1.00	32.47	C	ATOM	48956	CB	ILE Q	36	135.654	96.347	-27.399	1.00	37.78	C
ATOM	48907	C	PRO Q	30	136.562	97.209	-17.496	1.00	32.47	C	ATOM	48957	CG1	ILE Q	36	134.858	95.322	-26.601	1.00	37.78	C
ATOM	48908	O	PRO Q	30	136.311	97.727	-16.409	1.00	32.47	O	ATOM	48958	CG2	ILE Q	36	136.495	97.182	-26.420	1.00	37.78	C
ATOM	48909	CB	PRO Q	30	135.553	94.884	-17.763	1.00	42.38	C	ATOM	48959	CD1	ILE Q	36	135.735	94.453	-25.717	1.00	37.78	C
ATOM	48910	CG	PRO Q	30	136.241	94.216	-18.913	1.00	42.38	C	ATOM	48960	N	LYS Q	37	133.889	95.757	-29.870	1.00	46.94	N
ATOM	48911	CD	PRO Q	30	135.599	94.874	-20.084	1.00	42.38	C	ATOM	48961	CA	LYS Q	37	132.852	95.020	-30.568	1.00	46.94	C
ATOM	48912	N	LEU Q	31	137.742	97.373	-18.092	1.00	31.81	N	ATOM	48962	C	LYS Q	37	133.302	93.620	-30.932	1.00	46.94	C
ATOM	48913	CA	LEU Q	31	138.745	98.210	-17.434	1.00	31.81	C	ATOM	48963	O	LYS Q	37	134.169	93.440	-31.775	1.00	46.94	O
ATOM	48914	C	LEU Q	31	139.124	99.485	-18.188	1.00	31.81	O	ATOM	48964	CB	LYS Q	37	132.463	95.781	-31.824	1.00	46.24	C
ATOM	48915	O	LEU Q	31	139.334	100.533	-17.567	1.00	31.81	O	ATOM	48965	CG	LYS Q	37	131.485	95.064	-32.691	1.00	46.24	C
ATOM	48916	CB	LEU Q	31	140.017	97.409	-17.124	1.00	33.93	C	ATOM	48966	CD	LYS Q	37	131.708	95.436	-34.142	1.00	46.24	C
ATOM	48917	CG	LEU Q	31	141.217	98.145	-16.486	1.00	33.93	C	ATOM	48967	CE	LYS Q	37	131.710	96.953	-34.370	1.00	46.24	C
ATOM	48918	CD1	LEU Q	31	140.879	98.779	-15.153	1.00	33.93	C	ATOM	48968	NZ	LYS Q	37	131.911	97.315	-35.820	1.00	47.13	N
ATOM	48919	CD2	LEU Q	31	142.321	97.145	-16.302	1.00	33.93	C	ATOM	48969	N	ARG Q	38	132.696	92.632	-30.290	1.00	47.13	N
ATOM	48920	N	TYR Q	32	139.205	99.404	-19.514	1.00	34.79	N	ATOM	48970	CA	ARG Q	38	133.018	91.232	-30.518	1.00	47.13	N
ATOM	48921	CA	TYR Q	32	139.582	100.563	-20.313	1.00	34.79	C	ATOM	48971	C	ARG Q	38	131.905	90.607	-31.370	1.00	47.13	C
ATOM	48922	C	TYR Q	32	138.385	101.304	-20.886	1.00	34.79	O	ATOM	48972	O	ARG Q	38	130.934	91.277	-31.719	1.00	47.13	O
ATOM	48923	O	TYR Q	32	138.527	102.271	-21.624	1.00	34.79	O	ATOM	48973	CB	ARG Q	38	133.119	90.524	-29.166	1.00	68.81	C
ATOM	48924	CB	TYR Q	32	140.552	100.125	-21.409	1.00	37.32	C	ATOM	48974	CG	ARG Q	38	134.327	89.604	-29.012	1.00	68.81	C
ATOM	48925	CD	TYR Q	32	141.750	99.416	-20.831	1.00	37.32	C	ATOM	48975	CD	ARG Q	38	135.544	90.283	-28.372	1.00	68.81	C
ATOM	48926	CD1	TYR Q	32	142.111	98.140	-21.250	1.00	37.32	C	ATOM	48976	NE	ARG Q	38	135.966	91.489	-29.078	1.00	68.81	N
ATOM	48927	CD2	TYR Q	32	142.481	100.001	-19.807	1.00	37.32	C	ATOM	48977	CZ	ARG Q	38	137.201	91.973	-29.036	1.00	68.81	C
ATOM	48928	CE1	TYR Q	32	143.169	97.467	-20.650	1.00	37.32	C	ATOM	48978	NH1	ARG Q	38	138.122	91.343	-28.327	1.00	68.81	N
ATOM	48929	CE2	TYR Q	32	143.536	99.341	-19.203	1.00	37.32	C	ATOM	48979	NH2	ARG Q	38	137.516	93.086	-29.685	1.00	68.81	N
ATOM	48930	CZ	TYR Q	32	143.878	98.080	-19.620	1.00	37.32	C	ATOM	48980	N	SER Q	39	132.034	89.336	-31.720	1.00	64.42	N
ATOM	48931	OH	TYR Q	32	144.924	97.444	-18.984	1.00	37.32	O	ATOM	48981	CA	SER Q	39	130.991	88.699	-32.509	1.00	64.42	C
ATOM	48932	N	GLY Q	33	137.201	100.830	-20.542	1.00	37.00	N	ATOM	48982	C	SER Q	39	131.043	87.179	-32.376	1.00	64.42	C
ATOM	48933	CA	GLY Q	33	135.980	101.480	-20.964	1.00	37.00	C	ATOM	48983	O	SER Q	39	132.106	86.602	-32.139	1.00	64.42	O
ATOM	48934	C	GLY Q	33	134.422	101.885	-22.683	1.00	37.00	C	ATOM	48984	CB	SER Q	39	131.117	89.103	-33.966	1.00	52.67	C
ATOM	48935	O	GLY Q	33	136.549	101.800	-23.341	1.00	30.77	N	ATOM	48985	OG	SER Q	39	132.253	88.493	-34.530	1.00	52.67	O
ATOM	48936	N	LYS Q	34	136.136	102.065	-24.723	1.00	30.77	C	ATOM	48986	N	LYS Q	40	129.891	86.537	-32.550	1.00	39.53	N
ATOM	48937	CA	LYS Q	34	136.136	102.065	-24.723	1.00	30.77	C	ATOM	48987	CA	LYS Q	40	129.776	85.094	-32.395	1.00	39.53	C
ATOM	48938	C	LYS Q	34	135.146	100.998	-25.178	1.00	30.77	C	ATOM	48988	C	LYS Q	40	128.871	84.480	-33.457	1.00	39.53	C
ATOM	48939	O	LYS Q	34	135.162	99.873	-24.675	1.00	30.77	O	ATOM	48989	O	LYS Q	40	127.923	85.118	-33.907	1.00	39.53	O
ATOM	48940	CB	LYS Q	34	137.338	102.107	-25.677	1.00	35.37	C	ATOM	48990	CB	LYS Q	40	129.228	84.831	-30.991	1.00	33.55	C
ATOM	48941	CG	LYS Q	34	137.809	100.763	-26.197	1.00	35.37	C	ATOM	48991	CG	LYS Q	40	128.797	83.415	-30.643	1.00	33.55	C
ATOM	48942	CD	LYS Q	34	137.793	100.725	-27.727	1.00	35.37	C	ATOM	48992	CD	LYS Q	40	128.441	83.400	-29.159	1.00	33.55	C
ATOM	48943	CE	LYS Q	34	138.618	101.857	-28.318	1.00	35.37	C	ATOM	48993	CE	LYS Q	40	127.964	82.064	-28.678	1.00	33.55	C
ATOM	48944	NZ	LYS Q	34	138.640	101.836	-29.801	1.00	35.37	N	ATOM	48994	NZ	LYS Q	40	127.650	82.143	-27.239	1.00	33.55	N
ATOM	48945	N	VAL Q	35	134.270	101.355	-26.108	1.00	38.42	N	ATOM	48995	N	LYS Q	41	129.170	83.245	-33.861	1.00	37.99	N
ATOM	48946	CA	VAL Q	35	133.293	100.397	-26.601	1.00	38.42	C	ATOM	48996	CA	LYS Q	41	128.363	82.563	-34.875	1.00	37.99	C
ATOM	48947	C	VAL Q	35	133.959	99.494	-27.624	1.00	38.42	C	ATOM	48997	C	LYS Q	41	127.457	81.552	-34.223	1.00	37.99	C



Table 1: Sheet 492/521

ATOM	48998	O	LYS Q	41	127.912	80.745	-33.407	1.00	37.99	O	ATOM	49048	CA	PRO Q	47	113.526	73.872	-41.901	1.00	74.27	C
ATOM	48999	CB	LYS Q	41	129.234	81.808	-35.888	1.00	38.20	C	ATOM	49049	C	PRO Q	47	113.155	74.036	-43.366	1.00	74.27	C
ATOM	49000	CG	LYS Q	41	130.141	82.674	-36.745	1.00	38.20	C	ATOM	49050	O	PRO Q	47	113.466	73.184	-44.201	1.00	74.27	O
ATOM	49001	CD	LYS Q	41	130.889	81.864	-37.794	1.00	38.20	C	ATOM	49051	CB	PRO Q	47	112.288	73.826	-41.014	1.00	74.94	C
ATOM	49002	CE	LYS Q	41	131.735	80.801	-37.154	1.00	38.20	C	ATOM	49052	CG	PRO Q	47	112.787	74.356	-39.707	1.00	74.94	C
ATOM	49003	NZ	LYS Q	41	132.518	80.057	-38.163	1.00	38.20	N	ATOM	49053	CD	PRO Q	47	113.631	75.519	-40.137	1.00	74.94	C
ATOM	49004	N	TYR Q	42	126.177	81.597	-34.589	1.00	36.82	N	ATOM	49054	N	GLU Q	48	112.479	75.137	-43.665	1.00	93.91	N
ATOM	49005	CA	TYR Q	42	125.192	80.648	-34.077	1.00	36.82	C	ATOM	49055	CA	GLU Q	48	112.035	75.427	-45.017	1.00	93.91	C
ATOM	49006	C	TYR Q	42	124.656	79.807	-35.234	1.00	36.82	C	ATOM	49056	C	GLU Q	48	113.196	75.708	-45.966	1.00	93.91	C
ATOM	49007	O	TYR Q	42	124.485	80.307	-36.337	1.00	36.82	O	ATOM	49057	O	GLU Q	48	112.980	75.885	-47.164	1.00	93.91	O
ATOM	49008	CB	TYR Q	42	124.015	81.372	-33.419	1.00	35.16	C	ATOM	49058	CB	GLU Q	48	111.088	76.632	-44.995	1.00	132.81	C
ATOM	49009	CD1	TYR Q	42	124.878	83.487	-32.372	1.00	35.16	C	ATOM	49059	CD	GLU Q	48	109.862	76.451	-44.099	1.00	132.81	C
ATOM	49010	CD2	TYR Q	42	124.259	81.682	-30.940	1.00	35.16	C	ATOM	49060	CD	GLU Q	48	109.058	77.734	-43.919	1.00	132.81	C
ATOM	49011	CE1	TYR Q	42	125.241	84.248	-31.264	1.00	35.16	C	ATOM	49061	OE1	GLU Q	48	109.590	78.696	-43.322	1.00	132.81	O
ATOM	49012	CE2	TYR Q	42	124.619	82.428	-29.818	1.00	35.16	C	ATOM	49062	OE2	GLU Q	48	107.894	77.779	-44.375	1.00	132.81	O
ATOM	49013	CZ	TYR Q	42	125.114	83.712	-29.983	1.00	35.16	C	ATOM	49063	CA	GLU Q	49	114.422	75.736	-45.440	1.00	69.45	N
ATOM	49015	OH	TYR Q	42	125.514	84.446	-28.873	1.00	35.16	O	ATOM	49065	C	GLU Q	49	115.604	76.031	-46.257	1.00	69.45	C
ATOM	49016	N	LEU Q	43	124.424	78.524	-34.997	1.00	44.13	N	ATOM	49066	O	GLU Q	49	115.379	77.396	-46.891	1.00	69.45	O
ATOM	49017	CA	LEU Q	43	123.847	77.687	-36.034	1.00	44.13	C	ATOM	49067	CB	GLU Q	49	115.941	77.725	-47.932	1.00	69.45	C
ATOM	49018	C	LEU Q	43	122.351	77.685	-35.732	1.00	44.13	C	ATOM	49068	CD	GLU Q	49	115.786	74.967	-47.339	1.00	86.79	C
ATOM	49019	O	LEU Q	43	121.913	77.223	-34.668	1.00	44.13	O	ATOM	49069	CD	GLU Q	49	116.365	73.671	-46.816	1.00	86.79	C
ATOM	49020	CB	LEU Q	43	124.391	76.272	-35.963	1.00	33.81	C	ATOM	49070	OE1	GLU Q	49	117.869	73.739	-46.654	1.00	86.79	C
ATOM	49021	CG	LEU Q	43	125.892	76.104	-36.171	1.00	33.81	C	ATOM	49071	OE2	GLU Q	49	118.387	74.810	-46.270	1.00	86.79	O
ATOM	49022	CD1	LEU Q	43	126.186	74.607	-36.303	1.00	33.81	C	ATOM	49072	N	LYS Q	50	118.538	72.717	-46.905	1.00	86.79	O
ATOM	49024	N	ALA Q	44	121.571	78.232	-36.656	1.00	41.45	N	ATOM	49073	CA	LYS Q	50	114.126	79.511	-46.610	1.00	45.50	N
ATOM	49025	CA	ALA Q	44	120.130	78.314	-36.479	1.00	41.45	C	ATOM	49074	C	LYS Q	50	115.276	80.528	-46.725	1.00	45.50	C
ATOM	49026	C	ALA Q	44	119.397	77.350	-37.388	1.00	41.45	C	ATOM	49075	O	LYS Q	50	115.667	80.936	-47.827	1.00	45.50	O
ATOM	49027	O	ALA Q	44	119.827	77.063	-38.511	1.00	41.45	O	ATOM	49076	CB	LYS Q	50	113.082	79.993	-45.593	1.00	86.86	C
ATOM	49028	CB	ALA Q	44	119.653	79.731	-36.728	1.00	31.07	C	ATOM	49077	CG	LYS Q	50	112.394	81.292	-45.922	1.00	86.86	C
ATOM	49029	N	HIS Q	45	118.270	76.868	-36.890	1.00	47.11	N	ATOM	49078	CD	LYS Q	50	111.120	81.452	-45.097	1.00	86.86	C
ATOM	49030	CA	HIS Q	45	117.467	75.916	-37.624	1.00	47.11	C	ATOM	49079	CE	LYS Q	50	110.254	82.584	-45.647	1.00	86.86	C
ATOM	49031	C	HIS Q	45	116.633	76.566	-38.722	1.00	47.11	C	ATOM	49080	NZ	LYS Q	50	108.863	82.568	-45.116	1.00	86.86	N
ATOM	49032	O	HIS Q	45	115.829	77.455	-38.454	1.00	47.11	O	ATOM	49081	N	TYR Q	51	115.814	80.915	-45.573	1.00	46.77	N
ATOM	49033	CB	HIS Q	45	116.566	75.177	-36.647	1.00	59.86	C	ATOM	49082	CA	TYR Q	51	116.884	81.898	-45.473	1.00	46.77	C
ATOM	49034	CG	HIS Q	45	115.862	74.006	-37.246	1.00	59.86	C	ATOM	49083	C	TYR Q	51	118.121	81.607	-46.297	1.00	46.77	C
ATOM	49035	ND1	HIS Q	45	116.476	73.150	-38.133	1.00	59.86	N	ATOM	49084	O	TYR Q	51	118.669	80.506	-46.258	1.00	46.77	O
ATOM	49036	CD2	HIS Q	45	114.607	73.534	-37.068	1.00	59.86	C	ATOM	49085	CB	TYR Q	51	117.225	82.085	-43.999	1.00	67.26	C
ATOM	49037	CE1	HIS Q	45	115.627	72.200	-37.478	1.00	59.86	C	ATOM	49086	CG	TYR Q	51	115.966	82.317	-43.203	1.00	67.26	C
ATOM	49038	NE2	HIS Q	45	114.485	72.410	-37.846	1.00	59.86	N	ATOM	49087	CD1	TYR Q	51	115.228	81.247	-42.707	1.00	67.26	C
ATOM	49039	N	ASP Q	46	116.836	76.109	-39.956	1.00	73.20	N	ATOM	49088	CD2	TYR Q	51	115.440	83.601	-43.063	1.00	67.26	C
ATOM	49040	CA	ASP Q	46	116.109	76.624	-41.118	1.00	73.20	C	ATOM	49089	CE1	TYR Q	51	113.996	81.448	-42.104	1.00	67.26	C
ATOM	49041	C	ASP Q	46	115.439	75.461	-41.853	1.00	73.20	C	ATOM	49090	CE2	TYR Q	51	114.209	83.816	-42.464	1.00	67.26	C
ATOM	49042	O	ASP Q	46	115.930	74.998	-42.879	1.00	73.20	O	ATOM	49091	CH	TYR Q	51	113.491	82.737	-41.987	1.00	67.26	C
ATOM	49043	CB	ASP Q	46	117.075	77.344	-42.066	1.00	73.68	C	ATOM	49092	O2	TYR Q	51	112.266	82.948	-41.392	1.00	67.26	O
ATOM	49044	CG	ASP Q	46	116.378	77.919	-43.286	1.00	73.68	C	ATOM	49093	N	LYS Q	52	118.544	82.621	-47.052	1.00	65.59	N
ATOM	49045	OD1	ASP Q	46	117.086	78.340	-44.232	1.00	73.68	O	ATOM	49094	CA	LYS Q	52	119.701	82.518	-47.934	1.00	65.59	C
ATOM	49046	OD2	ASP Q	46	115.126	77.951	-43.290	1.00	73.68	O	ATOM	49095	C	LYS Q	52	120.890	83.375	-47.521	1.00	65.59	C
ATOM	49047	N	PRO Q	47	114.298	74.984	-41.335	1.00	74.27	N	ATOM	49096	O	LYS Q	52	120.760	84.344	-46.772	1.00	65.59	O
											ATOM	49097	CB	LYS Q	52	119.290	82.863	-49.372	1.00	109.85	C



Table 1: Sheet 493/521

ATOM	49098	CG	LYS Q	52	118.226	81.927	-49.947	1.00109.85	C	ATOM	49148	O	ILE Q	59	116.555	85.260	-31.979	1.00	36.48	
ATOM	49099	CD	LYS Q	52	117.942	82.200	-51.423	1.00109.85	C	ATOM	49149	CB	ILE Q	59	118.938	84.026	-33.782	1.00	65.75	
ATOM	49100	CE	LYS Q	52	116.907	81.218	-51.977	1.00109.85	C	ATOM	49150	CG1	ILE Q	59	119.611	83.836	-35.136	1.00	65.75	
ATOM	49101	NZ	LYS Q	52	116.610	81.434	-53.427	1.00109.85	N	ATOM	49151	CG2	ILE Q	59	119.173	82.842	-32.943	1.00	65.75	
ATOM	49102	N	LEU Q	53	122.053	83.000	-48.034	1.00	62.38	N	ATOM	49152	CD1	ILE Q	59	118.860	82.906	-36.058	1.00	65.75
ATOM	49103	CA	LEU Q	53	123.311	83.680	-47.750	1.00	62.38	C	ATOM	49153	N	ILE Q	60	116.145	83.072	-32.334	1.00	33.22
ATOM	49104	C	LEU Q	53	123.259	85.180	-47.996	1.00	62.38	C	ATOM	49154	CA	ILE Q	60	115.365	82.953	-31.110	1.00	33.22
ATOM	49105	O	LEU Q	53	123.152	85.619	-49.138	1.00	62.38	O	ATOM	49155	C	ILE Q	60	115.803	81.723	-30.316	1.00	33.22
ATOM	49106	CB	LEU Q	53	124.410	83.069	-48.607	1.00	46.91	C	ATOM	49156	O	ILE Q	60	115.974	80.645	-30.884	1.00	33.22
ATOM	49107	CG	LEU Q	53	125.842	83.365	-48.199	1.00	46.91	C	ATOM	49157	CB	ILE Q	60	113.829	82.891	-31.478	1.00	42.19
ATOM	49108	CD1	LEU Q	53	126.010	83.182	-46.695	1.00	46.91	C	ATOM	49158	CG1	ILE Q	60	112.971	83.541	-30.387	1.00	42.19
ATOM	49109	CD2	LEU Q	53	126.757	82.427	-48.964	1.00	46.91	C	ATOM	49159	CG2	ILE Q	60	113.409	81.458	-31.741	1.00	42.19
ATOM	49110	N	GLY Q	54	123.347	85.962	-46.925	1.00	53.05	N	ATOM	49160	CD1	ILE Q	60	112.972	82.827	-29.068	1.00	42.19
ATOM	49111	CA	GLY Q	54	123.299	87.407	-47.063	1.00	53.05	C	ATOM	49161	N	GLU Q	61	116.005	81.902	-29.011	1.00	56.11
ATOM	49112	C	GLY Q	54	122.139	88.031	-46.308	1.00	53.05	C	ATOM	49162	CA	GLU Q	61	116.415	80.802	-28.136	1.00	56.11
ATOM	49113	O	GLY Q	54	122.108	89.253	-46.094	1.00	53.05	O	ATOM	49163	C	GLU Q	61	115.380	79.691	-28.264	1.00	56.11
ATOM	49114	N	ASP Q	55	121.188	87.189	-45.902	1.00	62.19	N	ATOM	49164	O	GLU Q	61	114.184	79.915	-28.096	1.00	56.11
ATOM	49115	CA	ASP Q	55	120.013	87.635	-45.154	1.00	62.19	C	ATOM	49165	CB	GLU Q	61	116.508	81.271	-26.674	1.00	57.60
ATOM	49116	C	ASP Q	55	120.313	88.058	-43.721	1.00	62.19	C	ATOM	49166	CG	GLU Q	61	116.925	80.180	-25.696	1.00	57.60
ATOM	49117	O	ASP Q	55	121.178	87.493	-43.055	1.00	62.19	O	ATOM	49167	CD	GLU Q	61	117.018	80.634	-24.226	1.00	57.60
ATOM	49118	CB	ASP Q	55	118.965	86.523	-45.086	1.00	94.54	C	ATOM	49168	OE1	GLU Q	61	117.312	79.764	-23.374	1.00	57.60
ATOM	49119	CG	ASP Q	55	118.108	86.450	-46.319	1.00	94.54	C	ATOM	49169	OE2	GLU Q	61	116.808	81.830	-23.907	1.00	57.60
ATOM	49120	OD1	ASP Q	55	117.578	87.500	-46.730	1.00	94.54	O	ATOM	49170	N	SER Q	62	115.838	78.489	-28.572	1.00	43.31
ATOM	49121	OD2	ASP Q	55	117.950	85.339	-46.866	1.00	94.54	O	ATOM	49171	CA	SER Q	62	114.921	77.374	-28.734	1.00	43.31
ATOM	49122	N	VAL Q	56	119.596	89.064	-43.248	1.00	51.04	N	ATOM	49172	C	SER Q	62	115.359	76.147	-27.958	1.00	43.31
ATOM	49123	CA	VAL Q	56	119.749	89.494	-41.866	1.00	51.04	C	ATOM	49173	O	SER Q	62	116.359	76.168	-27.234	1.00	43.31
ATOM	49124	C	VAL Q	56	118.552	88.846	-41.205	1.00	51.04	C	ATOM	49174	CB	SER Q	62	114.818	77.008	-30.211	1.00	49.39
ATOM	49125	O	VAL Q	56	117.424	89.019	-41.662	1.00	51.04	O	ATOM	49175	OG	SER Q	62	114.650	78.171	-30.994	1.00	49.39
ATOM	49126	CB	VAL Q	56	119.645	91.028	-41.700	1.00	45.36	C	ATOM	49176	N	ARG Q	63	114.593	75.076	-28.122	1.00	59.36
ATOM	49127	CG1	VAL Q	56	119.416	91.382	-40.237	1.00	45.36	C	ATOM	49177	CA	ARG Q	63	114.895	73.805	-27.489	1.00	59.36
ATOM	49128	CG2	VAL Q	56	120.924	91.687	-42.201	1.00	45.36	C	ATOM	49178	C	ARG Q	63	115.946	73.160	-28.384	1.00	59.36
ATOM	49129	N	VAL Q	57	118.786	88.092	-40.142	1.00	37.80	N	ATOM	49179	O	ARG Q	63	115.865	73.253	-29.612	1.00	59.36
ATOM	49130	CA	VAL Q	57	117.687	87.417	-39.479	1.00	37.80	C	ATOM	49180	CB	ARG Q	63	113.644	72.942	-27.433	1.00	51.92
ATOM	49131	C	VAL Q	57	117.653	87.620	-37.971	1.00	37.80	C	ATOM	49181	CG	ARG Q	63	113.908	71.501	-27.107	1.00	51.92
ATOM	49132	O	VAL Q	57	118.623	88.085	-37.361	1.00	37.80	O	ATOM	49182	CD	ARG Q	63	113.376	70.663	-28.226	1.00	51.92
ATOM	49133	CB	VAL Q	57	117.748	85.895	-39.760	1.00	31.15	C	ATOM	49183	NE	ARG Q	63	111.990	71.018	-28.484	1.00	51.92
ATOM	49134	CG1	VAL Q	57	117.698	85.635	-41.238	1.00	31.15	C	ATOM	49184	CZ	ARG Q	63	111.294	70.583	-29.525	1.00	51.92
ATOM	49135	CG2	VAL Q	57	119.032	85.316	-39.199	1.00	31.15	C	ATOM	49185	NH1	ARG Q	63	111.860	69.773	-30.413	1.00	51.92
ATOM	49136	N	GLU Q	58	116.507	87.285	-37.385	1.00	58.45	N	ATOM	49186	NH2	ARG Q	63	110.030	70.958	-29.668	1.00	51.92
ATOM	49137	CA	GLU Q	58	116.334	87.336	-35.942	1.00	58.45	C	ATOM	49187	N	PRO Q	64	116.947	72.497	-27.784	1.00	43.99
ATOM	49138	C	GLU Q	58	116.344	85.882	-35.482	1.00	58.45	C	ATOM	49188	CA	PRO Q	64	117.976	71.878	-28.612	1.00	43.99
ATOM	49139	O	GLU Q	58	115.576	85.052	-35.961	1.00	58.45	O	ATOM	49189	C	PRO Q	64	117.396	71.154	-29.815	1.00	43.99
ATOM	49140	CB	GLU Q	58	115.018	87.988	-35.540	1.00	66.45	C	ATOM	49190	O	PRO Q	64	116.373	70.478	-29.718	1.00	43.99
ATOM	49141	CG	GLU Q	58	115.017	89.488	-35.652	1.00	66.45	C	ATOM	49191	CB	PRO Q	64	118.692	70.963	-27.628	1.00	26.58
ATOM	49142	CD	GLU Q	58	113.957	90.126	-34.772	1.00	66.45	C	ATOM	49192	CG	PRO Q	64	118.613	71.755	-26.357	1.00	26.58
ATOM	49143	OE1	GLU Q	58	112.837	89.567	-34.690	1.00	66.45	O	ATOM	49193	CD	PRO Q	64	117.157	72.168	-26.364	1.00	26.58
ATOM	49144	OE2	GLU Q	58	114.241	91.188	-34.169	1.00	66.45	O	ATOM	49194	N	ILE Q	65	118.059	71.326	-30.952	1.00	44.05
ATOM	49145	N	ILE Q	59	117.250	85.591	-34.562	1.00	36.48	N	ATOM	49195	CA	ILE Q	65	117.650	70.726	-32.213	1.00	44.05
ATOM	49146	CA	ILE Q	59	117.433	84.270	-33.995	1.00	36.48	C	ATOM	49196	C	ILE Q	65	118.725	69.753	-32.631	1.00	44.05
ATOM	49147	C	ILE Q	59	116.670	84.240	-32.677	1.00	36.48	C	ATOM	49197	O	ILE Q	65	118.461	68.698	-33.204	1.00	44.05



Table 1: Sheet 494/521

ATOM	49198	CB	ILE Q	65	117.567	71.789	-33.296	1.00	41.53	C	ATOM	49248	N	PHE Q	71	119.072	77.460	-31.566	1.00	43.56	N
ATOM	49199	CG1	ILE Q	65	116.517	72.821	-32.897	1.00	41.53	C	ATOM	49249	CA	PHE Q	71	118.403	78.662	-32.054	1.00	43.56	C
ATOM	49200	CG2	ILE Q	65	117.309	71.140	-34.661	1.00	41.53	C	ATOM	49250	C	PHE Q	71	117.641	78.416	-33.347	1.00	43.56	C
ATOM	49201	CD1	ILE Q	65	116.578	74.101	-33.685	1.00	41.53	C	ATOM	49251	O	PHE Q	71	118.053	77.621	-34.194	1.00	43.56	O
ATOM	49202	N	SER Q	66	119.949	70.155	-32.334	1.00	45.67	N	ATOM	49252	CB	PHE Q	71	119.423	79.791	-32.252	1.00	33.40	C
ATOM	49203	CA	SER Q	66	121.137	69.408	-32.662	1.00	45.67	C	ATOM	49253	CG	PHE Q	71	119.889	80.430	-30.962	1.00	33.40	C
ATOM	49204	C	SER Q	66	122.124	69.739	-31.558	1.00	45.67	O	ATOM	49254	CD1	PHE Q	71	119.101	81.370	-30.308	1.00	33.40	C
ATOM	49205	O	SER Q	66	121.796	70.501	-30.651	1.00	45.67	O	ATOM	49255	CD2	PHE Q	71	121.111	80.069	-30.387	1.00	33.40	C
ATOM	49206	CB	SER Q	66	121.661	69.903	-34.002	1.00	70.24	C	ATOM	49256	CE1	PHE Q	71	119.510	81.942	-29.108	1.00	33.40	C
ATOM	49207	OG	SER Q	66	123.004	69.532	-34.179	1.00	70.24	O	ATOM	49257	CE2	PHE Q	71	121.536	80.638	-29.172	1.00	33.40	C
ATOM	49208	N	LYS Q	67	123.310	69.146	-31.606	1.00	61.30	N	ATOM	49258	CZ	PHE Q	71	120.729	81.577	-28.534	1.00	33.40	C
ATOM	49209	CA	LYS Q	67	124.350	69.446	-30.627	1.00	61.30	C	ATOM	49259	N	ARG Q	72	116.511	79.095	-33.484	1.00	45.46	N
ATOM	49210	C	LYS Q	67	124.897	70.751	-31.132	1.00	61.30	C	ATOM	49260	CA	ARG Q	72	115.534	80.332	-35.321	1.00	45.46	C
ATOM	49211	O	LYS Q	67	125.081	70.891	-32.328	1.00	61.30	O	ATOM	49261	C	ARG Q	72	115.692	78.961	-34.675	1.00	45.46	C
ATOM	49212	CB	LYS Q	67	125.470	68.431	-30.715	1.00	31.42	C	ATOM	49262	O	ARG Q	72	115.445	81.350	-34.621	1.00	45.46	O
ATOM	49213	CG	LYS Q	67	126.784	68.921	-30.131	1.00	31.42	C	ATOM	49263	CB	ARG Q	72	114.329	78.390	-34.306	1.00	32.17	C
ATOM	49214	CD	LYS Q	67	127.891	68.002	-30.545	1.00	31.42	C	ATOM	49264	CG	ARG Q	72	114.389	76.993	-33.725	1.00	32.17	C
ATOM	49215	CE	LYS Q	67	129.199	68.358	-29.900	1.00	31.42	C	ATOM	49265	CD	ARG Q	72	113.001	76.459	-33.439	1.00	32.17	C
ATOM	49216	NZ	LYS Q	67	130.260	67.474	-30.463	1.00	31.42	N	ATOM	49266	NE	ARG Q	72	112.337	77.247	-32.413	1.00	32.17	N
ATOM	49217	N	ARG Q	68	125.185	71.713	-30.278	1.00	63.24	N	ATOM	49267	CZ	ARG Q	72	111.027	77.236	-32.208	1.00	32.17	C
ATOM	49218	CA	ARG Q	68	125.707	72.944	-30.858	1.00	63.24	C	ATOM	49268	NH1	ARG Q	72	110.248	76.474	-32.969	1.00	32.17	N
ATOM	49219	C	ARG Q	68	124.669	73.476	-31.863	1.00	63.24	C	ATOM	49269	NH2	ARG Q	72	110.500	77.981	-31.243	1.00	47.57	N
ATOM	49220	O	ARG Q	68	124.954	73.606	-33.050	1.00	63.24	O	ATOM	49270	N	VAL Q	73	115.510	80.359	-36.652	1.00	47.57	N
ATOM	49221	CB	ARG Q	68	127.033	72.628	-31.576	1.00	63.85	C	ATOM	49271	CA	VAL Q	73	115.382	81.617	-37.359	1.00	47.57	C
ATOM	49222	CG	ARG Q	68	127.527	73.694	-32.519	1.00	63.85	C	ATOM	49272	C	VAL Q	73	113.996	82.165	-37.152	1.00	47.57	C
ATOM	49223	CD	ARG Q	68	129.017	73.839	-32.443	1.00	63.85	C	ATOM	49273	O	VAL Q	73	113.053	81.738	-37.807	1.00	47.57	O
ATOM	49224	NE	ARG Q	68	129.375	75.230	-32.672	1.00	63.85	N	ATOM	49274	CB	VAL Q	73	115.620	81.473	-38.865	1.00	199.84	C
ATOM	49225	CZ	ARG Q	68	129.197	75.855	-33.828	1.00	63.85	C	ATOM	49275	CG1	VAL Q	73	115.609	82.828	-39.502	1.00	23.37	C
ATOM	49226	NH1	ARG Q	68	128.673	75.200	-34.848	1.00	63.85	N	ATOM	49276	CG2	VAL Q	73	116.942	80.838	-39.122	1.00	23.37	C
ATOM	49227	NH2	ARG Q	68	129.530	77.133	-33.963	1.00	63.85	N	ATOM	49277	N	LEU Q	74	113.873	83.118	-36.237	1.00	56.34	N
ATOM	49228	N	LYS Q	69	123.464	73.760	-31.376	1.00	44.41	N	ATOM	49278	CA	LEU Q	74	112.583	83.717	-35.947	1.00	56.34	C
ATOM	49229	CA	LYS Q	69	122.353	74.250	-32.199	1.00	44.41	C	ATOM	49279	C	LEU Q	74	112.030	84.361	-37.199	1.00	56.34	C
ATOM	49230	C	LYS Q	69	121.132	74.387	-31.280	1.00	44.41	C	ATOM	49280	O	LEU Q	74	110.930	84.038	-37.620	1.00	56.34	O
ATOM	49231	O	LYS Q	69	120.390	73.427	-31.033	1.00	44.41	O	ATOM	49281	CB	LEU Q	74	112.713	84.775	-34.854	1.00	24.57	C
ATOM	49232	CB	LYS Q	69	122.058	73.268	-33.343	1.00	29.52	C	ATOM	49282	CG	LEU Q	74	111.454	85.058	-34.031	1.00	24.57	C
ATOM	49233	CG	LYS Q	69	121.072	73.784	-34.347	1.00	29.52	C	ATOM	49283	CD1	LEU Q	74	111.675	86.311	-33.193	1.00	24.57	C
ATOM	49234	CD	LYS Q	69	121.071	72.963	-35.650	1.00	29.52	C	ATOM	49284	CD2	LEU Q	74	110.251	85.230	-34.947	1.00	24.57	C
ATOM	49235	CE	LYS Q	69	119.907	73.422	-36.558	1.00	29.52	C	ATOM	49285	N	ARG Q	75	112.793	85.270	-37.797	1.00	63.00	N
ATOM	49236	NZ	LYS Q	69	119.645	72.593	-37.759	1.00	29.52	C	ATOM	49286	CA	ARG Q	75	112.331	85.953	-39.000	1.00	63.00	C
ATOM	49237	N	ARG Q	70	120.963	75.603	-30.767	1.00	50.87	N	ATOM	49287	O	ARG Q	75	113.402	86.735	-39.755	1.00	63.00	C
ATOM	49238	CA	ARG Q	70	119.896	75.951	-29.840	1.00	50.87	C	ATOM	49288	O	ARG Q	75	114.538	86.897	-39.299	1.00	63.00	C
ATOM	49239	C	ARG Q	70	119.181	77.228	-30.263	1.00	50.87	C	ATOM	49289	CB	ARG Q	75	111.190	86.906	-38.651	1.00	64.75	C
ATOM	49240	O	ARG Q	70	118.742	78.006	-29.411	1.00	50.87	O	ATOM	49290	CG	ARG Q	75	111.618	88.042	-37.779	1.00	64.75	C
ATOM	49241	CB	ARG Q	70	120.479	76.178	-28.445	1.00	42.60	C	ATOM	49291	CD	ARG Q	75	110.458	88.924	-37.447	1.00	64.75	C
ATOM	49242	CG	ARG Q	70	120.817	74.946	-27.645	1.00	42.60	C	ATOM	49292	NE	ARG Q	75	110.914	90.141	-36.787	1.00	64.75	N
ATOM	49243	CD	ARG Q	70	121.860	74.051	-28.271	1.00	42.60	C	ATOM	49293	CZ	ARG Q	75	111.559	91.134	-37.397	1.00	64.75	N
ATOM	49244	NE	ARG Q	70	122.017	72.884	-27.410	1.00	42.60	N	ATOM	49294	NH1	ARG Q	75	111.825	91.066	-38.696	1.00	64.75	N
ATOM	49245	CZ	ARG Q	70	122.529	71.717	-27.778	1.00	42.60	C	ATOM	49295	NH2	ARG Q	75	111.954	92.193	-36.703	1.00	64.75	H
ATOM	49246	NH1	ARG Q	70	122.958	71.530	-29.014	1.00	42.60	N	ATOM	49296	N	LEU Q	76	113.007	87.239	-40.915	1.00	63.64	N
ATOM	49247	NH2	ARG Q	70	122.590	70.726	-26.902	1.00	42.60	N	ATOM	49297	CA	LEU Q	76	113.911	87.994	-41.760	1.00	63.64	C



ATOM	49298	C	LEU Q	76	113.747	89.490	-41.531	1.00	63.64	C	ATOM	49348	CE	MET Q	82	126.693	86.760	-50.654	1.00	95.50	C
ATOM	49299	O	LEU Q	76	112.641	90.008	-41.577	1.00	63.64	O	ATOM	49349	N	ASP Q	83	127.744	92.730	-48.313	1.00	62.81	N
ATOM	49300	CB	LEU Q	76	113.642	87.640	-43.222	1.00	49.87	C	ATOM	49350	CA	ASP Q	83	128.766	93.632	-47.813	1.00	62.81	C
ATOM	49301	CG	LEU Q	76	114.612	88.220	-44.238	1.00	49.87	C	ATOM	49351	C	ASP Q	83	129.259	93.123	-46.459	1.00	62.81	C
ATOM	49302	CD1	LEU Q	76	114.385	87.570	-45.577	1.00	49.87	C	ATOM	49352	O	ASP Q	83	130.413	93.347	-46.084	1.00	62.81	O
ATOM	49303	CD2	LEU Q	76	114.418	89.719	-44.326	1.00	49.87	C	ATOM	49353	CB	ASP Q	83	128.206	95.051	-47.679	1.00	87.50	C
ATOM	49304	N	VAL Q	77	114.855	90.183	-41.296	1.00	56.17	N	ATOM	49354	CG	ASP Q	83	127.156	95.167	-46.593	1.00	87.50	C
ATOM	49305	CA	VAL Q	77	114.826	91.621	-41.052	1.00	56.17	C	ATOM	49355	OD1	ASP Q	83	126.125	94.468	-46.676	1.00	87.50	O
ATOM	49306	C	VAL Q	77	115.059	92.433	-42.323	1.00	56.17	C	ATOM	49356	OD2	ASP Q	83	127.365	95.963	-45.655	1.00	87.50	O
ATOM	49307	O	VAL Q	77	114.405	93.445	-42.553	1.00	56.17	O	ATOM	49357	N	LEU Q	84	128.379	92.426	-45.738	1.00	60.56	N
ATOM	49308	CB	VAL Q	77	115.878	92.017	-40.019	1.00	38.88	C	ATOM	49358	CA	LEU Q	84	128.709	91.870	-44.427	1.00	60.56	C
ATOM	49309	CG1	VAL Q	77	115.942	93.519	-39.899	1.00	38.88	C	ATOM	49359	C	LEU Q	84	129.366	90.503	-44.549	1.00	60.56	C
ATOM	49310	CG2	VAL Q	77	115.540	91.405	-38.688	1.00	38.88	C	ATOM	49360	O	LEU Q	84	130.389	90.223	-43.923	1.00	60.56	O
ATOM	49311	N	GLU Q	78	116.019	92.005	-43.128	1.00	57.11	N	ATOM	49361	CB	LEU Q	84	127.451	91.766	-43.577	1.00	41.11	C
ATOM	49312	CA	GLU Q	78	116.312	92.669	-44.384	1.00	57.11	C	ATOM	49362	CG	LEU Q	84	126.970	93.129	-43.091	1.00	41.11	C
ATOM	49313	C	GLU Q	78	117.095	91.685	-45.238	1.00	57.11	C	ATOM	49363	CD1	LEU Q	84	125.704	92.981	-42.255	1.00	41.11	C
ATOM	49314	O	GLU Q	78	118.106	91.132	-44.805	1.00	57.11	O	ATOM	49364	CD2	LEU Q	84	128.088	93.775	-42.286	1.00	41.11	C
ATOM	49315	CB	GLU Q	78	117.110	93.956	-44.167	1.00	89.48	C	ATOM	49365	N	VAL Q	85	128.761	89.644	-45.353	1.00	41.81	N
ATOM	49316	CG	GLU Q	78	118.506	93.764	-43.646	1.00	89.48	C	ATOM	49366	CA	VAL Q	85	129.309	88.324	-45.573	1.00	41.81	C
ATOM	49317	CD	GLU Q	78	119.432	94.885	-44.081	1.00	89.48	C	ATOM	49367	C	VAL Q	85	130.779	88.503	-45.959	1.00	41.81	C
ATOM	49318	OE1	GLU Q	79	119.637	95.045	-45.305	1.00	89.48	O	ATOM	49368	O	VAL Q	85	131.644	87.764	-45.495	1.00	41.81	O
ATOM	49319	OE2	GLU Q	78	119.954	95.606	-43.203	1.00	89.48	O	ATOM	49369	CB	VAL Q	85	128.547	87.605	-46.710	1.00	85.68	C
ATOM	49320	N	SER Q	79	116.603	91.453	-46.449	1.00	67.00	N	ATOM	49370	CG1	VAL Q	85	129.130	86.223	-46.945	1.00	85.68	C
ATOM	49321	CA	SER Q	79	117.229	90.510	-47.361	1.00	67.00	C	ATOM	49371	CG2	VAL Q	85	127.071	87.507	-46.357	1.00	85.68	C
ATOM	49322	C	SER Q	79	118.495	91.062	-47.990	1.00	67.00	C	ATOM	49372	N	GLU Q	86	131.047	89.505	-46.797	1.00	57.70	N
ATOM	49323	O	SER Q	79	118.799	92.249	-47.871	1.00	67.00	O	ATOM	49373	CA	GLU Q	86	132.398	89.813	-47.269	1.00	57.70	C
ATOM	49324	CB	SER Q	79	116.239	90.111	-48.465	1.00	79.01	C	ATOM	49374	C	GLU Q	86	133.401	89.948	-46.139	1.00	57.70	C
ATOM	49325	OG	SER Q	79	116.763	89.080	-49.286	1.00	79.01	O	ATOM	49375	O	GLU Q	86	134.423	89.265	-46.130	1.00	57.70	O
ATOM	49326	N	GLY Q	80	119.222	90.164	-48.647	1.00	102.29	N	ATOM	49376	CB	GLU Q	86	132.390	91.101	-48.090	1.00	100.40.11	C
ATOM	49327	CA	GLY Q	80	120.455	90.492	-49.338	1.00	102.29	C	ATOM	49377	CG	GLU Q	86	131.752	90.924	-49.436	1.00	100.40.11	C
ATOM	49328	C	GLY Q	80	121.303	91.662	-48.881	1.00	102.29	C	ATOM	49378	CD	GLU Q	86	132.266	89.682	-50.122	1.00	100.40.11	C
ATOM	49329	O	GLY Q	80	120.820	92.775	-48.682	1.00	102.29	O	ATOM	49379	OE1	GLU Q	86	133.498	89.570	-50.281	1.00	100.40.11	O
ATOM	49330	N	ARG Q	81	122.592	91.384	-48.730	1.00	70.68	N	ATOM	49380	OE2	GLU Q	86	131.445	88.815	-50.491	1.00	100.40.11	O
ATOM	49331	CA	ARG Q	81	123.588	92.366	-48.333	1.00	70.68	C	ATOM	49381	N	LYS Q	87	133.111	90.846	-45.198	1.00	61.49	N
ATOM	49332	C	ARG Q	81	124.882	91.664	-47.940	1.00	70.68	C	ATOM	49382	CA	LYS Q	87	133.989	91.053	-44.059	1.00	61.49	C
ATOM	49333	O	ARG Q	81	125.223	91.503	-46.757	1.00	70.68	O	ATOM	49383	C	LYS Q	87	134.331	89.689	-43.499	1.00	61.49	C
ATOM	49334	CB	ARG Q	81	123.082	93.237	-47.198	1.00	57.12	C	ATOM	49384	O	LYS Q	87	135.492	89.294	-43.471	1.00	61.49	O
ATOM	49335	CD	ARG Q	81	122.667	92.517	-45.976	1.00	57.12	C	ATOM	49385	CB	LYS Q	87	133.297	91.867	-42.969	1.00	81.94	C
ATOM	49336	CD	ARG Q	81	122.502	93.571	-44.948	1.00	57.12	C	ATOM	49386	CG	LYS Q	87	133.155	93.345	-43.238	1.00	81.94	C
ATOM	49337	NE	ARG Q	81	123.755	94.292	-44.808	1.00	57.12	N	ATOM	49387	CD	LYS Q	87	132.508	93.999	-42.030	1.00	81.94	C
ATOM	49338	CZ	ARG Q	81	123.866	95.490	-44.252	1.00	57.12	C	ATOM	49388	CE	LYS Q	87	132.107	95.438	-42.295	1.00	81.94	C
ATOM	49339	NH1	ARG Q	81	122.790	96.110	-43.788	1.00	57.12	N	ATOM	49389	NZ	LYS Q	87	131.074	95.900	-41.308	1.00	81.94	N
ATOM	49340	NH2	ARG Q	81	125.055	96.057	-44.143	1.00	57.12	N	ATOM	49390	N	TYR Q	88	133.301	88.974	-43.062	1.00	72.68	N
ATOM	49341	N	MET Q	82	125.589	91.256	-48.988	1.00	68.75	N	ATOM	49391	CA	TYR Q	88	133.467	87.643	-42.499	1.00	72.68	C
ATOM	49342	CA	MET Q	82	126.853	90.550	-48.905	1.00	68.75	C	ATOM	49392	C	TYR Q	88	134.338	86.715	-43.365	1.00	72.68	C
ATOM	49343	C	MET Q	82	127.975	91.427	-48.369	1.00	68.75	C	ATOM	49393	O	TYR Q	88	135.237	86.042	-42.857	1.00	72.68	O
ATOM	49344	O	MET Q	82	129.044	90.932	-48.024	1.00	68.75	O	ATOM	49394	CB	TYR Q	88	132.096	86.998	-42.279	1.00	56.24	C
ATOM	49345	CB	MET Q	82	127.227	90.044	-50.297	1.00	95.50	C	ATOM	49395	CG	TYR Q	88	132.191	85.541	-41.905	1.00	56.24	C
ATOM	49346	CG	MET Q	82	126.064	89.431	-51.069	1.00	95.50	C	ATOM	49396	CD1	TYR Q	88	132.688	85.156	-40.664	1.00	56.24	C
ATOM	49347	SD	MET Q	82	125.403	87.968	-50.267	1.00	95.50	S	ATOM	49397	CD2	TYR Q	88	131.830	84.544	-42.812	1.00	56.24	C



ATOM	49598	C	LYS R	23	176.662	139.797	-67.566	1.00102.77	C	ATOM	49648	CZ	PHE R	29	174.531	135.220	-70.446	1.00	79.91	C
ATOM	49599	O	LYS R	23	176.227	140.080	-68.681	1.00102.77	O	ATOM	49649	N	ASP R	30	170.906	133.392	-75.194	1.00	71.07	N
ATOM	49600	CB	LYS R	23	175.841	138.011	-66.023	1.00122.90	C	ATOM	49650	CA	ASP R	30	170.064	132.137	-74.950	1.00	71.07	C
ATOM	49601	CG	LYS R	23	174.405	138.399	-66.305	1.00122.90	C	ATOM	49651	C	ASP R	30	170.902	131.297	-74.234	1.00	71.07	C
ATOM	49602	CD	LYS R	23	173.571	138.307	-65.040	1.00122.90	C	ATOM	49652	O	ASP R	30	171.592	130.403	-74.869	1.00	71.07	O
ATOM	49603	CE	LYS R	23	172.185	138.887	-65.251	1.00122.90	C	ATOM	49653	CB	ASP R	30	169.544	131.680	-76.276	1.00	70.61	C
ATOM	49604	NZ	LYS R	23	171.398	138.921	-63.987	1.00122.90	N	ATOM	49654	CG	ASP R	30	168.801	130.379	-76.107	1.00	70.61	C
ATOM	49605	N	ALA R	24	177.008	140.713	-66.664	1.00102.20	N	ATOM	49655	OD1	ASP R	30	168.164	130.199	-75.053	1.00	70.61	O
ATOM	49606	CA	ALA R	24	176.904	142.147	-66.922	1.00102.20	C	ATOM	49656	OD2	ASP R	30	168.841	129.539	-77.029	1.00	70.61	O
ATOM	49607	C	ALA R	24	177.703	142.523	-68.157	1.00102.20	C	ATOM	49657	N	LEU R	31	170.850	131.218	-72.908	1.00	55.78	N
ATOM	49608	O	ALA R	24	177.202	143.203	-69.050	1.00102.20	O	ATOM	49658	CA	LEU R	31	171.609	130.284	-72.095	1.00	55.78	C
ATOM	49609	CB	ALA R	24	177.411	142.932	-65.718	1.00124.99	C	ATOM	49659	C	LEU R	31	171.484	128.828	-72.548	1.00	55.78	C
ATOM	49610	N	THR R	25	178.956	142.085	-68.193	1.00112.47	N	ATOM	49660	O	LEU R	31	172.296	127.975	-72.170	1.00	55.78	O
ATOM	49611	CA	THR R	25	179.839	142.352	-69.319	1.00112.47	C	ATOM	49661	CB	LEU R	31	171.171	130.407	-70.639	1.00	72.53	C
ATOM	49612	C	THR R	25	179.363	141.489	-70.479	1.00112.47	C	ATOM	49662	CG	LEU R	31	171.841	131.537	-69.861	1.00	72.53	C
ATOM	49613	O	THR R	25	180.075	140.582	-70.908	1.00112.47	O	ATOM	49663	CD1	LEU R	31	171.119	131.782	-68.545	1.00	72.53	C
ATOM	49614	CB	THR R	25	181.296	141.964	-68.978	1.00113.86	C	ATOM	49664	CD2	LEU R	31	173.300	131.165	-69.620	1.00	72.53	C
ATOM	49615	CG1	THR R	25	181.724	142.682	-67.814	1.00113.86	O	ATOM	49665	N	ARG R	32	170.483	128.550	-73.375	1.00	52.66	N
ATOM	49616	CG2	THR R	25	182.227	142.289	-70.137	1.00113.86	C	ATOM	49666	CA	ARG R	32	170.226	127.200	-73.856	1.00	52.66	C
ATOM	49617	N	LEU R	26	178.161	141.769	-70.983	1.00	95.77	ATOM	49667	C	ARG R	32	171.007	126.858	-75.118	1.00	52.66	C
ATOM	49618	CA	LEU R	26	177.591	140.983	-72.078	1.00	95.77	ATOM	49668	O	ARG R	32	171.202	125.687	-75.429	1.00	52.66	O
ATOM	49619	C	LEU R	26	176.106	141.285	-72.326	1.00	95.77	ATOM	49669	CB	ARG R	32	168.730	127.055	-74.105	1.00	82.47	C
ATOM	49620	O	LEU R	26	175.419	141.835	-71.465	1.00	95.77	ATOM	49670	CG	ARG R	32	168.228	125.644	-74.167	1.00	82.47	C
ATOM	49621	CB	LEU R	26	177.780	139.497	-71.762	1.00	77.46	ATOM	49671	CD	ARG R	32	166.834	125.591	-73.570	1.00	82.47	C
ATOM	49622	CG	LEU R	26	177.206	138.384	-72.630	1.00	77.46	ATOM	49672	NE	ARG R	32	166.876	125.838	-72.132	1.00	82.47	N
ATOM	49623	CD1	LEU R	26	177.471	138.631	-74.110	1.00	77.46	ATOM	49673	CZ	ARG R	32	165.826	126.178	-71.392	1.00	82.47	C
ATOM	49624	CD2	LEU R	26	177.839	137.087	-72.155	1.00	77.46	ATOM	49674	NH1	ARG R	32	164.631	126.322	-71.947	1.00	82.47	N
ATOM	49625	N	GLY R	27	175.618	140.917	-73.508	1.00104.48	N	ATOM	49675	NH2	ARG R	32	165.975	126.373	-70.091	1.00	82.47	N
ATOM	49626	CA	GLY R	27	174.224	141.159	-73.843	1.00104.48	C	ATOM	49676	N	ASP R	33	171.457	127.886	-75.834	1.00	81.08	N
ATOM	49627	C	GLY R	27	173.285	140.052	-73.400	1.00104.48	C	ATOM	49677	CA	ASP R	33	172.209	127.724	-77.081	1.00	81.08	C
ATOM	49628	O	GLY R	27	173.652	139.215	-72.576	1.00104.48	O	ATOM	49678	C	ASP R	33	173.599	127.133	-76.890	1.00	81.08	C
ATOM	49629	N	GLU R	28	172.066	140.046	-73.936	1.00	98.26	ATOM	49679	O	ASP R	33	174.507	127.798	-76.379	1.00	81.08	O
ATOM	49630	CA	GLU R	28	171.085	139.025	-73.581	1.00	98.26	ATOM	49680	CB	ASP R	33	172.330	129.073	-77.789	1.00	90.68	C
ATOM	49631	C	GLU R	28	171.246	137.844	-74.515	1.00	98.26	ATOM	49681	CG	ASP R	33	173.210	129.009	-79.015	1.00	90.68	C
ATOM	49632	O	GLU R	28	170.972	137.943	-75.710	1.00	98.26	ATOM	49682	OD1	ASP R	33	173.091	128.026	-79.779	1.00	90.68	O
ATOM	49633	CB	GLU R	28	169.657	139.563	-73.695	1.00200.93	C	ATOM	49683	OD2	ASP R	33	174.010	129.948	-79.216	1.00	90.68	O
ATOM	49634	CG	GLU R	28	169.552	141.069	-73.773	1.00200.93	C	ATOM	49684	N	TYR R	34	173.770	125.893	-77.338	1.00	64.06	N
ATOM	49635	CD	GLU R	28	169.748	141.585	-75.180	1.00200.93	C	ATOM	49685	CA	TYR R	34	175.043	125.213	-77.181	1.00	64.06	C
ATOM	49636	OE1	GLU R	28	170.793	141.276	-75.792	1.00200.93	O	ATOM	49686	C	TYR R	34	176.045	125.389	-78.313	1.00	64.06	C
ATOM	49637	OE2	GLU R	28	168.853	142.301	-75.676	1.00200.93	O	ATOM	49687	O	TYR R	34	177.003	124.619	-78.414	1.00	64.06	O
ATOM	49638	N	PHE R	29	171.684	136.722	-73.957	1.00	58.92	ATOM	49688	CB	TYR R	34	174.803	123.726	-76.955	1.00	66.66	C
ATOM	49639	CA	PHE R	29	171.907	135.517	-74.738	1.00	58.92	ATOM	49689	CG	TYR R	34	174.011	123.064	-78.044	1.00	66.66	C
ATOM	49640	C	PHE R	29	170.974	134.402	-74.341	1.00	58.92	ATOM	49690	CD1	TYR R	34	174.530	122.917	-79.324	1.00	66.66	C
ATOM	49641	O	PHE R	29	170.334	134.451	-73.295	1.00	58.92	ATOM	49691	CD2	TYR R	34	172.737	122.583	-77.794	1.00	66.66	C
ATOM	49642	CB	PHE R	29	173.344	135.061	-74.551	1.00	79.91	ATOM	49692	CE1	TYR R	34	173.786	122.302	-80.335	1.00	66.66	C
ATOM	49643	CG	PHE R	29	173.791	135.097	-73.129	1.00	79.91	ATOM	49693	CE2	TYR R	34	171.987	121.967	-78.788	1.00	66.66	C
ATOM	49644	CD1	PHE R	29	173.663	133.982	-72.321	1.00	79.91	ATOM	49694	CZ	TYR R	34	172.511	121.830	-80.054	1.00	66.66	C
ATOM	49645	CD2	PHE R	29	174.294	136.271	-72.582	1.00	79.91	ATOM	49695	OH	TYR R	34	171.745	121.233	-81.027	1.00	66.66	O
ATOM	49646	CE1	PHE R	29	174.031	134.037	-70.984	1.00	79.91	ATOM	49696	N	ARG R	35	175.843	126.391	-79.160	1.00	86.72	N
ATOM	49647	CE2	PHE R	29	174.663	136.338	-71.247	1.00	79.91	ATOM	49697	CA	ARG R	35	176.766	126.607	-80.266	1.00	86.72	C



ATOM	49498	N	LYS Q 100	152.700	79.707	-41.302	1.00200.93	N	ATOM	49548	CD	PRO R 16	190.585	139.815	-53.888	1.00149.59	C
ATOM	49499	CA	LYS Q 100	154.080	79.286	-41.567	1.00200.93	C	ATOM	49549	N	SER R 17	187.422	139.126	-55.455	1.00200.93	N
ATOM	49500	C	LYS Q 100	154.547	79.998	-42.835	1.00200.93	C	ATOM	49550	CA	SER R 17	186.485	138.608	-56.453	1.00200.93	C
ATOM	49501	O	LYS Q 100	155.655	79.768	-43.321	1.00200.93	O	ATOM	49551	C	SER R 17	185.369	139.599	-56.780	1.00200.93	C
ATOM	49502	CB	LYS Q 100	154.199	77.757	-41.742	1.00 69.21	C	ATOM	49552	O	SER R 17	184.195	139.361	-56.476	1.00200.93	O
ATOM	49503	CD	LYS Q 100	154.384	76.986	-40.418	1.00 69.21	C	ATOM	49553	CB	SER R 17	185.881	137.274	-55.993	1.00156.94	C
ATOM	49504	CG	LYS Q 100	154.558	75.461	-40.622	1.00 69.21	C	ATOM	49554	OG	SER R 17	185.105	136.683	-57.026	1.00156.94	O
ATOM	49505	CE	LYS Q 100	154.414	74.632	-39.307	1.00 69.21	C	ATOM	49555	N	ARG R 18	185.755	140.711	-57.402	1.00189.19	N
ATOM	49506	NZ	LYS Q 100	155.496	74.775	-38.265	1.00 69.21	N	ATOM	49556	CA	ARG R 18	184.826	141.764	-57.802	1.00189.19	C
ATOM	49507	N	ARG Q 101	153.679	80.863	-43.362	1.00194.62	N	ATOM	49557	C	ARG R 18	185.390	142.457	-59.038	1.00189.19	C
ATOM	49508	CA	ARG Q 101	153.964	81.653	-44.560	1.00194.62	C	ATOM	49558	O	ARG R 18	185.258	143.671	-59.210	1.00189.19	O
ATOM	49509	C	ARG Q 101	153.643	83.134	-44.312	1.00194.62	C	ATOM	49559	CB	ARG R 18	184.638	142.773	-56.663	1.00162.88	C
ATOM	49510	O	ARG Q 101	154.281	84.017	-44.889	1.00194.62	O	ATOM	49560	CG	ARG R 18	183.784	142.239	-55.519	1.00162.88	C
ATOM	49511	CB	ARG Q 101	153.151	81.138	-45.757	1.00162.79	C	ATOM	49561	CD	ARG R 18	182.361	141.964	-55.994	1.00162.88	C
ATOM	49512	CG	ARG Q 101	153.637	79.812	-46.338	1.00162.79	C	ATOM	49562	NE	ARG R 18	181.623	141.091	-55.085	1.00162.88	N
ATOM	49513	CD	ARG Q 101	154.948	79.948	-47.126	1.00162.79	C	ATOM	49563	CZ	ARG R 18	180.354	140.739	-55.264	1.00162.88	C
ATOM	49514	NE	ARG Q 101	156.099	80.294	-46.291	1.00162.79	N	ATOM	49564	NH1	ARG R 18	179.679	141.188	-56.317	1.00162.88	N
ATOM	49515	CZ	ARG Q 101	157.361	80.311	-46.720	1.00162.79	C	ATOM	49565	NH2	ARG R 18	179.757	139.934	-54.396	1.00162.88	N
ATOM	49516	NH1	ARG Q 101	157.645	80.000	-47.978	1.00162.79	N	ATOM	49566	N	LYS R 19	186.018	141.657	-59.895	1.00140.04	N
ATOM	49517	NH2	ARG Q 101	158.344	80.636	-45.891	1.00162.79	N	ATOM	49567	CA	LYS R 19	186.639	142.122	-61.131	1.00140.04	C
ATOM	49518	N	GLY Q 102	152.654	83.395	-43.455	1.00200.93	N	ATOM	49568	C	LYS R 19	185.591	142.586	-62.139	1.00140.04	C
ATOM	49519	CA	GLY Q 102	152.277	84.765	-43.128	1.00200.93	C	ATOM	49569	O	LYS R 19	185.777	143.603	-62.804	1.00140.04	O
ATOM	49520	C	GLY Q 102	150.988	85.284	-43.755	1.00200.93	C	ATOM	49570	CB	LYS R 19	187.475	140.981	-61.699	1.00117.83	C
ATOM	49521	O	GLY Q 102	150.630	84.862	-44.853	1.00200.93	O	ATOM	49571	CD	LYS R 19	188.253	140.277	-60.596	1.00117.83	C
ATOM	49522	CA	GLY Q 103	150.322	86.229	-43.076	1.00200.93	N	ATOM	49572	CD	LYS R 19	188.779	138.915	-61.005	1.00117.83	C
ATOM	49523	CA	GLY Q 103	149.060	86.792	-43.556	1.00200.93	C	ATOM	49573	CE	LYS R 19	189.410	138.208	-59.807	1.00117.83	C
ATOM	49524	C	GLY Q 103	148.991	88.132	-44.287	1.00200.93	C	ATOM	49574	NZ	LYS R 19	189.951	136.867	-60.173	1.00117.83	N
ATOM	49525	O	GLY Q 103	149.413	89.141	-43.738	1.00200.93	O	ATOM	49575	N	ALA R 20	184.495	141.834	-62.236	1.00108.10	N
ATOM	49526	N	LYS Q 104	148.428	88.134	-45.503	1.00200.93	N	ATOM	49576	CA	ALA R 20	183.377	142.135	-63.133	1.00108.10	C
ATOM	49527	CA	LYS Q 104	148.266	89.309	-46.396	1.00200.93	C	ATOM	49577	C	ALA R 20	182.589	140.860	-63.382	1.00108.10	C
ATOM	49528	C	LYS Q 104	148.482	90.746	-45.907	1.00200.93	C	ATOM	49578	O	ALA R 20	183.178	139.807	-63.613	1.00108.10	O
ATOM	49529	O	LYS Q 104	149.247	90.990	-44.981	1.00200.93	O	ATOM	49579	CB	ALA R 20	183.882	142.695	-64.464	1.00 53.11	C
ATOM	49530	CB	LYS Q 104	146.895	89.254	-47.075	1.00158.12	C	ATOM	49580	N	LYS R 21	181.263	140.945	-63.331	1.00 87.98	N
ATOM	49531	CG	LYS Q 104	146.937	88.514	-48.390	1.00158.12	C	ATOM	49581	CA	LYS R 21	180.426	139.769	-63.577	1.00 87.98	C
ATOM	49532	CD	LYS Q 104	148.002	89.123	-49.295	1.00158.12	C	ATOM	49582	C	LYS R 21	180.343	139.476	-65.071	1.00 87.98	C
ATOM	49533	CE	LYS Q 104	148.679	88.051	-50.123	1.00158.12	C	ATOM	49583	O	LYS R 21	180.019	140.358	-65.865	1.00 87.98	O
ATOM	49534	NZ	LYS Q 104	149.259	86.989	-49.244	1.00158.12	N	ATOM	49584	CB	LYS R 21	179.011	139.975	-63.014	1.00 73.91	C
ATOM	49535	N	ALA Q 105	147.823	91.700	-46.575	1.00183.36	N	ATOM	49585	CG	LYS R 21	178.770	139.345	-61.842	1.00 73.91	C
ATOM	49536	CA	ALA Q 105	147.862	93.135	-46.220	1.00183.36	C	ATOM	49586	CD	LYS R 21	179.790	139.825	-60.629	1.00 73.91	C
ATOM	49537	C	ALA Q 105	147.973	94.128	-47.360	1.00183.36	C	ATOM	49587	CE	LYS R 21	179.588	139.175	-59.276	1.00 73.91	C
ATOM	49538	O	ALA Q 105	148.030	95.328	-47.020	1.00183.36	O	ATOM	49588	NZ	LYS R 21	180.580	139.681	-58.290	1.00 73.91	N
ATOM	49539	CB	ALA Q 105	148.960	93.419	-45.192	1.00 98.10	C	ATOM	49589	N	VAL R 22	180.637	138.235	-65.448	1.00 72.96	N
ATOM	49540	OXT	ALA Q 105	147.986	93.711	-48.541	1.00141.66	O	ATOM	49590	CA	VAL R 22	180.599	137.830	-66.849	1.00 72.96	C
TER	49541	ALA Q 105							ATOM	49591	C	VAL R 22	179.248	138.139	-67.490	1.00 72.96	C
ATOM	49542	N	PRO R 16	189.488	138.993	-53.342	1.00138.32	N	ATOM	49592	O	VAL R 22	179.171	138.431	-68.684	1.00 72.96	O
ATOM	49543	CA	PRO R 16	188.240	139.799	-53.272	1.00138.32	C	ATOM	49593	CB	VAL R 22	180.898	136.322	-66.987	1.00 55.61	C
ATOM	49544	C	PRO R 16	187.134	139.228	-54.158	1.00138.32	C	ATOM	49594	CG1	VAL R 22	180.523	135.828	-68.379	1.00 55.61	C
ATOM	49545	O	PRO R 16	186.053	138.896	-53.673	1.00138.32	O	ATOM	49595	CG2	VAL R 22	182.377	136.069	-66.715	1.00 55.61	C
ATOM	49546	CB	PRO R 16	188.596	141.219	-53.708	1.00149.59	C	ATOM	49596	N	LYS R 23	178.190	138.074	-66.684	1.00102.77	N
ATOM	49547	CG	PRO R 16	189.828	140.971	-54.586	1.00149.59	C	ATOM	49597	CA	LYS R 23	176.830	138.340	-67.143	1.00102.77	C



Table 1: Sheet 500/521

ATOM	49798	OE1	GLU	R	46	191.491	131.905	-64.416	1.00118.31	O	ATOM	49848	CG	ARG	R	53	176.355	130.513	-59.672	1.00	62.57	C	
ATOM	49799	OE2	GLU	R	46	190.113	132.950	-65.757	1.00118.31	O	ATOM	49849	CD	ARG	R	53	174.850	130.724	-59.729	1.00	62.57	C	
ATOM	49800	N	THR	R	47	191.019	128.172	-68.045	1.00	61.86	N	ATOM	49850	NE	ARG	R	53	174.175	130.444	-58.466	1.00	62.57	N
ATOM	49801	CA	THR	R	47	191.091	126.737	-68.290	1.00	61.86	C	ATOM	49851	CZ	ARG	R	53	173.673	131.383	-57.675	1.00	62.57	C
ATOM	49802	C	THR	R	47	189.680	126.366	-68.756	1.00	61.86	C	ATOM	49852	NH1	ARG	R	53	173.779	132.658	-58.016	1.00	62.57	N
ATOM	49803	O	THR	R	47	188.761	127.185	-68.678	1.00	61.86	O	ATOM	49853	NH2	ARG	R	53	173.039	131.049	-56.561	1.00	62.57	N
ATOM	49804	CB	THR	R	47	191.406	125.971	-66.991	1.00	36.98	C	ATOM	49854	N	ARG	R	54	179.919	133.201	-58.471	1.00	56.41	N
ATOM	49805	OG1	THR	R	47	192.663	126.417	-66.455	1.00	36.98	C	ATOM	49855	CA	ARG	R	54	180.602	134.378	-57.951	1.00	56.41	C
ATOM	49806	CG2	THR	R	47	191.443	124.469	-67.252	1.00	36.98	C	ATOM	49856	C	ARG	R	54	181.128	135.227	-59.105	1.00	56.41	C
ATOM	49807	N	GLY	R	48	189.488	125.146	-69.233	1.00	94.18	N	ATOM	49857	O	ARG	R	54	181.070	136.455	-59.067	1.00	56.41	O
ATOM	49808	CA	GLY	R	48	188.162	124.766	-69.694	1.00	94.18	C	ATOM	49858	CB	ARG	R	54	181.786	133.964	-57.097	1.00113.96	C	
ATOM	49809	C	GLY	R	48	187.120	124.776	-68.591	1.00	94.18	C	ATOM	49859	CG	ARG	R	54	181.520	132.843	-56.130	1.00113.96	C	
ATOM	49810	O	GLY	R	48	185.944	124.519	-68.834	1.00	94.18	O	ATOM	49860	CD	ARG	R	54	182.848	132.212	-55.799	1.00113.96	C	
ATOM	49811	N	LYS	R	49	187.557	125.090	-67.378	1.00	55.06	N	ATOM	49861	NE	ARG	R	54	183.896	133.229	-55.827	1.00113.96	N	
ATOM	49812	CA	LYS	R	49	186.685	125.108	-66.215	1.00	55.06	C	ATOM	49862	CZ	ARG	R	54	185.198	132.968	-55.811	1.00113.96	C	
ATOM	49813	C	LYS	R	49	185.567	126.127	-66.288	1.00	55.06	C	ATOM	49863	NH1	ARG	R	54	185.630	131.712	-55.766	1.00113.96	N	
ATOM	49814	O	LYS	R	49	185.761	127.254	-66.738	1.00	55.06	O	ATOM	49864	NH2	ARG	R	54	186.068	133.969	-55.848	1.00113.96	N	
ATOM	49815	CB	LYS	R	49	187.504	125.362	-64.955	1.00	77.22	C	ATOM	49865	N	ARG	R	55	181.637	134.560	-60.136	1.00	49.30	N
ATOM	49816	CG	LYS	R	49	188.482	124.259	-64.622	1.00	77.22	C	ATOM	49866	CA	ARG	R	55	182.207	135.238	-61.292	1.00	49.30	C
ATOM	49817	CD	LYS	R	49	189.434	124.714	-63.540	1.00	77.22	C	ATOM	49867	C	ARG	R	55	181.309	135.237	-62.517	1.00	49.30	C
ATOM	49818	CE	LYS	R	49	190.500	123.680	-63.261	1.00	77.22	C	ATOM	49868	O	ARG	R	55	181.458	136.093	-63.381	1.00	49.30	O
ATOM	49819	NZ	LYS	R	49	191.563	124.241	-62.376	1.00	77.22	N	ATOM	49869	CB	ARG	R	55	183.550	134.599	-61.634	1.00	99.12	C
ATOM	49820	N	ILE	R	50	184.393	125.701	-65.834	1.00	54.47	N	ATOM	49870	CG	ARG	R	55	184.556	134.684	-60.505	1.00	99.12	C
ATOM	49821	CA	ILE	R	50	183.208	126.539	-65.788	1.00	54.47	C	ATOM	49871	CD	ARG	R	55	185.533	135.829	-60.698	1.00	99.12	C
ATOM	49822	C	ILE	R	50	183.330	127.410	-64.555	1.00	54.47	C	ATOM	49872	NE	ARG	R	55	186.555	135.488	-61.685	1.00	99.12	N
ATOM	49823	O	ILE	R	50	183.566	126.914	-63.456	1.00	54.47	O	ATOM	49873	CZ	ARG	R	55	186.385	135.541	-63.002	1.00	99.12	C
ATOM	49824	CB	ILE	R	50	181.953	125.714	-65.607	1.00	35.68	C	ATOM	49874	NH1	ARG	R	55	185.224	135.935	-63.515	1.00	99.12	N
ATOM	49825	CG1	ILE	R	50	181.896	124.621	-66.661	1.00	35.68	C	ATOM	49875	NH2	ARG	R	55	187.377	135.183	-63.809	1.00	99.12	N
ATOM	49826	CG2	ILE	R	50	180.737	126.624	-65.666	1.00	35.68	C	ATOM	49876	N	THR	R	56	180.383	134.290	-62.608	1.00	48.73	N
ATOM	49827	CD1	ILE	R	50	180.660	123.786	-66.561	1.00	35.68	C	ATOM	49877	CA	THR	R	56	179.503	134.271	-63.770	1.00	48.73	C
ATOM	49828	N	LEU	R	51	183.147	128.708	-64.729	1.00	51.00	N	ATOM	49878	C	THR	R	56	178.319	135.211	-63.588	1.00	48.73	O
ATOM	49829	CA	LEU	R	51	183.266	129.622	-63.608	1.00	51.00	C	ATOM	49879	O	THR	R	56	177.583	135.474	-64.537	1.00	48.73	O
ATOM	49830	C	LEU	R	51	182.118	129.507	-62.612	1.00	51.00	C	ATOM	49880	CB	THR	R	56	178.939	132.859	-64.087	1.00	72.56	C
ATOM	49831	O	LEU	R	51	180.999	129.119	-62.964	1.00	51.00	O	ATOM	49881	OG1	THR	R	56	177.854	132.556	-63.202	1.00	72.56	O
ATOM	49832	CB	LEU	R	51	183.383	131.049	-64.134	1.00	48.07	C	ATOM	49882	CG2	THR	R	56	180.017	131.811	-63.940	1.00	72.56	C
ATOM	49833	CG	LEU	R	51	184.691	131.294	-64.889	1.00	48.07	C	ATOM	49883	N	GLY	R	57	178.128	135.710	-62.371	1.00	68.54	N
ATOM	49834	CD1	LEU	R	51	184.510	132.432	-65.864	1.00	48.07	C	ATOM	49884	CA	GLY	R	57	177.016	136.609	-62.126	1.00	68.54	C
ATOM	49835	CD2	LEU	R	51	185.816	131.571	-63.897	1.00	48.07	C	ATOM	49885	C	GLY	R	57	175.653	136.024	-62.474	1.00	68.54	C
ATOM	49836	N	PRO	R	52	182.395	129.833	-61.342	1.00	72.93	N	ATOM	49886	O	GLY	R	57	174.646	136.733	-62.486	1.00	68.54	O
ATOM	49837	CA	PRO	R	52	181.437	129.794	-60.238	1.00	72.93	C	ATOM	49887	N	LEU	R	58	175.615	134.735	-62.781	1.00	62.70	N
ATOM	49838	C	PRO	R	52	180.488	130.964	-60.407	1.00	72.93	C	ATOM	49888	CA	LEU	R	58	174.357	134.083	-63.093	1.00	62.70	C
ATOM	49839	O	PRO	R	52	180.817	131.924	-61.108	1.00	72.93	O	ATOM	49889	C	LEU	R	58	173.695	133.685	-61.781	1.00	62.70	C
ATOM	49840	CB	PRO	R	52	182.323	129.965	-59.009	1.00	50.95	C	ATOM	49890	O	LEU	R	58	174.267	133.864	-60.702	1.00	62.70	O
ATOM	49841	CG	PRO	R	52	183.685	129.550	-59.492	1.00	50.95	C	ATOM	49891	CB	LEU	R	58	174.588	132.830	-63.935	1.00	62.26	C
ATOM	49842	CD	PRO	R	52	183.730	130.166	-60.838	1.00	50.95	C	ATOM	49892	CG	LEU	R	58	174.858	132.994	-65.427	1.00	62.26	C
ATOM	49843	N	ARG	R	53	179.323	130.903	-59.771	1.00	61.17	N	ATOM	49893	CD1	LEU	R	58	174.902	131.627	-66.087	1.00	62.26	C
ATOM	49844	CA	ARG	R	53	178.378	131.999	-59.903	1.00	61.17	C	ATOM	49894	CD2	LEU	R	58	173.759	133.822	-66.047	1.00	62.26	C
ATOM	49845	C	ARG	R	53	179.011	133.302	-59.437	1.00	61.17	C	ATOM	49895	N	SER	R	59	172.493	133.135	-61.880	1.00	51.99	N
ATOM	49846	O	ARG	R	53	178.696	134.380	-59.959	1.00	61.17	O	ATOM	49896	CA	SER	R	59	171.746	132.711	-60.710	1.00	51.99	C
ATOM	49847	CB	ARG	R	53	177.100	131.708	-59.119	1.00	62.57	C	ATOM	49897	C	SER	R	59	171.752	131.197	-60.653	1.00	51.99	C



ATOM	49698	C	ARG R	35	177.387	127.995	-80.292	1.00	86.72	C	ATOM	49748	C	LYS R	41	183.854	131.833	-72.958	1.00	67.94	C
ATOM	49699	O	ARG R	35	178.281	128.260	-81.100	1.00	86.72	O	ATOM	49749	O	LYS R	41	184.882	131.782	-72.279	1.00	67.94	O
ATOM	49700	CB	ARG R	35	176.067	126.345	-81.594	1.00	84.58	C	ATOM	49750	CB	LYS R	41	184.331	131.163	-75.337	1.00	86.28	C
ATOM	49701	CG	ARG R	35	175.651	124.910	-81.786	1.00	84.58	C	ATOM	49751	CG	LYS R	41	185.644	131.889	-75.142	1.00	86.28	C
ATOM	49702	CD	ARG R	35	175.235	124.659	-83.223	1.00	84.58	C	ATOM	49752	CD	LYS R	41	185.725	133.129	-76.049	1.00	86.28	C
ATOM	49703	NE	ARG R	35	174.029	125.392	-83.597	1.00	84.58	N	ATOM	49753	CE	LYS R	41	185.651	132.777	-77.541	1.00	86.28	C
ATOM	49704	CZ	ARG R	35	173.568	125.486	-84.841	1.00	84.58	C	ATOM	49754	NZ	LYS R	41	185.790	133.965	-78.443	1.00	86.28	N
ATOM	49705	NH1	ARG R	35	174.215	124.901	-85.842	1.00	84.58	N	ATOM	49755	N	ARG R	42	182.923	132.768	-72.797	1.00	72.44	N
ATOM	49706	NH2	ARG R	35	172.448	126.150	-85.083	1.00	84.58	N	ATOM	49756	CA	ARG R	42	183.025	133.823	-71.796	1.00	72.44	C
ATOM	49707	N	ASN R	36	176.924	128.876	-79.407	1.00	53.47	N	ATOM	49757	C	ARG R	42	182.949	133.315	-70.354	1.00	72.44	C
ATOM	49708	CA	ASN R	36	177.444	130.235	-79.367	1.00	53.47	C	ATOM	49758	O	ARG R	42	183.554	133.895	-69.449	1.00	72.44	O
ATOM	49709	C	ASN R	36	178.811	130.297	-78.687	1.00	53.47	C	ATOM	49759	CB	ARG R	42	181.909	134.845	-72.014	1.00	97.09	C
ATOM	49710	O	ASN R	36	178.978	130.927	-77.635	1.00	53.47	O	ATOM	49760	CG	ARG R	42	182.260	135.978	-72.943	1.00	97.09	C
ATOM	49711	CB	ASN R	36	176.459	131.163	-78.656	1.00	94.58	C	ATOM	49761	CD	ARG R	42	183.376	136.810	-72.337	1.00	97.09	C
ATOM	49712	CG	ASN R	36	176.795	132.628	-78.855	1.00	94.58	C	ATOM	49762	NE	ARG R	42	183.405	138.168	-72.868	1.00	97.09	N
ATOM	49713	OD1	ASN R	36	176.081	133.508	-78.377	1.00	94.58	O	ATOM	49763	CZ	ARG R	42	182.407	139.039	-72.745	1.00	97.09	C
ATOM	49714	ND2	ASN R	36	177.889	132.898	-79.562	1.00	94.58	N	ATOM	49764	NH1	ARG R	42	181.294	138.693	-72.109	1.00	97.09	N
ATOM	49715	N	VAL R	37	179.787	129.640	-79.312	1.00	46.48	N	ATOM	49765	NH2	ARG R	42	182.522	140.257	-73.254	1.00	97.09	N
ATOM	49716	CA	VAL R	37	181.151	129.599	-78.803	1.00	46.48	C	ATOM	49766	N	PHE R	43	182.200	132.236	-70.145	1.00	75.81	N
ATOM	49717	C	VAL R	37	181.558	131.008	-78.421	1.00	46.48	C	ATOM	49767	CA	PHE R	43	182.016	131.679	-68.813	1.00	75.81	C
ATOM	49718	O	VAL R	37	182.277	131.230	-77.450	1.00	46.48	O	ATOM	49768	C	PHE R	43	183.040	130.640	-68.411	1.00	75.81	C
ATOM	49719	CB	VAL R	37	182.128	129.096	-79.882	1.00	70.06	C	ATOM	49769	O	PHE R	43	182.838	129.914	-67.442	1.00	75.81	O
ATOM	49720	CG1	VAL R	37	183.476	128.772	-79.254	1.00	70.06	C	ATOM	49770	CB	PHE R	43	180.620	131.076	-68.691	1.00	65.61	C
ATOM	49721	CG2	VAL R	37	181.541	127.884	-80.592	1.00	70.06	C	ATOM	49771	CG	PHE R	43	179.515	132.051	-68.975	1.00	65.61	C
ATOM	49722	N	GLU R	38	181.070	131.960	-79.201	1.00	76.88	N	ATOM	49772	CD1	PHE R	43	179.173	132.377	-70.279	1.00	65.61	C
ATOM	49723	CA	GLU R	38	181.378	133.360	-78.993	1.00	76.88	C	ATOM	49773	CD2	PHE R	43	178.818	132.653	-67.935	1.00	65.61	C
ATOM	49724	C	GLU R	38	181.082	133.774	-77.561	1.00	76.88	C	ATOM	49774	CE1	PHE R	43	178.156	133.285	-70.541	1.00	65.61	C
ATOM	49725	O	GLU R	38	181.956	134.271	-76.882	1.00	76.88	O	ATOM	49775	CE2	PHE R	43	177.800	133.563	-68.195	1.00	65.61	C
ATOM	49726	CB	GLU R	38	180.561	134.214	-79.965	1.00	168.51	C	ATOM	49776	CZ	PHE R	43	177.471	133.877	-69.498	1.00	65.61	C
ATOM	49727	CG	GLU R	38	180.229	133.520	-81.290	1.00	168.51	C	ATOM	49777	N	LEU R	44	184.140	130.559	-69.146	1.00	58.70	N
ATOM	49728	CD	GLU R	38	181.456	133.037	-82.048	1.00	168.51	C	ATOM	49778	CA	LEU R	44	185.165	129.585	-68.806	1.00	58.70	C
ATOM	49729	OE1	GLU R	38	182.194	132.177	-81.520	1.00	168.51	O	ATOM	49779	C	LEU R	44	186.387	130.212	-68.165	1.00	58.70	C
ATOM	49730	OE2	GLU R	38	181.680	133.515	-83.180	1.00	168.51	O	ATOM	49780	O	LEU R	44	186.793	131.311	-68.524	1.00	58.70	O
ATOM	49731	N	VAL R	39	179.848	133.547	-77.131	1.00	69.34	N	ATOM	49781	CB	LEU R	44	185.582	128.786	-70.039	1.00	48.72	C
ATOM	49732	CA	VAL R	39	179.439	133.934	-75.792	1.00	69.34	C	ATOM	49782	CG	LEU R	44	184.546	127.758	-70.497	1.00	48.72	C
ATOM	49733	C	VAL R	39	179.799	132.901	-74.719	1.00	69.34	C	ATOM	49783	CD1	LEU R	44	185.161	126.852	-71.550	1.00	48.72	C
ATOM	49734	O	VAL R	39	180.392	133.253	-73.699	1.00	69.34	O	ATOM	49784	CD2	LEU R	44	184.076	126.927	-69.299	1.00	48.72	C
ATOM	49735	CB	VAL R	39	177.917	134.239	-75.764	1.00	62.65	C	ATOM	49785	N	SER R	45	186.970	129.508	-67.203	1.00	63.45	N
ATOM	49736	CG1	VAL R	39	177.115	132.957	-75.767	1.00	62.65	C	ATOM	49786	CA	SER R	45	188.150	130.012	-66.524	1.00	63.45	C
ATOM	49737	CG2	VAL R	39	177.581	135.076	-74.563	1.00	62.65	C	ATOM	49787	C	SER R	45	189.261	130.120	-67.541	1.00	63.45	C
ATOM	49738	N	LEU R	40	179.457	131.634	-74.951	1.00	52.31	N	ATOM	49788	O	SER R	45	189.035	129.963	-68.739	1.00	63.45	O
ATOM	49739	CA	LEU R	40	179.752	130.574	-73.986	1.00	52.31	C	ATOM	49789	CB	SER R	45	188.573	129.062	-65.397	1.00	78.41	C
ATOM	49740	C	LEU R	40	181.182	130.659	-73.452	1.00	52.31	C	ATOM	49790	OG	SER R	45	188.792	127.746	-65.873	1.00	78.41	O
ATOM	49741	O	LEU R	40	181.397	130.680	-72.240	1.00	52.31	O	ATOM	49791	N	GLU R	46	190.465	130.394	-67.061	1.00	74.12	N
ATOM	49742	CB	LEU R	40	179.522	129.200	-74.619	1.00	43.38	C	ATOM	49792	CA	GLU R	46	191.632	130.494	-67.926	1.00	74.12	C
ATOM	49743	CG	LEU R	40	178.109	128.946	-75.144	1.00	43.38	C	ATOM	49793	C	GLU R	46	192.000	129.043	-68.263	1.00	74.12	C
ATOM	49744	CD1	LEU R	40	177.969	127.482	-75.526	1.00	43.38	C	ATOM	49794	O	GLU R	46	193.109	128.730	-68.685	1.00	74.12	O
ATOM	49745	CD2	LEU R	40	177.081	129.313	-74.085	1.00	43.38	C	ATOM	49795	CB	GLU R	46	192.761	131.203	-67.168	1.00	118.31	C
ATOM	49746	N	LYS R	41	182.147	130.699	-74.369	1.00	67.94	N	ATOM	49796	CG	GLU R	46	192.348	132.565	-66.567	1.00	118.31	C
ATOM	49747	CA	LYS R	41	183.575	130.799	-74.054	1.00	67.94	C	ATOM	49797	CD	GLU R	46	191.239	132.466	-65.504	1.00	118.31	C



Table 1: Sheet 502/521

ATOM	49998	CA	ARG R	72	177.176	119.972	-74.718	1.00	53.71	C	ATOM	50048	CB	LEU R	78	182.088	124.341	-79.982	1.00	76.47	C
ATOM	49999	C	ARG R	72	178.184	120.500	-75.736	1.00	53.71	C	ATOM	50049	CG	LEU R	78	181.240	123.623	-81.032	1.00	76.47	C
ATOM	50000	O	ARG R	72	178.627	119.780	-76.631	1.00	53.71	O	ATOM	50050	CD1	LEU R	78	179.817	124.160	-81.006	1.00	76.47	C
ATOM	50001	CB	ARG R	72	175.798	120.546	-75.067	1.00	67.74	C	ATOM	50051	CD2	LEU R	78	181.884	123.798	-82.403	1.00	76.47	C
ATOM	50002	CG	ARG R	72	174.596	119.820	-74.499	1.00	67.74	C	ATOM	50052	N	LEU R	79	183.904	123.795	-77.463	1.00	63.13	N
ATOM	50003	CD	ARG R	72	173.311	120.583	-74.855	1.00	67.74	C	ATOM	50053	CA	LEU R	79	184.502	124.266	-76.214	1.00	63.13	C
ATOM	50004	NE	ARG R	72	172.107	119.757	-74.767	1.00	67.74	N	ATOM	50054	C	LEU R	79	185.429	123.218	-75.629	1.00	63.13	C
ATOM	50005	CZ	ARG R	72	170.878	120.182	-75.052	1.00	67.74	C	ATOM	50055	O	LEU R	79	185.199	122.017	-75.763	1.00	63.13	O
ATOM	50006	NH1	ARG R	72	170.670	121.435	-75.443	1.00	67.74	N	ATOM	50056	CB	LEU R	79	183.421	124.606	-75.181	1.00	63.23	C
ATOM	50007	NH2	ARG R	72	169.850	119.345	-74.960	1.00	67.74	N	ATOM	50057	CG	LEU R	79	182.655	125.920	-75.327	1.00	63.23	C
ATOM	50008	N	ALA R	73	178.534	121.772	-75.585	1.00	57.84	N	ATOM	50058	CD1	LEU R	79	181.596	126.011	-74.240	1.00	63.23	C
ATOM	50009	CA	ALA R	73	179.466	122.427	-76.485	1.00	57.84	C	ATOM	50059	CD2	LEU R	79	183.623	127.087	-75.238	1.00	63.23	C
ATOM	50010	C	ALA R	73	180.841	121.774	-76.446	1.00	57.84	C	ATOM	50060	N	PRO R	80	186.486	123.665	-74.950	1.00	41.53	N
ATOM	50011	O	ALA R	73	181.608	121.860	-77.405	1.00	57.84	O	ATOM	50061	CA	PRO R	80	187.483	122.798	-74.322	1.00	41.53	C
ATOM	50012	CB	ALA R	73	179.569	123.909	-76.138	1.00	30.74	C	ATOM	50062	C	PRO R	80	186.996	122.148	-73.035	1.00	41.53	C
ATOM	50013	N	ARG R	74	181.152	121.122	-75.333	1.00	55.62	N	ATOM	50063	O	PRO R	80	185.989	122.552	-72.443	1.00	41.53	O
ATOM	50014	CA	ARG R	74	182.436	120.451	-75.188	1.00	55.62	C	ATOM	50064	CB	PRO R	80	188.618	123.754	-74.033	1.00	29.62	C
ATOM	50015	C	ARG R	74	182.461	119.191	-76.039	1.00	55.62	C	ATOM	50065	CG	PRO R	80	187.871	124.976	-73.579	1.00	29.62	C
ATOM	50016	O	ARG R	74	183.417	118.941	-76.759	1.00	55.62	O	ATOM	50066	CD	PRO R	80	186.744	125.078	-74.619	1.00	29.62	C
ATOM	50017	CB	ARG R	74	182.690	120.108	-73.720	1.00	54.96	C	ATOM	50067	N	PHE R	81	187.722	121.131	-72.602	1.00	63.32	N
ATOM	50018	CG	ARG R	74	183.086	121.300	-72.864	1.00	54.96	C	ATOM	50068	CA	PHE R	81	187.393	120.478	-71.357	1.00	63.32	C
ATOM	50019	CD	ARG R	74	183.092	120.903	-71.418	1.00	54.96	C	ATOM	50069	C	PHE R	81	188.374	121.051	-70.350	1.00	63.32	C
ATOM	50020	NE	ARG R	74	183.765	121.867	-70.556	1.00	54.96	N	ATOM	50070	O	PHE R	81	188.029	121.268	-69.187	1.00	63.32	O
ATOM	50021	CZ	ARG R	74	183.807	121.762	-69.229	1.00	54.96	C	ATOM	50071	CB	PHE R	81	187.574	118.964	-71.458	1.00	59.70	C
ATOM	50022	NH1	ARG R	74	183.209	120.736	-68.627	1.00	54.96	N	ATOM	50072	CG	PHE R	81	186.430	118.263	-72.114	1.00	59.70	C
ATOM	50023	NH2	ARG R	74	184.451	122.669	-68.505	1.00	54.96	N	ATOM	50073	CD1	PHE R	81	186.221	118.371	-73.480	1.00	59.70	C
ATOM	50024	N	ILE R	75	181.408	118.394	-75.959	1.00	58.33	N	ATOM	50074	CD2	PHE R	81	185.538	117.512	-71.357	1.00	59.70	C
ATOM	50025	CA	ILE R	75	181.354	117.189	-76.765	1.00	58.33	C	ATOM	50075	CE1	PHE R	81	185.137	117.740	-74.082	1.00	59.70	C
ATOM	50026	C	ILE R	75	181.503	117.528	-78.257	1.00	58.33	C	ATOM	50076	CE2	PHE R	81	184.451	116.878	-71.952	1.00	59.70	C
ATOM	50027	O	ILE R	75	182.323	116.929	-78.956	1.00	58.33	O	ATOM	50077	CZ	PHE R	81	184.252	116.994	-73.314	1.00	59.70	C
ATOM	50028	CB	ILE R	75	180.028	116.429	-76.544	1.00	82.52	C	ATOM	50078	N	THR R	82	189.592	121.321	-70.816	1.00	63.15	N
ATOM	50029	CG1	ILE R	75	180.091	115.650	-75.231	1.00	82.52	C	ATOM	50079	CA	THR R	82	190.627	121.856	-69.947	1.00	63.15	C
ATOM	50030	CG2	ILE R	75	179.755	115.495	-77.709	1.00	82.52	C	ATOM	50080	C	THR R	82	191.799	122.478	-70.704	1.00	63.15	C
ATOM	50031	CD1	ILE R	75	178.904	114.721	-75.005	1.00	82.52	C	ATOM	50081	O	THR R	82	192.233	121.954	-71.722	1.00	63.15	O
ATOM	50032	N	LEU R	76	180.714	118.486	-78.739	1.00	74.86	N	ATOM	50082	CB	THR R	82	191.161	120.755	-69.031	1.00	84.06	C
ATOM	50033	CA	LEU R	76	180.769	118.881	-80.143	1.00	74.86	C	ATOM	50083	OG1	THR R	82	192.054	121.326	-68.070	1.00	84.06	O
ATOM	50034	C	LEU R	76	182.150	119.362	-80.563	1.00	74.86	C	ATOM	50084	CG2	THR R	82	191.887	119.702	-69.841	1.00	84.06	C
ATOM	50035	O	LEU R	76	182.420	119.505	-81.754	1.00	74.86	O	ATOM	50085	N	GLU R	83	192.310	123.596	-70.191	1.00	66.55	N
ATOM	50036	CB	LEU R	76	179.747	119.979	-80.439	1.00	52.24	C	ATOM	50086	CA	GLU R	83	193.431	124.307	-70.803	1.00	66.55	C
ATOM	50037	CD1	LEU R	76	178.268	119.574	-80.451	1.00	52.24	C	ATOM	50087	C	GLU R	83	194.627	124.385	-69.847	1.00	66.55	C
ATOM	50038	CG	LEU R	76	177.435	120.754	-80.929	1.00	52.24	C	ATOM	50088	O	GLU R	83	194.471	124.275	-68.629	1.00	66.55	O
ATOM	50039	CD2	LEU R	76	178.052	118.378	-81.361	1.00	52.24	C	ATOM	50089	CB	GLU R	83	192.997	125.723	-71.192	1.00	00127.04	C
ATOM	50040	N	GLY R	77	183.017	119.619	-79.588	1.00	47.50	N	ATOM	50090	CG	GLU R	83	191.706	125.775	-71.991	1.00	00127.04	C
ATOM	50041	CA	GLY R	77	184.365	120.069	-79.890	1.00	47.50	C	ATOM	50091	CD	GLU R	83	191.828	125.131	-73.361	1.00	00127.04	C
ATOM	50042	C	GLY R	77	184.524	121.574	-79.978	1.00	47.50	C	ATOM	50092	OE1	GLU R	83	192.351	123.999	-73.453	1.00	00127.04	O
ATOM	50043	O	GLY R	77	185.624	122.065	-80.214	1.00	47.50	O	ATOM	50093	OE2	GLU R	83	191.389	125.758	-74.350	1.00	00127.04	O
ATOM	50044	N	LEU R	78	183.441	122.316	-79.781	1.00	61.68	N	ATOM	50094	N	LYS R	84	195.821	124.576	-70.407	1.00	72.26	N
ATOM	50045	CA	LEU R	78	183.498	123.772	-79.855	1.00	61.68	C	ATOM	50095	CA	LYS R	84	197.049	124.673	-69.618	1.00	72.26	C
ATOM	50046	C	LEU R	78	184.180	124.368	-78.633	1.00	61.68	C	ATOM	50096	C	LYS R	84	197.212	126.075	-69.029	1.00	72.26	C
ATOM	50047	O	LEU R	78	184.933	125.336	-78.743	1.00	61.68	O	ATOM	50097	O	LYS R	84	196.770	127.063	-69.626	1.00	72.26	O



Table 1: Sheet 501/521

ATOM	49898	O	SER R	59	172.166	130.540	-61.605	1.00	51.99	O	ATOM	49948	CG1	ILE R	65	169.227	126.755	-66.966	1.00	72.21	C
ATOM	49899	CB	SER R	59	170.309	133.194	-60.816	1.00	65.54	C	ATOM	49949	CG2	ILE R	65	169.739	126.030	-69.287	1.00	72.21	C
ATOM	49900	OG	SER R	59	169.660	132.552	-61.902	1.00	65.54	O	ATOM	49950	CD1	ILE R	65	168.247	127.866	-67.293	1.00	72.21	C
ATOM	49901	N	GLY R	60	171.275	130.647	-59.539	1.00	48.24	N	ATOM	49951	N	LEU R	66	173.515	126.725	-67.836	1.00	51.25	N
ATOM	49902	CA	GLY R	60	171.231	129.208	-59.384	1.00	48.24	C	ATOM	49952	CA	LEU R	66	174.757	127.021	-68.529	1.00	51.25	C
ATOM	49903	C	GLY R	60	170.630	128.551	-60.606	1.00	48.24	C	ATOM	49953	C	LEU R	66	175.575	125.761	-68.586	1.00	51.25	C
ATOM	49904	O	GLY R	60	171.230	127.651	-61.192	1.00	48.24	O	ATOM	49954	O	LEU R	66	175.968	125.321	-69.654	1.00	51.25	O
ATOM	49905	N	LYS R	61	169.453	129.014	-61.013	1.00	57.11	N	ATOM	49955	CB	LEU R	66	175.552	128.078	-67.778	1.00	48.28	C
ATOM	49906	CA	LYS R	61	168.783	128.421	-62.161	1.00	57.11	C	ATOM	49956	CG	LEU R	66	176.882	128.488	-68.409	1.00	48.28	C
ATOM	49907	C	LYS R	61	169.530	128.661	-63.463	1.00	57.11	C	ATOM	49957	CD1	LEU R	66	176.649	129.569	-69.445	1.00	48.28	C
ATOM	49908	O	LYS R	61	169.794	127.717	-64.204	1.00	57.11	O	ATOM	49958	CD2	LEU R	66	177.804	129.022	-67.339	1.00	48.28	C
ATOM	49909	CB	LYS R	61	167.345	128.939	-62.278	1.00	46.48	C	ATOM	49959	N	ALA R	67	175.818	125.182	-67.418	1.00	67.27	N
ATOM	49910	CG	LYS R	61	166.457	128.091	-63.192	1.00	46.48	C	ATOM	49960	CA	ALA R	67	176.613	123.968	-67.303	1.00	67.27	C
ATOM	49911	CD	LYS R	61	165.039	128.654	-63.327	1.00	46.48	C	ATOM	49961	C	ALA R	67	176.285	122.926	-68.365	1.00	67.27	C
ATOM	49912	CE	LYS R	61	164.276	127.912	-64.427	1.00	46.48	C	ATOM	49962	O	ALA R	67	177.186	122.381	-69.001	1.00	67.27	O
ATOM	49913	NZ	LYS R	61	162.921	128.457	-64.733	1.00	46.48	N	ATOM	49963	CB	ALA R	67	176.445	123.373	-65.918	1.00	55.25	C
ATOM	49914	N	GLU R	62	169.868	129.917	-63.747	1.00	65.82	N	ATOM	49964	N	LYS R	68	175.001	122.646	-68.558	1.00	53.03	N
ATOM	49915	CA	GLU R	62	170.591	130.242	-64.975	1.00	65.82	C	ATOM	49965	CA	LYS R	68	174.596	121.660	-69.550	1.00	53.03	C
ATOM	49916	C	GLU R	62	171.868	129.402	-65.041	1.00	65.82	C	ATOM	49966	C	LYS R	68	174.987	122.114	-70.936	1.00	53.03	C
ATOM	49917	O	GLU R	62	172.079	128.638	-65.983	1.00	65.82	O	ATOM	49967	O	LYS R	68	175.433	121.317	-71.756	1.00	53.03	O
ATOM	49918	CB	GLU R	62	170.979	131.724	-65.002	1.00	78.13	C	ATOM	49968	CB	LYS R	68	173.092	121.429	-69.505	1.00	71.29	C
ATOM	49919	CG	GLU R	62	169.833	132.712	-64.851	1.00	78.13	C	ATOM	49969	CD	LYS R	68	172.713	120.168	-68.792	1.00	71.29	C
ATOM	49920	CD	GLU R	62	170.308	134.167	-64.815	1.00	78.13	C	ATOM	49970	CE	LYS R	68	171.425	119.643	-69.353	1.00	71.29	C
ATOM	49921	OE1	GLU R	62	171.181	134.504	-63.982	1.00	78.13	O	ATOM	49971	CE	LYS R	68	171.064	118.316	-68.729	1.00	71.29	C
ATOM	49922	OE2	GLU R	62	169.804	134.980	-65.619	1.00	78.13	O	ATOM	49972	NZ	LYS R	68	169.812	117.786	-69.334	1.00	71.29	N
ATOM	49923	N	GLN R	63	172.706	129.561	-64.019	1.00	54.96	N	ATOM	49973	N	THR R	69	174.802	123.403	-71.192	1.00	47.97	N
ATOM	49924	CA	GLN R	63	173.986	128.866	-63.888	1.00	54.96	C	ATOM	49974	CA	THR R	69	175.143	124.000	-72.473	1.00	47.97	C
ATOM	49925	C	GLN R	63	173.878	127.364	-64.033	1.00	54.96	C	ATOM	49975	C	THR R	69	176.653	123.946	-72.692	1.00	47.97	C
ATOM	49926	O	GLN R	63	174.840	126.688	-64.380	1.00	54.96	O	ATOM	49976	O	THR R	69	177.119	123.493	-73.730	1.00	47.97	O
ATOM	49927	CB	GLN R	63	174.587	129.174	-62.523	1.00	52.01	C	ATOM	49977	CB	THR R	69	174.668	125.457	-72.525	1.00	54.78	C
ATOM	49928	CG	GLN R	63	175.837	128.397	-62.184	1.00	52.01	C	ATOM	49978	OG1	THR R	69	173.243	125.484	-72.661	1.00	54.78	O
ATOM	49929	CD	GLN R	63	177.059	128.985	-62.827	1.00	52.01	C	ATOM	49979	CG2	THR R	69	175.310	126.188	-73.687	1.00	51.83	N
ATOM	49930	OE1	GLN R	63	177.204	130.204	-62.901	1.00	52.01	O	ATOM	49980	N	ILE R	70	177.417	124.403	-71.711	1.00	51.83	N
ATOM	49931	NE2	GLN R	63	177.959	128.128	-63.282	1.00	52.01	N	ATOM	49981	CA	ILE R	70	178.865	124.383	-71.817	1.00	51.83	C
ATOM	49932	N	ARG R	64	172.704	126.836	-63.746	1.00	44.61	N	ATOM	49982	C	ILE R	70	179.399	122.962	-71.956	1.00	51.83	C
ATOM	49933	CA	ARG R	64	172.509	125.406	-63.837	1.00	44.61	C	ATOM	49983	O	ILE R	70	180.458	122.746	-72.556	1.00	51.83	O
ATOM	49934	C	ARG R	64	172.254	124.973	-65.279	1.00	44.61	C	ATOM	49984	CB	ILE R	70	179.505	125.036	-70.599	1.00	43.60	C
ATOM	49935	O	ARG R	64	172.545	123.835	-65.654	1.00	44.61	O	ATOM	49985	CG1	ILE R	70	179.051	126.486	-70.524	1.00	43.60	C
ATOM	49936	CB	ARG R	64	171.339	125.004	-62.946	1.00	45.72	C	ATOM	49986	CG2	ILE R	70	181.009	124.971	-70.688	1.00	43.60	C
ATOM	49937	CD	ARG R	64	171.151	123.508	-62.766	1.00	45.72	C	ATOM	49987	CD1	ILE R	70	179.701	127.250	-69.416	1.00	43.60	C
ATOM	49938	CG	ARG R	64	169.840	123.263	-62.050	1.00	45.72	C	ATOM	49988	N	LYS R	71	178.679	121.991	-71.401	1.00	51.94	N
ATOM	49939	NE	ARG R	64	169.609	124.296	-61.044	1.00	45.72	N	ATOM	49989	CA	LYS R	71	179.114	120.606	-71.502	1.00	51.94	C
ATOM	49940	CZ	ARG R	64	168.409	124.741	-60.699	1.00	45.72	C	ATOM	49990	C	LYS R	71	178.781	120.070	-72.882	1.00	51.94	C
ATOM	49941	NH1	ARG R	64	167.319	124.246	-61.277	1.00	45.72	N	ATOM	49991	O	LYS R	71	179.590	119.375	-73.488	1.00	51.94	O
ATOM	49942	NH2	ARG R	64	168.304	125.690	-59.788	1.00	45.72	N	ATOM	49992	CB	LYS R	71	178.468	119.754	-70.408	1.00	50.04	C
ATOM	49943	N	ILE R	65	171.705	125.887	-66.076	1.00	78.99	N	ATOM	49993	CG	LYS R	71	179.037	120.061	-69.033	1.00	50.04	C
ATOM	49944	CA	ILE R	65	171.399	125.621	-67.477	1.00	78.99	C	ATOM	49994	CD	LYS R	71	178.352	119.285	-67.922	1.00	50.04	C
ATOM	49945	C	ILE R	65	172.653	125.832	-68.307	1.00	78.99	C	ATOM	49995	CE	LYS R	71	178.801	119.798	-66.555	1.00	50.04	C
ATOM	49946	O	ILE R	65	172.832	125.211	-69.352	1.00	78.99	O	ATOM	49996	NZ	LYS R	71	178.137	119.089	-65.421	1.00	50.04	N
ATOM	49947	CB	ILE R	65	170.331	126.580	-68.006	1.00	72.21	C	ATOM	49997	N	ARG R	72	177.597	120.405	-73.385	1.00	53.71	N



Table 1: Sheet 504/521

ATOM	50198	CB	VAL S	9	256.385	111.845	31.093	1.00	68.82	C	ATOM	50248	O	LEU S	15	251.062	101.528	39.220	1.00148.43
ATOM	50199	CG1	VAL S	9	255.790	110.509	30.662	1.00	68.82	C	ATOM	50249	CB	LEU S	15	248.669	101.656	37.148	1.00122.13
ATOM	50200	CG2	VAL S	9	257.517	112.271	30.174	1.00	68.82	C	ATOM	50250	CG	LEU S	15	248.537	102.796	36.126	1.00122.18
ATOM	50201	N	PHE S	10	252.937	112.542	31.554	1.00	81.23	N	ATOM	50251	CD1	LEU S	15	249.794	103.644	36.081	1.00122.30
ATOM	50202	CA	PHE S	10	251.796	112.137	32.359	1.00	81.23	C	ATOM	50252	CD2	LEU S	15	248.271	102.204	34.759	1.00122.31
ATOM	50203	C	PHE S	10	251.582	110.629	32.509	1.00	81.23	C	ATOM	50253	N	LEU S	16	250.548	103.692	38.917	1.00103.27
ATOM	50204	O	PHE S	10	251.735	109.865	31.557	1.00	81.23	O	ATOM	50254	CA	LEU S	16	251.905	104.135	39.204	1.00103.29
ATOM	50205	CB	PHE S	10	250.530	112.792	31.800	1.00	66.41	C	ATOM	50255	C	LEU S	16	252.256	103.763	40.632	1.00103.27
ATOM	50206	CG	PHE S	10	249.288	112.522	32.613	1.00	66.41	C	ATOM	50256	O	LEU S	16	253.046	102.850	40.866	1.00103.31
ATOM	50207	CD1	PHE S	10	248.550	113.573	33.136	1.00	66.41	C	ATOM	50257	CB	LEU S	16	253.441	106.250	39.121	1.00 90.98
ATOM	50208	CD2	PHE S	10	248.837	111.217	32.829	1.00	66.41	C	ATOM	50258	CG	LEU S	16	253.382	107.744	38.803	1.00 91.26
ATOM	50209	CE1	PHE S	10	247.379	113.333	33.860	1.00	66.41	C	ATOM	50259	CD1	LEU S	16	254.398	105.530	38.169	1.00 91.27
ATOM	50210	CE2	PHE S	10	247.679	110.968	33.548	1.00	66.41	C	ATOM	50260	CD2	LEU S	16	253.982	107.444	38.803	1.00123.60
ATOM	50211	CZ	PHE S	10	246.945	112.027	34.064	1.00	66.41	C	ATOM	50261	N	GLU S	17	251.650	104.458	41.589	1.00123.66
ATOM	50212	N	VAL S	11	251.210	110.231	33.726	1.00	76.05	N	ATOM	50262	CA	GLU S	17	251.922	104.179	42.986	1.00123.66
ATOM	50213	CA	VAL S	11	250.921	108.844	34.086	1.00	76.05	C	ATOM	50263	C	GLU S	17	251.425	102.789	43.373	1.00123.65
ATOM	50214	C	VAL S	11	250.001	108.846	35.305	1.00	76.05	C	ATOM	50264	O	GLU S	17	251.388	102.449	44.549	1.00123.74
ATOM	50215	O	VAL S	11	250.382	109.338	36.371	1.00	76.05	O	ATOM	50265	CB	GLU S	17	251.281	105.239	43.885	1.00108.33
ATOM	50216	CB	VAL S	11	252.197	108.065	34.482	1.00	81.19	C	ATOM	50266	CG	GLU S	17	249.773	105.135	44.036	1.00108.59
ATOM	50217	CG1	VAL S	11	251.832	106.647	34.920	1.00	81.19	C	ATOM	50267	CD	GLU S	17	249.225	106.119	45.065	1.00108.53
ATOM	50218	CG2	VAL S	11	253.171	108.028	33.320	1.00	81.19	C	ATOM	50268	OE1	GLU S	17	248.008	106.073	45.358	1.00109.12
ATOM	50219	N	ASP S	12	248.793	108.308	35.153	1.00109.09	N	ATOM	50269	OE2	GLU S	17	250.015	106.940	45.583	1.00109.33	
ATOM	50220	CA	ASP S	12	247.863	108.249	36.278	1.00109.09	C	ATOM	50270	N	LYS S	18	251.039	101.993	42.380	1.00 85.02	
ATOM	50221	C	ASP S	12	248.528	107.461	37.395	1.00109.09	C	ATOM	50271	CA	LYS S	18	250.572	100.629	42.622	1.00 85.04	
ATOM	50222	O	ASP S	12	249.160	106.434	37.146	1.00109.09	O	ATOM	50272	C	LYS S	18	251.505	99.665	41.910	1.00 85.04	
ATOM	50223	CB	ASP S	12	246.553	107.554	35.887	1.00144.56	C	ATOM	50273	O	LYS S	18	251.533	98.474	42.215	1.00 85.08	
ATOM	50224	CG	ASP S	12	245.568	108.488	35.208	1.00144.56	C	ATOM	50274	CB	LYS S	18	249.153	100.416	42.089	1.00109.03	
ATOM	50225	OD1	ASP S	12	245.833	108.916	34.068	1.00144.56	O	ATOM	50275	CG	LYS S	18	248.644	98.980	42.255	1.00109.15	
ATOM	50226	OD2	ASP S	12	244.522	108.795	35.815	1.00144.56	O	ATOM	50276	CD	LYS S	18	247.412	98.693	41.398	1.00110.10	
ATOM	50227	N	ASP S	13	248.385	107.938	38.625	1.00 80.20	N	ATOM	50277	CE	LYS S	18	246.245	99.613	41.742	1.00110.76	
ATOM	50228	CA	ASP S	13	248.989	107.261	39.761	1.00 80.21	C	ATOM	50278	NZ	LYS S	18	244.999	99.268	40.996	1.00111.67	
ATOM	50229	C	ASP S	13	248.094	106.225	40.436	1.00 80.21	C	ATOM	50279	N	VAL S	19	252.260	100.186	40.948	1.00140.72	
ATOM	50230	O	ASP S	13	248.149	106.041	41.646	1.00 80.21	O	ATOM	50280	CA	VAL S	19	253.197	99.366	40.197	1.00140.76	
ATOM	50231	CB	ASP S	13	249.483	108.291	40.781	1.00127.16	C	ATOM	50281	C	VAL S	19	254.533	99.336	40.926	1.00140.76	
ATOM	50232	CG	ASP S	13	248.480	109.393	41.028	1.00127.48	C	ATOM	50282	O	VAL S	19	255.182	98.292	41.005	1.00140.80	
ATOM	50233	OD1	ASP S	13	248.841	110.371	41.717	1.00128.18	O	ATOM	50283	CB	VAL S	19	253.407	99.907	38.757	1.00102.88	
ATOM	50234	OD2	ASP S	13	247.336	109.282	40.538	1.00128.08	O	ATOM	50284	CG1	VAL S	19	253.989	101.309	38.794	1.00103.28	
ATOM	50235	N	HIS S	14	247.259	105.555	39.650	1.00111.68	N	ATOM	50285	CG2	VAL S	19	254.323	98.977	37.987	1.00103.24	
ATOM	50236	CA	HIS S	14	246.406	104.504	40.191	1.00111.73	C	ATOM	50286	N	LEU S	20	254.935	100.483	41.468	1.00122.59	
ATOM	50237	C	HIS S	14	247.330	103.308	40.129	1.00111.69	C	ATOM	50287	CA	LEU S	20	256.194	100.569	42.194	1.00122.63	
ATOM	50238	O	HIS S	14	247.537	102.598	41.110	1.00111.75	O	ATOM	50288	C	LEU S	20	256.089	99.936	43.583	1.00122.61	
ATOM	50239	CB	HIS S	14	245.209	104.209	39.284	1.00144.74	C	ATOM	50289	O	LEU S	20	257.097	99.505	44.152	1.00122.66	
ATOM	50240	CG	HIS S	14	244.453	105.423	38.853	1.00144.87	C	ATOM	50290	CB	LEU S	20	256.668	102.030	42.283	1.00 76.59	
ATOM	50241	ND1	HIS S	14	243.929	106.331	39.747	1.00145.66	N	ATOM	50291	CG	LEU S	20	255.660	103.163	42.496	1.00 77.46	
ATOM	50242	CD2	HIS S	14	244.115	105.868	37.621	1.00145.44	C	ATOM	50292	CD1	LEU S	20	254.974	103.023	43.847	1.00 78.11	
ATOM	50243	CE1	HIS S	14	243.301	107.284	39.083	1.00145.60	C	ATOM	50293	CD2	LEU S	20	256.383	104.499	42.401	1.00 78.17	
ATOM	50244	NE2	HIS S	14	243.399	107.027	37.791	1.00145.31	N	ATOM	50294	N	GLU S	21	254.876	99.876	44.127	1.00101.67	
ATOM	50245	N	LEU S	15	247.882	103.119	38.935	1.00148.47	N	ATOM	50295	CA	GLU S	21	254.687	99.254	45.429	1.00101.70	
ATOM	50246	CA	LEU S	15	248.798	102.034	38.630	1.00148.50	C	ATOM	50296	C	GLU S	21	255.090	97.802	45.255	1.00101.70	
ATOM	50247	C	LEU S	15	250.240	102.400	38.949	1.00148.42	C	ATOM	50297	O	GLU S	21	255.636	97.182	46.166	1.00101.76	



Table 1: Sheet 503/521

ATOM	50098	CB	LYS R	84	198.259	124.368	-70.494	1.00	68.52	C	ATOM	50148	CA	ARG S	3	253.634	113.037	19.239	1.00200.93	C	
ATOM	50099	CG	LYS R	84	198.303	122.984	-71.114	1.00	68.52	C	ATOM	50149	C	ARG S	3	254.189	114.129	20.160	1.00200.93	C	
ATOM	50100	CD	LYS R	84	199.625	122.825	-71.882	1.00	68.52	C	ATOM	50150	O	ARG S	3	255.279	114.648	19.908	1.00200.93	O	
ATOM	50101	CE	LYS R	84	199.899	121.394	-72.358	1.00	68.52	C	ATOM	50151	CB	ARG S	3	253.521	111.714	20.005	1.00150.93	C	
ATOM	50102	NZ	LYS R	84	201.272	121.282	-72.952	1.00	68.52	N	ATOM	50152	CG	ARG S	3	253.121	110.538	19.128	1.00150.93	C	
ATOM	50103	N	LEU R	85	197.859	126.165	-67.867	1.00	65.13	N	ATOM	50153	CD	ARG S	3	253.021	109.246	19.920	1.00150.93	C	
ATOM	50104	CA	LEU R	85	198.071	127.461	-67.220	1.00	65.13	C	ATOM	50154	NE	ARG S	3	252.853	108.089	19.043	1.00150.93	N	
ATOM	50105	C	LEU R	85	199.405	128.083	-67.611	1.00	65.13	C	ATOM	50155	CZ	ARG S	3	252.726	106.835	19.468	1.00150.93	C	
ATOM	50106	O	LEU R	85	200.434	127.410	-67.617	1.00	65.13	O	ATOM	50156	NH1	ARG S	3	252.745	106.568	20.767	1.00150.93	N	
ATOM	50107	CB	LEU R	85	198.003	127.326	-65.694	1.00	70.07	C	ATOM	50157	NH2	ARG S	3	252.586	105.846	18.593	1.00150.93	N	
ATOM	50108	CG	LEU R	85	197.848	128.657	-64.941	1.00	70.07	C	ATOM	50158	N	SER S	4	253.455	114.473	21.225	1.00	87.06	N
ATOM	50109	CD1	LEU R	85	196.577	129.361	-65.417	1.00	70.07	C	ATOM	50159	CA	SER S	4	253.917	115.525	22.131	1.00	87.06	C
ATOM	50110	CD2	LEU R	85	197.789	128.422	-63.432	1.00	70.07	C	ATOM	50160	C	SER S	4	253.030	115.919	23.315	1.00	87.06	C
ATOM	50111	N	VAL R	86	199.376	129.374	-67.931	1.00	77.17	N	ATOM	50161	O	SER S	4	251.851	116.240	23.156	1.00	87.06	O
ATOM	50112	CA	VAL R	86	200.575	130.099	-68.329	1.00	77.17	C	ATOM	50162	CB	SER S	4	254.201	116.791	21.328	1.00109.15	C	
ATOM	50113	C	VAL R	86	201.029	131.097	-67.263	1.00	77.17	C	ATOM	50163	OG	SER S	4	253.033	117.197	20.642	1.00109.15	O	
ATOM	50114	O	VAL R	86	200.210	131.809	-66.687	1.00	77.17	O	ATOM	50164	N	LEU S	5	253.635	115.929	24.500	1.00101.89	N	
ATOM	50115	CB	VAL R	86	200.341	130.841	-69.637	1.00	43.78	C	ATOM	50165	CA	LEU S	5	252.950	116.320	25.720	1.00101.89	C	
ATOM	50116	CG1	VAL R	86	201.631	131.500	-70.095	1.00	43.78	C	ATOM	50166	C	LEU S	5	253.545	117.627	26.235	1.00101.89	C	
ATOM	50117	CG2	VAL R	86	199.837	129.872	-70.677	1.00	43.78	C	ATOM	50167	O	LEU S	5	252.800	118.541	26.576	1.00101.89	O	
ATOM	50118	N	ARG R	87	202.345	131.139	-67.040	1.00135.35	N	ATOM	50168	CB	LEU S	5	253.071	115.228	26.783	1.00106.15	C		
ATOM	50119	CA	ARG R	87	203.013	131.978	-66.037	1.00135.35	C	ATOM	50169	CG	LEU S	5	252.263	113.966	26.479	1.00106.15	C		
ATOM	50120	C	ARG R	87	203.605	131.004	-65.019	1.00135.35	C	ATOM	50170	CD1	LEU S	5	252.355	112.964	27.632	1.00106.15	C		
ATOM	50121	O	ARG R	87	204.390	130.132	-65.380	1.00135.35	O	ATOM	50171	CD2	LEU S	5	250.822	114.374	26.238	1.00106.15	C		
ATOM	50122	CB	ARG R	87	202.033	132.916	-65.327	1.00134.58	C	ATOM	50172	N	LYS S	6	254.881	117.699	26.277	1.00100.73	N		
ATOM	50123	CG	ARG R	87	201.691	134.176	-66.088	1.00134.58	C	ATOM	50173	CA	LYS S	6	255.651	118.879	26.720	1.00100.73	C		
ATOM	50124	CD	ARG R	87	202.847	135.151	-66.056	1.00134.58	C	ATOM	50174	C	LYS S	6	256.686	118.590	27.807	1.00100.73	C		
ATOM	50125	NE	ARG R	87	202.477	136.444	-66.622	1.00134.58	N	ATOM	50175	O	LYS S	6	257.705	117.932	27.572	1.00100.73	O		
ATOM	50126	CZ	ARG R	87	202.112	136.629	-67.886	1.00134.58	C	ATOM	50176	CB	LYS S	6	254.737	120.008	27.230	1.00	84.11	C	
ATOM	50127	NH1	ARG R	87	202.068	135.600	-68.723	1.00134.58	N	ATOM	50177	CG	LYS S	6	254.224	120.959	26.165	1.00	84.11	C	
ATOM	50128	NH2	ARG R	87	201.791	137.843	-68.315	1.00134.58	N	ATOM	50178	CD	LYS S	6	253.212	121.953	26.734	1.00	84.11	C	
ATOM	50129	N	LYS R	88	203.219	131.147	-63.753	1.00	89.97	N	ATOM	50179	CE	LYS S	6	251.887	121.301	27.144	1.00	84.11	C
ATOM	50130	CA	LYS R	88	203.690	130.261	-62.685	1.00	89.97	C	ATOM	50180	NZ	LYS S	6	250.840	122.314	27.524	1.00	84.11	N
ATOM	50131	C	LYS R	88	205.184	130.405	-62.386	1.00	89.97	C	ATOM	50181	N	LYS S	7	256.402	119.118	28.996	1.00	90.60	N
ATOM	50132	O	LYS R	88	205.787	131.405	-62.834	1.00	89.97	O	ATOM	50182	CA	LYS S	7	257.245	118.986	30.178	1.00	90.60	C
ATOM	50133	CB	LYS R	88	203.360	128.804	-63.035	1.00	63.11	C	ATOM	50183	C	LYS S	7	256.425	118.407	31.350	1.00	90.60	O
ATOM	50134	CG	LYS R	88	203.532	127.839	-61.884	1.00	63.11	C	ATOM	50184	O	LYS S	7	255.709	119.128	32.050	1.00	90.60	O
ATOM	50135	CD	LYS R	88	203.153	126.425	-62.298	1.00	63.11	C	ATOM	50185	CB	LYS S	7	257.797	120.365	30.540	1.00	59.35	C
ATOM	50136	CE	LYS R	88	203.407	125.442	-61.149	1.00	63.11	C	ATOM	50186	CG	LYS S	7	256.714	121.379	30.902	1.00	59.35	C
ATOM	50137	NZ	LYS R	88	203.162	123.988	-61.449	1.00	63.11	N	ATOM	50187	CD	LYS S	7	257.297	122.761	31.144	1.00	59.35	C
ATOM	50138	OKT	LYS R	88	205.730	129.525	-61.688	1.00	92.08	O	ATOM	50188	CE	LYS S	7	257.361	123.605	29.867	1.00	59.35	C
TER	50139	LYS R	LYS R	88							ATOM	50189	NZ	LYS S	7	256.088	124.358	29.566	1.00	59.35	N
ATOM	50140	N	PRO S	2	255.214	111.988	15.405	1.00105.06	N	ATOM	50190	N	GLY S	8	256.525	117.094	31.540	1.00	85.53	N	
ATOM	50141	CA	PRO S	2	255.465	113.367	15.887	1.00105.06	C	ATOM	50191	CA	GLY S	8	255.798	116.437	32.611	1.00	85.53	C	
ATOM	50142	C	PRO S	2	254.552	113.739	17.058	1.00105.06	C	ATOM	50192	C	GLY S	8	255.109	115.141	32.208	1.00	85.53	C	
ATOM	50143	O	PRO S	2	253.945	114.812	17.062	1.00105.06	O	ATOM	50193	O	GLY S	8	253.924	114.974	32.493	1.00	85.53	O	
ATOM	50144	CB	PRO S	2	255.234	114.293	14.699	1.00	87.96	C	ATOM	50194	N	VAL S	9	255.837	114.229	31.558	1.00	67.35	N
ATOM	50145	CG	PRO S	2	254.252	113.480	13.864	1.00	87.96	C	ATOM	50195	CA	VAL S	9	255.293	112.932	31.114	1.00	67.35	C
ATOM	50146	CD	PRO S	2	254.722	112.022	14.014	1.00	87.96	C	ATOM	50196	C	VAL S	9	254.174	112.435	32.020	1.00	67.35	C
ATOM	50147	N	ARG S	3	254.472	112.847	18.047	1.00200.93	N	ATOM	50197	O	VAL S	9	254.427	111.939	33.114	1.00	67.35	O	



ATOM	50398	N	TRP	S	34	241.995	101.244	34.175	1.00	95.87	N	ATOM	50448	C	THR	S	39	253.004	105.866	30.200	1.00	90.72	C
ATOM	50399	CA	TRP	S	34	241.215	101.842	33.107	1.00	95.87	C	ATOM	50449	O	THR	S	39	252.692	105.626	31.366	1.00	90.72	O
ATOM	50400	C	TRP	S	34	242.006	103.057	32.632	1.00	95.87	C	ATOM	50450	CB	THR	S	39	253.297	108.207	29.482	1.00	94.53	C
ATOM	50401	O	TRP	S	34	241.541	103.845	31.809	1.00	95.87	O	ATOM	50451	OG1	THR	S	39	252.636	109.367	28.959	1.00	94.53	O
ATOM	50402	CB	TRP	S	34	239.852	102.299	33.633	1.00	90.42	C	ATOM	50452	CG2	THR	S	39	254.550	107.910	28.668	1.00	94.53	C
ATOM	50403	CG	TRP	S	34	238.868	101.203	33.961	1.00	90.42	C	ATOM	50453	N	ILE	S	40	253.924	105.161	29.549	1.00	87.71	N
ATOM	50404	CD1	TRP	S	34	237.594	101.090	33.484	1.00	90.42	C	ATOM	50454	CA	ILE	S	40	254.603	104.064	30.221	1.00	87.71	C
ATOM	50405	CD2	TRP	S	34	239.046	100.116	34.886	1.00	90.42	C	ATOM	50455	C	ILE	S	40	256.007	104.474	30.636	1.00	87.71	C
ATOM	50406	NE1	TRP	S	34	236.965	100.009	34.053	1.00	90.42	N	ATOM	50456	O	ILE	S	40	256.793	104.980	29.831	1.00	87.71	O
ATOM	50407	CE2	TRP	S	34	237.831	99.393	34.918	1.00	90.42	C	ATOM	50457	CB	ILE	S	40	254.706	102.820	29.336	1.00	47.87	C
ATOM	50408	CE3	TRP	S	34	240.109	99.685	35.693	1.00	90.42	C	ATOM	50458	CG1	ILE	S	40	253.314	102.369	28.889	1.00	47.87	C
ATOM	50409	CZ2	TRP	S	34	237.650	98.261	35.726	1.00	90.42	C	ATOM	50459	CG2	ILE	S	40	255.385	101.702	30.107	1.00	47.87	C
ATOM	50410	CZ3	TRP	S	34	239.925	98.560	36.497	1.00	90.42	C	ATOM	50460	CD1	ILE	S	40	253.346	101.213	27.900	1.00	47.87	C
ATOM	50411	CH2	TRP	S	34	238.705	97.864	36.505	1.00	90.42	C	ATOM	50461	N	VAL	S	41	256.307	104.248	31.908	1.00	84.29	N
ATOM	50412	N	SER	S	35	243.211	103.206	33.169	1.00	140.30	N	ATOM	50462	CA	VAL	S	41	257.603	104.579	32.472	1.00	84.29	C
ATOM	50413	CA	SER	S	35	244.065	104.332	32.822	1.00	140.30	C	ATOM	50463	O	VAL	S	41	258.372	103.285	32.754	1.00	84.29	C
ATOM	50414	C	SER	S	35	244.899	104.091	31.571	1.00	140.30	C	ATOM	50464	O	VAL	S	41	257.769	102.230	32.977	1.00	84.29	O
ATOM	50415	O	SER	S	35	246.130	104.083	31.626	1.00	140.30	O	ATOM	50465	CB	VAL	S	41	257.427	105.409	33.768	1.00	100.02	C
ATOM	50416	CB	SER	S	35	244.989	104.665	33.993	1.00	104.10	C	ATOM	50466	CG1	VAL	S	41	256.827	106.768	33.431	1.00	100.02	C
ATOM	50417	OG	SER	S	35	245.843	105.746	33.672	1.00	104.10	O	ATOM	50467	CG2	VAL	S	41	256.512	104.681	34.739	1.00	100.02	C
ATOM	50418	N	ARG	S	36	244.230	103.889	30.442	1.00	68.38	N	ATOM	50468	N	PRO	S	42	259.716	103.352	32.740	1.00	78.40	N
ATOM	50419	CA	ARG	S	36	244.942	103.677	29.194	1.00	68.38	C	ATOM	50469	CA	PRO	S	42	260.594	102.202	32.983	1.00	78.40	C
ATOM	50420	C	ARG	S	36	245.463	105.052	28.764	1.00	68.38	C	ATOM	50470	O	PRO	S	42	260.096	101.242	34.057	1.00	78.40	C
ATOM	50421	O	ARG	S	36	246.201	105.181	27.794	1.00	68.38	O	ATOM	50471	O	PRO	S	42	259.968	100.043	33.813	1.00	78.40	O
ATOM	50422	CB	ARG	S	36	243.996	103.063	28.144	1.00	66.22	C	ATOM	50472	CB	PRO	S	42	261.914	102.859	33.357	1.00	82.19	C
ATOM	50423	CG	ARG	S	36	242.954	104.007	27.542	1.00	66.22	C	ATOM	50473	CG	PRO	S	42	261.918	104.075	32.487	1.00	82.19	C
ATOM	50424	CD	ARG	S	36	241.620	103.297	27.239	1.00	66.22	C	ATOM	50474	CD	PRO	S	42	260.505	104.596	32.648	1.00	82.19	C
ATOM	50425	NE	ARG	S	36	241.759	101.989	26.591	1.00	66.22	N	ATOM	50475	N	GLU	S	43	259.816	101.776	35.243	1.00	92.61	N
ATOM	50426	CZ	ARG	S	36	242.209	101.789	25.353	1.00	66.22	C	ATOM	50476	CA	GLU	S	43	259.339	100.970	36.363	1.00	92.61	C
ATOM	50427	NH1	ARG	S	36	242.576	102.817	24.599	1.00	66.22	N	ATOM	50477	C	GLU	S	43	258.237	99.992	35.971	1.00	92.61	C
ATOM	50428	NH2	ARG	S	36	242.290	100.555	24.867	1.00	66.22	N	ATOM	50478	O	GLU	S	43	257.985	99.010	36.676	1.00	92.61	O
ATOM	50429	N	ARG	S	37	245.080	106.070	29.533	1.00	91.96	N	ATOM	50479	CB	GLU	S	43	258.852	101.870	37.507	1.00	94.15	C
ATOM	50430	CA	ARG	S	37	245.465	107.464	29.302	1.00	91.96	C	ATOM	50480	CG	GLU	S	43	258.481	103.288	37.100	1.00	94.15	C
ATOM	50431	C	ARG	S	37	246.917	107.740	29.697	1.00	91.96	C	ATOM	50481	CD	GLU	S	43	259.693	104.132	36.727	1.00	94.15	C
ATOM	50432	O	ARG	S	37	247.493	108.765	29.310	1.00	91.96	O	ATOM	50482	OE1	GLU	S	43	260.619	104.240	37.561	1.00	94.15	O
ATOM	50433	CB	ARG	S	37	244.569	108.398	30.132	1.00	181.50	C	ATOM	50483	OE2	GLU	S	43	259.722	104.692	35.608	1.00	94.15	O
ATOM	50434	CG	ARG	S	37	243.092	108.399	29.769	1.00	181.50	C	ATOM	50484	N	MET	S	44	257.582	100.259	34.846	1.00	113.61	N
ATOM	50435	CD	ARG	S	37	242.809	109.347	28.610	1.00	181.50	C	ATOM	50485	CA	MET	S	44	256.517	99.388	34.376	1.00	113.61	C
ATOM	50436	NE	ARG	S	37	241.418	109.285	28.167	1.00	181.50	N	ATOM	50486	C	MET	S	44	257.082	98.162	33.680	1.00	113.61	C
ATOM	50437	CZ	ARG	S	37	240.910	110.016	27.178	1.00	181.50	C	ATOM	50487	O	MET	S	44	256.486	97.086	33.733	1.00	113.61	O
ATOM	50438	NH1	ARG	S	37	241.676	110.877	26.520	1.00	181.50	N	ATOM	50488	CB	MET	S	44	255.580	100.150	33.437	1.00	93.73	C
ATOM	50439	NH2	ARG	S	37	239.634	109.879	26.839	1.00	181.50	N	ATOM	50489	CG	MET	S	44	254.465	100.880	34.169	1.00	93.73	C
ATOM	50440	N	SER	S	38	247.502	106.825	30.466	1.00	97.13	N	ATOM	50490	SD	MET	S	44	253.400	101.848	33.089	1.00	93.73	S
ATOM	50441	CA	SER	S	38	248.860	107.005	30.970	1.00	97.13	C	ATOM	50491	CE	MET	S	44	253.479	103.470	33.885	1.00	93.73	C
ATOM	50442	C	SER	S	38	250.026	106.519	30.121	1.00	97.13	C	ATOM	50492	N	VAL	S	45	258.240	98.324	33.047	1.00	93.80	N
ATOM	50443	O	SER	S	38	249.956	105.477	29.467	1.00	97.13	O	ATOM	50493	CA	VAL	S	45	258.890	97.224	32.340	1.00	93.80	C
ATOM	50444	CB	SER	S	38	248.975	106.387	32.372	1.00	92.03	C	ATOM	50494	C	VAL	S	45	258.778	95.918	33.131	1.00	93.80	C
ATOM	50445	OG	SER	S	38	248.737	104.989	32.351	1.00	92.03	O	ATOM	50495	O	VAL	S	45	258.578	95.928	34.349	1.00	93.80	O
ATOM	50446	N	THR	S	39	251.103	107.302	30.160	1.00	90.72	N	ATOM	50496	CB	VAL	S	45	260.397	97.514	32.083	1.00	53.83	C
ATOM	50447	CA	THR	S	39	252.339	107.008	29.448	1.00	90.72	C	ATOM	50497	CG1	VAL	S	45	261.016	96.362	31.291	1.00	53.83	C



Table 1: Sheet 505/521

ATOM	50298	CB	GLU S	21	253.227	99.308	45.873	1.00137.32	C	ATOM	50348	C	LYS S	28	253.028	89.941	39.866	1.00131.23	C
ATOM	50299	CG	GLU S	21	252.733	100.675	46.279	1.00137.81	C	ATOM	50349	O	LYS S	28	253.685	89.763	38.841	1.00131.23	O
ATOM	50300	CD	GLU S	21	251.416	100.604	47.031	1.00138.67	C	ATOM	50350	CG	LYS S	28	252.619	91.868	41.403	1.00134.11	C
ATOM	50301	OE1	GLU S	21	251.413	100.097	48.173	1.00139.45	O	ATOM	50351	CB	LYS S	28	251.293	91.372	42.000	1.00134.11	C
ATOM	50302	OE2	GLU S	21	250.383	101.046	46.483	1.00139.17	O	ATOM	50352	CD	LYS S	28	250.314	92.514	42.264	1.00134.11	C
ATOM	50303	N	LEU S	22	254.815	97.271	44.068	1.00109.91	N	ATOM	50353	CE	LYS S	28	248.992	92.009	42.834	1.00134.11	C
ATOM	50304	CA	LEU S	22	255.141	95.891	43.742	1.00109.95	C	ATOM	50354	NZ	LYS S	28	248.018	93.115	43.051	1.00134.11	N
ATOM	50305	C	LEU S	22	256.615	95.775	43.388	1.00109.96	C	ATOM	50355	CA	ARG S	29	251.805	89.452	40.038	1.00161.22	N
ATOM	50306	C	LEU S	22	257.152	94.670	43.301	1.00110.03	O	ATOM	50356	CA	ARG S	29	251.139	88.674	39.006	1.00161.22	C
ATOM	50307	CB	LEU S	22	254.291	95.420	42.568	1.00 92.25	C	ATOM	50357	C	ARG S	29	249.846	89.369	38.586	1.00161.22	C
ATOM	50308	CG	LEU S	22	252.794	95.661	42.745	1.00 92.47	C	ATOM	50358	O	ARG S	29	248.777	89.105	39.140	1.00161.22	O
ATOM	50309	CD1	LEU S	22	252.081	95.348	41.448	1.00 93.38	C	ATOM	50359	CB	ARG S	29	250.848	87.261	39.520	1.00183.94	C
ATOM	50310	CD2	LEU S	22	252.260	94.813	43.887	1.00 93.01	C	ATOM	50360	CG	ARG S	29	252.093	86.533	40.010	1.00183.94	C
ATOM	50311	N	ASN S	23	257.260	96.921	43.174	1.00181.23	N	ATOM	50361	CD	ARG S	29	251.814	85.078	40.350	1.00183.94	C
ATOM	50312	CA	ASN S	23	258.684	96.953	42.852	1.00181.27	C	ATOM	50362	NE	ARG S	29	252.995	84.423	40.905	1.00183.94	N
ATOM	50313	C	ASN S	23	259.475	96.701	44.129	1.00181.31	C	ATOM	50363	CZ	ARG S	29	253.056	83.136	41.229	1.00183.94	C
ATOM	50314	O	ASN S	23	260.648	96.334	44.088	1.00181.37	O	ATOM	50364	NH1	ARG S	29	252.000	82.354	41.052	1.00183.94	N
ATOM	50315	CB	ASN S	23	259.089	98.310	42.259	1.00 75.30	C	ATOM	50365	NH2	ARG S	29	254.173	82.632	41.736	1.00183.94	N
ATOM	50316	CG	ASN S	23	258.647	98.478	40.811	1.00 75.34	C	ATOM	50366	N	LEU S	30	249.976	90.267	37.612	1.00110.29	N
ATOM	50317	OD1	ASN S	23	258.262	97.511	40.147	1.00 75.50	O	ATOM	50367	CA	LEU S	30	248.871	91.046	37.054	1.00110.29	C
ATOM	50318	ND2	ASN S	23	258.718	99.710	40.311	1.00 75.31	N	ATOM	50368	C	LEU S	30	248.632	92.409	37.667	1.00110.29	C
ATOM	50319	N	ALA S	24	258.818	96.909	45.265	1.00118.77	N	ATOM	50369	O	LEU S	30	249.184	92.761	38.706	1.00110.29	O
ATOM	50320	CA	ALA S	24	259.440	96.691	46.562	1.00118.70	C	ATOM	50370	CB	LEU S	30	247.549	90.275	37.102	1.00 83.83	C
ATOM	50321	C	ALA S	24	259.647	95.188	46.790	1.00118.85	C	ATOM	50371	CG	LEU S	30	247.167	89.527	35.829	1.00 83.83	C
ATOM	50322	O	ALA S	24	260.729	94.759	47.189	1.00118.92	O	ATOM	50372	CD1	LEU S	30	245.741	88.997	35.971	1.00 83.83	C
ATOM	50323	CB	ALA S	24	258.564	97.284	47.657	1.00 46.12	C	ATOM	50373	CD2	LEU S	30	247.284	90.468	34.633	1.00 83.83	C
ATOM	50324	N	LYS S	25	258.610	94.394	46.527	1.00104.24	N	ATOM	50374	N	ILE S	31	247.780	93.156	36.979	1.00102.77	N
ATOM	50325	CA	LYS S	25	258.685	92.941	46.687	1.00104.35	C	ATOM	50375	CA	ILE S	31	247.356	94.501	37.340	1.00102.77	C
ATOM	50326	C	LYS S	25	259.085	92.314	45.347	1.00104.34	C	ATOM	50376	C	ILE S	31	246.174	94.697	36.410	1.00102.77	C
ATOM	50327	O	LYS S	25	258.855	91.125	45.099	1.00104.46	O	ATOM	50377	O	ILE S	31	245.907	93.840	35.570	1.00102.77	O
ATOM	50328	CB	LYS S	25	257.328	92.365	47.120	1.00109.73	C	ATOM	50378	CB	ILE S	31	248.429	95.572	36.992	1.00101.35	C
ATOM	50329	CG	LYS S	25	256.517	93.243	48.062	1.00110.36	C	ATOM	50379	CG1	ILE S	31	249.647	95.415	37.899	1.00101.35	C
ATOM	50330	CD	LYS S	25	255.702	94.280	47.292	1.00111.21	C	ATOM	50380	CG2	ILE S	31	247.857	96.977	37.154	1.00101.35	C
ATOM	50331	CE	LYS S	25	254.911	95.196	48.224	1.00112.04	C	ATOM	50381	CD1	ILE S	31	249.354	95.666	39.358	1.00101.35	C
ATOM	50332	NZ	LYS S	25	255.788	96.078	49.049	1.00113.00	N	ATOM	50382	N	LYS S	32	245.465	95.806	36.560	1.00120.97	N
ATOM	50333	N	GLY S	26	259.682	93.129	44.484	1.00182.24	N	ATOM	50383	CA	LYS S	32	244.331	96.113	35.702	1.00120.97	C
ATOM	50334	CA	GLY S	26	260.094	92.649	43.180	1.00182.34	C	ATOM	50384	O	LYS S	32	243.884	97.532	35.984	1.00120.97	C
ATOM	50335	C	GLY S	26	259.056	93.000	42.133	1.00182.40	C	ATOM	50385	O	LYS S	32	243.438	97.846	37.086	1.00120.97	O
ATOM	50336	O	GLY S	26	259.085	94.089	41.557	1.00182.52	O	ATOM	50386	CB	LYS S	32	243.171	95.134	35.935	1.00103.17	C
ATOM	50337	N	GLU S	27	258.133	92.077	41.890	1.00173.17	N	ATOM	50387	CG	LYS S	32	242.669	95.050	37.367	1.00103.17	C
ATOM	50338	CA	GLU S	27	257.072	92.287	40.913	1.00173.17	C	ATOM	50388	CD	LYS S	32	241.310	94.351	37.450	1.00103.17	C
ATOM	50339	C	GLU S	27	255.770	91.755	41.491	1.00173.17	C	ATOM	50389	CE	LYS S	32	241.355	92.929	36.905	1.00103.17	C
ATOM	50340	O	GLU S	27	255.575	91.756	42.706	1.00173.17	O	ATOM	50390	NZ	LYS S	32	240.023	92.267	36.992	1.00103.17	N
ATOM	50341	CB	GLU S	27	257.394	91.550	39.607	1.00200.93	C	ATOM	50391	N	THR S	33	244.023	98.398	34.990	1.00 95.91	N
ATOM	50342	CG	GLU S	27	258.668	92.016	38.907	1.00200.93	C	ATOM	50392	CA	THR S	33	243.627	99.780	35.165	1.00 95.91	C
ATOM	50343	CD	GLU S	27	258.530	93.389	38.272	1.00200.93	C	ATOM	50393	C	THR S	33	242.873	100.276	33.948	1.00 95.91	C
ATOM	50344	OE1	GLU S	27	257.686	93.543	37.366	1.00200.93	O	ATOM	50394	O	THR S	33	243.070	99.785	32.840	1.00 95.91	O
ATOM	50345	OE2	GLU S	27	259.269	94.313	38.674	1.00200.93	O	ATOM	50395	CB	THR S	33	244.846	100.687	35.385	1.00142.85	C
ATOM	50346	N	LYS S	28	254.883	91.302	40.613	1.00131.23	N	ATOM	50396	OG1	THR S	33	245.791	100.020	36.229	1.00142.85	O
ATOM	50347	CA	LYS S	28	253.598	90.748	41.023	1.00131.23	C	ATOM	50397	CG2	THR S	33	244.422	101.984	36.057	1.00142.85	C



ATOM	50598	CG2 VAL S	58	243.759	94.541	26.568	1.00	66.20	C	ATOM	50648	OE2 GLU S	64	263.293	101.019	28.530	1.00	157.04	O
ATOM	50599	N PRO S	59	245.646	91.451	28.861	1.00	83.28	N	ATOM	50649	N ASN S	65	261.393	98.105	24.758	1.00	101.47	N
ATOM	50600	CA PRO S	59	246.989	91.312	29.426	1.00	83.28	C	ATOM	50650	CA ASN S	65	261.119	98.634	23.421	1.00	101.47	C
ATOM	50601	C PRO S	59	248.070	91.827	28.469	1.00	83.28	C	ATOM	50651	C ASN S	65	259.811	99.416	23.294	1.00	101.47	C
ATOM	50602	O PRO S	59	248.273	91.271	27.387	1.00	83.28	O	ATOM	50652	O ASN S	65	259.659	100.230	22.383	1.00	101.47	O
ATOM	50603	CB PRO S	59	247.098	89.812	29.657	1.00	75.16	C	ATOM	50653	CB ASN S	65	261.141	97.485	22.407	1.00	98.16	C
ATOM	50604	CG PRO S	59	246.344	89.268	28.493	1.00	75.16	C	ATOM	50654	CG ASN S	65	260.366	96.270	22.890	1.00	98.16	C
ATOM	50605	CD PRO S	59	245.100	90.131	28.508	1.00	75.16	C	ATOM	50655	OD1 ASN S	65	260.583	95.782	23.997	1.00	98.16	O
ATOM	50606	N VAL S	60	248.766	92.882	28.881	1.00	113.29	N	ATOM	50656	ND2 ASN S	65	259.463	95.772	22.058	1.00	98.16	N
ATOM	50607	CA VAL S	60	249.815	93.478	28.062	1.00	113.29	C	ATOM	50657	N MET S	66	258.877	99.179	24.211	1.00	102.68	N
ATOM	50608	C VAL S	60	251.182	93.420	28.747	1.00	113.29	C	ATOM	50658	CA MET S	66	257.581	99.856	24.177	1.00	102.68	C
ATOM	50609	O VAL S	60	251.425	94.142	29.713	1.00	113.29	O	ATOM	50659	C MET S	66	257.343	100.791	25.355	1.00	102.68	C
ATOM	50610	CB VAL S	60	249.495	94.962	27.749	1.00	65.45	C	ATOM	50660	O MET S	66	256.216	100.910	25.829	1.00	102.68	O
ATOM	50611	CG1 VAL S	60	250.501	95.519	26.761	1.00	65.45	C	ATOM	50661	CB MET S	66	256.449	98.820	24.130	1.00	80.31	C
ATOM	50612	CG2 VAL S	60	248.092	95.089	27.200	1.00	65.45	C	ATOM	50662	CG MET S	66	256.367	97.900	25.347	1.00	80.31	C
ATOM	50613	N TYR S	61	252.070	92.561	28.253	1.00	117.22	N	ATOM	50663	SD MET S	66	255.041	96.657	25.227	1.00	80.31	S
ATOM	50614	CA TYR S	61	253.412	92.455	28.822	1.00	117.22	C	ATOM	50664	CE MET S	66	255.932	95.261	24.488	1.00	80.31	C
ATOM	50615	C TYR S	61	254.210	93.677	28.354	1.00	117.22	C	ATOM	50665	N VAL S	67	258.388	101.464	25.822	1.00	102.12	N
ATOM	50616	O TYR S	61	254.470	93.848	27.160	1.00	117.22	O	ATOM	50666	CA VAL S	67	258.232	102.364	26.959	1.00	102.12	C
ATOM	50617	CB TYR S	61	254.085	91.157	28.359	1.00	103.64	C	ATOM	50667	C VAL S	67	257.419	103.611	26.632	1.00	102.12	C
ATOM	50618	CG TYR S	61	255.468	90.901	28.938	1.00	103.64	C	ATOM	50668	O VAL S	67	256.212	103.638	26.856	1.00	102.12	O
ATOM	50619	CD TYR S	61	255.785	91.667	29.514	1.00	103.64	C	ATOM	50669	CB VAL S	67	259.602	102.786	27.546	1.00	126.19	C
ATOM	50620	CD2 TYR S	61	256.472	91.868	28.870	1.00	103.64	C	ATOM	50670	CG1 VAL S	67	259.410	103.866	28.607	1.00	126.19	C
ATOM	50621	CE1 TYR S	61	257.068	89.403	30.002	1.00	103.64	C	ATOM	50671	CG2 VAL S	67	260.290	101.579	28.172	1.00	126.19	C
ATOM	50622	CE2 TYR S	61	257.755	91.614	29.353	1.00	103.64	C	ATOM	50672	N GLY S	68	258.079	104.636	26.104	1.00	83.75	N
ATOM	50623	CZ TYR S	61	258.046	90.380	29.915	1.00	103.64	C	ATOM	50673	CA GLY S	68	257.407	105.883	25.776	1.00	83.75	C
ATOM	50624	OH TYR S	61	259.318	90.121	30.366	1.00	103.64	O	ATOM	50674	C GLY S	68	255.937	105.857	25.372	1.00	83.75	C
ATOM	50625	N ILE S	62	254.592	94.522	29.308	1.00	94.67	N	ATOM	50675	O GLY S	68	255.238	106.852	25.551	1.00	83.75	O
ATOM	50626	CA ILE S	62	255.333	95.745	29.019	1.00	94.67	C	ATOM	50676	N HIS S	69	255.461	104.736	24.835	1.00	68.94	N
ATOM	50627	C ILE S	62	256.853	95.559	28.986	1.00	94.67	C	ATOM	50677	CA HIS S	69	254.071	104.617	24.389	1.00	68.94	C
ATOM	50628	O ILE S	62	257.489	95.352	30.020	1.00	94.67	O	ATOM	50678	C HIS S	69	253.044	104.794	25.506	1.00	68.94	C
ATOM	50629	CB ILE S	62	254.961	96.852	30.047	1.00	91.12	C	ATOM	50679	O HIS S	69	253.414	105.123	26.632	1.00	68.94	O
ATOM	50630	CG1 ILE S	62	255.863	98.079	29.872	1.00	91.12	C	ATOM	50680	CB HIS S	69	253.884	103.277	23.675	1.00	104.33	C
ATOM	50631	CG2 ILE S	62	255.041	96.297	31.450	1.00	91.12	C	ATOM	50681	CG HIS S	69	254.770	103.114	22.474	1.00	104.33	C
ATOM	50632	CD1 ILE S	62	255.657	98.817	28.563	1.00	91.12	C	ATOM	50682	ND1 HIS S	69	254.761	104.001	21.417	1.00	104.33	N
ATOM	50633	N THR S	63	257.424	95.642	27.784	1.00	94.00	N	ATOM	50683	CD2 HIS S	69	255.715	102.190	22.180	1.00	104.33	C
ATOM	50634	CA THR S	63	258.863	95.492	27.593	1.00	94.00	C	ATOM	50684	CE1 HIS S	69	255.664	103.631	20.526	1.00	104.33	C
ATOM	50635	C THR S	63	259.503	96.846	27.327	1.00	94.00	C	ATOM	50685	NE2 HIS S	69	256.256	102.535	20.965	1.00	104.33	N
ATOM	50636	O THR S	63	258.809	97.828	27.062	1.00	94.00	O	ATOM	50686	N LYS S	70	251.761	104.580	25.205	1.00	84.80	N
ATOM	50637	CB THR S	63	259.179	94.571	26.411	1.00	84.77	C	ATOM	50687	CA LYS S	70	250.719	104.777	26.214	1.00	84.80	C
ATOM	50638	CG1 THR S	63	258.310	93.436	26.448	1.00	84.77	O	ATOM	50688	C LYS S	70	249.696	103.692	26.517	1.00	84.80	C
ATOM	50639	CG2 THR S	63	260.622	94.083	26.497	1.00	84.77	C	ATOM	50689	O LYS S	70	248.501	103.956	26.472	1.00	84.80	O
ATOM	50640	N GLU S	64	260.830	96.887	27.391	1.00	90.88	N	ATOM	50690	CB LYS S	70	249.956	106.070	25.923	1.00	55.37	C
ATOM	50641	CA GLU S	64	261.573	98.122	27.180	1.00	90.88	C	ATOM	50691	CG LYS S	70	250.791	107.288	26.172	1.00	55.37	C
ATOM	50642	C GLU S	64	261.224	98.820	25.866	1.00	90.88	C	ATOM	50692	CD LYS S	70	250.055	108.586	25.947	1.00	55.37	C
ATOM	50643	O GLU S	64	260.810	99.981	25.861	1.00	90.88	O	ATOM	50693	CE LYS S	70	251.071	109.718	26.026	1.00	55.37	C
ATOM	50644	CB GLU S	64	263.077	97.841	27.229	1.00	157.04	C	ATOM	50694	NZ LYS S	70	250.500	111.065	25.827	1.00	55.37	N
ATOM	50645	CG GLU S	64	263.944	99.094	27.276	1.00	157.04	C	ATOM	50695	N LEU S	71	250.154	102.489	26.847	1.00	105.65	N
ATOM	50646	CD GLU S	64	263.786	99.871	28.573	1.00	157.04	C	ATOM	50696	CA LEU S	71	249.260	101.384	27.211	1.00	105.65	C
ATOM	50647	OE1 GLU S	64	264.155	99.333	29.639	1.00	157.04	O	ATOM	50697	C LEU S	71	248.086	101.135	26.272	1.00	105.65	C



Table 1: Sheet 507/521

ATOM	50498	CG2	VAL	S	45	260.570	98.835	31.329	1.00	53.83	C	ATOM	50548	CE1	TYR	S	52	236.520	96.816	30.827	1.00	68.48	C
ATOM	50499	N	GLY	S	46	258.905	94.797	32.428	1.00	80.71	N	ATOM	50549	CE2	TYR	S	52	235.942	99.133	30.485	1.00	68.48	C
ATOM	50500	CA	GLY	S	46	258.818	93.503	33.074	1.00	80.71	C	ATOM	50550	CZ	TYR	S	52	235.562	97.809	30.722	1.00	68.48	C
ATOM	50501	C	GLY	S	46	257.414	93.168	33.529	1.00	80.71	C	ATOM	50551	OH	TYR	S	52	234.230	97.468	30.841	1.00	68.48	O
ATOM	50502	O	GLY	S	46	256.979	92.023	33.405	1.00	80.71	O	ATOM	50552	N	ASN	S	53	239.554	97.364	27.165	1.00	67.63	N
ATOM	50503	N	HIS	S	47	256.698	94.163	34.050	1.00	98.42	N	ATOM	50553	CA	ASN	S	53	239.101	97.589	25.793	1.00	67.63	C
ATOM	50504	CA	HIS	S	47	255.339	93.950	34.536	1.00	98.42	C	ATOM	50554	C	ASN	S	53	238.037	98.666	25.826	1.00	67.63	C
ATOM	50505	C	HIS	S	47	254.348	93.513	33.471	1.00	98.42	C	ATOM	50555	O	ASN	S	53	237.942	99.519	24.948	1.00	67.63	O
ATOM	50506	O	HIS	S	47	254.674	93.452	32.288	1.00	98.42	O	ATOM	50556	CB	ASN	S	53	238.452	96.323	25.238	1.00	80.89	C
ATOM	50507	CB	HIS	S	47	254.822	95.205	35.239	1.00	129.21	C	ATOM	50557	CG	ASN	S	53	239.458	95.322	24.729	1.00	80.89	C
ATOM	50508	CG	HIS	S	47	255.123	95.235	36.705	1.00	129.21	C	ATOM	50558	OD1	ASN	S	53	239.141	94.141	24.557	1.00	80.89	O
ATOM	50509	ND1	HIS	S	47	254.630	94.293	37.583	1.00	129.21	N	ATOM	50559	ND2	ASN	S	53	240.674	95.784	24.465	1.00	80.89	N
ATOM	50510	CD2	HIS	S	47	255.877	96.081	37.446	1.00	129.21	C	ATOM	50560	N	GLY	S	54	237.247	98.601	26.885	1.00	69.55	N
ATOM	50511	CE1	HIS	S	47	255.066	94.558	38.801	1.00	129.21	C	ATOM	50561	CA	GLY	S	54	236.123	99.487	27.087	1.00	69.55	C
ATOM	50512	NE2	HIS	S	47	255.825	95.638	38.746	1.00	129.21	N	ATOM	50562	O	GLY	S	54	235.055	98.429	27.270	1.00	69.55	O
ATOM	50513	N	THR	S	48	253.134	93.199	33.906	1.00	92.76	C	ATOM	50563	O	GLY	S	54	233.858	98.706	27.339	1.00	69.55	O
ATOM	50514	CA	THR	S	48	252.089	92.754	32.998	1.00	92.76	C	ATOM	50564	N	LYS	S	55	235.545	97.189	27.356	1.00	49.78	N
ATOM	50515	C	THR	S	48	250.775	93.417	33.360	1.00	92.76	C	ATOM	50565	CA	LYS	S	55	234.727	95.996	27.505	1.00	49.78	C
ATOM	50516	O	THR	S	48	249.964	92.849	34.091	1.00	92.76	O	ATOM	50566	C	LYS	S	55	235.499	94.855	28.172	1.00	49.78	C
ATOM	50517	CB	THR	S	48	251.899	91.235	33.077	1.00	101.92	C	ATOM	50567	O	LYS	S	55	234.925	94.078	28.936	1.00	49.78	O
ATOM	50518	OG1	THR	S	48	253.168	90.593	32.924	1.00	101.92	O	ATOM	50568	CB	LYS	S	55	234.243	95.537	26.122	1.00	73.62	C
ATOM	50519	CG2	THR	S	48	250.960	90.754	31.980	1.00	101.92	C	ATOM	50569	CG	LYS	S	55	233.665	94.130	26.086	1.00	73.62	C
ATOM	50520	N	ILE	S	49	250.568	94.620	32.844	1.00	115.35	N	ATOM	50570	CE	LYS	S	55	233.286	93.710	24.677	1.00	73.62	C
ATOM	50521	CA	ILE	S	49	249.346	95.359	33.114	1.00	115.35	C	ATOM	50571	CD	LYS	S	55	232.756	92.281	24.660	1.00	73.62	C
ATOM	50522	C	ILE	S	49	248.252	95.011	32.119	1.00	115.35	C	ATOM	50572	NZ	LYS	S	55	232.395	91.829	23.287	1.00	73.62	N
ATOM	50523	O	ILE	S	49	248.484	95.005	30.912	1.00	115.35	O	ATOM	50573	N	GLN	S	56	236.793	94.750	27.871	1.00	76.96	N
ATOM	50524	CB	ILE	S	49	249.594	96.854	33.031	1.00	60.25	C	ATOM	50574	CA	GLN	S	56	237.636	93.684	28.423	1.00	76.96	C
ATOM	50525	CG1	ILE	S	49	250.726	97.229	33.988	1.00	60.25	C	ATOM	50575	C	GLN	S	56	238.913	94.195	29.066	1.00	76.96	C
ATOM	50526	CG2	ILE	S	49	248.309	97.601	33.339	1.00	60.25	C	ATOM	50576	O	GLN	S	56	239.290	95.355	28.916	1.00	76.96	O
ATOM	50527	CD1	ILE	S	49	251.116	98.699	33.958	1.00	60.25	C	ATOM	50577	CB	GLN	S	56	238.043	92.696	27.328	1.00	109.37	C
ATOM	50528	N	ALA	S	50	247.058	94.725	32.624	1.00	85.70	N	ATOM	50578	CG	GLN	S	56	236.890	92.052	26.608	1.00	109.37	C
ATOM	50529	CA	ALA	S	50	245.940	94.388	31.755	1.00	85.70	C	ATOM	50579	CD	GLN	S	56	236.011	91.268	27.545	1.00	109.37	C
ATOM	50530	C	ALA	S	50	245.052	95.621	31.566	1.00	85.70	C	ATOM	50580	OE1	GLN	S	56	236.461	90.312	28.172	1.00	109.37	O
ATOM	50531	O	ALA	S	50	244.409	96.085	32.511	1.00	85.70	O	ATOM	50581	NE2	GLN	S	56	234.748	91.669	27.652	1.00	109.37	N
ATOM	50532	CB	ALA	S	50	245.142	93.221	32.350	1.00	29.50	C	ATOM	50582	N	HIS	S	57	239.583	93.298	29.777	1.00	97.12	N
ATOM	50533	N	VAL	S	51	245.036	96.146	30.338	1.00	100.00	N	ATOM	50583	CA	HIS	S	57	240.843	93.616	30.422	1.00	97.12	C
ATOM	50534	CA	VAL	S	51	244.258	97.337	29.988	1.00	100.00	C	ATOM	50584	C	HIS	S	57	241.891	92.730	29.774	1.00	97.12	C
ATOM	50535	C	VAL	S	51	242.813	97.016	29.583	1.00	100.00	C	ATOM	50585	O	HIS	S	57	242.049	91.568	30.139	1.00	97.12	O
ATOM	50536	O	VAL	S	51	242.482	95.881	29.225	1.00	100.00	O	ATOM	50586	CB	HIS	S	57	240.762	93.341	31.921	1.00	80.94	C
ATOM	50537	CB	VAL	S	51	244.937	98.135	28.835	1.00	68.55	C	ATOM	50587	CG	HIS	S	57	240.265	94.506	32.718	1.00	80.94	C
ATOM	50538	CG1	VAL	S	51	244.283	99.500	28.684	1.00	68.55	C	ATOM	50588	ND1	HIS	S	57	240.936	95.710	32.770	1.00	80.94	N
ATOM	50539	CG2	VAL	S	51	246.426	98.296	29.105	1.00	68.55	C	ATOM	50589	CD2	HIS	S	57	239.168	94.653	33.497	1.00	80.94	C
ATOM	50540	N	TYR	S	52	241.967	98.042	29.629	1.00	89.41	N	ATOM	50590	CE1	HIS	S	57	240.275	96.548	33.549	1.00	80.94	C
ATOM	50541	CA	TYR	S	52	240.546	97.923	29.319	1.00	89.41	C	ATOM	50591	NE2	HIS	S	57	239.198	95.931	34.002	1.00	80.94	N
ATOM	50542	C	TYR	S	52	240.169	98.305	27.879	1.00	89.41	C	ATOM	50592	N	VAL	S	58	242.595	93.286	28.796	1.00	95.90	N
ATOM	50543	O	TYR	S	52	240.431	99.421	27.429	1.00	89.41	O	ATOM	50593	CA	VAL	S	58	243.616	92.542	28.071	1.00	95.90	C
ATOM	50544	CB	TYR	S	52	239.758	98.789	30.317	1.00	68.48	C	ATOM	50594	C	VAL	S	58	245.007	92.614	28.677	1.00	95.90	C
ATOM	50545	CG	TYR	S	52	238.284	98.453	30.451	1.00	68.48	C	ATOM	50595	O	VAL	S	58	245.516	93.692	28.965	1.00	95.90	O
ATOM	50546	CD1	TYR	S	52	237.870	97.139	30.694	1.00	68.48	C	ATOM	50596	CB	VAL	S	58	243.714	93.016	26.615	1.00	66.20	C
ATOM	50547	CD2	TYR	S	52	237.303	99.448	30.349	1.00	68.48	C	ATOM	50597	CG1	VAL	S	58	242.532	92.488	25.823	1.00	66.20	C



ATOM	50798	NH2	ARG	T	8	136.720	38.684	10.364	1.00114.63	N	ATOM	50848	CG	ARG	T	15	118.229	47.655	1.346	1.00	42.07	C	
ATOM	50799	N	ASN	T	9	129.066	42.794	8.732	1.00	90.46	N	ATOM	50849	CD	ARG	T	15	116.974	47.962	0.549	1.00	42.07	C
ATOM	50800	CA	ASN	T	9	127.624	42.654	8.867	1.00	90.46	C	ATOM	50850	NE	ARG	T	15	116.244	49.094	1.112	1.00	42.07	N
ATOM	50801	C	ASN	T	9	126.809	43.923	9.083	1.00	90.46	C	ATOM	50851	CZ	ARG	T	15	115.080	49.536	0.649	1.00	42.07	C
ATOM	50802	O	ASN	T	9	126.782	44.483	10.179	1.00	90.46	O	ATOM	50852	NH1	ARG	T	15	114.507	48.936	-0.389	1.00	42.07	N
ATOM	50803	CB	ASN	T	9	127.296	41.668	9.994	1.00163.98	C	ATOM	50853	NH2	ARG	T	15	114.495	50.581	1.218	1.00	42.07	N	
ATOM	50804	CG	ASN	T	9	127.778	40.260	9.700	1.00163.98	C	ATOM	50854	N	HIS	T	16	120.319	44.385	-0.953	1.00	39.79	N	
ATOM	50805	OD1	ASN	T	9	127.403	39.658	8.693	1.00163.98	O	ATOM	50855	CA	HIS	T	16	120.899	43.802	-2.142	1.00	39.79	C	
ATOM	50806	ND2	ASN	T	9	128.612	39.726	10.585	1.00163.98	N	ATOM	50856	C	HIS	T	16	120.124	42.538	-2.456	1.00	39.79	C	
ATOM	50807	N	LEU	T	10	126.154	44.367	8.013	1.00	53.37	N	ATOM	50857	O	HIS	T	16	119.728	42.285	-3.601	1.00	39.79	O
ATOM	50808	CA	LEU	T	10	125.257	45.515	8.042	1.00	53.37	C	ATOM	50858	CB	HIS	T	16	122.354	43.451	-1.917	1.00	55.22	C
ATOM	50809	C	LEU	T	10	123.994	44.853	7.513	1.00	53.37	C	ATOM	50859	CG	HIS	T	16	123.025	42.958	-3.151	1.00	55.22	C
ATOM	50810	O	LEU	T	10	123.652	45.006	6.348	1.00	53.37	O	ATOM	50860	ND1	HIS	T	16	122.720	41.745	-3.725	1.00	55.22	C
ATOM	50811	CB	LEU	T	10	125.711	46.609	7.076	1.00	64.28	C	ATOM	50861	CD2	HIS	T	16	123.937	43.540	-3.959	1.00	55.22	C
ATOM	50812	CG	LEU	T	10	125.043	47.995	7.186	1.00	64.28	C	ATOM	50862	CE1	HIS	T	16	123.421	41.597	-4.833	1.00	55.22	C
ATOM	50813	CD1	LEU	T	10	123.525	47.908	7.038	1.00	64.28	C	ATOM	50863	NE2	HIS	T	16	124.168	42.673	-4.998	1.00	55.22	N
ATOM	50814	CD2	LEU	T	10	125.418	48.606	8.540	1.00	64.28	C	ATOM	50864	N	ARG	T	17	119.916	41.757	-1.403	1.00	46.03	N
ATOM	50815	N	SER	T	11	123.329	44.093	8.379	1.00	51.89	N	ATOM	50865	CA	ARG	T	17	119.185	40.506	-1.453	1.00	46.03	C
ATOM	50816	CA	SER	T	11	122.132	43.346	8.023	1.00	51.89	C	ATOM	50866	C	ARG	T	17	117.869	40.667	-2.233	1.00	46.03	C
ATOM	50817	C	SER	T	11	121.252	43.911	6.915	1.00	51.89	C	ATOM	50867	O	ARG	T	17	117.504	39.827	-3.061	1.00	46.03	O
ATOM	50818	O	SER	T	11	120.403	43.190	6.380	1.00	51.89	O	ATOM	50868	CB	ARG	T	17	118.897	40.086	-0.020	1.00	36.13	C
ATOM	50819	CB	SER	T	11	121.306	43.044	9.278	1.00	34.64	C	ATOM	50869	CG	ARG	T	17	118.921	38.609	0.236	1.00	36.13	C
ATOM	50820	OG	SER	T	11	121.852	41.929	9.972	1.00	34.64	O	ATOM	50870	CD	ARG	T	17	118.482	38.338	1.671	1.00	36.13	C
ATOM	50821	N	ALA	T	12	121.438	45.181	6.567	1.00	69.32	N	ATOM	50871	NE	ARG	T	17	119.438	38.820	2.663	1.00	36.13	N
ATOM	50822	CA	ALA	T	12	120.686	45.766	5.462	1.00	69.32	C	ATOM	50872	CZ	ARG	T	17	119.099	39.228	3.887	1.00	36.13	C
ATOM	50823	C	ALA	T	12	121.329	45.313	4.125	1.00	69.32	C	ATOM	50873	NH1	ARG	T	17	117.822	39.219	4.262	1.00	36.13	N
ATOM	50824	O	ALA	T	12	121.330	46.049	3.139	1.00	69.32	O	ATOM	50874	NH2	ARG	T	17	120.039	39.634	4.746	1.00	36.13	N
ATOM	50825	CB	ALA	T	12	120.678	47.277	5.568	1.00	84.76	C	ATOM	50875	N	GLN	T	18	117.170	41.765	-1.968	1.00	38.07	N
ATOM	50826	N	LEU	T	13	121.910	44.108	4.127	1.00	87.71	N	ATOM	50876	CA	GLN	T	18	115.895	42.036	-2.605	1.00	38.07	C
ATOM	50827	CA	LEU	T	13	122.487	43.504	2.922	1.00	87.71	C	ATOM	50877	C	GLN	T	18	116.056	42.666	-3.964	1.00	38.07	C
ATOM	50828	C	LEU	T	13	121.217	43.077	2.228	1.00	87.71	C	ATOM	50878	O	GLN	T	18	115.201	42.488	-4.837	1.00	38.07	O
ATOM	50829	O	LEU	T	13	121.144	42.953	1.007	1.00	87.71	O	ATOM	50879	CB	GLN	T	18	115.074	42.957	-1.723	1.00	54.07	C
ATOM	50830	CB	LEU	T	13	123.266	42.228	3.229	1.00	24.44	C	ATOM	50880	CG	GLN	T	18	115.173	42.590	-0.277	1.00	54.07	C
ATOM	50831	CG	LEU	T	13	124.533	42.212	4.089	1.00	24.44	C	ATOM	50881	CD	GLN	T	18	114.520	43.599	0.610	1.00	54.07	C
ATOM	50832	CD1	LEU	T	13	124.170	41.969	5.548	1.00	24.44	C	ATOM	50882	OE1	GLN	T	18	114.676	44.802	0.418	1.00	54.07	O
ATOM	50833	CD2	LEU	T	13	125.456	41.111	3.593	1.00	24.44	C	ATOM	50883	NE2	GLN	T	18	113.792	43.123	1.604	1.00	54.07	N
ATOM	50834	N	LYS	T	14	120.233	42.809	3.082	1.00	28.31	N	ATOM	50884	N	SER	T	19	117.137	43.422	-4.142	1.00	41.80	N
ATOM	50835	CA	LYS	T	14	118.882	42.421	2.717	1.00	28.31	C	ATOM	50885	CA	SER	T	19	117.384	44.082	-5.423	1.00	41.80	C
ATOM	50836	C	LYS	T	14	118.444	43.202	1.486	1.00	28.31	C	ATOM	50886	C	SER	T	19	117.423	43.009	-6.508	1.00	41.80	C
ATOM	50837	O	LYS	T	14	117.771	42.670	0.605	1.00	28.31	O	ATOM	50887	O	SER	T	19	116.807	43.134	-7.566	1.00	41.80	O
ATOM	50838	CB	LYS	T	14	117.951	42.735	3.895	1.00	30.21	C	ATOM	50888	CB	SER	T	19	118.719	44.821	-5.392	1.00	70.14	C
ATOM	50839	CG	LYS	T	14	116.489	42.400	3.656	1.00	30.21	C	ATOM	50889	OG	SER	T	19	119.800	43.908	-5.441	1.00	70.14	O
ATOM	50840	CD	LYS	T	14	115.647	42.807	4.835	1.00	30.21	C	ATOM	50890	N	LEU	T	20	118.145	41.939	-6.212	1.00	42.88	N
ATOM	50841	CE	LYS	T	14	114.196	42.410	4.635	1.00	30.21	C	ATOM	50891	CA	LEU	T	20	118.286	40.842	-7.142	1.00	42.88	C
ATOM	50842	NZ	LYS	T	14	113.380	42.672	5.879	1.00	30.21	N	ATOM	50892	C	LEU	T	20	116.951	40.268	-7.543	1.00	42.88	C
ATOM	50843	N	ARG	T	15	118.828	44.477	1.449	1.00	32.70	N	ATOM	50893	O	LEU	T	20	116.755	39.908	-8.699	1.00	42.88	O
ATOM	50844	CA	ARG	T	15	118.512	45.354	0.332	1.00	32.70	C	ATOM	50894	CB	LEU	T	20	119.140	39.754	-6.524	1.00	42.10	C
ATOM	50845	C	ARG	T	15	119.050	44.769	-0.972	1.00	32.70	C	ATOM	50895	CG	LEU	T	20	120.586	40.161	-6.278	1.00	42.10	C
ATOM	50846	O	ARG	T	15	118.334	44.666	-1.984	1.00	32.70	O	ATOM	50896	CD1	LEU	T	20	121.260	39.074	-5.482	1.00	42.10	C
ATOM	50847	CB	ARG	T	15	119.118	46.724	0.577	1.00	42.07	C	ATOM	50897	CD2	LEU	T	20	121.305	40.372	-7.597	1.00	42.10	C



Table 1: Sheet 509/521

ATOM	50698	O	LEU S	71	247.988	100.071	25.669	1.00105.65	O	ATOM	50748	C	ARG S	78	237.635	96.829	17.211	1.00	52.57	C	
ATOM	50699	CB	LEU S	71	248.733	101.611	28.629	1.00	61.48	C	ATOM	50749	O	ARG S	78	238.791	96.424	17.235	1.00	52.57	O
ATOM	50700	CG	LEU S	71	249.827	101.693	29.698	1.00	61.48	C	ATOM	50750	CB	ARG S	78	237.234	99.194	16.494	1.00	60.84	C
ATOM	50701	CD1	LEU S	71	249.400	102.642	30.795	1.00	61.48	C	ATOM	50751	CG	ARG S	78	237.261	100.602	16.989	1.00	60.84	C
ATOM	50702	CD2	LEU S	71	250.120	100.304	30.244	1.00	61.48	C	ATOM	50752	CD	ARG S	78	237.110	101.629	15.931	1.00	60.84	C
ATOM	50703	N	GLY S	72	247.181	102.102	26.174	1.00113.21	N	ATOM	50753	NE	ARG S	78	237.449	102.921	16.508	1.00	60.84	N	
ATOM	50704	CA	GLY S	72	246.038	101.956	25.294	1.00113.21	C	ATOM	50754	CZ	ARG S	78	237.189	104.085	15.934	1.00	60.84	C	
ATOM	50705	C	GLY S	72	246.464	101.543	23.899	1.00113.21	C	ATOM	50755	NH1	ARG S	78	236.578	104.116	14.758	1.00	60.84	N	
ATOM	50706	O	GLY S	72	245.739	100.834	23.202	1.00113.21	O	ATOM	50756	NH2	ARG S	78	237.542	105.213	16.532	1.00	60.84	N	
ATOM	50707	N	GLU S	73	247.649	101.987	23.491	1.00	74.20	N	ATOM	50757	N	THR S	79	236.616	96.095	16.793	1.00	66.57	N
ATOM	50708	CA	GLU S	73	248.178	101.655	22.179	1.00	74.20	C	ATOM	50758	CA	THR S	79	236.781	94.739	16.306	1.00	66.57	C
ATOM	50709	C	GLU S	73	248.421	100.158	22.062	1.00	74.20	C	ATOM	50759	C	THR S	79	236.447	94.770	14.802	1.00	66.57	C
ATOM	50710	O	GLU S	73	248.884	99.690	21.022	1.00	74.20	O	ATOM	50760	O	THR S	79	235.302	95.028	14.421	1.00	66.57	O
ATOM	50711	CB	GLU S	73	249.503	102.369	21.941	1.00102.70	C	ATOM	50761	CB	THR S	79	235.825	93.811	17.070	1.00	67.74	C	
ATOM	50712	CG	GLU S	73	249.433	103.869	22.008	1.00102.70	C	ATOM	50762	OG1	THR S	79	235.885	94.125	18.470	1.00	67.74	O	
ATOM	50713	CD	GLU S	73	250.792	104.507	21.802	1.00102.70	C	ATOM	50763	CG2	THR S	79	236.215	92.364	16.871	1.00	67.74	C	
ATOM	50714	OE1	GLU S	73	251.450	104.177	20.791	1.00102.70	O	ATOM	50764	N	TYR S	80	237.443	94.525	13.948	1.00	75.12	N	
ATOM	50715	OE2	GLU S	73	251.200	105.336	22.647	1.00102.70	O	ATOM	50765	CA	TYR S	80	237.234	94.576	12.496	1.00	75.12	C	
ATOM	50716	N	PHE S	74	248.118	99.409	23.124	1.00	68.12	N	ATOM	50766	C	TYR S	80	237.476	93.271	11.738	1.00	75.12	C
ATOM	50717	CA	PHE S	74	248.338	97.960	23.135	1.00	68.12	C	ATOM	50767	O	TYR S	80	238.150	92.369	12.228	1.00	75.12	O
ATOM	50718	C	PHE S	74	247.071	97.191	23.499	1.00	68.12	C	ATOM	50768	CB	TYR S	80	238.122	95.669	11.888	1.00	100.57	C
ATOM	50719	O	PHE S	74	247.081	95.961	23.658	1.00	68.12	O	ATOM	50769	CG	TYR S	80	238.033	95.762	10.377	1.00	100.57	C
ATOM	50720	CB	PHE S	74	249.476	97.612	24.110	1.00	73.99	C	ATOM	50770	CD1	TYR S	80	236.949	96.375	9.758	1.00	100.57	C
ATOM	50721	CG	PHE S	74	250.708	98.456	23.917	1.00	73.99	C	ATOM	50771	CD2	TYR S	80	239.014	95.191	9.565	1.00	100.57	C
ATOM	50722	CD1	PHE S	74	250.783	99.740	24.458	1.00	73.99	C	ATOM	50772	CE1	TYR S	80	236.841	96.415	8.370	1.00	100.57	C
ATOM	50723	CD2	PHE S	74	251.760	98.004	23.127	1.00	73.99	C	ATOM	50773	CE2	TYR S	80	238.913	95.223	8.179	1.00	100.57	C
ATOM	50724	CE1	PHE S	74	251.885	100.565	24.208	1.00	73.99	C	ATOM	50774	CZ	TYR S	80	237.824	95.835	7.588	1.00	100.57	C
ATOM	50725	CE2	PHE S	74	252.866	98.820	22.870	1.00	73.99	C	ATOM	50775	OH	TYR S	80	237.712	95.853	6.215	1.00	100.57	O
ATOM	50726	CZ	PHE S	74	252.926	100.102	23.411	1.00	73.99	C	ATOM	50776	N	ARG S	81	236.917	93.191	10.531	1.00	153.73	N
ATOM	50727	N	ALA S	75	245.979	97.937	23.625	1.00103.16	N	ATOM	50777	CA	ARG S	81	237.080	92.022	9.674	1.00	153.73	C	
ATOM	50728	CA	ALA S	75	244.680	97.376	23.951	1.00103.16	C	ATOM	50778	O	ARG S	81	236.419	90.826	10.337	1.00	153.73	C	
ATOM	50729	C	ALA S	75	243.705	97.934	22.933	1.00103.16	C	ATOM	50779	O	ARG S	81	237.140	89.866	10.681	1.00	153.73	O	
ATOM	50730	O	ALA S	75	243.028	98.928	23.187	1.00103.16	O	ATOM	50780	CB	ARG S	81	238.575	91.773	9.454	1.00	125.94	C	
ATOM	50731	CB	ALA S	75	244.267	97.788	25.348	1.00115.61	C	ATOM	50781	CG	ARG S	81	238.979	90.737	8.407	1.00	125.94	C	
ATOM	50732	N	PRO S	76	243.632	97.300	21.755	1.00	89.26	N	ATOM	50782	CD	ARG S	81	240.434	91.033	7.970	1.00	125.94	C
ATOM	50733	CA	PRO S	76	242.745	97.705	20.661	1.00	89.26	C	ATOM	50783	NE	ARG S	81	241.151	89.944	7.293	1.00	125.94	N
ATOM	50734	C	PRO S	76	241.269	97.792	21.072	1.00	89.26	C	ATOM	50784	CZ	ARG S	81	241.683	88.885	7.902	1.00	125.94	C
ATOM	50735	O	PRO S	76	240.767	96.977	21.850	1.00	89.26	O	ATOM	50785	NH1	ARG S	81	241.585	88.741	9.218	1.00	125.94	N
ATOM	50736	CB	PRO S	76	243.007	96.643	19.596	1.00	61.20	C	ATOM	50786	NH2	ARG S	81	242.345	87.979	7.194	1.00	125.94	N
ATOM	50737	CG	PRO S	76	243.356	95.434	20.413	1.00	61.20	C	TER	50787	ARG S	81							
ATOM	50738	CD	PRO S	76	244.280	96.014	21.452	1.00	61.20	C	ATOM	50788	N	ARG T	8	132.063	44.097	10.452	1.00	68.48	N
ATOM	50739	N	THR S	77	240.590	98.796	20.531	1.00	98.58	N	ATOM	50789	CA	ARG T	8	131.314	43.401	9.367	1.00	68.48	C
ATOM	50740	CA	THR S	77	239.187	99.047	20.825	1.00	98.58	C	ATOM	50790	C	ARG T	8	129.815	43.380	9.657	1.00	68.48	C
ATOM	50741	C	THR S	77	238.222	98.312	19.913	1.00	98.58	C	ATOM	50791	O	ARG T	8	129.352	43.876	10.683	1.00	68.48	O
ATOM	50742	O	THR S	77	237.534	97.372	20.314	1.00	98.58	O	ATOM	50792	CB	ARG T	8	131.800	41.957	9.229	1.00	114.63	C
ATOM	50743	CB	THR S	77	238.863	100.535	20.687	1.00	66.49	C	ATOM	50793	CG	ARG T	8	133.302	41.779	9.198	1.00	114.63	C
ATOM	50744	OG1	THR S	77	239.513	101.273	21.725	1.00	66.49	O	ATOM	50794	CD	ARG T	8	133.619	40.303	9.248	1.00	114.63	C
ATOM	50745	CG2	THR S	77	237.383	100.749	20.768	1.00	66.49	C	ATOM	50795	NE	ARG T	8	135.006	40.035	9.606	1.00	114.63	N
ATOM	50746	N	ARG S	78	238.170	98.779	18.675	1.00	52.57	N	ATOM	50796	CZ	ARG T	8	135.439	38.859	10.053	1.00	114.63	C
ATOM	50747	CA	ARG S	78	237.277	98.230	17.674	1.00	52.57	C	ATOM	50797	NH1	ARG T	8	134.584	37.853	10.193	1.00	114.63	N



ATOM	50998	CB	ALA T	32	106.759	39.277	-21.271	1.00	28.22	C	ATOM	51048	C	LYS T	39	104.163	40.445	-33.226	1.00	57.62	C
ATOM	50999	N	ILE T	33	107.262	41.855	-22.786	1.00	39.55	N	ATOM	51049	O	LYS T	39	103.773	40.085	-34.329	1.00	57.62	O
ATOM	51000	CA	ILE T	33	106.809	43.051	-23.470	1.00	39.55	C	ATOM	51050	CB	LYS T	39	104.752	38.986	-31.289	1.00	102.47	C
ATOM	51001	C	ILE T	33	107.407	43.142	-24.864	1.00	39.55	C	ATOM	51051	CG	LYS T	39	104.490	37.501	-31.490	1.00	102.47	C
ATOM	51002	O	ILE T	33	106.678	43.205	-25.851	1.00	39.55	O	ATOM	51052	CD	LYS T	39	103.555	37.234	-32.659	1.00	102.47	C
ATOM	51003	CB	ILE T	33	107.206	44.291	-22.675	1.00	37.28	C	ATOM	51053	CE	LYS T	39	103.248	35.749	-32.795	1.00	102.47	C
ATOM	51004	CG1	ILE T	33	106.436	44.302	-21.355	1.00	37.28	C	ATOM	51054	NZ	LYS T	39	102.612	35.211	-31.559	1.00	102.47	N
ATOM	51005	CG2	ILE T	33	106.959	45.544	-23.496	1.00	37.28	C	ATOM	51055	N	ALA T	40	103.653	41.486	-32.583	1.00	65.41	N
ATOM	51006	CD1	ILE T	33	106.708	45.516	-20.462	1.00	37.28	C	ATOM	51056	CA	ALA T	40	102.564	42.267	-33.142	1.00	65.41	C
ATOM	51007	N	LYS T	34	108.736	43.138	-24.943	1.00	49.41	N	ATOM	51057	C	ALA T	40	103.013	43.040	-34.366	1.00	65.41	C
ATOM	51008	CA	LYS T	34	109.427	43.228	-26.225	1.00	49.41	C	ATOM	51058	O	ALA T	40	102.430	42.893	-35.444	1.00	65.41	O
ATOM	51009	C	LYS T	34	108.961	42.132	-27.175	1.00	49.41	C	ATOM	51059	CB	ALA T	40	102.032	43.219	-32.108	1.00	16.65	C
ATOM	51010	O	LYS T	34	108.573	42.399	-28.316	1.00	49.41	O	ATOM	51060	N	VAL T	41	104.041	43.872	-34.194	1.00	56.57	N
ATOM	51011	CB	LYS T	34	110.935	43.138	-26.007	1.00	53.18	C	ATOM	51061	CA	VAL T	41	104.580	44.682	-35.291	1.00	56.57	C
ATOM	51012	CG	LYS T	34	111.445	44.216	-25.066	1.00	53.18	C	ATOM	51062	C	VAL T	41	104.813	43.817	-36.520	1.00	56.57	C
ATOM	51013	CD	LYS T	34	112.896	44.012	-24.643	1.00	53.18	C	ATOM	51063	O	VAL T	41	104.501	44.202	-37.645	1.00	56.57	O
ATOM	51014	CE	LYS T	34	113.305	45.077	-23.628	1.00	53.18	C	ATOM	51064	CB	VAL T	41	105.921	45.339	-34.903	1.00	33.32	C
ATOM	51015	NZ	LYS T	34	114.680	44.879	-23.081	1.00	53.18	C	ATOM	51065	CG1	VAL T	41	106.590	45.881	-36.137	1.00	33.32	C
ATOM	51016	N	THR T	35	108.976	40.897	-26.695	1.00	68.62	N	ATOM	51066	CG2	VAL T	41	105.693	46.459	-33.890	1.00	33.32	C
ATOM	51017	CA	THR T	35	108.553	39.777	-27.517	1.00	68.62	C	ATOM	51067	N	GLN T	42	105.362	42.635	-36.290	1.00	49.88	N
ATOM	51018	C	THR T	35	107.200	39.994	-28.170	1.00	68.62	C	ATOM	51068	CA	GLN T	42	105.632	41.715	-37.373	1.00	49.88	C
ATOM	51019	O	THR T	35	107.045	39.801	-29.375	1.00	68.62	O	ATOM	51069	C	GLN T	42	104.348	41.164	-38.021	1.00	49.88	C
ATOM	51020	CB	THR T	35	108.464	38.514	-26.705	1.00	50.76	C	ATOM	51070	O	GLN T	42	104.326	40.880	-39.213	1.00	49.88	O
ATOM	51021	CG1	THR T	35	109.759	38.175	-26.211	1.00	50.76	O	ATOM	51071	CB	GLN T	42	106.525	40.584	-36.863	1.00	87.93	C
ATOM	51022	CG2	THR T	35	107.962	37.396	-27.568	1.00	50.76	C	ATOM	51072	CG	GLN T	42	107.656	40.270	-37.808	1.00	87.93	C
ATOM	51023	N	LEU T	36	106.215	40.374	-27.364	1.00	52.05	N	ATOM	51073	OE1	GLN T	42	107.151	39.702	-39.107	1.00	87.93	C
ATOM	51024	CA	LEU T	36	104.882	40.612	-27.877	1.00	52.05	C	ATOM	51074	OE1	GLN T	42	107.796	39.821	-40.145	1.00	87.93	C
ATOM	51025	C	LEU T	36	104.859	41.797	-28.827	1.00	52.05	C	ATOM	51075	NE2	GLN T	42	105.989	39.066	-39.054	1.00	87.93	N
ATOM	51026	O	LEU T	36	104.198	41.753	-29.861	1.00	52.05	O	ATOM	51076	N	LEU T	43	103.278	41.014	-37.251	1.00	76.02	N
ATOM	51027	CB	LEU T	36	103.901	40.865	-26.731	1.00	45.22	C	ATOM	51077	CA	LEU T	43	102.031	40.518	-37.825	1.00	76.02	C
ATOM	51028	CG	LEU T	36	103.423	39.665	-25.917	1.00	45.22	C	ATOM	51078	C	LEU T	43	101.402	41.587	-38.686	1.00	76.02	C
ATOM	51029	CD1	LEU T	36	102.175	40.039	-25.135	1.00	45.22	C	ATOM	51079	O	LEU T	43	100.890	41.293	-39.768	1.00	76.02	O
ATOM	51030	CD2	LEU T	36	103.103	38.525	-26.851	1.00	45.22	C	ATOM	51080	CB	LEU T	43	101.038	40.111	-36.742	1.00	72.44	C
ATOM	51031	N	SER T	37	105.577	42.859	-28.472	1.00	44.15	N	ATOM	51081	CG	LEU T	43	101.296	38.746	-36.116	1.00	72.44	C
ATOM	51032	CA	SER T	37	105.631	44.060	-29.300	1.00	44.15	C	ATOM	51082	CD1	LEU T	43	100.067	38.350	-35.323	1.00	72.44	C
ATOM	51033	C	SER T	37	106.051	43.710	-30.726	1.00	44.15	C	ATOM	51083	CD2	LEU T	43	101.591	37.712	-37.201	1.00	72.44	C
ATOM	51034	O	SER T	37	105.351	44.041	-31.688	1.00	44.15	O	ATOM	51084	N	ALA T	44	101.426	42.822	-38.183	1.00	77.43	N
ATOM	51035	CB	SER T	37	106.612	45.062	-28.699	1.00	59.18	C	ATOM	51085	CA	ALA T	44	100.887	43.973	-38.907	1.00	77.43	C
ATOM	51036	OG	SER T	37	106.248	45.388	-27.369	1.00	59.18	O	ATOM	51086	C	ALA T	44	101.749	44.074	-40.149	1.00	77.43	C
ATOM	51037	N	LYS T	38	107.199	43.048	-30.863	1.00	51.10	N	ATOM	51087	O	ALA T	44	101.261	44.283	-41.265	1.00	77.43	O
ATOM	51038	CA	LYS T	38	107.671	42.648	-32.181	1.00	51.10	C	ATOM	51088	CB	ALA T	44	101.032	45.241	-38.066	1.00	42.56	C
ATOM	51039	C	LYS T	38	106.556	41.798	-32.770	1.00	51.10	C	ATOM	51089	N	GLN T	45	103.048	43.909	-39.911	1.00	60.17	N
ATOM	51040	O	LYS T	38	105.928	42.164	-33.765	1.00	51.10	O	ATOM	51090	CA	GLN T	45	104.077	43.940	-40.939	1.00	60.17	C
ATOM	51041	CB	LYS T	38	108.931	41.792	-32.080	1.00	55.64	C	ATOM	51091	C	GLN T	45	103.580	43.159	-42.159	1.00	60.17	C
ATOM	51042	CG	LYS T	38	110.027	42.350	-31.215	1.00	55.64	C	ATOM	51092	O	GLN T	45	103.393	43.722	-43.233	1.00	60.17	O
ATOM	51043	CD	LYS T	38	111.174	41.349	-31.124	1.00	55.64	C	ATOM	51093	CB	GLN T	45	105.346	43.296	-40.372	1.00	82.96	C
ATOM	51044	CE	LYS T	38	112.179	41.704	-30.019	1.00	55.64	C	ATOM	51094	CG	GLN T	45	106.631	43.729	-41.020	1.00	82.96	C
ATOM	51045	NZ	LYS T	38	113.175	40.609	-29.753	1.00	55.64	N	ATOM	51095	CD	GLN T	45	106.527	43.722	-42.514	1.00	82.96	C
ATOM	51046	N	LYS T	39	106.321	40.660	-32.121	1.00	57.62	N	ATOM	51096	OE1	GLN T	45	106.085	42.738	-43.111	1.00	82.96	O
ATOM	51047	CA	LYS T	39	105.295	39.711	-32.522	1.00	57.62	C	ATOM	51097	NE2	GLN T	45	106.931	44.822	-43.137	1.00	82.96	N



Table 1: Sheet 511/521

ATOM	50898	N	LYS	T	21	116.031	40.166	-6.594	1.00	44.52	N	ATOM	50948	N	ASN	T	26	111.557	42.329	-12.798	1.00	51.74	N
ATOM	50899	CA	LYS	T	21	114.727	39.610	-6.920	1.00	44.52	C	ATOM	50949	CA	ASN	T	26	111.444	43.345	-13.846	1.00	51.74	C
ATOM	50900	C	LYS	T	21	114.023	40.541	-7.895	1.00	44.52	C	ATOM	50950	C	ASN	T	26	111.878	42.783	-15.169	1.00	51.74	C
ATOM	50901	O	LYS	T	21	113.670	40.149	-9.021	1.00	44.52	O	ATOM	50951	O	ASN	T	26	111.128	42.788	-16.143	1.00	51.74	O
ATOM	50902	CB	LYS	T	21	113.867	39.447	-5.666	1.00	58.55	C	ATOM	50952	CB	ASN	T	26	112.324	44.549	-13.547	1.00	38.38	C
ATOM	50903	CG	LYS	T	21	114.430	38.522	-4.616	1.00	58.55	C	ATOM	50953	CG	ASN	T	26	111.739	45.440	-12.495	1.00	38.38	C
ATOM	50904	CD	LYS	T	21	113.389	38.326	-3.535	1.00	58.55	C	ATOM	50954	OD1	ASN	T	26	110.524	45.645	-12.456	1.00	38.38	O
ATOM	50905	CE	LYS	T	21	113.936	37.623	-2.306	1.00	58.55	C	ATOM	50955	ND2	ASN	T	26	112.599	45.998	-11.636	1.00	38.38	N
ATOM	50906	NZ	LYS	T	21	112.908	37.635	-1.215	1.00	58.55	N	ATOM	50956	N	LYS	T	27	113.119	42.318	-15.192	1.00	51.07	N
ATOM	50907	N	ARG	T	22	113.825	41.776	-7.435	1.00	34.34	C	ATOM	50957	CA	LYS	T	27	113.708	41.729	-16.377	1.00	51.07	C
ATOM	50908	CA	ARG	T	22	113.166	42.817	-8.208	1.00	34.34	C	ATOM	50958	C	LYS	T	27	112.693	40.855	-17.122	1.00	51.07	C
ATOM	50909	C	ARG	T	22	113.790	42.872	-9.598	1.00	34.34	C	ATOM	50959	O	LYS	T	27	112.571	40.923	-18.347	1.00	51.07	O
ATOM	50910	O	ARG	T	22	113.089	42.955	-10.608	1.00	34.34	O	ATOM	50960	CG	LYS	T	27	114.909	40.892	-15.964	1.00	69.26	C
ATOM	50911	CB	ARG	T	22	113.325	44.157	-7.491	1.00	58.19	C	ATOM	50961	CG	LYS	T	27	115.510	40.145	-17.096	1.00	69.26	C
ATOM	50912	CG	ARG	T	22	112.636	44.225	-6.141	1.00	58.19	C	ATOM	50962	CD	LYS	T	27	116.289	38.962	-16.596	1.00	69.26	C
ATOM	50913	CD	ARG	T	22	112.813	45.591	-5.483	1.00	58.19	C	ATOM	50963	CE	LYS	T	27	116.621	38.040	-17.759	1.00	69.26	C
ATOM	50914	NE	ARG	T	22	111.807	45.811	-4.447	1.00	58.19	N	ATOM	50964	NZ	LYS	T	27	117.261	36.789	-17.284	1.00	69.26	N
ATOM	50915	CZ	ARG	T	22	110.582	46.272	-4.682	1.00	58.19	C	ATOM	50965	CA	ALA	T	28	111.952	40.056	-16.358	1.00	37.85	N
ATOM	50916	NH1	ARG	T	22	110.209	46.581	-5.921	1.00	58.19	N	ATOM	50966	N	ALA	T	28	110.953	39.134	-16.894	1.00	37.85	C
ATOM	50917	NH2	ARG	T	22	109.716	46.391	-3.684	1.00	58.19	N	ATOM	50967	C	ALA	T	28	109.748	39.813	-17.499	1.00	37.85	C
ATOM	50918	N	ARG	T	23	115.115	42.812	-9.641	1.00	34.49	N	ATOM	50968	O	ALA	T	28	109.160	39.302	-18.437	1.00	37.85	O
ATOM	50919	CA	ARG	T	23	115.808	42.822	-10.913	1.00	34.49	C	ATOM	50969	CB	ALA	T	28	110.498	38.184	-15.810	1.00	47.64	C
ATOM	50920	C	ARG	T	23	115.235	41.711	-11.768	1.00	34.49	C	ATOM	50970	N	LYS	T	29	109.361	40.954	-16.956	1.00	38.75	N
ATOM	50921	O	ARG	T	23	114.794	41.935	-12.896	1.00	34.49	O	ATOM	50971	CA	LYS	T	29	108.207	41.658	-17.494	1.00	38.75	C
ATOM	50922	CB	ARG	T	23	117.295	42.591	-10.707	1.00	68.03	C	ATOM	50972	C	LYS	T	29	108.545	42.240	-18.848	1.00	38.75	C
ATOM	50923	CG	ARG	T	23	118.041	42.298	-11.969	1.00	68.03	C	ATOM	50973	O	LYS	T	29	107.825	42.030	-19.830	1.00	38.75	O
ATOM	50924	CD	ARG	T	23	119.525	42.362	-11.729	1.00	68.03	C	ATOM	50974	CB	LYS	T	29	107.779	42.779	-16.555	1.00	59.51	C
ATOM	50925	NE	ARG	T	23	120.237	41.674	-12.791	1.00	68.03	N	ATOM	50975	CG	LYS	T	29	107.312	42.298	-15.203	1.00	59.51	C
ATOM	50926	CZ	ARG	T	23	120.122	40.371	-13.019	1.00	68.03	C	ATOM	50976	CD	LYS	T	29	105.990	42.944	-14.871	1.00	59.51	C
ATOM	50927	NH1	ARG	T	23	119.328	39.633	-12.249	1.00	68.03	N	ATOM	50977	CE	LYS	T	29	105.461	42.509	-13.519	1.00	59.51	C
ATOM	50928	NH2	ARG	T	23	120.787	39.806	-14.018	1.00	68.03	N	ATOM	50978	NZ	LYS	T	29	104.123	43.138	-13.287	1.00	59.51	N
ATOM	50929	N	LEU	T	24	115.209	40.507	-11.216	1.00	48.10	N	ATOM	50979	N	LYS	T	30	109.660	42.964	-18.884	1.00	66.41	N
ATOM	50930	CA	LEU	T	24	114.691	39.376	-11.959	1.00	48.10	C	ATOM	50980	CA	LYS	T	30	110.121	43.614	-20.098	1.00	66.41	C
ATOM	50931	C	LEU	T	24	113.216	39.533	-12.312	1.00	48.10	C	ATOM	50981	C	LYS	T	30	110.365	42.670	-21.263	1.00	66.41	C
ATOM	50932	O	LEU	T	24	112.790	39.176	-13.409	1.00	48.10	O	ATOM	50982	O	LYS	T	30	109.901	42.932	-22.373	1.00	66.41	O
ATOM	50933	CB	LEU	T	24	114.923	38.089	-11.173	1.00	72.52	C	ATOM	50983	CB	LYS	T	30	111.375	44.455	-19.810	1.00	49.06	C
ATOM	50934	CG	LEU	T	24	114.491	36.804	-11.879	1.00	72.52	C	ATOM	50984	CG	LYS	T	30	111.050	45.862	-19.275	1.00	49.06	C
ATOM	50935	CD1	LEU	T	24	114.854	36.836	-13.361	1.00	72.52	C	ATOM	50985	CD	LYS	T	30	112.286	46.699	-18.913	1.00	49.06	C
ATOM	50936	CD2	LEU	T	24	115.155	35.639	-11.180	1.00	72.52	C	ATOM	50986	CE	LYS	T	30	113.074	46.089	-17.739	1.00	49.06	C
ATOM	50937	N	ARG	T	25	112.440	40.081	-11.387	1.00	59.52	N	ATOM	50987	NZ	LYS	T	30	114.062	47.028	-17.099	1.00	49.06	N
ATOM	50938	CA	ARG	T	25	111.019	40.259	-11.633	1.00	59.52	C	ATOM	50988	N	SER	T	31	111.066	41.568	-21.033	1.00	48.22	N
ATOM	50939	C	ARG	T	25	110.796	41.232	-12.790	1.00	59.52	C	ATOM	50989	CA	SER	T	31	111.318	40.660	-22.144	1.00	48.22	C
ATOM	50940	O	ARG	T	25	109.952	40.986	-13.657	1.00	59.52	O	ATOM	50990	C	SER	T	31	110.010	40.177	-22.775	1.00	49.88	C
ATOM	50941	CB	ARG	T	25	110.331	40.770	-10.367	1.00	86.71	C	ATOM	50991	O	SER	T	31	109.918	40.016	-23.997	1.00	48.22	O
ATOM	50942	CG	ARG	T	25	108.825	40.561	-10.345	1.00	86.71	C	ATOM	50992	CB	SER	T	31	112.187	39.483	-21.696	1.00	55.85	C
ATOM	50943	CD	ARG	T	25	108.436	39.627	-9.207	1.00	86.71	C	ATOM	50993	OG	SER	T	31	111.688	38.918	-20.509	1.00	55.85	O
ATOM	50944	NE	ARG	T	25	109.019	40.060	-7.934	1.00	86.71	N	ATOM	50994	N	ALA	T	32	108.994	39.968	-21.946	1.00	49.88	N
ATOM	50945	CZ	ARG	T	25	108.885	39.409	-6.780	1.00	86.71	C	ATOM	50995	CA	ALA	T	32	107.692	39.525	-22.436	1.00	49.88	C
ATOM	50946	NH1	ARG	T	25	108.180	38.284	-6.725	1.00	86.71	N	ATOM	50996	C	ALA	T	32	107.141	40.639	-23.305	1.00	49.88	C
ATOM	50947	NH2	ARG	T	25	109.465	39.882	-5.681	1.00	86.71	N	ATOM	50997	O	ALA	T	32	106.625	40.408	-24.399	1.00	49.88	O



Table 1: Sheet 514/521

ATOM	51198	CD	LYS T	58	98.177	38.317	-25.872	1.00	81.86	C	ATOM	51248	O	LYS T	65	102.407	46.997	-14.393	1.00	54.82	O
ATOM	51199	CE	LYS T	58	97.056	37.303	-26.158	1.00	81.86	C	ATOM	51249	CB	LYS T	65	100.384	45.280	-16.213	1.00	63.52	C
ATOM	51200	N2	LYS T	58	97.586	35.956	-26.532	1.00	81.86	N	ATOM	51250	CG	LYS T	65	98.953	45.000	-16.565	1.00	63.52	C
ATOM	51201	N	ALA T	59	100.189	43.366	-25.763	1.00	40.44	N	ATOM	51251	CD	LYS T	65	98.663	43.524	-16.478	1.00	63.52	C
ATOM	51202	CA	ALA T	59	101.348	44.211	-25.575	1.00	40.44	C	ATOM	51252	CE	LYS T	65	97.171	43.274	-16.481	1.00	63.52	C
ATOM	51203	C	ALA T	59	100.907	45.444	-24.795	1.00	40.44	C	ATOM	51253	N2	LYS T	65	96.868	41.851	-16.153	1.00	63.52	N
ATOM	51204	O	ALA T	59	101.456	45.750	-23.733	1.00	40.44	O	ATOM	51254	N	ALA T	66	103.060	46.893	-16.531	1.00	61.94	N
ATOM	51205	CB	ALA T	59	101.918	44.607	-26.911	1.00	64.72	C	ATOM	51255	CA	ALA T	66	104.464	47.036	-16.183	1.00	61.94	C
ATOM	51206	N	GLU T	60	99.899	46.139	-25.314	1.00	44.44	N	ATOM	51256	C	ALA T	66	104.630	48.379	-15.480	1.00	61.94	C
ATOM	51207	CA	GLU T	60	99.401	47.329	-24.643	1.00	44.44	C	ATOM	51257	O	ALA T	66	105.445	48.518	-14.568	1.00	61.94	O
ATOM	51208	C	GLU T	60	99.166	47.044	-23.166	1.00	44.44	C	ATOM	51258	CB	ALA T	66	105.326	46.983	-17.436	1.00	52.78	C
ATOM	51209	O	GLU T	60	99.600	47.806	-22.299	1.00	44.44	O	ATOM	51259	N	ALA T	67	103.835	49.360	-15.901	1.00	54.15	N
ATOM	51210	CB	GLU T	60	98.101	47.806	-25.286	1.00	63.97	C	ATOM	51260	CA	ALA T	67	103.894	50.698	-15.315	1.00	54.15	C
ATOM	51211	CG	GLU T	60	97.491	48.999	-24.575	1.00	63.97	C	ATOM	51261	C	ALA T	67	103.096	50.776	-14.034	1.00	54.15	C
ATOM	51212	CD	GLU T	60	96.349	49.624	-25.352	1.00	63.97	C	ATOM	51262	O	ALA T	67	103.132	51.798	-13.343	1.00	54.15	O
ATOM	51213	OE1	GLU T	60	95.788	50.639	-24.886	1.00	63.97	O	ATOM	51263	CB	ALA T	67	103.372	51.728	-16.297	1.00	25.59	C
ATOM	51214	OE2	GLU T	60	96.010	49.100	-26.433	1.00	63.97	O	ATOM	51264	N	LYS T	68	102.361	49.701	-13.744	1.00	47.87	N
ATOM	51215	N	SER T	61	98.498	45.927	-22.888	1.00	47.36	N	ATOM	51265	CA	LYS T	68	101.539	49.603	-12.539	1.00	47.87	C
ATOM	51216	CA	SER T	61	98.185	45.532	-21.517	1.00	47.36	C	ATOM	51266	C	LYS T	68	102.526	49.651	-11.370	1.00	47.87	C
ATOM	51217	C	SER T	61	99.414	45.317	-20.641	1.00	47.36	C	ATOM	51267	O	LYS T	68	102.499	50.571	-10.549	1.00	47.87	O
ATOM	51218	O	SER T	61	99.585	45.967	-19.605	1.00	47.36	O	ATOM	51268	CB	LYS T	68	100.758	48.297	-11.747	1.00	92.88	C
ATOM	51219	CB	SER T	61	97.348	44.261	-21.516	1.00	61.60	C	ATOM	51269	CG	LYS T	68	99.472	48.297	-11.747	1.00	92.88	C
ATOM	51220	OG	SER T	61	97.112	43.841	-20.187	1.00	61.60	O	ATOM	51270	CD	LYS T	68	98.498	49.289	-12.345	1.00	92.88	C
ATOM	51221	N	LEU T	62	100.266	44.391	-21.056	1.00	52.38	N	ATOM	51271	CE	LYS T	68	97.592	49.901	-11.281	1.00	92.88	C
ATOM	51222	CA	LEU T	62	101.471	44.107	-20.300	1.00	52.38	C	ATOM	51272	N2	LYS T	68	96.663	50.935	-11.840	1.00	92.88	N
ATOM	51223	C	LEU T	62	102.219	45.394	-19.978	1.00	52.38	C	ATOM	51273	N	GLY T	69	103.402	48.654	-11.310	1.00	76.12	N
ATOM	51224	O	LEU T	62	102.722	45.580	-18.866	1.00	52.38	O	ATOM	51274	CA	GLY T	69	104.416	48.627	-10.277	1.00	76.12	C
ATOM	51225	CB	LEU T	62	102.365	43.158	-21.096	1.00	49.68	C	ATOM	51275	C	GLY T	69	105.559	49.444	-10.843	1.00	76.12	C
ATOM	51226	CG	LEU T	62	101.672	41.839	-21.427	1.00	49.68	C	ATOM	51276	O	GLY T	69	105.380	50.123	-11.853	1.00	76.12	O
ATOM	51227	CD1	LEU T	62	102.674	40.853	-21.984	1.00	49.68	C	ATOM	51277	N	SER T	70	106.737	49.380	-10.235	1.00	36.58	N
ATOM	51228	CD2	LEU T	62	101.041	41.293	-20.161	1.00	49.68	C	ATOM	51278	CA	SER T	70	107.859	50.169	-10.744	1.00	36.58	C
ATOM	51229	N	ILE T	63	102.280	46.286	-20.958	1.00	59.19	N	ATOM	51279	C	SER T	70	108.745	49.493	-11.786	1.00	36.58	C
ATOM	51230	CA	ILE T	63	102.963	47.548	-20.775	1.00	59.19	C	ATOM	51280	O	SER T	70	109.956	49.538	-11.667	1.00	36.58	O
ATOM	51231	C	ILE T	63	102.338	48.370	-19.652	1.00	59.19	C	ATOM	51281	CB	SER T	70	108.745	50.685	-9.582	1.00	30.25	C
ATOM	51232	O	ILE T	63	103.023	48.744	-18.692	1.00	59.19	O	ATOM	51282	OG	SER T	70	109.431	49.661	-8.877	1.00	30.25	O
ATOM	51233	CB	ILE T	63	102.959	48.366	-22.074	1.00	26.25	C	ATOM	51283	N	THR T	71	108.165	48.865	-12.800	1.00	63.44	N
ATOM	51234	CG1	ILE T	63	103.765	47.620	-23.138	1.00	26.25	C	ATOM	51284	CA	THR T	71	108.996	48.244	-13.823	1.00	63.44	C
ATOM	51235	CG2	ILE T	63	103.557	49.751	-21.823	1.00	26.25	C	ATOM	51285	C	THR T	71	109.211	49.292	-14.889	1.00	63.44	C
ATOM	51236	CD1	ILE T	63	103.950	48.384	-24.453	1.00	26.25	C	ATOM	51286	O	THR T	71	110.212	49.999	-14.856	1.00	63.44	O
ATOM	51237	N	ASP T	64	101.042	48.647	-19.752	1.00	55.13	N	ATOM	51287	CB	THR T	71	108.333	47.025	-14.463	1.00	54.88	C
ATOM	51238	CA	ASP T	64	100.403	49.441	-18.712	1.00	55.13	C	ATOM	51288	OG1	THR T	71	108.135	46.019	-13.467	1.00	54.88	C
ATOM	51239	C	ASP T	64	100.511	48.803	-17.333	1.00	55.13	C	ATOM	51289	CG2	THR T	71	109.213	46.472	-15.572	1.00	54.88	O
ATOM	51240	O	ASP T	64	100.537	49.505	-16.321	1.00	55.13	O	ATOM	51290	N	LEU T	72	108.274	49.398	-15.828	1.00	76.95	N
ATOM	51241	CB	ASP T	64	98.946	49.718	-19.058	1.00	79.14	C	ATOM	51291	CA	LEU T	72	108.376	50.397	-16.880	1.00	76.95	C
ATOM	51242	CG	ASP T	64	98.773	51.014	-19.820	1.00	79.14	C	ATOM	51292	C	LEU T	72	108.171	51.748	-16.244	1.00	76.95	C
ATOM	51243	OD1	ASP T	64	99.373	52.034	-19.408	1.00	79.14	O	ATOM	51293	O	LEU T	72	109.014	52.641	-16.339	1.00	76.95	C
ATOM	51244	OD2	ASP T	64	98.032	51.020	-20.821	1.00	79.14	O	ATOM	51294	CB	LEU T	72	107.299	50.209	-17.928	1.00	36.62	C
ATOM	51245	N	LYS T	65	100.576	47.473	-17.296	1.00	54.82	N	ATOM	51295	CG	LEU T	72	107.727	49.556	-19.239	1.00	36.62	C
ATOM	51246	CA	LYS T	65	100.704	46.757	-16.036	1.00	54.82	C	ATOM	51296	CD1	LEU T	72	106.635	49.792	-20.278	1.00	36.62	C
ATOM	51247	C	LYS T	65	102.135	46.898	-15.581	1.00	54.82	C	ATOM	51297	CD2	LEU T	72	109.044	50.132	-19.730	1.00	36.62	C



ATOM	51098	N	GLU	T	46	103.352	41.861	-41.963	1.00	65.41	N	ATOM	51148	N	LEU	T	53	96.454	42.947	-34.341	1.00	49.08	N
ATOM	51099	CA	GLU	T	46	102.875	40.961	-43.010	1.00	65.41	C	ATOM	51149	CA	LEU	T	53	95.870	43.778	-33.297	1.00	49.08	C
ATOM	51100	C	GLU	T	46	101.439	41.237	-43.431	1.00	65.41	C	ATOM	51150	C	LEU	T	53	95.708	42.974	-32.011	1.00	49.08	C
ATOM	51101	O	GLU	T	46	100.844	40.443	-44.160	1.00	65.41	O	ATOM	51151	O	LEU	T	53	96.099	43.437	-30.938	1.00	49.08	O
ATOM	51102	CB	GLU	T	46	102.952	39.520	-42.532	1.00	111.79	C	ATOM	51152	CB	LEU	T	53	94.514	44.322	-33.744	1.00	81.39	C
ATOM	51103	CG	GLU	T	46	104.227	39.167	-41.829	1.00	111.79	C	ATOM	51153	CG	LEU	T	53	94.558	45.269	-34.944	1.00	81.39	C
ATOM	51104	CD	GLU	T	46	104.164	37.773	-41.259	1.00	111.79	C	ATOM	51154	CD	LEU	T	53	93.150	45.556	-35.393	1.00	81.39	C
ATOM	51105	OE1	GLU	T	46	104.140	36.811	-42.057	1.00	111.79	O	ATOM	51155	CD2	LEU	T	53	95.279	46.558	-34.582	1.00	81.39	C
ATOM	51106	OE2	GLU	T	46	104.120	37.640	-40.016	1.00	111.79	O	ATOM	51156	N	LYS	T	54	95.138	41.771	-32.130	1.00	70.39	N
ATOM	51107	N	GLY	T	47	100.876	42.342	-42.949	1.00	75.23	N	ATOM	51157	CA	LYS	T	54	94.923	40.878	-30.987	1.00	70.39	C
ATOM	51108	CA	GLY	T	47	99.511	42.698	-43.303	1.00	75.23	C	ATOM	51158	C	LYS	T	54	96.150	40.839	-30.111	1.00	70.39	C
ATOM	51109	C	GLY	T	47	98.345	41.968	-42.640	1.00	75.23	C	ATOM	51159	O	LYS	T	54	96.058	40.979	-28.893	1.00	70.39	O
ATOM	51110	O	GLY	T	47	97.197	42.315	-42.901	1.00	75.23	C	ATOM	51160	CG	LYS	T	54	94.605	39.454	-31.452	1.00	105.74	C
ATOM	51111	N	LYS	T	48	98.609	40.975	-41.789	1.00	76.52	N	ATOM	51161	CG	LYS	T	54	93.141	39.214	-31.749	1.00	105.74	C
ATOM	51112	CA	LYS	T	48	97.528	40.236	-41.122	1.00	76.52	C	ATOM	51162	CD	LYS	T	54	92.880	37.817	-32.292	1.00	105.74	C
ATOM	51113	C	LYS	T	48	96.829	41.060	-40.043	1.00	76.52	C	ATOM	51163	CE	LYS	T	54	91.407	37.653	-32.640	1.00	105.74	C
ATOM	51114	O	LYS	T	48	97.263	41.101	-38.891	1.00	76.52	O	ATOM	51164	NZ	LYS	T	54	91.117	36.349	-33.284	1.00	105.74	N
ATOM	51115	CB	LYS	T	48	98.063	38.945	-40.508	1.00	71.84	C	ATOM	51165	N	ILE	T	55	97.301	40.632	-30.735	1.00	49.61	N
ATOM	51116	CG	LYS	T	48	98.679	38.004	-41.518	1.00	71.84	C	ATOM	51166	CA	ILE	T	55	98.540	40.598	-29.991	1.00	49.61	C
ATOM	51117	CD	LYS	T	48	98.940	36.642	-40.916	1.00	71.84	C	ATOM	51167	C	ILE	T	55	98.872	41.993	-29.475	1.00	49.61	C
ATOM	51118	CE	LYS	T	48	99.789	35.814	-41.846	1.00	71.84	C	ATOM	51168	O	ILE	T	55	99.264	42.158	-28.316	1.00	49.61	O
ATOM	51119	NZ	LYS	T	48	101.065	36.535	-42.134	1.00	71.84	N	ATOM	51169	CG	ILE	T	55	99.668	40.112	-30.859	1.00	51.42	C
ATOM	51120	CA	ALA	T	49	95.728	41.694	-40.435	1.00	71.45	N	ATOM	51170	CG1	ILE	T	55	99.394	38.676	-31.256	1.00	51.42	C
ATOM	51121	C	ALA	T	49	94.940	42.553	-39.554	1.00	71.45	C	ATOM	51171	CG2	ILE	T	55	100.987	40.225	-30.117	1.00	51.42	C
ATOM	51122	C	ALA	T	49	94.624	41.992	-38.168	1.00	71.45	C	ATOM	51172	CD1	ILE	T	55	100.469	38.096	-32.125	1.00	51.42	C
ATOM	51123	O	ALA	T	49	95.283	42.336	-37.188	1.00	71.45	O	ATOM	51173	N	MET	T	56	98.714	43.000	-30.328	1.00	42.14	N
ATOM	51124	CB	ALA	T	49	93.643	42.945	-40.257	1.00	112.53	C	ATOM	51174	CA	MET	T	56	98.992	44.363	-29.913	1.00	42.14	C
ATOM	51125	N	GLU	T	50	93.605	41.139	-38.098	1.00	84.87	N	ATOM	51175	C	MET	T	56	98.305	44.671	-28.567	1.00	42.14	C
ATOM	51126	CA	GLU	T	50	93.161	40.542	-36.841	1.00	84.87	C	ATOM	51176	O	MET	T	56	98.949	45.171	-27.633	1.00	42.14	O
ATOM	51127	C	GLU	T	50	94.222	40.182	-35.808	1.00	84.87	C	ATOM	51177	CB	MET	T	56	98.507	45.342	-30.974	1.00	67.08	C
ATOM	51128	O	GLU	T	50	94.368	40.879	-34.803	1.00	84.87	O	ATOM	51178	CG	MET	T	56	98.927	46.769	-30.702	1.00	67.08	C
ATOM	51129	CB	GLU	T	50	92.310	39.302	-37.110	1.00	93.04	C	ATOM	51179	SD	MET	T	56	97.611	47.914	-31.093	1.00	67.08	S
ATOM	51130	CG	GLU	T	50	90.813	39.550	-37.025	1.00	93.04	C	ATOM	51180	CE	MET	T	56	97.921	48.201	-32.807	1.00	67.08	C
ATOM	51131	CD	GLU	T	50	90.027	38.267	-36.817	1.00	93.04	C	ATOM	51181	N	ARG	T	57	97.005	44.370	-28.469	1.00	52.90	N
ATOM	51132	OE1	GLU	T	50	90.143	37.353	-37.661	1.00	93.04	O	ATOM	51182	CA	ARG	T	57	96.259	44.612	-27.236	1.00	52.90	C
ATOM	51133	OE2	GLU	T	50	89.298	38.171	-35.806	1.00	93.04	O	ATOM	51183	C	ARG	T	57	96.963	43.990	-26.026	1.00	52.90	C
ATOM	51134	N	GLU	T	51	94.955	39.096	-36.039	1.00	83.71	N	ATOM	51184	O	ARG	T	57	96.984	44.590	-24.951	1.00	52.90	O
ATOM	51135	CA	GLU	T	51	95.963	38.671	-35.075	1.00	83.71	C	ATOM	51185	CB	ARG	T	57	94.840	44.044	-27.318	1.00	89.89	C
ATOM	51136	C	GLU	T	51	97.028	39.723	-34.754	1.00	83.71	C	ATOM	51186	CG	ARG	T	57	93.952	44.618	-28.402	1.00	89.89	C
ATOM	51137	O	GLU	T	51	97.623	39.700	-33.672	1.00	83.71	O	ATOM	51187	CD	ARG	T	57	93.701	43.560	-29.469	1.00	89.89	C
ATOM	51138	CB	GLU	T	51	96.610	37.354	-35.521	1.00	135.83	C	ATOM	51188	NE	ARG	T	57	92.290	43.404	-29.816	1.00	89.89	N
ATOM	51139	CG	GLU	T	51	97.255	37.365	-36.890	1.00	135.83	C	ATOM	51189	CZ	ARG	T	57	91.323	43.175	-28.932	1.00	89.89	C
ATOM	51140	CD	GLU	T	51	97.738	35.980	-37.303	1.00	135.83	C	ATOM	51190	NH1	ARG	T	57	91.602	43.079	-27.637	1.00	89.89	N
ATOM	51141	OE1	GLU	T	51	98.390	35.304	-36.478	1.00	135.83	O	ATOM	51191	NH2	ARG	T	57	90.071	43.033	-29.346	1.00	89.89	N
ATOM	51142	OE2	GLU	T	51	97.472	35.568	-38.453	1.00	135.83	O	ATOM	51192	N	LYS	T	58	97.522	42.788	-26.184	1.00	48.71	N
ATOM	51143	N	ALA	T	52	97.261	40.655	-35.674	1.00	64.00	N	ATOM	51193	CA	LYS	T	58	98.226	42.154	-25.071	1.00	48.71	C
ATOM	51144	CA	ALA	T	52	98.244	41.707	-35.428	1.00	64.00	C	ATOM	51194	C	LYS	T	58	99.413	43.037	-24.733	1.00	48.71	C
ATOM	51145	C	ALA	T	52	97.734	42.597	-34.295	1.00	64.00	C	ATOM	51195	O	LYS	T	58	99.620	43.421	-23.571	1.00	48.71	O
ATOM	51146	O	ALA	T	52	98.480	42.954	-33.388	1.00	64.00	O	ATOM	51196	CB	LYS	T	58	98.723	40.752	-25.438	1.00	81.86	C
ATOM	51147	CB	ALA	T	52	98.467	42.529	-36.688	1.00	62.75	C	ATOM	51197	CG	LYS	T	58	97.622	39.711	-25.562	1.00	81.86	C



Table 1: Sheet 516/521

ATOM	51398	C	MET T	85	100.566	52.200	-33.398	1.00	84.82	C	ATOM	51418	CD	GLN T	90	103.609	54.735	-38.887	1.00	94.83	C
ATOM	51399	O	MET T	85	99.866	52.049	-34.402	1.00	84.82	O	ATOM	51419	OE1	GLN T	90	104.723	54.321	-39.224	1.00	94.83	O
ATOM	51400	CB	MET T	85	99.266	52.286	-31.252	1.00	66.32	C	ATOM	51450	NE2	GLN T	90	103.419	55.937	-38.340	1.00	94.83	N
ATOM	51401	CG	MET T	85	98.679	51.509	-30.089	1.00	66.32	C	ATOM	51451	N	LEU T	91	102.233	49.919	-40.705	1.00	68.69	N
ATOM	51402	SD	MET T	85	97.744	52.507	-28.922	1.00	66.32	S	ATOM	51452	CA	LEU T	91	102.558	48.671	-41.393	1.00	68.69	C
ATOM	51403	CE	MET T	85	96.310	52.864	-29.871	1.00	66.32	C	ATOM	51453	C	LEU T	91	101.286	48.039	-41.931	1.00	68.69	C
ATOM	51404	N	ARG T	86	101.626	52.997	-33.366	1.00	75.26	N	ATOM	51454	O	LEU T	91	101.315	47.278	-42.901	1.00	68.69	O
ATOM	51405	CA	ARG T	86	102.066	53.737	-34.531	1.00	75.26	C	ATOM	51455	CB	LEU T	91	103.243	47.703	-40.432	1.00	46.90	C
ATOM	51406	C	ARG T	86	102.570	52.691	-35.528	1.00	75.26	O	ATOM	51456	CG	LEU T	91	104.718	47.983	-40.178	1.00	46.90	C
ATOM	51407	O	ARG T	86	101.896	52.391	-36.518	1.00	75.26	O	ATOM	51457	CD1	LEU T	91	105.046	47.740	-38.729	1.00	46.90	C
ATOM	51408	CB	ARG T	86	103.189	54.698	-34.131	1.00	98.96	C	ATOM	51458	CD2	LEU T	91	105.559	47.101	-41.081	1.00	46.90	C
ATOM	51409	CG	ARG T	86	103.107	56.048	-34.798	1.00	98.96	C	ATOM	51459	N	LEU T	92	100.168	48.359	-41.290	1.00	77.07	N
ATOM	51410	CD	ARG T	86	103.340	57.173	-33.806	1.00	98.96	C	ATOM	51460	CA	LEU T	92	98.887	47.832	-41.712	1.00	77.07	C
ATOM	51411	NE	ARG T	86	102.738	58.410	-34.301	1.00	98.96	N	ATOM	51461	C	LEU T	92	98.389	48.521	-42.978	1.00	77.07	C
ATOM	51412	C2	ARG T	86	102.659	59.547	-33.613	1.00	98.96	C	ATOM	51462	O	LEU T	92	97.332	48.169	-43.504	1.00	77.07	O
ATOM	51413	NH1	ARG T	86	103.149	59.618	-32.385	1.00	98.96	N	ATOM	51463	CB	LEU T	92	97.869	47.959	-40.583	1.00	56.18	C
ATOM	51414	NH2	ARG T	86	102.081	60.615	-34.152	1.00	98.96	N	ATOM	51464	CG	LEU T	92	97.980	46.828	-39.556	1.00	56.18	C
ATOM	51415	N	LYS T	87	103.740	52.117	-35.245	1.00	53.44	N	ATOM	51465	CD1	LEU T	92	97.210	47.177	-38.288	1.00	56.18	C
ATOM	51416	CA	LYS T	87	104.328	51.102	-36.108	1.00	53.44	C	ATOM	51466	CD2	LEU T	92	97.458	45.538	-40.178	1.00	56.18	C
ATOM	51417	C	LYS T	87	103.275	50.143	-36.657	1.00	53.44	C	ATOM	51467	N	GLU T	93	99.148	49.511	-43.452	1.00	70.15	N
ATOM	51418	O	LYS T	87	103.271	49.842	-37.851	1.00	53.44	O	ATOM	51468	CA	GLU T	93	98.817	50.212	-44.692	1.00	70.15	C
ATOM	51419	CB	LYS T	87	105.390	50.304	-35.347	1.00	96.19	C	ATOM	51469	C	GLU T	93	99.492	49.364	-45.758	1.00	70.15	C
ATOM	51420	CG	LYS T	87	106.626	51.104	-34.997	1.00	96.19	C	ATOM	51470	O	GLU T	93	100.616	49.633	-46.191	1.00	70.15	O
ATOM	51421	CD	LYS T	87	107.467	50.428	-33.909	1.00	96.19	C	ATOM	51471	CB	GLU T	93	99.385	51.633	-44.718	1.00	87.94	C
ATOM	51422	CE	LYS T	87	108.482	51.414	-33.299	1.00	96.19	C	ATOM	51472	CG	GLU T	93	98.992	52.527	-43.538	1.00	87.94	C
ATOM	51423	N2	LYS T	87	109.136	50.918	-32.050	1.00	96.19	N	ATOM	51473	CD	GLU T	93	97.492	52.553	-43.235	1.00	87.94	C
ATOM	51424	N	VAL T	88	102.370	49.679	-35.797	1.00	64.92	N	ATOM	51474	OE1	GLU T	93	97.023	53.563	-42.653	1.00	87.94	O
ATOM	51425	CA	VAL T	88	101.347	48.723	-36.219	1.00	64.92	C	ATOM	51475	OE2	GLU T	93	96.789	51.566	-43.554	1.00	87.94	O
ATOM	51426	C	VAL T	88	100.336	49.229	-37.231	1.00	64.92	C	ATOM	51476	N	ALA T	94	98.785	48.307	-46.130	1.00	79.48	N
ATOM	51427	O	VAL T	88	100.091	48.563	-38.240	1.00	64.92	O	ATOM	51477	CA	ALA T	94	99.226	47.337	-47.113	1.00	79.48	C
ATOM	51428	CB	VAL T	88	100.566	48.151	-35.017	1.00	69.72	C	ATOM	51478	C	ALA T	94	97.951	46.608	-47.510	1.00	79.48	C
ATOM	51429	CG1	VAL T	88	99.399	47.304	-35.514	1.00	69.72	C	ATOM	51479	O	ALA T	94	97.993	45.459	-47.950	1.00	79.48	O
ATOM	51430	CG2	VAL T	88	101.494	47.306	-34.148	1.00	69.72	C	ATOM	51480	CB	ALA T	94	100.203	46.365	-46.470	1.00	33.31	C
ATOM	51431	N	ARG T	89	99.740	50.388	-36.967	1.00	75.71	N	ATOM	51481	N	ALA T	95	96.828	47.308	-47.339	1.00	102.98	N
ATOM	51432	CA	ARG T	89	98.749	50.931	-37.891	1.00	75.71	C	ATOM	51482	CA	ALA T	95	95.476	46.811	-47.611	1.00	102.98	C
ATOM	51433	C	ARG T	89	99.359	51.249	-39.255	1.00	75.71	C	ATOM	51483	O	ALA T	95	94.962	46.252	-46.290	1.00	102.98	C
ATOM	51434	O	ARG T	89	98.742	51.008	-40.292	1.00	75.71	O	ATOM	51484	O	ALA T	95	94.197	45.286	-46.255	1.00	102.98	O
ATOM	51435	CB	ARG T	89	98.093	52.193	-37.319	1.00	56.68	C	ATOM	51485	CB	ALA T	95	95.486	45.719	-48.686	1.00	68.91	C
ATOM	51436	CG	ARG T	89	97.069	52.793	-38.265	1.00	56.68	C	ATOM	51486	N	GLY T	96	95.397	46.891	-45.207	1.00	76.26	N
ATOM	51437	CD	ARG T	89	96.424	54.057	-37.726	1.00	56.68	C	ATOM	51487	CA	GLY T	96	95.032	46.474	-43.866	1.00	76.26	C
ATOM	51438	NE	ARG T	89	95.456	53.801	-36.667	1.00	56.68	N	ATOM	51488	C	GLY T	96	93.561	46.417	-43.515	1.00	76.26	C
ATOM	51439	C2	ARG T	89	94.404	54.575	-36.412	1.00	56.68	C	ATOM	51489	O	GLY T	96	92.936	45.356	-43.580	1.00	76.26	O
ATOM	51440	NH1	ARG T	89	94.178	55.655	-37.142	1.00	56.68	N	ATOM	51490	N	ALA T	97	93.000	47.561	-43.144	1.00	96.50	N
ATOM	51441	NH2	ARG T	89	93.573	54.277	-35.422	1.00	56.68	N	ATOM	51491	CA	ALA T	97	91.604	47.612	-42.738	1.00	96.50	C
ATOM	51442	N	GLN T	90	100.574	51.784	-39.249	1.00	75.64	N	ATOM	51492	C	ALA T	97	91.595	46.969	-41.351	1.00	96.50	C
ATOM	51443	CA	GLN T	90	101.252	52.132	-40.487	1.00	75.64	C	ATOM	51493	O	ALA T	97	91.372	45.762	-41.219	1.00	96.50	O
ATOM	51444	C	GLN T	90	101.546	50.886	-41.307	1.00	75.64	C	ATOM	51494	CB	ALA T	97	90.736	46.813	-43.711	1.00	16.22	C
ATOM	51445	O	GLN T	90	101.162	50.802	-42.467	1.00	75.64	O	ATOM	51495	N	PRO T	98	91.852	47.772	-40.297	1.00	166.88	N
ATOM	51446	CB	GLN T	90	102.546	52.871	-40.178	1.00	94.83	C	ATOM	51496	CA	PRO T	98	91.879	47.265	-38.922	1.00	166.88	C
ATOM	51447	CG	GLN T	90	102.384	53.878	-39.066	1.00	94.83	C	ATOM	51497	C	PRO T	98	90.576	46.615	-38.478	1.00	166.88	C



ATOM	51298	N	HIS	T	73	107.022	51.896	-15.608	1.00	46.47	N	ATOM	51348	CZ	ARG	T	79	110.918	55.589	-23.426	1.00	68.89	C
ATOM	51299	CA	HIS	T	73	106.675	53.131	-14.925	1.00	46.47	C	ATOM	51349	NH1	ARG	T	79	110.802	56.228	-22.259	1.00	68.89	N
ATOM	51300	C	HIS	T	73	106.862	54.453	-15.697	1.00	46.47	C	ATOM	51350	NH2	ARG	T	79	111.499	54.393	-23.468	1.00	68.89	N
ATOM	51301	O	HIS	T	73	107.821	54.638	-16.447	1.00	46.47	O	ATOM	51351	N	ARG	T	80	106.199	53.432	-25.123	1.00	58.70	N
ATOM	51302	CB	HIS	T	73	107.432	53.190	-13.591	1.00	87.54	C	ATOM	51352	CA	ARG	T	80	106.048	52.081	-25.641	1.00	58.70	C
ATOM	51303	CG	HIS	T	73	106.541	53.146	-12.388	1.00	87.54	C	ATOM	51353	C	ARG	T	80	104.766	51.903	-26.433	1.00	58.70	C
ATOM	51304	ND1	HIS	T	73	105.202	52.825	-12.465	1.00	87.54	N	ATOM	51354	O	ARG	T	80	104.784	51.419	-27.568	1.00	58.70	O
ATOM	51305	CD2	HIS	T	73	106.796	53.390	-11.081	1.00	87.54	C	ATOM	51355	CB	ARG	T	80	106.057	51.092	-24.490	1.00	67.64	C
ATOM	51306	CE1	HIS	T	73	104.671	52.875	-11.257	1.00	87.54	C	ATOM	51356	CG	ARG	T	80	107.223	51.274	-23.556	1.00	67.64	C
ATOM	51307	NE2	HIS	T	73	105.616	53.214	-10.399	1.00	87.54	C	ATOM	51357	CD	ARG	T	80	108.379	50.400	-23.928	1.00	67.64	C
ATOM	51308	N	LYS	T	74	105.905	55.357	-15.475	1.00	77.71	N	ATOM	51358	NE	ARG	T	80	109.470	50.582	-22.986	1.00	67.64	N
ATOM	51309	CA	LYS	T	74	105.856	56.698	-16.058	1.00	77.71	C	ATOM	51359	CZ	ARG	T	80	110.347	49.636	-22.682	1.00	67.64	C
ATOM	51310	C	LYS	T	74	105.396	56.731	-17.510	1.00	77.71	C	ATOM	51360	NH1	ARG	T	80	110.251	48.435	-23.248	1.00	67.64	N
ATOM	51311	O	LYS	T	74	104.491	55.998	-17.927	1.00	77.71	O	ATOM	51361	NH2	ARG	T	80	111.320	49.891	-21.815	1.00	67.64	N
ATOM	51312	CB	LYS	T	74	107.231	57.400	-15.969	1.00	59.63	C	ATOM	51362	N	LYS	T	81	103.653	52.292	-25.828	1.00	57.00	N
ATOM	51313	CG	LYS	T	74	108.036	57.097	-14.740	1.00	59.63	C	ATOM	51363	CA	LYS	T	81	102.365	52.148	-26.481	1.00	57.00	C
ATOM	51314	CD	LYS	T	74	108.177	58.295	-13.851	1.00	59.63	C	ATOM	51364	C	LYS	T	81	102.293	52.912	-27.790	1.00	57.00	C
ATOM	51315	CE	LYS	T	74	108.929	57.877	-12.582	1.00	59.63	C	ATOM	51365	O	LYS	T	81	101.968	52.333	-28.824	1.00	57.00	O
ATOM	51316	NZ	LYS	T	74	109.188	58.956	-11.565	1.00	59.63	N	ATOM	51366	CB	LYS	T	81	101.247	52.586	-25.531	1.00	63.79	C
ATOM	51317	N	ASN	T	75	106.059	57.621	-18.248	1.00	55.08	C	ATOM	51367	CG	LYS	T	81	101.156	51.702	-24.291	1.00	63.79	C
ATOM	51318	CA	ASN	T	75	105.837	57.878	-19.658	1.00	55.08	C	ATOM	51368	CD	LYS	T	81	100.387	52.350	-23.163	1.00	63.79	C
ATOM	51319	C	ASN	T	75	106.561	56.794	-20.436	1.00	55.08	C	ATOM	51369	CE	LYS	T	81	98.945	52.558	-23.528	1.00	63.79	C
ATOM	51320	O	ASN	T	75	106.451	56.699	-21.669	1.00	55.08	O	ATOM	51370	NZ	LYS	T	81	98.230	53.191	-22.390	1.00	63.79	N
ATOM	51321	CB	ASN	T	75	106.396	59.257	-20.001	1.00	63.46	C	ATOM	51371	N	SER	T	82	102.606	54.202	-27.763	1.00	59.21	N
ATOM	51322	CG	ASN	T	75	106.291	60.235	-18.825	1.00	63.46	C	ATOM	51372	CA	SER	T	82	102.556	54.995	-28.986	1.00	59.21	C
ATOM	51323	OD1	ASN	T	75	105.260	60.316	-18.160	1.00	63.46	O	ATOM	51373	C	SER	T	82	103.469	54.445	-30.087	1.00	59.21	C
ATOM	51324	ND2	ASN	T	75	107.360	60.983	-18.574	1.00	63.46	N	ATOM	51374	O	SER	T	82	103.013	54.223	-31.206	1.00	59.21	O
ATOM	51325	N	ALA	T	76	107.314	55.981	-19.695	1.00	44.62	N	ATOM	51375	CB	SER	T	82	102.923	56.436	-28.685	1.00	53.02	C
ATOM	51326	CA	ALA	T	76	108.046	54.861	-20.278	1.00	44.62	C	ATOM	51376	OG	SER	T	82	104.050	56.457	-27.845	1.00	53.02	O
ATOM	51327	C	ALA	T	76	106.987	54.015	-20.943	1.00	44.62	C	ATOM	51377	N	ARG	T	83	104.750	54.233	-29.779	1.00	45.06	N
ATOM	51328	O	ALA	T	76	107.153	53.573	-22.071	1.00	44.62	O	ATOM	51378	CA	ARG	T	83	105.697	53.692	-30.762	1.00	45.06	C
ATOM	51329	CB	ALA	T	76	108.734	54.067	-19.196	1.00	68.31	C	ATOM	51379	C	ARG	T	83	105.173	52.374	-31.330	1.00	45.06	C
ATOM	51330	N	ALA	T	77	105.886	53.818	-20.224	1.00	45.28	N	ATOM	51380	O	ARG	T	83	105.514	51.991	-32.448	1.00	45.06	O
ATOM	51331	CA	ALA	T	77	104.761	53.043	-20.724	1.00	45.28	C	ATOM	51381	CB	ARG	T	83	107.068	53.451	-30.120	1.00	125.17	C
ATOM	51332	C	ALA	T	77	104.151	53.759	-21.922	1.00	45.28	C	ATOM	51382	CG	ARG	T	83	107.839	54.717	-29.796	1.00	125.17	C
ATOM	51333	O	ALA	T	77	103.904	53.149	-22.970	1.00	45.28	O	ATOM	51383	CD	ARG	T	83	109.114	54.423	-29.013	1.00	125.17	C
ATOM	51334	CB	ALA	T	77	103.720	52.878	-19.629	1.00	105.67	C	ATOM	51384	NE	ARG	T	83	109.874	55.642	-28.741	1.00	125.17	N
ATOM	51335	N	ALA	T	78	103.916	55.059	-21.758	1.00	54.59	N	ATOM	51385	CZ	ARG	T	83	110.934	55.708	-27.941	1.00	125.17	C
ATOM	51336	CA	ALA	T	78	103.334	55.876	-22.813	1.00	54.59	C	ATOM	51386	NH1	ARG	T	83	111.371	54.620	-27.318	1.00	125.17	N
ATOM	51337	C	ALA	T	78	104.127	55.745	-24.110	1.00	54.59	C	ATOM	51387	NH2	ARG	T	83	111.563	56.865	-27.769	1.00	125.17	N
ATOM	51338	O	ALA	T	78	103.542	55.456	-25.163	1.00	54.59	O	ATOM	51388	N	LEU	T	84	104.326	51.698	-30.552	1.00	51.47	N
ATOM	51339	CB	ALA	T	78	103.281	57.326	-22.373	1.00	30.89	C	ATOM	51389	CA	LEU	T	84	103.741	50.408	-30.931	1.00	51.47	C
ATOM	51340	N	ARG	T	79	105.449	55.949	-24.033	1.00	43.77	N	ATOM	51390	C	LEU	T	84	102.513	50.554	-31.838	1.00	51.47	C
ATOM	51341	CA	ARG	T	79	106.305	55.840	-25.217	1.00	43.77	C	ATOM	51391	O	LEU	T	84	102.492	50.035	-32.951	1.00	51.47	O
ATOM	51342	C	ARG	T	79	106.100	54.501	-25.903	1.00	43.77	C	ATOM	51392	CB	LEU	T	84	103.349	49.637	-29.664	1.00	44.43	C
ATOM	51343	O	ARG	T	79	105.864	54.439	-27.104	1.00	43.77	O	ATOM	51393	CG	LEU	T	84	103.367	48.103	-29.649	1.00	44.43	C
ATOM	51344	CB	ARG	T	79	107.788	55.946	-24.865	1.00	68.89	C	ATOM	51394	CD1	LEU	T	84	102.378	47.664	-28.599	1.00	44.43	C
ATOM	51345	CG	ARG	T	79	108.276	57.289	-24.372	1.00	68.89	C	ATOM	51395	CD2	LEU	T	84	102.988	47.498	-30.995	1.00	44.43	C
ATOM	51346	CD	ARG	T	79	109.767	57.419	-24.653	1.00	68.89	C	ATOM	51396	N	MET	T	85	101.489	51.246	-31.341	1.00	84.82	N
ATOM	51347	NE	ARG	T	79	110.447	56.126	-24.553	1.00	68.89	N	ATOM	51397	CA	MET	T	85	100.255	51.471	-32.096	1.00	84.82	C



ATOM	51598	N	THR V	8	254.735	127.345	3.124	1.00	53.31	N	ATOM	51648	N	TRP V	14	246.610	130.792	4.290	1.00	65.85	N
ATOM	51599	CA	THR V	8	254.912	128.412	2.136	1.00	53.31	C	ATOM	51649	CA	TRP V	14	245.400	130.001	4.137	1.00	65.85	C
ATOM	51600	C	THR V	8	254.134	129.644	2.634	1.00	53.31	C	ATOM	51650	C	TRP V	14	245.035	129.360	5.459	1.00	65.85	C
ATOM	51601	O	THR V	8	253.415	129.568	3.632	1.00	53.31	O	ATOM	51651	O	TRP V	14	243.876	129.377	5.871	1.00	65.85	O
ATOM	51602	CB	THR V	8	254.407	127.990	0.710	1.00	63.18	C	ATOM	51652	CB	TRP V	14	245.608	128.905	3.089	1.00	58.40	C
ATOM	51603	OG1	THR V	8	253.079	127.452	0.782	1.00	63.18	O	ATOM	51653	CG	TRP V	14	244.334	128.221	2.659	1.00	58.40	C
ATOM	51604	CG2	THR V	8	255.320	126.950	0.120	1.00	63.18	C	ATOM	51654	CD1	TRP V	14	243.473	128.628	3.221	1.00	58.40	C
ATOM	51605	N	ARG V	9	254.283	130.778	1.959	1.00	67.08	N	ATOM	51655	CD2	TRP V	14	243.767	127.032	3.221	1.00	58.40	C
ATOM	51606	CA	ARG V	9	253.573	131.981	2.373	1.00	67.08	C	ATOM	51656	NE1	TRP V	14	242.408	127.766	1.599	1.00	58.40	C
ATOM	51607	C	ARG V	9	252.063	131.702	2.367	1.00	67.08	C	ATOM	51657	CE2	TRP V	14	242.564	126.779	2.535	1.00	58.40	C
ATOM	51608	O	ARG V	9	251.405	131.748	3.414	1.00	67.08	O	ATOM	51658	CE3	TRP V	14	244.160	126.157	4.241	1.00	58.40	C
ATOM	51609	CB	ARG V	9	253.896	133.137	1.420	1.00	118.52	C	ATOM	51659	CZ2	TRP V	14	241.751	125.689	2.834	1.00	58.40	C
ATOM	51610	CG	ARG V	9	253.549	134.520	1.955	1.00	118.52	C	ATOM	51660	CZ3	TRP V	14	243.350	125.073	4.537	1.00	58.40	C
ATOM	51611	CD	ARG V	9	254.417	134.889	3.155	1.00	118.52	C	ATOM	51661	CH2	TRP V	14	242.161	124.849	3.837	1.00	58.40	C
ATOM	51612	NE	ARG V	9	254.145	136.243	3.640	1.00	118.52	N	ATOM	51662	N	ARG V	15	246.027	128.781	6.120	1.00	53.07	N
ATOM	51613	CZ	ARG V	9	254.715	136.790	4.712	1.00	118.52	C	ATOM	51663	CA	ARG V	15	245.780	128.136	7.395	1.00	53.07	C
ATOM	51614	NH1	ARG V	9	255.599	136.102	5.427	1.00	118.52	N	ATOM	51664	C	ARG V	15	245.746	129.157	8.526	1.00	53.07	C
ATOM	51615	NH2	ARG V	9	254.398	138.028	5.071	1.00	118.52	N	ATOM	51665	O	ARG V	15	245.660	128.792	9.698	1.00	53.07	O
ATOM	51616	N	ARG V	10	251.527	131.393	1.184	1.00	62.72	N	ATOM	51666	CB	ARG V	15	246.848	127.078	7.668	1.00	62.88	C
ATOM	51617	CA	ARG V	10	250.104	131.109	1.027	1.00	62.72	C	ATOM	51667	CG	ARG V	15	246.423	125.664	7.341	1.00	62.88	C
ATOM	51618	C	ARG V	10	249.636	129.984	1.931	1.00	62.72	C	ATOM	51668	CD	ARG V	15	247.558	124.738	7.674	1.00	62.88	C
ATOM	51619	O	ARG V	10	248.601	130.090	2.576	1.00	62.72	O	ATOM	51669	NE	ARG V	15	247.174	123.337	7.858	1.00	62.88	N
ATOM	51620	CB	ARG V	10	249.794	130.778	-0.431	1.00	85.00	C	ATOM	51670	CZ	ARG V	15	248.029	122.378	8.226	1.00	62.88	C
ATOM	51621	CG	ARG V	10	249.996	131.966	-1.339	1.00	85.00	C	ATOM	51671	NH1	ARG V	15	249.304	122.668	8.442	1.00	62.88	N
ATOM	51622	CD	ARG V	10	249.566	131.705	-2.763	1.00	85.00	C	ATOM	51672	NH2	ARG V	15	247.612	121.129	8.392	1.00	62.88	N
ATOM	51623	CE	ARG V	10	249.728	132.913	-3.569	1.00	85.00	C	ATOM	51673	N	GLY V	16	245.808	130.436	8.168	1.00	63.96	N
ATOM	51624	CZ	ARG V	10	249.331	133.038	-4.833	1.00	85.00	C	ATOM	51674	CA	GLY V	16	245.783	131.494	9.166	1.00	63.96	C
ATOM	51625	NH1	ARG V	10	248.740	132.024	-5.452	1.00	85.00	N	ATOM	51675	C	GLY V	16	246.776	131.284	10.297	1.00	63.96	C
ATOM	51626	NH2	ARG V	10	249.522	134.183	-5.477	1.00	85.00	N	ATOM	51676	O	GLY V	16	246.399	131.219	11.467	1.00	63.96	O
ATOM	51627	N	GLY V	11	250.401	128.905	1.984	1.00	62.82	N	ATOM	51677	N	THR V	17	248.053	131.174	9.949	1.00	75.89	N
ATOM	51628	CA	GLY V	11	250.023	127.797	2.836	1.00	62.82	C	ATOM	51678	CA	THR V	17	249.086	130.968	10.950	1.00	75.89	C
ATOM	51629	C	GLY V	11	249.803	128.234	4.272	1.00	62.82	C	ATOM	51679	C	THR V	17	250.389	131.668	10.594	1.00	75.89	C
ATOM	51630	O	GLY V	11	248.975	127.661	4.983	1.00	62.82	O	ATOM	51680	O	THR V	17	250.508	132.333	9.558	1.00	75.89	O
ATOM	51631	N	LYS V	12	250.546	129.250	4.705	1.00	72.27	N	ATOM	51681	CB	THR V	17	249.399	129.471	11.141	1.00	53.70	C
ATOM	51632	CA	LYS V	12	250.424	129.755	6.071	1.00	72.27	C	ATOM	51682	OG1	THR V	17	249.883	128.924	9.911	1.00	53.70	O
ATOM	51633	C	LYS V	12	249.231	130.693	6.168	1.00	72.27	C	ATOM	51683	CG2	THR V	17	248.167	128.720	11.570	1.00	53.70	C
ATOM	51634	O	LYS V	12	248.428	130.595	7.092	1.00	72.27	O	ATOM	51684	N	TYR V	18	251.362	131.500	11.484	1.00	64.66	N
ATOM	51635	CB	LYS V	12	251.707	130.488	6.490	1.00	46.31	C	ATOM	51685	CA	TYR V	18	252.683	132.074	11.329	1.00	64.66	C
ATOM	51636	CG	LYS V	12	252.508	129.791	7.595	1.00	46.31	C	ATOM	51686	C	TYR V	18	253.717	131.035	11.693	1.00	64.66	C
ATOM	51637	CD	LYS V	12	252.999	128.427	7.142	1.00	46.31	C	ATOM	51687	O	TYR V	18	253.449	130.122	12.475	1.00	64.66	O
ATOM	51638	CE	LYS V	12	253.941	127.785	8.147	1.00	46.31	C	ATOM	51688	CB	TYR V	18	252.850	133.274	12.243	1.00	49.38	C
ATOM	51639	NZ	LYS V	12	253.260	127.489	9.425	1.00	46.31	N	ATOM	51689	CG	TYR V	18	251.865	134.374	11.973	1.00	49.38	C
ATOM	51640	N	ILE V	13	249.124	131.601	5.206	1.00	46.91	C	ATOM	51690	CD1	TYR V	18	250.664	134.433	12.664	1.00	49.38	C
ATOM	51641	CA	ILE V	13	248.020	132.548	5.175	1.00	46.91	C	ATOM	51691	CD2	TYR V	18	252.137	135.361	11.023	1.00	49.38	C
ATOM	51642	C	ILE V	13	246.688	131.803	5.147	1.00	46.91	C	ATOM	51692	CE1	TYR V	18	249.753	135.450	12.426	1.00	49.38	C
ATOM	51643	O	ILE V	13	245.754	132.147	5.872	1.00	46.91	O	ATOM	51693	CE2	TYR V	18	251.236	136.384	10.772	1.00	49.38	C
ATOM	51644	CB	ILE V	13	248.077	133.434	3.917	1.00	41.00	C	ATOM	51694	CZ	TYR V	18	250.042	136.423	11.481	1.00	49.38	C
ATOM	51645	CG1	ILE V	13	249.409	134.173	3.856	1.00	41.00	C	ATOM	51695	OH	TYR V	18	249.133	137.433	11.259	1.00	49.38	O
ATOM	51646	CG2	ILE V	13	246.913	134.412	3.916	1.00	41.00	C	ATOM	51696	N	GLY V	19	254.904	131.190	11.124	1.00	75.97	N
ATOM	51647	CD1	ILE V	13	249.598	134.988	2.589	1.00	41.00	C	ATOM	51697	CA	GLY V	19	255.984	130.261	11.388	1.00	75.97	C



Table 1: Sheet 517/521

ATOM	51498	O	PRO T 98	89.661	47.288	-37.997	1.00166.88	O	ATOM	51548	CB	ALA T 106	88.840	52.678	-36.821	1.00 54.76	C
ATOM	51499	CB	PRO T 98	92.239	48.509	-38.103	1.00 78.88	C	ATOM	51549	OXT	ALA T 106	87.737	55.384	-35.677	1.00 83.73	O
ATOM	51500	CG	PRO T 98	91.604	49.601	-38.862	1.00 78.88	C	TER	51550	ALA T 106						
ATOM	51501	CD	PRO T 98	91.955	49.244	-40.300	1.00 78.88	C	ATOM	51551	N	GLY V 2	250.633	125.423	-3.254	1.00 54.35	N
ATOM	51502	N	LEU T 99	90.504	45.298	-38.649	1.00117.20	N	ATOM	51552	CA	GLY V 2	249.639	126.539	-3.282	1.00 54.35	C
ATOM	51503	CA	LEU T 99	89.329	44.526	-38.265	1.00117.20	C	ATOM	51553	C	GLY V 2	249.005	126.709	-1.923	1.00 54.35	C
ATOM	51504	C	LEU T 99	89.028	44.738	-36.788	1.00117.20	C	ATOM	51554	O	GLY V 2	249.621	126.372	-0.907	1.00 54.35	O
ATOM	51505	O	LEU T 99	88.235	45.608	-36.415	1.00117.20	O	ATOM	51555	CA	LYS V 3	247.775	127.219	-1.895	1.00 64.97	N
ATOM	51506	CB	LEU T 99	89.569	43.034	-38.513	1.00 80.01	C	ATOM	51556	N	LYS V 3	247.067	127.435	-0.637	1.00 64.97	N
ATOM	51507	CG	LEU T 99	89.908	42.600	-39.938	1.00 80.01	C	ATOM	51557	C	LYS V 3	247.205	126.229	0.273	1.00 64.97	C
ATOM	51508	CD1	LEU T 99	90.108	41.090	-39.976	1.00 80.01	C	ATOM	51558	O	LYS V 3	247.024	126.327	1.485	1.00 64.97	O
ATOM	51509	CD2	LEU T 99	88.792	43.023	-40.882	1.00 80.01	C	ATOM	51559	CB	LYS V 3	245.583	127.706	-0.887	1.00 54.65	C
ATOM	51510	N	ILE T 100	89.676	43.928	-35.955	1.00 66.17	N	ATOM	51560	CG	LYS V 3	245.304	128.993	-1.628	1.00 54.65	C
ATOM	51511	CA	ILE T 100	89.509	43.989	-34.507	1.00 66.17	C	ATOM	51561	CD	LYS V 3	243.825	129.159	-1.919	1.00 54.65	C
ATOM	51512	C	ILE T 100	89.622	45.416	-33.977	1.00 66.17	C	ATOM	51562	CE	LYS V 3	243.592	130.241	-2.983	1.00 54.65	C
ATOM	51513	O	ILE T 100	89.079	45.742	-32.917	1.00 66.17	O	ATOM	51563	NZ	LYS V 3	242.160	130.307	-3.462	1.00 54.65	N
ATOM	51514	CB	ILE T 100	90.568	43.111	-33.804	1.00189.66	C	ATOM	51564	N	GLY V 4	247.549	125.090	-0.312	1.00 36.81	N
ATOM	51515	CG1	ILE T 100	90.441	41.670	-34.298	1.00189.66	C	ATOM	51565	CA	GLY V 4	247.674	123.883	0.476	1.00 36.81	C
ATOM	51516	CG2	ILE T 100	90.391	43.170	-32.294	1.00189.66	C	ATOM	51566	C	GLY V 4	249.009	123.541	1.105	1.00 36.81	C
ATOM	51517	CD1	ILE T 100	91.534	40.770	-33.822	1.00189.66	C	ATOM	51567	O	GLY V 4	249.027	122.787	2.073	1.00 36.81	O
ATOM	51518	N	GLY T 101	90.335	46.255	-34.724	1.00181.11	N	ATOM	51568	N	ASP V 5	250.117	124.050	0.566	1.00 68.96	N
ATOM	51519	CA	GLY T 101	90.525	47.639	-34.334	1.00181.11	C	ATOM	51569	CA	ASP V 5	251.448	123.752	1.120	1.00 68.96	C
ATOM	51520	C	GLY T 101	90.755	47.784	-32.846	1.00181.11	C	ATOM	51570	C	ASP V 5	251.619	124.479	2.449	1.00 68.96	C
ATOM	51521	O	GLY T 101	90.485	48.840	-32.283	1.00181.11	O	ATOM	51571	O	ASP V 5	251.852	125.692	2.474	1.00 68.96	O
ATOM	51522	N	GLY T 102	91.251	46.720	-32.218	1.00114.83	N	ATOM	51572	CB	ASP V 5	252.545	124.210	0.154	1.00118.50	C
ATOM	51523	CA	GLY T 102	91.503	46.742	-30.791	1.00114.83	C	ATOM	51573	CG	ASP V 5	253.909	123.633	0.498	1.00118.50	C
ATOM	51524	C	GLY T 102	92.149	48.040	-30.360	1.00114.83	C	ATOM	51574	OD1	ASP V 5	254.208	123.477	1.702	1.00118.50	O
ATOM	51525	O	GLY T 102	91.484	49.069	-30.249	1.00114.83	O	ATOM	51575	OD2	ASP V 5	254.686	123.347	-0.440	1.00118.50	O
ATOM	51526	N	GLY T 103	93.450	47.998	-30.108	1.00157.29	N	ATOM	51576	N	ARG V 6	251.530	123.741	3.552	1.00 90.83	N
ATOM	51527	CA	GLY T 103	94.142	49.202	-29.703	1.00157.29	C	ATOM	51577	CA	ARG V 6	251.634	124.381	4.849	1.00 90.83	C
ATOM	51528	C	GLY T 103	94.282	50.136	-30.886	1.00157.29	C	ATOM	51578	C	ARG V 6	252.992	125.011	5.135	1.00 90.83	C
ATOM	51529	O	GLY T 103	95.394	50.511	-31.250	1.00157.29	O	ATOM	51579	O	ARG V 6	253.162	125.689	6.144	1.00 90.83	O
ATOM	51530	N	LEU T 104	93.158	50.503	-31.496	1.00 66.35	N	ATOM	51580	CB	ARG V 6	251.219	123.416	5.970	1.00109.36	C
ATOM	51531	CA	LEU T 104	93.178	51.403	-32.646	1.00 66.35	C	ATOM	51581	CG	ARG V 6	252.284	122.510	6.552	1.00109.36	C
ATOM	51532	C	LEU T 104	91.883	52.139	-32.889	1.00 66.35	C	ATOM	51582	CD	ARG V 6	251.783	122.049	7.921	1.00109.36	C
ATOM	51533	O	LEU T 104	90.963	51.603	-33.499	1.00 66.35	O	ATOM	51583	NE	ARG V 6	252.657	121.130	8.652	1.00109.36	N
ATOM	51534	CB	LEU T 104	93.528	50.664	-33.935	1.00 54.03	C	ATOM	51584	CZ	ARG V 6	252.458	120.758	9.921	1.00109.36	C
ATOM	51535	CG	LEU T 104	94.992	50.393	-34.272	1.00 54.03	C	ATOM	51585	NH1	ARG V 6	251.418	121.227	10.607	1.00109.36	N
ATOM	51536	CD1	LEU T 104	95.070	50.008	-35.737	1.00 54.03	C	ATOM	51586	NH2	ARG V 6	253.291	119.907	10.508	1.00109.36	N
ATOM	51537	CD2	LEU T 104	95.841	51.615	-34.025	1.00 54.03	C	ATOM	51587	N	ARG V 7	253.962	124.812	4.248	1.00 75.50	N
ATOM	51538	N	SER T 105	91.824	53.377	-32.418	1.00 78.10	N	ATOM	51588	CA	ARG V 7	255.265	125.420	4.468	1.00 75.50	C
ATOM	51539	CA	SER T 105	90.653	54.215	-32.608	1.00 78.10	C	ATOM	51589	C	ARG V 7	255.640	126.397	3.353	1.00 75.50	C
ATOM	51540	C	SER T 105	90.538	54.499	-34.098	1.00 78.10	C	ATOM	51590	O	ARG V 7	256.698	126.296	2.724	1.00 75.50	O
ATOM	51541	O	SER T 105	91.209	55.384	-34.621	1.00 78.10	O	ATOM	51591	CB	ARG V 7	256.351	124.353	4.663	1.00 62.61	C
ATOM	51542	CB	SER T 105	90.825	55.520	-31.831	1.00 70.59	C	ATOM	51592	CG	ARG V 7	256.659	123.515	3.459	1.00 62.61	C
ATOM	51543	OG	SER T 105	90.044	56.555	-32.384	1.00 70.59	O	ATOM	51593	CD	ARG V 7	257.973	122.751	3.656	1.00 62.61	C
ATOM	51544	N	ALA T 106	89.701	53.730	-34.782	1.00 92.17	N	ATOM	51594	NE	ARG V 7	257.846	121.570	4.509	1.00 62.61	N
ATOM	51545	CA	ALA T 106	89.514	53.907	-36.216	1.00 92.17	C	ATOM	51595	CZ	ARG V 7	258.797	120.651	4.655	1.00 62.61	C
ATOM	51546	C	ALA T 106	88.676	55.149	-36.469	1.00 92.17	C	ATOM	51596	NH1	ARG V 7	259.952	120.774	4.012	1.00 62.61	N
ATOM	51547	O	ALA T 106	88.966	55.858	-37.455	1.00 92.17	O	ATOM	51597	NH2	ARG V 7	258.584	119.589	5.422	1.00 62.61	N



Table 1: Sheet 520/521

HETATMS1796	UNK UNX	35	139.001	98.147	3.305	0.38	55.49	X	HETATMS1846	UNK UNX	85	208.895	102.748	-75.411	0.49	55.49	X
HETATMS1797	UNK UNX	36	166.716	100.092	-33.850	0.65	55.49	X	HETATMS1847	UNK UNX	86	130.335	111.799	-37.252	0.65	55.49	X
HETATMS1798	UNK UNX	37	139.270	99.674	-43.384	0.61	55.49	X	HETATMS1848	UNK UNX	87	126.471	118.659	-56.909	0.47	55.49	X
HETATMS1799	UNK UNX	38	136.884	42.059	-30.112	0.40	55.49	X	HETATMS1849	UNK UNX	88	235.776	113.830	-7.189	0.78	55.49	X
HETATMS1800	UNK UNX	39	161.515	115.140	-48.539	0.34	55.49	X	HETATMS1850	UNK UNX	89	237.877	126.039	-6.603	0.36	55.49	X
HETATMS1801	UNK UNX	40	195.405	81.909	-33.537	0.40	55.49	X	HETATMS1851	UNK UNX	90	209.549	110.536	10.540	0.78	55.49	X
HETATMS1802	UNK UNX	41	237.689	129.639	17.411	0.50	55.49	X	HETATMS1852	UNK UNX	91	231.007	110.276	25.303	0.57	55.49	X
HETATMS1803	UNK UNX	42	114.353	64.792	18.154	0.73	55.49	X	HETATMS1853	UNK UNX	92	233.191	121.965	26.429	0.66	55.49	X
HETATMS1804	UNK UNX	43	231.454	124.331	-20.482	0.49	55.49	X	HETATMS1854	UNK UNX	93	214.399	126.573	82.078	0.32	55.49	X
HETATMS1805	UNK UNX	44	146.019	92.688	56.317	0.41	55.49	X	HETATMS1855	UNK UNX	94	243.828	105.595	47.594	0.40	55.49	X
HETATMS1806	UNK UNX	45	133.769	124.039	-57.964	0.61	55.49	X	HETATMS1856	UNK UNX	95	202.378	116.095	10.114	0.76	55.49	X
HETATMS1807	UNK UNX	46	217.512	103.347	-78.358	0.46	55.49	X	HETATMS1857	UNK UNX	96	203.731	111.549	7.837	0.64	55.49	X
HETATMS1808	UNK UNX	47	132.382	102.642	-38.636	0.62	55.49	X	HETATMS1858	UNK UNX	97	252.948	173.282	7.852	0.33	55.49	X
HETATMS1809	UNK UNX	48	170.995	94.369	-49.899	0.91	55.49	X	HETATMS1859	UNK UNX	98	259.190	137.596	-11.161	0.30	55.49	X
HETATMS1810	UNK UNX	49	177.933	94.624	-53.074	0.79	55.49	X	HETATMS1860	UNK UNX	99	162.900	53.299	-23.994	0.33	55.49	X
HETATMS1811	UNK UNX	50	180.109	86.830	-66.954	0.74	55.49	X	HETATMS1861	UNK UNX	100	112.636	36.331	-26.748	0.52	55.49	X
HETATMS1812	UNK UNX	51	183.722	85.699	-60.851	0.38	55.49	X	HETATMS1862	UNK UNX	101	121.020	35.597	-21.188	0.40	55.49	X
HETATMS1813	UNK UNX	52	193.544	94.126	-70.491	0.38	55.49	X	HETATMS1863	UNK UNX	102	128.598	40.171	-21.758	0.36	55.49	X
HETATMS1814	UNK UNX	53	198.814	98.062	-54.768	0.58	55.49	X	HETATMS1864	UNK UNX	103	141.098	49.483	-24.647	0.24	55.49	X
HETATMS1815	UNK UNX	54	162.611	105.890	-38.775	0.86	55.49	X	HETATMS1865	UNK UNX	104	171.536	67.205	-14.618	0.43	55.49	X
HETATMS1816	UNK UNX	55	159.426	127.711	-45.105	0.69	55.49	X	HETATMS1866	UNK UNX	105	177.853	106.484	-12.621	0.68	55.49	X
HETATMS1817	UNK UNX	56	158.854	63.508	11.218	0.56	55.49	X	HETATMS1867	UNK UNX	106	99.515	25.684	-0.319	0.22	55.49	X
HETATMS1818	UNK UNX	57	111.741	62.802	25.114	0.41	55.49	X	HETATMS1868	UNK UNX	107	86.380	44.392	-21.449	0.22	55.49	X
HETATMS1819	UNK UNX	58	89.156	62.023	25.862	0.57	55.49	X	HETATMS1869	UNK UNX	108	128.629	58.481	-43.177	0.17	55.49	X
HETATMS1820	UNK UNX	59	166.766	109.135	17.035	0.76	55.49	X	HETATMS1870	UNK UNX	109	138.148	69.385	-43.327	0.29	55.49	X
HETATMS1821	UNK UNX	60	150.558	99.725	-8.762	0.76	55.49	X	HETATMS1871	UNK UNX	110	138.589	94.888	-4.062	0.36	55.49	X
HETATMS1822	UNK UNX	61	180.024	109.052	-2.398	0.63	55.49	X	HETATMS1872	UNK UNX	111	147.881	102.434	-5.123	0.62	55.49	X
HETATMS1823	UNK UNX	62	173.912	104.988	-25.353	0.61	55.49	X	HETATMS1873	UNK UNX	112	114.123	51.769	-12.622	0.71	55.49	X
HETATMS1824	UNK UNX	63	159.237	106.070	-16.486	0.83	55.49	X	HETATMS1874	UNK UNX	113	138.560	48.999	10.056	0.56	55.49	X
HETATMS1825	UNK UNX	64	144.559	68.112	3.272	0.45	55.49	X	HETATMS1875	UNK UNX	114	155.278	93.131	46.753	0.31	55.49	X
HETATMS1826	UNK UNX	65	118.044	102.393	-26.515	0.70	55.49	X	HETATMS1876	UNK UNX	115	186.880	101.283	22.647	0.62	55.49	X
HETATMS1827	UNK UNX	66	158.701	135.706	-59.606	0.41	55.49	X	HETATMS1877	UNK UNX	116	168.945	104.906	-25.900	0.84	55.49	X
HETATMS1828	UNK UNX	67	152.212	118.413	-35.422	0.35	55.49	X	HETATMS1878	UNK UNX	117	125.464	110.923	-46.794	0.60	55.49	X
HETATMS1829	UNK UNX	68	165.809	127.396	-32.002	0.87	55.49	X	HETATMS1879	UNK UNX	118	112.130	110.112	-31.998	0.49	55.49	X
HETATMS1830	UNK UNX	69	160.472	113.625	-25.677	0.34	55.49	X	HETATMS1880	UNK UNX	119	122.652	89.951	2.057	0.49	55.49	X
HETATMS1831	UNK UNX	70	157.309	116.017	-16.312	0.42	55.49	X	HETATMS1881	UNK UNX	120	218.799	95.001	-58.782	0.55	55.49	X
HETATMS1832	UNK UNX	71	160.698	131.485	-23.276	0.55	55.49	X	HETATMS1882	UNK UNX	121	96.968	38.437	13.983	0.27	55.49	X
HETATMS1833	UNK UNX	72	114.105	99.050	-21.173	0.38	55.49	X	HETATMS1883	UNK UNX	122	167.988	92.029	-20.546	0.28	55.49	X
HETATMS1834	UNK UNX	73	168.189	90.673	-12.588	0.57	55.49	X	HETATMS1884	UNK UNX	123	168.000	78.287	-33.290	0.49	55.49	X
HETATMS1835	UNK UNX	74	205.010	123.813	-19.504	0.66	55.49	X	HETATMS1885	UNK UNX	124	167.269	74.558	-43.362	0.39	55.49	X
HETATMS1836	UNK UNX	75	222.561	126.801	-21.332	0.78	55.49	X	HETATMS1886	UNK UNX	125	143.695	56.861	1.167	0.48	55.49	X
HETATMS1837	UNK UNX	76	217.264	136.226	-12.496	0.65	55.49	X	HETATMS1887	UNK UNX	126	214.195	128.332	-1.565	0.25	55.49	X
HETATMS1838	UNK UNX	77	212.360	108.812	17.653	0.46	55.49	X	HETATMS1888	UNK UNX	127	205.380	139.911	-6.763	0.40	55.49	X
HETATMS1839	UNK UNX	78	237.718	131.541	8.033	0.36	55.49	X	HETATMS1889	UNK UNX	128	204.615	143.693	0.095	0.58	55.49	X
HETATMS1840	UNK UNX	79	232.616	139.230	-2.833	0.69	55.49	X	HETATMS1890	UNK UNX	129	165.183	126.361	-18.518	0.42	55.49	X
HETATMS1841	UNK UNX	80	120.847	91.449	9.784	0.44	55.49	X	HETATMS1891	UNK UNX	130	171.024	124.994	-16.589	0.63	55.49	X
HETATMS1842	UNK UNX	81	166.651	131.824	-7.332	0.69	55.49	X	HETATMS1892	UNK UNX	131	197.301	136.829	-14.591	0.70	55.49	X
HETATMS1843	UNK UNX	82	124.991	96.531	26.258	0.67	55.49	X	HETATMS1893	UNK UNX	132	194.469	144.322	-5.608	0.50	55.49	X
HETATMS1844	UNK UNX	83	116.830	96.903	-14.114	0.46	55.49	X	HETATMS1894	UNK UNX	133	184.108	133.669	-16.507	0.37	55.49	X
HETATMS1845	UNK UNX	84	114.386	92.798	-3.414	0.29	55.49	X	HETATMS1895	UNK UNX	134	143.919	73.318	-21.897	0.43	55.49	X



ATOM	51698	C	GLY	V	19	257.192	130.687	10.587	1.00	75.97	C	ATOM	51748	NH1	ARG	V	24	252.440	137.218	16.801	1.00108.12	N	
ATOM	51699	O	GLY	V	19	257.284	131.843	10.167	1.00	75.97	O	ATOM	51749	NH2	ARG	V	24	251.292	135.234	16.632	1.00108.12	N	
ATOM	51700	N	LYS	V	20	258.117	129.764	10.356	1.00	77.67	N	ATOM	51750	N	LYS	V	25	256.903	139.645	11.491	1.00136.20	N	
ATOM	51701	CA	LYS	V	20	259.302	130.111	9.601	1.00	77.67	C	ATOM	51751	CA	LYS	V	25	257.523	140.814	10.843	1.00136.20	C	
ATOM	51702	C	LYS	V	20	258.958	130.567	8.196	1.00	77.67	C	ATOM	51752	C	LYS	V	25	258.905	141.149	11.400	1.00136.20	C	
ATOM	51703	O	LYS	V	20	259.799	131.163	7.527	1.00	77.67	O	ATOM	51753	O	LYS	V	25	259.321	140.498	12.380	1.00136.20	O	
ATOM	51704	CB	LYS	V	20	260.278	128.934	9.525	1.00	68.55	C	ATOM	51754	CB	LYS	V	25	256.630	142.056	10.946	1.00117.41	C	
ATOM	51705	CG	LYS	V	20	261.606	129.323	8.866	1.00	68.55	C	ATOM	51755	CG	LYS	V	25	255.779	142.297	9.706	1.00117.41	C	
ATOM	51706	CD	LYS	V	20	262.707	128.290	9.058	1.00	68.55	C	ATOM	51756	CD	LYS	V	25	254.857	143.486	9.883	1.00117.41	C	
ATOM	51707	CE	LYS	V	20	262.538	127.102	8.140	1.00	68.55	C	ATOM	51757	CE	LYS	V	25	254.000	143.693	8.647	1.00117.41	C	
ATOM	51708	NZ	LYS	V	20	263.692	126.183	8.284	1.00	68.55	N	ATOM	51758	NZ	LYS	V	25	253.104	144.875	8.783	1.00117.41	N	
ATOM	51709	N	TYR	V	21	257.730	130.311	7.746	1.00	85.14	N	TER	51759										
ATOM	51710	CA	TYR	V	21	257.347	130.706	6.396	1.00	85.14	C	HETATM	51760	ZN			306	154.191	113.228	39.635	1.82	65.32	
ATOM	51711	C	TYR	V	21	256.429	131.907	6.260	1.00	85.14	C	ZN											
ATOM	51712	O	TYR	V	21	256.119	132.336	5.150	1.00	85.14	O	HETATM	51761	ZN			307	215.932	127.196	24.720	1.05	65.32	
ATOM	51713	CB	TYR	V	21	256.754	129.521	5.662	1.00	54.09	C	ZN											
ATOM	51714	CG	TYR	V	21	257.756	128.414	5.507	1.00	54.09	C	HETATM	51762	UNK	UNK		1	225.453	97.279	-73.111	0.89	55.49	X
ATOM	51715	CD1	TYR	V	21	257.842	127.391	6.452	1.00	54.09	C	HETATM	51763	UNK	UNK		2	124.234	22.493	5.179	0.87	55.49	X
ATOM	51716	CD2	TYR	V	21	258.674	128.424	4.456	1.00	54.09	C	HETATM	51764	UNK	UNK		3	116.669	63.282	-34.683	0.91	55.49	X
ATOM	51717	CE1	TYR	V	21	258.823	126.404	6.358	1.00	54.09	C	HETATM	51765	UNK	UNK		4	101.787	21.915	30.359	0.89	55.49	X
ATOM	51718	CE2	TYR	V	21	259.662	127.446	4.356	1.00	54.09	C	HETATM	51766	UNK	UNK		5	142.432	76.217	-24.149	0.56	55.49	X
ATOM	51719	CZ	TYR	V	21	259.733	126.442	5.311	1.00	54.09	C	HETATM	51767	UNK	UNK		6	170.641	111.438	-46.393	0.73	55.49	X
ATOM	51720	OH	TYR	V	21	260.735	125.500	5.247	1.00	54.09	O	HETATM	51768	UNK	UNK		7	238.694	122.814	-17.178	0.83	55.49	X
ATOM	51721	N	ARG	V	22	255.998	132.451	7.386	1.00	97.51	N	HETATM	51769	UNK	UNK		8	226.555	164.122	4.748	0.65	55.49	X
ATOM	51722	CA	ARG	V	22	255.144	133.629	7.390	1.00	97.51	C	HETATM	51770	UNK	UNK		9	162.579	93.526	-41.068	0.69	55.49	X
ATOM	51723	C	ARG	V	22	255.340	134.197	8.777	1.00	97.51	C	HETATM	51771	UNK	UNK		10	190.747	87.411	19.757	0.86	55.49	X
ATOM	51724	O	ARG	V	22	254.445	134.140	9.617	1.00	97.51	O	HETATM	51772	UNK	UNK		11	199.903	97.692	-48.315	1.06	55.49	X
ATOM	51725	CB	ARG	V	22	253.674	133.249	7.188	1.00	54.39	C	HETATM	51773	UNK	UNK		12	160.889	108.088	-9.731	0.70	55.49	X
ATOM	51726	CG	ARG	V	22	252.735	134.447	7.012	1.00	54.39	C	HETATM	51774	UNK	UNK		13	169.939	119.842	-47.707	0.54	55.49	X
ATOM	51727	CD	ARG	V	22	251.314	134.115	7.453	1.00	54.39	C	HETATM	51775	UNK	UNK		14	106.882	23.417	9.313	0.54	55.49	X
ATOM	51728	NE	ARG	V	22	250.377	135.208	7.198	1.00	54.39	N	HETATM	51776	UNK	UNK		15	148.916	105.038	-46.569	1.02	55.49	X
ATOM	51729	CZ	ARG	V	22	249.136	135.254	7.678	1.00	54.39	C	HETATM	51777	UNK	UNK		16	135.235	91.888	52.278	0.52	55.49	X
ATOM	51730	NH1	ARG	V	22	248.677	134.266	8.445	1.00	54.39	N	HETATM	51778	UNK	UNK		17	211.899	132.368	2.903	0.43	55.49	X
ATOM	51731	NH2	ARG	V	22	248.350	136.284	7.386	1.00	54.39	N	HETATM	51779	UNK	UNK		18	133.498	74.486	0.971	0.65	55.49	X
ATOM	51732	N	PRO	V	23	256.533	134.738	9.045	1.00	113.49	N	HETATM	51780	UNK	UNK		19	192.313	140.723	-18.959	0.62	55.49	X
ATOM	51733	CA	PRO	V	23	256.814	135.305	10.364	1.00	113.49	C	HETATM	51781	UNK	UNK		20	123.634	66.140	-7.690	0.63	55.49	X
ATOM	51734	C	PRO	V	23	255.976	136.550	10.614	1.00	113.49	C	HETATM	51782	UNK	UNK		21	120.401	112.646	-36.951	0.40	55.49	X
ATOM	51735	O	PRO	V	23	255.410	137.121	9.679	1.00	113.49	O	HETATM	51783	UNK	UNK		22	149.450	118.388	-65.093	0.60	55.49	X
ATOM	51736	CB	PRO	V	23	258.309	135.614	10.298	1.00	73.02	C	HETATM	51784	UNK	UNK		23	211.168	116.508	29.385	0.76	55.49	X
ATOM	51737	CG	PRO	V	23	258.817	134.742	9.157	1.00	73.02	C	HETATM	51785	UNK	UNK		24	213.250	115.386	67.039	0.47	55.49	X
ATOM	51738	CD	PRO	V	23	257.706	134.849	8.167	1.00	73.02	C	HETATM	51786	UNK	UNK		25	112.354	61.408	-28.131	0.33	55.49	X
ATOM	51739	N	ARG	V	24	255.903	136.965	11.875	1.00	100.67	N	HETATM	51787	UNK	UNK		26	127.080	55.840	19.879	0.60	55.49	X
ATOM	51740	CA	ARG	V	24	255.136	138.144	12.255	1.00	100.67	C	HETATM	51788	UNK	UNK		27	163.983	106.905	-4.787	0.65	55.49	X
ATOM	51741	C	ARG	V	24	255.585	139.436	11.569	1.00	100.67	C	HETATM	51789	UNK	UNK		28	97.988	71.656	25.176	0.65	55.49	X
ATOM	51742	O	ARG	V	24	254.743	140.223	11.135	1.00	100.67	O	HETATM	51790	UNK	UNK		29	167.238	113.931	-64.478	0.44	55.49	X
ATOM	51743	CB	ARG	V	24	255.181	138.312	13.768	1.00	100.67	C	HETATM	51791	UNK	UNK		30	162.520	93.291	-30.033	0.66	55.49	X
ATOM	51744	CG	ARG	V	24	254.435	137.223	14.490	1.00	100.67	C	HETATM	51792	UNK	UNK		31	140.469	71.695	5.778	0.80	55.49	X
ATOM	51745	CD	ARG	V	24	252.989	137.200	14.042	1.00	100.67	C	HETATM	51793	UNK	UNK		32	158.068	113.835	-64.933	0.44	55.49	X
ATOM	51746	NE	ARG	V	24	252.227	136.184	14.756	1.00	100.67	N	HETATM	51794	UNK	UNK		33	200.586	161.846	-18.907	0.55	55.49	X
ATOM	51747	CZ	ARG	V	24	251.983	136.214	16.062	1.00	100.67	C	HETATM	51795	UNK	UNK		34	171.459	111.411	-2.612	0.55	55.49	X



ATOM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ATOM	O5*	C5*	C4*	O4*	C3*	O3*	C2*	O2*	C1*	N1	C2	O2	N3	O4	O4
ATOM	U A	U A	U A	U A	U A	U A	U A	U A	U A	U A	U A	U A	U A	U A	U A
ATOM	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
ATOM	133.894	133.953	135.127	134.984	135.336	136.061	136.100	137.493	135.702	135.061	135.385	136.088	134.842	134.005	133.668
ATOM	111.247	110.373	110.677	112.005	109.776	108.618	110.675	110.618	112.084	113.047	113.007	112.142	114.022	115.037	115.923
ATOM	1.629	2.769	3.685	4.228	4.905	4.423	5.887	5.742	5.439	6.358	7.710	8.204	8.463	8.026	8.811
ATOM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ATOM	75.85	75.85	75.85	75.85	75.85	75.85	75.85	75.85	75.85	78.16	78.16	78.16	78.16	78.16	78.16
ATOM	O	C	C	C	C	O	C	O	C	N	C	O	N	C	O

FIGURES  
TOTAL 5 pgs



HETATM51896	UNK UNX	137	228.746	111.588	13.51	0.67	55.49	X
HETATM51897	UNK UNX	138	263.728	135.595	17.759	0.39	55.49	X
HETATM51898	UNK UNX	139	125.703	69.438	-17.815	0.32	55.49	X
HETATM51899	UNK UNX	140	89.714	47.675	8.614	0.34	55.49	X
HETATM51900	UNK UNX	141	109.273	74.450	-15.950	0.36	55.49	X
HETATM51901	UNK UNX	142	173.461	89.378	-35.076	0.56	55.49	X
HETATM51902	UNK UNX	143	223.498	108.879	0.549	0.50	55.49	X
HETATM51903	UNK UNX	144	222.788	107.981	10.894	0.43	55.49	X
HETATM51904	UNK UNX	145	188.086	104.338	13.768	0.38	55.49	X
HETATM51905	UNK UNX	146	193.572	122.651	-19.929	0.62	55.49	X
HETATM51906	UNK UNX	148	187.709	125.086	-17.385	0.34	55.49	X
HETATM51907	UNK UNX	149	186.380	103.660	-43.104	0.65	55.49	X
HETATM51908	UNK UNX	150	188.694	108.187	30.252	0.22	55.49	X
HETATM51909	UNK UNX	151	165.164	88.572	4.724	0.31	55.49	X
HETATM51910	UNK UNX	152	195.973	102.962	-26.845	0.85	55.49	X
HETATM51911	UNK UNX	153	112.602	41.300	13.803	0.57	55.49	X
HETATM51912	UNK UNX	154	139.060	77.090	23.631	0.61	55.49	X
HETATM51913	UNK UNX	155	158.097	76.504	26.850	0.53	55.49	X
HETATM51914	UNK UNX	156	148.793	104.171	4.767	0.36	55.49	X
HETATM51915	UNK UNX	157	177.015	97.891	22.054	0.43	55.49	X
HETATM51916	UNK UNX	158	96.113	63.904	-2.016	0.39	55.49	X
HETATM51917	UNK UNX	159	95.875	32.933	-0.001	0.52	55.49	X
HETATM51918	UNK UNX	160	111.882	24.571	-3.668	0.54	55.49	X
HETATM51919	UNK UNX	161	91.994	45.325	-15.130	0.59	55.49	X
HETATM51920	UNK UNX	162	85.245	55.091	-18.193	0.21	55.49	X
HETATM51921	UNK UNX	163	89.703	60.072	-26.389	0.37	55.49	X
HETATM51922	UNK UNX	164	94.985	66.234	-28.220	0.36	55.49	X
HETATM51923	UNK UNX	165	98.910	71.910	-31.344	0.29	55.49	X
HETATM51924	UNK UNX	166	172.231	93.171	17.519	0.59	55.49	X
HETATM51925	UNK UNX	167	144.287	70.570	-7.699	0.80	55.49	X
HETATM51926	UNK UNX	168	136.933	88.562	-6.022	0.49	55.49	X
HETATM51927	UNK UNX	169	134.718	54.437	5.319	0.74	55.49	X
HETATM51928	UNK UNX	170	118.518	64.106	20.241	0.49	55.49	X
HETATM51929	UNK UNX	171	153.899	102.780	45.612	0.60	55.49	X
HETATM51930	UNK UNX	172	171.875	99.027	15.004	0.44	55.49	X
HETATM51931	UNK UNX	173	126.200	65.970	1.116	0.42	55.49	X
HETATM51932	UNK UNX	174	205.334	104.628	-67.369	0.32	55.49	X
HETATM51933	UNK UNX	175	201.851	108.032	-74.159	0.39	55.49	X
HETATM51934	UNK UNX	176	190.437	86.478	-66.177	0.42	55.49	X
HETATM51935	UNK UNX	177	172.819	91.808	-57.493	0.56	55.49	X
HETATM51936	UNK UNX	178	196.661	91.578	-40.780	0.69	55.49	X
HETATM51937	UNK UNX	179	178.491	112.104	-18.638	0.45	55.49	X
HETATM51938	UNK UNX	180	106.780	72.476	-9.180	0.49	55.49	X
HETATM51939	UNK UNX	181	222.536	98.325	11.660	0.44	55.49	X
HETATM51940	UNK UNX	182	206.185	110.699	32.583	0.29	55.49	X
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Table 2: Sheet 3/520

ATOM	166	N1	U A	12	170.299	105.230	-1.844	1.00	47.59	N	ATOM	216	O2P	G A	15	182.594	109.692	-5.259	1.00	45.47	O
ATOM	167	C2	U A	12	169.553	104.601	-2.820	1.00	47.59	C	ATOM	217	O5*	G A	15	183.165	112.092	-5.665	1.00	44.74	O
ATOM	168	O2	U A	12	169.807	103.491	-3.243	1.00	47.59	O	ATOM	218	C5*	G A	15	183.869	112.253	-4.423	1.00	44.74	C
ATOM	169	N3	U A	12	168.493	105.323	-3.289	1.00	47.59	N	ATOM	219	C4*	G A	15	183.818	113.684	-3.983	1.00	44.74	C
ATOM	170	C4	U A	12	168.102	106.577	-2.888	1.00	47.59	C	ATOM	220	O4*	G A	15	184.597	114.477	-4.905	1.00	44.74	O
ATOM	171	O4	U A	12	167.162	107.134	-3.467	1.00	47.59	O	ATOM	221	C3*	G A	15	182.436	114.306	-4.007	1.00	44.74	C
ATOM	172	C5	U A	12	168.898	107.141	-1.849	1.00	47.59	C	ATOM	222	O3*	G A	15	181.724	114.026	-2.808	1.00	44.74	O
ATOM	173	C6	U A	12	169.939	106.465	-1.373	1.00	47.59	C	ATOM	223	C2*	G A	15	182.745	115.784	-4.215	1.00	44.74	C
ATOM	174	P	U A	13	175.207	107.571	-2.343	1.00	43.94	P	ATOM	224	O2*	G A	15	183.166	116.404	-3.012	1.00	44.74	O
ATOM	175	O1P	U A	13	176.411	108.094	-1.660	1.00	47.09	O	ATOM	225	C1*	G A	15	183.949	115.713	-5.157	1.00	44.74	C
ATOM	176	O2P	U A	13	174.077	108.478	-2.599	1.00	47.09	O	ATOM	226	N9	G A	15	183.635	115.765	-6.586	1.00	45.47	N
ATOM	177	O5*	U A	13	175.685	106.958	-3.733	1.00	43.94	O	ATOM	227	C8	G A	15	183.805	114.743	-7.497	1.00	45.47	C
ATOM	178	C5*	U A	13	174.748	106.511	-4.734	1.00	43.94	C	ATOM	228	N7	G A	15	183.458	115.070	-8.712	1.00	45.47	N
ATOM	179	C4*	U A	13	175.501	105.963	-5.927	1.00	43.94	C	ATOM	229	C5	G A	15	183.028	116.382	-8.601	1.00	45.47	C
ATOM	180	O4*	U A	13	174.564	105.449	-6.923	1.00	43.94	O	ATOM	230	C6	G A	15	182.520	117.256	-9.588	1.00	45.47	C
ATOM	181	C3*	U A	13	176.401	106.969	-6.644	1.00	43.94	C	ATOM	231	O6	G A	15	182.334	117.033	-10.793	1.00	45.47	O
ATOM	182	O3*	U A	13	177.632	106.351	-7.056	1.00	43.94	O	ATOM	232	N1	G A	15	182.204	118.494	-9.052	1.00	45.47	N
ATOM	183	C2*	U A	13	175.578	107.332	-7.876	1.00	43.94	C	ATOM	233	C1	G A	15	182.342	118.841	-7.727	1.00	45.47	C
ATOM	184	O2*	U A	13	176.362	107.764	-8.968	1.00	43.94	O	ATOM	234	N2	G A	15	181.967	120.088	-7.407	1.00	45.47	N
ATOM	185	C1*	U A	13	174.871	106.008	-8.175	1.00	43.94	C	ATOM	235	N3	G A	15	182.807	118.030	-6.790	1.00	45.47	N
ATOM	186	N1	U A	13	173.641	106.105	-8.973	1.00	47.09	N	ATOM	236	P	G A	15	183.130	116.827	-7.293	1.00	45.47	P
ATOM	187	C2	U A	13	173.353	105.070	-9.848	1.00	47.09	C	ATOM	237	C4	A A	16	180.199	113.516	-2.898	1.00	42.97	C
ATOM	188	O2	U A	13	174.041	104.080	-9.952	1.00	47.09	O	ATOM	238	O1P	A A	16	179.726	113.238	-1.510	1.00	41.23	O
ATOM	189	N3	U A	13	172.218	105.233	-10.594	1.00	47.09	N	ATOM	239	O2P	A A	16	180.105	112.438	-3.924	1.00	41.23	O
ATOM	190	C4	U A	13	171.350	106.299	-10.550	1.00	47.09	C	ATOM	240	O5*	A A	16	179.422	114.806	-3.410	1.00	42.97	O
ATOM	191	O4	U A	13	170.408	106.350	-11.338	1.00	47.09	O	ATOM	241	C5*	A A	16	179.170	115.878	-2.501	1.00	42.97	C
ATOM	192	C5	U A	13	171.703	107.309	-9.608	1.00	47.09	C	ATOM	242	C4*	A A	16	178.854	117.153	-3.235	1.00	42.97	C
ATOM	193	C6	U A	13	172.810	107.180	-8.872	1.00	47.09	C	ATOM	243	O4*	A A	16	179.855	117.393	-4.257	1.00	42.97	O
ATOM	194	P	U A	14	179.013	106.723	-6.307	1.00	41.28	P	ATOM	244	C3*	A A	16	177.534	117.228	-3.985	1.00	42.97	C
ATOM	195	O1P	U A	14	180.109	105.945	-6.936	1.00	49.90	O	ATOM	245	O3*	A A	16	176.458	117.544	-3.133	1.00	42.97	O
ATOM	196	O2P	U A	14	178.811	106.634	-4.823	1.00	41.28	O	ATOM	246	C2*	A A	16	177.790	118.352	-4.979	1.00	42.97	C
ATOM	197	O5*	U A	14	179.227	108.255	-6.675	1.00	41.28	O	ATOM	247	O2*	A A	16	177.591	119.644	-4.440	1.00	42.97	O
ATOM	198	C5*	U A	14	179.509	108.654	-8.005	1.00	41.28	C	ATOM	248	C1*	A A	16	179.268	118.134	-5.317	1.00	42.97	C
ATOM	199	C4*	U A	14	179.642	110.152	-8.079	1.00	41.28	C	ATOM	249	N9	A A	16	179.391	117.373	-6.556	1.00	41.23	N
ATOM	200	O4*	U A	14	178.347	110.760	-7.905	1.00	41.28	O	ATOM	250	C8	A A	16	179.838	116.097	-6.760	1.00	41.23	C
ATOM	201	C3*	U A	14	180.518	110.812	-7.031	1.00	41.28	C	ATOM	251	N7	A A	16	179.771	115.712	-8.012	1.00	41.23	N
ATOM	202	O3*	U A	14	181.874	110.819	-7.423	1.00	41.28	O	ATOM	252	C5	A A	16	179.262	116.815	-8.672	1.00	41.23	C
ATOM	203	C2*	U A	14	179.980	112.232	-6.995	1.00	41.28	C	ATOM	253	C6	A A	16	178.956	117.045	-10.009	1.00	41.23	C
ATOM	204	O2*	U A	14	180.511	113.012	-8.038	1.00	41.28	O	ATOM	254	N6	A A	16	179.125	116.147	-10.959	1.00	41.23	N
ATOM	205	C1*	U A	14	178.492	112.012	-7.257	1.00	41.28	C	ATOM	255	N1	A A	16	178.457	118.250	-10.345	1.00	41.23	N
ATOM	206	N1	U A	14	177.697	112.011	-6.020	1.00	49.90	N	ATOM	256	C2	A A	16	178.273	119.162	-9.374	1.00	41.23	C
ATOM	207	C2	U A	14	177.307	113.227	-5.515	1.00	49.90	C	ATOM	257	N3	A A	16	178.523	119.060	-8.076	1.00	41.23	N
ATOM	208	O2	U A	14	177.554	114.284	-6.070	1.00	49.90	O	ATOM	258	C4	A A	16	179.025	117.846	-7.789	1.00	41.23	C
ATOM	209	N3	U A	14	176.610	113.167	-4.339	1.00	49.90	N	ATOM	259	P	U A	17	175.006	116.937	-3.436	1.00	38.88	P
ATOM	210	C4	U A	14	176.264	112.036	-3.641	1.00	49.90	C	ATOM	260	O1P	U A	17	174.085	117.506	-2.413	1.00	43.02	O
ATOM	211	O4	U A	14	175.680	112.141	-2.555	1.00	49.90	O	ATOM	261	O2P	U A	17	175.123	115.458	-3.570	1.00	43.02	O
ATOM	212	C5	U A	14	176.684	110.818	-4.246	1.00	49.90	C	ATOM	262	O5*	U A	17	174.610	117.560	-4.846	1.00	38.88	O
ATOM	213	C6	U A	14	177.368	110.847	-5.383	1.00	49.90	C	ATOM	263	C5*	U A	17	174.531	118.965	-4.993	1.00	38.88	C
ATOM	214	P	G A	15	183.020	110.649	-6.318	1.00	44.74	P	ATOM	264	C4*	U A	17	173.975	119.338	-6.339	1.00	38.88	C
ATOM	215	O1P	G A	15	184.257	110.383	-7.087	1.00	45.47	O	ATOM	265	O4*	U A	17	174.967	119.214	-7.382	1.00	38.88	O



ATOM	66	O2P	A	A	8	149.473	108.126	3.041	1.00	55.81	O	ATOM	116	C3*	A	A	10	164.423	110.179	3.294	1.00	36.70	C
ATOM	67	O5*	A	A	8	150.398	110.416	2.925	1.00	42.06	O	ATOM	117	O3*	A	A	10	165.527	111.008	3.592	1.00	36.70	O
ATOM	68	C5*	A	A	8	150.641	111.684	2.307	1.00	42.06	C	ATOM	118	C2*	A	A	10	164.630	108.750	3.768	1.00	36.70	C
ATOM	69	C4*	A	A	8	152.055	112.122	2.580	1.00	42.06	C	ATOM	119	O2*	A	A	10	165.233	108.659	5.047	1.00	36.70	O
ATOM	70	O4*	A	A	8	152.165	112.603	3.945	1.00	42.06	O	ATOM	120	C1*	A	A	10	163.190	108.250	3.844	1.00	36.70	C
ATOM	71	C3*	A	A	8	153.098	111.021	2.410	1.00	42.06	C	ATOM	121	N9	A	A	10	162.779	107.659	2.573	1.00	41.82	N
ATOM	72	O3*	A	A	8	154.300	111.567	1.871	1.00	42.06	O	ATOM	122	C8	A	A	10	161.974	108.216	1.613	1.00	41.82	C
ATOM	73	C2*	A	A	8	153.361	110.578	3.841	1.00	42.06	C	ATOM	123	N7	A	A	10	161.775	107.443	0.579	1.00	41.82	N
ATOM	74	O2*	A	A	8	154.677	110.103	4.011	1.00	42.06	O	ATOM	124	C5	A	A	10	162.499	106.300	0.874	1.00	41.82	C
ATOM	75	C1*	A	A	8	153.178	111.884	4.610	1.00	42.06	C	ATOM	125	C6	A	A	10	162.682	105.094	0.181	1.00	41.82	C
ATOM	76	N9	A	A	8	152.800	111.715	6.010	1.00	55.81	N	ATOM	126	N6	A	A	10	162.109	104.819	-0.991	1.00	41.82	N
ATOM	77	C8	A	A	8	151.556	111.540	6.548	1.00	55.81	C	ATOM	127	N1	A	A	10	163.475	104.161	0.747	1.00	41.82	N
ATOM	78	N7	A	A	8	151.554	111.457	7.856	1.00	55.81	N	ATOM	128	C2	A	A	10	164.027	104.428	1.941	1.00	41.82	C
ATOM	79	C5	A	A	8	152.890	111.571	8.197	1.00	55.81	C	ATOM	129	N3	A	A	10	163.915	105.515	2.696	1.00	41.82	N
ATOM	80	C6	A	A	8	153.553	111.556	9.433	1.00	55.81	C	ATOM	130	C4	A	A	10	163.129	106.423	2.096	1.00	41.82	C
ATOM	81	N6	A	A	8	152.933	111.416	10.605	1.00	55.81	N	ATOM	131	P	G	A	11	166.810	110.980	2.631	1.00	45.58	P
ATOM	82	N1	A	A	8	154.892	111.691	9.429	1.00	55.81	N	ATOM	132	O1P	G	A	11	167.822	111.918	3.197	1.00	45.98	O
ATOM	83	C2	A	A	8	155.509	111.832	8.256	1.00	55.81	C	ATOM	133	O2P	G	A	11	166.343	111.157	1.232	1.00	45.98	O
ATOM	84	N3	A	A	8	154.997	111.861	7.029	1.00	55.81	N	ATOM	134	O5*	G	A	11	167.381	109.505	2.820	1.00	45.58	O
ATOM	85	C4	A	A	8	153.667	111.723	7.071	1.00	55.81	C	ATOM	135	C5*	G	A	11	168.046	109.143	4.033	1.00	45.58	C
ATOM	86	P	G	A	9	154.529	111.570	0.283	1.00	35.77	P	ATOM	136	C4*	G	A	11	168.783	107.853	3.851	1.00	45.58	C
ATOM	87	O1P	G	A	9	153.788	112.732	-0.293	1.00	39.18	O	ATOM	137	O4*	G	A	11	167.823	106.795	3.639	1.00	45.58	O
ATOM	88	O2P	G	A	9	154.223	110.197	-0.189	1.00	39.18	O	ATOM	138	C3*	G	A	11	169.693	107.787	2.637	1.00	45.58	C
ATOM	89	O5*	G	A	9	156.098	111.769	0.100	1.00	35.77	O	ATOM	139	O3*	G	A	11	170.977	108.340	2.870	1.00	45.58	O
ATOM	90	C5*	G	A	9	156.814	112.634	0.946	1.00	35.77	C	ATOM	140	C2*	G	A	11	169.761	106.298	2.355	1.00	45.58	C
ATOM	91	C4*	G	A	9	157.495	111.848	2.039	1.00	35.77	C	ATOM	141	O2*	G	A	11	170.692	105.671	3.216	1.00	45.58	O
ATOM	92	O4*	G	A	9	156.793	110.604	2.303	1.00	35.77	O	ATOM	142	C1*	G	A	11	168.334	105.865	2.700	1.00	45.58	C
ATOM	93	C3*	G	A	9	158.910	111.379	1.785	1.00	35.77	C	ATOM	143	N9	G	A	11	167.462	105.906	1.532	1.00	45.98	N
ATOM	94	O3*	G	A	9	159.863	112.400	1.940	1.00	35.77	O	ATOM	144	C8	G	A	11	166.651	106.948	1.159	1.00	45.98	C
ATOM	95	C2*	G	A	9	159.085	110.295	2.837	1.00	35.77	C	ATOM	145	N7	G	A	11	166.002	106.722	0.053	1.00	45.98	N
ATOM	96	O2*	G	A	9	159.352	110.800	4.121	1.00	35.77	O	ATOM	146	C5	G	A	11	166.407	105.451	-0.329	1.00	45.98	C
ATOM	97	C1*	G	A	9	157.708	109.652	2.836	1.00	35.77	C	ATOM	147	C6	G	A	11	166.050	104.677	-1.466	1.00	45.98	C
ATOM	98	N9	G	A	9	157.750	108.470	1.982	1.00	39.18	N	ATOM	148	O6	G	A	11	165.293	104.978	-2.404	1.00	45.98	O
ATOM	99	C8	G	A	9	157.070	108.237	0.812	1.00	39.18	C	ATOM	149	N1	G	A	11	166.682	103.440	-1.455	1.00	45.98	N
ATOM	100	N7	G	A	9	157.378	107.092	0.265	1.00	39.18	N	ATOM	150	C2	G	A	11	167.547	103.003	-0.487	1.00	45.98	C
ATOM	101	C5	G	A	9	158.306	106.536	1.132	1.00	39.18	C	ATOM	151	N2	G	A	11	168.027	101.757	-0.648	1.00	45.98	N
ATOM	102	C6	G	A	9	159.002	105.310	1.061	1.00	39.18	C	ATOM	152	N3	G	A	11	167.906	103.725	0.566	1.00	45.98	N
ATOM	103	O6	G	A	9	158.951	104.457	0.185	1.00	39.18	O	ATOM	153	C4	G	A	11	167.299	104.928	0.581	1.00	45.98	C
ATOM	104	N1	G	A	9	159.832	105.125	2.157	1.00	39.18	N	ATOM	154	P	U	A	12	171.756	109.025	1.650	1.00	41.80	P
ATOM	105	C2	G	A	9	159.980	106.019	3.186	1.00	39.18	C	ATOM	155	O1P	U	A	12	173.036	109.580	2.166	1.00	47.59	O
ATOM	106	N2	G	A	9	160.824	105.662	4.162	1.00	39.18	N	ATOM	156	O2P	U	A	12	170.795	109.918	0.937	1.00	47.59	O
ATOM	107	N3	G	A	9	159.346	107.179	3.256	1.00	39.18	N	ATOM	157	O5*	U	A	12	172.070	107.795	0.693	1.00	41.80	O
ATOM	108	C4	G	A	9	158.531	107.366	2.203	1.00	39.18	C	ATOM	158	C5*	U	A	12	172.926	106.731	1.130	1.00	41.80	C
ATOM	109	P	A	A	10	161.218	112.315	1.101	1.00	36.70	P	ATOM	159	C4*	U	A	12	173.001	105.651	0.081	1.00	41.80	C
ATOM	110	O1P	A	A	10	161.798	113.684	1.027	1.00	41.82	O	ATOM	160	O4*	U	A	12	171.730	104.957	-0.018	1.00	41.80	O
ATOM	111	O2P	A	A	10	160.937	111.568	-0.153	1.00	41.82	O	ATOM	161	C3*	U	A	12	173.289	106.119	-1.328	1.00	41.80	C
ATOM	112	O5*	A	A	10	162.130	111.382	2.004	1.00	36.70	O	ATOM	162	O3*	U	A	12	174.677	106.306	-1.513	1.00	41.80	O
ATOM	113	C5*	A	A	10	162.349	111.685	3.383	1.00	36.70	C	ATOM	163	C2*	U	A	12	172.743	104.965	-2.155	1.00	41.80	C
ATOM	114	C4*	A	A	10	163.158	110.588	4.027	1.00	36.70	C	ATOM	164	O2*	U	A	12	173.628	103.871	-2.156	1.00	41.80	O
ATOM	115	O4*	A	A	10	162.366	109.376	4.081	1.00	36.70	O	ATOM	165	C1*	U	A	12	171.508	104.556	-1.351	1.00	41.80	C



Table 2: Sheet 5/520

ATOM	366	C5*	G A 22	163.610	99.385	-11.504	1.00	43.70	C	ATOM	416	C1*	U A 24	166.233	99.026	0.664	1.00	46.08	C
ATOM	367	C4*	G A 22	164.848	98.936	-10.787	1.00	43.70	C	ATOM	417	N1	U A 24	165.297	99.826	-0.146	1.00	46.83	N
ATOM	368	O4*	G A 22	165.832	99.999	-10.761	1.00	43.70	O	ATOM	418	C2	U A 24	164.953	101.076	0.342	1.00	46.83	C
ATOM	369	C3*	G A 22	164.687	98.571	-9.329	1.00	43.70	C	ATOM	419	O2	U A 24	165.420	101.534	1.369	1.00	46.83	O
ATOM	370	O3*	G A 22	164.140	97.281	-9.185	1.00	43.70	O	ATOM	420	N3	U A 24	164.040	101.766	-0.410	1.00	46.83	N
ATOM	371	C2*	G A 22	166.123	98.654	-8.834	1.00	43.70	C	ATOM	421	C4	U A 24	163.447	101.352	-1.573	1.00	46.83	C
ATOM	372	O2*	G A 22	166.910	97.547	-9.209	1.00	43.70	O	ATOM	422	O4	U A 24	162.596	102.067	-2.104	1.00	46.83	O
ATOM	373	C1*	G A 22	166.643	99.855	-9.613	1.00	43.70	C	ATOM	423	C5	U A 24	163.866	100.059	-2.027	1.00	46.83	C
ATOM	374	N9	G A 22	166.538	101.045	-8.778	1.00	40.22	N	ATOM	424	C6	U A 24	164.758	99.360	-1.317	1.00	46.83	C
ATOM	375	C8	G A 22	165.552	101.991	-8.766	1.00	40.22	C	ATOM	425	P	C A 25	163.482	95.803	2.760	1.00	46.60	P
ATOM	376	N7	G A 22	165.738	102.907	-7.857	1.00	40.22	N	ATOM	426	O1P	C A 25	163.423	94.553	3.564	1.00	45.03	O
ATOM	377	C5	G A 22	166.924	102.541	-7.243	1.00	40.22	C	ATOM	427	O2P	C A 25	162.560	95.970	1.610	1.00	45.03	O
ATOM	378	C6	G A 22	167.629	103.139	-6.167	1.00	40.22	C	ATOM	428	O5*	C A 25	163.286	97.036	3.733	1.00	46.60	O
ATOM	379	O6	G A 22	167.354	104.159	-5.537	1.00	40.22	O	ATOM	429	C5*	C A 25	164.165	97.217	4.840	1.00	46.60	C
ATOM	380	N1	G A 22	168.769	102.420	-5.846	1.00	40.22	N	ATOM	430	C4*	C A 25	163.871	98.520	5.531	1.00	46.60	C
ATOM	381	C2	G A 22	169.190	101.281	-6.489	1.00	40.22	C	ATOM	431	O4*	C A 25	164.119	99.626	4.620	1.00	46.60	O
ATOM	382	N2	G A 22	170.328	100.736	-6.050	1.00	40.22	N	ATOM	432	C3*	C A 25	162.437	98.720	5.981	1.00	46.60	C
ATOM	383	N3	G A 22	168.547	100.723	-7.489	1.00	40.22	N	ATOM	433	O3*	C A 25	162.191	98.079	7.213	1.00	46.60	O
ATOM	384	C4	G A 22	167.429	101.399	-7.808	1.00	40.22	C	ATOM	434	C2*	C A 25	162.338	100.235	6.078	1.00	46.60	C
ATOM	385	P	C A 23	163.377	96.900	-7.834	1.00	36.41	P	ATOM	435	O2*	C A 25	162.963	100.725	7.252	1.00	46.60	O
ATOM	386	O1P	C A 23	162.940	95.481	-7.945	1.00	42.05	O	ATOM	436	C1*	C A 25	163.198	100.670	4.894	1.00	46.60	C
ATOM	387	O2P	C A 23	162.380	97.962	-7.547	1.00	42.05	O	ATOM	437	N1	C A 25	162.418	100.968	3.677	1.00	45.03	N
ATOM	388	O5*	C A 23	164.515	96.975	-6.726	1.00	36.41	O	ATOM	438	C2	C A 25	161.847	102.235	3.548	1.00	45.03	C
ATOM	389	C5*	C A 23	165.594	96.052	-6.768	1.00	36.41	C	ATOM	439	O2	C A 25	161.992	103.053	4.468	1.00	45.03	O
ATOM	390	C4*	C A 23	166.567	96.335	-5.671	1.00	36.41	C	ATOM	440	N3	C A 25	161.152	102.535	2.426	1.00	45.03	N
ATOM	391	O4*	C A 23	167.191	97.614	-5.905	1.00	36.41	O	ATOM	441	C4	C A 25	161.017	101.621	1.463	1.00	45.03	C
ATOM	392	C3*	C A 23	165.996	96.450	-4.275	1.00	36.41	C	ATOM	442	N4	C A 25	160.339	101.959	0.375	1.00	45.03	N
ATOM	393	O3*	C A 23	165.797	95.204	-3.653	1.00	36.41	O	ATOM	443	C5	C A 25	161.574	100.322	1.577	1.00	45.03	C
ATOM	394	C2*	C A 23	167.062	97.261	-3.563	1.00	36.41	C	ATOM	444	C6	C A 25	162.260	100.039	2.688	1.00	45.03	C
ATOM	395	O2*	C A 23	168.176	96.460	-3.212	1.00	36.41	O	ATOM	445	P	A A 26	160.710	97.557	7.551	1.00	52.02	P
ATOM	396	C1*	C A 23	167.473	98.236	-4.663	1.00	36.41	C	ATOM	446	O1P	A A 26	160.831	96.591	8.671	1.00	42.87	O
ATOM	397	N1	C A 23	166.701	99.484	-4.576	1.00	42.05	N	ATOM	447	O2P	A A 26	160.037	97.133	6.299	1.00	42.87	O
ATOM	398	C2	C A 23	167.069	100.425	-3.627	1.00	42.05	C	ATOM	448	O5*	A A 26	159.987	98.863	8.103	1.00	52.02	O
ATOM	399	O2	C A 23	168.004	100.171	-2.868	1.00	42.05	O	ATOM	449	C5*	A A 26	160.493	99.520	9.276	1.00	52.02	C
ATOM	400	N3	C A 23	166.389	101.582	-3.544	1.00	42.05	N	ATOM	450	C4*	A A 26	159.823	100.851	9.470	1.00	52.02	C
ATOM	401	C4	C A 23	165.353	101.806	-4.351	1.00	42.05	C	ATOM	451	O4*	A A 26	160.158	101.719	8.367	1.00	52.02	O
ATOM	402	N4	C A 23	164.702	102.966	-4.221	1.00	42.05	N	ATOM	452	C3*	A A 26	158.306	100.852	9.518	1.00	52.02	C
ATOM	403	C5	C A 23	164.940	100.853	-5.323	1.00	42.05	C	ATOM	453	O3*	A A 26	157.842	100.576	10.835	1.00	52.02	O
ATOM	404	C6	C A 23	165.640	99.719	-5.405	1.00	42.05	C	ATOM	454	C2*	A A 26	157.973	102.282	9.118	1.00	52.02	C
ATOM	405	P	U A 24	164.638	95.067	-2.564	1.00	46.08	P	ATOM	455	O2*	A A 26	158.091	103.165	10.210	1.00	52.02	O
ATOM	406	O1P	U A 24	164.608	93.674	-2.054	1.00	46.83	O	ATOM	456	C1*	A A 26	159.091	102.607	8.126	1.00	52.02	C
ATOM	407	O2P	U A 24	163.408	95.669	-3.144	1.00	46.83	O	ATOM	457	N9	A A 26	158.663	102.461	6.740	1.00	42.87	N
ATOM	408	O5*	U A 24	165.132	96.027	-1.408	1.00	46.08	O	ATOM	458	C8	A A 26	158.564	101.322	5.986	1.00	42.87	C
ATOM	409	C5*	U A 24	166.290	95.703	-0.649	1.00	46.08	C	ATOM	459	N7	A A 26	158.082	101.526	4.786	1.00	42.87	N
ATOM	410	C4*	U A 24	166.478	96.709	0.446	1.00	46.08	C	ATOM	460	C5	A A 26	157.864	102.893	4.746	1.00	42.87	C
ATOM	411	O4*	U A 24	166.797	98.000	-0.130	1.00	46.08	O	ATOM	461	C6	A A 26	157.348	103.727	3.758	1.00	42.87	C
ATOM	412	C3*	U A 24	165.235	96.980	1.261	1.00	46.08	C	ATOM	462	N6	A A 26	156.939	103.282	2.567	1.00	42.87	N
ATOM	413	O3*	U A 24	164.986	96.015	2.252	1.00	46.08	O	ATOM	463	N1	A A 26	157.258	105.049	4.030	1.00	42.87	N
ATOM	414	C2*	U A 24	165.514	98.352	1.832	1.00	46.08	C	ATOM	464	C2	A A 26	157.669	105.480	5.226	1.00	42.87	C
ATOM	415	O2*	U A 24	166.373	98.278	2.947	1.00	46.08	O	ATOM	465	N3	A A 26	158.172	104.789	6.242	1.00	42.87	N



Table 2: Sheet 4/520

ATOM	266	C3*	U A 17	172.766	118.592	-6.869	1.00	38.88	C	ATOM	316	N4	C A 19	170.573	111.106	-10.369	1.00	43.14	N
ATOM	267	O3*	U A 17	171.567	119.057	-6.266	1.00	38.88	O	ATOM	317	C5	C A 19	169.060	112.899	-10.653	1.00	43.14	C
ATOM	268	O2*	U A 17	172.813	118.971	-8.342	1.00	38.88	C	ATOM	318	C6	C A 19	168.280	113.580	-11.494	1.00	43.14	C
ATOM	269	O2*	U A 17	172.340	120.292	-8.549	1.00	38.88	O	ATOM	319	P	U A 20	163.056	112.157	-12.727	1.00	40.74	P
ATOM	270	C1*	U A 17	174.316	118.974	-8.613	1.00	38.88	C	ATOM	320	O1P	U A 20	161.719	112.213	-13.368	1.00	38.94	O
ATOM	271	N1	U A 17	174.789	117.698	-9.174	1.00	43.02	N	ATOM	321	O2P	U A 20	163.163	111.900	-11.266	1.00	38.94	O
ATOM	272	C2	U A 17	174.619	117.496	-10.129	1.00	43.02	C	ATOM	322	O5*	U A 20	163.879	111.050	-13.521	1.00	40.74	O
ATOM	273	O2	U A 17	174.093	118.313	-11.260	1.00	43.02	O	ATOM	323	C5*	U A 20	163.702	110.898	-14.945	1.00	40.74	C
ATOM	274	N3	U A 17	175.083	116.299	-10.999	1.00	43.02	N	ATOM	324	C4*	U A 20	164.550	109.768	-15.477	1.00	40.74	C
ATOM	275	C4	U A 17	175.683	115.301	-10.273	1.00	43.02	C	ATOM	325	O4*	U A 20	165.948	110.025	-15.203	1.00	40.74	O
ATOM	276	O4	U A 17	176.042	114.273	-10.846	1.00	43.02	O	ATOM	326	C3*	U A 20	164.287	108.418	-14.853	1.00	40.74	C
ATOM	277	C5	U A 17	175.820	115.577	-8.881	1.00	43.02	C	ATOM	327	O3*	U A 20	163.198	107.787	-15.480	1.00	40.74	O
ATOM	278	C6	U A 17	175.380	116.737	-8.392	1.00	43.02	C	ATOM	328	C2*	U A 20	165.598	107.683	-15.079	1.00	40.74	C
ATOM	279	P	C A 18	170.367	118.032	-5.981	1.00	35.80	P	ATOM	329	O2*	U A 20	165.739	107.204	-16.403	1.00	40.74	O
ATOM	280	O1P	C A 18	169.460	118.722	-5.039	1.00	47.47	O	ATOM	330	C1*	U A 20	166.602	108.809	-14.879	1.00	40.74	C
ATOM	281	O2P	C A 18	170.890	116.688	-5.643	1.00	47.47	O	ATOM	331	N1	U A 20	167.049	108.892	-13.483	1.00	38.94	N
ATOM	282	O5*	C A 18	169.611	117.963	-7.365	1.00	35.80	O	ATOM	332	C2	U A 20	167.986	107.989	-13.056	1.00	38.94	C
ATOM	283	C5*	C A 18	168.978	119.118	-7.865	1.00	35.80	C	ATOM	333	O2	U A 20	168.437	107.114	-13.769	1.00	38.94	O
ATOM	284	C4*	C A 18	168.744	118.968	-9.324	1.00	35.80	C	ATOM	334	N3	U A 20	168.380	108.145	-11.754	1.00	38.94	N
ATOM	285	O4*	C A 18	170.023	118.879	-9.995	1.00	35.80	O	ATOM	335	C4	U A 20	167.939	109.086	-10.863	1.00	38.94	C
ATOM	286	C3*	C A 18	168.038	117.690	-9.720	1.00	35.80	C	ATOM	336	O4	U A 20	168.438	109.135	-9.743	1.00	38.94	O
ATOM	287	O3*	C A 18	166.639	117.748	-9.527	1.00	35.80	O	ATOM	337	C5	U A 20	166.955	109.971	-11.374	1.00	38.94	C
ATOM	288	C2*	C A 18	168.456	117.544	-11.173	1.00	35.80	C	ATOM	338	C6	U A 20	166.553	109.850	-12.630	1.00	38.94	C
ATOM	289	O2*	C A 18	167.729	118.400	-12.037	1.00	35.80	O	ATOM	339	P	G A 21	162.184	106.929	-14.593	1.00	34.05	P
ATOM	290	C1*	C A 18	169.908	118.014	-11.113	1.00	35.80	C	ATOM	340	O1P	G A 21	161.170	106.340	-15.512	1.00	44.99	O
ATOM	291	N1	C A 18	170.804	116.861	-10.933	1.00	47.47	N	ATOM	341	O2P	G A 21	161.746	107.786	-13.466	1.00	44.99	O
ATOM	292	C2	C A 18	171.183	116.127	-12.063	1.00	47.47	C	ATOM	342	O5*	G A 21	163.103	105.790	-13.981	1.00	34.05	O
ATOM	293	O2	C A 18	170.803	116.510	-13.184	1.00	47.47	C	ATOM	343	C5*	G A 21	163.634	104.784	-14.815	1.00	34.05	C
ATOM	294	N3	C A 18	171.947	115.022	-11.908	1.00	47.47	N	ATOM	344	C4*	G A 21	164.608	103.923	-14.050	1.00	34.05	C
ATOM	295	C4	C A 18	172.337	114.652	-10.687	1.00	47.47	C	ATOM	345	O4*	G A 21	165.756	104.718	-13.656	1.00	34.05	O
ATOM	296	N4	C A 18	173.063	113.539	-10.570	1.00	47.47	N	ATOM	346	C3*	G A 21	164.133	103.277	-12.756	1.00	34.05	C
ATOM	297	C5	C A 18	171.993	115.404	-9.525	1.00	47.47	C	ATOM	347	O3*	G A 21	163.379	102.093	-12.974	1.00	34.05	O
ATOM	298	C6	C A 18	171.237	116.488	-9.692	1.00	47.47	C	ATOM	348	C2*	G A 21	165.454	102.982	-12.061	1.00	34.05	C
ATOM	299	P	C A 19	165.837	116.404	-9.141	1.00	35.43	P	ATOM	349	O2*	G A 21	166.086	101.840	-12.602	1.00	34.05	O
ATOM	300	O1P	C A 19	164.427	116.837	-8.913	1.00	43.14	O	ATOM	350	C1*	G A 21	166.286	104.205	-12.449	1.00	34.05	C
ATOM	301	O2P	C A 19	166.565	115.660	-8.080	1.00	43.14	O	ATOM	351	N9	G A 21	166.204	105.247	-11.438	1.00	44.99	N
ATOM	302	O5*	C A 19	165.860	115.542	-10.475	1.00	35.43	O	ATOM	352	C8	G A 21	165.350	106.311	-11.428	1.00	44.99	C
ATOM	303	C5*	C A 19	165.193	116.031	-11.628	1.00	35.43	C	ATOM	353	N7	G A 21	165.509	107.080	-10.390	1.00	44.99	N
ATOM	304	C4*	C A 19	165.516	115.194	-12.830	1.00	35.43	C	ATOM	354	C5	G A 21	166.524	106.479	-9.668	1.00	44.99	C
ATOM	305	O4*	C A 19	166.947	115.203	-13.092	1.00	35.43	O	ATOM	355	C6	G A 21	167.130	106.863	-8.454	1.00	44.99	C
ATOM	306	C3*	C A 19	165.149	113.721	-12.823	1.00	35.43	C	ATOM	356	O6	G A 21	166.868	107.839	-7.735	1.00	44.99	O
ATOM	307	O3*	C A 19	163.774	113.543	-13.105	1.00	35.43	O	ATOM	357	N1	G A 21	168.142	105.986	-8.090	1.00	44.99	N
ATOM	308	C2*	C A 19	166.022	113.214	-13.967	1.00	35.43	C	ATOM	358	C2	G A 21	168.519	104.884	-8.804	1.00	44.99	C
ATOM	309	O2*	C A 19	165.489	113.666	-15.211	1.00	35.43	O	ATOM	359	N2	G A 21	169.534	104.181	-8.305	1.00	44.99	N
ATOM	310	C1*	C A 19	167.318	113.990	-12.725	1.00	35.43	C	ATOM	360	N3	G A 21	167.947	104.505	-9.929	1.00	44.99	N
ATOM	311	N1	C A 19	168.218	113.258	-12.817	1.00	43.14	N	ATOM	361	C4	G A 21	166.967	105.349	-10.303	1.00	44.99	C
ATOM	312	C2	C A 19	169.000	112.216	-13.322	1.00	43.14	C	ATOM	362	P	G A 22	162.311	101.606	-11.864	1.00	43.70	P
ATOM	313	O2	C A 19	168.949	111.962	-14.532	1.00	43.14	O	ATOM	363	O1P	G A 22	161.291	100.804	-12.592	1.00	40.22	O
ATOM	314	N3	C A 19	169.790	111.515	-12.475	1.00	43.14	N	ATOM	364	O2P	G A 22	161.889	102.741	-11.012	1.00	40.22	O
ATOM	315	C4	C A 19	169.818	111.830	-11.180	1.00	43.14	C	ATOM	365	O5*	G A 22	163.120	100.599	-10.944	1.00	43.70	O



ATOM	566	O2*	G A 31	147.735	78.553	10.386	1.00	56.27	O	ATOM	616	C5	A A 33	156.484	81.953	13.718	1.00	43.40	C
ATOM	567	C1*	G A 31	145.368	78.444	9.894	1.00	56.27	C	ATOM	617	C6	A A 33	157.041	83.231	13.904	1.00	43.40	C
ATOM	568	N9	G A 31	145.195	77.995	8.520	1.00	62.63	N	ATOM	618	N6	A A 33	156.418	84.218	14.544	1.00	43.40	N
ATOM	569	C8	G A 31	145.096	78.766	7.394	1.00	62.63	C	ATOM	619	N1	A A 33	158.279	83.457	13.416	1.00	43.40	N
ATOM	570	N7	G A 31	144.979	78.063	6.303	1.00	62.63	N	ATOM	620	C2	A A 33	158.908	82.461	12.803	1.00	43.40	C
ATOM	571	C5	G A 31	144.998	76.749	6.742	1.00	62.63	C	ATOM	621	N3	A A 33	158.495	81.211	12.579	1.00	43.40	N
ATOM	572	C6	G A 31	144.926	75.539	6.016	1.00	62.63	C	ATOM	622	C4	A A 33	157.261	81.020	13.067	1.00	43.40	C
ATOM	573	O6	G A 31	144.857	75.377	4.791	1.00	62.63	O	ATOM	623	P	C A 34	158.061	75.632	16.208	1.00	44.88	P
ATOM	574	N1	G A 31	144.959	74.439	6.858	1.00	62.63	N	ATOM	624	O1P	C A 34	158.452	74.214	16.401	1.00	49.51	O
ATOM	575	C2	G A 31	145.071	74.494	8.216	1.00	62.63	C	ATOM	625	O2P	C A 34	157.075	76.254	17.128	1.00	49.51	O
ATOM	576	N2	G A 31	145.097	73.322	8.851	1.00	62.63	N	ATOM	626	O5*	C A 34	159.388	76.504	16.259	1.00	44.88	O
ATOM	577	N3	G A 31	145.155	75.611	8.904	1.00	62.63	N	ATOM	627	C5*	C A 34	160.542	76.102	15.543	1.00	44.88	C
ATOM	578	C4	G A 31	145.113	76.693	8.108	1.00	62.63	C	ATOM	628	C4*	C A 34	161.556	77.205	15.553	1.00	44.88	C
ATOM	579	P	G A 32	147.026	79.885	13.804	1.00	55.10	P	ATOM	629	O4*	C A 34	161.071	78.334	14.786	1.00	44.88	O
ATOM	580	O1P	A A 32	147.400	78.733	14.664	1.00	58.51	O	ATOM	630	C3*	C A 34	161.875	77.803	16.907	1.00	44.88	C
ATOM	581	O2P	A A 32	146.166	80.962	14.358	1.00	58.51	O	ATOM	631	O3*	C A 34	162.785	77.017	17.638	1.00	44.88	O
ATOM	582	O5*	A A 32	148.362	80.533	13.241	1.00	55.10	O	ATOM	632	C2*	C A 34	162.456	79.155	16.529	1.00	44.88	C
ATOM	583	C5*	A A 32	149.639	80.082	13.690	1.00	55.10	C	ATOM	633	O2*	C A 34	163.788	79.044	16.064	1.00	44.88	O
ATOM	584	C4*	A A 32	150.438	79.534	12.534	1.00	55.10	C	ATOM	634	C1*	C A 34	161.569	79.539	15.349	1.00	44.88	C
ATOM	585	O4*	A A 32	150.616	80.553	11.515	1.00	55.10	O	ATOM	635	N1	C A 34	160.435	80.376	15.783	1.00	49.51	N
ATOM	586	C3*	A A 32	151.839	79.130	12.935	1.00	55.10	C	ATOM	636	C2	C A 34	160.654	81.744	16.000	1.00	49.51	C
ATOM	587	O3*	A A 32	151.827	77.805	13.456	1.00	55.10	O	ATOM	637	O2	C A 34	161.791	82.204	15.824	1.00	49.51	O
ATOM	588	C2*	A A 32	152.617	79.281	11.636	1.00	55.10	C	ATOM	638	N3	C A 34	159.624	82.523	16.399	1.00	49.51	N
ATOM	589	O2*	A A 32	152.431	78.173	10.782	1.00	55.10	O	ATOM	639	C4	C A 34	158.411	81.985	16.583	1.00	49.51	C
ATOM	590	C1*	A A 32	151.935	80.498	11.003	1.00	55.10	C	ATOM	640	N4	C A 34	157.421	82.788	16.973	1.00	49.51	N
ATOM	591	N9	A A 32	152.592	81.788	11.275	1.00	58.51	N	ATOM	641	C5	C A 34	158.160	80.596	16.373	1.00	49.51	C
ATOM	592	C8	A A 32	152.040	82.872	11.910	1.00	58.51	C	ATOM	642	C6	C A 34	159.189	79.837	15.978	1.00	49.51	C
ATOM	593	N7	A A 32	152.850	83.897	12.017	1.00	58.51	N	ATOM	643	P	G A 35	162.859	77.182	19.230	1.00	54.98	P
ATOM	594	C5	A A 32	154.017	83.463	11.412	1.00	58.51	C	ATOM	644	O1P	G A 35	163.889	76.226	19.677	1.00	46.38	O
ATOM	595	C6	A A 32	155.250	84.093	11.193	1.00	58.51	C	ATOM	645	O2P	G A 35	161.501	77.113	19.803	1.00	46.38	O
ATOM	596	N6	A A 32	155.522	85.341	11.575	1.00	58.51	N	ATOM	646	O5*	G A 35	163.441	78.648	19.445	1.00	54.98	O
ATOM	597	N1	A A 32	156.207	83.391	10.555	1.00	58.51	N	ATOM	647	C5*	G A 35	164.833	78.918	19.203	1.00	54.98	C
ATOM	598	C2	A A 32	155.931	82.143	10.167	1.00	58.51	C	ATOM	648	C4*	G A 35	165.202	80.269	19.741	1.00	54.98	C
ATOM	599	N3	A A 32	154.811	81.444	10.311	1.00	58.51	N	ATOM	649	O4*	G A 35	164.527	81.294	18.978	1.00	54.98	O
ATOM	600	C4	A A 32	153.878	82.167	10.949	1.00	58.51	C	ATOM	650	C3*	G A 35	164.774	80.516	21.170	1.00	54.98	C
ATOM	601	P	A A 33	152.475	77.511	14.906	1.00	50.32	P	ATOM	651	O3*	G A 35	165.734	80.003	22.075	1.00	54.98	O
ATOM	602	O1P	A A 33	151.942	76.188	15.349	1.00	43.40	O	ATOM	652	C2*	G A 35	164.665	82.032	21.227	1.00	54.98	C
ATOM	603	O2P	A A 33	152.288	78.703	15.774	1.00	43.40	O	ATOM	653	O2*	G A 35	165.921	82.647	21.394	1.00	54.98	O
ATOM	604	O5*	A A 33	154.034	77.346	14.594	1.00	50.32	O	ATOM	654	C1*	G A 35	164.150	82.358	19.828	1.00	54.98	C
ATOM	605	C5*	A A 33	154.504	76.269	13.760	1.00	50.32	C	ATOM	655	N9	G A 35	162.697	82.473	19.788	1.00	46.38	N
ATOM	606	C4*	A A 33	155.858	76.600	13.191	1.00	50.32	C	ATOM	656	C8	G A 35	161.803	81.484	19.450	1.00	46.38	C
ATOM	607	O4*	A A 33	155.755	77.780	12.360	1.00	50.32	O	ATOM	657	N7	G A 35	160.559	81.878	19.509	1.00	46.38	N
ATOM	608	C3*	A A 33	156.927	76.931	14.217	1.00	50.32	C	ATOM	658	C5	G A 35	160.635	83.210	19.905	1.00	46.38	C
ATOM	609	O3*	A A 33	157.558	75.741	14.677	1.00	50.32	O	ATOM	659	C6	G A 35	159.607	84.163	20.142	1.00	46.38	C
ATOM	610	C2*	A A 33	157.881	77.825	13.435	1.00	50.32	C	ATOM	660	O6	G A 35	158.380	84.016	20.056	1.00	46.38	O
ATOM	611	O2*	A A 33	158.808	77.089	12.674	1.00	50.32	O	ATOM	661	N1	G A 35	160.128	85.387	20.529	1.00	46.38	N
ATOM	612	C1*	A A 33	156.921	78.568	12.502	1.00	50.32	C	ATOM	662	C2	G A 35	161.458	85.661	20.686	1.00	46.38	C
ATOM	613	N9	A A 33	156.519	79.864	13.043	1.00	43.40	N	ATOM	663	N2	G A 35	161.756	86.897	21.079	1.00	46.38	N
ATOM	614	C8	A A 33	155.331	80.171	13.653	1.00	43.40	C	ATOM	664	N3	G A 35	162.425	84.788	20.475	1.00	46.38	N
ATOM	615	N7	A A 33	155.260	81.407	14.077	1.00	43.40	N	ATOM	665	C4	G A 35	161.946	83.591	20.086	1.00	46.38	C



Table 2: Sheet 6/520

ATOM	466	C4	A A	26	158.237	103.484	5.933	1.00	42.87	C	ATOM	516	O5*	G A	29	147.275	93.360	10.644	1.00	48.25	O
ATOM	467	P	G A	27	156.732	99.435	11.072	1.00	50.89	P	ATOM	517	C5*	G A	29	146.106	93.282	9.831	1.00	48.25	C
ATOM	468	O1P	G A	27	156.366	99.513	12.508	1.00	45.72	O	ATOM	518	C4*	G A	29	146.246	92.189	8.816	1.00	48.25	C
ATOM	469	O2P	G A	27	157.218	98.148	10.508	1.00	45.72	O	ATOM	519	O4*	G A	29	147.334	92.487	7.911	1.00	48.25	O
ATOM	470	O5*	G A	27	155.483	99.901	10.203	1.00	50.89	O	ATOM	520	C3*	G A	29	146.595	90.818	9.344	1.00	48.25	C
ATOM	471	C5*	G A	27	154.765	101.100	10.525	1.00	50.89	C	ATOM	521	O3*	G A	29	145.460	90.160	9.858	1.00	48.25	O
ATOM	472	C4*	G A	27	153.419	101.086	9.850	1.00	50.89	C	ATOM	522	C2*	G A	29	147.128	90.143	8.094	1.00	48.25	C
ATOM	473	O4*	G A	27	153.599	101.107	8.413	1.00	50.89	O	ATOM	523	O2*	G A	29	146.079	89.802	7.214	1.00	48.25	O
ATOM	474	C3*	G A	27	152.603	99.835	10.096	1.00	50.89	C	ATOM	524	C1*	G A	29	147.887	91.281	7.431	1.00	48.25	C
ATOM	475	O3*	G A	27	151.894	99.888	11.303	1.00	50.89	O	ATOM	525	N9	G A	29	149.313	91.235	7.735	1.00	45.76	N
ATOM	476	C2*	G A	27	151.685	99.791	8.890	1.00	50.89	C	ATOM	526	C8	G A	29	150.012	91.984	8.646	1.00	45.76	C
ATOM	477	O2*	G A	27	150.573	100.646	9.030	1.00	50.89	O	ATOM	527	N7	G A	29	151.282	91.677	8.693	1.00	45.76	N
ATOM	478	C1*	G A	27	152.610	100.303	7.791	1.00	50.89	C	ATOM	528	C5	G A	29	151.424	90.662	7.758	1.00	45.76	C
ATOM	479	N9	G A	27	153.273	99.182	7.128	1.00	45.72	N	ATOM	529	C6	G A	29	152.569	89.913	7.373	1.00	45.76	C
ATOM	480	C8	G A	27	154.508	98.665	7.416	1.00	45.72	C	ATOM	530	O6	G A	29	153.719	89.983	7.813	1.00	45.76	O
ATOM	481	N7	G A	27	154.797	97.612	6.709	1.00	45.72	N	ATOM	531	N1	G A	29	152.267	88.998	6.374	1.00	45.76	N
ATOM	482	C5	G A	27	153.693	97.431	5.891	1.00	45.72	C	ATOM	532	C2	G A	29	151.029	88.819	5.824	1.00	45.76	C
ATOM	483	C6	G A	27	153.419	96.432	4.931	1.00	45.72	C	ATOM	533	N2	G A	29	150.940	87.906	4.856	1.00	45.76	N
ATOM	484	O6	G A	27	154.113	95.470	4.603	1.00	45.72	O	ATOM	534	N3	G A	29	149.954	89.489	6.187	1.00	45.76	N
ATOM	485	N1	G A	27	152.184	96.619	4.335	1.00	45.72	N	ATOM	535	C4	G A	29	150.223	90.390	7.149	1.00	45.76	C
ATOM	486	C2	G A	27	151.314	97.632	4.625	1.00	45.72	C	ATOM	536	P	U A	30	145.655	88.999	10.943	1.00	59.11	P
ATOM	487	N2	G A	27	150.165	97.646	3.924	1.00	45.72	N	ATOM	537	O1P	U A	30	144.297	88.523	11.303	1.00	49.02	O
ATOM	488	N3	G A	27	151.551	98.565	5.529	1.00	45.72	N	ATOM	538	O2P	U A	30	146.594	89.445	12.010	1.00	49.02	O
ATOM	489	C4	G A	27	152.753	98.402	6.121	1.00	45.72	C	ATOM	539	O5*	U A	30	146.353	87.847	10.109	1.00	59.11	O
ATOM	490	P	G A	28	151.536	98.522	12.063	1.00	47.09	P	ATOM	540	C5*	U A	30	145.716	87.325	8.941	1.00	59.11	C
ATOM	491	O1P	G A	28	150.814	98.928	13.303	1.00	46.26	O	ATOM	541	C4*	U A	30	146.248	85.956	8.635	1.00	59.11	C
ATOM	492	O2P	G A	28	152.760	97.681	12.169	1.00	46.26	O	ATOM	542	O4*	U A	30	147.604	86.039	8.121	1.00	59.11	O
ATOM	493	O5*	G A	28	150.479	97.816	11.103	1.00	47.09	O	ATOM	543	C3*	U A	30	146.286	85.020	9.825	1.00	59.11	C
ATOM	494	C5*	G A	28	149.191	98.411	10.904	1.00	47.09	C	ATOM	544	O3*	U A	30	145.332	83.956	9.777	1.00	59.11	O
ATOM	495	C4*	G A	28	148.419	97.699	9.817	1.00	47.09	C	ATOM	545	C2*	U A	30	147.771	84.837	10.174	1.00	59.11	C
ATOM	496	O4*	G A	28	149.093	97.831	8.536	1.00	47.09	O	ATOM	546	O2*	U A	30	148.142	83.537	10.597	1.00	59.11	O
ATOM	497	C3*	G A	28	148.210	96.204	9.949	1.00	47.09	C	ATOM	547	C1*	U A	30	148.478	85.217	8.874	1.00	59.11	C
ATOM	498	O3*	G A	28	147.205	95.850	10.875	1.00	47.09	O	ATOM	548	N1	U A	30	149.709	85.990	9.115	1.00	49.02	N
ATOM	499	C2*	G A	28	147.851	95.820	8.523	1.00	47.09	C	ATOM	549	C2	U A	30	150.919	85.447	8.708	1.00	49.02	C
ATOM	500	O2*	G A	28	146.535	96.201	8.176	1.00	47.09	O	ATOM	550	O2	U A	30	151.009	84.374	8.135	1.00	49.02	O
ATOM	501	C1*	G A	28	148.809	96.697	7.730	1.00	47.09	C	ATOM	551	N3	U A	30	152.027	86.211	8.990	1.00	49.02	N
ATOM	502	N9	G A	28	150.044	95.962	7.495	1.00	46.26	N	ATOM	552	C4	U A	30	152.050	87.438	9.613	1.00	49.02	C
ATOM	503	C8	G A	28	151.252	96.141	8.123	1.00	46.26	C	ATOM	553	O4	U A	30	153.129	87.973	9.851	1.00	49.02	O
ATOM	504	N7	G A	28	152.158	95.278	7.750	1.00	46.26	N	ATOM	554	C5	U A	30	150.765	87.945	9.981	1.00	49.02	C
ATOM	505	C5	G A	28	151.510	94.487	6.804	1.00	46.26	C	ATOM	555	C6	U A	30	149.666	87.221	9.729	1.00	49.02	C
ATOM	506	C6	G A	28	151.979	93.371	6.054	1.00	46.26	C	ATOM	556	P	U A	31	145.211	83.014	8.478	1.00	56.27	P
ATOM	507	O6	G A	28	153.091	92.834	6.082	1.00	46.26	O	ATOM	557	O1P	G A	31	146.548	82.895	7.825	1.00	62.63	O
ATOM	508	N1	G A	28	150.993	92.876	5.207	1.00	46.26	N	ATOM	558	O2P	G A	31	144.053	83.496	7.685	1.00	62.63	O
ATOM	509	C2	G A	28	149.726	93.378	5.090	1.00	46.26	C	ATOM	559	O5*	G A	31	144.808	81.620	9.128	1.00	56.27	O
ATOM	510	N2	G A	28	148.939	92.767	4.206	1.00	46.26	N	ATOM	560	C5*	G A	31	144.252	81.571	10.460	1.00	56.27	C
ATOM	511	N3	G A	28	149.270	94.407	5.787	1.00	46.26	N	ATOM	561	C4*	G A	31	144.641	80.285	11.129	1.00	56.27	C
ATOM	512	C4	G A	28	150.211	94.910	6.621	1.00	46.26	C	ATOM	562	O4*	G A	31	144.242	79.202	10.253	1.00	56.27	O
ATOM	513	P	G A	29	147.386	94.506	11.733	1.00	48.25	P	ATOM	563	C3*	G A	31	146.132	80.123	11.361	1.00	56.27	C
ATOM	514	O1P	G A	29	146.215	94.358	12.627	1.00	45.76	O	ATOM	564	O3*	G A	31	146.295	79.307	12.506	1.00	56.27	O
ATOM	515	O2P	G A	29	148.763	94.498	12.304	1.00	45.76	O	ATOM	565	C2*	G A	31	146.584	79.334	10.138	1.00	56.27	C



Table 2: Sheet 9/520

ATOM	766	O2	C A 40	143.024	86.580	33.616	1.00	72.53	O	ATOM	816	N3	G A 42	137.530	85.998	25.457	1.00	65.53	N
ATOM	767	N3	C A 40	144.432	86.754	31.852	1.00	72.53	N	ATOM	817	C4	G A 42	138.121	85.126	26.304	1.00	65.53	C
ATOM	768	C4	C A 40	145.559	86.360	31.270	1.00	72.53	C	ATOM	818	P	C A 43	133.658	80.903	26.580	1.00	48.25	P
ATOM	769	N4	C A 40	145.858	86.869	30.081	1.00	72.53	N	ATOM	819	O1P	C A 43	132.291	80.344	26.745	1.00	51.64	O
ATOM	770	C5	C A 40	146.427	85.418	31.875	1.00	72.53	C	ATOM	820	O2P	C A 43	134.845	80.027	26.781	1.00	51.64	O
ATOM	771	C6	C A 40	146.058	84.911	33.055	1.00	72.53	C	ATOM	821	O5*	C A 43	133.779	81.538	25.122	1.00	48.25	O
ATOM	772	P	G A 41	142.671	80.364	33.810	1.00	61.69	P	ATOM	822	C5*	C A 43	132.819	82.490	24.637	1.00	48.25	C
ATOM	773	O1P	G A 41	142.064	79.150	34.424	1.00	66.10	O	ATOM	823	C4*	C A 43	133.385	83.247	23.455	1.00	48.25	C
ATOM	774	O2P	G A 41	143.676	80.220	32.723	1.00	66.10	O	ATOM	824	O4*	C A 43	134.564	83.991	23.865	1.00	48.25	O
ATOM	775	O5*	G A 41	141.475	81.271	33.284	1.00	61.69	O	ATOM	825	C3*	C A 43	133.876	82.412	22.287	1.00	48.25	C
ATOM	776	C5*	G A 41	140.383	81.585	34.148	1.00	61.69	C	ATOM	826	O3*	C A 43	132.838	82.041	21.408	1.00	48.25	O
ATOM	777	C4*	G A 41	139.500	82.632	33.522	1.00	61.69	C	ATOM	827	O2*	C A 43	134.859	83.344	21.601	1.00	48.25	C
ATOM	778	O4*	G A 41	140.253	83.855	33.313	1.00	61.69	O	ATOM	828	O2*	C A 43	134.189	84.300	20.815	1.00	48.25	O
ATOM	779	C3*	G A 41	138.913	82.302	32.160	1.00	61.69	C	ATOM	829	C1*	C A 43	135.491	84.054	22.792	1.00	48.25	C
ATOM	780	O3*	G A 41	137.728	81.538	32.290	1.00	61.69	O	ATOM	830	N1	C A 43	136.742	83.391	23.192	1.00	51.64	N
ATOM	781	C2*	G A 41	138.609	83.680	31.593	1.00	61.69	C	ATOM	831	C2	C A 43	137.862	83.542	22.380	1.00	51.64	C
ATOM	782	O2*	G A 41	137.379	84.173	32.085	1.00	61.69	O	ATOM	832	O2	C A 43	137.779	84.264	21.384	1.00	51.64	O
ATOM	783	C1*	G A 41	139.759	84.518	32.163	1.00	61.69	C	ATOM	833	N3	C A 43	139.003	82.894	22.696	1.00	51.64	N
ATOM	784	N9	G A 41	140.856	84.697	31.214	1.00	66.10	N	ATOM	834	C4	C A 43	139.046	82.115	23.777	1.00	51.64	C
ATOM	785	C8	G A 41	142.107	84.125	31.254	1.00	66.10	C	ATOM	835	N4	C A 43	140.171	81.453	24.026	1.00	51.64	N
ATOM	786	N7	G A 41	142.860	84.474	30.248	1.00	66.10	N	ATOM	836	C5	C A 43	137.931	81.971	24.643	1.00	51.64	C
ATOM	787	C5	G A 41	142.060	85.330	29.501	1.00	66.10	C	ATOM	837	C6	C A 43	136.811	82.622	24.319	1.00	51.64	C
ATOM	788	C6	G A 41	142.331	86.027	28.294	1.00	66.10	C	ATOM	838	P	G A 44	132.904	80.613	20.682	1.00	57.80	P
ATOM	789	O6	G A 41	143.363	86.014	27.611	1.00	66.10	O	ATOM	839	O1P	G A 44	131.603	80.501	19.951	1.00	51.06	O
ATOM	790	N1	G A 41	141.244	86.797	27.852	1.00	66.10	N	ATOM	840	O2P	G A 44	133.291	79.585	21.682	1.00	51.06	O
ATOM	791	C2	G A 41	140.047	86.877	28.557	1.00	66.10	C	ATOM	841	O5*	G A 44	134.137	80.720	19.673	1.00	57.80	O
ATOM	792	N2	G A 41	139.115	87.674	28.011	1.00	66.10	N	ATOM	842	C5*	G A 44	134.025	81.514	18.494	1.00	57.80	C
ATOM	793	N3	G A 41	139.779	86.225	29.675	1.00	66.10	N	ATOM	843	C4*	G A 44	135.377	81.813	17.894	1.00	57.80	C
ATOM	794	C4	G A 41	140.823	85.480	30.088	1.00	66.10	C	ATOM	844	O4*	G A 44	136.309	82.252	18.913	1.00	57.80	O
ATOM	795	P	G A 42	137.232	80.630	31.066	1.00	52.33	P	ATOM	845	C3*	G A 44	136.138	80.714	17.178	1.00	57.80	C
ATOM	796	O1P	G A 42	136.150	79.740	31.560	1.00	65.53	O	ATOM	846	O3*	G A 44	135.653	80.497	15.854	1.00	57.80	O
ATOM	797	O2P	G A 42	138.417	80.039	30.398	1.00	65.53	O	ATOM	847	C2*	G A 44	137.538	81.311	17.111	1.00	57.80	C
ATOM	798	O5*	G A 42	136.600	81.674	30.049	1.00	52.33	O	ATOM	848	O2*	G A 44	137.659	82.226	16.044	1.00	57.80	O
ATOM	799	C5*	G A 42	135.382	82.347	30.357	1.00	52.33	C	ATOM	849	C1*	G A 44	137.629	82.084	18.428	1.00	57.80	C
ATOM	800	C4*	G A 42	135.036	83.315	29.259	1.00	52.33	C	ATOM	850	N9	G A 44	138.429	81.355	19.406	1.00	51.06	N
ATOM	801	O4*	G A 42	136.044	84.351	29.189	1.00	52.33	O	ATOM	851	C8	G A 44	137.994	80.677	20.515	1.00	51.06	C
ATOM	802	C3*	G A 42	134.986	82.752	27.852	1.00	52.33	C	ATOM	852	N7	G A 44	138.959	80.083	21.161	1.00	51.06	N
ATOM	803	O3*	G A 42	133.737	82.155	27.581	1.00	52.33	O	ATOM	853	C5	G A 44	140.099	80.395	20.440	1.00	51.06	C
ATOM	804	C2*	G A 42	135.196	83.988	26.999	1.00	52.33	C	ATOM	854	C6	G A 44	141.449	80.023	20.651	1.00	51.06	C
ATOM	805	O2*	G A 42	134.015	84.736	26.852	1.00	52.33	O	ATOM	855	O6	G A 44	141.926	79.314	21.547	1.00	51.06	O
ATOM	806	C1*	G A 42	136.173	84.790	27.853	1.00	52.33	C	ATOM	856	N1	G A 44	142.280	80.562	19.681	1.00	51.06	N
ATOM	807	N9	G A 42	137.542	84.566	27.413	1.00	65.53	N	ATOM	857	C2	G A 44	141.868	81.354	18.642	1.00	51.06	C
ATOM	808	C8	G A 42	138.490	83.754	27.983	1.00	65.53	C	ATOM	858	N2	G A 44	142.826	81.797	17.820	1.00	51.06	N
ATOM	809	N7	G A 42	139.611	83.738	27.317	1.00	65.53	N	ATOM	859	N3	G A 44	140.614	81.696	18.427	1.00	51.06	N
ATOM	810	C5	G A 42	139.389	84.600	26.249	1.00	65.53	C	ATOM	860	C4	G A 44	139.790	81.188	19.360	1.00	51.06	C
ATOM	811	C6	G A 42	140.240	84.983	25.182	1.00	65.53	C	ATOM	861	P	U A 45	135.861	79.056	15.146	1.00	46.53	P
ATOM	812	O6	G A 42	141.398	84.629	24.961	1.00	65.53	O	ATOM	862	O1P	U A 45	135.327	79.179	13.761	1.00	55.86	O
ATOM	813	N1	G A 42	139.613	85.875	24.321	1.00	65.53	N	ATOM	863	O2P	U A 45	135.317	77.992	16.049	1.00	55.86	O
ATOM	814	C2	G A 42	138.334	86.345	24.468	1.00	65.53	C	ATOM	864	O5*	U A 45	137.445	78.885	15.078	1.00	46.53	O
ATOM	815	N2	G A 42	137.908	87.207	23.536	1.00	65.53	N	ATOM	865	C5*	U A 45	138.230	79.638	14.156	1.00	46.53	C



Table 2: Sheet 8/520

ATOM	666	P	C A 36	165.263	79.467	23.513	1.00 55.93	P	ATOM	716	O2*	G A 38	153.604	84.215	31.822	1.00 52.49	O
ATOM	667	O1P	C A 36	166.388	78.663	24.043	1.00 45.51	O	ATOM	717	C1*	G A 38	155.291	83.644	30.209	1.00 52.49	C
ATOM	668	O2P	C A 36	163.918	78.845	23.400	1.00 45.51	O	ATOM	718	N9	G A 38	155.655	82.487	29.396	1.00 62.04	N
ATOM	669	O5*	C A 36	165.114	80.803	24.359	1.00 55.93	O	ATOM	719	C8	G A 38	156.900	81.915	29.274	1.00 62.04	C
ATOM	670	C5*	C A 36	166.230	81.676	24.560	1.00 55.93	C	ATOM	720	N7	G A 38	156.902	80.847	28.525	1.00 62.04	N
ATOM	671	C4*	C A 36	165.750	83.001	25.094	1.00 55.93	C	ATOM	721	C5	G A 38	155.580	80.709	28.119	1.00 62.04	C
ATOM	672	O4*	C A 36	165.028	83.719	24.061	1.00 55.93	O	ATOM	722	C6	G A 38	154.974	79.726	27.311	1.00 62.04	C
ATOM	673	C3*	C A 36	164.754	82.916	26.236	1.00 55.93	C	ATOM	723	O6	G A 38	155.493	78.738	26.781	1.00 62.04	O
ATOM	674	O3*	C A 36	165.375	82.736	27.490	1.00 55.93	O	ATOM	724	N1	G A 38	153.621	79.969	27.141	1.00 62.04	N
ATOM	675	C2*	C A 36	164.032	84.249	26.150	1.00 55.93	C	ATOM	725	C2	G A 38	152.935	81.017	27.679	1.00 62.04	C
ATOM	676	O2*	C A 36	164.772	85.292	26.738	1.00 55.93	O	ATOM	726	N2	G A 38	151.638	81.073	27.369	1.00 62.04	N
ATOM	677	C1*	C A 36	163.979	84.469	24.644	1.00 55.93	C	ATOM	727	N3	G A 38	153.481	81.939	28.451	1.00 62.04	N
ATOM	678	N1	C A 36	162.699	83.997	24.109	1.00 45.51	N	ATOM	728	C4	G A 38	154.801	81.724	28.628	1.00 62.04	C
ATOM	679	O2	C A 36	161.590	84.855	24.162	1.00 45.51	O	ATOM	729	P	G A 39	154.981	81.902	34.708	1.00 60.42	P
ATOM	680	O2	C A 36	161.738	86.003	24.620	1.00 45.51	O	ATOM	730	O1P	G A 39	156.071	81.897	35.727	1.00 60.44	O
ATOM	681	N3	C A 36	160.392	84.418	23.713	1.00 45.51	N	ATOM	731	O2P	G A 39	154.782	80.717	33.830	1.00 60.44	O
ATOM	682	C4	C A 36	160.282	83.190	23.216	1.00 45.51	C	ATOM	732	O5*	G A 39	153.608	82.185	35.459	1.00 60.42	O
ATOM	683	N4	C A 36	159.088	82.797	22.793	1.00 45.51	N	ATOM	733	C5*	G A 39	152.372	82.141	34.746	1.00 60.42	C
ATOM	684	C5	C A 36	161.396	82.304	23.132	1.00 45.51	C	ATOM	734	C4*	G A 39	151.282	82.775	35.561	1.00 60.42	C
ATOM	685	C6	C A 36	162.574	82.743	23.585	1.00 45.51	C	ATOM	735	O4*	G A 39	151.510	84.205	35.646	1.00 60.42	O
ATOM	686	P	U A 37	164.602	81.925	28.635	1.00 52.79	P	ATOM	736	C3*	G A 39	149.909	82.671	34.934	1.00 60.42	C
ATOM	687	O1P	U A 37	165.498	81.967	29.826	1.00 53.23	O	ATOM	737	O3*	G A 39	149.294	81.427	35.164	1.00 60.42	O
ATOM	688	O2P	U A 37	164.154	80.617	28.075	1.00 53.23	O	ATOM	738	O2*	G A 39	149.163	83.840	35.553	1.00 60.42	O
ATOM	689	O5*	U A 37	163.288	82.776	28.930	1.00 52.79	O	ATOM	739	C2*	G A 39	148.663	83.579	36.850	1.00 60.42	C
ATOM	690	C5*	U A 37	163.381	84.121	29.417	1.00 52.79	C	ATOM	740	C1*	G A 39	150.265	84.895	35.610	1.00 60.42	C
ATOM	691	C4*	U A 37	162.013	84.755	29.506	1.00 52.79	C	ATOM	741	N9	G A 39	150.210	85.721	34.406	1.00 60.44	N
ATOM	692	O4*	U A 37	161.484	85.052	28.187	1.00 52.79	O	ATOM	742	C8	G A 39	151.073	85.708	33.337	1.00 60.44	C
ATOM	693	C3*	U A 37	160.903	83.946	30.149	1.00 52.79	C	ATOM	743	N7	G A 39	150.708	86.512	32.376	1.00 60.44	N
ATOM	694	O3*	U A 37	160.952	83.917	31.554	1.00 52.79	O	ATOM	744	C5	G A 39	149.544	87.103	32.847	1.00 60.44	C
ATOM	695	C2*	U A 37	159.665	84.680	29.663	1.00 52.79	C	ATOM	745	C6	G A 39	148.687	88.051	32.241	1.00 60.44	C
ATOM	696	O2*	U A 37	159.424	85.867	30.386	1.00 52.79	O	ATOM	746	O6	G A 39	148.781	88.570	31.132	1.00 60.44	O
ATOM	697	C1*	U A 37	160.062	85.030	28.234	1.00 52.79	C	ATOM	747	N1	G A 39	147.624	88.380	33.066	1.00 60.44	N
ATOM	698	N1	U A 37	159.543	83.980	27.342	1.00 53.23	N	ATOM	748	C2	G A 39	147.409	87.861	34.314	1.00 60.44	C
ATOM	699	C2	U A 37	158.210	84.073	26.943	1.00 53.23	C	ATOM	749	N2	G A 39	146.320	88.293	34.955	1.00 60.44	N
ATOM	700	O2	U A 37	157.490	85.033	27.217	1.00 53.23	O	ATOM	750	N3	G A 39	148.201	86.978	34.892	1.00 60.44	N
ATOM	701	N3	U A 37	157.751	83.001	26.215	1.00 53.23	N	ATOM	751	C4	G A 39	149.238	86.643	34.106	1.00 60.44	C
ATOM	702	C4	U A 37	158.468	81.889	25.839	1.00 53.23	C	ATOM	752	P	C A 40	148.279	80.861	34.070	1.00 73.25	P
ATOM	703	O4	U A 37	157.894	80.965	25.268	1.00 53.23	O	ATOM	753	O1P	C A 40	148.025	79.427	34.370	1.00 72.53	O
ATOM	704	C5	U A 37	159.834	81.899	26.237	1.00 53.23	C	ATOM	754	O2P	C A 40	148.805	81.251	32.738	1.00 72.53	O
ATOM	705	C6	U A 37	160.315	82.918	26.952	1.00 53.23	C	ATOM	755	O5*	C A 40	146.951	81.691	34.347	1.00 73.25	O
ATOM	706	P	G A 38	160.169	82.751	32.338	1.00 52.49	P	ATOM	756	C5*	C A 40	146.442	81.783	35.679	1.00 73.25	C
ATOM	707	O1P	G A 38	160.408	83.011	33.785	1.00 62.04	O	ATOM	757	O4*	C A 40	145.201	82.627	35.719	1.00 73.25	C
ATOM	708	O2P	G A 38	160.539	81.440	31.755	1.00 62.04	O	ATOM	758	C4*	C A 40	145.537	84.021	35.527	1.00 73.25	C
ATOM	709	O5*	G A 38	158.627	83.014	32.023	1.00 52.49	O	ATOM	759	C3*	C A 40	144.137	82.351	34.676	1.00 73.25	C
ATOM	710	C5*	G A 38	157.984	84.187	32.533	1.00 52.49	C	ATOM	760	O3*	C A 40	143.322	81.235	34.997	1.00 73.25	O
ATOM	711	C4*	G A 38	156.549	84.248	32.088	1.00 52.49	C	ATOM	761	C2*	C A 40	143.341	83.646	34.692	1.00 73.25	C
ATOM	712	O4*	G A 38	156.480	84.279	30.642	1.00 52.49	O	ATOM	762	O2*	C A 40	142.431	83.678	35.772	1.00 73.25	O
ATOM	713	C3*	G A 38	155.658	83.087	32.474	1.00 52.49	C	ATOM	763	C1*	C A 40	144.444	84.683	34.917	1.00 73.25	C
ATOM	714	O3*	G A 38	155.173	83.216	33.797	1.00 52.49	O	ATOM	764	N1	C A 40	144.887	85.285	33.647	1.00 72.53	N
ATOM	715	C2*	G A 38	154.531	83.210	31.462	1.00 52.49	C	ATOM	765	C2	C A 40	144.070	86.235	33.042	1.00 72.53	C



Table 2: Sheet 11/520

ATOM	966	O2P	A A	50	152.573	67.079	-0.903	1.00	59.21	O	ATOM	1016	O3*	G A	52	148.250	56.881	0.443	1.00	53.81	O
ATOM	967	O5*	A A	50	152.280	65.163	0.698	1.00	63.17	O	ATOM	1017	C2*	G A	52	150.005	57.337	2.050	1.00	53.81	C
ATOM	968	C5*	A A	50	151.222	64.587	-0.078	1.00	63.17	C	ATOM	1018	O2*	G A	52	150.805	56.570	1.168	1.00	53.81	C
ATOM	969	C4*	A A	50	150.627	63.434	0.683	1.00	63.17	C	ATOM	1019	C1*	G A	52	150.726	58.642	2.389	1.00	53.81	C
ATOM	970	O4*	A A	50	151.660	62.432	0.848	1.00	63.17	O	ATOM	1020	N9	G A	52	150.450	59.109	3.744	1.00	77.01	N
ATOM	971	C3*	A A	50	150.173	63.809	2.087	1.00	63.17	C	ATOM	1021	C8	G A	52	149.718	60.209	4.106	1.00	77.01	C
ATOM	972	O3*	A A	50	149.100	62.944	2.440	1.00	63.17	O	ATOM	1022	N7	G A	52	149.672	60.393	5.395	1.00	77.01	C
ATOM	973	C2*	A A	50	151.399	63.495	2.936	1.00	63.17	C	ATOM	1023	C5	G A	52	150.419	59.349	5.917	1.00	77.01	C
ATOM	974	O2*	A A	50	151.096	63.214	4.283	1.00	63.17	O	ATOM	1024	C6	G A	52	150.744	59.031	7.267	1.00	77.01	C
ATOM	975	C1*	A A	50	151.963	62.271	2.216	1.00	63.17	C	ATOM	1025	O6	G A	52	150.455	59.648	8.299	1.00	77.01	O
ATOM	976	N9	A A	50	153.409	62.134	2.316	1.00	59.21	N	ATOM	1026	N1	G A	52	151.499	57.869	7.350	1.00	77.01	N
ATOM	977	C8	A A	50	154.366	62.885	1.679	1.00	59.21	C	ATOM	1027	C2	G A	52	151.902	57.116	6.282	1.00	77.01	C
ATOM	978	N7	A A	50	155.591	62.499	1.927	1.00	59.21	N	ATOM	1028	N2	G A	52	152.610	56.019	6.576	1.00	77.01	N
ATOM	979	C5	A A	50	155.431	61.427	2.792	1.00	59.21	C	ATOM	1029	N3	G A	52	151.629	57.414	5.017	1.00	77.01	N
ATOM	980	C6	A A	50	156.347	60.586	3.415	1.00	59.21	C	ATOM	1030	C4	G A	52	150.889	58.536	4.912	1.00	77.01	C
ATOM	981	N6	A A	50	157.665	60.690	3.256	1.00	59.21	N	ATOM	1031	P	A A	53	147.204	55.781	0.967	1.00	56.20	P
ATOM	982	N1	A A	50	155.862	59.618	4.218	1.00	59.21	N	ATOM	1032	O1P	A A	53	147.039	54.812	-0.152	1.00	66.13	O
ATOM	983	C2	A A	50	154.540	59.516	4.376	1.00	59.21	C	ATOM	1033	O2P	A A	53	145.988	56.461	1.547	1.00	66.13	O
ATOM	984	N3	A A	50	153.573	60.249	3.842	1.00	59.21	N	ATOM	1034	O5*	A A	53	147.998	55.076	2.154	1.00	56.20	O
ATOM	985	C4	A A	50	154.092	61.199	3.048	1.00	59.21	C	ATOM	1035	C5*	A A	53	149.143	54.246	1.880	1.00	56.20	C
ATOM	986	P	A A	51	147.709	63.552	2.968	1.00	60.28	P	ATOM	1036	C4*	A A	53	149.571	53.523	3.127	1.00	56.20	C
ATOM	987	O1P	A A	51	147.829	65.032	3.073	1.00	57.55	O	ATOM	1037	O4*	A A	53	150.176	54.456	4.055	1.00	56.20	O
ATOM	988	O2P	A A	51	147.328	62.762	4.169	1.00	57.55	O	ATOM	1038	C3*	A A	53	148.429	52.908	3.900	1.00	56.20	C
ATOM	989	O5*	A A	51	146.663	63.188	1.820	1.00	60.28	O	ATOM	1039	O3*	A A	53	148.048	51.650	3.384	1.00	56.20	O
ATOM	990	C5*	A A	51	146.866	63.666	0.502	1.00	60.28	C	ATOM	1040	C2*	A A	53	148.978	52.839	5.311	1.00	56.20	C
ATOM	991	C4*	A A	51	146.274	62.725	-0.507	1.00	60.28	C	ATOM	1041	O2*	A A	53	149.787	51.707	5.484	1.00	56.20	O
ATOM	992	O4*	A A	51	144.842	62.722	-0.392	1.00	60.28	O	ATOM	1042	C1*	A A	53	149.828	54.109	5.379	1.00	56.20	C
ATOM	993	C3*	A A	51	146.570	63.216	-1.910	1.00	60.28	C	ATOM	1043	N9	A A	53	149.088	55.228	5.960	1.00	66.13	N
ATOM	994	O3*	A A	51	147.837	62.689	-2.381	1.00	60.28	O	ATOM	1044	C8	A A	53	148.270	56.123	5.321	1.00	66.13	C
ATOM	995	C2*	A A	51	145.325	62.907	-2.739	1.00	60.28	C	ATOM	1045	N7	A A	53	147.709	56.990	6.124	1.00	66.13	N
ATOM	996	O2*	A A	51	145.472	61.858	-3.666	1.00	60.28	O	ATOM	1046	C5	A A	53	148.197	56.649	7.374	1.00	66.13	C
ATOM	997	C1*	A A	51	144.270	62.585	-1.676	1.00	60.28	C	ATOM	1047	C6	A A	53	147.977	57.182	8.652	1.00	66.13	C
ATOM	998	N9	A A	51	143.027	63.360	-1.723	1.00	57.55	N	ATOM	1048	N6	A A	53	147.167	58.212	8.896	1.00	66.13	N
ATOM	999	C8	A A	51	142.656	64.383	-0.889	1.00	57.55	C	ATOM	1049	N1	A A	53	148.621	56.612	9.689	1.00	66.13	N
ATOM	1000	N7	A A	51	141.450	64.840	-1.118	1.00	57.55	N	ATOM	1050	C2	A A	53	149.425	55.579	9.450	1.00	66.13	C
ATOM	1001	C5	A A	51	141.000	64.082	-2.184	1.00	57.55	C	ATOM	1051	N3	A A	53	149.710	54.985	8.297	1.00	66.13	N
ATOM	1002	C6	A A	51	139.786	64.072	-2.883	1.00	57.55	C	ATOM	1052	C4	A A	53	149.055	55.575	7.286	1.00	66.13	C
ATOM	1003	N6	A A	51	138.761	64.870	-2.592	1.00	57.55	N	ATOM	1053	P	C A	54	146.625	51.038	3.797	1.00	52.55	P
ATOM	1004	N1	A A	51	139.653	63.200	-3.898	1.00	57.55	N	ATOM	1054	O1P	C A	54	146.552	49.717	3.124	1.00	57.07	O
ATOM	1005	C2	A A	51	140.675	62.387	-4.176	1.00	57.55	C	ATOM	1055	O2P	C A	54	145.557	52.036	3.551	1.00	57.07	O
ATOM	1006	N3	A A	51	141.864	62.293	-3.584	1.00	57.55	N	ATOM	1056	O5*	C A	54	146.794	50.862	5.376	1.00	52.55	O
ATOM	1007	C4	A A	51	141.966	63.179	-2.583	1.00	57.55	C	ATOM	1057	C5*	C A	54	145.693	51.000	6.289	1.00	52.55	C
ATOM	1008	P	G A	52	148.220	61.118	-2.177	1.00	53.81	P	ATOM	1058	C4*	C A	54	146.219	51.112	7.703	1.00	52.55	C
ATOM	1009	O1P	G A	52	149.341	60.807	-3.084	1.00	77.01	O	ATOM	1059	O4*	C A	54	146.907	52.381	7.866	1.00	52.55	O
ATOM	1010	O2P	G A	52	146.999	60.278	-2.218	1.00	77.01	O	ATOM	1060	C3*	C A	54	145.182	51.097	8.815	1.00	52.55	C
ATOM	1011	O5*	G A	52	148.796	61.041	-0.695	1.00	53.81	O	ATOM	1061	O3*	C A	54	144.842	49.760	9.152	1.00	52.55	O
ATOM	1012	C5*	G A	52	148.255	60.099	0.246	1.00	53.81	C	ATOM	1062	C2*	C A	54	145.886	51.832	9.953	1.00	52.55	C
ATOM	1013	C4*	G A	52	149.284	59.058	0.589	1.00	53.81	C	ATOM	1063	O2*	C A	54	146.749	51.041	10.738	1.00	52.55	O
ATOM	1014	O4*	G A	52	150.284	59.630	1.470	1.00	53.81	O	ATOM	1064	C1*	C A	54	146.726	52.858	9.193	1.00	52.55	C
ATOM	1015	C3*	G A	52	148.760	57.851	1.345	1.00	53.81	C	ATOM	1065	N1	C A	54	146.036	54.159	9.156	1.00	57.07	N



Table 2: Sheet 10/520

ATOM	866	C4*	U A 45	139.701	79.474	14.468	1.00	46.53	C	ATOM	916	N1	C A 47	149.244	67.921	10.216	1.00	57.91	N
ATOM	867	O4*	U A 45	139.949	79.829	15.853	1.00	46.53	O	ATOM	917	C2	C A 47	150.445	67.487	9.644	1.00	57.91	C
ATOM	868	C3*	U A 45	140.304	78.081	14.339	1.00	46.53	C	ATOM	918	O2	C A 47	150.693	67.783	8.466	1.00	57.91	O
ATOM	869	O3*	U A 45	140.644	77.780	13.008	1.00	46.53	O	ATOM	919	N3	C A 47	151.299	66.748	10.384	1.00	57.91	N
ATOM	870	C2*	U A 45	141.537	78.171	15.226	1.00	46.53	C	ATOM	920	C4	C A 47	150.981	66.419	11.638	1.00	57.91	C
ATOM	871	O2*	U A 45	142.641	78.815	14.620	1.00	46.53	O	ATOM	921	N4	C A 47	151.871	65.723	12.342	1.00	57.91	N
ATOM	872	C1*	U A 45	141.030	79.061	16.357	1.00	46.53	C	ATOM	922	C5	C A 47	149.740	66.801	12.229	1.00	57.91	C
ATOM	873	N1	U A 45	140.560	78.262	17.498	1.00	55.86	N	ATOM	923	C6	C A 47	148.910	67.544	11.489	1.00	57.91	C
ATOM	874	O2	U A 45	141.516	77.629	18.258	1.00	55.86	O	ATOM	924	P	C A 48	145.619	70.411	6.363	1.00	81.67	P
ATOM	875	C2	U A 45	142.704	77.697	18.013	1.00	55.86	C	ATOM	925	O1P	C A 48	144.476	71.236	6.808	1.00	81.67	O
ATOM	876	N3	U A 45	141.032	76.907	19.311	1.00	55.86	N	ATOM	926	O2P	C A 48	145.376	69.108	5.692	1.00	81.67	O
ATOM	877	C4	U A 45	139.712	76.756	19.673	1.00	55.86	C	ATOM	927	O5*	C A 48	146.461	71.250	5.331	1.00	47.99	O
ATOM	878	O4	U A 45	139.433	76.113	20.688	1.00	55.86	O	ATOM	928	C5*	C A 48	147.019	72.513	5.681	1.00	47.99	C
ATOM	879	C5	U A 45	138.780	77.433	18.828	1.00	55.86	C	ATOM	929	C4*	C A 48	148.006	72.909	4.619	1.00	47.99	C
ATOM	880	C6	U A 45	139.225	78.144	17.797	1.00	55.86	C	ATOM	930	O4*	C A 48	148.245	74.331	4.607	1.00	47.99	O
ATOM	881	P	G A 46	140.550	76.271	12.494	1.00	50.51	P	ATOM	931	C3*	C A 48	149.347	72.217	4.702	1.00	47.99	C
ATOM	882	O1P	G A 46	140.678	76.328	11.015	1.00	47.49	O	ATOM	932	O3*	C A 48	149.565	71.314	3.602	1.00	47.99	O
ATOM	883	O2P	G A 46	139.364	75.607	13.092	1.00	47.49	O	ATOM	933	C2*	C A 48	150.323	73.302	5.172	1.00	47.99	C
ATOM	884	O5*	G A 46	141.896	75.631	13.052	1.00	50.51	O	ATOM	934	O2*	C A 48	151.628	73.255	4.641	1.00	47.99	O
ATOM	885	C5*	G A 46	143.166	75.968	12.444	1.00	50.51	C	ATOM	935	C1*	C A 48	149.617	74.598	4.780	1.00	47.99	C
ATOM	886	C4*	G A 46	144.295	75.252	13.138	1.00	50.51	C	ATOM	936	N1	C A 48	149.705	75.622	5.828	1.00	81.67	N
ATOM	887	O4*	G A 46	144.426	75.758	14.488	1.00	50.51	O	ATOM	937	C2	C A 48	150.413	76.787	5.571	1.00	81.67	C
ATOM	888	C3*	G A 46	144.102	73.760	13.315	1.00	50.51	C	ATOM	938	O2	C A 48	151.000	76.904	4.483	1.00	81.67	O
ATOM	889	O3*	G A 46	144.470	73.021	12.171	1.00	50.51	O	ATOM	939	N3	C A 48	150.446	77.757	6.511	1.00	81.67	N
ATOM	890	C2*	G A 46	144.986	73.459	14.511	1.00	50.51	C	ATOM	940	C4	C A 48	149.814	77.584	7.670	1.00	81.67	C
ATOM	891	O2*	G A 46	146.347	73.379	14.152	1.00	50.51	O	ATOM	941	N4	C A 48	149.858	78.576	8.561	1.00	81.67	N
ATOM	892	C1*	G A 46	144.761	74.700	15.371	1.00	50.51	C	ATOM	942	C5	C A 48	149.105	76.391	7.967	1.00	81.67	C
ATOM	893	N9	G A 46	143.643	74.503	16.294	1.00	47.49	N	ATOM	943	C6	C A 48	149.078	75.445	7.031	1.00	81.67	C
ATOM	894	C8	G A 46	142.322	74.805	16.066	1.00	47.49	C	ATOM	944	P	U A 49	149.878	71.860	2.133	1.00	63.84	P
ATOM	895	N7	G A 46	141.541	74.471	17.055	1.00	47.49	N	ATOM	945	O1P	U A 49	150.203	73.309	2.158	1.00	51.25	O
ATOM	896	C5	G A 46	142.399	73.926	18.001	1.00	47.49	C	ATOM	946	O2P	U A 49	148.783	71.348	1.256	1.00	51.25	O
ATOM	897	C6	G A 46	142.126	73.382	19.281	1.00	47.49	C	ATOM	947	O5*	U A 49	151.198	71.082	1.744	1.00	63.84	O
ATOM	898	O6	G A 46	141.031	73.267	19.860	1.00	47.49	O	ATOM	948	C5*	U A 49	151.202	69.673	1.790	1.00	63.84	C
ATOM	899	N1	G A 46	143.283	72.935	19.900	1.00	47.49	N	ATOM	949	C4*	U A 49	152.592	69.165	1.970	1.00	63.84	C
ATOM	900	C2	G A 46	144.534	72.993	19.362	1.00	47.49	C	ATOM	950	O4*	U A 49	153.185	69.701	3.182	1.00	63.84	O
ATOM	901	N2	G A 46	145.513	72.486	20.109	1.00	47.49	N	ATOM	951	C3*	U A 49	152.583	67.663	2.114	1.00	63.84	C
ATOM	902	N3	G A 46	144.808	73.503	18.176	1.00	47.49	N	ATOM	952	O3*	U A 49	153.641	67.138	1.350	1.00	63.84	O
ATOM	903	C4	G A 46	143.699	73.947	17.552	1.00	47.49	C	ATOM	953	C2*	U A 49	152.704	67.442	3.618	1.00	63.84	C
ATOM	904	P	C A 47	143.669	71.676	11.819	1.00	48.37	P	ATOM	954	O2*	U A 49	153.293	66.206	3.981	1.00	63.84	O
ATOM	905	O1P	C A 47	142.403	72.007	11.113	1.00	57.91	O	ATOM	955	C1*	U A 49	153.546	68.641	4.044	1.00	63.84	C
ATOM	906	O2P	C A 47	143.625	70.854	13.053	1.00	57.91	O	ATOM	956	N1	U A 49	153.294	68.051	5.433	1.00	51.25	N
ATOM	907	O5*	C A 47	144.600	70.960	10.756	1.00	48.37	O	ATOM	957	C2	U A 49	154.241	68.725	6.393	1.00	51.25	C
ATOM	908	C5*	C A 47	145.893	70.477	11.113	1.00	48.37	C	ATOM	958	O2	U A 49	155.278	68.151	6.135	1.00	51.25	O
ATOM	909	C4*	C A 47	146.764	70.443	9.889	1.00	48.37	C	ATOM	959	N3	U A 49	153.929	69.105	7.671	1.00	51.25	N
ATOM	910	O4*	C A 47	148.091	69.951	10.220	1.00	48.37	O	ATOM	960	C4	U A 49	152.802	69.777	8.081	1.00	51.25	C
ATOM	911	C3*	C A 47	146.242	69.557	8.769	1.00	48.37	C	ATOM	961	O4	U A 49	152.660	70.057	9.271	1.00	51.25	O
ATOM	912	O3*	C A 47	146.650	70.212	7.567	1.00	48.37	O	ATOM	962	C5	U A 49	151.884	70.093	7.031	1.00	51.25	C
ATOM	913	C2*	C A 47	147.031	68.264	8.972	1.00	48.37	C	ATOM	963	C6	U A 49	152.155	69.726	5.776	1.00	51.25	C
ATOM	914	O2*	C A 47	147.198	67.518	7.791	1.00	48.37	O	ATOM	964	P	A A 50	153.293	66.229	0.084	1.00	63.17	P
ATOM	915	C1*	C A 47	148.379	68.816	9.435	1.00	48.37	C	ATOM	965	O1P	A A 50	154.547	65.540	-0.314	1.00	59.21	O



Table 2: Sheet 13/520

ATOM	1166	O3*	A	A	59	126.966	56.873	13.959	1.00	65.43	O	ATOM	1216	N7	G	A	61	118.792	49.687	9.647	1.00	45.23	N
ATOM	1167	C2*	A	A	59	129.303	56.892	13.270	1.00	65.43	C	ATOM	1217	C5	G	A	61	117.669	50.455	9.381	1.00	45.23	C
ATOM	1168	O2*	A	A	59	129.226	58.296	13.345	1.00	65.43	O	ATOM	1218	C6	G	A	61	116.599	50.220	8.492	1.00	45.23	C
ATOM	1169	C1*	A	A	59	130.568	56.439	13.996	1.00	65.43	C	ATOM	1219	O6	G	A	61	116.414	49.239	7.749	1.00	45.23	O
ATOM	1170	N9	A	A	59	131.263	55.338	13.323	1.00	71.90	N	ATOM	1220	N1	G	A	61	115.675	51.259	8.523	1.00	45.23	N
ATOM	1171	C8	A	A	59	131.643	54.121	13.837	1.00	71.90	C	ATOM	1221	C2	G	A	61	115.767	52.370	9.326	1.00	45.23	C
ATOM	1172	N7	A	A	59	132.268	53.358	12.975	1.00	71.90	N	ATOM	1222	N2	G	A	61	114.770	53.261	9.217	1.00	45.23	N
ATOM	1173	C5	A	A	59	132.299	54.119	11.813	1.00	71.90	C	ATOM	1223	N3	G	A	61	116.760	52.594	10.172	1.00	45.23	N
ATOM	1174	C6	A	A	59	132.827	53.875	10.530	1.00	71.90	C	ATOM	1224	C4	G	A	61	117.671	51.605	10.142	1.00	45.23	C
ATOM	1175	N6	A	A	59	133.466	52.755	10.191	1.00	71.90	N	ATOM	1225	P	U	A	62	118.365	50.687	16.214	1.00	48.90	P
ATOM	1176	N1	A	A	59	132.678	54.838	9.596	1.00	71.90	N	ATOM	1226	O1P	U	A	62	118.778	50.952	17.619	1.00	41.00	O
ATOM	1177	C2	A	A	59	132.050	55.967	9.938	1.00	71.90	C	ATOM	1227	O2P	U	A	62	118.553	49.319	15.623	1.00	41.00	O
ATOM	1178	N3	A	A	59	131.523	56.317	11.106	1.00	71.90	N	ATOM	1228	O5*	U	A	62	116.839	51.051	15.972	1.00	48.90	O
ATOM	1179	C4	A	A	59	131.681	55.337	12.012	1.00	71.90	C	ATOM	1229	C5*	U	A	62	116.397	52.392	16.042	1.00	48.90	C
ATOM	1180	P	A	A	60	126.164	56.874	12.558	1.00	51.54	P	ATOM	1230	C4*	U	A	62	115.108	52.533	15.294	1.00	48.90	C
ATOM	1181	O1P	A	A	60	127.111	57.282	11.503	1.00	67.21	O	ATOM	1231	O4*	U	A	62	115.337	52.393	13.877	1.00	48.90	O
ATOM	1182	O2P	A	A	60	124.876	57.593	12.704	1.00	67.21	O	ATOM	1232	C3*	U	A	62	114.099	51.460	15.632	1.00	48.90	C
ATOM	1183	O5*	A	A	60	125.827	55.350	12.282	1.00	51.54	O	ATOM	1233	O3*	U	A	62	113.416	51.840	16.812	1.00	48.90	O
ATOM	1184	C5*	A	A	60	125.122	54.572	13.247	1.00	51.54	C	ATOM	1234	C2*	U	A	62	113.234	51.378	14.378	1.00	48.90	C
ATOM	1185	O4*	A	A	60	124.061	53.761	12.565	1.00	51.54	C	ATOM	1235	O2*	U	A	62	112.167	52.297	14.335	1.00	48.90	O
ATOM	1186	O4*	A	A	60	123.040	54.644	12.046	1.00	51.54	O	ATOM	1236	C1*	U	A	62	114.245	51.724	13.285	1.00	48.90	C
ATOM	1187	C3*	A	A	60	124.527	52.920	11.392	1.00	51.54	C	ATOM	1237	N1	U	A	62	114.765	50.568	12.547	1.00	41.00	N
ATOM	1188	O3*	A	A	60	124.837	51.532	11.597	1.00	51.54	O	ATOM	1238	C2	U	A	62	114.023	50.122	11.474	1.00	41.00	C
ATOM	1189	C2*	A	A	60	123.883	53.510	10.143	1.00	51.54	C	ATOM	1239	O2	U	A	62	112.965	50.643	11.133	1.00	41.00	O
ATOM	1190	O2*	A	A	60	123.353	52.542	9.267	1.00	51.54	O	ATOM	1240	N3	U	A	62	114.563	49.056	10.807	1.00	41.00	N
ATOM	1191	C1*	A	A	60	122.700	54.270	10.728	1.00	51.54	C	ATOM	1241	C4	U	A	62	115.750	48.417	11.082	1.00	41.00	C
ATOM	1192	N9	A	A	60	122.395	55.492	9.990	1.00	67.21	N	ATOM	1242	O4	U	A	62	116.167	47.559	10.296	1.00	41.00	O
ATOM	1193	C8	A	A	60	123.214	56.569	9.773	1.00	67.21	C	ATOM	1243	C5	U	A	62	116.457	48.934	12.218	1.00	41.00	C
ATOM	1194	N7	A	A	60	122.638	57.545	9.117	1.00	67.21	N	ATOM	1244	C6	U	A	62	115.951	49.960	12.897	1.00	41.00	C
ATOM	1195	C5	A	A	60	121.357	57.074	8.877	1.00	67.21	C	ATOM	1245	P	C	A	63	112.387	50.825	17.496	1.00	48.08	P
ATOM	1196	C6	A	A	60	120.250	57.643	8.233	1.00	67.21	C	ATOM	1246	O1P	C	A	63	112.089	51.338	18.863	1.00	40.22	O
ATOM	1197	N6	A	A	60	120.259	58.856	7.677	1.00	67.21	N	ATOM	1247	O2P	C	A	63	112.884	49.436	17.321	1.00	40.22	O
ATOM	1198	N1	A	A	60	119.117	56.915	8.173	1.00	67.21	N	ATOM	1248	O5*	C	A	63	111.093	50.995	16.604	1.00	48.08	O
ATOM	1199	C2	A	A	60	119.114	55.694	8.711	1.00	67.21	C	ATOM	1249	C5*	C	A	63	110.174	49.962	16.560	1.00	48.08	C
ATOM	1200	N3	A	A	60	120.093	55.047	9.336	1.00	67.21	N	ATOM	1250	C4*	C	A	63	109.241	50.131	15.417	1.00	48.08	C
ATOM	1201	C4	A	A	60	121.199	55.805	9.394	1.00	67.21	C	ATOM	1251	O4*	C	A	63	109.957	50.290	14.176	1.00	48.08	O
ATOM	1202	P	G	A	61	123.697	50.487	12.054	1.00	62.61	P	ATOM	1252	C3*	C	A	63	108.481	48.842	15.269	1.00	48.08	C
ATOM	1203	O1P	G	A	61	124.447	49.343	12.603	1.00	45.23	O	ATOM	1253	O3*	C	A	63	107.408	48.861	16.187	1.00	48.08	O
ATOM	1204	O2P	G	A	61	122.679	50.259	10.986	1.00	45.23	O	ATOM	1254	C2*	C	A	63	108.136	48.794	13.790	1.00	48.08	C
ATOM	1205	O5*	G	A	61	123.010	51.173	13.312	1.00	62.61	O	ATOM	1255	O2*	C	A	63	106.953	49.493	13.469	1.00	48.08	O
ATOM	1206	C5*	G	A	61	121.718	50.758	13.753	1.00	62.61	C	ATOM	1256	C1*	C	A	63	109.358	49.481	13.175	1.00	48.08	C
ATOM	1207	C4*	G	A	61	120.738	51.878	13.563	1.00	62.61	C	ATOM	1257	N1	C	A	63	110.385	48.555	12.663	1.00	40.22	N
ATOM	1208	O4*	G	A	61	120.642	52.201	12.157	1.00	62.61	O	ATOM	1258	C2	C	A	63	110.165	47.889	11.446	1.00	40.22	C
ATOM	1209	C3*	G	A	61	119.320	51.557	13.968	1.00	62.61	C	ATOM	1259	O2	C	A	63	109.093	48.068	10.845	1.00	40.22	O
ATOM	1210	O3*	G	A	61	119.163	51.765	15.346	1.00	62.61	O	ATOM	1260	N3	C	A	63	111.130	47.077	10.953	1.00	40.22	N
ATOM	1211	C2*	G	A	61	118.508	52.532	13.137	1.00	62.61	C	ATOM	1261	C4	C	A	63	112.279	46.927	11.619	1.00	40.22	C
ATOM	1212	O2*	G	A	61	118.515	53.833	13.700	1.00	62.61	O	ATOM	1262	N4	C	A	63	113.222	46.144	11.086	1.00	40.22	N
ATOM	1213	C1*	G	A	61	119.306	52.538	11.836	1.00	62.61	C	ATOM	1263	C5	C	A	63	112.520	47.579	12.865	1.00	40.22	C
ATOM	1214	N9	G	A	61	118.824	51.547	10.884	1.00	45.23	N	ATOM	1264	C6	C	A	63	111.552	48.366	13.349	1.00	40.22	C
ATOM	1215	C8	G	A	61	119.444	50.370	10.545	1.00	45.23	C	ATOM	1265	P	G	A	64	107.432	47.858	17.440	1.00	56.11	P



Table 2: Sheet 12/520

ATOM	1066	C2	C A	54	146.068	54.970	10.298	1.00	57.07	C	ATOM	1116	O1P	G A	57	137.380	45.610	18.001	1.00	76.74	O
ATOM	1067	O2	C A	54	146.711	54.595	11.295	1.00	57.07	O	ATOM	1117	O2P	G A	57	138.202	47.199	16.159	1.00	76.74	O
ATOM	1068	N3	C A	54	145.397	56.133	10.293	1.00	57.07	N	ATOM	1118	O5*	G A	57	137.455	48.064	18.390	1.00	58.16	O
ATOM	1069	C4	C A	54	144.709	56.496	9.217	1.00	57.07	C	ATOM	1119	C5*	G A	57	137.262	47.987	19.803	1.00	58.16	C
ATOM	1070	N4	C A	54	144.035	57.631	9.273	1.00	57.07	N	ATOM	1120	C4*	G A	57	136.593	49.237	20.311	1.00	58.16	C
ATOM	1071	C5	C A	54	144.676	55.707	8.039	1.00	57.07	C	ATOM	1121	O4*	G A	57	137.515	50.351	20.200	1.00	58.16	O
ATOM	1072	C6	C A	54	145.353	54.562	8.048	1.00	57.07	C	ATOM	1122	C3*	G A	57	135.356	49.684	19.552	1.00	58.16	C
ATOM	1073	P	A A	55	143.716	49.468	10.262	1.00	49.82	P	ATOM	1123	O3*	G A	57	134.179	49.022	19.971	1.00	58.16	O
ATOM	1074	O1P	A A	55	143.085	48.177	9.873	1.00	71.71	O	ATOM	1124	C2*	G A	57	135.311	51.173	19.859	1.00	58.16	C
ATOM	1075	O2P	A A	55	142.868	50.678	10.435	1.00	71.71	O	ATOM	1125	O2*	G A	57	134.745	51.441	21.127	1.00	58.16	C
ATOM	1076	O5*	A A	55	144.544	49.258	11.609	1.00	49.82	O	ATOM	1126	C1*	G A	57	136.801	51.528	19.868	1.00	58.16	C
ATOM	1077	C5*	A A	55	145.504	48.192	11.732	1.00	49.82	C	ATOM	1127	N9	G A	57	137.256	51.988	18.557	1.00	76.74	N
ATOM	1078	C4*	A A	55	145.720	47.845	13.183	1.00	49.82	C	ATOM	1128	C8	G A	57	137.743	51.220	17.525	1.00	76.74	C
ATOM	1079	O3*	A A	55	146.520	48.858	13.838	1.00	49.82	O	ATOM	1129	N7	G A	57	138.045	51.918	16.466	1.00	76.74	N
ATOM	1080	C4*	A A	55	144.459	47.727	14.021	1.00	49.82	C	ATOM	1130	C5	G A	57	137.745	53.227	16.819	1.00	76.74	C
ATOM	1081	O3*	A A	55	143.915	46.425	13.927	1.00	49.82	O	ATOM	1131	C6	G A	57	137.869	54.428	16.083	1.00	76.74	C
ATOM	1082	C2*	A A	55	144.950	48.000	15.437	1.00	49.82	C	ATOM	1132	O6	G A	57	138.271	54.585	14.935	1.00	76.74	O
ATOM	1083	O2*	A A	55	145.384	46.833	16.103	1.00	49.82	O	ATOM	1133	N1	G A	57	137.462	55.527	16.824	1.00	76.74	N
ATOM	1084	C1*	A A	55	146.124	48.961	15.199	1.00	49.82	C	ATOM	1134	C2	G A	57	136.990	55.484	18.107	1.00	76.74	C
ATOM	1085	N9	A A	55	145.811	50.360	15.500	1.00	71.71	N	ATOM	1135	N2	G A	57	136.649	56.656	18.654	1.00	76.74	N
ATOM	1086	C8	A A	55	145.866	51.444	14.662	1.00	71.71	C	ATOM	1136	N3	G A	57	136.862	54.373	18.806	1.00	76.74	N
ATOM	1087	N7	A A	55	145.535	52.572	15.237	1.00	71.71	N	ATOM	1137	C4	G A	57	137.260	53.288	18.106	1.00	76.74	C
ATOM	1088	C5	A A	55	145.243	52.209	16.541	1.00	71.71	C	ATOM	1138	P	C A	58	132.941	48.901	18.956	1.00	75.87	P
ATOM	1089	C6	A A	55	144.834	52.951	17.659	1.00	71.71	C	ATOM	1139	O1P	C A	58	131.850	48.212	19.691	1.00	63.27	O
ATOM	1090	N6	A A	55	144.658	54.274	17.648	1.00	71.71	N	ATOM	1140	O2P	C A	58	133.418	48.350	17.659	1.00	63.27	O
ATOM	1091	N1	A A	55	144.613	52.282	18.809	1.00	71.71	N	ATOM	1141	O5*	C A	58	132.483	50.411	18.719	1.00	75.87	O
ATOM	1092	C2	A A	55	144.799	50.962	18.824	1.00	71.71	C	ATOM	1142	C5*	C A	58	131.802	51.141	19.761	1.00	75.87	C
ATOM	1093	N3	A A	55	145.190	50.155	17.843	1.00	71.71	N	ATOM	1143	O4*	C A	58	131.605	52.587	19.369	1.00	75.87	C
ATOM	1094	C4	A A	55	145.400	50.850	16.715	1.00	71.71	C	ATOM	1144	C4*	C A	58	132.893	53.237	19.209	1.00	75.87	C
ATOM	1095	P	U A	56	142.330	46.218	14.027	1.00	56.90	P	ATOM	1145	C3*	C A	58	130.876	52.863	18.064	1.00	75.87	C
ATOM	1096	O1P	U A	56	142.069	44.757	14.117	1.00	78.99	O	ATOM	1146	O3*	C A	58	129.470	52.835	18.213	1.00	75.87	O
ATOM	1097	O2P	U A	56	141.686	47.012	12.942	1.00	78.99	O	ATOM	1147	C2*	C A	58	131.346	54.270	17.739	1.00	75.87	C
ATOM	1098	O5*	U A	56	141.951	46.881	15.428	1.00	56.90	O	ATOM	1148	O2*	C A	58	130.647	55.224	18.509	1.00	75.87	O
ATOM	1099	C5*	U A	56	142.406	46.318	16.667	1.00	56.90	C	ATOM	1149	C1*	C A	58	132.807	54.216	18.188	1.00	75.87	C
ATOM	1100	C4*	U A	56	141.964	47.184	17.820	1.00	56.90	C	ATOM	1150	N1	C A	58	133.642	53.780	17.057	1.00	63.27	N
ATOM	1101	O4*	U A	56	142.780	48.378	17.887	1.00	56.90	O	ATOM	1151	C2	C A	58	134.143	54.744	16.163	1.00	63.27	C
ATOM	1102	C3*	U A	56	140.539	47.698	17.718	1.00	56.90	C	ATOM	1152	O2	C A	58	133.953	55.952	16.398	1.00	63.27	O
ATOM	1103	O3*	U A	56	139.583	46.780	18.187	1.00	56.90	O	ATOM	1153	N3	C A	58	134.824	54.331	15.073	1.00	63.27	N
ATOM	1104	C2*	U A	56	140.564	48.959	18.564	1.00	56.90	C	ATOM	1154	C4	C A	58	135.028	53.029	14.867	1.00	63.27	C
ATOM	1105	O2*	U A	56	140.357	48.707	19.940	1.00	56.90	O	ATOM	1155	N4	C A	58	135.672	52.666	13.760	1.00	63.27	N
ATOM	1106	C1*	U A	56	141.977	49.481	18.289	1.00	56.90	C	ATOM	1156	C5	C A	58	134.574	52.038	15.783	1.00	63.27	C
ATOM	1107	N1	U A	56	141.984	50.488	17.210	1.00	78.99	N	ATOM	1157	C6	C A	58	133.896	52.451	16.852	1.00	63.27	C
ATOM	1108	C2	U A	56	141.650	51.791	17.539	1.00	78.99	C	ATOM	1158	P	A A	59	128.540	52.540	16.935	1.00	65.43	P
ATOM	1109	O2	U A	56	141.387	52.145	18.675	1.00	78.99	O	ATOM	1159	O1P	A A	59	127.135	52.463	17.452	1.00	71.90	O
ATOM	1110	N3	U A	56	141.639	52.667	16.486	1.00	78.99	N	ATOM	1160	O2P	A A	59	129.120	51.390	16.207	1.00	71.90	O
ATOM	1111	C4	U A	56	141.925	52.389	15.170	1.00	78.99	C	ATOM	1161	O5*	A A	59	128.713	53.816	15.991	1.00	65.43	O
ATOM	1112	O4	U A	56	141.801	53.277	14.326	1.00	78.99	O	ATOM	1162	C5*	A A	59	128.285	55.117	16.426	1.00	65.43	C
ATOM	1113	C5	U A	56	142.280	51.034	14.910	1.00	78.99	C	ATOM	1163	C4*	A A	59	128.769	56.187	15.474	1.00	65.43	C
ATOM	1114	C6	U A	56	142.296	50.151	15.908	1.00	78.99	C	ATOM	1164	O4*	A A	59	130.197	56.029	15.299	1.00	65.43	O
ATOM	1115	P	G A	57	138.100	46.845	17.602	1.00	58.16	P	ATOM	1165	C3*	A A	59	128.209	56.182	14.060	1.00	65.43	C



Table 2: Sheet 15/520

ATOM	1366	C5	G A	68	107.484	35.809	12.453	1.00	43.58	C	ATOM	1416	C2	G A	70	114.853	32.179	19.165	1.00	53.46	C
ATOM	1367	C6	G A	68	108.757	36.083	13.036	1.00	43.58	C	ATOM	1417	N2	G A	70	116.104	32.398	19.614	1.00	53.46	N
ATOM	1368	O6	G A	68	109.046	36.902	13.927	1.00	43.58	O	ATOM	1418	N3	G A	70	114.612	31.179	18.329	1.00	53.46	N
ATOM	1369	N1	G A	68	109.747	35.271	12.497	1.00	43.58	N	ATOM	1419	C4	G A	70	113.314	31.119	17.973	1.00	53.46	C
ATOM	1370	C2	G A	68	109.544	34.305	11.542	1.00	43.58	C	ATOM	1420	P	C A	73	112.748	25.146	18.794	1.00	63.99	P
ATOM	1371	N2	G A	68	110.631	33.620	11.143	1.00	43.58	N	ATOM	1421	O1P	C A	73	113.158	23.720	18.767	1.00	59.36	O
ATOM	1372	N3	G A	68	108.367	34.025	11.013	1.00	43.58	N	ATOM	1422	O2P	C A	73	111.329	25.500	19.107	1.00	59.36	O
ATOM	1373	C4	G A	68	107.393	34.809	11.509	1.00	43.58	C	ATOM	1423	O5*	C A	73	113.705	25.944	19.789	1.00	63.99	O
ATOM	1374	P	G A	69	103.413	30.561	13.002	1.00	69.82	P	ATOM	1424	C5*	C A	73	115.128	25.787	19.713	1.00	63.99	C
ATOM	1375	O1P	G A	69	102.443	29.440	13.047	1.00	51.78	O	ATOM	1425	C4*	C A	73	115.810	26.730	20.669	1.00	63.99	C
ATOM	1376	O2P	G A	69	103.509	31.479	14.164	1.00	51.78	O	ATOM	1426	O4*	C A	73	115.576	28.100	20.263	1.00	63.99	O
ATOM	1377	O5*	G A	69	104.864	29.974	12.706	1.00	69.82	O	ATOM	1427	C3*	C A	73	115.322	26.679	22.102	1.00	63.99	C
ATOM	1378	C5*	G A	69	105.788	29.714	13.223	1.00	69.82	C	ATOM	1428	O3*	C A	73	115.927	25.617	22.820	1.00	63.99	O
ATOM	1379	C4*	G A	69	107.196	29.702	13.223	1.00	69.82	C	ATOM	1429	C2*	C A	73	115.711	28.054	22.628	1.00	63.99	C
ATOM	1380	O4*	G A	69	107.564	31.035	12.785	1.00	69.82	O	ATOM	1430	O2*	C A	73	117.077	28.149	22.970	1.00	63.99	O
ATOM	1381	C3*	G A	69	108.232	29.350	14.269	1.00	69.82	C	ATOM	1431	C1*	C A	73	115.474	28.929	21.404	1.00	63.99	C
ATOM	1382	O3*	G A	69	108.355	27.946	14.371	1.00	69.82	O	ATOM	1432	N1	C A	73	114.136	29.550	21.431	1.00	59.36	N
ATOM	1383	C2*	G A	69	109.487	30.032	13.749	1.00	69.82	C	ATOM	1433	C2	C A	73	113.972	30.726	22.161	1.00	59.36	C
ATOM	1384	O2*	G A	69	110.125	29.302	12.726	1.00	69.82	O	ATOM	1434	O2	C A	73	114.955	31.209	22.741	1.00	59.36	O
ATOM	1385	C1*	G A	69	108.910	31.307	13.145	1.00	69.82	C	ATOM	1435	N3	C A	73	112.751	31.307	22.218	1.00	59.36	N
ATOM	1386	N9	G A	69	108.908	32.408	14.104	1.00	51.78	N	ATOM	1436	C4	C A	73	111.722	30.757	21.579	1.00	59.36	C
ATOM	1387	C8	G A	69	107.812	33.093	14.562	1.00	51.78	C	ATOM	1437	N4	C A	73	110.545	31.364	21.672	1.00	59.36	N
ATOM	1388	N7	G A	69	108.111	34.013	15.435	1.00	51.78	N	ATOM	1438	C5	C A	73	111.858	29.561	20.819	1.00	59.36	C
ATOM	1389	C5	G A	69	109.491	33.935	15.559	1.00	51.78	C	ATOM	1439	C6	C A	73	113.071	28.995	20.771	1.00	59.36	C
ATOM	1390	C6	G A	69	110.381	34.687	16.368	1.00	51.78	C	ATOM	1440	P	C A	74	115.099	24.877	23.982	1.00	82.28	P
ATOM	1391	O6	G A	69	110.116	35.608	17.160	1.00	51.78	O	ATOM	1441	O1P	C A	74	115.937	23.724	24.398	1.00	60.00	O
ATOM	1392	N1	G A	69	111.699	34.281	16.190	1.00	51.78	N	ATOM	1442	O2P	C A	74	113.702	24.640	23.532	1.00	60.00	O
ATOM	1393	C2	G A	69	112.108	33.289	15.337	1.00	51.78	C	ATOM	1443	O5*	C A	74	115.085	25.945	25.163	1.00	82.28	O
ATOM	1394	N2	G A	69	113.425	33.050	15.309	1.00	51.78	N	ATOM	1444	C5*	C A	74	116.320	26.355	25.768	1.00	82.28	C
ATOM	1395	N3	G A	69	111.288	32.584	14.572	1.00	51.78	N	ATOM	1445	C4*	C A	74	116.082	27.441	26.783	1.00	82.28	C
ATOM	1396	C4	G A	69	110.001	32.956	14.738	1.00	51.78	C	ATOM	1446	O4*	C A	74	115.774	28.698	26.129	1.00	82.28	O
ATOM	1397	P	G A	70	108.512	27.266	15.818	1.00	68.52	P	ATOM	1447	C3*	C A	74	114.920	27.216	27.728	1.00	82.28	C
ATOM	1398	O1P	G A	70	108.203	25.831	15.598	1.00	53.46	O	ATOM	1448	O3*	C A	74	115.248	26.339	28.782	1.00	82.28	O
ATOM	1399	O2P	G A	70	107.748	28.036	16.846	1.00	53.46	O	ATOM	1449	C2*	C A	74	114.608	28.630	28.197	1.00	82.28	C
ATOM	1400	O5*	G A	70	110.071	27.391	16.109	1.00	68.52	O	ATOM	1450	O2*	C A	74	115.482	29.091	29.207	1.00	82.28	O
ATOM	1401	C5*	G A	70	111.024	26.836	15.188	1.00	68.52	C	ATOM	1451	C1*	C A	74	114.853	29.429	26.920	1.00	82.28	C
ATOM	1402	C4*	G A	70	112.421	27.245	15.573	1.00	68.52	C	ATOM	1452	N1	C A	74	113.596	29.583	26.169	1.00	60.00	N
ATOM	1403	O4*	G A	70	112.603	28.667	15.353	1.00	68.52	O	ATOM	1453	C2	C A	74	112.708	30.570	26.569	1.00	60.00	C
ATOM	1404	C3*	G A	70	112.772	27.060	17.036	1.00	68.52	C	ATOM	1454	O2	C A	74	113.014	31.290	27.517	1.00	60.00	O
ATOM	1405	O3*	G A	70	113.135	25.735	17.351	1.00	68.52	O	ATOM	1455	N3	C A	74	111.533	30.714	25.921	1.00	60.00	N
ATOM	1406	C2*	G A	70	113.919	28.036	17.227	1.00	68.52	C	ATOM	1456	C4	C A	74	111.228	29.904	24.910	1.00	60.00	C
ATOM	1407	O2*	G A	70	115.133	27.513	16.732	1.00	68.52	O	ATOM	1457	N4	C A	74	110.040	30.061	24.324	1.00	60.00	N
ATOM	1408	C1*	G A	70	113.473	29.194	16.341	1.00	68.52	C	ATOM	1458	C5	C A	74	112.126	28.891	24.462	1.00	60.00	C
ATOM	1409	N9	G A	70	112.759	30.225	17.088	1.00	53.46	N	ATOM	1459	C6	C A	74	113.290	28.768	25.114	1.00	60.00	C
ATOM	1410	C8	G A	70	111.416	30.517	17.031	1.00	53.46	C	ATOM	1460	P	G A	75	114.129	25.338	29.341	1.00	94.22	P
ATOM	1411	N7	G A	70	111.081	31.537	17.776	1.00	53.46	N	ATOM	1461	O1P	G A	75	114.840	24.558	30.379	1.00	62.94	O
ATOM	1412	C5	G A	70	112.275	31.935	18.369	1.00	53.46	C	ATOM	1462	O2P	G A	75	113.498	24.625	28.203	1.00	62.94	O
ATOM	1413	C6	G A	70	112.554	33.016	19.261	1.00	53.46	C	ATOM	1463	O5*	G A	75	113.054	26.309	30.020	1.00	94.22	O
ATOM	1414	O6	G A	70	111.774	33.884	19.702	1.00	53.46	O	ATOM	1464	C5*	G A	75	113.473	27.180	31.077	1.00	94.22	C
ATOM	1415	N1	G A	70	113.897	33.047	19.618	1.00	53.46	N	ATOM	1465	C4*	G A	75	112.389	28.155	31.493	1.00	94.22	C



Table 2: Sheet 14/520

ATOM	1266	O1P	G A	64	106.334	48.332	18.318	1.00	46.16	O	ATOM	1316	O3*	G A	66	100.333	43.045	10.131	1.00	67.01	O
ATOM	1267	O2P	G A	64	108.790	47.700	18.007	1.00	46.16	O	ATOM	1317	C2*	G A	66	102.139	43.410	8.513	1.00	67.01	C
ATOM	1268	O5*	G A	64	107.035	46.482	16.753	1.00	56.11	O	ATOM	1318	O2*	G A	66	101.197	43.259	7.469	1.00	67.01	O
ATOM	1269	C5*	G A	64	105.849	46.389	15.946	1.00	56.11	C	ATOM	1319	C1*	G A	66	103.009	44.633	8.250	1.00	67.01	C
ATOM	1270	C4*	G A	64	104.893	45.416	16.572	1.00	56.11	C	ATOM	1320	N9	G A	66	104.326	44.483	8.867	1.00	45.70	N
ATOM	1271	O4*	G A	64	105.291	44.064	16.208	1.00	56.11	O	ATOM	1321	C8	G A	66	104.896	45.305	9.808	1.00	45.70	C
ATOM	1272	C3*	G A	64	104.918	45.486	18.090	1.00	56.11	C	ATOM	1322	N7	G A	66	106.087	44.916	10.177	1.00	45.70	N
ATOM	1273	O3*	G A	64	103.704	45.842	18.770	1.00	56.11	O	ATOM	1323	C5	G A	66	106.318	43.768	9.436	1.00	45.70	C
ATOM	1274	C2*	G A	64	105.746	44.286	18.527	1.00	56.11	C	ATOM	1324	C6	G A	66	107.442	42.905	9.415	1.00	45.70	C
ATOM	1275	O2*	G A	64	105.341	43.745	19.757	1.00	56.11	O	ATOM	1325	O6	G A	66	108.498	43.000	10.057	1.00	45.70	O
ATOM	1276	C1*	G A	64	105.576	43.303	17.367	1.00	56.11	C	ATOM	1326	N1	G A	66	107.257	41.846	8.532	1.00	45.70	N
ATOM	1277	N9	G A	64	106.801	42.530	17.120	1.00	46.16	N	ATOM	1327	C2	G A	66	106.135	41.652	7.762	1.00	45.70	C
ATOM	1278	C8	G A	64	108.049	42.808	17.621	1.00	46.16	C	ATOM	1328	N2	G A	66	106.143	40.580	6.966	1.00	45.70	N
ATOM	1279	N7	G A	64	108.955	41.940	17.261	1.00	46.16	N	ATOM	1329	N3	G A	66	105.080	42.454	7.769	1.00	45.70	N
ATOM	1280	C5	G A	64	108.272	41.027	16.472	1.00	46.16	C	ATOM	1330	C4	G A	66	105.241	43.485	8.623	1.00	45.70	C
ATOM	1281	C6	G A	64	108.740	39.858	15.809	1.00	46.16	C	ATOM	1331	P	C A	67	100.443	41.798	11.138	1.00	58.48	P
ATOM	1282	O6	G A	64	109.881	39.374	15.812	1.00	46.16	O	ATOM	1332	O1P	C A	67	99.100	41.185	11.143	1.00	35.16	O
ATOM	1283	N1	G A	64	107.729	39.231	15.092	1.00	46.16	N	ATOM	1333	O2P	C A	67	101.050	42.255	12.407	1.00	35.16	O
ATOM	1284	C2	G A	64	106.434	39.658	15.026	1.00	46.16	C	ATOM	1334	O5*	C A	67	101.445	40.785	10.425	1.00	58.48	O
ATOM	1285	N2	G A	64	105.617	38.924	14.248	1.00	46.16	N	ATOM	1335	C5*	C A	67	101.058	40.135	9.209	1.00	58.48	C
ATOM	1286	N3	G A	64	105.970	40.734	15.664	1.00	46.16	N	ATOM	1336	C4*	C A	67	102.023	39.034	8.860	1.00	58.48	C
ATOM	1287	C4	G A	64	106.943	41.373	16.360	1.00	46.16	C	ATOM	1337	O4*	C A	67	103.321	39.592	8.552	1.00	58.48	O
ATOM	1288	P	U A	65	102.330	45.095	18.444	1.00	54.11	P	ATOM	1338	C3*	C A	67	102.315	37.981	9.916	1.00	58.48	C
ATOM	1289	O1P	U A	65	101.570	45.058	19.711	1.00	87.42	O	ATOM	1339	O3*	C A	67	101.296	36.984	9.982	1.00	58.48	O
ATOM	1290	O2P	U A	65	102.632	43.828	17.725	1.00	87.42	O	ATOM	1340	C2*	C A	67	103.639	37.407	9.426	1.00	58.48	C
ATOM	1291	O5*	U A	65	101.582	46.089	17.451	1.00	54.11	O	ATOM	1341	O2*	C A	67	103.460	36.500	8.360	1.00	58.48	O
ATOM	1292	C5*	U A	65	100.816	45.575	16.356	1.00	54.11	C	ATOM	1342	C1*	C A	67	104.324	38.647	8.865	1.00	58.48	C
ATOM	1293	O4*	U A	65	100.664	46.617	15.277	1.00	54.11	O	ATOM	1343	N1	C A	67	105.263	39.231	9.829	1.00	35.16	N
ATOM	1294	C4*	U A	65	99.687	47.611	15.673	1.00	54.11	C	ATOM	1344	C2	C A	67	106.534	38.662	9.932	1.00	35.16	C
ATOM	1295	C3*	U A	65	101.926	47.373	14.870	1.00	54.11	C	ATOM	1345	O2	C A	67	106.814	37.700	9.202	1.00	35.16	O
ATOM	1296	O3*	U A	65	101.923	47.553	13.458	1.00	54.11	O	ATOM	1346	N3	C A	67	107.419	39.167	10.827	1.00	35.16	N
ATOM	1297	C2*	U A	65	101.760	48.726	15.557	1.00	54.11	C	ATOM	1347	C4	C A	67	107.061	40.189	11.614	1.00	35.16	C
ATOM	1298	O2*	U A	65	102.413	49.765	14.841	1.00	54.11	O	ATOM	1348	N4	C A	67	107.947	40.626	12.520	1.00	35.16	N
ATOM	1299	C1*	U A	65	100.239	48.895	15.524	1.00	54.11	C	ATOM	1349	C5	C A	67	105.777	40.799	11.516	1.00	35.16	C
ATOM	1300	N1	U A	65	99.650	49.764	16.549	1.00	87.42	N	ATOM	1350	C6	C A	67	104.917	40.293	10.618	1.00	35.16	C
ATOM	1301	C2	U A	65	98.737	50.694	16.113	1.00	87.42	C	ATOM	1351	P	G A	68	101.000	36.233	11.377	1.00	64.57	P
ATOM	1302	O2	U A	65	98.418	50.798	14.940	1.00	87.42	O	ATOM	1352	O1P	G A	68	99.592	35.756	11.307	1.00	43.58	O
ATOM	1303	N3	U A	65	98.205	51.494	17.095	1.00	87.42	N	ATOM	1353	O2P	G A	68	101.431	37.064	12.516	1.00	43.58	O
ATOM	1304	C4	U A	65	98.488	51.451	18.445	1.00	87.42	C	ATOM	1354	O5*	G A	68	101.978	34.982	11.344	1.00	64.57	O
ATOM	1305	O4	U A	65	97.934	52.247	19.206	1.00	87.42	O	ATOM	1355	C5*	G A	68	101.884	34.020	10.295	1.00	64.57	C
ATOM	1306	C5	U A	65	99.441	50.452	18.820	1.00	87.42	C	ATOM	1356	C4*	G A	68	103.187	33.287	10.144	1.00	64.57	C
ATOM	1307	C6	U A	65	99.979	49.663	17.882	1.00	87.42	C	ATOM	1357	O4*	G A	68	104.234	34.226	9.787	1.00	64.57	O
ATOM	1308	P	G A	66	103.081	46.888	12.578	1.00	67.01	P	ATOM	1358	C3*	G A	68	103.743	32.598	11.373	1.00	64.57	C
ATOM	1309	O1P	G A	66	104.044	46.230	13.485	1.00	45.70	O	ATOM	1359	O3*	G A	68	103.084	31.366	11.641	1.00	64.57	O
ATOM	1310	O2P	G A	66	103.557	47.917	11.646	1.00	45.70	O	ATOM	1360	C2*	G A	68	105.217	32.447	11.001	1.00	64.57	C
ATOM	1311	O5*	G A	66	102.342	45.763	11.735	1.00	67.01	O	ATOM	1361	O2*	G A	68	105.475	31.397	10.086	1.00	64.57	O
ATOM	1312	C5*	G A	66	101.188	46.070	10.934	1.00	67.01	C	ATOM	1362	C1*	G A	68	105.480	33.756	10.268	1.00	64.57	C
ATOM	1313	O4*	G A	66	101.233	45.280	9.654	1.00	67.01	O	ATOM	1363	N9	G A	68	106.066	34.740	11.172	1.00	43.58	N
ATOM	1314	O4*	G A	66	102.363	45.736	8.868	1.00	67.01	O	ATOM	1364	C8	G A	68	105.432	35.732	11.888	1.00	43.58	C
ATOM	1315	C3*	G A	66	101.494	43.795	9.833	1.00	67.01	C	ATOM	1365	N7	G A	68	106.241	36.390	12.676	1.00	43.58	N



Table 2: Sheet 17/520

ATOM	1566	O6	G A	79	98.118	20.334	27.550	1.00	53.33	O	ATOM	1616	O1P	U A	82	89.782	10.247	30.673	1.00	79.09	O
ATOM	1567	N1	G A	79	96.250	20.603	26.301	1.00	53.33	N	ATOM	1617	O2P	U A	82	89.552	12.726	31.366	1.00	79.09	O
ATOM	1568	C2	G A	79	94.999	21.096	26.070	1.00	53.33	C	ATOM	1618	O5*	U A	82	91.456	11.286	32.205	1.00	82.55	O
ATOM	1569	N2	G A	79	94.454	20.781	24.893	1.00	53.33	N	ATOM	1619	C5*	U A	82	91.129	11.667	33.561	1.00	82.55	C
ATOM	1570	N3	G A	79	94.332	21.845	26.927	1.00	53.33	N	ATOM	1620	C4*	U A	82	91.715	10.691	34.564	1.00	82.55	C
ATOM	1571	C4	G A	79	95.038	22.068	28.054	1.00	53.33	C	ATOM	1621	O4*	U A	82	91.121	9.372	34.412	1.00	82.55	O
ATOM	1572	P	G A	80	90.126	20.342	30.969	1.00	72.76	P	ATOM	1622	C3*	U A	82	93.208	10.444	34.476	1.00	82.55	C
ATOM	1573	O1P	G A	80	88.683	20.313	31.281	1.00	56.80	O	ATOM	1623	O3*	U A	82	93.963	11.464	35.113	1.00	82.55	O
ATOM	1574	O2P	G A	80	91.102	19.803	31.936	1.00	56.80	O	ATOM	1624	C2*	U A	82	93.364	9.094	35.162	1.00	82.55	C
ATOM	1575	O5*	G A	80	90.408	19.633	29.577	1.00	72.76	O	ATOM	1625	O2*	U A	82	93.401	9.210	36.568	1.00	82.55	O
ATOM	1576	C5*	G A	80	89.572	19.882	28.451	1.00	72.76	C	ATOM	1626	C1*	U A	82	92.081	8.372	34.737	1.00	82.55	C
ATOM	1577	C4*	G A	80	89.982	19.001	27.304	1.00	72.76	C	ATOM	1627	N1	U A	82	92.256	7.471	33.576	1.00	79.09	N
ATOM	1578	O4*	G A	80	91.269	19.442	26.794	1.00	72.76	O	ATOM	1628	C2	U A	82	93.269	6.512	33.629	1.00	79.09	C
ATOM	1579	C3*	G A	80	90.179	17.520	27.612	1.00	72.76	C	ATOM	1629	O2	U A	82	94.001	6.364	34.596	1.00	79.09	O
ATOM	1580	O3*	G A	80	88.932	16.798	27.676	1.00	72.76	O	ATOM	1630	N3	U A	82	93.389	5.728	32.507	1.00	79.09	N
ATOM	1581	C2*	G A	80	91.115	17.083	26.483	1.00	72.76	C	ATOM	1631	C4	U A	82	92.624	5.786	31.366	1.00	79.09	C
ATOM	1582	O2*	G A	80	90.453	16.818	25.265	1.00	72.76	O	ATOM	1632	O4	U A	82	92.872	5.022	30.433	1.00	79.09	O
ATOM	1583	C1*	G A	80	91.978	18.329	26.283	1.00	72.76	C	ATOM	1633	C5	U A	82	91.596	6.779	31.387	1.00	79.09	C
ATOM	1584	N9	G A	80	93.272	18.223	26.953	1.00	56.80	N	ATOM	1634	C6	U A	82	91.450	7.567	32.460	1.00	79.09	C
ATOM	1585	C8	G A	80	93.627	18.696	28.192	1.00	56.80	C	ATOM	1635	P	U A	83	95.206	12.120	34.337	1.00	99.09	P
ATOM	1586	N7	G A	80	94.861	18.412	28.515	1.00	56.80	N	ATOM	1636	O1P	U A	83	95.770	13.174	35.222	1.00	70.41	O
ATOM	1587	C5	G A	80	95.348	17.712	27.422	1.00	56.80	C	ATOM	1637	O2P	U A	83	94.762	12.474	32.962	1.00	70.41	O
ATOM	1588	C6	G A	80	96.620	17.134	27.194	1.00	56.80	C	ATOM	1638	O5*	U A	83	96.265	10.935	34.243	1.00	99.09	O
ATOM	1589	O6	G A	80	97.600	17.108	27.946	1.00	56.80	O	ATOM	1639	C5*	U A	83	96.930	10.468	35.424	1.00	99.09	C
ATOM	1590	N1	G A	80	96.690	16.533	25.945	1.00	56.80	N	ATOM	1640	C4*	U A	83	97.858	9.329	35.095	1.00	98.09	C
ATOM	1591	C2	G A	80	95.664	16.482	23.037	1.00	56.80	C	ATOM	1641	O4*	U A	83	97.089	8.161	34.709	1.00	99.09	O
ATOM	1592	N2	G A	80	95.921	15.862	23.883	1.00	56.80	N	ATOM	1642	C3*	U A	83	98.799	9.541	33.927	1.00	99.09	C
ATOM	1593	N3	G A	80	94.471	17.000	25.242	1.00	56.80	N	ATOM	1643	O3*	U A	83	99.932	10.324	34.242	1.00	99.09	O
ATOM	1594	C4	G A	80	94.384	17.597	26.446	1.00	56.80	C	ATOM	1644	C2*	U A	83	99.144	8.115	33.526	1.00	99.09	C
ATOM	1595	P	U A	81	88.900	15.229	28.072	1.00	142.55	P	ATOM	1645	O2*	U A	83	100.110	7.515	34.367	1.00	99.09	O
ATOM	1596	O1P	U A	81	89.394	14.468	26.901	1.00	168.82	O	ATOM	1646	C1*	U A	83	97.803	7.419	33.733	1.00	99.09	C
ATOM	1597	O2P	U A	81	87.546	14.953	28.604	1.00	168.82	O	ATOM	1647	N1	U A	83	97.015	7.381	32.489	1.00	70.41	N
ATOM	1598	O5*	U A	81	89.927	15.014	29.276	1.00	142.55	O	ATOM	1648	C2	U A	83	97.429	6.496	31.496	1.00	70.41	C
ATOM	1599	C5*	U A	81	91.338	15.293	29.127	1.00	142.55	C	ATOM	1649	O2	U A	83	98.424	5.773	31.608	1.00	70.41	O
ATOM	1600	C4*	U A	81	92.124	14.047	28.740	1.00	142.55	C	ATOM	1650	N3	U A	83	96.643	6.491	30.365	1.00	70.41	N
ATOM	1601	O4*	U A	81	93.459	14.489	28.373	1.00	142.55	O	ATOM	1651	C4	U A	83	95.522	7.262	30.123	1.00	70.41	C
ATOM	1602	C3*	U A	81	92.320	12.983	29.825	1.00	142.55	C	ATOM	1652	O4	U A	83	94.913	7.121	29.060	1.00	70.41	O
ATOM	1603	O3*	U A	81	91.315	11.956	29.729	1.00	142.55	O	ATOM	1653	C5	U A	83	95.168	8.159	31.186	1.00	70.41	C
ATOM	1604	C2*	U A	81	93.693	12.384	29.493	1.00	142.55	C	ATOM	1654	C6	U A	83	95.905	8.187	32.302	1.00	70.41	C
ATOM	1605	O2*	U A	81	93.637	11.304	28.578	1.00	142.55	O	ATOM	1655	P	U A	84	100.453	11.401	33.167	1.00	87.95	P
ATOM	1606	C1*	U A	81	94.426	13.565	28.842	1.00	142.55	C	ATOM	1656	O1P	U A	84	101.593	12.146	33.765	1.00	57.11	O
ATOM	1607	N1	U A	81	95.390	14.288	29.694	1.00	168.82	N	ATOM	1657	O2P	U A	84	99.245	12.146	32.698	1.00	57.11	O
ATOM	1608	C2	U A	81	96.708	13.839	29.725	1.00	168.82	C	ATOM	1658	O5*	U A	84	101.036	10.506	31.981	1.00	87.95	O
ATOM	1609	O2	U A	81	97.099	12.863	29.105	1.00	168.82	O	ATOM	1659	C5*	U A	84	102.158	9.628	32.215	1.00	87.95	C
ATOM	1610	N3	U A	81	97.553	14.579	30.515	1.00	168.82	N	ATOM	1660	C4*	U A	84	102.336	8.670	31.063	1.00	87.95	C
ATOM	1611	C4	U A	81	97.231	15.692	31.267	1.00	168.82	C	ATOM	1661	O4*	U A	84	101.126	7.889	30.895	1.00	87.95	O
ATOM	1612	O4	U A	81	98.111	16.257	31.920	1.00	168.82	O	ATOM	1662	C3*	U A	84	102.558	9.305	29.703	1.00	87.95	C
ATOM	1613	C5	U A	81	95.858	16.086	31.195	1.00	168.82	C	ATOM	1663	O3*	U A	84	103.907	9.697	29.491	1.00	87.95	O
ATOM	1614	C6	U A	81	95.006	15.390	30.434	1.00	168.82	C	ATOM	1664	C2*	U A	84	102.084	8.218	28.749	1.00	87.95	C
ATOM	1615	P	U A	82	90.420	11.551	31.015	1.00	82.55	P	ATOM	1665	O2*	U A	84	103.034	7.193	28.538	1.00	87.95	O



Table 2: Sheet 16/520

ATOM	1466	O4*	G A 75	112.109	29.129	30.458	1.00	94.22	O	ATOM	1516	C8	G A 77	102.271	28.151	32.633	1.00	56.04	C
ATOM	1467	C3*	G A 75	111.003	27.692	31.900	1.00	94.22	C	ATOM	1517	N7	G A 77	102.367	27.503	31.506	1.00	56.04	N
ATOM	1468	O3*	G A 75	110.960	27.089	33.188	1.00	94.22	O	ATOM	1518	C5	G A 77	101.222	27.852	30.809	1.00	56.04	C
ATOM	1469	O2*	G A 75	110.255	29.023	31.934	1.00	94.22	C	ATOM	1519	C6	G A 77	100.771	27.446	29.534	1.00	56.04	C
ATOM	1470	C2*	G A 75	110.508	29.752	33.117	1.00	94.22	O	ATOM	1520	O6	G A 77	101.304	26.659	28.750	1.00	56.04	O
ATOM	1471	C1*	G A 75	110.895	29.789	30.777	1.00	94.22	C	ATOM	1521	N1	G A 77	99.563	28.048	29.201	1.00	56.04	N
ATOM	1472	N9	G A 75	109.991	29.790	29.630	1.00	62.94	N	ATOM	1522	C2	G A 77	98.876	28.922	30.001	1.00	56.04	C
ATOM	1473	C8	G A 75	110.020	28.985	28.518	1.00	62.94	C	ATOM	1523	N2	G A 77	97.732	29.405	29.509	1.00	56.04	N
ATOM	1474	N7	G A 75	109.003	29.179	27.722	1.00	62.94	N	ATOM	1524	N3	G A 77	99.283	29.299	31.199	1.00	56.04	N
ATOM	1475	C5	G A 75	108.272	30.188	28.336	1.00	62.94	C	ATOM	1525	C4	G A 77	100.454	28.728	31.538	1.00	56.04	C
ATOM	1476	C6	G A 75	107.058	30.813	27.950	1.00	62.94	C	ATOM	1526	P	G A 78	98.858	26.362	36.614	1.00	55.22	P
ATOM	1477	O6	G A 75	106.356	30.596	26.950	1.00	62.94	O	ATOM	1527	O1P	G A 78	98.130	26.206	37.903	1.00	55.20	O
ATOM	1478	N1	G A 75	106.676	31.783	28.867	1.00	62.94	N	ATOM	1528	O2P	G A 78	99.773	25.281	36.148	1.00	55.20	O
ATOM	1479	C2	G A 75	107.368	32.116	30.002	1.00	62.94	C	ATOM	1529	O5*	G A 78	97.802	26.644	35.455	1.00	55.22	O
ATOM	1480	N2	G A 75	106.845	33.091	30.759	1.00	62.94	N	ATOM	1530	C5*	G A 78	96.732	27.576	35.663	1.00	55.22	C
ATOM	1481	N3	G A 75	108.491	31.541	30.371	1.00	62.94	N	ATOM	1531	C4*	G A 78	95.766	27.542	34.508	1.00	55.22	C
ATOM	1482	C4	G A 75	108.882	30.591	29.500	1.00	62.94	C	ATOM	1532	O4*	G A 78	96.433	27.963	33.294	1.00	55.22	O
ATOM	1483	P	C A 76	109.626	26.315	33.664	1.00	78.53	P	ATOM	1533	C3*	G A 78	95.173	26.191	34.164	1.00	55.22	C
ATOM	1484	O1P	C A 76	109.920	25.755	35.003	1.00	63.20	O	ATOM	1534	O3*	G A 78	94.067	25.875	34.994	1.00	55.22	O
ATOM	1485	O2P	C A 76	109.128	25.409	32.591	1.00	63.20	O	ATOM	1535	C2*	G A 78	94.762	26.372	32.710	1.00	55.22	C
ATOM	1486	O5*	C A 76	108.570	27.486	33.886	1.00	78.53	O	ATOM	1536	O2*	G A 78	93.493	26.979	32.592	1.00	55.22	O
ATOM	1487	C5*	C A 76	108.671	28.351	35.035	1.00	78.53	C	ATOM	1537	C1*	G A 78	95.860	27.301	32.182	1.00	55.22	C
ATOM	1488	O4*	C A 76	107.464	29.255	35.128	1.00	78.53	C	ATOM	1538	N9	G A 78	96.909	26.567	31.478	1.00	55.20	N
ATOM	1489	C4*	C A 76	107.458	30.188	34.013	1.00	78.53	C	ATOM	1539	C8	G A 78	98.135	26.181	31.972	1.00	55.20	C
ATOM	1490	C3*	C A 76	106.112	28.570	35.039	1.00	78.53	C	ATOM	1540	N7	G A 78	98.821	25.489	31.129	1.00	55.20	N
ATOM	1491	O3*	C A 76	105.671	27.995	36.249	1.00	78.53	O	ATOM	1541	C5	G A 78	98.011	25.380	30.004	1.00	55.20	C
ATOM	1492	C2*	C A 76	105.205	29.696	34.578	1.00	78.53	C	ATOM	1542	C6	G A 78	98.214	24.710	28.775	1.00	55.20	C
ATOM	1493	O2*	C A 76	104.802	30.536	35.637	1.00	78.53	O	ATOM	1543	O6	G A 78	99.173	24.020	28.430	1.00	55.20	O
ATOM	1494	C1*	C A 76	106.120	30.448	33.613	1.00	78.53	C	ATOM	1544	N1	G A 78	97.145	24.894	27.905	1.00	55.20	N
ATOM	1495	N1	C A 76	105.911	29.916	32.251	1.00	63.20	N	ATOM	1545	C2	G A 78	96.019	25.618	28.188	1.00	55.20	C
ATOM	1496	C2	C A 76	104.785	30.340	31.534	1.00	63.20	C	ATOM	1546	N2	G A 78	95.094	25.670	27.225	1.00	55.20	N
ATOM	1497	O2	C A 76	104.089	31.256	32.001	1.00	63.20	O	ATOM	1547	N3	G A 78	95.812	26.243	29.335	1.00	55.20	N
ATOM	1498	N3	C A 76	104.490	29.749	30.353	1.00	63.20	N	ATOM	1548	C4	G A 78	96.841	26.080	30.192	1.00	55.20	C
ATOM	1499	C4	C A 76	105.283	28.790	29.873	1.00	63.20	C	ATOM	1549	P	G A 79	93.386	24.424	34.886	1.00	56.82	P
ATOM	1500	N4	C A 76	104.915	28.175	28.744	1.00	63.20	N	ATOM	1550	O1P	G A 79	92.282	24.328	35.878	1.00	53.33	O
ATOM	1501	C5	C A 76	106.483	28.400	30.539	1.00	63.20	C	ATOM	1551	O2P	G A 79	94.477	23.414	34.895	1.00	53.33	O
ATOM	1502	C6	C A 76	106.758	28.985	31.713	1.00	63.20	C	ATOM	1552	O5*	G A 79	92.731	24.426	33.436	1.00	56.82	O
ATOM	1503	P	G A 77	104.584	26.813	36.191	1.00	62.00	P	ATOM	1553	C5*	G A 79	92.480	23.200	32.742	1.00	56.82	C
ATOM	1504	O1P	G A 77	104.431	26.220	37.548	1.00	56.04	O	ATOM	1554	C4*	G A 79	92.148	23.479	31.301	1.00	56.82	C
ATOM	1505	O2P	G A 77	104.923	25.928	35.049	1.00	56.04	O	ATOM	1555	O4*	G A 79	93.292	24.051	30.613	1.00	56.82	O
ATOM	1506	O5*	G A 77	103.241	27.575	33.810	1.00	62.00	O	ATOM	1556	C3*	G A 79	91.823	22.238	30.505	1.00	56.82	C
ATOM	1507	C5*	G A 77	102.767	28.665	36.607	1.00	62.00	C	ATOM	1557	O3*	G A 79	90.479	21.871	30.695	1.00	56.82	O
ATOM	1508	C4*	G A 77	101.488	29.206	36.029	1.00	62.00	C	ATOM	1558	C2*	G A 79	92.137	22.653	29.077	1.00	56.82	C
ATOM	1509	O4*	G A 77	101.758	29.871	34.768	1.00	62.00	O	ATOM	1559	O2*	G A 79	91.094	23.402	28.476	1.00	56.82	O
ATOM	1510	C3*	G A 77	100.452	28.163	35.667	1.00	62.00	C	ATOM	1560	C1*	G A 79	93.363	23.541	29.290	1.00	56.82	C
ATOM	1511	O2*	G A 77	99.678	27.732	36.749	1.00	62.00	O	ATOM	1561	N9	G A 79	94.629	22.819	29.141	1.00	53.33	N
ATOM	1512	C3*	G A 77	99.603	28.886	34.640	1.00	62.00	C	ATOM	1562	C8	G A 79	95.657	22.763	30.051	1.00	53.33	C
ATOM	1513	O2*	G A 77	98.678	29.761	35.254	1.00	62.00	O	ATOM	1563	N7	G A 79	96.676	22.059	29.633	1.00	53.33	N
ATOM	1514	C1*	G A 77	100.665	29.674	33.878	1.00	62.00	C	ATOM	1564	C5	G A 79	96.299	21.617	28.375	1.00	53.33	C
ATOM	1515	N9	G A 77	101.122	28.895	32.728	1.00	56.04	N	ATOM	1565	C6	G A 79	96.993	20.820	27.449	1.00	53.33	C



Table 2: Sheet 19/520

ATOM	1766	C2*	C A	92	95.865	30.094	24.348	1.00	56.46	C	ATOM	1816	C4	U A	95	103.519	32.270	25.726	1.00	65.27	C
ATOM	1767	O2*	C A	92	94.768	30.891	24.750	1.00	56.46	O	ATOM	1817	O4	U A	95	103.864	31.405	24.919	1.00	65.27	O
ATOM	1768	C1*	C A	92	95.617	28.636	24.726	1.00	56.46	C	ATOM	1818	C5	U A	95	102.405	33.162	25.580	1.00	65.27	C
ATOM	1769	N1	C A	92	96.881	27.953	25.046	1.00	47.54	N	ATOM	1819	C6	U A	95	102.072	33.979	26.585	1.00	65.27	C
ATOM	1770	C2	C A	92	97.532	28.282	26.236	1.00	47.54	C	ATOM	1820	P	G A	96	104.071	39.060	27.508	1.00	68.91	P
ATOM	1771	O2	C A	92	97.025	29.139	26.972	1.00	47.54	O	ATOM	1821	O1P	G A	96	104.045	40.529	27.713	1.00	74.92	O
ATOM	1772	N3	C A	92	98.696	27.667	26.550	1.00	47.54	N	ATOM	1822	O2P	G A	96	104.076	38.509	26.129	1.00	74.92	O
ATOM	1773	C4	C A	92	99.207	26.758	25.724	1.00	47.54	C	ATOM	1823	O5*	G A	96	105.322	38.467	28.292	1.00	68.91	O
ATOM	1774	N4	C A	92	100.349	26.176	26.069	1.00	47.54	N	ATOM	1824	C5*	G A	96	105.594	38.897	29.625	1.00	68.91	C
ATOM	1775	C5	C A	92	98.568	26.404	24.504	1.00	47.54	C	ATOM	1825	C4*	G A	96	106.951	38.428	30.062	1.00	68.91	C
ATOM	1776	C6	C A	92	97.418	27.020	24.204	1.00	47.54	C	ATOM	1826	O4*	G A	96	106.950	36.988	30.211	1.00	68.91	O
ATOM	1777	P	G A	93	96.800	32.363	22.175	1.00	59.80	P	ATOM	1827	C3*	G A	96	108.097	38.702	29.110	1.00	68.91	C
ATOM	1778	O1P	G A	93	96.196	33.543	21.519	1.00	54.58	O	ATOM	1828	O3*	G A	96	108.594	40.019	29.233	1.00	68.91	O
ATOM	1779	O2P	G A	93	98.061	31.786	21.639	1.00	54.58	O	ATOM	1829	C2*	G A	96	109.124	37.666	29.535	1.00	68.91	C
ATOM	1780	O5*	G A	93	97.060	32.728	23.698	1.00	59.80	O	ATOM	1830	O2*	G A	96	109.853	38.065	30.677	1.00	68.91	O
ATOM	1781	C5*	G A	93	96.103	33.472	24.437	1.00	59.80	C	ATOM	1831	C1*	G A	96	108.233	36.481	29.897	1.00	68.91	C
ATOM	1782	C4*	G A	93	96.623	33.731	25.816	1.00	59.80	C	ATOM	1832	N9	G A	96	108.122	35.550	28.778	1.00	74.92	N
ATOM	1783	O4*	G A	93	96.915	32.464	26.451	1.00	59.80	O	ATOM	1833	C8	G A	96	107.122	35.457	27.836	1.00	74.92	C
ATOM	1784	C3*	G A	93	97.939	34.475	25.881	1.00	59.80	C	ATOM	1834	N7	G A	96	107.346	34.531	26.943	1.00	74.92	N
ATOM	1785	O3*	G A	93	97.769	35.870	25.776	1.00	59.80	O	ATOM	1835	C5	G A	96	108.561	33.978	27.325	1.00	74.92	C
ATOM	1786	O2*	G A	93	98.501	34.057	27.233	1.00	59.80	O	ATOM	1836	C6	G A	96	109.322	32.927	26.744	1.00	74.92	C
ATOM	1787	C2*	G A	93	97.997	34.797	28.327	1.00	59.80	C	ATOM	1837	O6	G A	96	109.065	32.250	25.736	1.00	74.92	O
ATOM	1788	C1*	G A	93	98.011	32.617	27.332	1.00	59.80	C	ATOM	1838	N1	G A	96	110.492	32.691	27.463	1.00	74.92	N
ATOM	1789	N9	G A	93	99.056	31.680	26.953	1.00	54.58	N	ATOM	1839	C2	G A	96	110.880	33.376	28.593	1.00	74.92	C
ATOM	1790	C8	G A	93	99.168	30.963	25.788	1.00	54.58	C	ATOM	1840	N2	G A	96	112.041	33.012	29.157	1.00	74.92	N
ATOM	1791	N7	G A	93	100.228	30.203	25.758	1.00	54.58	N	ATOM	1841	N3	G A	96	110.181	34.349	29.137	1.00	74.92	N
ATOM	1792	C5	G A	93	100.853	30.443	26.974	1.00	54.58	C	ATOM	1842	C4	G A	96	109.044	34.595	28.458	1.00	74.92	C
ATOM	1793	C6	G A	93	102.052	29.916	27.515	1.00	54.58	C	ATOM	1843	P	G A	97	109.335	40.702	27.981	1.00	80.38	P
ATOM	1794	O6	G A	93	102.846	29.107	27.001	1.00	54.58	O	ATOM	1844	O1P	G A	97	109.685	42.078	28.427	1.00	70.46	O
ATOM	1795	N1	G A	93	102.303	30.427	28.785	1.00	54.58	N	ATOM	1845	O2P	G A	97	108.501	40.507	26.758	1.00	70.46	O
ATOM	1796	C2	G A	93	101.513	31.330	29.437	1.00	54.58	C	ATOM	1846	O5*	G A	97	110.678	39.858	27.827	1.00	80.38	O
ATOM	1797	N2	G A	93	101.915	31.699	30.642	1.00	54.58	N	ATOM	1847	C5*	G A	97	111.629	39.830	28.896	1.00	80.38	C
ATOM	1798	N3	G A	93	100.408	31.835	28.944	1.00	54.58	N	ATOM	1848	C4*	G A	97	112.695	38.798	28.639	1.00	80.38	C
ATOM	1799	C4	G A	93	100.138	31.350	27.720	1.00	54.58	C	ATOM	1849	O4*	G A	97	112.120	37.465	28.613	1.00	80.38	O
ATOM	1800	P	U A	95	98.954	36.753	25.161	1.00	60.43	P	ATOM	1850	C3*	G A	97	113.445	38.888	27.325	1.00	80.38	C
ATOM	1801	O1P	U A	95	98.438	38.141	25.129	1.00	65.27	O	ATOM	1851	O3*	G A	97	114.449	39.884	27.319	1.00	80.38	O
ATOM	1802	O2P	U A	95	99.443	36.118	23.905	1.00	65.27	O	ATOM	1852	C2*	G A	97	114.025	37.488	27.184	1.00	80.38	C
ATOM	1803	O5*	U A	95	100.105	36.671	26.263	1.00	60.43	O	ATOM	1853	O2*	G A	97	115.220	37.295	27.916	1.00	80.38	O
ATOM	1804	C5*	U A	95	99.891	37.193	27.590	1.00	60.43	C	ATOM	1854	C1*	G A	97	112.901	36.632	27.769	1.00	80.38	C
ATOM	1805	C4*	U A	95	101.022	36.792	28.517	1.00	60.43	C	ATOM	1855	N9	G A	97	112.066	36.113	26.689	1.00	70.46	N
ATOM	1806	O4*	U A	95	101.052	35.349	28.687	1.00	60.43	O	ATOM	1856	C8	G A	97	110.836	36.563	26.270	1.00	70.46	C
ATOM	1807	C3*	U A	95	102.431	37.124	28.062	1.00	60.43	C	ATOM	1857	N7	G A	97	110.387	35.918	25.226	1.00	70.46	N
ATOM	1808	O3*	U A	95	102.808	38.462	28.295	1.00	60.43	O	ATOM	1858	C5	G A	97	111.373	34.981	24.950	1.00	70.46	C
ATOM	1809	C2*	U A	95	103.283	36.147	28.861	1.00	60.43	C	ATOM	1859	C6	G A	97	111.455	34.006	23.927	1.00	70.46	C
ATOM	1810	O2*	U A	95	103.532	36.562	30.186	1.00	60.43	O	ATOM	1860	O6	G A	97	110.651	33.770	23.019	1.00	70.46	O
ATOM	1811	C1*	U A	95	102.391	34.915	28.873	1.00	60.43	C	ATOM	1861	N1	G A	97	112.626	33.268	24.022	1.00	70.46	N
ATOM	1812	N1	U A	95	102.764	34.012	27.777	1.00	65.27	N	ATOM	1862	C2	G A	97	113.600	33.452	24.972	1.00	70.46	C
ATOM	1813	C2	U A	95	103.857	33.190	27.988	1.00	65.27	C	ATOM	1863	N2	G A	97	114.675	32.654	24.897	1.00	70.46	N
ATOM	1814	O2	U A	95	104.499	33.203	29.026	1.00	65.27	O	ATOM	1864	N3	G A	97	113.534	34.356	25.925	1.00	70.46	N
ATOM	1815	N3	U A	95	104.172	32.360	26.939	1.00	65.27	N	ATOM	1865	C4	G A	97	112.405	35.079	25.854	1.00	70.46	C



Table 2: Sheet 18/520

ATOM	1666	C1*	U A	84	100.900	7.644	29.520	1.00	87.95	C	ATOM	1716	C6	C A	89	101.226	13.656	24.288	1.00	74.36	C
ATOM	1667	N1	U A	84	99.638	8.292	29.133	1.00	57.11	N	ATOM	1717	P	U A	90	102.677	16.396	19.685	1.00	72.89	P
ATOM	1668	C2	U A	84	99.070	7.919	27.927	1.00	57.11	C	ATOM	1718	O1P	U A	90	103.233	16.683	18.335	1.00	61.75	O
ATOM	1669	O2	U A	84	99.577	7.109	27.180	1.00	57.11	O	ATOM	1719	O2P	U A	90	103.564	16.495	20.878	1.00	61.75	O
ATOM	1670	N3	U A	84	97.890	8.539	27.625	1.00	57.11	N	ATOM	1720	O5*	U A	90	101.406	17.329	19.936	1.00	72.89	O
ATOM	1671	C4	U A	84	97.230	9.483	28.380	1.00	57.11	C	ATOM	1721	C5*	U A	90	100.250	17.252	19.073	1.00	72.89	C
ATOM	1672	O4	U A	84	96.152	9.934	27.974	1.00	57.11	O	ATOM	1722	C4*	U A	90	99.054	17.931	19.709	1.00	72.89	C
ATOM	1673	C5	U A	84	97.882	9.831	29.609	1.00	57.11	C	ATOM	1723	O4*	U A	90	98.692	17.253	20.939	1.00	72.89	O
ATOM	1674	C6	U A	84	99.034	9.236	29.935	1.00	57.11	C	ATOM	1724	C3*	U A	90	99.209	19.396	20.090	1.00	72.89	C
ATOM	1675	P	A A	88	104.212	11.119	28.799	1.00	82.12	P	ATOM	1725	O3*	U A	90	98.923	20.205	18.956	1.00	72.89	O
ATOM	1676	O1P	A A	88	105.658	11.418	29.003	1.00	66.85	O	ATOM	1726	C2*	U A	90	98.157	19.565	21.180	1.00	72.89	C
ATOM	1677	O2P	A A	88	103.179	12.100	29.265	1.00	66.85	O	ATOM	1727	O2*	U A	90	96.870	19.789	20.648	1.00	72.89	O
ATOM	1678	O5*	A A	88	103.956	10.859	27.247	1.00	82.12	O	ATOM	1728	C1*	U A	90	98.171	18.191	21.860	1.00	72.89	C
ATOM	1679	C5*	A A	88	104.721	9.879	26.531	1.00	82.12	C	ATOM	1729	N1	U A	90	98.982	18.147	23.087	1.00	61.75	N
ATOM	1680	C4*	A A	88	103.998	9.471	25.274	1.00	82.12	C	ATOM	1730	C2	U A	90	98.416	18.636	24.252	1.00	61.75	C
ATOM	1681	O4*	A A	88	102.713	8.908	25.632	1.00	82.12	O	ATOM	1731	O2	U A	90	97.286	19.074	24.309	1.00	61.75	O
ATOM	1682	C3*	A A	88	103.660	10.600	24.319	1.00	82.12	C	ATOM	1732	N3	U A	90	99.227	18.588	25.353	1.00	61.75	N
ATOM	1683	O3*	A A	88	104.752	10.938	23.481	1.00	82.12	O	ATOM	1733	C4	U A	90	100.518	18.108	25.414	1.00	61.75	C
ATOM	1684	O2*	A A	88	102.459	10.046	23.563	1.00	82.12	O	ATOM	1734	O4	U A	90	101.125	18.140	26.487	1.00	61.75	O
ATOM	1685	O2*	A A	88	102.797	9.159	22.514	1.00	82.12	C	ATOM	1735	C5	U A	90	101.029	17.612	24.175	1.00	61.75	C
ATOM	1686	C1*	A A	88	101.744	9.269	24.665	1.00	82.12	C	ATOM	1736	C6	U A	90	100.264	17.647	23.083	1.00	61.75	C
ATOM	1687	N9	A A	88	100.723	10.083	25.322	1.00	66.85	N	ATOM	1737	P	C A	91	99.175	21.796	19.002	1.00	62.34	P
ATOM	1688	C8	A A	88	100.788	10.721	26.539	1.00	66.85	C	ATOM	1738	O1P	C A	91	98.973	22.265	17.599	1.00	45.43	O
ATOM	1689	N7	A A	88	99.700	11.383	26.848	1.00	66.85	N	ATOM	1739	O2P	C A	91	100.454	22.105	19.703	1.00	45.43	O
ATOM	1690	C5	A A	88	98.862	11.169	25.763	1.00	66.85	C	ATOM	1740	O5*	C A	91	97.961	22.359	19.871	1.00	62.34	O
ATOM	1691	C6	A A	88	97.559	11.607	25.475	1.00	66.85	C	ATOM	1741	C5*	C A	91	96.641	22.465	19.299	1.00	62.34	C
ATOM	1692	N6	A A	88	96.853	12.404	26.276	1.00	66.85	N	ATOM	1742	C4*	C A	91	95.734	23.264	20.198	1.00	62.34	C
ATOM	1693	N1	A A	88	97.003	11.200	24.313	1.00	66.85	N	ATOM	1743	O4*	C A	91	95.501	22.535	21.427	1.00	62.34	O
ATOM	1694	C2	A A	88	97.729	10.425	23.490	1.00	66.85	C	ATOM	1744	C3*	C A	91	96.259	24.612	20.651	1.00	62.34	C
ATOM	1695	N3	A A	88	98.967	9.962	23.643	1.00	66.85	N	ATOM	1745	O3*	C A	91	96.015	25.629	19.703	1.00	62.34	O
ATOM	1696	C4	A A	88	99.480	10.370	24.816	1.00	66.85	C	ATOM	1746	C2*	C A	91	95.473	24.852	21.929	1.00	62.34	C
ATOM	1697	P	C A	89	105.122	12.487	23.259	1.00	78.81	P	ATOM	1747	O2*	C A	91	94.163	25.303	21.667	1.00	62.34	O
ATOM	1698	O1P	C A	89	106.307	12.545	22.370	1.00	74.36	O	ATOM	1748	C1*	C A	91	95.400	23.444	22.509	1.00	62.34	C
ATOM	1699	O2P	C A	89	105.167	13.159	24.587	1.00	74.36	O	ATOM	1749	N1	C A	91	96.529	23.206	23.411	1.00	45.43	N
ATOM	1700	O5*	C A	89	103.872	13.062	22.455	1.00	78.81	O	ATOM	1750	C2	C A	91	96.461	23.665	24.730	1.00	45.43	C
ATOM	1701	C5*	C A	89	103.440	12.444	21.228	1.00	78.81	C	ATOM	1751	O2	C A	91	95.430	24.223	25.123	1.00	45.43	O
ATOM	1702	C4*	C A	89	102.006	12.811	20.918	1.00	78.81	C	ATOM	1752	N3	C A	91	97.521	23.489	25.545	1.00	45.43	N
ATOM	1703	O4*	C A	89	101.131	12.314	21.967	1.00	78.81	O	ATOM	1753	C4	C A	91	98.613	22.877	25.087	1.00	45.43	C
ATOM	1704	C3*	C A	89	101.696	14.295	20.868	1.00	78.81	C	ATOM	1754	N4	C A	91	99.654	22.744	25.910	1.00	45.43	N
ATOM	1705	O3*	C A	89	102.065	14.910	19.652	1.00	78.81	O	ATOM	1755	C5	C A	91	98.694	22.377	23.759	1.00	45.43	C
ATOM	1706	C2*	C A	89	100.198	14.328	21.126	1.00	78.81	C	ATOM	1756	C6	C A	91	97.642	22.563	22.964	1.00	45.43	C
ATOM	1707	O2*	C A	89	99.416	14.028	19.986	1.00	78.81	O	ATOM	1757	P	C A	92	96.881	26.979	19.757	1.00	56.46	P
ATOM	1708	C1*	C A	89	100.048	13.212	22.154	1.00	78.81	C	ATOM	1758	O1P	C A	92	96.474	27.828	18.599	1.00	47.54	O
ATOM	1709	N1	C A	89	100.097	13.753	23.526	1.00	74.36	N	ATOM	1759	O2P	C A	92	98.300	26.578	19.922	1.00	47.54	O
ATOM	1710	C2	C A	89	98.951	14.387	24.040	1.00	74.36	C	ATOM	1760	O5*	C A	92	96.419	27.701	21.099	1.00	56.46	O
ATOM	1711	O2	C A	89	97.936	14.470	23.323	1.00	74.36	O	ATOM	1761	C5*	C A	92	95.093	28.223	21.211	1.00	56.46	C
ATOM	1712	N3	C A	89	98.979	14.892	25.295	1.00	74.36	N	ATOM	1762	C4*	C A	92	94.922	28.940	22.516	1.00	56.46	C
ATOM	1713	C4	C A	89	100.088	14.790	26.028	1.00	74.36	C	ATOM	1763	O4*	C A	92	95.024	27.997	23.608	1.00	56.46	O
ATOM	1714	N4	C A	89	100.073	15.301	27.262	1.00	74.36	N	ATOM	1764	C3*	C A	92	95.959	29.998	22.837	1.00	56.46	C
ATOM	1715	C5	C A	89	101.266	14.157	25.530	1.00	74.36	C	ATOM	1765	O3*	C A	92	95.665	31.237	22.238	1.00	56.46	O



Table 2: Sheet 21/520

ATOM	1966	N3	C A 103	109.586	40.529	8.142	1.00	39.81	N	ATOM	2016	C4	G A 105	110.418	48.845	7.014	1.00	42.04	C
ATOM	1967	N4	C A 103	110.791	40.766	8.658	1.00	39.81	C	ATOM	2017	P	C A 106	109.179	51.081	1.169	1.00	55.66	P
ATOM	1968	N4	C A 103	110.888	41.685	9.623	1.00	39.81	N	ATOM	2018	O1P	C A 106	108.309	51.667	0.111	1.00	48.88	O
ATOM	1969	C5	C A 103	111.956	40.075	8.208	1.00	39.81	C	ATOM	2019	O2P	C A 106	110.290	50.174	0.778	1.00	48.88	O
ATOM	1970	C6	C A 103	111.801	39.171	7.243	1.00	39.81	C	ATOM	2020	O5*	C A 106	109.823	52.230	2.062	1.00	55.66	O
ATOM	1971	P	G A 104	111.689	40.216	1.644	1.00	53.37	P	ATOM	2021	C5*	C A 106	109.043	53.358	2.451	1.00	55.66	C
ATOM	1972	O1P	G A 104	111.320	40.086	0.209	1.00	36.35	O	ATOM	2022	C4*	C A 106	109.638	54.026	3.662	1.00	55.66	C
ATOM	1973	O2P	G A 104	113.088	40.588	2.021	1.00	36.35	O	ATOM	2023	O4*	C A 106	109.657	53.113	4.794	1.00	55.66	O
ATOM	1974	O5*	G A 104	110.608	41.163	2.349	1.00	53.37	O	ATOM	2024	C3*	C A 106	111.080	54.469	3.572	1.00	55.66	C
ATOM	1975	C5*	G A 104	109.218	41.086	1.960	1.00	53.37	C	ATOM	2025	O3*	C A 106	111.285	55.629	2.809	1.00	55.66	O
ATOM	1976	C4*	G A 104	108.364	42.052	2.760	1.00	53.37	C	ATOM	2026	C2*	C A 106	111.446	54.638	5.038	1.00	55.66	C
ATOM	1977	O4*	G A 104	108.469	41.757	4.172	1.00	53.37	O	ATOM	2027	O2*	C A 106	110.929	55.825	5.606	1.00	55.66	O
ATOM	1978	C3*	G A 104	108.697	43.529	2.678	1.00	53.37	C	ATOM	2028	C1*	C A 106	110.749	53.430	5.648	1.00	55.66	C
ATOM	1979	O3*	G A 104	108.177	44.149	1.520	1.00	53.37	O	ATOM	2029	N1	C A 106	111.705	52.313	5.638	1.00	48.88	N
ATOM	1980	C2*	G A 104	108.069	44.083	3.947	1.00	53.37	C	ATOM	2030	C2	C A 106	112.666	52.253	6.649	1.00	48.88	C
ATOM	1981	O2*	G A 104	106.680	44.289	3.849	1.00	53.37	O	ATOM	2031	O2	C A 106	112.633	53.091	7.553	1.00	48.88	O
ATOM	1982	C1*	G A 104	108.316	42.947	4.924	1.00	53.37	C	ATOM	2032	N3	C A 106	113.609	51.289	6.608	1.00	48.88	N
ATOM	1983	N9	G A 104	109.540	43.173	5.678	1.00	36.35	N	ATOM	2033	C4	C A 106	113.617	50.409	5.605	1.00	48.88	C
ATOM	1984	C8	G A 104	110.726	42.491	5.553	1.00	36.35	C	ATOM	2034	N4	C A 106	114.595	49.512	5.573	1.00	48.88	N
ATOM	1985	N7	G A 104	111.638	42.895	6.392	1.00	36.35	N	ATOM	2035	C5	C A 106	112.626	50.420	4.583	1.00	48.88	C
ATOM	1986	C5	G A 104	111.020	43.909	7.106	1.00	36.35	C	ATOM	2036	C6	C A 106	111.693	51.377	4.642	1.00	48.88	C
ATOM	1987	C6	G A 104	111.514	44.711	8.152	1.00	36.35	C	ATOM	2037	P	G A 107	112.642	55.758	1.970	1.00	42.92	P
ATOM	1988	O6	G A 104	112.638	44.688	8.669	1.00	36.35	O	ATOM	2038	O1P	G A 107	112.495	57.000	1.179	1.00	44.12	O
ATOM	1989	N1	G A 104	110.562	45.618	8.599	1.00	36.35	N	ATOM	2039	O2P	G A 107	112.910	54.471	1.281	1.00	44.12	O
ATOM	1990	C2	G A 104	109.303	45.745	8.089	1.00	36.35	C	ATOM	2040	O5*	G A 107	113.748	55.956	3.094	1.00	42.92	O
ATOM	1991	N2	G A 104	108.552	46.698	8.648	1.00	36.35	N	ATOM	2041	C5*	G A 107	113.708	57.110	3.926	1.00	42.92	C
ATOM	1992	N3	G A 104	108.820	44.999	7.104	1.00	36.35	N	ATOM	2042	C4*	G A 107	114.773	57.039	4.981	1.00	42.92	C
ATOM	1993	C4	G A 104	109.730	44.103	6.669	1.00	36.35	C	ATOM	2043	O4*	G A 107	114.500	55.919	5.857	1.00	42.92	O
ATOM	1994	P	G A 105	109.062	45.258	0.767	1.00	59.44	P	ATOM	2044	C3*	G A 107	116.204	56.790	4.524	1.00	42.92	C
ATOM	1995	O1P	G A 105	108.333	45.558	-0.489	1.00	42.04	O	ATOM	2045	O3*	G A 107	116.857	57.916	3.974	1.00	42.92	O
ATOM	1996	O2P	G A 105	110.469	44.769	0.700	1.00	42.04	O	ATOM	2046	C2*	G A 107	117.125	57.236	5.799	1.00	42.92	C
ATOM	1997	O5*	G A 105	108.996	46.521	1.740	1.00	59.44	O	ATOM	2047	O2*	G A 107	117.843	56.258	6.778	1.00	42.92	O
ATOM	1998	C5*	G A 105	107.731	47.135	2.002	1.00	59.44	C	ATOM	2048	C1*	G A 107	115.726	55.364	6.315	1.00	42.92	C
ATOM	1999	C4*	G A 105	107.806	48.126	3.145	1.00	59.44	C	ATOM	2049	N9	G A 107	115.916	54.063	5.686	1.00	44.12	N
ATOM	2000	O4*	G A 105	108.277	47.503	4.364	1.00	59.44	O	ATOM	2050	C8	G A 107	115.168	53.481	4.687	1.00	44.12	C
ATOM	2001	C3*	G A 105	108.712	49.336	3.052	1.00	59.44	C	ATOM	2051	N7	G A 107	115.634	52.321	4.317	1.00	44.12	N
ATOM	2002	O3*	G A 105	108.189	50.323	2.181	1.00	59.44	O	ATOM	2052	C5	G A 107	116.751	52.123	5.124	1.00	44.12	C
ATOM	2003	C2*	G A 105	108.700	49.825	4.498	1.00	59.44	C	ATOM	2053	C6	G A 107	117.666	51.043	5.183	1.00	44.12	C
ATOM	2004	O2*	G A 105	107.518	50.525	4.824	1.00	59.44	O	ATOM	2054	O6	G A 107	117.676	50.012	4.507	1.00	44.12	O
ATOM	2005	C1*	G A 105	108.631	48.518	5.279	1.00	59.44	C	ATOM	2055	N1	G A 107	118.646	51.250	6.151	1.00	44.12	N
ATOM	2006	N9	G A 105	109.896	48.194	5.923	1.00	42.04	N	ATOM	2056	C2	G A 107	118.734	52.361	6.951	1.00	44.12	C
ATOM	2007	C8	G A 105	110.802	47.218	5.580	1.00	42.04	C	ATOM	2057	N2	G A 107	119.741	52.386	7.834	1.00	44.12	N
ATOM	2008	N7	G A 105	111.856	47.205	6.355	1.00	42.04	N	ATOM	2058	N3	G A 107	117.898	53.375	6.897	1.00	44.12	N
ATOM	2009	C5	G A 105	111.622	48.228	7.267	1.00	42.04	C	ATOM	2059	C4	G A 107	116.934	53.187	5.972	1.00	44.12	C
ATOM	2010	C6	G A 105	112.407	48.688	8.348	1.00	42.04	C	ATOM	2060	P	G A 108	117.642	57.753	2.584	1.00	47.99	P
ATOM	2011	O6	G A 105	113.498	48.264	8.739	1.00	42.04	O	ATOM	2061	O1P	G A 108	118.066	59.099	2.151	1.00	58.71	O
ATOM	2012	N1	G A 105	111.801	49.750	9.005	1.00	42.04	N	ATOM	2062	O2P	G A 108	116.808	56.928	1.685	1.00	47.99	O
ATOM	2013	C2	G A 105	110.589	50.296	8.675	1.00	42.04	C	ATOM	2063	O5*	G A 108	118.927	56.904	2.983	1.00	47.99	O
ATOM	2014	N2	G A 105	110.171	51.319	9.447	1.00	42.04	N	ATOM	2064	C5*	G A 108	119.535	57.088	4.266	1.00	47.99	C
ATOM	2015	N3	G A 105	109.842	49.874	7.670	1.00	42.04	N	ATOM	2065	C4*	G A 108	120.501	55.975	4.584	1.00	47.99	C



ATOM	1866	P	U A 98	114.781	40.647	25.945	1.00	82.30	P	ATOM	1916	O2*	A A 101	118.574	35.617	11.537	1.00	71.49	O
ATOM	1867	O1P	U A 98	115.813	41.687	26.235	1.00	61.35	O	ATOM	1917	C1*	A A 101	117.450	36.390	13.528	1.00	71.49	C
ATOM	1868	O2P	U A 98	113.496	41.042	25.292	1.00	61.35	O	ATOM	1918	N9	A A 101	116.112	36.773	13.979	1.00	49.95	N
ATOM	1869	O5*	U A 98	115.455	39.514	25.056	1.00	82.30	O	ATOM	1919	C8	A A 101	115.802	37.714	14.928	1.00	49.95	C
ATOM	1870	C5*	U A 98	116.669	38.894	25.481	1.00	82.30	C	ATOM	1920	N7	A A 101	114.515	37.865	15.125	1.00	49.95	N
ATOM	1871	C4*	U A 98	117.013	37.753	24.567	1.00	82.30	C	ATOM	1921	C5	A A 101	113.937	36.963	14.245	1.00	49.95	C
ATOM	1872	O4*	U A 98	115.985	36.736	24.656	1.00	82.30	O	ATOM	1922	C6	A A 101	112.600	36.652	13.961	1.00	49.95	C
ATOM	1873	C3*	U A 98	117.074	38.072	23.086	1.00	82.30	C	ATOM	1923	N6	A A 101	111.559	37.245	14.552	1.00	49.95	N
ATOM	1874	O3*	U A 98	118.303	38.653	22.702	1.00	82.30	O	ATOM	1924	N1	A A 101	112.362	35.703	13.036	1.00	49.95	N
ATOM	1875	C2*	U A 98	116.877	36.703	22.462	1.00	82.30	C	ATOM	1925	C2	A A 101	113.403	35.112	12.444	1.00	49.95	C
ATOM	1876	O2*	U A 98	118.062	35.935	22.513	1.00	82.30	O	ATOM	1926	N3	A A 101	114.704	35.322	12.620	1.00	49.95	N
ATOM	1877	C1*	U A 98	115.851	36.086	23.405	1.00	82.30	C	ATOM	1927	C4	A A 101	114.907	36.274	13.543	1.00	49.95	C
ATOM	1878	N1	U A 98	114.480	36.284	22.911	1.00	61.35	N	ATOM	1928	P	G A 102	118.603	39.058	9.653	1.00	63.07	P
ATOM	1879	C2	U A 98	114.004	35.394	21.950	1.00	61.35	C	ATOM	1929	O1P	G A 102	119.701	39.220	8.654	1.00	44.45	O
ATOM	1880	O2	U A 98	114.662	34.454	21.525	1.00	61.35	O	ATOM	1930	O2P	G A 102	117.940	40.250	10.227	1.00	44.45	O
ATOM	1881	N3	U A 98	112.727	35.646	21.508	1.00	61.35	N	ATOM	1931	O5*	G A 102	117.453	38.169	9.009	1.00	63.07	O
ATOM	1882	C4	U A 98	111.890	36.664	21.919	1.00	61.35	C	ATOM	1932	C5*	G A 102	117.729	36.842	8.554	1.00	63.07	C
ATOM	1883	O4	U A 98	110.750	36.738	21.452	1.00	61.35	O	ATOM	1933	O4*	G A 102	116.452	36.147	8.173	1.00	63.07	O
ATOM	1884	C5	U A 98	112.450	37.533	22.916	1.00	61.35	C	ATOM	1934	C4*	G A 102	115.656	35.859	9.354	1.00	63.07	C
ATOM	1885	C6	U A 98	113.692	37.317	23.366	1.00	61.35	C	ATOM	1935	C3*	G A 102	115.519	36.964	7.308	1.00	63.07	C
ATOM	1886	P	C A 99	118.349	39.625	21.420	1.00	75.27	P	ATOM	1936	O3*	G A 102	115.905	37.021	5.952	1.00	63.07	O
ATOM	1887	O1P	C A 99	119.668	40.309	21.483	1.00	58.76	O	ATOM	1937	C2*	G A 102	114.177	36.296	7.548	1.00	63.07	C
ATOM	1888	O2P	C A 99	117.098	40.434	21.356	1.00	58.76	O	ATOM	1938	O2*	G A 102	114.035	35.114	6.794	1.00	63.07	O
ATOM	1889	O5*	C A 99	118.364	38.629	20.180	1.00	75.27	O	ATOM	1939	C1*	G A 102	114.279	35.944	9.030	1.00	63.07	C
ATOM	1890	C5*	C A 99	119.424	37.674	20.043	1.00	75.27	C	ATOM	1940	N9	G A 102	113.655	36.960	9.875	1.00	44.45	N
ATOM	1891	C4*	C A 99	119.132	36.712	18.923	1.00	75.27	C	ATOM	1941	C8	G A 102	114.275	37.845	10.723	1.00	44.45	C
ATOM	1892	O4*	C A 99	117.991	35.880	19.250	1.00	75.27	O	ATOM	1942	N7	G A 102	113.434	38.625	11.352	1.00	44.45	N
ATOM	1893	C3*	C A 99	118.777	37.332	17.589	1.00	75.27	C	ATOM	1943	C5	G A 102	112.187	38.234	10.888	1.00	44.45	C
ATOM	1894	O3*	C A 99	119.945	37.740	16.894	1.00	75.27	O	ATOM	1944	C6	G A 102	110.894	38.711	11.213	1.00	44.45	C
ATOM	1895	C2*	C A 99	118.029	36.200	16.893	1.00	75.27	C	ATOM	1945	O6	G A 102	110.576	39.601	12.008	1.00	44.45	O
ATOM	1896	O2*	C A 99	118.880	35.250	16.284	1.00	75.27	O	ATOM	1946	N1	G A 102	109.909	38.037	10.507	1.00	44.45	N
ATOM	1897	C1*	C A 99	117.302	35.536	18.063	1.00	75.27	C	ATOM	1947	C2	G A 102	110.136	37.032	9.612	1.00	44.45	C
ATOM	1898	N1	C A 99	115.898	35.970	18.172	1.00	58.76	N	ATOM	1948	N2	G A 102	109.059	36.511	9.027	1.00	44.45	N
ATOM	1899	C2	C A 99	114.931	35.335	17.362	1.00	58.76	C	ATOM	1949	N3	G A 102	111.331	36.570	9.307	1.00	44.45	N
ATOM	1900	O2	C A 99	115.282	34.396	16.623	1.00	58.76	O	ATOM	1950	C4	G A 102	112.304	37.212	9.975	1.00	44.45	C
ATOM	1901	N3	C A 99	113.647	35.756	17.412	1.00	58.76	N	ATOM	1951	P	C A 103	115.692	38.396	5.153	1.00	53.00	P
ATOM	1902	C4	C A 99	113.303	36.749	18.234	1.00	58.76	C	ATOM	1952	O1P	C A 103	116.461	38.363	3.871	1.00	39.81	O
ATOM	1903	N4	C A 99	112.026	37.134	18.244	1.00	58.76	N	ATOM	1953	O2P	C A 103	115.955	39.486	6.158	1.00	39.81	O
ATOM	1904	C5	C A 99	114.256	37.393	19.084	1.00	58.76	C	ATOM	1954	O5*	C A 103	114.139	38.370	4.812	1.00	53.00	O
ATOM	1905	C6	C A 99	115.529	36.976	19.021	1.00	58.76	C	ATOM	1955	C5*	C A 103	113.578	37.255	4.130	1.00	53.00	C
ATOM	1906	P	A A 101	120.077	39.262	16.393	1.00	71.49	P	ATOM	1956	C4*	C A 103	112.081	37.342	4.136	1.00	53.00	C
ATOM	1907	O1P	A A 101	121.385	39.365	15.711	1.00	49.95	O	ATOM	1957	O4*	C A 103	111.581	37.187	5.483	1.00	53.00	O
ATOM	1908	O2P	A A 101	119.759	40.198	17.500	1.00	49.95	O	ATOM	1958	C3*	C A 103	111.495	38.662	3.693	1.00	53.00	C
ATOM	1909	O5*	A A 101	118.935	39.393	15.295	1.00	71.49	O	ATOM	1959	O3*	C A 103	111.426	38.783	2.302	1.00	53.00	O
ATOM	1910	C5*	A A 101	119.256	39.406	13.888	1.00	71.49	C	ATOM	1960	C2*	C A 103	110.110	38.637	4.305	1.00	53.00	C
ATOM	1911	C4*	A A 101	119.111	38.025	13.306	1.00	71.49	C	ATOM	1961	O2*	C A 103	109.210	37.883	3.525	1.00	53.00	O
ATOM	1912	O4*	A A 101	118.373	37.194	14.231	1.00	71.49	O	ATOM	1962	C1*	C A 103	110.386	37.936	5.631	1.00	53.00	C
ATOM	1913	C3*	A A 101	118.319	37.991	12.015	1.00	71.49	C	ATOM	1963	N1	C A 103	110.569	38.923	6.703	1.00	39.81	N
ATOM	1914	O3*	A A 101	119.153	38.195	10.888	1.00	71.49	O	ATOM	1964	C2	C A 103	109.447	39.617	7.157	1.00	39.81	C
ATOM	1915	C2*	A A 101	117.693	36.605	12.031	1.00	71.49	C	ATOM	1965	O2	C A 103	108.348	39.378	6.631	1.00	39.81	O



Table 2: Sheet 23/520

ATOM	2166	N1	G A 112	131.417	62.172	4.148	1.00 49.53	N	ATOM	2216	O2P	G A 115	140.402	70.379	2.651	1.00 35.88	O
ATOM	2167	C2	G A 112	131.968	62.036	5.401	1.00 49.53	C	ATOM	2217	O5*	G A 115	141.533	69.465	0.654	1.00 39.37	O
ATOM	2168	N2	G A 112	133.122	61.362	5.479	1.00 49.53	N	ATOM	2218	C5*	G A 115	142.287	68.469	-0.036	1.00 39.37	C
ATOM	2169	N3	G A 112	131.427	62.527	6.497	1.00 49.53	N	ATOM	2219	C4*	G A 115	141.930	68.464	-1.493	1.00 39.37	C
ATOM	2170	C4	G A 112	130.264	63.157	6.244	1.00 49.53	C	ATOM	2220	O4*	G A 115	140.507	68.261	-1.600	1.00 39.37	O
ATOM	2171	P	G A 113	132.316	68.039	9.320	1.00 41.13	P	ATOM	2221	C3*	G A 115	142.224	69.731	-2.263	1.00 39.37	C
ATOM	2172	O1P	G A 113	132.940	69.075	8.235	1.00 36.36	O	ATOM	2222	O3*	G A 115	143.514	69.950	-2.849	1.00 39.37	O
ATOM	2173	O2P	G A 113	131.379	68.453	7.250	1.00 36.36	O	ATOM	2223	C2*	G A 115	140.892	70.415	-2.562	1.00 39.37	C
ATOM	2174	O5*	G A 113	133.419	67.130	7.621	1.00 41.13	O	ATOM	2224	O2*	G A 115	140.781	70.853	-3.906	1.00 39.37	O
ATOM	2175	C5*	G A 113	134.277	66.274	8.387	1.00 41.13	C	ATOM	2225	C1*	G A 115	139.919	69.245	-2.428	1.00 39.37	C
ATOM	2176	C4*	G A 113	135.108	65.413	7.473	1.00 41.13	C	ATOM	2226	N9	G A 115	138.601	69.559	-1.871	1.00 35.88	N
ATOM	2177	O4*	G A 113	134.258	64.509	6.726	1.00 41.13	O	ATOM	2227	C8	G A 115	138.252	69.623	-0.541	1.00 35.88	C
ATOM	2178	C3*	G A 113	135.878	66.131	6.383	1.00 41.13	C	ATOM	2228	N7	G A 115	136.980	69.856	-0.357	1.00 35.88	N
ATOM	2179	O3*	G A 113	137.066	66.734	6.861	1.00 41.13	O	ATOM	2229	C5	G A 115	136.463	69.973	-1.637	1.00 35.88	C
ATOM	2180	C2*	G A 113	136.140	65.018	5.382	1.00 41.13	C	ATOM	2230	C6	G A 115	135.145	70.231	-2.067	1.00 35.88	C
ATOM	2181	O2*	G A 113	137.170	64.147	5.787	1.00 41.13	O	ATOM	2231	O6	G A 115	134.143	70.413	-1.383	1.00 35.88	O
ATOM	2182	C1*	G A 113	134.847	64.230	5.468	1.00 41.13	C	ATOM	2232	N1	G A 115	135.053	70.274	-3.449	1.00 35.88	N
ATOM	2183	N9	G A 113	133.927	64.602	4.403	1.00 36.36	N	ATOM	2233	C2	G A 115	136.108	70.099	-4.309	1.00 35.88	C
ATOM	2184	C8	G A 113	132.699	65.200	4.520	1.00 36.36	C	ATOM	2234	N2	G A 115	135.834	70.203	-5.613	1.00 35.88	N
ATOM	2185	N7	G A 113	132.097	65.359	3.372	1.00 36.36	N	ATOM	2235	N3	G A 115	137.346	69.850	-3.921	1.00 35.88	N
ATOM	2186	C5	G A 113	132.993	64.850	2.443	1.00 36.36	C	ATOM	2236	C4	G A 115	137.451	69.803	-2.582	1.00 35.88	C
ATOM	2187	C6	G A 113	132.897	64.756	1.027	1.00 36.36	C	ATOM	2237	P	A A 116	143.840	69.450	-4.337	1.00 44.36	P
ATOM	2188	O6	G A 113	131.974	65.106	0.293	1.00 36.36	O	ATOM	2238	O1P	A A 116	145.178	69.973	-4.627	1.00 42.19	O
ATOM	2189	N1	G A 113	134.035	64.183	0.477	1.00 36.36	N	ATOM	2239	O2P	A A 116	142.698	69.803	-5.247	1.00 42.19	O
ATOM	2190	C2	G A 113	135.126	63.756	1.194	1.00 36.36	C	ATOM	2240	O5*	A A 116	143.927	67.867	-4.212	1.00 44.36	O
ATOM	2191	N2	G A 113	136.125	63.224	0.480	1.00 36.36	N	ATOM	2241	C5*	A A 116	145.137	67.142	-4.528	1.00 44.36	C
ATOM	2192	N3	G A 113	135.228	63.842	2.512	1.00 36.36	N	ATOM	2242	C4*	A A 116	144.814	65.949	-5.402	1.00 44.36	C
ATOM	2193	C4	G A 113	134.131	64.392	3.065	1.00 36.36	C	ATOM	2243	O4*	A A 116	143.736	65.183	-4.791	1.00 44.36	O
ATOM	2194	P	U A 114	137.432	68.232	6.388	1.00 40.82	P	ATOM	2244	C3*	A A 116	144.289	66.319	-6.779	1.00 44.36	C
ATOM	2195	O1P	U A 114	138.210	68.880	7.484	1.00 40.34	O	ATOM	2245	O3*	A A 116	145.344	66.496	-7.707	1.00 44.36	O
ATOM	2196	O2P	U A 114	136.168	68.883	5.898	1.00 40.34	O	ATOM	2246	C2*	A A 116	143.401	65.139	-7.130	1.00 44.36	C
ATOM	2197	O5*	U A 114	138.362	68.002	5.122	1.00 40.82	O	ATOM	2247	O2*	A A 116	144.151	64.033	-7.577	1.00 44.36	O
ATOM	2198	C5*	U A 114	139.308	66.952	5.098	1.00 40.82	C	ATOM	2248	C1*	A A 116	142.777	64.826	-5.774	1.00 44.36	C
ATOM	2199	C4*	U A 114	139.521	66.507	3.689	1.00 40.82	C	ATOM	2249	N9	A A 116	141.588	65.656	-5.569	1.00 42.19	N
ATOM	2200	O4*	U A 114	138.309	65.891	3.212	1.00 40.82	O	ATOM	2250	C8	A A 116	141.457	66.777	-4.781	1.00 42.19	C
ATOM	2201	C3*	U A 114	139.789	67.604	2.678	1.00 40.82	C	ATOM	2251	N7	A A 116	140.272	67.330	-4.839	1.00 42.19	N
ATOM	2202	O3*	U A 114	141.145	67.997	2.654	1.00 40.82	O	ATOM	2252	C5	A A 116	139.572	66.513	-5.713	1.00 42.19	C
ATOM	2203	C2*	U A 114	139.375	66.950	1.376	1.00 40.82	C	ATOM	2253	C6	A A 116	138.264	66.561	-6.197	1.00 42.19	C
ATOM	2204	O2*	U A 114	140.387	66.068	0.944	1.00 40.82	O	ATOM	2254	N6	A A 116	137.376	67.494	-5.861	1.00 42.19	N
ATOM	2205	C1*	U A 114	138.175	66.121	1.823	1.00 40.82	C	ATOM	2255	N1	A A 116	137.886	65.604	-7.056	1.00 42.19	N
ATOM	2206	N1	U A 114	136.864	66.740	1.562	1.00 40.34	N	ATOM	2256	C2	A A 116	138.766	64.663	-7.396	1.00 42.19	C
ATOM	2207	C2	U A 114	136.390	66.702	0.269	1.00 40.34	C	ATOM	2257	N3	A A 116	140.019	64.507	-7.010	1.00 42.19	N
ATOM	2208	O2	U A 114	137.025	66.235	-0.660	1.00 40.34	O	ATOM	2258	C4	A A 116	140.367	65.477	-6.161	1.00 42.19	C
ATOM	2209	N3	U A 114	135.148	67.233	0.094	1.00 40.34	N	ATOM	2259	P	G A 117	145.257	67.686	-8.777	1.00 48.61	P
ATOM	2210	C4	U A 114	134.352	67.792	1.041	1.00 40.34	C	ATOM	2260	O1P	G A 117	146.573	67.812	-9.463	1.00 45.77	O
ATOM	2211	O4	U A 114	133.216	68.157	0.731	1.00 40.34	O	ATOM	2261	O2P	G A 117	144.712	68.850	-8.015	1.00 45.77	O
ATOM	2212	C5	U A 114	134.919	67.829	2.346	1.00 40.34	C	ATOM	2262	O5*	G A 117	144.150	67.186	-9.818	1.00 48.61	O
ATOM	2213	C6	U A 114	136.123	67.316	2.557	1.00 40.34	C	ATOM	2263	C5*	G A 117	144.226	65.884	-10.430	1.00 48.61	C
ATOM	2214	P	G A 115	141.520	69.504	2.245	1.00 39.37	P	ATOM	2264	C4*	G A 117	142.886	65.497	-11.011	1.00 48.61	C
ATOM	2215	O1P	G A 115	142.885	69.762	2.780	1.00 35.88	O	ATOM	2265	O4*	G A 117	141.949	65.381	-9.924	1.00 48.61	O



Table 2: Sheet 22/520

ATOM	2066	O4*	G A 108	119.881	54.650	4.501	1.00	47.99	O	ATOM	2116	C1*	C A 110	120.686	63.191	4.403	1.00	46.77	C
ATOM	2067	C3*	G A 108	121.681	55.743	3.673	1.00	47.99	C	ATOM	2117	N1	C A 110	121.566	62.079	4.843	1.00	44.59	N
ATOM	2068	O3*	G A 108	122.704	56.717	3.656	1.00	47.99	O	ATOM	2118	C2	C A 110	121.674	61.817	6.215	1.00	44.59	C
ATOM	2069	C2*	G A 108	122.204	54.428	4.240	1.00	47.99	C	ATOM	2119	O2	C A 110	121.053	62.532	7.012	1.00	44.59	O
ATOM	2070	O2*	G A 108	122.914	54.585	5.455	1.00	47.99	O	ATOM	2120	N3	C A 110	122.455	60.797	6.637	1.00	44.59	N
ATOM	2071	C1*	G A 108	120.911	53.668	4.516	1.00	47.99	C	ATOM	2121	C4	C A 110	123.118	60.054	5.750	1.00	44.59	C
ATOM	2072	N9	G A 108	120.755	52.676	3.447	1.00	58.71	N	ATOM	2122	N4	C A 110	123.866	59.057	6.217	1.00	44.59	N
ATOM	2073	C8	G A 108	121.635	51.632	3.196	1.00	58.71	C	ATOM	2123	C5	C A 110	123.041	60.303	4.347	1.00	44.59	C
ATOM	2074	N7	G A 108	121.364	50.975	2.105	1.00	58.71	N	ATOM	2124	C6	C A 110	122.260	61.314	3.941	1.00	44.59	C
ATOM	2075	C5	G A 108	120.224	51.594	1.622	1.00	58.71	C	ATOM	2125	P	G A 111	123.501	66.982	3.498	1.00	42.12	P
ATOM	2076	C6	G A 108	119.495	51.335	0.462	1.00	58.71	C	ATOM	2126	O1P	G A 111	123.271	68.454	3.406	1.00	62.99	O
ATOM	2077	O6	G A 108	119.743	50.520	-0.432	1.00	58.71	O	ATOM	2127	O2P	G A 111	124.557	66.339	2.661	1.00	62.99	O
ATOM	2078	N1	G A 108	118.380	52.158	0.369	1.00	58.71	N	ATOM	2128	O5*	G A 111	123.816	66.604	5.010	1.00	42.12	O
ATOM	2079	C2	G A 108	118.035	53.134	1.283	1.00	58.71	C	ATOM	2129	C5*	G A 111	123.091	67.214	6.077	1.00	42.12	C
ATOM	2080	N2	G A 108	116.903	53.817	1.022	1.00	58.71	N	ATOM	2130	C4*	G A 111	123.439	66.559	7.379	1.00	42.12	C
ATOM	2081	N3	G A 108	118.743	53.415	2.365	1.00	58.71	N	ATOM	2131	O4*	G A 111	123.043	65.172	7.315	1.00	42.12	O
ATOM	2082	C4	G A 108	119.811	52.616	2.471	1.00	58.71	C	ATOM	2132	C3*	G A 111	124.915	66.505	7.712	1.00	42.12	C
ATOM	2083	P	G A 109	123.734	56.726	2.418	1.00	48.52	P	ATOM	2133	O3*	G A 111	125.388	67.687	8.311	1.00	42.12	O
ATOM	2084	O1P	A A 109	124.013	55.313	2.038	1.00	46.33	O	ATOM	2134	C2*	G A 111	124.998	65.320	8.654	1.00	42.12	C
ATOM	2085	O2P	A A 109	124.857	57.631	2.720	1.00	46.33	O	ATOM	2135	O2*	G A 111	124.647	65.685	9.979	1.00	42.12	O
ATOM	2086	O5*	A A 109	122.892	57.333	1.220	1.00	48.52	O	ATOM	2136	C1*	G A 111	123.974	64.373	8.021	1.00	42.12	C
ATOM	2087	C5*	A A 109	122.279	58.615	1.335	1.00	48.52	C	ATOM	2137	N9	G A 111	124.617	63.498	7.047	1.00	62.99	N
ATOM	2088	C4*	A A 109	122.541	59.420	0.090	1.00	48.52	C	ATOM	2138	C8	G A 111	124.778	63.741	5.705	1.00	62.99	C
ATOM	2089	O4*	A A 109	122.202	58.626	-1.070	1.00	48.52	O	ATOM	2139	N7	G A 111	125.469	62.818	5.098	1.00	62.99	N
ATOM	2090	C3*	A A 109	121.758	60.721	-0.022	1.00	48.52	C	ATOM	2140	C5	G A 111	125.762	61.901	6.095	1.00	62.99	C
ATOM	2091	O3*	A A 109	122.569	61.663	-0.722	1.00	48.52	O	ATOM	2141	C6	G A 111	126.487	60.701	6.037	1.00	62.99	C
ATOM	2092	C2*	A A 109	120.591	60.329	-0.924	1.00	48.52	C	ATOM	2142	O6	G A 111	127.042	60.182	5.061	1.00	62.99	O
ATOM	2093	O2*	A A 109	120.093	61.428	-1.663	1.00	48.52	O	ATOM	2143	N1	G A 111	126.538	60.079	7.273	1.00	62.99	N
ATOM	2094	C1*	A A 109	121.259	59.316	-1.852	1.00	48.52	C	ATOM	2144	C2	G A 111	125.961	60.549	8.416	1.00	62.99	C
ATOM	2095	N9	A A 109	120.411	58.327	-2.510	1.00	46.33	N	ATOM	2145	N2	G A 111	126.124	59.794	9.507	1.00	62.99	N
ATOM	2096	C8	A A 109	120.156	58.254	-3.852	1.00	46.33	C	ATOM	2146	N3	G A 111	125.278	61.672	8.487	1.00	62.99	N
ATOM	2097	N7	A A 109	119.449	57.211	-4.203	1.00	46.33	N	ATOM	2147	C4	G A 111	125.223	62.295	7.298	1.00	62.99	C
ATOM	2098	C5	A A 109	119.201	56.562	-3.003	1.00	46.33	C	ATOM	2148	P	G A 112	126.735	68.353	7.754	1.00	55.18	P
ATOM	2099	C6	A A 109	118.511	55.371	-2.696	1.00	46.33	C	ATOM	2149	O1P	G A 112	126.941	69.600	8.547	1.00	49.53	O
ATOM	2100	N6	A A 109	117.957	54.578	-3.621	1.00	46.33	N	ATOM	2150	O2P	G A 112	126.598	68.420	6.266	1.00	49.53	O
ATOM	2101	N1	A A 109	118.426	55.014	-1.396	1.00	46.33	N	ATOM	2151	O5*	G A 112	127.882	67.306	8.123	1.00	55.18	O
ATOM	2102	C2	A A 109	119.019	55.791	-0.481	1.00	46.33	C	ATOM	2152	C5*	G A 112	128.267	67.099	9.494	1.00	55.18	C
ATOM	2103	N3	A A 109	119.713	56.917	-0.647	1.00	46.33	N	ATOM	2153	C4*	G A 112	129.321	66.024	9.598	1.00	55.18	C
ATOM	2104	C4	A A 109	119.766	57.254	-1.947	1.00	46.33	C	ATOM	2154	O4*	G A 112	128.773	64.759	9.163	1.00	55.18	O
ATOM	2105	P	C A 110	123.609	62.590	0.075	1.00	46.77	P	ATOM	2155	C3*	G A 112	130.562	66.178	8.742	1.00	55.18	C
ATOM	2106	O1P	C A 110	123.912	63.725	-0.833	1.00	44.59	O	ATOM	2156	O3*	G A 112	131.521	67.038	9.293	1.00	55.18	O
ATOM	2107	O2P	C A 110	124.730	61.771	0.628	1.00	44.59	O	ATOM	2157	C2*	G A 112	131.092	64.765	8.700	1.00	55.18	C
ATOM	2108	O5*	C A 110	122.752	63.152	1.287	1.00	46.77	O	ATOM	2158	O2*	G A 112	131.773	64.459	9.900	1.00	55.18	O
ATOM	2109	C5*	C A 110	121.593	63.952	1.055	1.00	46.77	C	ATOM	2159	C1*	G A 112	129.794	63.972	8.584	1.00	55.18	C
ATOM	2110	C4*	C A 110	120.967	64.318	2.365	1.00	46.77	C	ATOM	2160	N9	G A 112	129.479	63.795	7.173	1.00	49.53	N
ATOM	2111	O4*	C A 110	120.485	63.107	3.001	1.00	46.77	O	ATOM	2161	C8	G A 112	128.383	64.268	6.495	1.00	49.53	C
ATOM	2112	C3*	C A 110	121.925	64.915	3.377	1.00	46.77	C	ATOM	2162	N7	G A 112	128.431	64.021	5.211	1.00	49.53	N
ATOM	2113	O3*	C A 110	122.077	66.304	3.202	1.00	46.77	O	ATOM	2163	C5	G A 112	129.624	63.333	5.039	1.00	49.53	C
ATOM	2114	C2*	C A 110	121.260	64.575	4.698	1.00	46.77	C	ATOM	2164	C6	G A 112	130.229	62.834	3.867	1.00	49.53	C
ATOM	2115	O2*	C A 110	120.181	65.444	4.970	1.00	46.77	O	ATOM	2165	O6	G A 112	129.847	62.942	2.702	1.00	49.53	O



Table 2: Sheet 25/520

ATOM	2366	P	G A 122	129.090	72.019	-16.245	1.00	44.57	P	ATOM	2416	C3*	G A 124	127.446	83.269	-8.835	1.00	43.21	C
ATOM	2367	O1P	G A 122	130.461	72.037	-16.782	1.00	49.85	O	ATOM	2417	O3*	G A 124	126.853	84.037	-7.798	1.00	43.21	O
ATOM	2368	O2P	G A 122	128.233	70.830	-16.508	1.00	49.85	O	ATOM	2418	C2*	G A 124	127.885	84.136	-10.006	1.00	43.21	C
ATOM	2369	O5*	G A 122	129.220	72.304	-14.686	1.00	44.57	O	ATOM	2419	O2*	G A 124	128.424	85.386	-9.614	1.00	43.21	O
ATOM	2370	C5*	G A 122	129.794	71.343	-13.813	1.00	44.57	C	ATOM	2420	C1*	G A 124	128.994	83.289	-10.624	1.00	43.21	C
ATOM	2371	C4*	G A 122	130.715	72.017	-12.843	1.00	44.57	C	ATOM	2421	N9	G A 124	128.525	82.516	-11.764	1.00	39.04	N
ATOM	2372	O4*	G A 122	131.906	72.452	-13.538	1.00	44.57	O	ATOM	2422	C8	G A 124	128.223	81.179	-11.809	1.00	39.04	C
ATOM	2373	C3*	G A 122	130.173	73.275	-12.208	1.00	44.57	C	ATOM	2423	N7	G A 124	127.814	80.785	-12.987	1.00	39.04	N
ATOM	2374	O3*	G A 122	129.331	73.009	-11.110	1.00	44.57	O	ATOM	2424	C5	G A 124	127.852	81.935	-13.762	1.00	39.04	C
ATOM	2375	C2*	G A 122	131.436	74.029	-11.820	1.00	44.57	C	ATOM	2425	C6	G A 124	127.506	82.139	-15.115	1.00	39.04	C
ATOM	2376	O2*	G A 122	131.962	73.608	-10.574	1.00	44.57	O	ATOM	2426	O6	G A 124	127.066	81.314	-15.934	1.00	39.04	O
ATOM	2377	C1*	G A 122	132.376	73.665	-12.974	1.00	44.57	C	ATOM	2427	N1	G A 124	127.692	83.464	-15.494	1.00	39.04	N
ATOM	2378	N9	G A 122	132.376	74.683	-14.021	1.00	49.85	N	ATOM	2428	C2	G A 124	128.140	84.462	-14.671	1.00	39.04	C
ATOM	2379	C8	G A 122	131.807	74.596	-15.271	1.00	49.85	C	ATOM	2429	N2	G A 124	128.246	85.678	-15.213	1.00	39.04	N
ATOM	2380	N7	G A 122	131.924	75.693	-15.963	1.00	49.85	N	ATOM	2430	N3	G A 124	128.460	84.285	-13.408	1.00	39.04	N
ATOM	2381	C5	G A 122	132.623	76.553	-15.124	1.00	49.85	C	ATOM	2431	C4	G A 124	128.292	83.008	-13.021	1.00	39.04	C
ATOM	2382	C6	G A 122	133.031	77.881	-15.321	1.00	49.85	C	ATOM	2432	P	U A 125	125.260	83.990	-7.579	1.00	43.80	P
ATOM	2383	O6	G A 122	132.846	78.603	-16.304	1.00	49.85	O	ATOM	2433	O1P	U A 125	125.021	84.583	-6.225	1.00	38.23	O
ATOM	2384	N1	G A 122	133.718	78.369	-14.224	1.00	49.85	N	ATOM	2434	O2P	U A 125	124.683	82.660	-7.929	1.00	38.23	O
ATOM	2385	C2	G A 122	133.974	77.670	-13.078	1.00	49.85	C	ATOM	2435	O5*	U A 125	124.697	84.990	-8.670	1.00	43.80	O
ATOM	2386	N2	G A 122	134.662	78.315	-12.128	1.00	49.85	N	ATOM	2436	C5*	U A 125	125.201	86.325	-8.764	1.00	43.80	C
ATOM	2387	N3	G A 122	133.588	76.433	-12.875	1.00	49.85	N	ATOM	2437	C4*	U A 125	124.923	86.873	-10.132	1.00	43.80	C
ATOM	2388	C4	G A 122	132.922	75.937	-13.932	1.00	49.85	C	ATOM	2438	O4*	U A 125	125.740	86.187	-11.112	1.00	43.80	C
ATOM	2389	P	C A 123	128.091	73.992	-10.823	1.00	38.17	P	ATOM	2439	C3*	U A 125	123.515	86.667	-10.647	1.00	43.80	C
ATOM	2390	O1P	C A 123	127.327	73.387	-9.704	1.00	35.92	O	ATOM	2440	O3*	U A 125	122.590	87.586	-10.095	1.00	43.80	O
ATOM	2391	O2P	C A 123	127.393	74.266	-12.114	1.00	35.92	O	ATOM	2441	C2*	U A 125	123.703	86.819	-12.148	1.00	43.80	C
ATOM	2392	O5*	C A 123	128.794	75.341	-10.343	1.00	38.17	O	ATOM	2442	O2*	U A 125	123.770	88.174	-12.558	1.00	43.80	O
ATOM	2393	C5*	C A 123	129.670	75.345	-9.204	1.00	38.17	C	ATOM	2443	C1*	U A 125	125.070	86.170	-12.351	1.00	43.80	C
ATOM	2394	C4*	C A 123	130.423	76.647	-9.124	1.00	38.17	C	ATOM	2444	N1	U A 125	124.960	84.788	-12.839	1.00	38.23	N
ATOM	2395	O4*	C A 123	131.300	76.768	-10.270	1.00	38.17	O	ATOM	2445	C2	U A 125	124.757	84.631	-14.202	1.00	38.23	C
ATOM	2396	C3*	C A 123	129.575	77.901	-9.175	1.00	38.17	C	ATOM	2446	O2	U A 125	124.718	85.570	-14.976	1.00	38.23	O
ATOM	2397	O3*	C A 123	129.066	78.243	-7.907	1.00	38.17	O	ATOM	2447	N3	U A 125	124.601	83.339	-14.627	1.00	38.23	N
ATOM	2398	C2*	C A 123	130.550	78.943	-9.691	1.00	38.17	C	ATOM	2448	C4	U A 125	124.642	82.201	-13.858	1.00	38.23	C
ATOM	2399	O2*	C A 123	131.391	79.421	-8.669	1.00	38.17	O	ATOM	2449	O4	U A 125	124.557	81.099	-14.421	1.00	38.23	O
ATOM	2400	C1*	C A 123	131.374	78.125	-10.681	1.00	38.17	C	ATOM	2450	C5	U A 125	124.879	82.431	-12.456	1.00	38.23	C
ATOM	2401	N1	C A 123	130.829	78.235	-12.048	1.00	35.92	N	ATOM	2451	C6	U A 125	125.028	83.688	-12.005	1.00	38.23	C
ATOM	2402	C2	C A 123	131.080	79.401	-12.788	1.00	35.92	C	ATOM	2452	P	G A 126	121.076	87.108	-9.810	1.00	40.61	P
ATOM	2403	O2	C A 123	131.830	80.274	-12.317	1.00	35.92	O	ATOM	2453	O1P	G A 126	120.467	88.161	-8.948	1.00	48.12	O
ATOM	2404	N3	C A 123	130.506	79.545	-14.002	1.00	35.92	N	ATOM	2454	O2P	G A 126	121.069	85.699	-9.352	1.00	48.12	O
ATOM	2405	C4	C A 123	129.736	78.576	-14.497	1.00	35.92	C	ATOM	2455	O5*	G A 126	120.386	87.156	-11.246	1.00	40.61	O
ATOM	2406	N4	C A 123	129.173	78.779	-15.688	1.00	35.92	N	ATOM	2456	C5*	G A 126	120.339	88.388	-11.963	1.00	40.61	C
ATOM	2407	C5	C A 123	129.508	77.361	-13.791	1.00	35.92	C	ATOM	2457	C4*	G A 126	120.034	88.151	-13.412	1.00	40.61	C
ATOM	2408	C6	C A 123	130.067	77.234	-12.583	1.00	35.92	C	ATOM	2458	O4*	G A 126	121.090	87.394	-14.057	1.00	40.61	O
ATOM	2409	P	G A 124	127.612	78.916	-7.804	1.00	43.21	P	ATOM	2459	C3*	G A 126	118.785	87.365	-13.724	1.00	40.61	C
ATOM	2410	O1P	G A 124	127.262	78.972	-6.384	1.00	39.04	O	ATOM	2460	C3*	G A 126	117.647	88.190	-13.643	1.00	40.61	C
ATOM	2411	O2P	G A 124	126.711	78.220	-8.763	1.00	39.04	O	ATOM	2461	O2*	G A 126	119.040	86.909	-15.155	1.00	40.61	O
ATOM	2412	O5*	G A 124	127.822	80.398	-8.342	1.00	43.21	O	ATOM	2462	O2*	G A 126	118.760	87.951	-16.062	1.00	40.61	O
ATOM	2413	C5*	G A 124	128.647	81.335	-7.626	1.00	43.21	C	ATOM	2463	C1*	G A 126	120.550	86.670	-15.152	1.00	40.61	C
ATOM	2414	C4*	G A 124	128.754	82.631	-8.396	1.00	43.21	C	ATOM	2464	N9	G A 126	120.917	85.264	-15.020	1.00	48.12	N
ATOM	2415	O4*	G A 124	129.466	82.403	-9.636	1.00	43.21	O	ATOM	2465	C8	G A 126	121.288	84.617	-13.870	1.00	48.12	C



Table 2. Sheet 24/520

ATOM	2266	C3*	G A 117	142.267	66.519	-11.951	1.00	48.61	C	ATOM	2316	N7	A A 119	142.896	76.260	-14.999	1.00	41.16	N
ATOM	2267	O3*	G A 117	142.664	66.328	-13.295	1.00	48.61	O	ATOM	2317	C5	A A 119	142.313	77.476	-14.675	1.00	41.16	C
ATOM	2268	C2*	G A 117	140.772	66.304	-11.773	1.00	48.61	C	ATOM	2318	C6	A A 119	142.672	78.483	-13.766	1.00	41.16	C
ATOM	2269	O2*	G A 117	140.235	65.268	-12.564	1.00	48.61	O	ATOM	2319	N6	A A 119	143.774	78.437	-13.022	1.00	41.16	N
ATOM	2270	C1*	G A 117	140.696	65.923	-10.299	1.00	48.61	C	ATOM	2320	N1	A A 119	141.859	79.558	-13.658	1.00	41.16	N
ATOM	2271	N9	G A 117	140.438	67.067	-9.433	1.00	45.77	N	ATOM	2321	C2	A A 119	140.778	79.614	-14.438	1.00	41.16	C
ATOM	2272	C8	G A 117	141.299	67.596	-8.508	1.00	45.77	C	ATOM	2322	N3	A A 119	140.349	78.742	-15.350	1.00	41.16	N
ATOM	2273	N7	G A 117	140.786	68.593	-7.845	1.00	45.77	N	ATOM	2323	C4	A A 119	141.170	77.681	-15.416	1.00	41.16	C
ATOM	2274	C5	G A 117	139.508	68.731	-8.365	1.00	45.77	C	ATOM	2324	P	A A 120	137.837	75.080	-20.894	1.00	62.30	P
ATOM	2275	C6	G A 117	138.482	69.621	-8.014	1.00	45.77	C	ATOM	2325	O1P	A A 120	137.780	74.515	-22.271	1.00	45.55	O
ATOM	2276	O6	G A 117	138.475	70.454	-7.114	1.00	45.77	O	ATOM	2326	O2P	A A 120	137.469	76.499	-20.686	1.00	45.55	O
ATOM	2277	N1	G A 117	137.365	69.453	-8.814	1.00	45.77	N	ATOM	2327	O5*	A A 120	136.910	74.170	-19.981	1.00	62.30	O
ATOM	2278	C2	G A 117	137.241	68.514	-9.807	1.00	45.77	C	ATOM	2328	C5*	A A 120	136.242	73.015	-19.515	1.00	62.30	C
ATOM	2279	N2	G A 117	136.073	68.502	-10.480	1.00	45.77	N	ATOM	2329	C4*	A A 120	135.009	72.715	-19.699	1.00	62.30	C
ATOM	2280	N3	G A 117	138.187	67.648	-10.119	1.00	45.77	N	ATOM	2330	O4*	A A 120	135.375	72.805	-18.298	1.00	62.30	O
ATOM	2281	C4	G A 117	139.287	67.815	-9.364	1.00	45.77	C	ATOM	2331	C3*	A A 120	133.838	73.676	-19.872	1.00	62.30	C
ATOM	2282	P	U A 118	142.988	67.601	-14.209	1.00	51.02	P	ATOM	2332	O3*	A A 120	132.972	73.169	-20.890	1.00	62.30	O
ATOM	2283	O1P	U A 118	143.256	67.103	-15.581	1.00	49.36	O	ATOM	2333	C2*	A A 120	133.151	73.598	-18.516	1.00	62.30	C
ATOM	2284	O2P	U A 118	144.007	68.429	-13.502	1.00	49.36	O	ATOM	2334	O2*	A A 120	132.370	72.421	-18.451	1.00	62.30	O
ATOM	2285	O5*	U A 118	141.604	68.382	-14.285	1.00	51.02	O	ATOM	2335	C1*	A A 120	134.340	73.425	-17.568	1.00	62.30	C
ATOM	2286	C5*	U A 118	140.494	67.811	-14.994	1.00	51.02	C	ATOM	2336	N9	A A 120	134.898	74.650	-16.991	1.00	45.55	N
ATOM	2287	C4*	U A 118	139.247	68.622	-14.761	1.00	51.02	C	ATOM	2337	C8	A A 120	134.964	75.908	-17.529	1.00	45.55	C
ATOM	2288	O4*	U A 118	138.963	68.668	-13.342	1.00	51.02	O	ATOM	2338	N7	A A 120	135.589	76.776	-16.767	1.00	45.55	N
ATOM	2289	C3*	U A 118	139.310	70.075	-15.174	1.00	51.02	C	ATOM	2339	C5	A A 120	135.949	76.042	-15.649	1.00	45.55	C
ATOM	2290	O3*	U A 118	139.034	70.212	-16.547	1.00	51.02	O	ATOM	2340	C6	A A 120	136.647	76.385	-14.469	1.00	45.55	C
ATOM	2291	C2*	U A 118	138.228	70.702	-14.308	1.00	51.02	C	ATOM	2341	N6	A A 120	137.154	77.595	-14.223	1.00	45.55	N
ATOM	2292	O2*	U A 118	136.921	70.453	-14.793	1.00	51.02	O	ATOM	2342	N1	A A 120	136.816	75.422	-13.540	1.00	45.55	N
ATOM	2293	C1*	U A 118	138.379	69.912	-13.013	1.00	51.02	C	ATOM	2343	C2	A A 120	136.329	74.192	-13.797	1.00	45.55	C
ATOM	2294	N1	U A 118	139.236	70.608	-12.041	1.00	49.36	N	ATOM	2344	N3	A A 120	135.672	73.746	-14.873	1.00	45.55	N
ATOM	2295	C2	U A 118	138.672	71.657	-11.341	1.00	49.36	C	ATOM	2345	C4	A A 120	135.513	74.734	-15.768	1.00	45.55	C
ATOM	2296	O2	U A 118	137.508	71.997	-11.485	1.00	49.36	O	ATOM	2346	P	C A 121	131.859	74.121	-21.566	1.00	56.87	P
ATOM	2297	N3	U A 118	139.517	72.301	-10.468	1.00	49.36	N	ATOM	2347	O1P	C A 121	131.001	73.217	-22.388	1.00	50.66	O
ATOM	2298	C4	U A 118	140.835	72.011	-10.235	1.00	49.36	C	ATOM	2348	O2P	C A 121	132.518	75.291	-22.206	1.00	50.66	O
ATOM	2299	O4	U A 118	141.483	72.729	-9.481	1.00	49.36	O	ATOM	2349	O5*	C A 121	130.971	74.632	-20.349	1.00	56.87	O
ATOM	2300	C5	U A 118	141.343	70.901	-10.982	1.00	49.36	C	ATOM	2350	C5*	C A 121	129.764	73.950	-20.006	1.00	56.87	C
ATOM	2301	C6	U A 118	140.545	70.253	-11.838	1.00	49.36	C	ATOM	2351	C4*	C A 121	129.303	74.354	-18.637	1.00	56.87	C
ATOM	2302	P	A A 119	139.914	71.218	-17.430	1.00	52.36	P	ATOM	2352	O4*	C A 121	128.871	75.740	-18.646	1.00	56.87	O
ATOM	2303	O1P	A A 119	139.508	71.015	-18.841	1.00	41.16	O	ATOM	2353	C3*	C A 121	128.124	73.538	-18.146	1.00	56.87	C
ATOM	2304	O2P	A A 119	141.337	71.036	-17.041	1.00	41.16	O	ATOM	2354	O3*	C A 121	128.293	73.319	-16.760	1.00	56.87	O
ATOM	2305	O5*	A A 119	139.443	72.674	-16.981	1.00	52.36	O	ATOM	2355	C2*	C A 121	126.929	74.445	-18.417	1.00	56.87	C
ATOM	2306	C5*	A A 119	138.287	73.301	-17.575	1.00	52.36	C	ATOM	2356	O2*	C A 121	125.863	74.224	-17.527	1.00	56.87	O
ATOM	2307	C4*	A A 119	138.615	74.715	-17.972	1.00	52.36	C	ATOM	2357	C1*	C A 121	127.529	75.833	-18.208	1.00	56.87	C
ATOM	2308	O4*	A A 119	139.151	75.358	-16.805	1.00	52.36	O	ATOM	2358	N1	C A 121	126.854	76.901	-18.979	1.00	50.66	N
ATOM	2309	C3*	A A 119	139.737	74.812	-18.991	1.00	52.36	C	ATOM	2359	C2	C A 121	126.306	78.016	-18.301	1.00	50.66	C
ATOM	2310	O3*	A A 119	139.368	74.833	-20.398	1.00	52.36	O	ATOM	2360	O2	C A 121	126.383	78.084	-17.069	1.00	50.66	O
ATOM	2311	C2*	A A 119	140.472	76.109	-18.634	1.00	52.36	C	ATOM	2361	N3	C A 121	125.702	78.988	-19.018	1.00	50.66	N
ATOM	2312	O2*	A A 119	140.193	77.224	-19.453	1.00	52.36	O	ATOM	2362	C4	C A 121	125.622	78.886	-20.348	1.00	50.66	C
ATOM	2313	C1*	A A 119	139.994	76.398	-17.214	1.00	52.36	C	ATOM	2363	N4	C A 121	125.017	79.868	-21.018	1.00	50.66	N
ATOM	2314	N9	A A 119	141.051	76.585	-16.231	1.00	41.16	N	ATOM	2364	C5	C A 121	126.159	77.775	-21.053	1.00	50.66	C
ATOM	2315	C8	A A 119	142.108	75.771	-15.926	1.00	41.16	C	ATOM	2365	C6	C A 121	126.759	76.817	-20.339	1.00	50.66	C



Table 2: Sheet 27/520

ATOM	2566	O2P	A A 130	108.130	72.431	-26.534	1.00	58.75	O	ATOM	2616	O2*	C A 132	111.363	62.599	-10.864	1.00	57.07	C
ATOM	2567	O5*	A A 130	109.925	71.522	-25.150	1.00	53.91	O	ATOM	2617	C1*	C A 132	111.358	64.536	-12.295	1.00	57.07	C
ATOM	2568	C5*	A A 130	109.720	70.249	-25.791	1.00	53.91	C	ATOM	2618	N1	C A 132	111.054	65.961	-12.101	1.00	47.35	N
ATOM	2569	C4*	A A 130	110.031	69.130	-24.840	1.00	53.91	C	ATOM	2619	C2	C A 132	111.603	66.607	-10.996	1.00	47.35	C
ATOM	2570	O4*	A A 130	111.455	69.123	-24.591	1.00	53.91	O	ATOM	2620	O2	C A 132	112.364	65.980	-10.259	1.00	47.35	O
ATOM	2571	C3*	A A 130	109.352	69.190	-23.484	1.00	53.91	C	ATOM	2621	N3	C A 132	111.290	67.892	-10.758	1.00	47.35	N
ATOM	2572	O3*	A A 130	109.080	67.836	-23.141	1.00	53.91	O	ATOM	2622	C4	C A 132	110.468	68.537	-11.579	1.00	47.35	C
ATOM	2573	C2*	A A 130	110.428	69.809	-22.597	1.00	53.91	C	ATOM	2623	N4	C A 132	110.165	69.793	-11.284	1.00	47.35	N
ATOM	2574	O2*	A A 130	110.389	69.421	-21.253	1.00	53.91	O	ATOM	2624	C5	C A 132	109.915	67.915	-12.735	1.00	47.35	C
ATOM	2575	C1*	A A 130	111.707	69.259	-23.212	1.00	53.91	C	ATOM	2625	C6	C A 132	110.233	66.638	-12.958	1.00	47.35	C
ATOM	2576	N9	A A 130	112.850	70.158	-23.062	1.00	58.75	N	ATOM	2626	P	U A 133	107.532	62.115	-10.684	1.00	49.01	P
ATOM	2577	C8	A A 130	112.938	71.466	-23.467	1.00	58.75	C	ATOM	2627	O1P	U A 133	107.102	60.715	-10.490	1.00	48.45	O
ATOM	2578	N7	A A 130	114.102	72.015	-23.230	1.00	58.75	N	ATOM	2628	O2P	U A 133	106.567	63.104	-11.201	1.00	48.45	O
ATOM	2579	C5	A A 130	114.828	71.003	-22.623	1.00	58.75	C	ATOM	2629	O5*	U A 133	108.147	62.657	-9.319	1.00	49.01	O
ATOM	2580	C6	A A 130	116.140	70.953	-22.132	1.00	58.75	C	ATOM	2630	C5*	U A 133	109.185	61.926	-8.657	1.00	49.01	C
ATOM	2581	N6	A A 130	116.987	71.986	-22.172	1.00	58.75	N	ATOM	2631	C4*	U A 133	109.778	62.749	-7.550	1.00	49.01	C
ATOM	2582	N1	A A 130	116.559	69.794	-21.589	1.00	58.75	N	ATOM	2632	O4*	U A 133	110.356	63.959	-8.100	1.00	49.01	C
ATOM	2583	C2	A A 130	115.704	68.765	-21.540	1.00	58.75	C	ATOM	2633	C3*	U A 133	108.800	63.250	-6.512	1.00	49.01	C
ATOM	2584	N3	A A 130	114.446	68.693	-21.964	1.00	58.75	N	ATOM	2634	O3*	U A 133	108.560	62.282	-5.512	1.00	49.01	O
ATOM	2585	C4	A A 130	114.066	69.858	-22.505	1.00	58.75	C	ATOM	2635	C2*	U A 133	109.510	64.467	-5.938	1.00	49.01	C
ATOM	2586	P	C A 131	107.995	67.472	-22.004	1.00	54.41	P	ATOM	2636	O2*	U A 133	110.483	64.105	-4.980	1.00	49.01	O
ATOM	2587	O1P	C A 131	107.808	66.007	-22.182	1.00	43.83	O	ATOM	2637	C1*	U A 133	110.213	65.029	-7.174	1.00	49.01	C
ATOM	2588	O2P	C A 131	106.804	68.370	-22.030	1.00	43.83	O	ATOM	2638	N1	U A 133	109.472	66.129	-7.816	1.00	48.45	N
ATOM	2589	O5*	C A 131	108.802	67.742	-20.659	1.00	54.41	O	ATOM	2639	C2	U A 133	109.461	67.357	-7.185	1.00	48.45	C
ATOM	2590	C5*	C A 131	108.311	67.323	-19.394	1.00	54.41	C	ATOM	2640	O2	U A 133	110.027	67.568	-6.138	1.00	48.45	O
ATOM	2591	C4*	C A 131	109.392	66.584	-18.661	1.00	54.41	C	ATOM	2641	N3	U A 133	108.760	68.335	-7.834	1.00	48.45	N
ATOM	2592	O4*	C A 131	110.588	67.391	-18.648	1.00	54.41	O	ATOM	2642	C4	U A 133	108.090	68.226	-9.029	1.00	48.45	C
ATOM	2593	C3*	C A 131	109.100	66.306	-17.202	1.00	54.41	C	ATOM	2643	O4	U A 133	107.578	69.228	-9.527	1.00	48.45	O
ATOM	2594	O3*	C A 131	108.352	65.116	-17.044	1.00	54.41	O	ATOM	2644	C5	U A 133	108.138	66.930	-9.621	1.00	48.45	C
ATOM	2595	C2*	C A 131	110.491	66.199	-16.599	1.00	54.41	C	ATOM	2645	C6	U A 133	108.808	65.949	-9.010	1.00	48.45	C
ATOM	2596	O2*	C A 131	111.067	64.933	-16.824	1.00	54.41	O	ATOM	2646	P	A A 134	107.067	62.070	-4.983	1.00	62.48	P
ATOM	2597	C1*	C A 131	111.252	67.249	-17.406	1.00	54.41	C	ATOM	2647	O1P	A A 134	106.307	61.429	-6.098	1.00	48.96	O
ATOM	2598	N1	C A 131	111.272	68.563	-16.729	1.00	43.83	N	ATOM	2648	O2P	A A 134	106.581	63.342	-4.378	1.00	48.96	O
ATOM	2599	C2	C A 131	112.044	68.718	-15.555	1.00	43.83	C	ATOM	2649	O5*	A A 134	107.237	61.045	-3.781	1.00	62.48	O
ATOM	2600	O2	C A 131	112.753	67.784	-15.168	1.00	43.83	O	ATOM	2650	C5*	A A 134	107.422	59.636	-3.994	1.00	62.48	C
ATOM	2601	N3	C A 131	111.998	69.886	-14.882	1.00	43.83	N	ATOM	2651	C4*	A A 134	108.060	59.036	-2.774	1.00	62.48	C
ATOM	2602	C4	C A 131	111.246	70.885	-15.336	1.00	43.83	C	ATOM	2652	O4*	A A 134	109.430	59.488	-2.710	1.00	62.48	O
ATOM	2603	N4	C A 131	111.201	72.000	-14.613	1.00	43.83	N	ATOM	2653	C3*	A A 134	107.424	59.517	-1.484	1.00	62.48	C
ATOM	2604	C5	C A 131	110.496	70.778	-16.550	1.00	43.83	C	ATOM	2654	O3*	A A 134	106.327	58.697	-1.132	1.00	62.48	O
ATOM	2605	C6	C A 131	110.538	69.611	-17.206	1.00	43.83	C	ATOM	2655	O2*	A A 134	108.567	59.446	-0.489	1.00	62.48	C
ATOM	2606	P	C A 132	107.396	64.954	-15.773	1.00	57.07	P	ATOM	2656	O2*	A A 134	108.732	58.151	0.034	1.00	62.48	O
ATOM	2607	O1P	C A 132	106.465	63.856	-16.091	1.00	47.35	O	ATOM	2657	C1*	A A 134	109.772	59.786	-1.371	1.00	62.48	C
ATOM	2608	O2P	C A 132	106.868	66.279	-15.397	1.00	47.35	O	ATOM	2658	N9	A A 134	110.196	61.188	-1.311	1.00	48.96	N
ATOM	2609	O5*	C A 132	108.365	64.478	-14.609	1.00	57.07	O	ATOM	2659	C8	A A 134	110.104	62.126	-2.306	1.00	48.96	C
ATOM	2610	C5*	C A 132	109.055	63.234	-14.699	1.00	57.07	C	ATOM	2660	N7	A A 134	110.562	63.303	-1.964	1.00	48.96	N
ATOM	2611	C4*	C A 132	109.995	63.092	-13.540	1.00	57.07	C	ATOM	2661	C5	A A 134	110.984	63.133	-0.656	1.00	48.96	C
ATOM	2612	O4*	C A 132	110.980	64.153	-13.608	1.00	57.07	O	ATOM	2662	C6	A A 134	111.552	64.017	0.271	1.00	48.96	C
ATOM	2613	C3*	C A 132	109.375	63.250	-12.160	1.00	57.07	C	ATOM	2663	N6	A A 134	111.807	65.300	0.010	1.00	48.96	N
ATOM	2614	O3*	C A 132	108.786	62.048	-11.689	1.00	57.07	O	ATOM	2664	N1	A A 134	111.852	63.538	1.496	1.00	48.96	N
ATOM	2615	C2*	C A 132	110.565	63.676	-11.310	1.00	57.07	C	ATOM	2665	C2	A A 134	111.589	62.253	1.758	1.00	48.96	C



Table 2: Sheet 26/520

ATOM	2466	N7	G A 126	121.570	83.357	-14.060	1.00	48.12	N	ATOM	2516	N1	G A 128	116.226	75.308	-18.002	1.00	38.59	N
ATOM	2467	C5	G A 126	121.366	83.155	-15.417	1.00	48.12	C	ATOM	2517	C2	G A 128	115.907	75.441	-19.322	1.00	38.59	C
ATOM	2468	C6	G A 126	121.509	81.975	-16.207	1.00	48.12	C	ATOM	2518	N2	G A 128	116.057	74.352	-20.083	1.00	38.59	N
ATOM	2469	O6	G A 126	121.839	80.830	-15.846	1.00	48.12	O	ATOM	2519	N3	G A 128	115.475	76.558	-19.862	1.00	38.59	N
ATOM	2470	N1	G A 126	121.224	82.219	-17.543	1.00	48.12	N	ATOM	2520	C4	G A 128	115.387	77.552	-18.961	1.00	38.59	C
ATOM	2471	C2	G A 126	120.855	83.427	-18.058	1.00	48.12	C	ATOM	2521	P	U A 129	109.785	79.279	-20.581	1.00	49.01	P
ATOM	2472	N2	G A 126	120.675	83.455	-19.377	1.00	48.12	N	ATOM	2522	O1P	U A 129	108.711	79.450	-21.580	1.00	49.64	O
ATOM	2473	N3	G A 126	120.689	84.530	-17.332	1.00	48.12	N	ATOM	2523	O2P	U A 129	109.573	79.740	-19.195	1.00	49.64	O
ATOM	2474	C4	G A 126	120.965	84.321	-16.028	1.00	48.12	C	ATOM	2524	O5*	U A 129	110.200	77.745	-20.534	1.00	49.01	O
ATOM	2475	P	G A 127	116.186	87.525	-13.616	1.00	50.01	P	ATOM	2525	C5*	U A 129	110.319	76.978	-21.741	1.00	49.01	C
ATOM	2476	O1P	G A 127	115.273	88.655	-13.315	1.00	41.24	O	ATOM	2526	C4*	U A 129	110.573	75.527	-21.409	1.00	49.01	C
ATOM	2477	O2P	G A 127	116.183	86.329	-12.732	1.00	41.24	O	ATOM	2527	O4*	U A 129	111.862	75.372	-20.766	1.00	49.01	O
ATOM	2478	O5*	G A 127	115.970	87.036	-15.121	1.00	50.01	O	ATOM	2528	C3*	U A 129	109.585	74.899	-20.447	1.00	49.01	C
ATOM	2479	C5*	G A 127	115.273	85.811	-15.406	1.00	50.01	C	ATOM	2529	O3*	U A 129	108.490	74.417	-21.194	1.00	49.01	O
ATOM	2480	C4*	G A 127	115.550	85.362	-16.821	1.00	50.01	C	ATOM	2530	C2*	U A 129	110.380	73.746	-19.850	1.00	49.01	C
ATOM	2481	O4*	G A 127	116.950	85.002	-16.955	1.00	50.01	O	ATOM	2531	O2*	U A 129	110.332	72.603	-20.680	1.00	49.01	O
ATOM	2482	C3*	G A 127	114.810	84.105	-17.246	1.00	50.01	C	ATOM	2532	C1*	U A 129	111.805	74.303	-19.846	1.00	49.01	C
ATOM	2483	O3*	G A 127	113.482	84.365	-17.676	1.00	50.01	O	ATOM	2533	N1	U A 129	112.272	74.787	-18.542	1.00	49.64	N
ATOM	2484	O2*	G A 127	115.687	83.554	-18.362	1.00	50.01	O	ATOM	2534	C2	U A 129	112.915	73.889	-17.712	1.00	49.64	C
ATOM	2485	O2*	G A 127	115.447	84.113	-19.637	1.00	50.01	O	ATOM	2535	O2	U A 129	113.124	72.732	-18.022	1.00	49.64	O
ATOM	2486	C1*	G A 127	117.083	83.911	-17.856	1.00	50.01	C	ATOM	2536	N3	U A 129	113.312	74.398	-16.505	1.00	49.64	N
ATOM	2487	N9	G A 127	117.622	82.772	-17.126	1.00	41.24	N	ATOM	2537	C4	U A 129	113.141	75.690	-16.055	1.00	49.64	C
ATOM	2488	C8	G A 127	117.882	82.688	-15.779	1.00	41.24	C	ATOM	2538	O4	U A 129	113.531	76.002	-14.927	1.00	49.64	O
ATOM	2489	N7	G A 127	118.293	81.504	-15.411	1.00	41.24	N	ATOM	2539	C5	U A 129	112.480	76.557	-16.980	1.00	49.64	C
ATOM	2490	C5	G A 127	118.326	80.768	-16.590	1.00	41.24	C	ATOM	2540	C6	U A 129	112.077	76.085	-18.161	1.00	49.64	C
ATOM	2491	C6	G A 127	118.691	79.415	-16.821	1.00	41.24	C	ATOM	2541	P	G A 129A	107.015	74.443	-20.576	1.00	48.79	P
ATOM	2492	O6	G A 127	119.076	78.575	-16.004	1.00	41.24	O	ATOM	2542	O1P	G A 129A	106.493	75.820	-20.647	1.00	51.10	O
ATOM	2493	N1	G A 127	118.574	79.072	-18.162	1.00	41.24	N	ATOM	2543	O2P	G A 129A	107.039	73.745	-19.277	1.00	51.10	O
ATOM	2494	C2	G A 127	118.161	79.917	-19.154	1.00	41.24	C	ATOM	2544	O5*	G A 129A	106.197	73.584	-21.637	1.00	48.79	O
ATOM	2495	N2	G A 127	118.107	79.394	-20.378	1.00	41.24	N	ATOM	2545	C5*	G A 129A	106.815	72.484	-22.341	1.00	48.79	C
ATOM	2496	N3	G A 127	117.822	81.185	-18.958	1.00	41.24	N	ATOM	2546	C4*	G A 129A	106.778	72.737	-23.826	1.00	48.79	C
ATOM	2497	C4	G A 127	117.927	81.538	-17.659	1.00	41.24	C	ATOM	2547	O4*	G A 129A	105.396	72.903	-24.200	1.00	48.79	O
ATOM	2498	P	G A 128	112.348	83.235	-17.486	1.00	56.84	P	ATOM	2548	C3*	G A 129A	107.494	74.017	-24.241	1.00	48.79	C
ATOM	2499	O1P	G A 128	111.054	83.785	-17.960	1.00	38.59	O	ATOM	2549	O3*	G A 129A	108.910	73.777	-24.549	1.00	48.79	O
ATOM	2500	O2P	G A 128	112.464	82.728	-16.091	1.00	38.59	O	ATOM	2550	C2*	G A 129A	106.615	74.644	-25.337	1.00	48.79	C
ATOM	2501	O5*	G A 128	112.770	82.111	-18.532	1.00	56.84	O	ATOM	2551	O2*	G A 129A	107.105	74.571	-26.652	1.00	48.79	O
ATOM	2502	C5*	G A 128	112.825	82.428	-19.924	1.00	56.84	C	ATOM	2552	C1*	G A 129A	105.292	73.872	-25.219	1.00	48.79	C
ATOM	2503	C4*	G A 128	113.146	81.205	-20.726	1.00	56.84	C	ATOM	2553	N9	G A 129A	104.089	74.670	-24.988	1.00	51.10	N
ATOM	2504	O4*	G A 128	114.488	80.771	-20.418	1.00	56.84	O	ATOM	2554	C8	G A 129A	103.765	75.386	-23.860	1.00	51.10	C
ATOM	2505	C3*	G A 128	112.291	79.982	-20.460	1.00	56.84	C	ATOM	2555	N7	G A 129A	102.619	76.001	-23.955	1.00	51.10	N
ATOM	2506	O3*	G A 128	111.079	80.009	-21.185	1.00	56.84	O	ATOM	2556	C5	G A 129A	102.157	75.669	-25.219	1.00	51.10	C
ATOM	2507	C2*	G A 128	113.186	78.851	-20.931	1.00	56.84	C	ATOM	2557	C6	G A 129A	100.968	76.042	-25.885	1.00	51.10	C
ATOM	2508	O2*	G A 128	113.140	78.705	-22.337	1.00	56.84	O	ATOM	2558	O6	G A 129A	100.053	76.779	-25.480	1.00	51.10	O
ATOM	2509	C1*	G A 128	114.564	79.361	-20.513	1.00	56.84	C	ATOM	2559	N1	G A 129A	100.894	75.477	-27.151	1.00	51.10	N
ATOM	2510	N9	G A 128	114.977	78.835	-19.218	1.00	38.59	N	ATOM	2560	C2	G A 129A	101.843	74.671	-27.707	1.00	51.10	C
ATOM	2511	C8	G A 128	115.037	79.508	-18.023	1.00	38.59	C	ATOM	2561	N2	G A 129A	101.595	74.241	-28.950	1.00	51.10	N
ATOM	2512	N7	G A 128	115.455	78.761	-17.038	1.00	38.59	N	ATOM	2562	N3	G A 129A	102.955	74.313	-27.096	1.00	51.10	N
ATOM	2513	C5	G A 128	115.682	77.522	-17.620	1.00	38.59	C	ATOM	2563	C4	G A 129A	103.049	74.846	-25.866	1.00	51.10	C
ATOM	2514	C6	G A 128	116.146	76.317	-17.056	1.00	38.59	C	ATOM	2564	P	A A 130	109.342	72.843	-25.812	1.00	53.91	P
ATOM	2515	O6	G A 128	116.465	76.088	-15.892	1.00	38.59	O	ATOM	2565	O1P	A A 130	110.461	73.432	-26.563	1.00	58.75	O



Table 2: Sheet 29/520

ATOM	2766	C5	G A 139	93.114	65.821	-3.239	1.00	68.90	C	ATOM	2816	N3	A A 141	89.656	57.579	-5.388	1.00	54.17	N
ATOM	2767	C6	G A 139	93.680	64.700	-3.897	1.00	68.90	C	ATOM	2817	C4	A A 141	89.160	58.580	-4.638	1.00	54.17	C
ATOM	2768	O6	G A 139	94.423	63.827	-3.432	1.00	68.90	O	ATOM	2818	P	G A 142	83.381	57.041	-4.270	1.00	80.34	P
ATOM	2769	N1	G A 139	93.297	64.645	-5.232	1.00	68.90	N	ATOM	2819	O1P	G A 142	82.091	56.469	-4.718	1.00	47.00	O
ATOM	2770	C2	G A 139	92.474	65.545	-5.853	1.00	68.90	C	ATOM	2820	O2P	G A 142	83.446	57.782	-2.986	1.00	47.00	O
ATOM	2771	N2	G A 139	92.212	65.312	-7.141	1.00	68.90	N	ATOM	2821	O5*	G A 142	84.482	55.883	-4.244	1.00	80.34	O
ATOM	2772	N3	G A 139	91.941	66.594	-5.253	1.00	68.90	N	ATOM	2822	C5*	G A 142	84.628	55.016	-5.373	1.00	80.34	C
ATOM	2773	C4	G A 139	92.298	66.668	-3.954	1.00	68.90	C	ATOM	2823	C4*	G A 142	85.894	54.191	-5.288	1.00	80.34	C
ATOM	2774	P	A A 140	86.667	67.320	-1.655	1.00	82.58	P	ATOM	2824	O4*	G A 142	87.073	55.031	-5.144	1.00	80.34	C
ATOM	2775	O1P	A A 140	85.274	67.834	-1.587	1.00	61.14	O	ATOM	2825	C3*	G A 142	86.059	53.187	-4.167	1.00	80.34	C
ATOM	2776	O2P	A A 140	87.233	66.589	-0.482	1.00	61.14	O	ATOM	2826	O3*	G A 142	85.302	52.006	-4.367	1.00	80.34	O
ATOM	2777	O5*	A A 140	86.793	66.400	-2.951	1.00	82.58	O	ATOM	2827	C2*	G A 142	87.553	52.894	-4.250	1.00	80.34	C
ATOM	2778	C5*	A A 140	86.291	66.869	-4.208	1.00	82.58	C	ATOM	2828	O2*	G A 142	87.869	52.052	-5.341	1.00	80.34	O
ATOM	2779	C4*	A A 140	86.499	65.842	-5.288	1.00	82.58	C	ATOM	2829	C1*	G A 142	88.119	54.275	-4.552	1.00	80.34	C
ATOM	2780	O4*	A A 140	87.902	65.744	-5.631	1.00	82.58	O	ATOM	2830	N9	G A 142	88.559	54.913	-3.313	1.00	47.00	N
ATOM	2781	C3*	A A 140	86.114	64.416	-4.961	1.00	82.58	C	ATOM	2831	C8	G A 142	87.974	55.958	-2.638	1.00	47.00	C
ATOM	2782	O3*	A A 140	84.731	64.159	-5.026	1.00	82.58	O	ATOM	2832	N7	G A 142	88.606	56.276	-1.538	1.00	47.00	N
ATOM	2783	C2*	A A 140	86.895	63.623	-5.996	1.00	82.58	C	ATOM	2833	C5	G A 142	89.678	55.394	-1.489	1.00	47.00	C
ATOM	2784	O2*	A A 140	86.254	63.610	-7.258	1.00	82.58	O	ATOM	2834	C6	G A 142	90.729	55.261	-0.533	1.00	47.00	C
ATOM	2785	C1*	A A 140	88.191	64.426	-6.072	1.00	82.58	C	ATOM	2835	O6	G A 142	90.942	55.944	0.480	1.00	47.00	O
ATOM	2786	N9	A A 140	89.235	63.851	-5.220	1.00	61.14	N	ATOM	2836	N1	G A 142	91.595	54.216	-0.860	1.00	47.00	N
ATOM	2787	C8	A A 140	89.699	64.287	-4.002	1.00	61.14	C	ATOM	2837	C2	G A 142	92.481	53.421	-1.970	1.00	47.00	C
ATOM	2788	N7	A A 140	90.659	63.542	-3.506	1.00	61.14	N	ATOM	2838	N2	G A 142	92.395	52.458	-2.102	1.00	47.00	N
ATOM	2789	C5	A A 140	90.841	62.550	-4.462	1.00	61.14	C	ATOM	2839	N3	G A 142	90.531	53.554	-2.882	1.00	47.00	N
ATOM	2790	C6	A A 140	91.729	61.457	-4.542	1.00	61.14	C	ATOM	2840	C4	G A 142	89.665	54.548	-2.576	1.00	47.00	C
ATOM	2791	N6	A A 140	92.645	61.175	-5.618	1.00	61.14	N	ATOM	2841	P	A A 143	84.888	51.110	-3.096	1.00	83.42	P
ATOM	2792	N1	A A 140	91.645	60.658	-3.627	1.00	61.14	N	ATOM	2842	O1P	A A 143	83.833	50.190	-3.576	1.00	63.98	O
ATOM	2793	C2	A A 140	90.736	60.948	-6.565	1.00	61.14	C	ATOM	2843	O2P	A A 143	84.632	52.000	-1.929	1.00	63.98	O
ATOM	2794	N3	A A 140	89.855	61.948	-6.608	1.00	61.14	N	ATOM	2844	O5*	A A 143	86.175	50.232	-2.785	1.00	83.42	O
ATOM	2795	C4	A A 140	89.963	62.723	-5.516	1.00	61.14	C	ATOM	2845	C5*	A A 143	86.624	49.247	-3.724	1.00	83.42	C
ATOM	2796	P	A A 141	84.094	63.114	-3.987	1.00	77.36	P	ATOM	2846	C4*	A A 143	87.892	48.614	-3.231	1.00	83.42	C
ATOM	2797	O1P	A A 141	82.627	63.189	-4.163	1.00	54.17	O	ATOM	2847	O4*	A A 143	88.886	49.651	-3.049	1.00	83.42	O
ATOM	2798	O2P	A A 141	84.689	63.370	-2.647	1.00	54.17	O	ATOM	2848	C3*	A A 143	87.788	47.958	-1.868	1.00	83.42	C
ATOM	2799	O5*	A A 141	84.601	61.694	-4.510	1.00	77.36	O	ATOM	2849	O3*	A A 143	87.284	46.633	-1.952	1.00	83.42	O
ATOM	2800	C5*	A A 141	84.209	61.235	-5.808	1.00	77.36	C	ATOM	2850	C2*	A A 143	89.220	48.025	-1.354	1.00	83.42	C
ATOM	2801	C4*	A A 141	85.012	60.030	-6.225	1.00	77.36	C	ATOM	2851	O2*	A A 143	90.049	47.012	-1.885	1.00	83.42	O
ATOM	2802	O4*	A A 141	86.423	60.361	-6.291	1.00	77.36	O	ATOM	2852	C1*	A A 143	89.675	49.371	-1.908	1.00	83.42	C
ATOM	2803	C3*	A A 141	84.991	58.797	-5.342	1.00	77.36	C	ATOM	2853	N9	A A 143	89.475	50.451	-0.949	1.00	63.98	N
ATOM	2804	O3*	A A 141	83.830	58.004	-5.482	1.00	77.36	O	ATOM	2854	C8	A A 143	88.410	51.311	-0.869	1.00	63.98	C
ATOM	2805	C2*	A A 141	86.210	58.043	-5.846	1.00	77.36	C	ATOM	2855	N7	A A 143	88.516	52.197	0.090	1.00	63.98	N
ATOM	2806	O2*	A A 141	85.940	57.386	-7.071	1.00	77.36	O	ATOM	2856	C5	A A 143	89.732	51.897	0.688	1.00	63.98	C
ATOM	2807	C1*	A A 141	87.192	59.186	-6.084	1.00	77.36	C	ATOM	2857	C6	A A 143	90.426	52.483	1.766	1.00	63.98	C
ATOM	2808	N9	A A 141	88.058	59.357	-4.913	1.00	54.17	N	ATOM	2858	N6	A A 143	89.968	53.535	2.451	1.00	63.98	N
ATOM	2809	C8	A A 141	87.958	60.246	-3.866	1.00	54.17	C	ATOM	2859	N1	A A 143	91.621	51.945	2.115	1.00	63.98	N
ATOM	2810	N7	A A 141	88.883	60.083	-2.945	1.00	54.17	N	ATOM	2860	C2	A A 143	92.075	50.888	1.417	1.00	63.98	C
ATOM	2811	C5	A A 141	89.648	59.029	-3.422	1.00	54.17	C	ATOM	2861	N3	A A 143	91.513	50.252	0.380	1.00	63.98	N
ATOM	2812	C6	A A 141	90.773	58.371	-2.908	1.00	54.17	C	ATOM	2862	C4	A A 143	90.331	50.816	0.062	1.00	63.98	C
ATOM	2813	N6	A A 141	91.337	58.666	-1.737	1.00	54.17	N	ATOM	2863	P	G A 144	86.506	46.008	-0.697	1.00	95.61	P
ATOM	2814	N1	A A 141	91.304	57.371	-3.644	1.00	54.17	N	ATOM	2864	O1P	G A 144	85.456	46.969	-0.271	1.00	83.00	O
ATOM	2815	C2	A A 141	90.723	57.048	-4.808	1.00	54.17	C	ATOM	2865	O2P	G A 144	87.526	45.554	0.280	1.00	83.00	O



Table 2: Sheet 28/520

ATOM	2666	N3	A A 134	111.055	61.324	0.968	1.00 48.96	N	ATOM	2716	O3*	C A 137	96.961	69.525	4.897	1.00 59.00	O
ATOM	2667	C4	A A 134	110.770	61.836	-0.240	1.00 48.96	C	ATOM	2717	C2*	C A 137	98.227	70.043	2.861	1.00 59.00	C
ATOM	2668	P	C A 135	104.942	59.368	-0.660	1.00 47.66	P	ATOM	2718	O2*	C A 137	98.008	71.412	3.140	1.00 59.00	O
ATOM	2669	O1P	C A 135	103.995	58.241	-0.432	1.00 65.65	O	ATOM	2719	C1*	C A 137	99.711	69.870	2.556	1.00 59.00	C
ATOM	2670	O2P	C A 135	104.564	60.459	-1.589	1.00 65.65	O	ATOM	2720	N1	C A 137	99.980	68.868	1.505	1.00 48.82	N
ATOM	2671	O5*	C A 135	105.301	60.015	0.746	1.00 47.66	O	ATOM	2721	C2	C A 137	99.510	69.113	0.219	1.00 48.82	C
ATOM	2672	C5*	C A 135	105.702	59.188	1.835	1.00 47.66	C	ATOM	2722	O2	C A 137	98.866	70.141	0.010	1.00 48.82	O
ATOM	2673	C4*	C A 135	106.374	60.013	2.896	1.00 47.66	C	ATOM	2723	N3	C A 137	99.762	68.231	-0.762	1.00 48.82	N
ATOM	2674	O4*	C A 135	107.619	60.543	2.377	1.00 47.66	O	ATOM	2724	C4	C A 137	100.455	67.133	-0.497	1.00 48.82	C
ATOM	2675	C3*	C A 135	105.620	61.245	3.366	1.00 47.66	C	ATOM	2725	N4	C A 137	100.692	66.292	-1.501	1.00 48.82	N
ATOM	2676	O3*	C A 135	104.633	60.976	4.336	1.00 47.66	O	ATOM	2726	C5	C A 137	100.940	66.846	0.809	1.00 48.82	C
ATOM	2677	C2*	C A 135	106.729	62.106	3.933	1.00 47.66	C	ATOM	2727	C6	C A 137	100.681	67.729	1.772	1.00 48.82	C
ATOM	2678	O2*	C A 135	107.075	61.671	5.225	1.00 47.66	O	ATOM	2728	P	G A 138	95.552	68.781	4.710	1.00 63.99	P
ATOM	2679	C1*	C A 135	107.875	61.806	2.970	1.00 47.66	C	ATOM	2729	O1P	G A 138	94.788	69.130	5.928	1.00 43.47	O
ATOM	2680	N1	C A 135	107.968	62.836	1.920	1.00 65.65	N	ATOM	2730	O2P	G A 138	95.781	67.363	4.357	1.00 43.47	O
ATOM	2681	C2	C A 135	108.616	64.034	2.227	1.00 65.65	C	ATOM	2731	O5*	G A 138	94.900	69.451	3.423	1.00 63.99	O
ATOM	2682	O2	C A 135	109.117	64.171	3.351	1.00 65.65	O	ATOM	2732	C5*	G A 138	94.584	70.844	3.398	1.00 63.99	C
ATOM	2683	N3	C A 135	108.682	65.010	1.297	1.00 65.65	N	ATOM	2733	C4*	G A 138	94.075	71.231	2.036	1.00 63.99	C
ATOM	2684	C4	C A 135	108.135	64.821	0.094	1.00 65.65	C	ATOM	2734	O4*	G A 138	95.156	71.229	1.066	1.00 63.99	O
ATOM	2685	N4	C A 135	108.216	65.822	-0.798	1.00 65.65	N	ATOM	2735	C3*	G A 138	93.051	70.286	1.441	1.00 63.99	C
ATOM	2686	C5	C A 135	107.480	63.601	-0.253	1.00 65.65	C	ATOM	2736	O3*	G A 138	91.752	70.508	1.951	1.00 63.99	O
ATOM	2687	C6	C A 135	107.422	62.645	0.681	1.00 65.65	C	ATOM	2737	C2*	G A 138	93.155	71.709	-0.049	1.00 63.99	C
ATOM	2688	P	C A 136	103.185	61.645	4.172	1.00 55.35	P	ATOM	2738	O2*	G A 138	92.415	71.709	-0.425	1.00 63.99	O
ATOM	2689	O1P	C A 136	102.331	61.185	5.289	1.00 46.30	O	ATOM	2739	C1*	G A 138	94.648	70.862	-0.208	1.00 63.99	C
ATOM	2690	O2P	C A 136	102.738	61.431	2.771	1.00 46.30	O	ATOM	2740	N9	G A 138	95.358	69.681	-0.684	1.00 43.47	N
ATOM	2691	O5*	C A 136	103.452	63.202	4.356	1.00 55.35	O	ATOM	2741	C8	G A 138	96.122	68.814	0.056	1.00 43.47	C
ATOM	2692	C5*	C A 136	104.031	63.738	5.569	1.00 55.35	C	ATOM	2742	N7	G A 138	96.582	67.811	-0.647	1.00 43.47	N
ATOM	2693	C4*	C A 136	103.978	65.246	5.529	1.00 55.35	C	ATOM	2743	C5	G A 138	96.097	68.035	-1.928	1.00 43.47	C
ATOM	2694	O4*	C A 136	104.935	65.733	4.552	1.00 55.35	O	ATOM	2744	C6	G A 138	96.250	67.276	-3.111	1.00 43.47	C
ATOM	2695	O3*	C A 136	102.633	65.768	5.048	1.00 55.35	O	ATOM	2745	O6	G A 138	96.834	66.197	-3.269	1.00 43.47	O
ATOM	2696	C3*	C A 136	101.690	65.895	6.102	1.00 55.35	C	ATOM	2746	N1	G A 138	95.621	67.880	-4.186	1.00 43.47	N
ATOM	2697	C2*	C A 136	102.979	67.092	4.384	1.00 55.35	C	ATOM	2747	C2	G A 138	94.920	69.046	-4.127	1.00 43.47	C
ATOM	2698	O2*	C A 136	103.057	68.163	5.291	1.00 55.35	O	ATOM	2748	N2	G A 138	94.387	69.460	-5.274	1.00 43.47	N
ATOM	2699	C1*	C A 136	104.364	66.797	3.811	1.00 55.35	C	ATOM	2749	N3	G A 138	94.749	69.755	-3.028	1.00 43.47	N
ATOM	2700	N1	C A 136	104.311	66.406	2.396	1.00 46.30	N	ATOM	2750	C4	G A 138	95.361	69.195	-1.973	1.00 43.47	C
ATOM	2701	C2	C A 136	104.067	67.391	1.432	1.00 46.30	C	ATOM	2751	P	G A 139	90.723	69.281	2.035	1.00 70.96	P
ATOM	2702	O2	C A 136	103.890	68.568	1.801	1.00 46.30	O	ATOM	2752	O1P	G A 139	89.557	69.781	2.794	1.00 68.90	O
ATOM	2703	N3	C A 136	104.026	67.044	0.126	1.00 46.30	N	ATOM	2753	O2P	G A 139	91.422	68.060	2.499	1.00 68.90	O
ATOM	2704	C4	C A 136	104.216	65.779	-0.229	1.00 46.30	C	ATOM	2754	O5*	G A 139	90.312	69.067	0.516	1.00 70.96	O
ATOM	2705	N4	C A 136	104.174	65.488	-1.518	1.00 46.30	N	ATOM	2755	C5*	G A 139	89.752	69.147	-0.228	1.00 70.96	C
ATOM	2706	C5	C A 136	104.459	64.755	0.730	1.00 46.30	C	ATOM	2756	C4*	G A 139	89.669	69.798	-1.689	1.00 70.96	C
ATOM	2707	C6	C A 136	104.497	65.109	2.018	1.00 46.30	C	ATOM	2757	O4*	G A 139	91.001	69.649	-2.244	1.00 70.96	O
ATOM	2708	P	C A 137	100.131	65.676	5.789	1.00 59.00	P	ATOM	2758	C3*	G A 139	88.979	68.496	-2.051	1.00 70.96	C
ATOM	2709	O1P	C A 137	99.398	65.502	7.073	1.00 48.82	O	ATOM	2759	O3*	G A 139	87.565	68.610	-2.022	1.00 70.96	O
ATOM	2710	O2P	C A 137	100.006	64.569	4.801	1.00 48.82	O	ATOM	2760	C2*	G A 139	89.522	68.228	-3.451	1.00 70.96	C
ATOM	2711	O5*	C A 137	99.705	67.021	5.064	1.00 59.00	O	ATOM	2761	O2*	G A 139	88.873	68.979	-4.459	1.00 70.96	O
ATOM	2712	C5*	C A 137	99.776	68.263	5.745	1.00 59.00	C	ATOM	2762	C1*	G A 139	90.963	68.726	-3.324	1.00 70.96	C
ATOM	2713	C4*	C A 137	99.374	69.366	4.816	1.00 59.00	C	ATOM	2763	N9	G A 139	91.886	67.627	-3.052	1.00 68.90	N
ATOM	2714	O4*	C A 137	100.350	69.477	3.755	1.00 59.00	O	ATOM	2764	C8	G A 139	92.495	67.322	-1.859	1.00 68.90	C
ATOM	2715	C3*	C A 137	98.063	69.154	4.086	1.00 59.00	C	ATOM	2765	N7	G A 139	93.234	66.247	-1.923	1.00 68.90	N



Table 2: Sheet 31/520

ATOM	2966	C1*	G A 148	101.152	32.104	-6.021	1.00	85.02	C	ATOM	3016	C4	C A 150	106.950	31.749	1.067	1.00	60.53	C
ATOM	2967	N9	G A 148	100.676	32.725	-4.792	1.00	69.28	N	ATOM	3017	N4	C A 150	105.823	31.561	1.753	1.00	60.53	N
ATOM	2968	C8	G A 148	99.487	32.485	-4.147	1.00	69.28	C	ATOM	3018	C5	C A 150	107.267	30.903	-0.036	1.00	60.53	C
ATOM	2969	N7	G A 148	99.360	33.162	-3.041	1.00	69.28	N	ATOM	3019	C6	C A 150	108.400	31.154	-0.703	1.00	60.53	C
ATOM	2970	C5	G A 148	100.530	33.902	-2.953	1.00	69.28	C	ATOM	3020	P	A A 151	114.060	29.582	-0.719	1.00	47.99	P
ATOM	2971	C6	G A 148	100.956	34.817	-1.970	1.00	69.28	C	ATOM	3021	O1P	A A 151	115.396	29.196	-1.249	1.00	57.89	O
ATOM	2972	O6	G A 148	100.373	35.155	-0.937	1.00	69.28	O	ATOM	3022	O2P	A A 151	113.179	28.549	-0.097	1.00	57.89	O
ATOM	2973	N1	G A 148	102.198	35.357	-2.275	1.00	69.28	N	ATOM	3023	O5*	A A 151	114.288	30.716	0.364	1.00	47.99	O
ATOM	2974	C2	G A 148	102.938	35.050	-3.385	1.00	69.28	C	ATOM	3024	C5*	A A 151	114.547	30.379	1.717	1.00	47.99	C
ATOM	2975	N2	G A 148	104.108	35.689	-3.507	1.00	69.28	N	ATOM	3025	C4*	A A 151	114.659	31.628	2.526	1.00	47.99	C
ATOM	2976	N3	G A 148	102.558	34.183	-4.309	1.00	69.28	N	ATOM	3026	O4*	A A 151	113.412	32.355	2.465	1.00	47.99	O
ATOM	2977	C4	G A 148	101.349	33.652	-4.031	1.00	69.28	C	ATOM	3027	C3*	A A 151	114.901	31.400	3.997	1.00	47.99	C
ATOM	2978	P	A A 149	102.957	27.906	-4.675	1.00	83.46	P	ATOM	3028	O3*	A A 151	116.289	31.243	4.222	1.00	47.99	O
ATOM	2979	O1P	A A 149	103.165	26.489	-5.092	1.00	61.25	O	ATOM	3029	C2*	A A 151	114.352	32.671	4.627	1.00	47.99	C
ATOM	2980	O2P	A A 149	102.259	28.210	-3.389	1.00	61.25	O	ATOM	3030	O2*	A A 151	115.291	33.725	4.569	1.00	47.99	O
ATOM	2981	O5*	A A 149	104.376	28.627	-4.622	1.00	83.46	O	ATOM	3031	C1*	A A 151	113.196	33.015	3.691	1.00	47.99	C
ATOM	2982	C5*	A A 149	105.032	29.058	-5.828	1.00	83.46	C	ATOM	3032	N9	A A 151	111.869	32.665	4.187	1.00	57.89	N
ATOM	2983	C4*	A A 149	105.969	30.200	-5.526	1.00	83.46	C	ATOM	3033	C8	A A 151	110.965	31.793	3.641	1.00	57.89	C
ATOM	2984	O4*	A A 149	105.222	31.365	-5.097	1.00	83.46	O	ATOM	3034	N7	A A 151	109.828	31.739	4.291	1.00	57.89	N
ATOM	2985	C3*	A A 149	106.934	29.928	-4.391	1.00	83.46	C	ATOM	3035	C5	A A 151	110.004	32.624	5.343	1.00	57.89	C
ATOM	2986	O3*	A A 149	108.065	29.253	-4.880	1.00	83.46	O	ATOM	3036	C6	A A 151	109.164	33.023	6.390	1.00	57.89	C
ATOM	2987	C2*	A A 149	107.272	31.317	-3.868	1.00	83.46	C	ATOM	3037	N6	A A 151	107.930	32.552	6.570	1.00	57.89	N
ATOM	2988	O2*	A A 149	108.313	31.942	-4.592	1.00	83.46	O	ATOM	3038	N1	A A 151	109.639	33.931	7.264	1.00	57.89	N
ATOM	2989	C1*	A A 149	105.964	32.066	-4.115	1.00	83.46	C	ATOM	3039	C2	A A 151	110.880	34.387	7.095	1.00	57.89	C
ATOM	2990	N9	A A 149	105.123	32.247	-2.936	1.00	61.25	N	ATOM	3040	N3	A A 151	111.768	34.081	6.157	1.00	57.89	N
ATOM	2991	C8	A A 149	103.947	31.618	-2.622	1.00	61.25	C	ATOM	3041	C4	A A 151	111.260	33.188	5.299	1.00	57.89	C
ATOM	2992	N7	A A 149	103.381	32.067	-1.529	1.00	61.25	N	ATOM	3042	P	A A 152	116.794	30.148	5.272	1.00	60.51	P
ATOM	2993	C5	A A 149	104.254	33.047	-1.084	1.00	61.25	C	ATOM	3043	O1P	A A 152	118.245	30.374	5.543	1.00	64.28	O
ATOM	2994	C6	A A 149	104.214	33.916	0.015	1.00	61.25	C	ATOM	3044	O2P	A A 152	116.339	28.827	4.769	1.00	64.28	O
ATOM	2995	N6	A A 149	103.219	33.952	0.899	1.00	61.25	N	ATOM	3045	O5*	A A 152	115.970	30.495	6.591	1.00	60.51	O
ATOM	2996	N1	A A 149	105.245	34.764	0.176	1.00	61.25	N	ATOM	3046	C5*	A A 152	116.195	31.728	7.280	1.00	60.51	C
ATOM	2997	C2	A A 149	106.244	34.737	-0.715	1.00	61.25	C	ATOM	3047	C4*	A A 152	115.124	31.967	8.317	1.00	60.51	C
ATOM	2998	N3	A A 149	106.390	33.976	-1.795	1.00	61.25	N	ATOM	3048	O4*	A A 152	113.835	32.190	7.692	1.00	60.51	O
ATOM	2999	C4	A A 149	105.346	33.146	-1.925	1.00	61.25	C	ATOM	3049	C3*	A A 152	114.849	30.862	9.321	1.00	60.51	C
ATOM	3000	P	C A 150	108.935	28.362	-3.881	1.00	54.94	P	ATOM	3050	O3*	A A 152	115.802	30.831	10.368	1.00	60.51	O
ATOM	3001	O1P	C A 150	109.843	27.517	-4.705	1.00	60.53	O	ATOM	3051	C2*	A A 152	113.469	31.236	9.848	1.00	60.51	C
ATOM	3002	O2P	C A 150	108.038	27.724	-2.874	1.00	60.53	O	ATOM	3052	O2*	A A 152	113.509	32.194	10.892	1.00	60.51	O
ATOM	3003	O5*	C A 150	109.829	29.435	-3.125	1.00	54.94	O	ATOM	3053	C1*	A A 152	112.812	31.836	8.605	1.00	60.51	O
ATOM	3004	C5*	C A 150	110.750	30.265	-3.842	1.00	54.94	C	ATOM	3054	N9	A A 152	111.906	30.882	7.972	1.00	64.28	N
ATOM	3005	C4*	C A 150	111.310	31.293	-2.911	1.00	54.94	C	ATOM	3055	C8	A A 152	112.109	30.046	6.903	1.00	64.28	C
ATOM	3006	O4*	C A 150	110.231	32.139	-2.453	1.00	54.94	O	ATOM	3056	N7	A A 152	111.073	29.292	6.621	1.00	64.28	N
ATOM	3007	C3*	C A 150	111.895	30.702	-1.647	1.00	54.94	C	ATOM	3057	C5	A A 152	110.123	29.664	7.565	1.00	64.28	C
ATOM	3008	O3*	C A 150	113.246	30.340	-1.870	1.00	54.94	O	ATOM	3058	C6	A A 152	108.800	29.239	7.806	1.00	64.28	C
ATOM	3009	C2*	C A 150	111.728	31.820	-0.625	1.00	54.94	C	ATOM	3059	N6	A A 152	108.180	28.297	7.095	1.00	64.28	N
ATOM	3010	O2*	C A 150	112.794	32.746	-0.667	1.00	54.94	O	ATOM	3060	N1	A A 152	108.126	29.824	8.821	1.00	64.28	N
ATOM	3011	C1*	C A 150	110.442	32.495	-1.103	1.00	54.94	C	ATOM	3061	C2	A A 152	108.747	30.766	9.543	1.00	64.28	C
ATOM	3012	N1	C A 150	109.217	32.190	-0.342	1.00	60.53	N	ATOM	3062	N3	A A 152	109.982	31.245	9.417	1.00	64.28	N
ATOM	3013	C2	C A 150	108.889	32.996	0.757	1.00	60.53	C	ATOM	3063	C4	A A 152	110.622	30.645	8.397	1.00	64.28	C
ATOM	3014	O2	C A 150	109.654	33.922	1.073	1.00	60.53	O	ATOM	3064	P	C A 153	116.561	29.457	10.695	1.00	66.41	P
ATOM	3015	N3	C A 150	107.750	32.748	1.443	1.00	60.53	N	ATOM	3065	O1P	C A 153	117.244	29.653	11.996	1.00	64.09	O



Table 2: Sheet 31/520

ATOM	2966	CI*	G A 148	101.152	32.104	-6.021	1.00	85.02	C	ATOM	3016	C4	C A 150	106.950	31.749	1.067	1.00	60.53	C
ATOM	2967	N9	G A 148	100.676	32.725	-4.792	1.00	69.28	N	ATOM	3017	N4	C A 150	105.823	31.561	1.753	1.00	60.53	N
ATOM	2968	C8	G A 148	99.487	32.485	-4.147	1.00	69.28	C	ATOM	3018	C5	C A 150	107.267	30.903	-0.036	1.00	60.53	C
ATOM	2969	N7	G A 148	99.360	33.162	-3.041	1.00	69.28	N	ATOM	3019	C6	C A 150	108.400	31.154	-0.703	1.00	60.53	C
ATOM	2970	C5	G A 148	100.530	33.902	-2.953	1.00	69.28	C	ATOM	3020	P	A A 151	114.060	29.582	-0.719	1.00	47.99	P
ATOM	2971	C6	G A 148	100.956	34.817	-1.970	1.00	69.28	C	ATOM	3021	OlP	A A 151	115.396	29.196	-1.249	1.00	57.89	O
ATOM	2972	O6	G A 148	100.373	35.155	-0.937	1.00	69.28	O	ATOM	3022	O2P	A A 151	113.179	28.549	-0.097	1.00	57.89	O
ATOM	2973	N1	G A 148	102.198	35.357	-2.275	1.00	69.28	N	ATOM	3023	O5*	A A 151	114.288	30.716	0.364	1.00	47.99	O
ATOM	2974	C2	G A 148	102.938	35.050	-3.385	1.00	69.28	C	ATOM	3024	C5*	A A 151	114.547	30.379	1.717	1.00	47.99	C
ATOM	2975	N2	G A 148	104.108	35.689	-3.507	1.00	69.28	N	ATOM	3025	C4*	A A 151	114.659	31.628	2.526	1.00	47.99	C
ATOM	2976	N3	G A 148	102.558	34.183	-4.309	1.00	69.28	N	ATOM	3026	O4*	A A 151	113.412	32.355	2.465	1.00	47.99	O
ATOM	2977	C4	G A 148	101.349	33.652	-4.031	1.00	69.28	C	ATOM	3027	C3*	A A 151	114.901	31.400	3.997	1.00	47.99	C
ATOM	2978	P	A A 149	102.957	27.906	-4.675	1.00	83.46	P	ATOM	3028	O3*	A A 151	116.289	31.243	4.222	1.00	47.99	O
ATOM	2979	OlP	A A 149	103.165	26.489	-5.092	1.00	61.25	O	ATOM	3029	C2*	A A 151	114.352	32.671	4.627	1.00	47.99	C
ATOM	2980	O2P	A A 149	102.259	28.210	-3.389	1.00	61.25	O	ATOM	3030	O2*	A A 151	115.291	33.725	4.569	1.00	47.99	O
ATOM	2981	O5*	A A 149	104.376	28.627	-4.622	1.00	83.46	O	ATOM	3031	C1*	A A 151	113.196	33.015	3.691	1.00	47.99	C
ATOM	2982	C5*	A A 149	105.032	29.058	-5.828	1.00	83.46	C	ATOM	3032	N9	A A 151	111.869	32.665	4.187	1.00	57.89	N
ATOM	2983	C4*	A A 149	105.969	30.200	-5.526	1.00	83.46	C	ATOM	3033	C8	A A 151	110.965	31.793	3.641	1.00	57.89	C
ATOM	2984	O4*	A A 149	105.222	31.365	-5.097	1.00	83.46	O	ATOM	3034	N7	A A 151	109.828	31.739	4.291	1.00	57.89	N
ATOM	2985	C3*	A A 149	106.934	29.928	-4.391	1.00	83.46	C	ATOM	3035	C5	A A 151	110.004	32.624	5.343	1.00	57.89	C
ATOM	2986	O3*	A A 149	108.065	29.253	-4.880	1.00	83.46	O	ATOM	3036	C6	A A 151	109.164	33.023	6.390	1.00	57.89	C
ATOM	2987	C2*	A A 149	107.272	31.317	-3.868	1.00	83.46	C	ATOM	3037	N6	A A 151	107.930	32.552	6.570	1.00	57.89	N
ATOM	2988	O2*	A A 149	108.313	31.942	-4.592	1.00	83.46	O	ATOM	3038	C1	A A 151	109.639	33.931	7.264	1.00	57.89	C
ATOM	2989	Cl*	A A 149	105.964	32.066	-4.115	1.00	83.46	C	ATOM	3039	N2	A A 151	110.880	34.387	7.095	1.00	57.89	N
ATOM	2990	N9	A A 149	105.123	32.247	-2.936	1.00	61.25	N	ATOM	3040	N3	A A 151	111.768	34.081	6.157	1.00	57.89	N
ATOM	2991	C8	A A 149	103.947	31.618	-2.622	1.00	61.25	C	ATOM	3041	C4	A A 151	111.260	33.188	5.299	1.00	57.89	C
ATOM	2992	N7	A A 149	103.381	32.067	-1.529	1.00	61.25	N	ATOM	3042	P	A A 152	116.794	30.148	5.272	1.00	60.51	P
ATOM	2993	C5	A A 149	104.254	33.047	-1.084	1.00	61.25	C	ATOM	3043	OlP	A A 152	118.245	30.374	5.543	1.00	64.28	O
ATOM	2994	C6	A A 149	104.214	33.916	0.015	1.00	61.25	C	ATOM	3044	O2P	A A 152	116.339	28.827	4.769	1.00	64.28	O
ATOM	2995	N6	A A 149	103.219	33.952	0.899	1.00	61.25	N	ATOM	3045	O5*	A A 152	115.970	30.495	6.591	1.00	60.51	O
ATOM	2996	N1	A A 149	105.245	34.764	0.176	1.00	61.25	N	ATOM	3046	C5*	A A 152	116.195	31.728	7.280	1.00	60.51	C
ATOM	2997	C2	A A 149	106.244	34.737	-0.715	1.00	61.25	C	ATOM	3047	C4*	A A 152	115.124	31.967	8.317	1.00	60.51	C
ATOM	2998	N3	A A 149	106.390	33.976	-1.795	1.00	61.25	N	ATOM	3048	O4*	A A 152	113.835	32.190	7.692	1.00	60.51	C
ATOM	2999	C4	A A 149	105.346	33.146	-1.925	1.00	61.25	C	ATOM	3049	C3*	A A 152	114.849	30.862	9.321	1.00	60.51	C
ATOM	3000	P	C A 150	108.935	28.362	-3.881	1.00	54.94	P	ATOM	3050	O3*	A A 152	115.802	30.831	10.368	1.00	60.51	O
ATOM	3001	OlP	C A 150	109.843	27.517	-4.705	1.00	60.53	O	ATOM	3051	C2*	A A 152	113.469	31.236	9.848	1.00	60.51	C
ATOM	3002	O2P	C A 150	108.038	27.724	-2.874	1.00	60.53	O	ATOM	3052	O2*	A A 152	113.509	32.194	10.892	1.00	60.51	O
ATOM	3003	O5*	C A 150	109.829	29.435	-3.125	1.00	54.94	O	ATOM	3053	C1*	A A 152	112.812	31.836	8.605	1.00	60.51	C
ATOM	3004	C5*	C A 150	110.750	30.265	-3.842	1.00	54.94	C	ATOM	3054	N9	A A 152	111.906	30.882	7.972	1.00	64.28	N
ATOM	3005	C4*	C A 150	111.310	31.293	-2.911	1.00	54.94	C	ATOM	3055	C8	A A 152	112.109	30.046	6.903	1.00	64.28	C
ATOM	3006	O4*	C A 150	110.231	32.139	-2.453	1.00	54.94	O	ATOM	3056	N7	A A 152	111.073	29.292	6.621	1.00	64.28	N
ATOM	3007	C3*	C A 150	111.895	30.702	-1.647	1.00	54.94	C	ATOM	3057	C5	A A 152	110.123	29.664	7.565	1.00	64.28	C
ATOM	3008	O3*	C A 150	113.246	30.340	-1.870	1.00	54.94	O	ATOM	3058	C6	A A 152	108.800	29.239	7.806	1.00	64.28	C
ATOM	3009	C2*	C A 150	111.728	31.820	-0.625	1.00	54.94	C	ATOM	3059	N6	A A 152	108.180	28.297	7.095	1.00	64.28	N
ATOM	3010	O2*	C A 150	112.794	32.746	-0.667	1.00	54.94	O	ATOM	3060	N1	A A 152	108.126	29.824	8.821	1.00	64.28	N
ATOM	3011	Cl*	C A 150	110.442	32.495	-1.103	1.00	54.94	C	ATOM	3061	C2	A A 152	108.747	30.766	9.543	1.00	64.28	C
ATOM	3012	N1	C A 150	109.217	32.190	-0.342	1.00	60.53	N	ATOM	3062	N3	A A 152	109.982	31.245	9.417	1.00	64.28	N
ATOM	3013	C2	C A 150	108.889	32.996	0.757	1.00	60.53	C	ATOM	3063	C4	A A 152	110.622	30.645	8.397	1.00	64.28	C
ATOM	3014	O2	C A 150	109.654	33.922	1.073	1.00	60.53	O	ATOM	3064	P	C A 153	116.561	29.457	10.695	1.00	66.41	P
ATOM	3015	N3	C A 150	107.750	32.748	1.443	1.00	60.53	N	ATOM	3065	OlP	C A 153	117.244	29.653	11.996	1.00	64.09	O



Table 2: Sheet 33/520

ATOM	3166	C2	G A 157	126.703	21.887	-0.074	1.00126.42	C	ATOM	3216	P	A A 160	138.514	21.760	3.396	1.00107.05	P
ATOM	3167	N2	G A 157	127.300	22.462	-1.127	1.00126.42	N	ATOM	3217	O1P	A A 160	139.973	21.788	3.104	1.00116.60	O
ATOM	3168	N3	G A 157	126.455	20.588	-0.089	1.00126.42	N	ATOM	3218	O2P	A A 160	137.829	20.461	3.607	1.00116.60	O
ATOM	3169	C4	G A 157	125.849	20.175	1.046	1.00126.42	C	ATOM	3219	O5*	A A 160	138.225	22.677	4.665	1.00107.05	O
ATOM	3170	P	G A 158	129.756	15.974	2.294	1.00120.06	P	ATOM	3220	C5*	A A 160	138.712	22.310	5.966	1.00107.05	C
ATOM	3171	O1P	G A 158	130.752	14.880	2.161	1.00114.16	O	ATOM	3221	C4*	A A 160	139.250	23.525	6.685	1.00107.05	C
ATOM	3172	O2P	G A 158	129.364	16.452	1.451	1.00114.16	O	ATOM	3222	C3*	A A 160	138.290	24.698	5.968	1.00107.05	O
ATOM	3173	O5*	G A 158	130.290	17.217	1.451	1.00120.06	O	ATOM	3223	O4*	A A 160	137.452	24.563	7.936	1.00107.05	C
ATOM	3174	C5*	G A 158	130.740	17.044	0.092	1.00120.06	C	ATOM	3224	O3*	A A 160	139.225	25.896	6.925	1.00107.05	C
ATOM	3175	C4*	G A 158	131.225	18.357	-0.483	1.00120.06	C	ATOM	3225	C2*	A A 160	139.621	26.115	8.266	1.00107.05	O
ATOM	3176	O4*	G A 158	130.113	19.284	-0.607	1.00120.06	O	ATOM	3226	O2*	A A 160	140.425	25.461	6.074	1.00107.05	C
ATOM	3177	C3*	G A 158	132.255	19.118	0.334	1.00120.06	C	ATOM	3227	C1*	A A 160	140.468	26.028	4.720	1.00116.60	N
ATOM	3178	O3*	G A 158	133.581	18.649	0.152	1.00120.06	O	ATOM	3228	N9	A A 160	140.078	25.427	3.546	1.00116.60	C
ATOM	3179	C2*	G A 158	132.080	20.544	-0.169	1.00120.06	C	ATOM	3229	C8	A A 160	140.241	26.180	2.485	1.00116.60	N
ATOM	3180	O2*	G A 158	132.749	20.783	-1.392	1.00120.06	O	ATOM	3230	N7	A A 160	140.771	27.358	2.990	1.00116.60	C
ATOM	3181	C1*	G A 158	130.569	20.611	-0.388	1.00120.06	C	ATOM	3231	C5	A A 160	141.162	28.555	2.372	1.00116.60	C
ATOM	3182	N9	G A 158	129.903	21.154	0.795	1.00114.16	N	ATOM	3232	C6	A A 160	141.071	28.768	1.058	1.00116.60	N
ATOM	3183	C8	G A 158	129.138	20.475	1.714	1.00114.16	C	ATOM	3233	N1	A A 160	141.655	29.536	3.157	1.00116.60	N
ATOM	3184	N7	G A 158	128.721	21.230	2.693	1.00114.16	N	ATOM	3234	C2	A A 160	141.739	29.321	4.474	1.00116.60	C
ATOM	3185	C5	G A 158	129.231	22.485	2.400	1.00114.16	C	ATOM	3235	C3	A A 160	141.400	28.241	5.175	1.00116.60	N
ATOM	3186	C6	G A 158	129.121	23.707	3.108	1.00114.16	C	ATOM	3236	N3	A A 160	140.917	27.281	4.365	1.00116.60	C
ATOM	3187	O6	G A 158	128.535	23.928	4.176	1.00114.16	O	ATOM	3237	C4	A A 160	135.919	25.032	7.856	1.00126.65	P
ATOM	3188	N1	G A 158	129.791	24.738	2.455	1.00114.16	N	ATOM	3238	P	A A 161	135.294	24.704	9.164	1.00 86.17	O
ATOM	3189	C2	G A 158	130.486	24.607	1.274	1.00114.16	C	ATOM	3239	O1P	A A 161	135.344	24.471	6.598	1.00 86.17	O
ATOM	3190	N2	G A 158	131.071	25.716	0.799	1.00114.16	N	ATOM	3240	O2P	A A 161	136.008	26.622	7.738	1.00126.65	O
ATOM	3191	N3	G A 158	130.600	23.472	0.609	1.00114.16	N	ATOM	3241	O5*	A A 161	136.568	27.418	8.813	1.00126.65	C
ATOM	3192	C4	G A 158	129.952	22.459	1.225	1.00114.16	C	ATOM	3242	C5*	A A 161	137.000	28.781	8.303	1.00126.65	C
ATOM	3193	P	G A 159	134.672	18.916	1.301	1.00118.69	P	ATOM	3243	C4*	A A 161	137.984	28.603	7.254	1.00126.65	O
ATOM	3194	O1P	G A 159	135.974	18.408	0.804	1.00115.13	O	ATOM	3244	O4*	A A 161	135.917	29.646	7.675	1.00126.65	C
ATOM	3195	O2P	G A 159	134.134	18.423	2.596	1.00115.13	O	ATOM	3245	C3*	A A 161	135.230	30.418	8.652	1.00126.65	O
ATOM	3196	O5*	G A 159	134.757	20.504	1.393	1.00118.69	O	ATOM	3246	O3*	A A 161	137.806	29.588	6.253	1.00126.65	C
ATOM	3197	C5*	G A 159	135.412	21.273	0.361	1.00118.69	C	ATOM	3247	C2*	A A 161	137.302	31.632	7.380	1.00126.65	O
ATOM	3198	C4*	G A 159	135.738	22.661	0.865	1.00118.69	C	ATOM	3248	O2*	A A 161	137.806	29.588	6.253	1.00126.65	C
ATOM	3199	O4*	G A 159	134.529	23.454	0.977	1.00118.69	O	ATOM	3249	C1*	A A 161	137.480	28.907	5.000	1.00 86.17	N
ATOM	3200	C3*	G A 159	136.373	22.723	2.245	1.00118.69	C	ATOM	3250	N9	A A 161	136.877	27.683	4.840	1.00 86.17	C
ATOM	3201	O3*	G A 159	137.777	22.518	2.188	1.00118.69	O	ATOM	3251	C8	A A 161	136.732	27.324	3.589	1.00 86.17	N
ATOM	3202	C2*	G A 159	136.016	24.128	2.715	1.00118.69	C	ATOM	3252	N7	A A 161	137.273	28.384	2.873	1.00 86.17	C
ATOM	3203	O2*	G A 159	136.899	25.107	2.207	1.00118.69	O	ATOM	3253	C5	A A 161	137.430	28.614	1.493	1.00 86.17	C
ATOM	3204	C1*	G A 159	134.632	24.322	2.094	1.00118.69	C	ATOM	3254	C6	A A 161	137.005	29.774	0.544	1.00 86.17	N
ATOM	3205	N9	G A 159	133.552	24.002	3.023	1.00115.13	N	ATOM	3255	N6	A A 161	138.046	30.637	2.061	1.00 86.17	C
ATOM	3206	C8	G A 159	132.769	22.873	3.024	1.00115.13	C	ATOM	3256	N1	A A 161	138.392	30.637	2.061	1.00 86.17	N
ATOM	3207	N7	G A 159	131.876	22.870	3.974	1.00115.13	N	ATOM	3257	C2	A A 161	138.303	30.534	3.383	1.00 86.17	N
ATOM	3208	C5	G A 159	132.080	24.067	4.645	1.00115.13	C	ATOM	3258	N3	A A 161	137.729	29.370	3.729	1.00 86.17	C
ATOM	3209	C6	G A 159	131.405	24.616	5.761	1.00115.13	C	ATOM	3259	C4	A A 161	133.725	30.906	8.364	1.00106.58	P
ATOM	3210	O6	G A 159	130.450	24.144	6.390	1.00115.13	O	ATOM	3260	P	A A 162	133.276	31.671	9.558	1.00112.56	O
ATOM	3211	N1	G A 159	131.939	25.846	6.129	1.00115.13	N	ATOM	3261	O1P	A A 162	132.925	29.746	7.891	1.00112.56	O
ATOM	3212	C2	G A 159	132.981	26.476	5.497	1.00115.13	C	ATOM	3262	O2P	A A 162	133.867	31.905	7.132	1.00106.58	O
ATOM	3213	N2	G A 159	133.349	27.665	6.003	1.00115.13	N	ATOM	3263	O5*	A A 162	134.407	33.227	7.305	1.00106.58	C
ATOM	3214	N3	G A 159	133.616	25.977	4.445	1.00115.13	N	ATOM	3264	C5*	A A 162	134.444	33.953	5.983	1.00106.58	C
ATOM	3215	C4	G A 159	133.115	24.777	4.076	1.00115.13	C	ATOM	3265	C4*	A A 162					



Table 2: Sheet 33/520

ATOM	3166	C2	G A 157	126.703	21.887	-0.074	1.00126.42	C	ATOM	3216	P	A A 160	138.514	21.760	3.396	1.00107.05	P
ATOM	3167	N2	G A 157	127.300	22.462	-1.127	1.00126.42	N	ATOM	3217	O1P	A A 160	139.973	21.788	3.104	1.00116.60	O
ATOM	3168	N3	G A 157	126.455	20.588	-0.089	1.00126.42	N	ATOM	3218	O2P	A A 160	137.829	22.461	3.607	1.00116.60	O
ATOM	3169	C4	G A 157	125.849	20.175	1.046	1.00126.42	C	ATOM	3219	O5*	A A 160	138.225	22.677	4.665	1.00107.05	O
ATOM	3170	P	G A 158	129.756	15.974	2.294	1.00120.06	P	ATOM	3220	C5*	A A 160	138.712	22.310	5.966	1.00107.05	C
ATOM	3171	O1P	G A 158	130.752	14.880	2.161	1.00114.16	O	ATOM	3221	C4*	A A 160	139.250	23.525	6.685	1.00107.05	C
ATOM	3172	O2P	G A 158	129.364	16.452	3.651	1.00114.16	O	ATOM	3222	O4*	A A 160	140.397	24.048	5.968	1.00107.05	O
ATOM	3173	O5*	G A 158	130.290	17.217	1.451	1.00120.06	O	ATOM	3223	C3*	A A 160	138.290	24.698	6.795	1.00107.05	C
ATOM	3174	C5*	G A 158	130.740	17.044	0.092	1.00120.06	C	ATOM	3224	O3*	A A 160	137.452	24.563	7.936	1.00107.05	O
ATOM	3175	C4*	G A 158	131.225	18.357	-0.483	1.00120.06	C	ATOM	3225	C2*	A A 160	139.225	25.896	6.925	1.00107.05	C
ATOM	3176	O4*	G A 158	130.113	19.284	-0.607	1.00120.06	O	ATOM	3226	O2*	A A 160	139.621	26.115	8.266	1.00107.05	O
ATOM	3177	C3*	G A 158	132.255	19.118	0.334	1.00120.06	C	ATOM	3227	C1*	A A 160	140.425	25.461	6.074	1.00107.05	C
ATOM	3178	O3*	G A 158	133.581	18.649	0.152	1.00120.06	O	ATOM	3228	N9	A A 160	140.468	26.028	4.720	1.00116.60	N
ATOM	3179	C2*	G A 158	132.080	20.544	-0.169	1.00120.06	C	ATOM	3229	C8	A A 160	140.078	25.427	3.546	1.00116.60	C
ATOM	3180	O2*	G A 158	132.749	20.783	-1.392	1.00120.06	O	ATOM	3230	N7	A A 160	140.241	26.180	2.485	1.00116.60	N
ATOM	3181	C1*	G A 158	130.569	20.611	-0.388	1.00120.06	C	ATOM	3231	C5	A A 160	140.771	27.358	2.990	1.00116.60	C
ATOM	3182	N9	G A 158	129.903	21.154	0.795	1.00114.16	N	ATOM	3232	C6	A A 160	141.162	28.555	2.372	1.00116.60	C
ATOM	3183	C8	G A 158	129.138	20.475	1.714	1.00114.16	C	ATOM	3233	N6	A A 160	141.071	28.768	1.058	1.00116.60	N
ATOM	3184	N7	G A 158	128.721	21.230	2.693	1.00114.16	N	ATOM	3234	N1	A A 160	141.655	29.536	3.157	1.00116.60	N
ATOM	3185	C5	G A 158	129.231	22.485	2.400	1.00114.16	C	ATOM	3235	C2	A A 160	141.739	29.321	4.474	1.00116.60	C
ATOM	3186	C6	G A 158	129.121	23.707	3.108	1.00114.16	C	ATOM	3236	N3	A A 160	141.400	28.241	5.175	1.00116.60	N
ATOM	3187	O6	G A 158	128.535	23.928	4.176	1.00114.16	O	ATOM	3237	C4	A A 160	140.917	27.281	4.365	1.00116.60	C
ATOM	3188	N1	G A 158	129.791	24.738	2.455	1.00114.16	N	ATOM	3238	P	A A 161	135.919	25.032	7.856	1.00126.65	P
ATOM	3189	C2	G A 158	130.486	24.607	1.274	1.00114.16	C	ATOM	3239	O1P	A A 161	135.294	24.704	9.164	1.00 86.17	O
ATOM	3190	N2	G A 158	131.071	25.716	0.799	1.00114.16	N	ATOM	3240	O2P	A A 161	135.344	24.471	6.598	1.00 86.17	O
ATOM	3191	N3	G A 158	130.600	23.472	0.609	1.00114.16	N	ATOM	3241	O5*	A A 161	136.008	26.622	7.738	1.00126.65	O
ATOM	3192	C4	G A 158	129.952	22.459	1.225	1.00114.16	C	ATOM	3242	C5*	A A 161	136.568	27.418	8.813	1.00126.65	C
ATOM	3193	P	G A 159	134.672	18.916	1.301	1.00118.69	P	ATOM	3243	C4*	A A 161	137.000	28.781	8.303	1.00126.65	C
ATOM	3194	O1P	G A 159	135.974	18.408	0.804	1.00115.13	O	ATOM	3244	O4*	A A 161	137.984	28.603	7.254	1.00126.65	O
ATOM	3195	O2P	G A 159	134.134	18.423	2.596	1.00115.13	O	ATOM	3245	C3*	A A 161	135.917	29.646	7.675	1.00126.65	C
ATOM	3196	O5*	G A 159	134.757	20.504	1.393	1.00118.69	O	ATOM	3246	O3*	A A 161	135.230	30.418	8.652	1.00126.65	O
ATOM	3197	C5*	G A 159	135.412	21.273	0.361	1.00118.69	C	ATOM	3247	C2*	A A 161	136.704	30.536	6.722	1.00126.65	C
ATOM	3198	C4*	G A 159	135.738	22.661	0.865	1.00118.69	C	ATOM	3248	O2*	A A 161	137.302	31.632	7.380	1.00126.65	O
ATOM	3199	O4*	G A 159	134.529	23.454	0.977	1.00118.69	O	ATOM	3249	C1*	A A 161	137.806	29.588	6.253	1.00126.65	C
ATOM	3200	C3*	G A 159	136.373	22.723	2.245	1.00118.69	C	ATOM	3250	N9	A A 161	137.480	28.907	5.000	1.00 86.17	N
ATOM	3201	O3*	G A 159	137.777	22.518	2.188	1.00118.69	O	ATOM	3251	C8	A A 161	136.877	27.683	4.840	1.00 86.17	C
ATOM	3202	C2*	G A 159	136.016	24.128	2.715	1.00118.69	C	ATOM	3252	N7	A A 161	136.732	27.324	3.589	1.00 86.17	N
ATOM	3203	O2*	G A 159	136.899	25.107	2.207	1.00118.69	O	ATOM	3253	C5	A A 161	137.273	28.384	2.873	1.00 86.17	C
ATOM	3204	C1*	G A 159	134.632	24.322	2.094	1.00118.69	C	ATOM	3254	C6	A A 161	137.430	28.614	1.493	1.00 86.17	C
ATOM	3205	N9	G A 159	133.552	24.002	3.023	1.00115.13	N	ATOM	3255	N6	A A 161	137.046	29.774	0.544	1.00 86.17	N
ATOM	3206	C8	G A 159	132.769	22.873	3.024	1.00115.13	C	ATOM	3256	N1	A A 161	138.005	29.774	1.114	1.00 86.17	N
ATOM	3207	N7	G A 159	131.876	22.870	3.974	1.00115.13	N	ATOM	3257	C2	A A 161	138.392	30.637	2.061	1.00 86.17	C
ATOM	3208	C5	G A 159	132.080	24.067	4.645	1.00115.13	C	ATOM	3258	N3	A A 161	138.303	30.534	3.383	1.00 86.17	N
ATOM	3209	C6	G A 159	131.405	24.616	5.761	1.00115.13	C	ATOM	3259	C4	A A 161	137.729	29.370	3.729	1.00 86.17	C
ATOM	3210	O6	G A 159	130.450	24.144	6.390	1.00115.13	O	ATOM	3260	P	A A 162	133.725	30.906	8.364	1.00106.58	P
ATOM	3211	N1	G A 159	131.939	25.846	6.129	1.00115.13	N	ATOM	3261	O1P	A A 162	133.276	31.671	9.558	1.00112.56	O
ATOM	3212	C2	G A 159	132.981	26.476	5.497	1.00115.13	C	ATOM	3262	O2P	A A 162	132.925	29.746	7.891	1.00112.56	O
ATOM	3213	N2	G A 159	133.349	27.665	6.003	1.00115.13	N	ATOM	3263	O5*	A A 162	133.867	31.905	7.132	1.00106.58	O
ATOM	3214	N3	G A 159	133.616	25.977	4.445	1.00115.13	N	ATOM	3264	C5*	A A 162	134.407	33.227	7.305	1.00106.58	C
ATOM	3215	C4	G A 159	133.115	24.777	4.076	1.00115.13	C	ATOM	3265	C4*	A A 162	134.444	33.953	5.983	1.00106.58	C



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3366	ATOM	G A 167	115.756	21.510	-7.014	1.00 89.68	O	ATOM	3416	C4*	C A 169	105.762	21.931	3.023	1.00 67.50	C
3367	ATOM	G A 167	116.466	23.202	-5.205	1.00 89.68	O	ATOM	3417	O4*	C A 169	107.070	22.217	3.581	1.00 67.50	O
3368	ATOM	G A 167	115.861	20.865	-4.586	1.00 65.64	O	ATOM	3418	C3*	C A 169	105.130	23.305	2.938	1.00 67.50	C
3369	ATOM	G A 167	115.734	19.450	-4.794	1.00 65.64	C	ATOM	3419	O3*	C A 169	103.711	23.260	2.861	1.00 67.50	O
3370	ATOM	G A 167	115.102	18.793	-3.596	1.00 65.64	C	ATOM	3420	C2*	C A 169	105.565	23.924	4.265	1.00 67.50	C
3371	ATOM	G A 167	116.015	18.844	-2.471	1.00 65.64	O	ATOM	3421	O2*	C A 169	104.716	23.545	5.327	1.00 67.50	O
3372	ATOM	G A 167	113.831	19.426	-3.064	1.00 65.64	C	ATOM	3422	C1*	C A 169	106.938	23.289	4.496	1.00 67.50	C
3373	ATOM	G A 167	112.660	19.065	-3.768	1.00 65.64	O	ATOM	3423	N1	C A 169	108.029	24.266	4.320	1.00 75.24	N
3374	ATOM	G A 167	113.791	18.925	-1.630	1.00 65.64	C	ATOM	3424	C2	C A 169	108.442	25.001	5.440	1.00 75.24	C
3375	ATOM	G A 167	113.260	17.620	-1.539	1.00 65.64	O	ATOM	3425	O2	C A 169	107.948	24.735	6.553	1.00 75.24	O
3376	ATOM	G A 167	115.275	18.921	-1.263	1.00 65.64	C	ATOM	3426	N3	C A 169	109.370	25.976	5.288	1.00 75.24	N
3377	ATOM	G A 167	115.646	20.142	-0.554	1.00 89.68	N	ATOM	3427	C4	C A 169	109.897	26.215	4.089	1.00 75.24	C
3378	ATOM	G A 167	116.357	21.207	-1.045	1.00 89.68	C	ATOM	3428	N4	C A 169	110.786	27.208	3.986	1.00 75.24	N
3379	ATOM	G A 167	116.503	22.169	-0.176	1.00 89.68	N	ATOM	3429	C5	C A 169	109.532	25.450	2.941	1.00 75.24	C
3380	ATOM	G A 167	115.851	21.708	0.959	1.00 89.68	C	ATOM	3430	C6	C A 169	108.604	24.493	3.100	1.00 75.24	C
3381	ATOM	G A 167	115.669	22.321	2.231	1.00 89.68	C	ATOM	3431	P	U A 170	102.912	24.503	2.215	1.00 68.05	P
3382	ATOM	G A 168	116.056	23.427	2.617	1.00 89.68	O	ATOM	3432	O1P	U A 170	101.444	24.256	2.245	1.00 52.55	O
3383	ATOM	G A 167	114.951	21.503	3.094	1.00 89.68	N	ATOM	3433	O2P	U A 170	103.576	24.814	0.926	1.00 52.55	O
3384	ATOM	G A 167	114.466	20.261	2.781	1.00 89.68	C	ATOM	3434	O5*	U A 170	103.203	25.709	3.210	1.00 68.05	O
3385	ATOM	G A 167	113.795	19.632	3.754	1.00 89.68	N	ATOM	3435	C5*	U A 170	102.658	25.721	4.538	1.00 68.05	C
3386	ATOM	G A 167	114.626	19.680	1.601	1.00 89.68	N	ATOM	3436	C4*	U A 170	103.008	27.016	5.233	1.00 68.05	C
3387	ATOM	G A 167	115.324	20.456	0.745	1.00 89.68	C	ATOM	3437	O4*	U A 170	104.432	27.088	5.506	1.00 68.05	O
3388	ATOM	G A 168	111.355	20.002	-3.639	1.00 65.53	P	ATOM	3438	C3*	U A 170	102.708	28.276	4.447	1.00 68.05	C
3389	ATOM	G A 168	110.250	19.427	-4.461	1.00 73.99	O	ATOM	3439	O3*	U A 170	101.352	28.639	4.604	1.00 68.05	O
3390	ATOM	G A 168	111.798	21.408	-3.887	1.00 73.99	O	ATOM	3440	C2*	U A 170	103.648	29.292	5.078	1.00 68.05	C
3391	ATOM	G A 168	110.960	19.891	-2.097	1.00 65.53	O	ATOM	3441	O2*	U A 170	103.130	29.789	6.289	1.00 68.05	O
3392	ATOM	G A 168	110.424	18.674	-1.563	1.00 65.53	C	ATOM	3442	C1*	U A 170	104.866	28.432	5.405	1.00 68.05	C
3393	ATOM	G A 168	109.890	18.892	-0.171	1.00 65.53	C	ATOM	3443	N1	U A 170	105.926	28.515	4.388	1.00 52.55	N
3394	ATOM	G A 168	110.982	19.116	0.754	1.00 65.53	O	ATOM	3444	C2	U A 170	106.940	29.432	4.597	1.00 52.55	C
3395	ATOM	G A 168	108.978	20.084	0.030	1.00 65.53	O	ATOM	3445	O2	U A 170	106.948	30.199	5.549	1.00 52.55	O
3396	ATOM	G A 168	107.642	19.838	-0.378	1.00 65.53	C	ATOM	3446	N3	U A 170	107.935	29.430	3.646	1.00 52.55	N
3397	ATOM	G A 168	109.087	20.330	1.530	1.00 65.53	C	ATOM	3447	C4	U A 170	108.004	28.639	2.521	1.00 52.55	C
3398	ATOM	G A 168	108.213	19.525	2.287	1.00 65.53	O	ATOM	3448	O4	U A 170	108.988	28.713	1.788	1.00 52.55	O
3399	ATOM	G A 168	110.542	19.947	1.815	1.00 65.53	C	ATOM	3449	C5	U A 170	106.900	27.744	2.354	1.00 52.55	C
3400	ATOM	G A 168	111.387	21.137	1.880	1.00 73.99	N	ATOM	3450	C6	U A 170	105.925	27.709	3.271	1.00 52.55	C
3401	ATOM	G A 168	112.181	21.662	0.886	1.00 73.99	N	ATOM	3451	P	A A 171	100.754	29.855	3.747	1.00 55.90	P
3402	ATOM	G A 168	112.731	22.799	1.219	1.00 73.99	N	ATOM	3452	O1P	A A 171	99.265	29.787	3.784	1.00 53.50	O
3403	ATOM	G A 168	112.292	23.030	2.517	1.00 73.99	C	ATOM	3453	O2P	A A 171	101.461	29.856	2.434	1.00 53.50	O
3404	ATOM	G A 168	112.533	24.121	3.393	1.00 73.99	C	ATOM	3454	O5*	A A 171	101.176	31.133	4.600	1.00 55.90	O
3405	ATOM	G A 168	113.181	25.145	3.186	1.00 73.99	O	ATOM	3455	C5*	A A 171	100.679	31.288	5.933	1.00 55.90	C
3406	ATOM	G A 168	111.909	23.942	4.618	1.00 73.99	N	ATOM	3456	C4*	A A 171	100.995	32.657	6.468	1.00 55.90	C
3407	ATOM	G A 168	111.140	22.867	4.961	1.00 73.99	C	ATOM	3457	O4*	A A 171	102.393	32.767	6.841	1.00 55.90	O
3408	ATOM	G A 168	110.635	22.883	6.197	1.00 73.99	N	ATOM	3458	C3*	A A 171	100.758	33.827	5.542	1.00 55.90	C
3409	ATOM	G A 168	110.886	21.851	4.153	1.00 73.99	N	ATOM	3459	O3*	A A 171	99.385	34.153	5.476	1.00 55.90	O
3410	ATOM	G A 168	111.490	21.999	2.952	1.00 73.99	C	ATOM	3460	C2*	A A 171	101.611	34.909	6.195	1.00 55.90	C
3411	ATOM	C A 169	106.675	21.084	-0.710	1.00 67.50	P	ATOM	3461	O2*	A A 171	100.988	35.452	7.348	1.00 55.90	O
3412	ATOM	C A 169	105.348	20.551	-1.150	1.00 75.24	O	ATOM	3462	C1*	A A 171	102.822	34.103	6.666	1.00 55.90	C
3413	ATOM	C A 169	107.427	22.004	-1.600	1.00 75.24	O	ATOM	3463	N9	A A 171	103.940	34.102	5.723	1.00 53.50	N
3414	ATOM	C A 169	106.473	21.803	0.700	1.00 67.50	O	ATOM	3464	C8	A A 171	104.090	33.336	4.596	1.00 53.50	C
3415	ATOM	C A 169	105.860	21.087	1.775	1.00 67.50	C	ATOM	3465	N7	A A 171	105.231	33.517	3.981	1.00 53.50	N



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ATOM	3366	O1P	G A 167	115.756	21.510	-7.014	1.00 89.68	O	ATOM	3416	C4*	C A 169	105.762	21.931	3.023	1.00 67.50	C
ATOM	3367	O2P	G A 167	116.466	23.202	-5.205	1.00 89.68	O	ATOM	3417	O4*	C A 169	107.070	22.217	3.581	1.00 67.50	O
ATOM	3368	O5*	G A 167	115.861	20.865	-4.586	1.00 65.64	O	ATOM	3418	C3*	C A 169	105.130	23.305	2.938	1.00 67.50	C
ATOM	3369	C5*	G A 167	115.734	19.450	-4.794	1.00 65.64	C	ATOM	3419	O3*	C A 169	103.711	23.260	2.861	1.00 67.50	O
ATOM	3370	C4*	G A 167	115.102	18.793	-3.596	1.00 65.64	C	ATOM	3420	C2*	C A 169	105.565	23.924	4.265	1.00 67.50	C
ATOM	3371	O4*	G A 167	116.015	18.844	-2.471	1.00 65.64	O	ATOM	3421	O2*	C A 169	104.716	23.545	5.327	1.00 67.50	O
ATOM	3372	C3*	G A 167	113.831	19.426	-3.064	1.00 65.64	C	ATOM	3422	C1*	C A 169	106.938	23.289	4.496	1.00 67.50	C
ATOM	3373	O3*	G A 167	112.660	19.065	-3.768	1.00 65.64	O	ATOM	3423	N1	C A 169	108.029	24.266	4.320	1.00 75.24	N
ATOM	3374	C2*	G A 167	113.791	18.925	-1.630	1.00 65.64	C	ATOM	3424	C2	C A 169	108.442	25.001	5.440	1.00 75.24	C
ATOM	3375	O2*	G A 167	113.260	17.620	-1.539	1.00 65.64	O	ATOM	3425	O2	C A 169	107.948	24.735	6.553	1.00 75.24	O
ATOM	3376	C1*	G A 167	115.275	18.921	-1.263	1.00 65.64	C	ATOM	3426	N3	C A 169	109.370	25.976	5.288	1.00 75.24	N
ATOM	3377	N9	G A 167	115.646	20.142	-0.554	1.00 89.68	N	ATOM	3427	C4	C A 169	109.897	26.215	4.089	1.00 75.24	C
ATOM	3378	C8	G A 167	116.357	21.207	-1.045	1.00 89.68	C	ATOM	3428	N4	C A 169	110.786	27.208	3.986	1.00 75.24	N
ATOM	3379	N7	G A 167	116.503	22.169	-0.176	1.00 89.68	N	ATOM	3429	C5	C A 169	109.532	25.450	2.941	1.00 75.24	C
ATOM	3380	C5	G A 167	115.851	21.708	0.959	1.00 89.68	C	ATOM	3430	C6	C A 169	108.604	24.493	3.100	1.00 75.24	C
ATOM	3381	C6	G A 167	115.669	22.321	2.231	1.00 89.68	C	ATOM	3431	P	U A 170	102.912	24.503	2.215	1.00 68.05	P
ATOM	3382	O6	G A 168	116.056	23.427	2.617	1.00 89.68	O	ATOM	3432	O1P	U A 170	101.444	24.256	2.245	1.00 52.55	O
ATOM	3383	N1	G A 167	114.951	21.503	3.094	1.00 89.68	N	ATOM	3433	O2P	U A 170	103.576	24.814	0.926	1.00 52.55	O
ATOM	3384	C2	G A 167	114.466	20.261	2.781	1.00 89.68	C	ATOM	3434	O5*	U A 170	103.203	25.709	3.210	1.00 68.05	O
ATOM	3385	N2	G A 167	113.795	19.632	3.754	1.00 89.68	N	ATOM	3435	C5*	U A 170	102.658	25.721	4.538	1.00 68.05	C
ATOM	3386	N3	G A 167	114.626	19.680	1.601	1.00 89.68	N	ATOM	3436	C4*	U A 170	103.008	27.016	5.233	1.00 68.05	C
ATOM	3387	C4	G A 167	115.324	20.456	0.754	1.00 89.68	C	ATOM	3437	O4*	U A 170	104.432	27.088	5.506	1.00 68.05	O
ATOM	3388	P	G A 168	111.355	20.002	-3.639	1.00 65.53	P	ATOM	3438	C3*	U A 170	102.708	28.276	4.447	1.00 68.05	C
ATOM	3389	O1P	G A 168	110.250	19.427	-4.461	1.00 73.99	O	ATOM	3439	O3*	U A 170	101.352	28.639	4.604	1.00 68.05	O
ATOM	3390	O2P	G A 168	111.798	21.408	-3.887	1.00 73.99	O	ATOM	3440	C2*	U A 170	103.648	29.292	5.078	1.00 68.05	C
ATOM	3391	O5*	G A 168	110.960	19.891	-2.097	1.00 65.53	O	ATOM	3441	O2*	U A 170	103.130	29.789	6.289	1.00 68.05	O
ATOM	3392	C5*	G A 168	110.424	18.674	-1.563	1.00 65.53	C	ATOM	3442	C1*	U A 170	104.866	28.432	5.405	1.00 68.05	C
ATOM	3393	C4*	G A 168	109.890	18.892	-0.171	1.00 65.53	C	ATOM	3443	N1	U A 170	105.926	28.515	4.388	1.00 52.55	N
ATOM	3394	O4*	G A 168	110.982	19.116	0.754	1.00 65.53	O	ATOM	3444	C2	U A 170	106.940	29.432	4.597	1.00 52.55	C
ATOM	3395	O3*	G A 168	108.978	20.884	0.030	1.00 65.53	O	ATOM	3445	O2	U A 170	106.948	30.199	5.549	1.00 52.55	O
ATOM	3396	C3*	G A 168	107.642	19.038	-0.378	1.00 65.53	C	ATOM	3446	N3	U A 170	107.935	29.430	3.646	1.00 52.55	N
ATOM	3397	C2*	G A 168	109.087	20.330	1.530	1.00 65.53	C	ATOM	3447	C4	U A 170	108.004	28.639	2.521	1.00 52.55	C
ATOM	3398	O2*	G A 168	108.213	19.525	2.287	1.00 65.53	O	ATOM	3448	O4	U A 170	108.988	28.713	1.788	1.00 52.55	O
ATOM	3399	C1*	G A 168	110.542	19.947	1.815	1.00 65.53	C	ATOM	3449	C5	U A 170	106.900	27.744	2.354	1.00 52.55	C
ATOM	3400	N9	G A 168	111.387	21.137	1.886	1.00 73.99	N	ATOM	3450	C6	U A 170	105.925	27.709	3.271	1.00 52.55	C
ATOM	3401	C8	G A 168	112.181	21.662	0.886	1.00 73.99	C	ATOM	3451	P	A A 171	100.754	29.855	3.747	1.00 55.90	P
ATOM	3402	N7	G A 168	112.731	22.799	1.219	1.00 73.99	N	ATOM	3452	O1P	A A 171	99.265	29.787	3.784	1.00 53.50	O
ATOM	3403	C5	G A 168	112.292	23.030	2.517	1.00 73.99	C	ATOM	3453	O2P	A A 171	101.461	29.856	2.434	1.00 53.50	O
ATOM	3404	C6	G A 168	112.533	24.121	3.393	1.00 73.99	C	ATOM	3454	O5*	A A 171	101.176	31.133	4.600	1.00 55.90	O
ATOM	3405	O6	G A 168	113.181	25.145	3.186	1.00 73.99	O	ATOM	3455	C5*	A A 171	100.679	31.288	5.933	1.00 55.90	C
ATOM	3406	N1	G A 168	111.909	23.942	4.618	1.00 73.99	N	ATOM	3456	C4*	A A 171	100.995	32.657	6.468	1.00 55.90	C
ATOM	3407	C2	G A 168	111.140	22.867	4.961	1.00 73.99	C	ATOM	3457	O4*	A A 171	102.393	32.767	6.841	1.00 55.90	O
ATOM	3408	N2	G A 168	110.635	22.883	6.197	1.00 73.99	N	ATOM	3458	C3*	A A 171	100.758	33.827	5.542	1.00 55.90	C
ATOM	3409	N3	G A 168	110.886	21.851	4.153	1.00 73.99	N	ATOM	3459	O3*	A A 171	99.385	34.153	5.476	1.00 55.90	O
ATOM	3410	C4	G A 168	111.490	21.999	2.952	1.00 73.99	C	ATOM	3460	C2*	A A 171	101.611	34.909	6.195	1.00 55.90	C
ATOM	3411	P	C A 169	106.675	21.084	-0.710	1.00 67.50	P	ATOM	3461	O2*	A A 171	100.988	35.452	7.348	1.00 55.90	O
ATOM	3412	O1P	C A 169	105.348	20.551	-1.150	1.00 75.24	O	ATOM	3462	C1*	A A 171	102.822	34.103	6.666	1.00 55.90	C
ATOM	3413	O2P	C A 169	107.427	22.004	-1.600	1.00 75.24	O	ATOM	3463	N9	A A 171	103.940	34.102	5.723	1.00 53.50	N
ATOM	3414	O5*	C A 169	106.473	21.803	0.700	1.00 67.50	O	ATOM	3464	C8	A A 171	104.090	33.336	4.596	1.00 53.50	C
ATOM	3415	C5*	C A 169	105.860	21.087	1.775	1.00 67.50	C	ATOM	3465	N7	A A 171	105.231	33.517	3.981	1.00 53.50	N



Table 2: Sheet 37/520

ATOM	3566	CI*	C A 176	100.334	37.716	-9.704	1.00 62.57	C	ATOM	3616	O1P	A A 179	87.696	41.532	-17.611	1.00 79.90	O
ATOM	3567	N1	C A 176	99.719	38.270	-8.485	1.00 58.57	N	ATOM	3617	O2P	A A 179	89.831	42.466	-16.526	1.00 79.90	O
ATOM	3568	O2	C A 176	98.445	37.829	-8.107	1.00 58.57	C	ATOM	3618	O5*	A A 179	87.752	41.156	-15.177	1.00 66.63	O
ATOM	3569	C2	C A 176	97.869	36.983	-8.806	1.00 58.57	O	ATOM	3619	C5*	A A 179	86.452	41.613	-14.900	1.00 66.63	C
ATOM	3570	N3	C A 176	97.873	38.337	-6.990	1.00 58.57	N	ATOM	3620	C4*	A A 179	85.841	42.267	-13.685	1.00 66.63	C
ATOM	3571	C4	C A 176	98.525	39.241	-6.260	1.00 58.57	C	ATOM	3621	O4*	A A 179	86.684	42.056	-12.526	1.00 66.63	O
ATOM	3572	N4	C A 176	97.930	39.707	-5.163	1.00 58.57	N	ATOM	3622	C3*	A A 179	85.663	43.771	-13.730	1.00 66.63	C
ATOM	3573	C5	C A 176	99.822	39.707	-6.621	1.00 58.57	C	ATOM	3623	O3*	A A 179	84.492	44.139	-14.443	1.00 66.63	O
ATOM	3574	C6	C A 176	100.375	39.201	-7.730	1.00 58.57	C	ATOM	3624	C2*	A A 179	85.566	44.146	-12.253	1.00 66.63	C
ATOM	3575	P	C A 177	99.361	40.445	-13.447	1.00 66.62	P	ATOM	3625	O2*	A A 179	84.270	44.029	-11.711	1.00 66.63	O
ATOM	3576	O1P	C A 177	99.705	40.563	-14.891	1.00 61.32	O	ATOM	3626	C1*	A A 179	86.468	43.102	-11.595	1.00 66.63	C
ATOM	3577	O2P	C A 177	99.075	41.665	-12.656	1.00 61.32	O	ATOM	3627	N9	A A 179	87.752	43.655	-11.162	1.00 79.90	N
ATOM	3578	O5*	C A 177	98.113	39.466	-13.307	1.00 66.62	C	ATOM	3628	C8	A A 179	89.008	43.471	-11.681	1.00 79.90	C
ATOM	3579	C5*	C A 177	98.030	38.269	-14.100	1.00 66.62	C	ATOM	3629	N7	A A 179	89.943	44.137	-11.047	1.00 79.90	N
ATOM	3580	C4*	C A 177	96.696	37.592	-13.896	1.00 66.62	C	ATOM	3630	C5	A A 179	89.255	44.799	-10.043	1.00 79.90	C
ATOM	3581	O4*	C A 177	96.598	37.124	-12.525	1.00 66.62	O	ATOM	3631	C6	A A 179	89.673	45.668	-9.025	1.00 79.90	C
ATOM	3582	C3*	C A 177	95.464	38.464	-14.079	1.00 66.62	C	ATOM	3632	N6	A A 179	90.941	46.046	-8.845	1.00 79.90	N
ATOM	3583	O3*	C A 177	95.063	38.624	-15.427	1.00 66.62	O	ATOM	3633	N1	A A 179	88.734	46.147	-8.184	1.00 79.90	N
ATOM	3584	C2*	C A 177	94.412	37.738	-13.253	1.00 66.62	C	ATOM	3634	C2	A A 179	87.464	45.774	-8.363	1.00 79.90	C
ATOM	3585	O2*	C A 177	93.812	36.663	-13.943	1.00 66.62	O	ATOM	3635	N3	A A 179	86.948	44.967	-9.281	1.00 79.90	N
ATOM	3586	C1*	C A 177	95.249	37.211	-12.088	1.00 66.62	C	ATOM	3636	C4	A A 179	87.908	44.508	-10.099	1.00 79.90	C
ATOM	3587	N1	C A 177	94.950	39.737	-8.781	1.00 61.32	N	ATOM	3637	P	U A 180	84.408	45.591	-15.127	1.00 64.80	P
ATOM	3588	C2	C A 177	93.972	38.207	-10.222	1.00 61.32	C	ATOM	3638	O1P	U A 180	83.137	45.695	-15.891	1.00 70.16	O
ATOM	3589	O2	C A 177	93.004	37.529	-10.596	1.00 61.32	O	ATOM	3639	O2P	U A 180	85.703	45.804	-15.824	1.00 70.16	O
ATOM	3590	N3	C A 177	93.888	39.030	-9.160	1.00 61.32	N	ATOM	3640	O5*	U A 180	84.329	46.588	-13.889	1.00 64.80	O
ATOM	3591	C4	C A 177	94.950	39.737	-8.781	1.00 61.32	C	ATOM	3641	C5*	U A 180	83.187	46.585	-13.035	1.00 64.80	C
ATOM	3592	N4	C A 177	94.822	40.529	-7.716	1.00 61.32	N	ATOM	3642	C4*	U A 180	83.373	47.564	-11.911	1.00 64.80	C
ATOM	3593	C5	C A 177	96.193	39.660	-9.473	1.00 61.32	C	ATOM	3643	O4*	U A 180	84.395	47.092	-11.002	1.00 64.80	O
ATOM	3594	C6	C A 177	96.264	38.842	-10.526	1.00 61.32	C	ATOM	3644	C3*	U A 180	83.839	48.945	-12.322	1.00 64.80	C
ATOM	3595	P	C A 178	94.219	39.926	-15.836	1.00 84.45	P	ATOM	3645	O3*	U A 180	82.762	49.752	-12.756	1.00 64.80	O
ATOM	3596	O1P	C A 178	94.097	39.927	-17.319	1.00 78.05	O	ATOM	3646	C2*	U A 180	84.482	49.468	-11.044	1.00 64.80	C
ATOM	3597	O2P	C A 178	94.801	41.109	-15.143	1.00 78.05	O	ATOM	3647	O2*	U A 180	83.536	49.967	-10.125	1.00 64.80	C
ATOM	3598	O5*	C A 178	92.777	39.671	-15.204	1.00 84.45	O	ATOM	3648	C1*	U A 180	85.109	48.198	-10.473	1.00 64.80	C
ATOM	3599	C5*	C A 178	91.913	38.642	-15.723	1.00 84.45	C	ATOM	3649	N1	U A 180	86.524	48.075	-10.859	1.00 70.16	N
ATOM	3600	C4*	C A 178	90.604	38.613	-14.967	1.00 84.45	C	ATOM	3650	C2	U A 180	87.469	48.661	-10.039	1.00 70.16	C
ATOM	3601	O4*	C A 178	90.844	38.270	-13.578	1.00 84.45	O	ATOM	3651	O2	U A 180	87.183	49.233	-9.000	1.00 70.16	O
ATOM	3602	C3*	C A 178	89.825	39.917	-14.898	1.00 84.45	C	ATOM	3652	N3	U A 180	88.765	48.551	-10.479	1.00 70.16	N
ATOM	3603	O3*	C A 178	89.030	40.138	-16.046	1.00 84.45	O	ATOM	3653	C4	U A 180	89.206	47.926	-11.625	1.00 70.16	C
ATOM	3604	C2*	C A 178	88.954	39.724	-13.665	1.00 84.45	C	ATOM	3654	O4	U A 180	90.404	47.963	-11.918	1.00 70.16	O
ATOM	3605	O2*	C A 178	87.778	38.989	-13.930	1.00 84.45	O	ATOM	3655	C5	U A 180	88.173	47.325	-12.405	1.00 70.16	C
ATOM	3606	CI*	C A 178	89.872	38.904	-12.761	1.00 84.45	C	ATOM	3656	C6	U A 180	86.901	47.416	-12.007	1.00 70.16	C
ATOM	3607	N1	C A 178	90.539	39.750	-11.752	1.00 78.05	N	ATOM	3657	P	G A 181	82.975	50.739	-14.000	1.00 85.87	P
ATOM	3608	C2	C A 178	89.812	40.113	-10.606	1.00 78.05	C	ATOM	3658	O1P	G A 181	81.902	51.764	-13.952	1.00 65.59	O
ATOM	3609	O2	C A 178	88.643	39.701	-10.479	1.00 78.05	O	ATOM	3659	O2P	G A 181	83.159	49.920	-15.230	1.00 65.59	O
ATOM	3610	N3	C A 178	90.394	40.904	-9.672	1.00 78.05	N	ATOM	3660	O5*	G A 181	84.352	51.460	-13.660	1.00 85.87	O
ATOM	3611	C4	C A 178	91.646	41.330	-9.845	1.00 78.05	C	ATOM	3661	C5*	G A 181	84.418	52.474	-12.638	1.00 85.87	C
ATOM	3612	N4	C A 178	92.171	42.115	-8.902	1.00 78.05	N	ATOM	3662	C4*	G A 181	85.419	53.532	-13.024	1.00 85.87	C
ATOM	3613	C5	C A 178	92.413	40.971	-10.997	1.00 78.05	C	ATOM	3663	O4*	G A 181	86.773	53.061	-12.789	1.00 85.87	O
ATOM	3614	C6	C A 178	91.827	40.186	-11.915	1.00 78.05	C	ATOM	3664	C3*	G A 181	85.355	53.958	-14.479	1.00 85.87	C
ATOM	3615	P	A A 179	88.599	41.640	-16.431	1.00 66.63	P	ATOM	3665	O3*	G A 181	84.536	55.088	-14.849	1.00 85.87	O



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ATOM	3666	C2*	G A 181	86.657	53.478	-15.129	1.00	85.87	C	ATOM	3716	C6	G A 183	90.572	55.144	-15.719	1.00	50.97	C
ATOM	3667	O2*	G A 181	87.215	54.381	-16.063	1.00	85.87	O	ATOM	3717	O6	G A 183	90.069	54.353	-16.522	1.00	50.97	O
ATOM	3668	C1*	G A 181	87.586	53.333	-13.915	1.00	85.87	C	ATOM	3718	N1	G A 183	91.853	54.918	-15.219	1.00	50.97	N
ATOM	3669	N9	G A 181	88.579	52.260	-14.025	1.00	65.59	N	ATOM	3719	C2	G A 183	92.501	55.727	-14.315	1.00	50.97	C
ATOM	3670	C8	G A 181	88.455	51.086	-14.726	1.00	65.59	C	ATOM	3720	N2	G A 183	93.743	55.366	-13.962	1.00	50.97	N
ATOM	3671	N7	G A 181	89.527	50.342	-14.680	1.00	65.59	N	ATOM	3721	N3	G A 183	91.971	56.821	-13.798	1.00	50.97	N
ATOM	3672	C5	G A 181	90.412	51.057	-13.889	1.00	65.59	C	ATOM	3722	C4	G A 183	90.735	57.060	-14.283	1.00	50.97	C
ATOM	3673	O6	G A 181	91.743	50.752	-13.497	1.00	65.59	O	ATOM	3723	P	G A 184	91.623	62.684	-16.202	1.00	68.81	P
ATOM	3674	O6	G A 181	92.421	49.750	-13.773	1.00	65.59	O	ATOM	3724	O1P	G A 184	91.976	64.126	-16.269	1.00	56.72	O
ATOM	3675	N1	G A 181	92.283	51.752	-12.703	1.00	65.59	N	ATOM	3725	O2P	G A 184	90.654	62.118	-17.182	1.00	56.72	O
ATOM	3676	C2	G A 181	91.631	52.896	-12.330	1.00	65.59	C	ATOM	3726	O5*	G A 184	92.949	61.819	-16.354	1.00	68.81	O
ATOM	3677	N2	G A 181	92.331	53.748	-11.563	1.00	65.59	N	ATOM	3727	C5*	G A 184	94.076	62.037	-15.502	1.00	68.81	C
ATOM	3678	N3	G A 181	90.389	53.191	-12.681	1.00	65.59	N	ATOM	3728	C4*	G A 184	95.006	60.862	-15.587	1.00	68.81	C
ATOM	3679	C4	G A 181	89.844	52.235	-13.461	1.00	65.59	C	ATOM	3729	O4*	G A 184	94.286	59.675	-15.174	1.00	68.81	O
ATOM	3680	P	U A 182	85.147	56.580	-14.859	1.00	82.85	P	ATOM	3730	C3*	G A 184	95.499	60.520	-16.979	1.00	68.81	C
ATOM	3681	O1P	U A 182	84.979	57.163	-16.224	1.00	78.11	O	ATOM	3731	O3*	G A 184	96.621	61.289	-17.354	1.00	68.81	O
ATOM	3682	O2P	U A 182	86.494	56.501	-14.261	1.00	78.11	O	ATOM	3732	C2*	G A 184	95.829	59.040	-16.864	1.00	68.81	C
ATOM	3683	O5*	U A 182	84.242	57.376	-13.813	1.00	82.85	O	ATOM	3733	O2*	G A 184	97.093	58.793	-16.285	1.00	68.81	O
ATOM	3684	C5*	U A 182	84.292	57.030	-12.417	1.00	82.85	C	ATOM	3734	C1*	G A 184	94.729	58.557	-15.921	1.00	68.81	C
ATOM	3685	C4*	U A 182	84.596	58.244	-11.558	1.00	82.85	C	ATOM	3735	N9	G A 184	93.598	58.019	-16.667	1.00	56.72	N
ATOM	3686	O4*	U A 182	85.319	57.761	-10.394	1.00	82.85	O	ATOM	3736	C8	G A 184	92.360	58.588	-16.837	1.00	56.72	C
ATOM	3687	O3*	U A 182	85.512	59.299	-12.164	1.00	82.85	O	ATOM	3737	N7	G A 184	91.579	57.884	-17.612	1.00	56.72	N
ATOM	3688	C3	U A 182	84.758	60.301	-12.829	1.00	82.85	O	ATOM	3738	C5	G A 184	92.348	56.783	-17.966	1.00	56.72	C
ATOM	3689	C2*	U A 182	86.225	59.887	-10.953	1.00	82.85	C	ATOM	3739	C6	G A 184	92.047	55.689	-18.802	1.00	56.72	C
ATOM	3690	O2*	U A 182	85.482	60.900	-10.306	1.00	82.85	O	ATOM	3740	O6	G A 184	91.017	55.470	-19.431	1.00	56.72	O
ATOM	3691	C1*	U A 182	86.353	58.664	-10.046	1.00	82.85	C	ATOM	3741	N1	G A 184	93.104	54.794	-18.877	1.00	56.72	N
ATOM	3692	C1	U A 182	87.644	57.972	-10.204	1.00	78.11	N	ATOM	3742	C2	G A 184	94.298	54.939	-18.239	1.00	56.72	C
ATOM	3693	N2	U A 182	88.705	58.395	-9.422	1.00	78.11	C	ATOM	3743	N2	G A 184	95.189	53.970	-18.435	1.00	56.72	N
ATOM	3694	O2	U A 182	88.608	59.284	-8.594	1.00	78.11	O	ATOM	3744	N3	G A 184	94.599	55.960	-17.463	1.00	56.72	N
ATOM	3695	N3	U A 182	89.889	57.739	-9.649	1.00	78.11	N	ATOM	3745	C4	G A 184	93.584	56.840	-17.373	1.00	56.72	C
ATOM	3696	C4	U A 182	90.120	56.727	-10.554	1.00	78.11	C	ATOM	3746	P	A A 185	96.887	61.588	-18.910	1.00	60.35	P
ATOM	3697	O4	U A 182	91.268	56.302	-10.708	1.00	78.11	O	ATOM	3747	O1P	A A 185	97.878	62.693	-18.965	1.00	56.51	O
ATOM	3698	C5	U A 182	88.969	56.330	-11.307	1.00	78.11	C	ATOM	3748	O2P	A A 185	95.585	61.735	-19.608	1.00	56.51	O
ATOM	3699	C6	U A 182	87.803	56.948	-11.111	1.00	78.11	C	ATOM	3749	O5*	A A 185	97.555	60.251	-19.460	1.00	60.35	O
ATOM	3700	P	G A 183	85.451	61.201	-13.966	1.00	61.94	P	ATOM	3750	C5*	A A 185	98.761	59.744	-18.886	1.00	60.35	C
ATOM	3701	O1P	G A 183	84.667	62.451	-14.048	1.00	50.97	O	ATOM	3751	C4*	A A 185	99.116	58.426	-19.514	1.00	60.35	C
ATOM	3702	O2P	G A 183	85.667	60.377	-15.198	1.00	50.97	O	ATOM	3752	O4*	A A 185	98.139	57.429	-19.138	1.00	60.35	O
ATOM	3703	O5*	G A 183	86.872	61.584	-13.365	1.00	61.94	O	ATOM	3753	C3*	A A 185	99.111	58.400	-21.029	1.00	60.35	C
ATOM	3704	C5*	G A 183	88.008	61.726	-14.232	1.00	61.94	C	ATOM	3754	O3*	A A 185	100.327	58.886	-21.559	1.00	60.35	O
ATOM	3705	C4*	G A 183	89.266	61.322	-13.510	1.00	61.94	C	ATOM	3755	C2*	A A 185	98.881	56.928	-21.341	1.00	60.35	C
ATOM	3706	O4*	G A 183	89.077	60.013	-12.913	1.00	61.94	O	ATOM	3756	O2*	A A 185	100.057	56.148	-21.272	1.00	60.35	O
ATOM	3707	C3*	G A 183	90.471	61.159	-14.417	1.00	61.94	C	ATOM	3757	C1*	A A 185	97.939	56.526	-20.210	1.00	60.35	C
ATOM	3708	O3*	G A 183	91.122	62.388	-14.700	1.00	61.94	O	ATOM	3758	N9	A A 185	96.539	56.609	-20.608	1.00	56.51	N
ATOM	3709	C2*	G A 183	92.047	60.160	-13.648	1.00	61.94	C	ATOM	3759	C8	A A 185	95.596	57.515	-20.195	1.00	56.51	C
ATOM	3710	O2*	G A 183	92.324	60.771	-12.599	1.00	61.94	O	ATOM	3760	N7	A A 185	94.414	57.315	-20.713	1.00	56.51	N
ATOM	3711	C1*	G A 183	90.252	59.238	-13.065	1.00	61.94	C	ATOM	3761	C5	A A 185	94.592	56.207	-21.524	1.00	56.51	C
ATOM	3712	N9	G A 183	89.937	58.138	-13.973	1.00	50.97	N	ATOM	3762	C6	A A 185	93.715	55.492	-22.335	1.00	56.51	C
ATOM	3713	C8	G A 183	88.786	57.983	-14.702	1.00	50.97	C	ATOM	3763	N6	A A 185	92.418	55.780	-22.446	1.00	56.51	N
ATOM	3714	N7	G A 183	88.789	56.911	-15.449	1.00	50.97	N	ATOM	3764	N1	A A 185	94.212	54.448	-23.031	1.00	56.51	N
ATOM	3715	C5	G A 183	90.011	56.319	-15.193	1.00	50.97	C	ATOM	3765	C2	A A 185	95.505	54.149	-22.894	1.00	56.51	C



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ATOM	3766	N3	A A 185	96.425	54.738	-22.147	1.00	56.51	N	ATOM	3816	O3*	C A 188	94.997	60.375	-37.083	1.00	68.34	O
ATOM	3767	C4	A A 185	95.896	55.771	-21.479	1.00	56.51	C	ATOM	3817	C2*	C A 188	93.457	59.515	-35.388	1.00	68.34	C
ATOM	3768	P	C A 186	100.306	59.757	-22.901	1.00	54.74	P	ATOM	3818	O2*	C A 188	92.711	58.949	-36.444	1.00	68.34	O
ATOM	3769	O1P	C A 186	101.693	60.243	-23.055	1.00	48.21	O	ATOM	3819	C1*	C A 188	93.647	58.453	-34.308	1.00	68.34	C
ATOM	3770	O2P	C A 186	99.189	60.729	-22.789	1.00	48.21	O	ATOM	3820	N1	C A 188	93.657	59.078	-32.974	1.00	48.83	N
ATOM	3771	O5*	C A 186	100.008	58.696	-24.050	1.00	54.74	O	ATOM	3821	C2	C A 188	92.443	59.523	-32.442	1.00	48.83	C
ATOM	3772	C5*	C A 186	101.010	57.726	-24.376	1.00	54.74	C	ATOM	3822	O2	C A 188	91.393	59.312	-33.084	1.00	48.83	O
ATOM	3773	C4*	C A 186	100.488	56.708	-25.355	1.00	54.74	C	ATOM	3823	N3	C A 188	92.439	60.166	-31.251	1.00	48.83	N
ATOM	3774	O4*	C A 186	99.444	55.917	-24.743	1.00	54.74	O	ATOM	3824	C4	C A 188	93.581	60.357	-30.600	1.00	48.83	C
ATOM	3775	C3*	C A 186	99.869	57.215	-26.644	1.00	54.74	C	ATOM	3825	N4	C A 188	93.539	61.024	-29.453	1.00	48.83	N
ATOM	3776	O3*	C A 186	100.855	57.534	-27.606	1.00	54.74	O	ATOM	3826	C5	C A 188	94.821	59.881	-31.100	1.00	48.83	C
ATOM	3777	C2*	C A 186	99.038	56.021	-27.081	1.00	54.74	C	ATOM	3827	C6	C A 188	94.816	59.253	-32.277	1.00	48.83	C
ATOM	3778	O2*	C A 186	99.851	55.027	-27.673	1.00	54.74	O	ATOM	3828	P	G A 189	95.127	61.974	-37.248	1.00	74.43	P
ATOM	3779	C1*	C A 186	98.526	55.503	-25.736	1.00	54.74	C	ATOM	3829	O1P	G A 189	95.465	62.166	-38.682	1.00	53.35	O
ATOM	3780	N1	C A 186	97.213	56.069	-25.408	1.00	48.21	N	ATOM	3830	O2P	G A 189	96.021	62.529	-36.196	1.00	53.35	O
ATOM	3781	C2	C A 186	96.074	55.540	-26.027	1.00	48.21	C	ATOM	3831	O5*	G A 189	93.659	62.521	-36.955	1.00	74.43	O
ATOM	3782	O2	C A 186	96.202	54.573	-26.797	1.00	48.21	O	ATOM	3832	C5*	G A 189	92.559	62.113	-37.774	1.00	74.43	C
ATOM	3783	N3	C A 186	94.868	56.094	-25.771	1.00	48.21	N	ATOM	3833	C4*	G A 189	91.261	62.659	-37.236	1.00	74.43	C
ATOM	3784	C4	C A 186	94.777	57.122	-24.928	1.00	48.21	C	ATOM	3834	O4*	G A 189	90.884	62.000	-36.002	1.00	74.43	O
ATOM	3785	N4	C A 186	93.583	57.660	-24.725	1.00	48.21	N	ATOM	3835	C3*	G A 189	91.233	64.135	-36.892	1.00	74.43	C
ATOM	3786	C5	C A 186	95.915	57.654	-24.258	1.00	48.21	C	ATOM	3836	O3*	G A 189	91.041	64.918	-38.054	1.00	74.43	O
ATOM	3787	C6	C A 186	97.102	57.106	-24.527	1.00	48.21	C	ATOM	3837	C2*	G A 189	90.043	64.226	-35.947	1.00	74.43	C
ATOM	3788	P	C A 187	100.577	58.704	-28.671	1.00	57.65	P	ATOM	3838	O2*	G A 189	88.819	64.271	-36.646	1.00	74.43	O
ATOM	3789	O1P	C A 187	101.903	59.012	-29.265	1.00	50.06	O	ATOM	3839	C1*	G A 189	90.126	62.892	-35.207	1.00	74.43	C
ATOM	3790	O2P	C A 187	99.792	59.784	-28.024	1.00	50.06	O	ATOM	3840	N9	G A 189	90.759	63.028	-33.901	1.00	53.35	N
ATOM	3791	O5*	C A 187	99.694	57.984	-29.778	1.00	57.65	O	ATOM	3841	C8	G A 189	92.065	62.765	-33.567	1.00	53.35	C
ATOM	3792	C5*	C A 187	100.262	56.922	-30.549	1.00	57.65	C	ATOM	3842	N7	G A 189	92.330	62.999	-32.309	1.00	53.35	N
ATOM	3793	C4*	C A 187	99.213	56.278	-31.406	1.00	57.65	C	ATOM	3843	C5	G A 189	91.126	63.447	-31.783	1.00	53.35	C
ATOM	3794	O4*	C A 187	98.249	55.616	-30.559	1.00	57.65	O	ATOM	3844	C6	G A 189	90.792	63.869	-30.466	1.00	53.35	C
ATOM	3795	C3*	C A 187	98.379	57.216	-32.254	1.00	57.65	C	ATOM	3845	O6	G A 189	91.523	63.955	-29.469	1.00	53.35	O
ATOM	3796	O3*	C A 187	99.039	57.596	-33.456	1.00	57.65	O	ATOM	3846	N1	G A 189	89.454	64.222	-30.369	1.00	53.35	N
ATOM	3797	C2*	C A 187	97.113	56.407	-32.491	1.00	57.65	C	ATOM	3847	C2	G A 189	88.550	64.185	-31.399	1.00	53.35	C
ATOM	3798	O2*	C A 187	97.245	55.477	-33.547	1.00	57.65	O	ATOM	3848	N2	G A 189	87.294	64.542	-31.095	1.00	53.35	N
ATOM	3799	C1*	C A 187	96.973	55.666	-31.163	1.00	57.65	C	ATOM	3849	N3	G A 189	88.850	63.819	-32.633	1.00	53.35	N
ATOM	3800	N1	C A 187	96.038	56.333	-30.242	1.00	50.06	N	ATOM	3850	C4	G A 189	90.146	63.462	-32.752	1.00	53.35	C
ATOM	3801	C2	C A 187	94.676	56.174	-30.465	1.00	50.06	C	ATOM	3851	P	C A 190	91.652	66.400	-38.120	1.00	66.25	P
ATOM	3802	O2	C A 187	94.309	55.457	-31.406	1.00	50.06	O	ATOM	3852	O1P	C A 190	91.555	66.783	-39.558	1.00	60.89	O
ATOM	3803	N3	C A 187	93.790	56.796	-29.656	1.00	50.06	N	ATOM	3853	O2P	C A 190	92.960	66.476	-37.422	1.00	60.89	O
ATOM	3804	C4	C A 187	94.222	57.540	-28.645	1.00	50.06	C	ATOM	3854	O5*	C A 190	90.645	67.271	-37.253	1.00	66.25	O
ATOM	3805	N4	C A 187	93.309	58.122	-27.876	1.00	50.06	N	ATOM	3855	C5*	C A 190	89.266	67.349	-37.602	1.00	66.25	C
ATOM	3806	C5	C A 187	95.611	57.716	-28.378	1.00	50.06	C	ATOM	3856	C4*	C A 190	88.491	67.953	-36.472	1.00	66.25	C
ATOM	3807	C6	C A 187	96.480	57.099	-29.197	1.00	50.06	C	ATOM	3857	O4*	C A 190	88.433	67.019	-35.365	1.00	66.25	O
ATOM	3808	P	C A 188	98.964	59.129	-33.937	1.00	68.34	P	ATOM	3858	C3*	C A 190	89.099	69.208	-35.873	1.00	66.25	C
ATOM	3809	O1P	C A 188	99.926	59.268	-35.044	1.00	48.83	O	ATOM	3859	O3*	C A 190	88.801	70.379	-36.623	1.00	66.25	O
ATOM	3810	O2P	C A 188	99.088	60.019	-32.753	1.00	48.83	O	ATOM	3860	C2*	C A 190	88.498	69.230	-34.474	1.00	66.25	C
ATOM	3811	O5*	C A 188	97.477	59.249	-34.496	1.00	68.34	O	ATOM	3861	O2*	C A 190	87.214	69.825	-34.435	1.00	66.25	O
ATOM	3812	C5*	C A 188	97.031	58.371	-35.542	1.00	68.34	C	ATOM	3862	C1*	C A 190	88.418	67.734	-34.144	1.00	66.25	C
ATOM	3813	C4*	C A 188	95.534	58.430	-35.692	1.00	68.34	C	ATOM	3863	N1	C A 190	89.562	67.303	-33.322	1.00	60.89	N
ATOM	3814	O4*	C A 188	94.895	57.821	-34.544	1.00	68.34	O	ATOM	3864	C2	C A 190	89.511	67.510	-31.934	1.00	60.89	C
ATOM	3815	C3*	C A 188	94.898	59.808	-35.782	1.00	68.34	C	ATOM	3865	O2	C A 190	88.472	67.959	-31.428	1.00	60.89	O



Table 2: Sheet 40/520

ATOM	3866	N3	C A 190	90.592	67.216	-31.181	1.00	60.89	N	ATOM	3916	C4*	C A 190C	95.651	79.457	-27.684	1.00	83.97	C
ATOM	3867	C4	C A 190	91.687	66.724	-31.756	1.00	60.89	C	ATOM	3917	O4*	C A 190C	95.240	78.088	-27.896	1.00	83.97	O
ATOM	3868	N4	C A 190	92.742	66.500	-30.985	1.00	60.89	N	ATOM	3918	C3*	C A 190C	97.150	79.446	-27.841	1.00	83.97	C
ATOM	3869	C5	C A 190	91.750	66.450	-33.154	1.00	60.89	C	ATOM	3919	O3*	C A 190C	97.695	80.532	-27.140	1.00	83.97	O
ATOM	3870	C6	C A 190	90.673	66.749	-33.893	1.00	60.89	C	ATOM	3920	C2*	C A 190C	97.548	78.077	-27.327	1.00	83.97	C
ATOM	3871	P	C A 190A	89.727	71.686	-36.447	1.00	71.53	P	ATOM	3921	O2*	C A 190C	97.639	78.055	-25.916	1.00	83.97	O
ATOM	3872	O1P	C A 190A	89.272	72.697	-37.436	1.00	68.19	O	ATOM	3922	C1*	C A 190C	96.365	77.231	-27.809	1.00	83.97	C
ATOM	3873	O2P	C A 190A	91.163	71.281	-36.423	1.00	68.19	O	ATOM	3923	N1	C A 190C	96.555	76.622	-29.144	1.00	61.92	N
ATOM	3874	O5P	C A 190A	89.328	72.230	-35.006	1.00	71.53	O	ATOM	3924	C2	C A 190C	97.530	75.624	-29.318	1.00	61.92	C
ATOM	3875	C5*	C A 190A	88.016	72.748	-34.780	1.00	71.53	C	ATOM	3925	O2	C A 190C	98.270	75.326	-28.367	1.00	61.92	O
ATOM	3876	C4*	C A 190A	87.880	73.234	-33.370	1.00	71.53	C	ATOM	3926	N3	C A 190C	97.645	75.021	-30.523	1.00	61.92	N
ATOM	3877	O4*	C A 190A	87.968	72.112	-32.460	1.00	71.53	O	ATOM	3927	C4	C A 190C	96.853	75.391	-31.533	1.00	61.92	C
ATOM	3878	C3*	C A 190A	88.961	74.184	-32.902	1.00	71.53	C	ATOM	3928	N4	C A 190C	96.985	74.749	-32.696	1.00	61.92	N
ATOM	3879	O3*	C A 190A	88.723	75.512	-33.327	1.00	71.53	O	ATOM	3929	C5	C A 190C	95.890	76.427	-31.396	1.00	61.92	C
ATOM	3880	C2*	C A 190A	88.907	74.015	-31.391	1.00	71.53	C	ATOM	3930	C6	C A 190C	95.774	77.009	-30.200	1.00	61.92	C
ATOM	3881	O2*	C A 190A	87.870	74.763	-30.785	1.00	71.53	O	ATOM	3931	P	U A 190D	98.722	81.498	-27.890	1.00	69.62	P
ATOM	3882	C1*	C A 190A	88.608	72.520	-31.264	1.00	71.53	C	ATOM	3932	O1P	U A 190D	98.509	82.857	-27.332	1.00	62.66	O
ATOM	3883	N1	C A 190A	89.845	71.733	-31.095	1.00	68.19	N	ATOM	3933	O2P	U A 190D	98.619	81.280	-29.368	1.00	62.66	O
ATOM	3884	C2	C A 190A	90.469	71.724	-29.845	1.00	68.19	C	ATOM	3934	O5*	U A 190D	100.120	80.953	-27.357	1.00	69.62	O
ATOM	3885	O2	C A 190A	89.937	72.326	-28.906	1.00	68.19	O	ATOM	3935	C5*	U A 190D	101.191	80.636	-28.247	1.00	69.62	C
ATOM	3886	N3	C A 190A	91.632	71.058	-29.688	1.00	68.19	N	ATOM	3936	C4*	U A 190D	101.487	79.159	-28.199	1.00	69.62	C
ATOM	3887	C4	C A 190A	92.168	70.405	-30.717	1.00	68.19	C	ATOM	3937	O4*	U A 190D	100.450	78.436	-28.917	1.00	69.62	O
ATOM	3888	N4	C A 190A	93.327	69.776	-30.521	1.00	68.19	N	ATOM	3938	C3*	U A 190D	102.796	78.804	-28.879	1.00	69.62	C
ATOM	3889	C5	C A 190A	91.540	70.371	-31.997	1.00	68.19	C	ATOM	3939	O3*	U A 190D	103.412	77.739	-28.169	1.00	69.62	O
ATOM	3890	C6	C A 190A	90.391	71.041	-32.140	1.00	68.19	C	ATOM	3940	C2*	U A 190D	102.366	78.389	-30.278	1.00	69.62	C
ATOM	3891	P	C A 190B	89.970	76.479	-33.638	1.00	75.25	P	ATOM	3941	O2*	U A 190D	103.272	77.521	-30.925	1.00	69.62	O
ATOM	3892	O1P	C A 190B	89.444	77.655	-34.389	1.00	72.72	O	ATOM	3942	C1*	U A 190D	101.021	77.727	-29.998	1.00	69.62	C
ATOM	3893	O2P	C A 190B	91.084	75.672	-34.215	1.00	72.72	O	ATOM	3943	N1	U A 190D	100.100	77.785	-31.143	1.00	62.66	N
ATOM	3894	O5*	C A 190B	90.425	76.977	-32.202	1.00	75.25	O	ATOM	3944	C2	U A 190D	100.196	76.784	-32.100	1.00	62.66	C
ATOM	3895	C5*	C A 190B	89.494	77.611	-31.334	1.00	75.25	C	ATOM	3945	O2	U A 190D	100.979	75.857	-32.018	1.00	62.66	O
ATOM	3896	C4*	C A 190B	90.070	77.708	-29.953	1.00	75.25	C	ATOM	3946	N3	U A 190D	99.330	76.902	-33.153	1.00	62.66	N
ATOM	3897	O4*	C A 190B	90.247	76.376	-29.407	1.00	75.25	O	ATOM	3947	C4	U A 190D	98.379	77.883	-33.340	1.00	62.66	C
ATOM	3898	C3*	C A 190B	91.453	78.321	-29.873	1.00	75.25	C	ATOM	3948	O4	U A 190D	97.635	77.824	-34.326	1.00	62.66	O
ATOM	3899	O3*	C A 190B	91.437	79.735	-29.882	1.00	75.25	O	ATOM	3949	C5	U A 190D	98.331	78.876	-32.304	1.00	62.66	C
ATOM	3900	C2*	C A 190B	91.985	77.754	-28.567	1.00	75.25	C	ATOM	3950	C6	U A 190D	99.173	78.796	-31.270	1.00	62.66	C
ATOM	3901	O2*	C A 190B	91.497	78.455	-27.439	1.00	75.25	O	ATOM	3951	P	U A 190E	105.003	77.565	-28.235	1.00	59.28	P
ATOM	3902	C1*	C A 190B	91.404	76.343	-28.590	1.00	75.25	C	ATOM	3952	O1P	U A 190E	105.492	77.110	-26.900	1.00	50.80	O
ATOM	3903	N1	C A 190B	92.358	75.371	-29.155	1.00	72.72	N	ATOM	3953	O2P	U A 190E	105.584	78.779	-28.853	1.00	50.80	O
ATOM	3904	C2	C A 190B	93.329	74.802	-28.310	1.00	72.72	C	ATOM	3954	O5*	U A 190E	105.192	76.418	-29.313	1.00	59.28	O
ATOM	3905	O2	C A 190B	93.350	75.127	-27.112	1.00	72.72	O	ATOM	3955	C5*	U A 190E	104.860	75.092	-28.988	1.00	59.28	C
ATOM	3906	N3	C A 190B	94.216	73.918	-28.821	1.00	72.72	N	ATOM	3956	C4*	U A 190E	105.517	74.138	-29.936	1.00	59.28	C
ATOM	3907	C4	C A 190B	94.161	73.595	-30.114	1.00	72.72	C	ATOM	3957	O4*	U A 190E	106.807	74.649	-30.361	1.00	59.28	O
ATOM	3908	N4	C A 190B	95.053	72.723	-30.579	1.00	72.72	N	ATOM	3958	C3*	U A 190E	105.761	72.793	-29.278	1.00	59.28	C
ATOM	3909	C5	C A 190B	93.184	74.153	-30.994	1.00	72.72	C	ATOM	3959	O3*	U A 190E	105.465	71.747	-30.181	1.00	59.28	O
ATOM	3910	C6	C A 190B	92.312	75.026	-30.478	1.00	72.72	C	ATOM	3960	C2*	U A 190E	107.239	72.855	-28.907	1.00	59.28	C
ATOM	3911	P	C A 190C	92.820	80.529	-30.080	1.00	83.97	P	ATOM	3961	O2*	U A 190E	107.888	71.604	-28.832	1.00	59.28	O
ATOM	3912	O1P	C A 190C	92.587	81.993	-29.938	1.00	61.92	O	ATOM	3962	C1*	U A 190E	107.820	73.732	-30.012	1.00	59.28	C
ATOM	3913	O2P	C A 190C	93.498	80.004	-31.306	1.00	61.92	O	ATOM	3963	N1	U A 190E	109.001	74.487	-29.566	1.00	50.80	N
ATOM	3914	O5*	C A 190C	93.641	80.092	-28.794	1.00	83.97	O	ATOM	3964	C2	U A 190E	110.222	74.198	-30.153	1.00	50.80	C
ATOM	3915	C5*	C A 190C	95.023	80.353	-28.706	1.00	83.97	C	ATOM	3965	O2	U A 190E	110.362	73.345	-31.022	1.00	50.80	O



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ATOM	3966	N3	U A 190E	111.276	74.942	-29.684	1.00	50.80	N	ATOM	4016	C4	G A 190G	98.420	73.333	-25.392	1.00	54.88	C
ATOM	3967	C4	U A 190E	111.231	75.917	-28.711	1.00	50.80	C	ATOM	4017	P	G A 190H	98.992	70.542	-20.110	1.00	80.45	P
ATOM	3968	O4	U A 190E	112.266	76.482	-28.372	1.00	50.80	O	ATOM	4018	O1P	G A 190H	99.022	70.462	-18.620	1.00	66.13	O
ATOM	3969	C5	U A 190E	109.942	76.152	-28.159	1.00	50.80	C	ATOM	4019	O2P	G A 190H	99.352	69.352	-20.930	1.00	66.13	O
ATOM	3970	C6	U A 190E	108.899	75.451	-28.594	1.00	50.80	C	ATOM	4020	O5*	G A 190H	97.560	71.050	-20.600	1.00	80.45	O
ATOM	3971	P	G A 190F	104.135	70.882	-29.962	1.00	59.62	P	ATOM	4021	C5*	G A 190H	96.853	72.069	-19.872	1.00	80.45	C
ATOM	3972	O1P	G A 190F	104.211	69.706	-30.870	1.00	58.09	O	ATOM	4022	C4*	G A 190H	95.519	72.382	-20.524	1.00	80.45	C
ATOM	3973	O2P	G A 190F	102.970	71.802	-30.031	1.00	58.09	O	ATOM	4023	O4*	G A 190H	95.723	72.967	-21.839	1.00	80.45	C
ATOM	3974	O5*	G A 190F	104.234	70.367	-28.463	1.00	59.62	O	ATOM	4024	C3*	G A 190H	94.540	71.249	-20.800	1.00	80.45	C
ATOM	3975	C5*	G A 190F	103.094	69.768	-27.834	1.00	59.62	C	ATOM	4025	O3*	G A 190H	93.802	70.793	-19.674	1.00	80.45	O
ATOM	3976	C4*	G A 190F	103.531	68.927	-26.671	1.00	59.62	C	ATOM	4026	C2*	G A 190H	93.612	71.879	-21.830	1.00	80.45	C
ATOM	3977	O4*	G A 190F	104.486	67.957	-27.153	1.00	59.62	O	ATOM	4027	O2*	G A 190H	92.629	72.726	-21.272	1.00	80.45	O
ATOM	3978	C3*	G A 190F	104.211	69.694	-25.542	1.00	59.62	C	ATOM	4028	C1*	G A 190H	94.582	72.724	-22.643	1.00	80.45	C
ATOM	3979	O3*	G A 190F	103.916	69.064	-24.299	1.00	59.62	O	ATOM	4029	N9	G A 190H	94.957	71.967	-23.829	1.00	66.13	N
ATOM	3980	C2*	G A 190F	105.691	69.488	-25.835	1.00	59.62	C	ATOM	4030	C8	G A 190H	96.098	71.243	-24.061	1.00	66.13	C
ATOM	3981	O2*	G A 190F	106.465	69.516	-24.657	1.00	59.62	O	ATOM	4031	N7	G A 190H	96.094	70.645	-25.221	1.00	66.13	N
ATOM	3982	C1*	G A 190F	105.685	68.086	-26.433	1.00	59.62	C	ATOM	4032	C5	G A 190H	94.880	71.005	-25.788	1.00	66.13	C
ATOM	3983	N9	G A 190F	106.790	67.752	-27.323	1.00	58.09	N	ATOM	4033	C6	G A 190H	94.315	70.671	-27.041	1.00	66.13	C
ATOM	3984	C8	G A 190F	106.984	68.142	-28.627	1.00	58.09	C	ATOM	4034	O6	G A 190H	94.781	69.951	-27.926	1.00	66.13	O
ATOM	3985	N7	G A 190F	108.046	67.607	-29.167	1.00	58.09	N	ATOM	4035	N1	G A 190H	93.073	71.267	-27.217	1.00	66.13	N
ATOM	3986	C5	G A 190F	108.592	66.835	-28.150	1.00	58.09	C	ATOM	4036	C2	G A 190H	92.448	72.075	-26.298	1.00	66.13	C
ATOM	3987	C6	G A 190F	109.752	66.015	-28.133	1.00	58.09	C	ATOM	4037	N2	G A 190H	91.242	72.553	-26.635	1.00	66.13	N
ATOM	3988	O6	G A 190F	110.563	65.802	-29.046	1.00	58.09	O	ATOM	4038	N3	G A 190H	92.963	72.390	-25.128	1.00	66.13	N
ATOM	3989	N1	G A 190F	109.928	65.410	-26.891	1.00	58.09	N	ATOM	4039	C4	G A 190H	94.174	71.825	-24.943	1.00	66.13	C
ATOM	3990	C2	G A 190F	109.101	65.577	-25.803	1.00	58.09	C	ATOM	4040	P	G A 190I	93.117	69.333	-19.724	1.00	74.60	P
ATOM	3991	N2	G A 190F	109.433	64.917	-24.686	1.00	58.09	N	ATOM	4041	O1P	G A 190I	92.514	69.089	-18.386	1.00	74.39	O
ATOM	3992	N3	G A 190F	108.028	66.337	-25.807	1.00	58.09	N	ATOM	4042	O2P	G A 190I	94.109	68.368	-20.276	1.00	74.39	O
ATOM	3993	C4	G A 190F	107.833	66.929	-27.004	1.00	58.09	C	ATOM	4043	O5*	G A 190I	91.943	69.479	-20.798	1.00	74.60	O
ATOM	3994	P	G A 190G	102.409	69.040	-23.742	1.00	60.57	P	ATOM	4044	C5*	G A 190I	90.909	70.452	-20.602	1.00	74.60	C
ATOM	3995	O1P	G A 190G	102.481	68.435	-22.394	1.00	54.88	O	ATOM	4045	C4*	G A 190I	89.992	70.530	-21.799	1.00	74.60	C
ATOM	3996	O2P	G A 190G	101.553	68.414	-24.791	1.00	54.88	O	ATOM	4046	O4*	G A 190I	90.735	70.894	-22.986	1.00	74.60	O
ATOM	3997	O5*	G A 190G	102.003	70.569	-23.585	1.00	60.57	O	ATOM	4047	C3*	G A 190I	89.240	69.278	-22.212	1.00	74.60	C
ATOM	3998	C5*	G A 190G	102.534	71.368	-22.515	1.00	60.57	C	ATOM	4048	O3*	G A 190I	88.088	69.041	-21.415	1.00	74.60	O
ATOM	3999	C4*	G A 190G	101.585	72.492	-22.191	1.00	60.57	C	ATOM	4049	C2*	G A 190I	88.860	69.591	-23.653	1.00	74.60	C
ATOM	4000	O4*	G A 190G	101.445	73.321	-23.366	1.00	60.57	O	ATOM	4050	O2*	G A 190I	87.699	70.387	-23.767	1.00	74.60	O
ATOM	4001	C3*	G A 190G	100.172	72.040	-21.880	1.00	60.57	C	ATOM	4051	C1*	G A 190I	90.069	70.391	-24.128	1.00	74.60	C
ATOM	4002	O3*	G A 190G	99.994	71.728	-20.513	1.00	60.57	O	ATOM	4052	N9	G A 190I	90.985	69.543	-24.875	1.00	74.39	N
ATOM	4003	C2*	G A 190G	99.335	73.232	-22.297	1.00	60.57	C	ATOM	4053	C8	G A 190I	92.171	69.007	-24.442	1.00	74.39	C
ATOM	4004	O2*	G A 190G	99.350	74.242	-21.310	1.00	60.57	O	ATOM	4054	N7	G A 190I	92.760	68.273	-25.349	1.00	74.39	N
ATOM	4005	C1*	G A 190G	100.094	73.703	-23.530	1.00	60.57	C	ATOM	4055	C5	G A 190I	91.910	68.332	-26.444	1.00	74.39	C
ATOM	4006	N9	G A 190G	99.614	73.090	-24.763	1.00	54.88	N	ATOM	4056	C6	G A 190I	92.022	67.737	-27.721	1.00	74.39	C
ATOM	4007	C8	G A 190G	100.282	72.178	-25.543	1.00	54.88	C	ATOM	4057	O6	G A 190I	92.927	67.008	-28.157	1.00	74.39	O
ATOM	4008	N7	G A 190G	99.633	71.856	-26.626	1.00	54.88	N	ATOM	4058	N1	G A 190I	90.937	68.062	-28.528	1.00	74.39	N
ATOM	4009	C5	G A 190G	98.457	72.584	-26.548	1.00	54.88	C	ATOM	4059	C2	G A 190I	89.881	68.854	-28.149	1.00	74.39	C
ATOM	4010	C6	G A 190G	97.372	72.655	-27.444	1.00	54.88	O	ATOM	4060	N2	G A 190I	88.929	69.055	-29.064	1.00	74.39	N
ATOM	4011	O6	G A 190G	97.234	72.077	-28.525	1.00	54.88	C	ATOM	4061	N3	G A 190I	89.767	69.410	-26.962	1.00	74.39	N
ATOM	4012	N1	G A 190G	96.381	73.512	-26.979	1.00	54.88	N	ATOM	4062	C4	G A 190I	90.810	69.112	-26.166	1.00	74.39	C
ATOM	4013	C2	G A 190G	96.438	74.215	-25.798	1.00	54.88	C	ATOM	4063	P	U A 190J	87.581	67.531	-21.189	1.00	82.86	P
ATOM	4014	N2	G A 190G	95.395	74.995	-25.517	1.00	54.88	N	ATOM	4064	O1P	U A 190J	86.421	67.613	-20.264	1.00	70.48	O
ATOM	4015	N3	G A 190G	97.448	74.157	-24.954	1.00	54.88	N	ATOM	4065	O2P	U A 190J	88.746	66.668	-20.830	1.00	70.48	O



ATOM	4066	O5*	U A 190J	87.063	67.084	-22.628	1.00	82.86	O	ATOM	4116	O2*	U A 190L	84.914	54.327	-31.220	1.00	77.24	O
ATOM	4067	C5*	U A 190J	85.904	67.690	-23.204	1.00	82.86	C	ATOM	4117	C1*	U A 190L	85.632	56.510	-30.506	1.00	77.24	C
ATOM	4068	C4*	U A 190J	85.711	67.210	-24.616	1.00	82.86	C	ATOM	4118	N1	U A 190L	86.783	57.084	-29.788	1.00	73.98	N
ATOM	4069	C3*	U A 190J	86.848	67.618	-25.419	1.00	82.86	C	ATOM	4119	C2	U A 190L	88.052	56.753	-30.240	1.00	73.98	C
ATOM	4070	O4*	U A 190J	85.643	65.705	-24.822	1.00	82.86	O	ATOM	4120	O2	U A 190L	88.247	56.063	-31.233	1.00	73.98	O
ATOM	4071	O3*	U A 190J	84.367	65.145	-24.564	1.00	82.86	O	ATOM	4121	N3	U A 190L	89.085	57.258	-29.486	1.00	73.98	N
ATOM	4072	C2*	U A 190J	86.036	65.552	-26.284	1.00	82.86	C	ATOM	4122	C4	U A 190L	88.989	58.048	-28.359	1.00	73.98	C
ATOM	4073	O2*	U A 190J	84.968	66.653	-27.188	1.00	82.86	O	ATOM	4123	O4	U A 190L	90.017	58.351	-27.736	1.00	73.98	O
ATOM	4074	C1*	U A 190J	87.084	66.763	-26.433	1.00	82.86	C	ATOM	4124	C5	U A 190L	87.646	58.374	-27.978	1.00	73.98	C
ATOM	4075	N1	U A 190J	88.438	66.101	-26.271	1.00	70.48	N	ATOM	4125	C6	U A 190L	86.618	57.896	-28.687	1.00	73.98	C
ATOM	4076	C2	U A 190J	88.983	65.435	-27.357	1.00	70.48	C	ATOM	4126	P	G A 191	84.188	52.933	-27.647	1.00	75.07	P
ATOM	4077	O2	U A 190J	88.400	65.314	-28.419	1.00	70.48	O	ATOM	4127	O1P	G A 191	83.254	51.784	-27.714	1.00	60.00	O
ATOM	4078	N3	U A 190J	90.232	64.912	-27.150	1.00	70.48	N	ATOM	4128	O2P	G A 191	84.382	53.638	-26.355	1.00	60.00	O
ATOM	4079	C4	U A 190J	90.975	64.984	-25.999	1.00	70.48	C	ATOM	4129	O5*	G A 191	85.605	52.444	-28.189	1.00	75.07	O
ATOM	4080	O4	U A 190J	92.057	64.402	-25.946	1.00	70.48	O	ATOM	4130	C5*	G A 191	85.692	51.698	-29.416	1.00	75.07	C
ATOM	4081	C5	U A 190J	90.352	65.700	-24.925	1.00	70.48	C	ATOM	4131	C4*	G A 191	87.114	51.276	-29.684	1.00	75.07	C
ATOM	4082	C6	U A 190J	89.136	66.221	-25.092	1.00	70.48	C	ATOM	4132	O4*	G A 191	87.917	52.423	-30.069	1.00	75.07	O
ATOM	4083	P	G A 190K	84.252	63.580	-24.211	1.00	81.66	P	ATOM	4133	C3*	G A 191	87.865	50.668	-28.516	1.00	75.07	C
ATOM	4084	O1P	G A 190K	82.917	63.392	-23.596	1.00	65.53	O	ATOM	4134	O3*	G A 191	87.552	49.301	-28.333	1.00	75.07	O
ATOM	4085	O2P	G A 190K	85.466	63.137	-23.473	1.00	65.53	O	ATOM	4135	C2*	G A 191	89.315	50.883	-28.924	1.00	75.07	C
ATOM	4086	O5*	G A 190K	84.249	62.870	-25.635	1.00	81.66	O	ATOM	4136	O2*	G A 191	89.736	49.913	-29.868	1.00	75.07	O
ATOM	4087	C5*	G A 190K	83.131	63.023	-26.517	1.00	81.66	C	ATOM	4137	C1*	G A 191	89.246	52.259	-29.592	1.00	75.07	C
ATOM	4088	C4*	G A 190K	83.322	62.176	-27.743	1.00	81.66	C	ATOM	4138	N9	G A 191	89.536	53.338	-28.645	1.00	60.00	N
ATOM	4089	O4*	G A 190K	84.392	62.732	-28.550	1.00	81.66	O	ATOM	4139	C8	G A 191	88.626	54.160	-28.017	1.00	60.00	C
ATOM	4090	C3*	G A 190K	83.749	60.745	-27.474	1.00	81.66	C	ATOM	4140	N7	G A 191	89.179	54.993	-27.178	1.00	60.00	N
ATOM	4091	O3*	G A 190K	82.655	59.895	-27.167	1.00	81.66	O	ATOM	4141	C5	G A 191	90.538	54.719	-27.267	1.00	60.00	C
ATOM	4092	C2*	G A 190K	84.449	60.364	-28.770	1.00	81.66	C	ATOM	4142	C6	G A 191	91.636	55.300	-26.586	1.00	60.00	C
ATOM	4093	O2*	G A 190K	83.536	59.973	-29.775	1.00	81.66	O	ATOM	4143	O6	G A 191	91.622	56.194	-25.731	1.00	60.00	O
ATOM	4094	C1*	G A 190K	85.134	61.681	-29.148	1.00	81.66	C	ATOM	4144	N1	G A 191	92.843	54.733	-26.983	1.00	60.00	N
ATOM	4095	N9	G A 190K	86.496	61.735	-28.622	1.00	65.53	N	ATOM	4145	C2	G A 191	92.973	53.731	-27.912	1.00	60.00	C
ATOM	4096	C8	G A 190K	86.872	62.138	-27.360	1.00	65.53	C	ATOM	4146	N2	G A 191	94.216	53.314	-28.173	1.00	60.00	N
ATOM	4097	N7	G A 190K	88.154	62.022	-27.144	1.00	65.53	N	ATOM	4147	N3	G A 191	91.957	53.174	-28.545	1.00	60.00	N
ATOM	4098	C6	G A 190K	88.660	61.526	-28.337	1.00	65.53	C	ATOM	4148	C4	G A 191	90.777	53.711	-28.177	1.00	60.00	C
ATOM	4099	O6	G A 190K	89.984	61.183	-28.690	1.00	65.53	O	ATOM	4149	P	U A 192	87.505	48.691	-26.844	1.00	62.41	P
ATOM	4100	O6	G A 190K	91.000	61.238	-27.992	1.00	65.53	O	ATOM	4150	O1P	U A 192	86.868	47.350	-26.985	1.00	54.62	O
ATOM	4101	N1	G A 190K	90.062	60.720	-30.001	1.00	65.53	N	ATOM	4151	O2P	U A 192	86.905	49.702	-25.919	1.00	54.62	O
ATOM	4102	C2	G A 190K	88.995	60.592	-30.852	1.00	65.53	C	ATOM	4152	O5*	U A 192	89.040	48.500	-26.447	1.00	62.41	O
ATOM	4103	N2	G A 190K	89.271	60.120	-32.063	1.00	65.53	N	ATOM	4153	C5*	U A 192	89.924	47.687	-27.257	1.00	62.41	C
ATOM	4104	N3	G A 190K	87.748	60.903	-30.534	1.00	65.53	N	ATOM	4154	C4*	U A 192	91.375	47.969	-26.919	1.00	62.41	C
ATOM	4105	C4	G A 190K	87.653	61.359	-29.268	1.00	65.53	C	ATOM	4155	O4*	U A 192	91.709	49.339	-27.260	1.00	62.41	O
ATOM	4106	P	U A 190L	82.912	58.547	-26.325	1.00	77.24	P	ATOM	4156	O3*	U A 192	91.790	47.851	-25.464	1.00	62.41	C
ATOM	4107	O1P	U A 190L	81.586	58.026	-25.926	1.00	73.98	O	ATOM	4157	C3*	U A 192	92.048	46.522	-25.079	1.00	62.41	O
ATOM	4108	O2P	U A 190L	83.934	58.810	-25.279	1.00	73.98	O	ATOM	4158	C2*	U A 192	93.049	48.700	-25.412	1.00	62.41	C
ATOM	4109	O5*	U A 190L	83.516	57.540	-27.402	1.00	77.24	O	ATOM	4159	O2*	U A 192	94.187	48.044	-25.922	1.00	62.41	O
ATOM	4110	C5*	U A 190L	82.703	57.074	-28.481	1.00	77.24	C	ATOM	4160	C1*	U A 192	92.690	49.831	-26.365	1.00	62.41	C
ATOM	4111	C4*	U A 190L	83.530	56.319	-29.489	1.00	77.24	C	ATOM	4161	N1	U A 192	92.140	50.978	-25.629	1.00	54.62	N
ATOM	4112	O4*	U A 190L	84.460	57.221	-30.140	1.00	77.24	O	ATOM	4162	C2	U A 192	93.039	51.779	-24.947	1.00	54.62	C
ATOM	4113	C3*	U A 190L	84.403	55.183	-28.982	1.00	77.24	C	ATOM	4163	O2	U A 192	94.244	51.565	-24.932	1.00	54.62	O
ATOM	4114	O3*	U A 190L	83.684	53.975	-28.769	1.00	77.24	O	ATOM	4164	N3	U A 192	92.482	52.833	-24.279	1.00	54.62	N
ATOM	4115	C2*	U A 190L	85.420	55.047	-30.109	1.00	77.24	C	ATOM	4165	C4	U A 192	91.155	53.162	-24.218	1.00	54.62	C



Table 2: Sheet 43/520

ATOM	4166	O4	U A 192	90.816	54.182	-23.615	1.00	54.62	O	ATOM	4216	C3*	A A 195	94.918	48.423	-9.207	1.00	58.66	C
ATOM	4167	C5	U A 192	90.286	52.281	-24.939	1.00	54.62	C	ATOM	4217	O3*	A A 195	96.089	47.679	-8.863	1.00	58.66	O
ATOM	4168	C6	U A 192	90.796	51.250	-25.604	1.00	54.62	C	ATOM	4218	C2*	A A 195	94.721	49.649	-8.311	1.00	58.66	C
ATOM	4169	P	C A 193	91.867	46.103	-23.538	1.00	67.77	P	ATOM	4219	O2*	A A 195	95.918	50.208	-7.809	1.00	58.66	O
ATOM	4170	O1P	C A 193	92.204	44.660	-23.454	1.00	53.26	O	ATOM	4220	C1*	A A 195	94.108	50.661	-9.281	1.00	58.66	C
ATOM	4171	O2P	C A 193	90.540	46.583	-23.057	1.00	53.26	O	ATOM	4221	N9	A A 195	92.669	50.869	-9.217	1.00	69.60	N
ATOM	4172	O5*	C A 193	92.990	46.929	-22.771	1.00	67.77	O	ATOM	4222	C8	A A 195	91.689	50.105	-9.789	1.00	69.60	C
ATOM	4173	C5*	C A 193	94.377	46.731	-23.076	1.00	67.77	C	ATOM	4223	N7	A A 195	90.489	50.607	-9.659	1.00	69.60	N
ATOM	4174	C4*	C A 193	95.225	47.698	-22.297	1.00	67.77	C	ATOM	4224	C5	A A 195	90.691	51.768	-8.928	1.00	69.60	C
ATOM	4175	O4*	C A 193	94.946	49.052	-22.729	1.00	67.77	O	ATOM	4225	C6	A A 195	89.811	52.763	-8.475	1.00	69.60	C
ATOM	4176	C3*	C A 193	94.964	47.725	-20.805	1.00	67.77	C	ATOM	4226	N6	A A 195	88.498	52.754	-8.716	1.00	69.60	N
ATOM	4177	O3*	C A 193	95.650	46.691	-20.130	1.00	67.77	O	ATOM	4227	N1	A A 195	90.335	53.788	-7.764	1.00	69.60	N
ATOM	4178	C2*	C A 193	95.459	49.105	-20.404	1.00	67.77	C	ATOM	4228	C2	A A 195	91.658	53.802	-7.543	1.00	69.60	C
ATOM	4179	O2*	C A 193	96.855	49.149	-20.230	1.00	67.77	O	ATOM	4229	N3	A A 195	92.583	52.929	-7.926	1.00	69.60	N
ATOM	4180	C1*	C A 193	95.084	49.933	-21.630	1.00	67.77	C	ATOM	4230	C4	A A 195	92.027	51.925	-8.624	1.00	69.60	C
ATOM	4181	N1	C A 193	93.823	50.659	-21.421	1.00	53.26	N	ATOM	4231	P	A A 196	95.963	46.290	-8.062	1.00	63.36	P
ATOM	4182	C2	C A 193	93.824	51.732	-20.528	1.00	53.26	C	ATOM	4232	O1P	A A 196	97.237	45.551	-8.282	1.00	58.53	O
ATOM	4183	O2	C A 193	94.886	52.030	-19.952	1.00	53.26	O	ATOM	4233	O2P	A A 196	94.665	45.647	-8.414	1.00	58.53	O
ATOM	4184	N3	C A 193	92.683	52.410	-20.308	1.00	53.26	N	ATOM	4234	O5*	A A 196	95.899	46.731	-6.534	1.00	63.36	O
ATOM	4185	C4	C A 193	91.572	52.054	-20.938	1.00	53.26	C	ATOM	4235	C5*	A A 196	97.032	47.333	-5.886	1.00	63.36	C
ATOM	4186	N4	C A 193	90.474	52.756	-20.690	1.00	53.26	N	ATOM	4236	C4*	A A 196	96.567	48.097	-4.677	1.00	63.36	C
ATOM	4187	C5	C A 193	91.538	50.965	-21.851	1.00	53.26	C	ATOM	4237	O4*	A A 196	95.600	49.070	-5.123	1.00	63.36	O
ATOM	4188	C6	C A 193	92.674	50.302	-22.064	1.00	53.26	C	ATOM	4238	C3*	A A 196	95.831	47.236	-3.665	1.00	63.36	C
ATOM	4189	P	C A 194	95.094	46.172	-18.719	1.00	67.74	P	ATOM	4239	O3*	A A 196	96.752	46.718	-2.715	1.00	63.36	O
ATOM	4190	O1P	C A 194	95.895	44.967	-18.424	1.00	51.84	O	ATOM	4240	C2*	A A 196	94.831	48.201	-3.040	1.00	63.36	C
ATOM	4191	O2P	C A 194	93.612	46.089	-18.750	1.00	51.84	O	ATOM	4241	O2*	A A 196	95.364	48.953	-1.975	1.00	63.36	O
ATOM	4192	O5*	C A 194	95.490	47.318	-17.691	1.00	67.74	O	ATOM	4242	C1*	A A 196	94.526	49.133	-4.211	1.00	63.36	C
ATOM	4193	C5*	C A 194	96.843	47.442	-17.239	1.00	67.74	C	ATOM	4243	N9	A A 196	93.321	48.790	-4.953	1.00	58.53	N
ATOM	4194	O4*	C A 194	96.955	48.542	-16.222	1.00	67.74	C	ATOM	4244	C8	A A 196	93.056	47.624	-5.626	1.00	58.53	C
ATOM	4195	O4*	C A 194	96.591	49.800	-16.832	1.00	67.74	O	ATOM	4245	N7	A A 196	91.892	47.618	-6.227	1.00	58.53	N
ATOM	4196	C3*	C A 194	96.042	48.415	-15.018	1.00	67.74	C	ATOM	4246	C5	A A 196	91.355	48.862	-5.928	1.00	58.53	C
ATOM	4197	O3*	C A 194	96.644	47.577	-14.038	1.00	67.74	O	ATOM	4247	C6	A A 196	90.151	49.473	-6.280	1.00	58.53	C
ATOM	4198	C2*	C A 194	95.909	49.862	-14.553	1.00	67.74	C	ATOM	4248	N6	A A 196	89.212	48.881	-7.018	1.00	58.53	N
ATOM	4199	O2*	C A 194	96.990	50.294	-13.752	1.00	67.74	O	ATOM	4249	N1	A A 196	89.933	50.729	-5.838	1.00	58.53	N
ATOM	4200	C1*	C A 194	95.945	50.620	-15.881	1.00	67.74	C	ATOM	4250	C2	A A 196	90.864	51.310	-5.077	1.00	58.53	C
ATOM	4201	N1	C A 194	94.605	50.953	-16.388	1.00	51.84	N	ATOM	4251	N3	A A 196	92.030	50.832	-4.666	1.00	58.53	N
ATOM	4202	C2	C A 194	93.951	52.083	-15.875	1.00	51.84	C	ATOM	4252	C4	A A 196	92.222	49.591	-5.138	1.00	58.53	C
ATOM	4203	O2	C A 194	94.525	52.777	-15.027	1.00	51.84	O	ATOM	4253	P	A A 197	96.970	45.126	-2.592	1.00	74.31	P
ATOM	4204	N3	C A 194	92.713	52.384	-16.314	1.00	51.84	N	ATOM	4254	O1P	A A 197	98.128	44.716	-3.433	1.00	60.60	O
ATOM	4205	C4	C A 194	92.126	51.613	-17.226	1.00	51.84	C	ATOM	4255	O2P	A A 197	95.656	44.470	-2.798	1.00	60.60	O
ATOM	4206	N4	C A 194	90.901	51.942	-17.619	1.00	51.84	N	ATOM	4256	O5*	A A 197	97.399	44.955	-1.067	1.00	74.31	O
ATOM	4207	C5	C A 194	92.769	50.465	-17.774	1.00	51.84	C	ATOM	4257	C5*	A A 197	97.067	43.770	-0.333	1.00	74.31	C
ATOM	4208	C6	C A 194	93.997	50.175	-17.334	1.00	51.84	C	ATOM	4258	C4*	A A 197	96.070	44.097	0.750	1.00	74.31	C
ATOM	4209	P	A A 195	95.783	46.422	-13.320	1.00	58.66	P	ATOM	4259	O4*	A A 197	96.712	44.807	1.838	1.00	74.31	O
ATOM	4210	O1P	A A 195	96.722	45.287	-13.148	1.00	69.60	O	ATOM	4260	C3*	A A 197	94.901	44.953	0.311	1.00	74.31	C
ATOM	4211	O2P	A A 195	94.491	46.213	-14.041	1.00	69.60	O	ATOM	4261	O3*	A A 197	93.651	44.329	0.683	1.00	74.31	O
ATOM	4212	O5*	A A 195	95.473	47.018	-11.877	1.00	58.66	O	ATOM	4262	C2*	A A 197	95.296	46.376	0.741	1.00	74.31	C
ATOM	4213	C5*	A A 195	94.651	48.177	-11.735	1.00	58.66	C	ATOM	4263	O2*	A A 197	94.250	47.262	1.080	1.00	74.31	O
ATOM	4214	C4*	A A 195	95.135	49.023	-10.587	1.00	58.66	C	ATOM	4264	C1*	A A 197	96.256	46.142	1.906	1.00	74.31	C
ATOM	4215	O4*	A A 195	94.407	50.266	-10.600	1.00	58.66	O	ATOM	4265	N9	A A 197	97.458	46.977	1.868	1.00	60.60	N



ATOM	4266	C8	A A 197	98.463	46.927	0.933	1.00	60.60	C	ATOM	4316	N1	G A 199	93.734	50.582	11.664	1.00	55.08	N
ATOM	4267	N7	A A 197	99.497	47.674	1.227	1.00	60.60	N	ATOM	4317	C2	G A 199	95.005	50.403	12.146	1.00	55.08	C
ATOM	4268	C5	A A 197	99.139	48.280	2.416	1.00	60.60	C	ATOM	4318	N2	G A 199	95.469	51.349	12.969	1.00	55.08	N
ATOM	4269	C6	A A 197	99.822	49.150	3.258	1.00	60.60	C	ATOM	4319	N3	G A 199	95.769	49.375	11.841	1.00	55.08	N
ATOM	4270	N6	A A 197	101.074	49.559	3.038	1.00	60.60	N	ATOM	4320	C4	G A 199	95.160	48.537	10.980	1.00	55.08	C
ATOM	4271	N1	A A 197	99.180	49.585	4.362	1.00	60.60	N	ATOM	4321	P	G A 200	95.809	44.008	14.408	1.00	68.55	P
ATOM	4272	C2	A A 197	97.941	49.151	4.595	1.00	60.60	C	ATOM	4322	O1P	G A 200	96.358	43.034	15.387	1.00	45.49	O
ATOM	4273	N3	A A 197	97.201	48.310	3.887	1.00	60.60	N	ATOM	4323	O2P	G A 200	94.469	43.777	13.804	1.00	45.49	O
ATOM	4274	C4	A A 197	97.867	47.900	2.798	1.00	60.60	C	ATOM	4324	O5*	G A 200	95.778	45.429	15.106	1.00	68.55	O
ATOM	4275	P	G A 198	93.153	44.270	2.216	1.00	62.61	P	ATOM	4325	C5*	G A 200	96.962	45.973	15.681	1.00	68.55	C
ATOM	4276	O1P	G A 198	91.854	43.578	2.165	1.00	52.40	O	ATOM	4326	C4*	G A 200	96.642	47.267	16.371	1.00	68.55	C
ATOM	4277	O2P	G A 198	93.250	45.595	2.878	1.00	52.40	O	ATOM	4327	O4*	G A 200	96.195	48.239	15.398	1.00	68.55	O
ATOM	4278	O5*	G A 198	94.152	43.293	2.967	1.00	62.61	O	ATOM	4328	C3*	G A 200	95.505	47.179	17.366	1.00	68.55	C
ATOM	4279	C5*	G A 198	94.045	43.139	4.389	1.00	62.61	C	ATOM	4329	O3*	G A 200	95.979	46.687	18.607	1.00	68.55	O
ATOM	4280	C4*	G A 198	95.269	43.688	5.068	1.00	62.61	C	ATOM	4330	C2*	G A 200	94.982	48.608	17.410	1.00	68.55	C
ATOM	4281	O4*	G A 198	95.572	45.009	4.554	1.00	62.61	O	ATOM	4331	O2*	G A 200	95.738	49.467	18.237	1.00	68.55	O
ATOM	4282	C3*	G A 198	95.129	43.891	6.563	1.00	62.61	C	ATOM	4332	C1*	G A 200	95.186	49.048	15.964	1.00	68.55	C
ATOM	4283	O3*	G A 198	95.385	42.702	7.274	1.00	62.61	O	ATOM	4333	N9	G A 200	93.988	48.925	15.145	1.00	45.49	N
ATOM	4284	C2*	G A 198	96.181	44.947	6.845	1.00	62.61	C	ATOM	4334	C8	G A 200	93.654	47.905	14.287	1.00	45.49	C
ATOM	4285	O2*	G A 198	97.465	44.360	6.891	1.00	62.61	O	ATOM	4335	N7	G A 200	92.524	48.110	13.664	1.00	45.49	N
ATOM	4286	C1*	G A 198	96.067	45.827	5.601	1.00	62.61	C	ATOM	4336	C5	G A 200	92.086	49.331	14.150	1.00	45.49	C
ATOM	4287	N9	G A 198	95.128	46.929	5.807	1.00	52.40	N	ATOM	4337	C6	G A 200	90.927	50.067	13.845	1.00	45.49	C
ATOM	4288	C8	G A 198	93.876	47.068	5.254	1.00	52.40	C	ATOM	4338	O6	G A 200	90.017	49.768	13.061	1.00	45.49	O
ATOM	4289	N7	G A 198	93.258	48.147	5.651	1.00	52.40	N	ATOM	4339	N1	G A 200	90.877	51.262	14.562	1.00	45.49	N
ATOM	4290	C5	G A 198	94.156	48.762	6.515	1.00	52.40	C	ATOM	4340	C2	G A 200	91.828	51.677	15.462	1.00	45.49	C
ATOM	4291	C6	G A 198	94.039	49.965	7.257	1.00	52.40	C	ATOM	4341	N2	G A 200	91.620	52.845	16.052	1.00	45.49	N
ATOM	4292	O6	G A 198	93.081	50.752	7.305	1.00	52.40	O	ATOM	4342	N3	G A 200	92.907	50.994	15.761	1.00	45.49	N
ATOM	4293	N1	G A 198	95.187	50.221	8.000	1.00	52.40	N	ATOM	4343	C4	G A 200	92.975	49.841	15.071	1.00	45.49	C
ATOM	4294	C2	G A 198	96.300	49.426	8.024	1.00	52.40	C	ATOM	4344	P	C A 201	94.959	45.960	19.611	1.00	93.86	P
ATOM	4295	N2	G A 198	97.306	49.839	8.792	1.00	52.40	N	ATOM	4345	O1P	C A 201	95.725	44.956	20.402	1.00	47.70	O
ATOM	4296	N3	G A 198	96.421	48.303	7.343	1.00	52.40	N	ATOM	4346	O2P	C A 201	93.748	45.524	18.850	1.00	47.70	O
ATOM	4297	C4	G A 198	95.318	48.032	6.615	1.00	52.40	C	ATOM	4347	O5*	C A 201	94.595	47.151	20.599	1.00	93.86	O
ATOM	4298	P	G A 199	94.732	42.489	8.724	1.00	59.85	P	ATOM	4348	C5*	C A 201	93.283	47.313	21.121	1.00	93.86	C
ATOM	4299	O1P	G A 199	95.174	41.123	9.130	1.00	55.08	O	ATOM	4349	C4*	C A 201	92.810	48.710	20.857	1.00	93.86	C
ATOM	4300	O2P	G A 199	93.279	42.811	8.651	1.00	55.08	O	ATOM	4350	O4*	C A 201	92.795	48.932	19.437	1.00	93.86	O
ATOM	4301	O5*	G A 199	95.461	43.559	9.655	1.00	59.85	O	ATOM	4351	C3*	C A 201	91.401	48.996	21.330	1.00	93.86	C
ATOM	4302	C5*	G A 199	96.814	43.340	10.082	1.00	59.85	C	ATOM	4352	O3*	C A 201	91.486	49.469	22.666	1.00	93.86	O
ATOM	4303	C4*	G A 199	97.332	44.529	10.848	1.00	59.85	C	ATOM	4353	C2*	C A 201	90.934	50.095	20.384	1.00	93.86	C
ATOM	4304	O4*	G A 199	97.244	45.708	10.008	1.00	59.85	O	ATOM	4354	O2*	C A 201	91.289	51.396	20.799	1.00	93.86	O
ATOM	4305	C3*	G A 199	96.572	44.931	12.038	1.00	59.85	C	ATOM	4355	C1*	C A 201	91.709	49.765	19.108	1.00	93.86	C
ATOM	4306	O3*	G A 199	96.900	44.172	13.239	1.00	59.85	O	ATOM	4356	N1	C A 201	90.916	49.117	18.060	1.00	47.70	N
ATOM	4307	C2*	G A 199	96.965	46.389	12.261	1.00	59.85	C	ATOM	4357	C2	C A 201	89.831	49.817	17.532	1.00	47.70	C
ATOM	4308	O2*	G A 199	98.232	46.582	12.853	1.00	59.85	O	ATOM	4358	O2	C A 201	89.546	50.925	18.018	1.00	47.70	O
ATOM	4309	C1*	G A 199	97.003	46.847	10.811	1.00	59.85	C	ATOM	4359	N3	C A 201	89.120	49.270	16.516	1.00	47.70	N
ATOM	4310	N9	G A 199	95.697	47.386	10.474	1.00	55.08	N	ATOM	4360	C4	C A 201	89.454	48.066	16.042	1.00	47.70	C
ATOM	4311	C8	G A 199	94.752	46.850	9.632	1.00	55.08	C	ATOM	4361	N4	C A 201	88.740	47.574	15.019	1.00	47.70	N
ATOM	4312	N7	G A 199	93.659	47.559	9.577	1.00	55.08	N	ATOM	4362	C5	C A 201	90.540	47.313	16.589	1.00	47.70	C
ATOM	4313	C5	G A 199	93.902	48.626	10.433	1.00	55.08	C	ATOM	4363	C6	C A 201	91.236	47.872	17.587	1.00	47.70	C
ATOM	4314	C6	G A 199	93.081	49.717	10.790	1.00	55.08	C	ATOM	4364	P	U A 202	90.671	48.738	23.833	1.00	126.53	P
ATOM	4315	O6	G A 199	91.914	49.952	10.436	1.00	55.08	O	ATOM	4365	O1P	U A 202	91.697	48.135	24.726	1.00	116.76	O



ATOM	4366	O2P	U A 202	89.633	47.867	23.207	1.00116.76	O	ATOM	4416	N1	U A 204	79.046	48.427	13.990	1.00200.24	N
ATOM	4367	O5*	U A 202	89.994	49.969	24.594	1.00126.53	O	ATOM	4417	C2	U A 204	78.585	47.735	12.875	1.00200.24	C
ATOM	4368	C5*	U A 202	88.572	50.013	24.862	1.00126.53	C	ATOM	4418	O2	U A 204	78.490	48.241	11.766	1.00200.24	O
ATOM	4369	C4*	U A 202	88.020	51.400	24.589	1.00126.53	C	ATOM	4419	N3	U A 204	78.238	46.427	13.109	1.00200.24	N
ATOM	4370	O4*	U A 202	88.762	52.372	25.356	1.00126.53	O	ATOM	4420	C4	U A 204	78.300	45.751	14.310	1.00200.24	C
ATOM	4371	C3*	U A 202	88.142	51.894	23.151	1.00126.53	C	ATOM	4421	O4	U A 204	77.958	44.568	14.356	1.00200.24	O
ATOM	4372	O3*	U A 202	86.998	51.549	22.950	1.00126.53	O	ATOM	4422	C5	U A 204	78.782	46.531	15.411	1.00200.24	C
ATOM	4373	C2*	U A 202	88.155	53.421	23.296	1.00126.53	C	ATOM	4423	C6	U A 204	79.129	47.808	15.219	1.00200.24	C
ATOM	4374	O2*	U A 202	86.874	53.999	23.143	1.00126.53	O	ATOM	4424	P	G A 216	78.399	54.071	15.117	1.00151.27	P
ATOM	4375	C1*	U A 202	88.628	53.632	24.739	1.00126.53	C	ATOM	4425	O1P	G A 216	79.007	54.104	16.469	1.00 74.61	O
ATOM	4376	N1	U A 202	89.855	54.422	24.933	1.00116.76	N	ATOM	4426	O2P	G A 216	77.566	55.217	14.675	1.00 74.61	O
ATOM	4377	C2	U A 202	89.748	55.804	24.800	1.00116.76	C	ATOM	4427	O5*	G A 216	79.543	53.880	14.025	1.00151.27	O
ATOM	4378	O2	U A 202	88.703	56.362	24.511	1.00116.76	O	ATOM	4428	C5*	G A 216	80.315	54.991	13.538	1.00151.27	C
ATOM	4379	N3	U A 202	90.908	56.503	25.021	1.00116.76	N	ATOM	4429	C4*	G A 216	81.554	55.144	14.375	1.00151.27	C
ATOM	4380	C4	U A 202	92.141	55.977	25.354	1.00116.76	C	ATOM	4430	O4*	G A 216	82.045	53.838	14.725	1.00151.27	O
ATOM	4381	O4	U A 202	93.088	56.739	25.554	1.00116.76	O	ATOM	4431	C3*	G A 216	82.740	55.856	13.747	1.00151.27	C
ATOM	4382	C5	U A 202	92.176	54.544	25.462	1.00116.76	C	ATOM	4432	O3*	G A 216	82.619	57.246	13.987	1.00151.27	O
ATOM	4383	C6	U A 202	91.061	53.834	25.250	1.00116.76	C	ATOM	4433	C2*	G A 216	83.928	55.304	14.531	1.00151.27	C
ATOM	4384	P	U A 203	86.206	50.167	22.605	1.00 87.95	P	ATOM	4434	O2*	G A 216	84.184	56.050	15.702	1.00151.27	O
ATOM	4385	O1P	U A 203	85.512	50.325	23.899	1.00 81.80	O	ATOM	4435	C1*	G A 216	83.428	53.923	14.951	1.00151.27	C
ATOM	4386	O2P	U A 203	87.138	49.025	22.396	1.00 81.80	O	ATOM	4436	N9	G A 216	84.083	52.754	14.379	1.00 74.61	N
ATOM	4387	O5*	U A 203	85.085	50.104	21.475	1.00 87.95	O	ATOM	4437	C8	G A 216	83.748	52.046	13.249	1.00 74.61	C
ATOM	4388	C5*	U A 203	85.210	50.870	20.276	1.00 87.95	C	ATOM	4438	N7	G A 216	84.496	50.988	13.075	1.00 74.61	N
ATOM	4389	C4*	U A 203	85.180	49.966	19.075	1.00 87.95	C	ATOM	4439	C5	G A 216	85.381	51.019	14.144	1.00 74.61	C
ATOM	4390	O4*	U A 203	86.279	49.050	19.060	1.00 87.95	O	ATOM	4440	C6	G A 216	86.407	50.125	14.513	1.00 74.61	C
ATOM	4391	C3*	U A 203	83.957	49.082	18.892	1.00 87.95	C	ATOM	4441	O6	G A 216	86.746	49.069	13.960	1.00 74.61	O
ATOM	4392	O3*	U A 203	83.093	49.790	18.022	1.00 87.95	O	ATOM	4442	N1	G A 216	87.060	50.550	15.666	1.00 74.61	N
ATOM	4393	C2*	U A 203	84.503	47.827	18.184	1.00 87.95	C	ATOM	4443	C2	G A 216	86.752	51.683	16.376	1.00 74.61	C
ATOM	4394	O2*	U A 203	83.924	47.617	16.909	1.00 87.95	O	ATOM	4444	N2	G A 216	87.484	51.935	17.462	1.00 74.61	N
ATOM	4395	C1*	U A 203	85.997	48.129	18.044	1.00 87.95	C	ATOM	4445	N3	G A 216	85.794	52.509	16.049	1.00 74.61	N
ATOM	4396	N1	U A 203	86.927	46.990	18.126	1.00 81.80	N	ATOM	4446	C4	G A 216	85.153	52.119	14.935	1.00 74.61	C
ATOM	4397	C2	U A 203	86.907	46.065	17.085	1.00 81.80	C	ATOM	4447	P	C A 217	83.579	58.280	13.224	1.00131.74	P
ATOM	4398	O2	U A 203	86.104	46.107	16.165	1.00 81.80	O	ATOM	4448	O1P	C A 217	83.155	59.627	13.712	1.00 70.37	O
ATOM	4399	N3	U A 203	87.864	45.088	17.162	1.00 81.80	N	ATOM	4449	O2P	C A 217	83.540	57.964	11.761	1.00 70.37	O
ATOM	4400	C4	U A 203	88.813	44.928	18.151	1.00 81.80	C	ATOM	4450	O5*	C A 217	85.045	58.000	13.794	1.00131.74	O
ATOM	4401	O4	U A 203	89.673	44.054	18.020	1.00 81.80	O	ATOM	4451	C5*	C A 217	85.650	58.928	14.715	1.00131.74	C
ATOM	4402	C5	U A 203	88.741	45.889	19.216	1.00 81.80	C	ATOM	4452	C4*	C A 217	86.995	58.434	15.197	1.00131.74	C
ATOM	4403	C6	U A 203	87.822	46.858	19.171	1.00 81.80	C	ATOM	4453	O4*	C A 217	86.874	57.071	15.677	1.00131.74	O
ATOM	4404	P	U A 204	81.647	50.256	18.524	1.00127.81	P	ATOM	4454	C3*	C A 217	88.159	58.345	14.222	1.00131.74	C
ATOM	4405	O1P	U A 204	81.840	51.067	19.754	1.00200.24	O	ATOM	4455	O3*	C A 217	88.821	59.571	13.995	1.00131.74	O
ATOM	4406	O2P	U A 204	80.756	49.067	18.555	1.00200.24	O	ATOM	4456	C2*	C A 217	89.104	57.412	14.957	1.00131.74	C
ATOM	4407	O5*	U A 204	81.173	51.219	17.347	1.00127.81	O	ATOM	4457	O2*	C A 217	89.801	58.067	15.992	1.00131.74	O
ATOM	4408	C5*	U A 204	79.786	51.352	17.010	1.00127.81	C	ATOM	4458	C1*	C A 217	88.130	56.425	15.578	1.00131.74	C
ATOM	4409	O4*	U A 204	79.619	51.425	15.513	1.00127.81	O	ATOM	4459	N1	C A 217	88.031	55.256	14.695	1.00 70.37	N
ATOM	4410	C4*	U A 204	80.218	50.248	14.915	1.00127.81	C	ATOM	4460	C2	C A 217	88.922	54.199	14.908	1.00 70.37	C
ATOM	4411	C3*	U A 204	78.167	51.417	15.052	1.00127.81	C	ATOM	4461	O2	C A 217	89.717	54.273	15.858	1.00 70.37	O
ATOM	4412	O3*	U A 204	77.536	52.712	14.970	1.00127.81	O	ATOM	4462	N3	C A 217	88.894	53.131	14.082	1.00 70.37	N
ATOM	4413	C2*	U A 204	78.260	50.795	13.659	1.00127.81	C	ATOM	4463	C4	C A 217	88.010	53.087	13.085	1.00 70.37	C
ATOM	4414	O2*	U A 204	78.544	51.727	12.635	1.00127.81	O	ATOM	4464	N4	C A 217	88.015	52.013	12.297	1.00 70.37	N
ATOM	4415	C1*	U A 204	79.442	49.833	13.805	1.00127.81	C	ATOM	4465	C5	C A 217	87.080	54.144	12.853	1.00 70.37	C



ATOM	4466	C6	C A 217	87.123	55.198	13.675	1.00	70.37	C	ATOM	4516	C2*	G A 220	98.870	52.956	5.150	1.00	71.65	C
ATOM	4467	P	C A 218	89.915	59.664	12.820	1.00	83.20	P	ATOM	4517	O2*	G A 220	99.815	51.901	5.089	1.00	71.65	O
ATOM	4468	O1P	C A 218	90.335	61.092	12.755	1.00	55.37	O	ATOM	4518	C1*	G A 220	98.119	52.865	6.474	1.00	71.65	C
ATOM	4469	O2P	C A 218	89.358	58.994	11.608	1.00	55.37	O	ATOM	4519	N9	G A 220	96.742	53.300	6.268	1.00	55.88	N
ATOM	4470	O5*	C A 218	91.150	58.803	13.347	1.00	83.20	O	ATOM	4520	C8	G A 220	96.128	54.416	6.774	1.00	55.88	C
ATOM	4471	C5*	C A 218	91.935	59.254	14.467	1.00	83.20	C	ATOM	4521	N7	G A 220	94.894	54.550	6.369	1.00	55.88	N
ATOM	4472	C4*	C A 218	93.071	58.295	14.745	1.00	83.20	C	ATOM	4522	C5	G A 220	94.679	53.449	5.553	1.00	55.88	C
ATOM	4473	O4*	C A 218	92.543	56.979	15.049	1.00	83.20	O	ATOM	4523	C6	G A 220	93.524	53.056	4.825	1.00	55.88	C
ATOM	4474	C3*	C A 218	94.029	58.042	13.598	1.00	83.20	C	ATOM	4524	O6	G A 220	92.433	53.630	4.743	1.00	55.88	O
ATOM	4475	O3*	C A 218	95.029	59.028	13.505	1.00	83.20	O	ATOM	4525	N1	G A 220	93.728	51.868	4.141	1.00	55.88	N
ATOM	4476	C2*	C A 218	94.628	56.694	13.954	1.00	83.20	C	ATOM	4526	C2	G A 220	94.892	51.153	4.146	1.00	55.88	C
ATOM	4477	O2*	C A 218	95.648	56.816	14.921	1.00	83.20	O	ATOM	4527	N2	G A 220	94.879	50.023	3.428	1.00	55.88	N
ATOM	4478	C1*	C A 218	93.426	55.983	14.563	1.00	83.20	C	ATOM	4528	N3	G A 220	95.986	51.514	4.808	1.00	55.88	N
ATOM	4479	N1	C A 218	92.718	55.160	13.566	1.00	55.37	N	ATOM	4529	C4	G A 220	95.805	52.663	5.487	1.00	55.88	C
ATOM	4480	C2	C A 218	93.246	53.904	13.235	1.00	55.37	C	ATOM	4530	P	C A 221	100.445	54.850	2.883	1.00	59.96	P
ATOM	4481	O2	C A 218	94.292	53.526	13.793	1.00	55.37	O	ATOM	4531	O1P	C A 221	101.790	54.865	2.233	1.00	54.64	O
ATOM	4482	N3	C A 218	92.607	53.136	12.321	1.00	55.37	N	ATOM	4532	O2P	C A 221	99.626	56.090	2.942	1.00	54.64	O
ATOM	4483	C4	C A 218	91.485	53.573	11.753	1.00	55.37	C	ATOM	4533	O5*	C A 221	99.551	53.741	2.166	1.00	59.96	O
ATOM	4484	N4	C A 218	90.882	52.778	10.875	1.00	55.37	N	ATOM	4534	C5*	C A 221	100.075	52.438	1.895	1.00	59.96	C
ATOM	4485	C5	C A 218	90.929	54.847	12.065	1.00	55.37	C	ATOM	4535	C4*	C A 221	99.079	51.637	1.108	1.00	59.96	C
ATOM	4486	C6	C A 218	91.571	55.601	12.966	1.00	55.37	C	ATOM	4536	O4*	C A 221	97.850	51.528	1.863	1.00	59.96	O
ATOM	4487	P	C A 219	95.684	59.340	12.077	1.00	82.37	P	ATOM	4537	C3*	C A 221	98.650	52.270	-0.193	1.00	59.96	C
ATOM	4488	O1P	C A 219	96.546	60.518	12.314	1.00	49.87	O	ATOM	4538	O3*	C A 221	99.551	51.979	-1.231	1.00	59.96	O
ATOM	4489	O2P	C A 219	94.623	59.399	11.038	1.00	49.87	O	ATOM	4539	C2*	C A 221	97.279	51.662	-0.437	1.00	59.96	C
ATOM	4490	O5*	C A 219	96.573	58.056	11.769	1.00	82.37	O	ATOM	4540	O2*	C A 221	97.307	50.384	-1.027	1.00	59.96	O
ATOM	4491	C5*	C A 219	97.700	57.740	12.585	1.00	82.37	C	ATOM	4541	C1*	C A 221	96.740	51.551	0.983	1.00	59.96	C
ATOM	4492	C4*	C A 219	98.292	56.417	12.173	1.00	82.37	C	ATOM	4542	N1	C A 221	95.894	52.713	1.300	1.00	54.64	N
ATOM	4493	O4*	C A 219	97.356	55.347	12.457	1.00	82.37	O	ATOM	4543	C2	C A 221	94.678	52.855	0.611	1.00	54.64	C
ATOM	4494	C3*	C A 219	98.591	56.222	10.699	1.00	82.37	C	ATOM	4544	O2	C A 221	94.343	51.973	-0.206	1.00	54.64	O
ATOM	4495	O3*	C A 219	99.772	56.837	10.245	1.00	82.37	O	ATOM	4545	N3	C A 221	93.906	53.939	0.851	1.00	54.64	N
ATOM	4496	C2*	C A 219	98.673	54.710	10.593	1.00	82.37	C	ATOM	4546	C4	C A 221	94.300	54.851	1.741	1.00	54.64	C
ATOM	4497	O1*	C A 219	99.902	54.203	11.079	1.00	82.37	O	ATOM	4547	N4*	C A 221	93.519	55.918	1.925	1.00	54.64	N
ATOM	4498	C1*	C A 219	97.545	54.290	11.525	1.00	49.87	C	ATOM	4548	C5	C A 221	95.516	54.716	2.476	1.00	54.64	C
ATOM	4499	N1	C A 219	96.308	54.078	10.746	1.00	49.87	N	ATOM	4549	C6	C A 221	96.275	53.647	2.225	1.00	54.64	C
ATOM	4500	C2	C A 219	96.198	52.909	9.981	1.00	49.87	C	ATOM	4550	P	U A 222	99.717	53.024	-2.430	1.00	57.30	P
ATOM	4501	O2	C A 219	97.126	52.090	10.003	1.00	49.87	O	ATOM	4551	O1P	U A 222	100.806	52.506	-3.293	1.00	47.12	O
ATOM	4502	N3	C A 219	95.090	52.702	9.239	1.00	49.87	N	ATOM	4552	O2P	U A 222	99.815	54.393	-1.848	1.00	47.12	O
ATOM	4503	C4	C A 219	94.117	53.606	9.235	1.00	49.87	C	ATOM	4553	O5*	U A 222	98.347	52.896	-3.217	1.00	57.30	O
ATOM	4504	N4	C A 219	93.062	53.372	8.465	1.00	49.87	N	ATOM	4554	C5*	U A 222	98.048	51.706	-3.937	1.00	57.30	C
ATOM	4505	C5	C A 219	94.190	54.796	10.013	1.00	49.87	C	ATOM	4555	C4*	U A 222	96.879	51.943	-4.848	1.00	57.30	C
ATOM	4506	C6	C A 219	95.295	54.992	10.747	1.00	49.87	C	ATOM	4556	O4*	U A 222	95.685	52.143	-4.058	1.00	57.30	O
ATOM	4507	P	G A 220	99.752	57.608	8.835	1.00	71.65	P	ATOM	4557	C3*	U A 222	96.963	53.183	-5.721	1.00	57.30	C
ATOM	4508	O1P	G A 220	101.133	58.151	8.709	1.00	55.88	O	ATOM	4558	O3*	U A 222	97.721	52.939	-6.891	1.00	57.30	O
ATOM	4509	O2P	G A 220	98.591	58.536	8.829	1.00	55.88	O	ATOM	4559	C2*	U A 222	95.500	53.462	-6.017	1.00	57.30	C
ATOM	4510	O5*	G A 220	99.481	56.476	7.735	1.00	71.65	O	ATOM	4560	O2*	U A 222	94.999	52.567	-6.987	1.00	57.30	O
ATOM	4511	C5*	G A 220	100.510	55.525	7.428	1.00	71.65	C	ATOM	4561	C1*	U A 222	94.854	53.096	-4.686	1.00	57.30	C
ATOM	4512	C4*	G A 220	99.971	54.278	6.742	1.00	71.65	C	ATOM	4562	N1	U A 222	94.679	54.227	-3.763	1.00	47.12	N
ATOM	4513	O4*	G A 220	98.779	53.739	7.385	1.00	71.65	O	ATOM	4563	C2	U A 222	93.622	55.072	-3.992	1.00	47.12	C
ATOM	4514	C3*	G A 220	99.569	54.304	5.280	1.00	71.65	C	ATOM	4564	O2	U A 222	92.894	54.967	-4.959	1.00	47.12	O
ATOM	4515	O3*	G A 220	100.667	54.326	4.388	1.00	71.65	O	ATOM	4565	N3	U A 222	93.445	56.050	-3.049	1.00	47.12	N



Table 2: Sheet 47/520

ATOM	4566	C4	U A 222	94.208	56.270	-1.926	1.00 47.12	C	ATOM	4616	O4*	C A 225	94.442	66.192	-11.172	1.00 51.73	O
ATOM	4567	O4	U A 222	93.820	57.089	-1.083	1.00 47.12	O	ATOM	4617	C3*	C A 225	96.055	67.786	-11.706	1.00 51.73	C
ATOM	4568	C5	U A 222	95.321	55.383	-1.785	1.00 47.12	C	ATOM	4618	O3*	C A 225	96.437	68.807	-12.618	1.00 51.73	O
ATOM	4569	C6	U A 222	95.515	54.418	-2.687	1.00 47.12	C	ATOM	4619	C2*	C A 225	95.262	68.322	-10.525	1.00 51.73	C
ATOM	4570	P	U A 223	98.610	54.119	-7.514	1.00 65.42	P	ATOM	4620	O2*	C A 225	94.333	69.311	-10.913	1.00 51.73	O
ATOM	4571	O1P	U A 223	99.608	53.477	-8.419	1.00 51.23	O	ATOM	4621	Cl*	C A 225	94.504	67.076	-10.073	1.00 51.73	C
ATOM	4572	O2P	U A 223	99.070	54.993	-6.402	1.00 51.23	O	ATOM	4622	N1	C A 225	95.188	66.418	-8.949	1.00 53.54	N
ATOM	4573	O3*	U A 223	97.566	54.922	-8.399	1.00 65.42	O	ATOM	4623	C2	C A 225	95.158	67.059	-7.708	1.00 53.54	C
ATOM	4574	C5*	U A 223	96.921	54.278	-9.490	1.00 65.42	C	ATOM	4624	O2	C A 225	94.514	68.114	-7.601	1.00 53.54	O
ATOM	4575	C4*	U A 223	95.789	55.122	-9.993	1.00 65.42	C	ATOM	4625	N3	C A 225	95.827	66.522	-6.660	1.00 53.54	N
ATOM	4576	O4*	U A 223	94.714	55.141	-9.022	1.00 65.42	O	ATOM	4626	C4	C A 225	96.507	65.387	-6.818	1.00 53.54	C
ATOM	4577	C3*	U A 223	96.106	56.585	-10.212	1.00 65.42	C	ATOM	4627	N4	C A 225	97.184	64.925	-5.765	1.00 53.54	N
ATOM	4578	O3*	U A 223	96.767	56.808	-11.435	1.00 65.42	O	ATOM	4628	C5	C A 225	96.530	64.685	-8.068	1.00 53.54	C
ATOM	4579	C2*	U A 223	94.726	57.217	-10.165	1.00 65.42	C	ATOM	4629	C6	C A 225	95.859	65.231	-9.098	1.00 53.54	C
ATOM	4580	O2*	U A 223	94.031	57.017	-11.382	1.00 65.42	O	ATOM	4630	P	G A 226	97.887	69.500	-12.474	1.00 68.57	P
ATOM	4581	Cl*	U A 223	94.061	56.396	-9.060	1.00 65.42	C	ATOM	4631	O1P	G A 226	97.951	70.487	-13.569	1.00 56.20	O
ATOM	4582	N1	U A 223	94.210	57.037	-7.745	1.00 51.23	N	ATOM	4632	O2P	G A 226	98.921	68.463	-12.381	1.00 56.20	O
ATOM	4583	C2	U A 223	93.290	58.003	-7.400	1.00 51.23	C	ATOM	4633	O5*	G A 226	97.838	70.257	-11.073	1.00 68.57	O
ATOM	4584	O2	U A 223	92.358	58.319	-8.129	1.00 51.23	O	ATOM	4634	C5*	G A 226	96.978	71.385	-10.913	1.00 68.57	C
ATOM	4585	N3	U A 223	93.495	58.591	-6.173	1.00 51.23	N	ATOM	4635	C4*	G A 226	96.982	71.883	-9.490	1.00 68.57	C
ATOM	4586	C4	U A 223	94.502	58.308	-5.279	1.00 51.23	C	ATOM	4636	O4*	G A 226	96.389	70.906	-8.593	1.00 68.57	O
ATOM	4587	O4	U A 223	94.569	58.936	-4.218	1.00 51.23	O	ATOM	4637	C3*	G A 226	98.314	72.191	-8.836	1.00 68.57	C
ATOM	4588	C5	U A 223	95.404	57.288	-5.707	1.00 51.23	C	ATOM	4638	O3*	G A 226	98.903	73.406	-9.247	1.00 68.57	O
ATOM	4589	C6	U A 223	95.231	56.702	-6.894	1.00 51.23	C	ATOM	4639	C2*	G A 226	97.930	72.232	-7.366	1.00 68.57	C
ATOM	4590	P	C A 224	97.852	57.990	-11.542	1.00 54.07	P	ATOM	4640	O2*	G A 226	97.326	73.461	-7.001	1.00 68.57	O
ATOM	4591	O1P	C A 224	98.513	57.757	-12.859	1.00 53.70	O	ATOM	4641	Cl*	G A 226	96.913	71.093	-7.287	1.00 68.57	C
ATOM	4592	O2P	C A 224	98.679	58.082	-10.313	1.00 53.70	O	ATOM	4642	N9	G A 226	97.611	69.885	-6.856	1.00 56.20	N
ATOM	4593	O5*	C A 224	96.963	59.314	-11.578	1.00 54.07	O	ATOM	4643	C8	G A 226	98.049	68.831	-7.619	1.00 56.20	C
ATOM	4594	C5*	C A 224	95.892	59.438	-12.518	1.00 54.07	C	ATOM	4644	N7	G A 226	98.731	67.956	-6.931	1.00 56.20	N
ATOM	4595	C4*	C A 224	94.946	60.532	-12.104	1.00 54.07	C	ATOM	4645	C5	G A 226	98.724	68.457	-5.638	1.00 56.20	C
ATOM	4596	O4*	C A 224	94.292	60.190	-10.858	1.00 54.07	O	ATOM	4646	C6	G A 226	99.322	67.957	-4.444	1.00 56.20	O
ATOM	4597	C3*	C A 224	95.540	61.893	-11.814	1.00 54.07	C	ATOM	4647	O6	G A 226	100.003	66.935	-4.286	1.00 56.20	C
ATOM	4598	O3*	C A 224	95.843	62.628	-12.981	1.00 54.07	O	ATOM	4648	N1	G A 226	99.061	68.785	-3.361	1.00 56.20	N
ATOM	4599	C2*	C A 224	94.445	62.557	-10.995	1.00 54.07	C	ATOM	4649	C2	G A 226	98.321	69.940	-3.417	1.00 56.20	C
ATOM	4600	O2*	C A 224	93.412	63.085	-11.796	1.00 54.07	O	ATOM	4650	N3	G A 226	97.766	70.409	-4.512	1.00 56.20	N
ATOM	4601	Cl*	C A 224	93.900	61.378	-10.197	1.00 54.07	C	ATOM	4651	N3	G A 226	97.766	70.409	-4.512	1.00 56.20	N
ATOM	4602	N1	C A 224	94.433	61.388	-8.830	1.00 53.70	N	ATOM	4652	C4	G A 226	98.012	69.629	-5.575	1.00 56.20	C
ATOM	4603	C2	C A 224	93.894	62.310	-7.924	1.00 53.70	C	ATOM	4653	P	G A 227	100.497	73.580	-9.125	1.00 65.49	P
ATOM	4604	O2	C A 224	92.965	63.045	-8.295	1.00 53.70	O	ATOM	4654	O1P	G A 227	100.818	74.836	-9.842	1.00 48.13	O
ATOM	4605	N3	C A 224	94.395	62.382	-6.677	1.00 53.70	N	ATOM	4655	O2P	G A 227	101.188	72.310	-9.514	1.00 48.13	O
ATOM	4606	C4	C A 224	95.393	61.586	-6.319	1.00 53.70	C	ATOM	4656	O5*	G A 227	100.721	73.834	-7.572	1.00 65.49	O
ATOM	4607	N4	C A 224	95.873	61.724	-5.092	1.00 53.70	N	ATOM	4657	C5*	G A 227	99.962	74.830	-6.897	1.00 65.49	C
ATOM	4608	C5	C A 224	95.947	60.617	-7.210	1.00 53.70	C	ATOM	4658	C4*	G A 227	100.119	74.681	-5.413	1.00 65.49	C
ATOM	4609	C6	C A 224	95.439	60.550	-8.444	1.00 53.70	C	ATOM	4659	O4*	G A 227	99.667	73.367	-4.995	1.00 65.49	O
ATOM	4610	P	C A 225	97.144	63.574	-12.991	1.00 51.73	P	ATOM	4660	C3*	G A 227	101.540	74.751	-4.894	1.00 65.49	C
ATOM	4611	O1P	C A 225	97.542	63.722	-14.425	1.00 53.54	O	ATOM	4661	O3*	G A 227	101.992	76.083	-4.770	1.00 65.49	O
ATOM	4612	O2P	C A 225	98.132	63.073	-12.004	1.00 53.54	O	ATOM	4662	C2*	G A 227	101.431	74.041	-3.552	1.00 65.49	C
ATOM	4613	O5*	C A 225	96.608	64.957	-12.419	1.00 51.73	O	ATOM	4663	O2*	G A 227	100.909	74.857	-2.524	1.00 65.49	O
ATOM	4614	C5*	C A 225	95.674	65.727	-13.173	1.00 51.73	C	ATOM	4664	Cl*	G A 227	100.418	72.946	-3.869	1.00 65.49	C
ATOM	4615	C4*	C A 225	95.081	66.802	-12.318	1.00 51.73	C	ATOM	4665	N9	G A 227	101.090	71.683	-4.164	1.00 48.13	N



Table 2: Sheet 48/520

ATOM	4666	C8	G A 227	101.217	71.039	-5.374	1.00	48.13	C	ATOM	4716	C5	U A 229	108.710	71.985	-4.553	1.00	45.04	C
ATOM	4667	N7	G A 227	101.888	69.922	-5.291	1.00	48.13	N	ATOM	4717	C6	U A 229	109.079	72.188	-3.292	1.00	45.04	C
ATOM	4668	C5	G A 227	102.219	69.820	-3.947	1.00	48.13	C	ATOM	4718	P	G A 230	113.852	74.470	-1.781	1.00	44.43	P
ATOM	4669	C6	G A 227	102.934	68.817	-3.252	1.00	48.13	C	ATOM	4719	O1P	G A 230	114.891	75.118	-0.943	1.00	41.29	O
ATOM	4670	O6	G A 227	103.421	67.778	-3.695	1.00	48.13	O	ATOM	4720	O2P	G A 230	113.278	75.190	-2.943	1.00	41.29	O
ATOM	4671	N1	G A 227	103.054	69.114	-1.898	1.00	48.13	N	ATOM	4721	O5*	G A 230	114.396	73.078	-2.325	1.00	44.43	O
ATOM	4672	C2	G A 227	102.540	70.233	-1.284	1.00	48.13	C	ATOM	4722	C5*	G A 230	115.106	72.186	-1.457	1.00	44.43	C
ATOM	4673	N2	G A 227	102.760	70.345	-0.035	1.00	48.13	N	ATOM	4723	C4*	G A 230	115.344	70.870	-2.143	1.00	44.43	C
ATOM	4674	N3	G A 227	101.860	71.174	-1.919	1.00	48.13	N	ATOM	4724	O4*	G A 230	114.072	70.262	-2.484	1.00	44.43	O
ATOM	4675	C4	G A 227	101.740	70.902	-3.240	1.00	48.13	C	ATOM	4725	C3*	G A 230	116.062	70.933	-3.475	1.00	44.43	C
ATOM	4676	P	A A 228	103.525	76.422	-5.089	1.00	53.49	P	ATOM	4726	O3*	G A 230	117.458	71.069	-3.372	1.00	44.43	O
ATOM	4677	O1P	A A 228	103.666	77.904	-5.017	1.00	52.92	O	ATOM	4727	C2*	G A 230	115.668	69.620	-4.118	1.00	44.43	C
ATOM	4678	O2P	A A 228	103.905	75.705	-6.329	1.00	52.92	O	ATOM	4728	O2*	G A 230	116.407	68.527	-3.624	1.00	44.43	O
ATOM	4679	O5*	A A 228	104.325	75.782	-3.872	1.00	53.49	O	ATOM	4729	C1*	G A 230	114.220	69.491	-3.667	1.00	44.43	C
ATOM	4680	C5*	A A 228	104.088	76.240	-2.536	1.00	53.49	C	ATOM	4730	N9	G A 230	113.352	70.020	-4.714	1.00	41.29	N
ATOM	4681	C4*	A A 228	104.728	75.312	-1.540	1.00	53.49	C	ATOM	4731	C8	G A 230	112.668	71.211	-4.732	1.00	41.29	C
ATOM	4682	O4*	A A 228	104.105	74.001	-1.608	1.00	53.49	O	ATOM	4732	N7	G A 230	112.004	71.398	-5.842	1.00	41.29	N
ATOM	4683	C3*	A A 228	106.192	75.035	-1.778	1.00	53.49	C	ATOM	4733	C5	G A 230	112.268	70.263	-6.594	1.00	41.29	C
ATOM	4684	O3*	A A 228	107.012	76.092	-1.315	1.00	53.49	O	ATOM	4734	C6	G A 230	111.835	69.899	-7.892	1.00	41.29	C
ATOM	4685	C2*	A A 228	106.393	73.699	-1.069	1.00	53.49	C	ATOM	4735	O6	G A 230	111.118	70.528	-8.679	1.00	41.29	O
ATOM	4686	O2*	A A 228	106.541	73.810	0.333	1.00	53.49	O	ATOM	4736	N1	G A 230	112.328	68.659	-8.261	1.00	41.29	N
ATOM	4687	C1*	A A 228	105.071	72.995	-1.367	1.00	53.49	C	ATOM	4737	C2	G A 230	113.136	67.874	-7.492	1.00	41.29	C
ATOM	4688	N9	A A 228	105.171	72.166	-2.565	1.00	52.92	N	ATOM	4738	N2	G A 230	113.489	66.704	-8.027	1.00	41.29	N
ATOM	4689	C8	A A 228	104.809	72.495	-3.844	1.00	52.92	C	ATOM	4739	N3	G A 230	113.561	68.209	-6.289	1.00	41.29	N
ATOM	4690	N7	A A 228	105.064	71.557	-4.723	1.00	52.92	N	ATOM	4740	C4	G A 230	113.088	69.404	-5.907	1.00	41.29	C
ATOM	4691	C5	A A 228	105.622	70.537	-3.967	1.00	52.92	C	ATOM	4741	P	G A 231	118.254	71.843	-4.538	1.00	53.89	P
ATOM	4692	C6	A A 228	106.114	69.269	-4.311	1.00	52.92	C	ATOM	4742	O1P	G A 231	119.688	71.721	-4.141	1.00	40.45	O
ATOM	4693	N6	A A 228	106.141	68.794	-5.566	1.00	52.92	N	ATOM	4743	O2P	G A 231	117.659	73.210	-4.777	1.00	40.45	O
ATOM	4694	N1	A A 228	106.593	68.494	-3.315	1.00	52.92	N	ATOM	4744	O5*	G A 231	117.993	70.951	-5.839	1.00	53.89	O
ATOM	4695	C2	A A 228	106.583	68.977	-2.072	1.00	52.92	C	ATOM	4745	C5*	G A 231	118.608	69.667	-5.931	1.00	53.89	C
ATOM	4696	N3	A A 228	106.158	70.151	-1.628	1.00	52.92	N	ATOM	4746	C4*	G A 231	118.153	68.901	-7.148	1.00	53.89	C
ATOM	4697	C4	A A 228	105.682	70.894	-2.637	1.00	52.92	C	ATOM	4747	O4*	G A 231	116.710	68.878	-7.238	1.00	53.89	O
ATOM	4698	P	U A 229	108.353	76.456	-2.129	1.00	49.99	P	ATOM	4748	C3*	G A 231	118.559	69.352	-8.536	1.00	53.89	C
ATOM	4699	O1P	U A 229	108.934	77.680	-1.509	1.00	45.04	O	ATOM	4749	O3*	G A 231	119.902	69.042	-8.872	1.00	53.89	O
ATOM	4700	O2P	U A 229	108.049	76.434	-3.590	1.00	45.04	O	ATOM	4750	C2*	G A 231	117.613	68.525	-9.401	1.00	53.89	C
ATOM	4701	O5*	U A 229	109.326	75.246	-1.792	1.00	49.99	O	ATOM	4751	O2*	G A 231	118.055	67.200	-9.598	1.00	53.89	O
ATOM	4702	C5*	U A 229	109.665	74.978	-0.433	1.00	49.99	C	ATOM	4752	C1*	G A 231	116.346	68.502	-8.553	1.00	53.89	C
ATOM	4703	C4*	U A 229	110.351	73.651	-0.311	1.00	49.99	C	ATOM	4753	N9	G A 231	115.413	69.467	-9.114	1.00	40.45	N
ATOM	4704	O4*	U A 229	109.445	72.574	-0.641	1.00	49.99	O	ATOM	4754	C8	G A 231	114.999	70.674	-8.602	1.00	40.45	C
ATOM	4705	C3*	U A 229	111.538	73.411	-1.217	1.00	49.99	C	ATOM	4755	N7	G A 231	114.208	71.323	-9.411	1.00	40.45	N
ATOM	4706	O3*	U A 229	112.702	74.057	-0.741	1.00	49.99	O	ATOM	4756	C5	G A 231	114.090	70.484	-10.513	1.00	40.45	C
ATOM	4707	C2*	U A 229	111.645	71.893	-1.182	1.00	49.99	C	ATOM	4757	C6	G A 231	113.384	70.648	-11.722	1.00	40.45	C
ATOM	4708	O2*	U A 229	112.200	71.407	0.023	1.00	49.99	O	ATOM	4758	O6	G A 231	112.715	71.611	-12.093	1.00	40.45	O
ATOM	4709	C1*	U A 229	110.179	71.493	-1.184	1.00	49.99	C	ATOM	4759	N1	G A 231	113.520	69.543	-12.550	1.00	40.45	N
ATOM	4710	N1	U A 229	109.735	71.244	-2.560	1.00	45.04	N	ATOM	4760	C2	G A 231	114.248	68.431	-12.256	1.00	40.45	C
ATOM	4711	C2	U A 229	110.029	70.014	-3.099	1.00	45.04	C	ATOM	4761	N2	G A 231	114.237	67.457	-13.163	1.00	40.45	N
ATOM	4712	O2	U A 229	110.607	69.145	-2.479	1.00	45.04	O	ATOM	4762	N3	G A 231	114.934	68.277	-11.147	1.00	40.45	N
ATOM	4713	N3	U A 229	109.632	69.833	-4.392	1.00	45.04	N	ATOM	4763	C4	G A 231	114.808	69.333	-10.328	1.00	40.45	C
ATOM	4714	C4	U A 229	108.994	70.735	-5.185	1.00	45.04	C	ATOM	4764	P	G A 232	120.563	69.697	-10.192	1.00	46.31	P
ATOM	4715	O4	U A 229	108.758	70.443	-6.359	1.00	45.04	O	ATOM	4765	O1P	G A 232	122.014	69.341	-10.128	1.00	45.49	O



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ATOM	4766	O2P	G A 232	120.157	71.136	-10.297	1.00	45.49	O	ATOM	4816	C2*	C A 234	120.428	75.162	-22.835	1.00	47.98	C
ATOM	4767	O5*	G A 232	119.923	68.895	-11.419	1.00	46.31	O	ATOM	4817	O2*	C A 234	119.890	75.446	-24.110	1.00	47.98	O
ATOM	4768	C5*	G A 232	120.237	67.508	-11.612	1.00	46.31	C	ATOM	4818	C1*	C A 234	119.368	74.489	-21.972	1.00	47.98	C
ATOM	4769	C4*	G A 232	119.679	67.006	-12.915	1.00	46.31	C	ATOM	4819	N1	C A 234	119.547	74.854	-20.565	1.00	40.35	N
ATOM	4770	O4*	G A 232	118.241	67.152	-12.911	1.00	46.31	O	ATOM	4820	C2	C A 234	119.114	76.113	-20.140	1.00	40.35	C
ATOM	4771	O3*	G A 232	120.132	67.739	-14.159	1.00	46.31	C	ATOM	4821	O2	C A 234	118.591	76.870	-20.959	1.00	40.35	O
ATOM	4772	C3*	G A 232	121.382	67.272	-14.637	1.00	46.31	O	ATOM	4822	N3	C A 234	119.281	76.474	-18.856	1.00	40.35	N
ATOM	4773	C2*	G A 232	119.001	67.468	-15.138	1.00	46.31	C	ATOM	4823	C4	C A 234	119.857	75.627	-18.002	1.00	40.35	C
ATOM	4774	O2*	G A 232	119.115	66.202	-15.742	1.00	46.31	O	ATOM	4824	N4	C A 234	120.005	76.020	-16.735	1.00	40.35	N
ATOM	4775	C1*	G A 232	117.789	67.473	-14.212	1.00	46.31	C	ATOM	4825	C5	C A 234	120.310	74.333	-18.407	1.00	40.35	C
ATOM	4776	N9	G A 232	117.135	68.774	-14.152	1.00	45.49	N	ATOM	4826	C6	C A 234	120.134	73.991	-19.684	1.00	40.35	C
ATOM	4777	C8	G A 232	117.213	69.689	-13.136	1.00	45.49	C	ATOM	4827	P	C A 235	123.657	75.173	-23.816	1.00	44.74	P
ATOM	4778	N7	G A 232	116.513	70.762	-13.364	1.00	45.49	N	ATOM	4828	O1P	C A 235	124.466	74.942	-25.034	1.00	36.44	O
ATOM	4779	C5	G A 232	115.940	70.540	-14.607	1.00	45.49	C	ATOM	4829	O2P	C A 235	124.272	74.979	-22.478	1.00	36.44	O
ATOM	4780	C6	G A 232	115.074	71.348	-15.370	1.00	45.49	C	ATOM	4830	O5*	C A 235	123.043	76.637	-23.862	1.00	44.74	O
ATOM	4781	O6	G A 232	114.616	72.462	-15.097	1.00	45.49	O	ATOM	4831	C5*	C A 235	122.466	77.143	-25.069	1.00	44.74	C
ATOM	4782	N1	G A 232	114.737	70.745	-16.567	1.00	45.49	N	ATOM	4832	C4*	C A 235	121.857	78.490	-24.818	1.00	44.74	C
ATOM	4783	C2	G A 232	115.175	69.523	-16.982	1.00	45.49	C	ATOM	4833	O4*	C A 235	120.914	78.362	-23.730	1.00	44.74	O
ATOM	4784	N2	G A 232	114.755	69.127	-18.194	1.00	45.49	N	ATOM	4834	C3*	C A 235	122.814	79.561	-24.344	1.00	44.74	C
ATOM	4785	N3	G A 232	115.972	68.749	-16.272	1.00	45.49	N	ATOM	4835	O3*	C A 235	123.462	80.185	-25.420	1.00	44.74	O
ATOM	4786	C4	G A 232	116.316	69.321	-15.104	1.00	45.49	C	ATOM	4836	C2*	C A 235	121.904	80.516	-23.590	1.00	44.74	C
ATOM	4787	P	C A 233	122.388	68.317	-15.324	1.00	45.30	P	ATOM	4837	O2*	C A 235	121.203	81.437	-24.412	1.00	44.74	O
ATOM	4788	O1P	C A 233	123.635	67.628	-15.757	1.00	41.10	O	ATOM	4838	C1*	C A 235	120.908	79.545	-22.961	1.00	44.74	C
ATOM	4789	O2P	C A 233	122.479	69.466	-14.392	1.00	41.10	O	ATOM	4839	N1	C A 235	121.284	79.222	-21.581	1.00	36.44	N
ATOM	4790	O5*	C A 233	121.608	68.763	-16.635	1.00	45.30	O	ATOM	4840	C2	C A 235	121.131	80.213	-20.620	1.00	36.44	C
ATOM	4791	C5*	C A 233	121.312	67.799	-17.646	1.00	45.30	C	ATOM	4841	O2	C A 235	120.679	81.309	-20.971	1.00	36.44	O
ATOM	4792	C4*	C A 233	120.393	68.389	-18.676	1.00	45.30	C	ATOM	4842	N3	C A 235	121.485	79.963	-19.339	1.00	36.44	N
ATOM	4793	O4*	C A 233	119.113	68.704	-18.078	1.00	45.30	O	ATOM	4843	C4	C A 235	121.993	78.777	-19.010	1.00	36.44	C
ATOM	4794	C3*	C A 233	120.836	69.707	-19.266	1.00	45.30	C	ATOM	4844	N4	C A 235	122.364	78.598	-17.747	1.00	36.44	N
ATOM	4795	O3*	C A 233	121.790	69.551	-20.282	1.00	45.30	O	ATOM	4845	C5	C A 235	122.153	77.734	-19.968	1.00	36.44	C
ATOM	4796	C2*	C A 233	119.537	70.272	-19.797	1.00	45.30	C	ATOM	4846	C6	C A 235	121.786	77.996	-21.234	1.00	36.44	C
ATOM	4797	O2*	C A 233	119.176	69.659	-21.013	1.00	45.30	O	ATOM	4847	P	G A 236	124.889	80.876	-25.183	1.00	45.62	P
ATOM	4798	C1*	C A 233	118.564	69.845	-18.708	1.00	45.30	C	ATOM	4848	O1P	G A 236	125.531	80.957	-26.535	1.00	39.69	O
ATOM	4799	N1	C A 233	118.406	70.913	-17.708	1.00	41.10	N	ATOM	4849	O2P	G A 236	125.602	80.189	-24.080	1.00	39.69	O
ATOM	4800	C2	C A 233	117.616	72.021	-18.036	1.00	41.10	C	ATOM	4850	O5*	G A 236	124.502	82.316	-24.623	1.00	45.62	O
ATOM	4801	O2	C A 233	117.077	72.067	-19.148	1.00	41.10	O	ATOM	4851	C5*	G A 236	123.892	83.295	-25.468	1.00	45.62	C
ATOM	4802	N3	C A 233	117.460	73.007	-17.140	1.00	41.10	N	ATOM	4852	C4*	G A 236	123.829	84.615	-24.756	1.00	45.62	C
ATOM	4803	C4	C A 233	118.054	72.927	-15.957	1.00	41.10	C	ATOM	4853	O4*	G A 236	122.949	84.504	-23.613	1.00	45.62	O
ATOM	4804	N4	C A 233	117.861	73.928	-15.106	1.00	41.10	N	ATOM	4854	C3*	G A 236	125.141	85.076	-24.163	1.00	45.62	C
ATOM	4805	C5	C A 233	118.870	71.816	-15.592	1.00	41.10	C	ATOM	4855	O3*	G A 236	125.976	85.697	-25.131	1.00	45.62	O
ATOM	4806	C6	C A 233	119.017	70.840	-16.487	1.00	41.10	C	ATOM	4856	C2*	G A 236	124.690	86.009	-23.050	1.00	45.62	C
ATOM	4807	P	C A 234	122.887	70.695	-20.493	1.00	47.98	P	ATOM	4857	O2*	G A 236	124.337	87.272	-23.568	1.00	45.62	O
ATOM	4808	O1P	C A 234	123.906	70.123	-21.405	1.00	40.35	O	ATOM	4858	C1*	G A 236	123.430	85.304	-22.545	1.00	45.62	C
ATOM	4809	O2P	C A 234	123.296	71.219	-19.170	1.00	40.35	O	ATOM	4859	N9	G A 236	123.658	84.430	-21.396	1.00	39.69	N
ATOM	4810	O5*	C A 234	122.075	71.848	-21.227	1.00	47.98	O	ATOM	4860	C8	G A 236	123.815	83.067	-21.443	1.00	39.69	C
ATOM	4811	C5*	C A 234	121.382	71.576	-22.452	1.00	47.98	C	ATOM	4861	N7	G A 236	124.020	82.534	-20.270	1.00	39.69	N
ATOM	4812	C4*	C A 234	120.676	72.814	-22.935	1.00	47.98	C	ATOM	4862	C5	G A 236	123.993	83.604	-19.390	1.00	39.69	C
ATOM	4813	O4*	C A 234	119.534	73.092	-22.095	1.00	47.98	O	ATOM	4863	C6	G A 236	124.173	83.636	-17.979	1.00	39.69	C
ATOM	4814	C3*	C A 234	121.496	74.086	-22.876	1.00	47.98	C	ATOM	4864	O6	G A 236	124.378	82.687	-17.192	1.00	39.69	O
ATOM	4815	O3*	C A 234	122.376	74.228	-23.970	1.00	47.98	O	ATOM	4865	N1	G A 236	124.093	84.925	-17.488	1.00	39.69	N



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ATOM	4866	C2	G A 236	123.864	86.036	-18.236	1.00	39.69	C	ATOM	4916	O5*	U A 239	136.371	86.417	-17.237	1.00	49.68	O
ATOM	4867	N2	G A 236	123.830	87.184	-17.550	1.00	39.69	N	ATOM	4917	C5*	U A 239	136.750	86.749	-15.899	1.00	49.68	C
ATOM	4868	N3	G A 236	123.685	86.027	-19.552	1.00	39.69	N	ATOM	4918	C4*	U A 239	137.023	85.495	-15.124	1.00	49.68	C
ATOM	4869	C4	G A 236	123.766	84.784	-20.061	1.00	39.69	C	ATOM	4919	O4*	U A 239	135.776	84.792	-14.903	1.00	49.68	O
ATOM	4870	P	C A 237	127.570	85.486	-25.047	1.00	40.15	P	ATOM	4920	C3*	U A 239	137.926	84.491	-15.823	1.00	49.68	C
ATOM	4871	O1P	C A 237	128.211	86.131	-26.235	1.00	38.82	O	ATOM	4921	O3*	U A 239	139.304	84.763	-15.577	1.00	49.68	O
ATOM	4872	O2P	C A 237	127.821	84.055	-24.788	1.00	38.82	O	ATOM	4922	C2*	U A 239	137.513	83.176	-15.180	1.00	49.68	C
ATOM	4873	O5*	C A 237	127.966	86.301	-23.737	1.00	40.15	O	ATOM	4923	O2*	U A 239	138.203	82.985	-13.962	1.00	49.68	O
ATOM	4874	C5*	C A 237	127.744	87.717	-23.676	1.00	40.15	C	ATOM	4924	C1*	U A 239	136.018	83.401	-14.912	1.00	49.68	C
ATOM	4875	C4*	C A 237	127.904	88.220	-22.266	1.00	40.15	C	ATOM	4925	N1	U A 239	135.133	82.768	-15.901	1.00	61.33	N
ATOM	4876	O4*	C A 237	126.852	87.685	-21.425	1.00	40.15	O	ATOM	4926	C2	U A 239	134.680	81.494	-15.624	1.00	61.33	C
ATOM	4877	C3*	C A 237	129.173	87.814	-21.550	1.00	40.15	C	ATOM	4927	O2	U A 239	134.933	80.910	-14.582	1.00	61.33	O
ATOM	4878	O3*	C A 237	130.281	88.597	-21.900	1.00	40.15	O	ATOM	4928	N3	U A 239	133.914	80.929	-16.604	1.00	61.33	N
ATOM	4879	C2*	C A 237	128.791	87.984	-20.092	1.00	40.15	C	ATOM	4929	C4	U A 239	133.547	81.494	-17.794	1.00	61.33	C
ATOM	4880	O2*	C A 237	128.845	89.327	-19.665	1.00	40.15	O	ATOM	4930	O4	U A 239	132.848	80.851	-18.577	1.00	61.33	O
ATOM	4881	C1*	C A 237	127.339	87.511	-20.107	1.00	40.15	C	ATOM	4931	C5	U A 239	134.026	82.819	-17.996	1.00	61.33	C
ATOM	4882	N1	C A 237	127.278	86.084	-19.751	1.00	38.82	N	ATOM	4932	C6	U A 239	134.781	83.398	-17.065	1.00	61.33	C
ATOM	4883	C2	C A 237	127.326	85.733	-18.399	1.00	38.82	C	ATOM	4933	P	C A 240	140.336	84.836	-16.809	1.00	55.53	P
ATOM	4884	O2	C A 237	127.363	86.637	-17.551	1.00	38.82	O	ATOM	4934	O1P	C A 240	140.345	86.255	-17.247	1.00	40.71	O
ATOM	4885	N3	C A 237	127.340	84.425	-18.055	1.00	38.82	N	ATOM	4935	O2P	C A 240	140.014	83.764	-17.789	1.00	40.71	O
ATOM	4886	C4	C A 237	127.313	83.490	-19.003	1.00	38.82	C	ATOM	4936	O5*	C A 240	141.756	84.496	-16.174	1.00	55.53	O
ATOM	4887	N4	C A 237	127.378	82.220	-18.631	1.00	38.82	N	ATOM	4937	C5*	C A 240	142.309	85.313	-15.140	1.00	55.53	C
ATOM	4888	C5	C A 237	127.230	83.819	-20.384	1.00	38.82	C	ATOM	4938	C4*	C A 240	143.653	84.782	-14.716	1.00	55.53	C
ATOM	4889	C6	C A 237	127.211	85.116	-20.712	1.00	38.82	C	ATOM	4939	O4*	C A 240	143.503	83.439	-14.197	1.00	55.53	O
ATOM	4890	P	G A 238	131.738	87.940	-21.849	1.00	44.40	P	ATOM	4940	C3*	C A 240	144.668	84.623	-15.826	1.00	55.53	C
ATOM	4891	O1P	G A 238	132.683	88.997	-22.292	1.00	38.45	O	ATOM	4941	O3*	C A 240	145.334	85.818	-16.120	1.00	55.53	O
ATOM	4892	O2P	G A 238	131.709	86.628	-22.558	1.00	38.45	O	ATOM	4942	C2*	C A 240	145.616	83.585	-15.263	1.00	55.53	C
ATOM	4893	O5*	G A 238	131.990	87.728	-20.297	1.00	44.40	O	ATOM	4943	O2*	C A 240	146.522	84.154	-14.345	1.00	55.53	O
ATOM	4894	C5*	G A 238	132.103	88.870	-19.453	1.00	44.40	C	ATOM	4944	C1*	C A 240	144.644	82.665	-14.532	1.00	55.53	C
ATOM	4895	C4*	G A 238	132.406	88.461	-18.046	1.00	44.40	C	ATOM	4945	N1	C A 240	144.235	81.532	-15.394	1.00	40.71	N
ATOM	4896	O4*	G A 238	131.281	87.739	-17.492	1.00	44.40	O	ATOM	4946	C2	C A 240	145.050	80.410	-15.439	1.00	40.71	C
ATOM	4897	C3*	G A 238	133.592	87.536	-17.860	1.00	44.40	C	ATOM	4947	O2	C A 240	146.079	80.393	-14.738	1.00	40.71	O
ATOM	4898	O3*	G A 238	134.808	88.268	-17.831	1.00	44.40	O	ATOM	4948	N3	C A 240	144.713	79.380	-16.242	1.00	40.71	N
ATOM	4899	C2*	G A 238	133.278	86.887	-16.521	1.00	44.40	C	ATOM	4949	C4	C A 240	143.617	79.451	-16.986	1.00	40.71	C
ATOM	4900	O2*	G A 238	133.617	87.762	-15.464	1.00	44.40	O	ATOM	4950	N4	C A 240	143.337	78.432	-17.782	1.00	40.71	N
ATOM	4901	C1*	G A 238	131.752	86.751	-16.589	1.00	44.40	C	ATOM	4951	C5	C A 240	142.759	80.576	-16.952	1.00	40.71	C
ATOM	4902	N9	G A 238	131.295	85.444	-17.063	1.00	38.45	N	ATOM	4952	C6	C A 240	143.098	81.584	-16.148	1.00	40.71	C
ATOM	4903	C8	G A 238	130.896	85.116	-18.341	1.00	38.45	C	ATOM	4953	P	C A 241	146.003	85.997	-17.562	1.00	50.63	P
ATOM	4904	N7	G A 238	130.543	83.864	-18.465	1.00	38.45	N	ATOM	4954	O1P	C A 241	146.510	87.387	-17.590	1.00	43.41	O
ATOM	4905	C5	G A 238	130.717	83.332	-17.193	1.00	38.45	C	ATOM	4955	O2P	C A 241	145.043	85.532	-18.598	1.00	43.41	O
ATOM	4906	C6	G A 238	130.502	82.014	-16.709	1.00	38.45	C	ATOM	4956	O5*	C A 241	147.249	85.007	-17.530	1.00	50.63	O
ATOM	4907	O6	G A 238	130.102	81.015	-17.328	1.00	38.45	O	ATOM	4957	C5*	C A 241	148.367	85.284	-16.669	1.00	50.63	C
ATOM	4908	N1	G A 238	130.811	81.913	-15.362	1.00	38.45	N	ATOM	4958	C4*	C A 241	149.491	84.324	-16.940	1.00	50.63	C
ATOM	4909	C2	G A 238	131.274	82.934	-14.580	1.00	38.45	C	ATOM	4959	O4*	C A 241	149.109	82.996	-16.516	1.00	50.63	O
ATOM	4910	N2	G A 238	131.527	82.622	-13.306	1.00	38.45	N	ATOM	4960	C3*	C A 241	149.870	84.175	-18.397	1.00	50.63	C
ATOM	4911	N3	G A 238	131.480	84.165	-15.013	1.00	38.45	N	ATOM	4961	O3*	C A 241	150.783	85.181	-18.779	1.00	50.63	O
ATOM	4912	C4	G A 238	131.183	84.293	-16.318	1.00	38.45	C	ATOM	4962	C2*	C A 241	150.493	82.791	-18.426	1.00	50.63	C
ATOM	4913	P	U A 239	136.168	87.563	-18.311	1.00	49.68	P	ATOM	4963	O2*	C A 241	151.817	82.807	-17.936	1.00	50.63	O
ATOM	4914	O1P	U A 239	137.253	88.557	-18.102	1.00	61.33	O	ATOM	4964	C1*	C A 241	149.616	82.042	-17.425	1.00	50.63	C
ATOM	4915	O2P	U A 239	135.999	86.931	-19.647	1.00	61.33	O	ATOM	4965	N1	C A 241	148.472	81.371	-18.068	1.00	43.41	N



Table 2: Sheet 51/520

ATOM	4966	C2	C A 241	148.675	80.144	-18.719	1.00	43.41	C	ATOM	5016	O1P	U A 244	157.188	84.136	-30.229	1.00	62.89	O
ATOM	4967	O2	C A 241	149.814	79.646	-18.725	1.00	43.41	O	ATOM	5017	O2P	U A 244	155.166	83.397	-31.633	1.00	62.89	O
ATOM	4968	N3	C A 241	147.626	79.534	-19.324	1.00	43.41	N	ATOM	5018	O5*	U A 244	156.144	81.944	-29.863	1.00	50.07	O
ATOM	4969	C4	C A 241	146.420	80.099	-19.289	1.00	43.41	C	ATOM	5019	C5*	U A 244	156.477	81.722	-28.519	1.00	50.07	C
ATOM	4970	N4	C A 241	145.418	79.472	-19.897	1.00	43.41	N	ATOM	5020	C4*	U A 244	156.997	80.341	-28.309	1.00	50.07	C
ATOM	4971	C5	C A 241	146.186	81.341	-18.627	1.00	43.41	C	ATOM	5021	O4*	U A 244	158.357	80.246	-28.813	1.00	50.07	O
ATOM	4972	C6	C A 241	147.228	81.936	-18.037	1.00	43.41	C	ATOM	5022	C3*	U A 244	157.068	80.091	-26.817	1.00	50.07	C
ATOM	4973	P	C A 242	150.913	85.589	-20.325	1.00	48.41	P	ATOM	5023	O3*	U A 244	156.711	78.753	-26.536	1.00	50.07	O
ATOM	4974	O1P	C A 242	151.852	86.744	-20.401	1.00	52.46	O	ATOM	5024	C2*	U A 244	158.512	80.414	-26.470	1.00	50.07	C
ATOM	4975	O2P	C A 242	149.559	85.705	-20.928	1.00	52.46	O	ATOM	5025	O2*	U A 244	158.927	79.690	-25.336	1.00	50.07	O
ATOM	4976	O5*	C A 242	151.614	84.319	-20.973	1.00	48.41	O	ATOM	5026	C1*	U A 244	159.242	79.990	-27.743	1.00	50.07	C
ATOM	4977	C5*	C A 242	152.964	83.994	-20.660	1.00	48.41	C	ATOM	5027	N1	U A 244	160.504	80.709	-27.982	1.00	62.89	N
ATOM	4978	C4*	C A 242	153.404	82.839	-21.501	1.00	48.41	C	ATOM	5028	C2	U A 244	161.692	80.058	-27.670	1.00	62.89	C
ATOM	4979	O4*	C A 242	152.736	81.637	-21.059	1.00	48.41	O	ATOM	5029	O2	U A 244	161.741	78.932	-27.179	1.00	62.89	O
ATOM	4980	C3*	C A 242	153.049	82.956	-22.968	1.00	48.41	C	ATOM	5030	N3	U A 244	162.827	80.777	-27.937	1.00	62.89	N
ATOM	4981	O3*	C A 242	154.025	83.703	-23.661	1.00	48.41	O	ATOM	5031	C4	U A 244	162.905	82.052	-28.444	1.00	62.89	C
ATOM	4982	C2*	C A 242	153.007	81.502	-23.423	1.00	48.41	C	ATOM	5032	O4	U A 244	164.007	82.592	-28.550	1.00	62.89	O
ATOM	4983	O2*	C A 242	154.287	81.001	-23.747	1.00	48.41	O	ATOM	5033	C5	U A 244	161.645	82.658	-28.729	1.00	62.89	C
ATOM	4984	C1*	C A 242	152.492	80.794	-22.169	1.00	48.41	C	ATOM	5034	C6	U A 244	160.517	81.983	-28.497	1.00	62.89	C
ATOM	4985	N1	C A 242	151.053	80.512	-22.242	1.00	52.46	N	ATOM	5035	P	C A 245	155.163	78.387	-26.343	1.00	49.61	P
ATOM	4986	C2	C A 242	150.630	79.309	-22.816	1.00	52.46	C	ATOM	5036	O1P	C A 245	154.488	79.600	-25.820	1.00	55.92	O
ATOM	4987	O2	C A 242	151.479	78.483	-23.173	1.00	52.46	O	ATOM	5037	O2P	C A 245	155.045	77.099	-25.597	1.00	55.92	O
ATOM	4988	N3	C A 242	149.307	79.075	-22.957	1.00	52.46	N	ATOM	5038	O5*	C A 245	154.652	78.165	-27.834	1.00	49.61	O
ATOM	4989	C4	C A 242	148.425	79.980	-22.528	1.00	52.46	C	ATOM	5039	C5*	C A 245	154.957	76.958	-28.526	1.00	49.61	C
ATOM	4990	N4	C A 242	147.131	79.724	-22.701	1.00	52.46	N	ATOM	5040	C4*	C A 245	153.694	76.306	-29.012	1.00	49.61	C
ATOM	4991	C5	C A 242	148.830	81.193	-21.904	1.00	52.46	C	ATOM	5041	O4*	C A 245	152.736	77.232	-27.926	1.00	49.61	O
ATOM	4992	C6	C A 242	150.139	81.416	-21.781	1.00	52.46	C	ATOM	5042	C3*	C A 245	152.951	77.028	-30.117	1.00	49.61	C
ATOM	4993	P	A A 243	153.586	84.628	-24.891	1.00	47.21	P	ATOM	5043	O3*	C A 245	153.469	76.659	-31.371	1.00	49.61	O
ATOM	4994	O1P	A A 243	154.824	85.224	-25.474	1.00	51.43	O	ATOM	5044	C2*	C A 245	151.532	76.504	-29.964	1.00	49.61	C
ATOM	4995	O2P	A A 243	152.503	85.516	-24.412	1.00	51.43	O	ATOM	5045	O2*	C A 245	151.374	75.231	-30.559	1.00	49.61	O
ATOM	4996	O5*	A A 243	153.000	83.600	-25.951	1.00	47.21	O	ATOM	5046	C1*	C A 245	151.423	76.349	-28.450	1.00	49.61	C
ATOM	4997	C5*	A A 243	153.809	82.520	-26.399	1.00	47.21	C	ATOM	5047	N1	C A 245	150.750	77.500	-27.830	1.00	55.92	N
ATOM	4998	C4*	A A 243	153.646	82.321	-27.877	1.00	47.21	C	ATOM	5048	C2	C A 245	149.354	77.584	-27.919	1.00	55.92	C
ATOM	4999	O4*	A A 243	152.351	81.739	-28.148	1.00	47.21	O	ATOM	5049	O2	C A 245	148.736	76.683	-28.502	1.00	55.92	O
ATOM	5000	C3*	A A 243	153.736	83.547	-28.756	1.00	47.21	C	ATOM	5050	N3	C A 245	148.717	78.639	-27.369	1.00	55.92	N
ATOM	5001	O3*	A A 243	155.013	84.090	-29.142	1.00	47.21	O	ATOM	5051	C4	C A 245	149.419	79.585	-26.745	1.00	55.92	C
ATOM	5002	C2*	A A 243	152.354	83.739	-29.393	1.00	47.21	C	ATOM	5052	N4	C A 245	148.754	80.615	-26.227	1.00	55.92	N
ATOM	5003	O2*	A A 243	152.343	84.044	-30.771	1.00	47.21	O	ATOM	5053	C5	C A 245	150.842	79.520	-26.628	1.00	55.92	C
ATOM	5004	C1*	A A 243	151.789	82.327	-29.295	1.00	47.21	C	ATOM	5054	C6	C A 245	151.460	78.472	-27.183	1.00	55.92	C
ATOM	5005	N9	A A 243	150.335	82.205	-29.186	1.00	51.43	N	ATOM	5055	P	A A 246	153.396	77.694	-32.586	1.00	52.52	P
ATOM	5006	C8	A A 243	149.408	83.030	-28.597	1.00	51.43	C	ATOM	5056	O1P	A A 246	154.328	77.206	-33.637	1.00	40.44	O
ATOM	5007	N7	A A 243	148.177	82.588	-28.689	1.00	51.43	N	ATOM	5057	O2P	A A 246	153.535	79.075	-32.052	1.00	40.44	O
ATOM	5008	C5	A A 243	148.305	81.396	-29.386	1.00	51.43	C	ATOM	5058	O5*	A A 246	151.906	77.581	-33.127	1.00	52.52	O
ATOM	5009	C6	A A 243	147.373	80.451	-29.814	1.00	51.43	C	ATOM	5059	C5*	A A 246	151.406	76.357	-33.655	1.00	52.52	C
ATOM	5010	N6	A A 243	146.071	80.552	-29.607	1.00	51.43	N	ATOM	5060	C4*	A A 246	150.401	76.636	-34.739	1.00	52.52	C
ATOM	5011	N1	A A 243	147.829	79.375	-30.478	1.00	51.43	N	ATOM	5061	O4*	A A 246	149.248	77.330	-34.192	1.00	52.52	O
ATOM	5012	C2	A A 243	149.141	79.265	-30.696	1.00	51.43	C	ATOM	5062	C3*	A A 246	150.889	77.482	-35.912	1.00	52.52	C
ATOM	5013	N3	A A 243	150.116	80.089	-30.352	1.00	51.43	N	ATOM	5063	O3*	A A 246	150.248	76.990	-37.068	1.00	52.52	O
ATOM	5014	C4	A A 243	149.625	81.149	-29.693	1.00	51.43	C	ATOM	5064	C2*	A A 246	150.233	78.829	-35.662	1.00	52.52	C
ATOM	5015	P	U A 244	155.885	83.431	-30.332	1.00	50.07	P	ATOM	5065	O2*	A A 246	149.986	79.514	-36.870	1.00	52.52	O



ATOM	5066	C1*	A A 246	148.908	78.379	-35.061	1.00	52.52	C	ATOM	5116	C4	C A 248	140.817	72.941	-38.617	1.00	63.68	C
ATOM	5067	N9	A A 246	148.127	79.383	-34.346	1.00	40.44	N	ATOM	5117	N4	C A 248	140.332	73.160	-39.832	1.00	63.68	N
ATOM	5068	C8	A A 246	148.558	80.421	-33.564	1.00	40.44	C	ATOM	5118	C5	C A 248	142.215	73.043	-38.376	1.00	63.68	C
ATOM	5069	N7	A A 246	147.589	81.164	-33.093	1.00	40.44	N	ATOM	5119	C6	C A 248	142.652	72.788	-37.140	1.00	63.68	C
ATOM	5070	C5	A A 246	146.440	80.570	-33.596	1.00	40.44	C	ATOM	5120	P	U A 249	143.469	67.521	-35.192	1.00	59.97	P
ATOM	5071	C6	A A 246	145.080	80.884	-33.467	1.00	40.44	C	ATOM	5121	O1P	U A 249	143.805	66.393	-34.290	1.00	65.38	O
ATOM	5072	N6	A A 246	144.619	81.917	-32.745	1.00	40.44	N	ATOM	5122	O2P	U A 249	144.069	67.586	-36.551	1.00	65.38	O
ATOM	5073	N1	A A 246	144.192	80.092	-34.108	1.00	40.44	N	ATOM	5123	O5*	U A 249	141.887	67.577	-35.343	1.00	59.97	O
ATOM	5074	C2	A A 246	144.648	79.053	-34.811	1.00	40.44	C	ATOM	5124	C5*	U A 249	141.070	67.625	-34.170	1.00	59.97	C
ATOM	5075	N3	A A 246	145.897	78.652	-34.997	1.00	40.44	N	ATOM	5125	C4*	U A 249	139.614	67.593	-34.528	1.00	59.97	C
ATOM	5076	C4	A A 246	146.757	79.468	-34.362	1.00	40.44	C	ATOM	5126	O4*	U A 249	139.225	68.823	-35.180	1.00	59.97	O
ATOM	5077	P	G A 247	151.098	76.297	-38.227	1.00	54.48	P	ATOM	5127	C3*	U A 249	139.172	66.495	-35.477	1.00	59.97	C
ATOM	5078	O1P	G A 247	151.693	75.054	-37.651	1.00	49.47	O	ATOM	5128	O3*	U A 249	138.996	65.265	-34.786	1.00	59.97	O
ATOM	5079	O2P	G A 247	151.977	77.342	-38.822	1.00	49.47	O	ATOM	5129	C2*	U A 249	137.867	67.056	-36.032	1.00	59.97	C
ATOM	5080	O5*	G A 247	149.967	75.906	-39.282	1.00	54.48	O	ATOM	5130	O2*	U A 249	136.764	66.852	-35.168	1.00	59.97	O
ATOM	5081	C5*	G A 247	149.113	74.753	-39.074	1.00	54.48	C	ATOM	5131	C1*	U A 249	138.179	68.553	-36.097	1.00	59.97	C
ATOM	5082	C4*	G A 247	148.293	74.913	-37.809	1.00	54.48	C	ATOM	5132	N1	U A 249	138.606	68.975	-37.438	1.00	65.38	N
ATOM	5083	O4*	G A 247	147.518	76.144	-37.861	1.00	54.48	O	ATOM	5133	C2	U A 249	137.619	69.270	-38.358	1.00	65.38	C
ATOM	5084	C3*	G A 247	147.251	73.842	-37.542	1.00	54.48	C	ATOM	5134	O2	U A 249	136.429	69.210	-38.101	1.00	65.38	O
ATOM	5085	O3*	G A 247	147.779	72.663	-36.969	1.00	54.48	O	ATOM	5135	N3	U A 249	138.076	69.636	-39.594	1.00	65.38	N
ATOM	5086	C2*	G A 247	146.312	74.555	-36.591	1.00	54.48	C	ATOM	5136	C4	U A 249	139.388	69.730	-39.999	1.00	65.38	C
ATOM	5087	O2*	G A 247	146.865	74.621	-35.292	1.00	54.48	O	ATOM	5137	O4	U A 249	139.635	69.964	-41.180	1.00	65.38	O
ATOM	5088	C1*	G A 247	146.275	75.953	-37.203	1.00	54.48	C	ATOM	5138	C5	U A 249	140.349	69.426	-38.986	1.00	65.38	C
ATOM	5089	N9	G A 247	145.194	76.068	-38.187	1.00	49.47	N	ATOM	5139	C6	U A 249	139.937	69.066	-37.773	1.00	65.38	C
ATOM	5090	C8	G A 247	145.309	76.169	-39.554	1.00	49.47	C	ATOM	5140	P	A A 250	139.346	63.884	-35.525	1.00	67.42	P
ATOM	5091	N7	G A 247	144.156	76.239	-40.165	1.00	49.47	N	ATOM	5141	O1P	A A 250	139.495	62.847	-34.468	1.00	110.13	O
ATOM	5092	C5	G A 247	143.221	76.183	-39.142	1.00	49.47	C	ATOM	5142	O2P	A A 250	140.446	64.106	-36.496	1.00	110.13	O
ATOM	5093	C6	G A 247	141.801	76.220	-39.187	1.00	49.47	C	ATOM	5143	O5*	A A 250	138.022	63.592	-36.351	1.00	67.42	O
ATOM	5094	O6	G A 247	141.060	76.331	-40.176	1.00	49.47	O	ATOM	5144	C5*	A A 250	136.811	63.184	-35.688	1.00	67.42	C
ATOM	5095	N1	G A 247	141.248	76.126	-37.914	1.00	49.47	N	ATOM	5145	C4*	A A 250	135.949	62.415	-36.649	1.00	67.42	C
ATOM	5096	C2	G A 247	141.963	76.022	-36.749	1.00	49.47	C	ATOM	5146	O4*	A A 250	135.460	63.319	-37.662	1.00	67.42	O
ATOM	5097	N2	G A 247	141.254	75.958	-35.623	1.00	49.47	N	ATOM	5147	C3*	A A 250	136.713	61.340	-37.394	1.00	67.42	C
ATOM	5098	N3	G A 247	143.279	75.990	-36.691	1.00	49.47	N	ATOM	5148	O3*	A A 250	136.834	60.154	-36.586	1.00	67.42	O
ATOM	5099	C4	G A 247	143.843	76.077	-37.916	1.00	49.47	C	ATOM	5149	C2*	A A 250	136.061	61.292	-38.780	1.00	67.42	C
ATOM	5100	P	C A 248	147.063	71.253	-37.268	1.00	55.37	P	ATOM	5150	O2*	A A 250	134.938	60.441	-38.900	1.00	67.42	O
ATOM	5101	O1P	C A 248	147.890	70.183	-36.652	1.00	63.68	O	ATOM	5151	C1*	A A 250	135.575	62.736	-38.945	1.00	67.42	C
ATOM	5102	O2P	C A 248	146.727	71.190	-38.713	1.00	63.68	O	ATOM	5152	N9	A A 250	136.360	63.672	-39.746	1.00	110.13	N
ATOM	5103	O5*	C A 248	145.714	71.331	-36.437	1.00	55.37	O	ATOM	5153	C8	A A 250	137.635	64.130	-39.507	1.00	110.13	C
ATOM	5104	C5*	C A 248	145.771	71.334	-35.014	1.00	55.37	C	ATOM	5154	N7	A A 250	138.020	65.078	-40.329	1.00	110.13	N
ATOM	5105	C4*	C A 248	144.395	71.231	-34.425	1.00	55.37	C	ATOM	5155	C5	A A 250	136.939	65.235	-41.186	1.00	110.13	C
ATOM	5106	O4*	C A 248	143.635	72.432	-34.709	1.00	55.37	O	ATOM	5156	C6	A A 250	136.714	66.096	-42.274	1.00	110.13	C
ATOM	5107	C3*	C A 248	143.510	70.116	-34.938	1.00	55.37	C	ATOM	5157	N6	A A 250	137.602	67.004	-42.695	1.00	110.13	N
ATOM	5108	O3*	C A 248	143.814	68.856	-34.366	1.00	55.37	O	ATOM	5158	N1	A A 250	135.531	65.994	-42.920	1.00	110.13	N
ATOM	5109	C2*	C A 248	142.136	70.611	-34.530	1.00	55.37	C	ATOM	5159	C2	A A 250	134.643	65.085	-42.493	1.00	110.13	C
ATOM	5110	O2*	C A 248	141.928	70.399	-33.148	1.00	55.37	O	ATOM	5160	N3	A A 250	134.736	64.223	-41.482	1.00	110.13	N
ATOM	5111	C1*	C A 248	142.262	72.108	-34.799	1.00	55.37	C	ATOM	5161	C4	A A 250	135.921	64.352	-40.859	1.00	110.13	C
ATOM	5112	N1	C A 248	141.783	72.446	-36.148	1.00	63.68	N	ATOM	5162	P	G A 251	135.526	59.362	-36.040	1.00	86.75	P
ATOM	5113	C2	C A 248	140.405	72.390	-36.406	1.00	63.68	C	ATOM	5163	O1P	G A 251	136.027	58.510	-34.914	1.00	57.96	O
ATOM	5114	O2	C A 248	139.624	72.131	-35.470	1.00	63.68	O	ATOM	5164	O2P	G A 251	134.795	58.724	-37.177	1.00	57.96	O
ATOM	5115	N3	C A 248	139.957	72.628	-37.656	1.00	63.68	N	ATOM	5165	O5*	G A 251	134.567	60.445	-35.355	1.00	86.75	O



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ATOM	5166	C5*	G A 251	133.769	60.076	-34.196	1.00	86.75	C	ATOM	5216	C1*	U A 253	129.390	69.788	-38.244	1.00	44.99	C
ATOM	5167	C4*	G A 251	132.891	61.223	-33.734	1.00	86.75	C	ATOM	5217	N1	U A 253	129.422	68.349	-38.540	1.00	44.91	N
ATOM	5168	O4*	G A 251	131.901	61.537	-34.740	1.00	86.75	O	ATOM	5218	C2	U A 253	128.824	67.929	-39.716	1.00	44.91	C
ATOM	5169	C3*	G A 251	132.112	60.932	-32.455	1.00	86.75	C	ATOM	5219	O2	U A 253	128.331	68.696	-40.524	1.00	44.91	O
ATOM	5170	O3*	G A 251	131.968	62.124	-31.677	1.00	86.75	O	ATOM	5220	N3	U A 253	128.824	66.575	-39.914	1.00	44.91	N
ATOM	5171	C2*	G A 251	130.740	60.511	-32.979	1.00	86.75	C	ATOM	5221	C4	U A 253	129.363	65.616	-39.089	1.00	44.91	C
ATOM	5172	O5*	G A 251	129.696	60.724	-32.051	1.00	86.75	O	ATOM	5222	O4	U A 253	129.300	64.430	-39.424	1.00	44.91	O
ATOM	5173	C1*	G A 251	130.598	61.407	-34.205	1.00	86.75	C	ATOM	5223	C5	U A 253	129.986	66.127	-37.901	1.00	44.91	C
ATOM	5174	N9	G A 251	129.760	60.911	-35.289	1.00	57.96	N	ATOM	5224	C6	U A 253	129.995	67.444	-37.675	1.00	44.91	C
ATOM	5175	C8	G A 251	129.770	59.650	-35.826	1.00	57.96	C	ATOM	5225	P	G A 254	125.903	70.029	-35.042	1.00	52.45	P
ATOM	5176	N7	G A 251	129.069	59.558	-36.925	1.00	57.96	N	ATOM	5226	O1P	G A 254	125.187	70.966	-34.176	1.00	50.91	O
ATOM	5177	C5	G A 251	128.528	60.825	-37.094	1.00	57.96	C	ATOM	5227	O2P	G A 254	126.187	68.651	-34.569	1.00	50.91	O
ATOM	5178	C6	G A 251	127.715	61.343	-38.133	1.00	57.96	C	ATOM	5228	O5*	G A 254	125.066	69.959	-36.390	1.00	52.45	O
ATOM	5179	O6	G A 251	127.332	60.784	-39.163	1.00	57.96	O	ATOM	5229	C5*	G A 254	124.479	71.150	-36.923	1.00	52.45	C
ATOM	5180	N1	G A 251	127.369	62.663	-37.898	1.00	57.96	N	ATOM	5230	C4*	G A 254	123.872	70.876	-38.264	1.00	52.45	C
ATOM	5181	C2	G A 251	127.773	63.402	-36.824	1.00	57.96	C	ATOM	5231	O4*	G A 254	124.899	70.325	-39.124	1.00	52.45	O
ATOM	5182	N2	G A 251	127.327	64.668	-36.787	1.00	57.96	N	ATOM	5232	C3*	G A 254	122.774	69.826	-38.291	1.00	52.45	C
ATOM	5183	N3	G A 251	128.554	62.941	-35.862	1.00	57.96	N	ATOM	5233	O3*	G A 254	121.489	70.313	-37.911	1.00	52.45	O
ATOM	5184	C4	G A 251	128.893	61.653	-36.061	1.00	57.96	C	ATOM	5234	C2*	G A 254	122.827	69.353	-39.735	1.00	52.45	C
ATOM	5185	P	U A 252	133.227	63.110	-31.458	1.00	55.87	P	ATOM	5235	O2*	G A 254	122.191	70.256	-40.617	1.00	52.45	O
ATOM	5186	O1P	U A 252	134.475	62.298	-31.497	1.00	56.19	O	ATOM	5236	C1*	G A 254	124.329	69.368	-39.996	1.00	52.45	C
ATOM	5187	O2P	U A 252	132.970	63.987	-30.282	1.00	56.19	O	ATOM	5237	N9	G A 254	124.902	68.056	-39.707	1.00	50.91	N
ATOM	5188	O5*	U A 252	133.201	64.034	-32.764	1.00	55.87	O	ATOM	5238	C8	G A 254	125.609	67.653	-38.595	1.00	50.91	C
ATOM	5189	C5*	U A 252	134.169	65.059	-32.915	1.00	55.87	C	ATOM	5239	N7	G A 254	125.933	66.386	-38.626	1.00	50.91	N
ATOM	5190	C4*	U A 252	134.014	65.800	-34.225	1.00	55.87	C	ATOM	5240	C5	G A 254	125.414	65.930	-39.832	1.00	50.91	C
ATOM	5191	O4*	U A 252	134.253	64.950	-35.367	1.00	55.87	O	ATOM	5241	C6	G A 254	125.428	64.631	-40.416	1.00	50.91	C
ATOM	5192	C3*	U A 252	132.729	66.513	-34.601	1.00	55.87	C	ATOM	5242	O6	G A 254	125.920	63.590	-39.970	1.00	50.91	O
ATOM	5193	O3*	U A 252	132.581	67.744	-33.900	1.00	55.87	O	ATOM	5243	N1	G A 254	124.780	64.619	-41.651	1.00	50.91	N
ATOM	5194	C2*	U A 252	132.990	66.833	-36.073	1.00	55.87	C	ATOM	5244	C2	G A 254	124.200	65.715	-42.250	1.00	50.91	C
ATOM	5195	O2*	U A 252	133.785	67.991	-36.243	1.00	55.87	O	ATOM	5245	N2	G A 254	123.640	65.519	-43.445	1.00	50.91	N
ATOM	5196	C1*	U A 252	133.852	65.654	-36.523	1.00	55.87	C	ATOM	5246	N3	G A 254	124.175	66.920	-41.717	1.00	50.91	N
ATOM	5197	N1	U A 252	133.163	64.759	-37.463	1.00	56.19	N	ATOM	5247	C4	G A 254	124.792	66.955	-40.516	1.00	50.91	C
ATOM	5198	C2	U A 252	133.005	65.222	-38.753	1.00	56.19	C	ATOM	5248	P	G A 255	120.377	69.266	-37.412	1.00	57.30	P
ATOM	5199	O2	U A 252	133.380	66.320	-39.110	1.00	56.19	O	ATOM	5249	O1P	G A 255	119.197	70.038	-36.959	1.00	60.33	O
ATOM	5200	N3	U A 252	132.386	64.359	-39.607	1.00	56.19	N	ATOM	5250	O2P	G A 255	121.013	68.282	-36.496	1.00	60.33	O
ATOM	5201	C4	U A 252	131.914	63.115	-39.315	1.00	56.19	C	ATOM	5251	O5*	G A 255	119.976	68.495	-38.744	1.00	57.30	O
ATOM	5202	O4	U A 252	131.393	62.452	-40.206	1.00	56.19	O	ATOM	5252	C5*	G A 255	119.514	69.225	-39.897	1.00	57.30	C
ATOM	5203	C5	U A 252	132.096	62.704	-37.959	1.00	56.19	C	ATOM	5253	C4*	G A 255	119.204	68.277	-41.029	1.00	57.30	C
ATOM	5204	C6	U A 252	132.698	63.520	-37.100	1.00	56.19	C	ATOM	5254	O4*	G A 255	120.417	67.635	-41.484	1.00	57.30	O
ATOM	5205	P	U A 253	131.138	68.176	-33.330	1.00	44.91	P	ATOM	5255	C3*	G A 255	118.284	67.134	-40.658	1.00	57.30	C
ATOM	5206	O1P	U A 253	131.381	69.258	-32.332	1.00	44.91	O	ATOM	5256	O3*	G A 255	116.941	67.546	-40.752	1.00	57.30	O
ATOM	5207	O2P	U A 253	130.419	66.943	-32.913	1.00	44.91	O	ATOM	5257	C2*	G A 255	118.640	66.066	-41.678	1.00	57.30	C
ATOM	5208	O5*	U A 253	130.377	68.792	-34.587	1.00	44.99	O	ATOM	5258	O2*	G A 255	118.012	66.285	-42.924	1.00	57.30	O
ATOM	5209	C5*	U A 253	130.396	70.202	-34.809	1.00	44.99	C	ATOM	5259	C1*	G A 255	120.139	66.295	-41.843	1.00	57.30	C
ATOM	5210	C4*	U A 253	129.633	70.567	-36.052	1.00	44.99	C	ATOM	5260	N9	G A 255	120.947	65.419	-41.002	1.00	60.33	N
ATOM	5211	O4*	U A 253	130.324	70.069	-37.219	1.00	44.99	O	ATOM	5261	C8	G A 255	121.639	65.762	-39.867	1.00	60.33	C
ATOM	5212	C3*	U A 253	128.229	70.027	-36.214	1.00	44.99	C	ATOM	5262	N7	G A 255	122.284	64.758	-39.340	1.00	60.33	N
ATOM	5213	O3*	U A 253	127.272	70.750	-35.471	1.00	44.99	O	ATOM	5263	C5	G A 255	121.993	63.690	-40.172	1.00	60.33	C
ATOM	5214	C2*	U A 253	128.022	70.182	-37.710	1.00	44.99	C	ATOM	5264	C6	G A 255	122.399	62.350	-40.098	1.00	60.33	C
ATOM	5215	O2*	U A 253	127.805	71.525	-38.075	1.00	44.99	O	ATOM	5265	O6	G A 255	123.119	61.815	-39.259	1.00	60.33	O



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ATOM	5266	N1	G A 255	121.873	61.598	-41.136	1.00	60.33	N	ATOM	5316	O2P	G A 258	110.907	58.710	-35.969	1.00	77.61	O
ATOM	5267	C2	G A 255	121.057	62.079	-42.121	1.00	60.33	C	ATOM	5317	O5*	G A 258	112.062	56.509	-35.669	1.00	66.68	O
ATOM	5268	N2	G A 255	120.657	61.188	-43.032	1.00	60.33	N	ATOM	5318	C5*	G A 258	112.127	55.086	-35.793	1.00	66.68	C
ATOM	5269	N3	G A 255	120.666	63.337	-42.206	1.00	60.33	N	ATOM	5319	C4*	G A 258	113.389	54.518	-35.178	1.00	66.68	C
ATOM	5270	C4	G A 255	121.169	64.081	-41.202	1.00	60.33	C	ATOM	5320	O4*	G A 258	114.572	55.179	-35.696	1.00	66.68	O
ATOM	5271	P	U A 256	115.844	66.860	-39.809	1.00	64.71	P	ATOM	5321	C3*	G A 258	113.593	54.559	-33.673	1.00	66.68	C
ATOM	5272	O1P	U A 256	114.612	67.682	-39.950	1.00	63.43	O	ATOM	5322	O3*	G A 258	112.866	53.563	-32.970	1.00	66.68	O
ATOM	5273	O2P	U A 256	116.430	66.638	-38.465	1.00	63.43	O	ATOM	5323	C2*	G A 258	115.081	54.261	-33.566	1.00	66.68	C
ATOM	5274	O5*	U A 256	115.632	65.431	-40.471	1.00	64.71	O	ATOM	5324	O2*	G A 258	115.342	52.886	-33.732	1.00	66.68	O
ATOM	5275	C5*	U A 256	114.968	65.297	-41.731	1.00	64.71	C	ATOM	5325	C1*	G A 258	115.639	55.005	-34.775	1.00	66.68	C
ATOM	5276	C4*	U A 256	114.923	63.850	-42.132	1.00	64.71	C	ATOM	5326	N9	G A 258	116.167	56.304	-34.365	1.00	77.61	N
ATOM	5277	O4*	U A 256	116.266	63.398	-42.428	1.00	64.71	O	ATOM	5327	C8	G A 258	115.636	57.550	-34.593	1.00	77.61	C
ATOM	5278	C3*	U A 256	114.454	62.891	-41.055	1.00	64.71	C	ATOM	5328	N7	G A 258	116.349	58.514	-34.073	1.00	77.61	N
ATOM	5279	O3*	U A 256	113.058	62.792	-40.941	1.00	64.71	O	ATOM	5329	C5	G A 258	117.416	57.865	-33.470	1.00	77.61	C
ATOM	5280	C2*	U A 256	115.064	61.578	-41.494	1.00	64.71	C	ATOM	5330	C6	G A 258	118.523	58.386	-32.752	1.00	77.61	C
ATOM	5281	O2*	U A 256	114.306	60.983	-42.524	1.00	64.71	O	ATOM	5331	O6	G A 258	118.792	59.562	-32.502	1.00	77.61	O
ATOM	5282	C1*	U A 256	116.413	62.045	-42.032	1.00	64.71	C	ATOM	5332	N1	G A 258	119.369	57.374	-32.312	1.00	77.61	N
ATOM	5283	N1	U A 256	117.448	61.968	-40.989	1.00	63.43	N	ATOM	5333	C2	G A 258	119.180	56.033	-32.538	1.00	77.61	C
ATOM	5284	C2	U A 256	118.034	60.730	-40.744	1.00	63.43	C	ATOM	5334	N2	G A 258	120.106	55.210	-32.041	1.00	77.61	N
ATOM	5285	O2	U A 256	117.733	59.714	-41.356	1.00	63.43	O	ATOM	5335	N3	G A 258	118.154	55.536	-33.207	1.00	77.61	N
ATOM	5286	N3	U A 256	118.980	60.726	-39.752	1.00	63.43	N	ATOM	5336	C4	G A 258	117.319	56.502	-33.642	1.00	77.61	C
ATOM	5287	C4	U A 256	119.389	61.795	-38.997	1.00	63.43	C	ATOM	5337	P	G A 259	112.489	53.810	-31.420	1.00	61.86	P
ATOM	5288	O4	U A 256	120.231	61.625	-38.121	1.00	63.43	O	ATOM	5338	O1P	G A 259	111.458	52.803	-31.037	1.00	69.36	O
ATOM	5289	C5	U A 256	118.745	63.030	-39.310	1.00	63.43	C	ATOM	5339	O2P	G A 259	112.180	55.257	-31.268	1.00	69.36	O
ATOM	5290	C6	U A 256	117.823	63.076	-40.270	1.00	63.43	C	ATOM	5340	O5*	G A 259	113.837	53.491	-30.618	1.00	61.86	O
ATOM	5291	P	G A 257	112.424	62.479	-39.506	1.00	71.44	P	ATOM	5341	C5*	G A 259	114.526	52.230	-30.792	1.00	61.86	C
ATOM	5292	O1P	G A 257	110.959	62.715	-39.635	1.00	72.68	O	ATOM	5342	C4*	G A 259	115.900	52.260	-30.143	1.00	61.86	C
ATOM	5293	O2P	G A 257	113.197	63.224	-38.487	1.00	72.68	O	ATOM	5343	O4*	G A 259	116.776	53.204	-30.815	1.00	61.86	O
ATOM	5294	O5*	G A 257	112.740	60.931	-39.267	1.00	71.44	O	ATOM	5344	C3*	G A 259	115.941	52.665	-28.686	1.00	61.86	C
ATOM	5295	C5*	G A 257	112.062	59.904	-40.017	1.00	71.44	C	ATOM	5345	O3*	G A 259	115.688	51.564	-27.846	1.00	61.86	O
ATOM	5296	C4*	G A 257	112.698	58.556	-39.762	1.00	71.44	C	ATOM	5346	C2*	G A 259	117.364	53.177	-28.506	1.00	61.86	C
ATOM	5297	O4*	G A 257	114.107	58.638	-40.091	1.00	71.44	O	ATOM	5347	O2*	G A 259	118.293	52.154	-28.232	1.00	61.86	O
ATOM	5298	C3*	G A 257	112.677	58.037	-38.330	1.00	71.44	C	ATOM	5348	C1*	G A 259	117.660	53.790	-29.875	1.00	61.86	C
ATOM	5299	O3*	G A 257	111.478	57.340	-38.010	1.00	71.44	O	ATOM	5349	N9	G A 259	117.447	55.233	-29.878	1.00	69.36	N
ATOM	5300	C2*	G A 257	113.863	57.085	-38.304	1.00	71.44	C	ATOM	5350	C8	G A 259	116.447	55.921	-30.518	1.00	69.36	C
ATOM	5301	O2*	G A 257	113.553	55.813	-38.828	1.00	71.44	O	ATOM	5351	N7	G A 259	116.502	57.207	-30.318	1.00	69.36	N
ATOM	5302	C1*	G A 257	114.850	57.792	-39.230	1.00	71.44	C	ATOM	5352	C5	G A 259	117.609	57.380	-29.500	1.00	69.36	C
ATOM	5303	N9	G A 257	115.787	58.607	-38.465	1.00	72.68	N	ATOM	5353	C6	G A 259	118.164	58.558	-28.947	1.00	69.36	C
ATOM	5304	C8	G A 257	115.762	59.971	-38.288	1.00	72.68	C	ATOM	5354	O6	G A 259	117.781	59.721	-29.077	1.00	69.36	O
ATOM	5305	N7	G A 257	116.724	60.404	-37.517	1.00	72.68	N	ATOM	5355	N1	G A 259	119.278	58.283	-28.171	1.00	69.36	N
ATOM	5306	C5	G A 257	117.426	59.259	-37.167	1.00	72.68	C	ATOM	5356	C2	G A 259	119.800	57.035	-27.956	1.00	69.36	C
ATOM	5307	C6	G A 257	118.563	59.097	-36.340	1.00	72.68	C	ATOM	5357	N2	G A 259	120.891	56.981	-27.176	1.00	69.36	N
ATOM	5308	O6	G A 257	119.185	59.958	-35.713	1.00	72.68	O	ATOM	5358	N3	G A 259	119.293	55.924	-28.466	1.00	69.36	N
ATOM	5309	N1	G A 257	118.957	57.765	-36.269	1.00	72.68	N	ATOM	5359	C4	G A 259	118.205	56.171	-29.222	1.00	69.36	C
ATOM	5310	C2	G A 257	118.327	56.720	-36.901	1.00	72.68	C	ATOM	5360	P	G A 260	114.825	51.781	-26.518	1.00	64.61	P
ATOM	5311	N2	G A 257	118.854	55.505	-36.713	1.00	72.68	N	ATOM	5361	O1P	G A 260	114.690	50.482	-25.798	1.00	75.62	O
ATOM	5312	N3	G A 257	117.258	56.856	-37.662	1.00	72.68	N	ATOM	5362	O2P	G A 260	113.598	52.522	-26.934	1.00	75.62	O
ATOM	5313	C4	G A 257	116.866	58.143	-37.753	1.00	72.68	C	ATOM	5363	O5*	G A 260	115.728	52.744	-25.628	1.00	64.61	O
ATOM	5314	P	G A 258	110.949	57.319	-36.485	1.00	66.68	P	ATOM	5364	C5*	G A 260	116.988	52.309	-25.110	1.00	64.61	C
ATOM	5315	O1P	G A 258	109.701	56.520	-36.526	1.00	77.61	O	ATOM	5365	C4*	G A 260	117.692	53.459	-24.445	1.00	64.61	C



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ATOM	5366	O4*	G A 260	118.058	54.437	-25.448	1.00	64.61	O	ATOM	5416	C8	A A 262	114.306	60.958	-15.946	1.00	66.06	C
ATOM	5367	C3*	G A 260	116.859	54.237	-23.443	1.00	64.61	C	ATOM	5417	N7	A A 262	115.510	61.363	-15.624	1.00	66.06	N
ATOM	5368	O3*	G A 260	116.908	53.659	-22.158	1.00	64.61	O	ATOM	5418	C5	A A 262	115.390	62.747	-15.564	1.00	66.06	C
ATOM	5369	C2*	G A 260	117.514	55.606	-23.444	1.00	64.61	C	ATOM	5419	C6	A A 262	116.306	63.765	-15.248	1.00	66.06	C
ATOM	5370	O2*	G A 260	118.635	55.637	-22.588	1.00	64.61	O	ATOM	5420	N6	A A 262	117.572	63.541	-14.892	1.00	66.06	N
ATOM	5371	C1*	G A 260	117.951	55.741	-24.904	1.00	64.61	C	ATOM	5421	N1	A A 262	115.870	65.040	-15.307	1.00	66.06	N
ATOM	5372	N9	G A 260	116.999	56.490	-25.715	1.00	75.62	N	ATOM	5422	C2	A A 262	114.602	65.267	-15.649	1.00	66.06	C
ATOM	5373	C8	G A 260	116.029	55.970	-26.531	1.00	75.62	C	ATOM	5423	N3	A A 262	113.643	64.400	-15.949	1.00	66.06	N
ATOM	5374	N7	G A 260	115.326	56.883	-27.137	1.00	75.62	N	ATOM	5424	C4	A A 262	114.103	63.140	-15.883	1.00	66.06	C
ATOM	5375	C5	G A 260	115.864	58.080	-26.694	1.00	75.62	C	ATOM	5425	P	A A 263	111.154	60.224	-20.762	1.00	49.48	P
ATOM	5376	C6	G A 260	115.517	59.405	-27.016	1.00	75.62	C	ATOM	5426	O1P	A A 263	110.049	59.970	-21.732	1.00	57.34	O
ATOM	5377	O6	G A 260	114.636	59.801	-27.783	1.00	75.62	O	ATOM	5427	O2P	A A 263	112.319	59.307	-20.715	1.00	57.34	O
ATOM	5378	N1	G A 260	116.320	60.320	-26.348	1.00	75.62	N	ATOM	5428	O5*	A A 263	111.663	61.709	-20.999	1.00	49.48	O
ATOM	5379	C2	G A 260	117.331	59.997	-25.485	1.00	75.62	C	ATOM	5429	C5*	A A 263	110.716	62.782	-21.139	1.00	49.48	C
ATOM	5380	N2	G A 260	117.997	61.026	-24.951	1.00	75.62	N	ATOM	5430	C4*	A A 263	111.433	64.078	-21.381	1.00	49.48	C
ATOM	5381	N3	G A 260	117.665	58.759	-25.173	1.00	75.62	N	ATOM	5431	O4*	A A 263	112.086	64.497	-20.160	1.00	49.48	O
ATOM	5382	C4	G A 260	116.896	57.856	-25.813	1.00	75.62	C	ATOM	5432	C3*	A A 263	112.527	64.010	-22.433	1.00	49.48	C
ATOM	5383	P	U A 261	115.617	53.740	-21.208	1.00	56.74	P	ATOM	5433	O3*	A A 263	111.972	64.216	-23.725	1.00	49.48	O
ATOM	5384	O1P	U A 261	115.819	52.793	-20.075	1.00	65.91	O	ATOM	5434	C2*	A A 263	113.464	65.128	-22.004	1.00	49.48	C
ATOM	5385	O2P	U A 261	114.392	53.645	-22.051	1.00	65.91	O	ATOM	5435	O2*	A A 263	113.031	66.380	-22.489	1.00	49.48	O
ATOM	5386	O5*	U A 261	115.654	55.215	-20.624	1.00	56.74	O	ATOM	5436	C1*	A A 263	113.330	65.086	-20.474	1.00	49.48	C
ATOM	5387	C5*	U A 261	116.723	55.638	-19.779	1.00	56.74	C	ATOM	5437	N9	A A 263	114.377	64.299	-19.818	1.00	57.34	N
ATOM	5388	C4*	U A 261	116.625	57.119	-19.540	1.00	56.74	C	ATOM	5438	C8	A A 263	114.506	62.932	-19.777	1.00	57.34	C
ATOM	5389	O4*	U A 261	116.850	57.842	-19.775	1.00	56.74	O	ATOM	5439	N7	A A 263	115.590	62.524	-19.170	1.00	57.34	N
ATOM	5390	C3*	U A 261	115.274	57.602	-19.062	1.00	56.74	C	ATOM	5440	C5	A A 263	116.211	63.698	-18.773	1.00	57.34	C
ATOM	5391	O3*	U A 261	115.176	57.424	-17.663	1.00	56.74	O	ATOM	5441	C6	A A 263	117.406	63.946	-18.098	1.00	57.34	C
ATOM	5392	C2*	U A 261	115.279	59.067	-19.472	1.00	56.74	C	ATOM	5442	N6	A A 263	118.239	62.991	-17.694	1.00	57.34	N
ATOM	5393	O2*	U A 261	115.961	59.872	-18.536	1.00	56.74	O	ATOM	5443	N1	A A 263	117.729	65.228	-17.844	1.00	57.34	N
ATOM	5394	C1*	U A 261	116.087	59.028	-20.771	1.00	56.74	C	ATOM	5444	C2	A A 263	116.903	66.188	-18.248	1.00	57.34	C
ATOM	5395	N1	U A 261	115.268	59.060	-21.989	1.00	65.91	N	ATOM	5445	N3	A A 263	115.755	66.085	-18.900	1.00	57.34	N
ATOM	5396	C2	U A 261	114.848	60.290	-22.449	1.00	65.91	C	ATOM	5446	C4	A A 263	115.462	64.796	-19.140	1.00	57.34	C
ATOM	5397	O2	U A 261	115.167	61.340	-21.922	1.00	65.91	O	ATOM	5447	P	U A 264	112.852	63.923	-25.034	1.00	49.19	P
ATOM	5398	N3	U A 261	114.046	60.248	-23.557	1.00	65.91	N	ATOM	5448	O1P	U A 264	111.932	63.780	-26.188	1.00	60.75	O
ATOM	5399	C4	U A 261	113.645	59.133	-24.243	1.00	65.91	C	ATOM	5449	O2P	U A 264	113.846	62.856	-24.762	1.00	60.75	O
ATOM	5400	O4	U A 261	112.884	59.254	-25.196	1.00	65.91	O	ATOM	5450	O5*	U A 264	114.901	67.345	-28.202	1.00	49.19	O
ATOM	5401	C5	U A 261	114.145	57.906	-23.728	1.00	65.91	C	ATOM	5451	C5*	U A 264	113.684	65.264	-25.221	1.00	49.19	C
ATOM	5402	C6	U A 261	114.919	57.910	-22.644	1.00	65.91	C	ATOM	5452	C4*	U A 264	113.058	66.459	-25.703	1.00	49.19	C
ATOM	5403	P	A A 262	113.764	57.031	-17.013	1.00	55.86	P	ATOM	5453	O4*	U A 264	114.094	67.525	-25.937	1.00	49.19	O
ATOM	5404	O1P	A A 262	113.972	56.770	-15.567	1.00	66.06	O	ATOM	5454	C3*	U A 264	114.727	67.858	-24.679	1.00	49.19	O
ATOM	5405	O2P	A A 262	113.150	55.976	-17.877	1.00	66.06	O	ATOM	5455	O3*	U A 264	115.246	67.147	-26.849	1.00	49.19	O
ATOM	5406	O5*	A A 262	112.913	58.367	-17.166	1.00	55.86	O	ATOM	5456	C2*	U A 264	114.901	67.345	-28.202	1.00	49.19	O
ATOM	5407	C5*	A A 262	111.509	58.394	-16.879	1.00	55.86	C	ATOM	5457	O2*	U A 264	116.347	68.095	-26.401	1.00	49.19	O
ATOM	5408	C4*	A A 262	111.007	59.811	-16.961	1.00	55.86	C	ATOM	5458	C1*	U A 264	116.195	69.398	-26.933	1.00	49.19	O
ATOM	5409	O4*	A A 262	111.561	60.582	-15.867	1.00	55.86	O	ATOM	5459	N1	U A 264	116.091	68.170	-24.898	1.00	49.19	N
ATOM	5410	C3*	A A 262	111.466	60.524	-18.214	1.00	55.86	C	ATOM	5460	C2	U A 264	116.910	67.227	-24.123	1.00	60.75	C
ATOM	5411	O3*	A A 262	110.577	60.290	-19.278	1.00	55.86	O	ATOM	5461	O2	U A 264	118.210	67.582	-23.842	1.00	60.75	O
ATOM	5412	C2*	A A 262	111.521	61.981	-17.789	1.00	55.86	C	ATOM	5462	N3	U A 264	118.707	68.626	-24.210	1.00	60.75	N
ATOM	5413	O2*	A A 262	110.250	62.591	-17.837	1.00	55.86	O	ATOM	5463	C4	U A 264	118.913	66.664	-23.114	1.00	60.75	C
ATOM	5414	C1*	A A 262	111.957	61.856	-16.328	1.00	55.86	C	ATOM	5464	O4	U A 264	118.460	65.454	-22.651	1.00	60.75	O
ATOM	5415	N9	A A 262	113.395	61.978	-16.084	1.00	66.06	N	ATOM	5465	C5	U A 264	117.107	65.156	-22.983	1.00	60.75	C



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ATOM	5466	C6	U A 264	116.397	66.028	-23.691	1.00	60.75	C	ATOM	5516	O5*	C A 267	125.616	64.338	-27.695	1.00	56.19	O
ATOM	5467	P	G A 265	115.343	66.258	-29.285	1.00	48.24	P	ATOM	5517	C5*	C A 267	126.171	63.981	-26.404	1.00	56.19	C
ATOM	5468	O1P	G A 265	114.876	66.700	-30.623	1.00	67.33	O	ATOM	5518	C4*	C A 267	125.743	62.599	-25.970	1.00	56.19	C
ATOM	5469	O2P	G A 265	114.942	64.931	-28.764	1.00	67.33	O	ATOM	5519	O4*	C A 267	124.357	62.587	-25.559	1.00	56.19	O
ATOM	5470	O5*	G A 265	116.927	66.340	-29.255	1.00	48.24	O	ATOM	5520	C3*	C A 267	125.867	61.474	-26.985	1.00	56.19	C
ATOM	5471	C5*	G A 265	117.590	67.533	-29.672	1.00	48.24	C	ATOM	5521	O3*	C A 267	127.190	60.966	-27.007	1.00	56.19	O
ATOM	5472	C4*	G A 265	119.034	67.498	-29.268	1.00	48.24	C	ATOM	5522	C2*	C A 267	124.897	60.436	-26.441	1.00	56.19	C
ATOM	5473	O4*	G A 265	119.145	67.511	-27.823	1.00	48.24	O	ATOM	5523	O2*	C A 267	125.483	59.646	-25.427	1.00	56.19	O
ATOM	5474	C3*	G A 265	119.822	66.265	-29.658	1.00	48.24	C	ATOM	5524	C1*	C A 267	123.801	61.314	-25.832	1.00	56.19	C
ATOM	5475	O3*	G A 265	120.205	66.276	-31.012	1.00	48.24	O	ATOM	5525	N1	C A 267	122.675	61.483	-26.753	1.00	68.59	N
ATOM	5476	C2*	G A 265	121.009	66.340	-28.711	1.00	48.24	C	ATOM	5526	C2	C A 267	121.652	60.542	-26.732	1.00	68.59	C
ATOM	5477	O2*	G A 265	122.015	67.241	-29.134	1.00	48.24	O	ATOM	5527	O2	C A 267	121.711	59.609	-25.918	1.00	68.59	O
ATOM	5478	C1*	G A 265	120.353	66.883	-27.442	1.00	48.24	C	ATOM	5528	N3	C A 267	120.625	60.666	-27.598	1.00	68.59	N
ATOM	5479	N9	G A 265	120.074	65.781	-26.530	1.00	67.33	N	ATOM	5529	C4	C A 267	120.601	61.682	-28.459	1.00	68.59	C
ATOM	5480	C8	G A 265	118.934	65.033	-26.429	1.00	67.33	C	ATOM	5530	N4	C A 267	119.586	61.749	-29.314	1.00	68.59	N
ATOM	5481	N7	G A 265	119.049	64.038	-25.589	1.00	67.33	N	ATOM	5531	C5	C A 267	121.621	62.669	-28.488	1.00	68.59	C
ATOM	5482	C5	G A 265	120.336	64.158	-25.092	1.00	67.33	C	ATOM	5532	C6	C A 267	122.631	62.532	-27.626	1.00	68.59	C
ATOM	5483	C6	G A 265	121.043	63.353	-24.171	1.00	67.33	C	ATOM	5533	P	C A 268	127.777	60.324	-28.354	1.00	62.07	P
ATOM	5484	O6	G A 265	120.669	62.326	-23.600	1.00	67.33	O	ATOM	5534	O1P	C A 268	129.174	59.961	-28.011	1.00	64.05	O
ATOM	5485	N1	G A 265	122.324	63.838	-23.949	1.00	67.33	N	ATOM	5535	O2P	C A 268	127.521	61.205	-29.519	1.00	64.05	O
ATOM	5486	C2	G A 265	122.861	64.943	-24.551	1.00	67.33	C	ATOM	5536	O5*	C A 268	126.919	58.992	-28.537	1.00	62.07	O
ATOM	5487	N2	G A 265	124.119	65.232	-24.233	1.00	67.33	N	ATOM	5537	C5*	C A 268	127.157	57.826	-27.727	1.00	62.07	C
ATOM	5488	N3	G A 265	122.218	65.701	-25.410	1.00	67.33	N	ATOM	5538	O4*	C A 268	126.291	56.689	-28.204	1.00	62.07	C
ATOM	5489	C4	G A 265	120.968	65.249	-25.638	1.00	67.33	C	ATOM	5539	C4*	C A 268	124.901	57.035	-27.975	1.00	62.07	C
ATOM	5490	P	G A 266	120.173	64.909	-31.856	1.00	55.15	P	ATOM	5540	C3*	C A 268	126.371	56.413	-29.695	1.00	62.07	C
ATOM	5491	O1P	G A 266	120.229	65.332	-33.281	1.00	76.59	O	ATOM	5541	O3*	C A 268	127.437	55.544	-30.040	1.00	62.07	O
ATOM	5492	O2P	G A 266	119.067	64.037	-31.386	1.00	76.59	O	ATOM	5542	C2*	C A 268	125.015	55.797	-30.003	1.00	62.07	C
ATOM	5493	O5*	G A 266	121.547	64.213	-31.484	1.00	55.15	O	ATOM	5543	O2*	C A 268	124.958	54.417	-29.699	1.00	62.07	O
ATOM	5494	C5*	G A 266	122.729	64.989	-31.484	1.00	55.15	C	ATOM	5544	C1*	C A 268	124.103	56.564	-29.048	1.00	62.07	C
ATOM	5495	C4*	G A 266	123.806	64.325	-30.680	1.00	55.15	C	ATOM	5545	N1	C A 268	123.442	57.715	-29.695	1.00	64.05	N
ATOM	5496	O4*	G A 266	124.081	63.042	-31.263	1.00	55.15	O	ATOM	5546	C2	C A 268	122.286	57.494	-30.458	1.00	64.05	C
ATOM	5497	C3*	G A 266	125.072	65.149	-30.778	1.00	55.15	C	ATOM	5547	O2	C A 268	121.840	56.347	-30.559	1.00	64.05	O
ATOM	5498	O3*	G A 266	125.085	65.997	-29.614	1.00	55.15	O	ATOM	5548	N3	C A 268	121.681	58.540	-31.062	1.00	64.05	N
ATOM	5499	C2*	G A 266	126.180	64.157	-31.126	1.00	55.15	C	ATOM	5549	C4	C A 268	122.180	59.766	-30.926	1.00	64.05	C
ATOM	5500	O2*	G A 266	126.834	63.622	-29.996	1.00	55.15	O	ATOM	5550	N4	C A 268	121.556	60.762	-31.549	1.00	64.05	N
ATOM	5501	C1*	G A 266	125.386	63.024	-31.790	1.00	55.15	C	ATOM	5551	C5	C A 268	123.345	60.024	-30.149	1.00	64.05	C
ATOM	5502	N9	G A 266	125.218	62.934	-33.235	1.00	76.59	N	ATOM	5552	C6	C A 268	123.941	58.980	-29.560	1.00	64.05	C
ATOM	5503	C8	G A 266	124.679	63.870	-34.089	1.00	76.59	C	ATOM	5553	P	C A 269	128.007	55.550	-31.546	1.00	71.60	P
ATOM	5504	N7	G A 266	124.491	63.411	-35.297	1.00	76.59	N	ATOM	5554	O1P	C A 269	129.149	54.608	-31.566	1.00	68.58	O
ATOM	5505	C5	G A 266	124.973	62.113	-35.240	1.00	76.59	C	ATOM	5555	O2P	C A 269	128.213	56.959	-31.985	1.00	68.58	O
ATOM	5506	C6	G A 266	125.010	61.112	-36.228	1.00	76.59	O	ATOM	5556	O5*	C A 269	126.830	54.919	-32.414	1.00	71.60	O
ATOM	5507	O6	G A 266	124.597	61.158	-37.384	1.00	76.59	C	ATOM	5557	C5*	C A 269	126.436	53.556	-32.213	1.00	71.60	C
ATOM	5508	N1	G A 266	125.590	59.947	-35.749	1.00	76.59	N	ATOM	5558	C4*	C A 269	125.273	53.197	-33.105	1.00	71.60	C
ATOM	5509	C2	G A 266	126.063	59.766	-34.474	1.00	76.59	C	ATOM	5559	O4*	C A 269	124.087	53.927	-32.711	1.00	71.60	O
ATOM	5510	N2	G A 266	126.606	58.560	-34.208	1.00	76.59	N	ATOM	5560	C3*	C A 269	125.424	53.486	-34.588	1.00	71.60	C
ATOM	5511	N3	G A 266	126.014	60.688	-33.535	1.00	76.59	N	ATOM	5561	O3*	C A 269	126.144	52.450	-35.241	1.00	71.60	O
ATOM	5512	C4	G A 266	125.462	61.825	-33.984	1.00	76.59	C	ATOM	5562	C2*	C A 269	123.978	53.551	-35.068	1.00	71.60	C
ATOM	5513	P	C A 267	126.053	65.722	-28.352	1.00	56.19	P	ATOM	5563	O2*	C A 269	123.432	52.288	-35.377	1.00	71.60	O
ATOM	5514	O1P	C A 267	125.612	66.760	-27.386	1.00	68.59	O	ATOM	5564	C1*	C A 269	123.261	54.126	-33.846	1.00	71.60	C
ATOM	5515	O2P	C A 267	127.492	65.637	-28.723	1.00	68.59	O	ATOM	5565	N1	C A 269	122.962	55.560	-33.989	1.00	68.58	N



Table 2: Sheet 57/520

ATOM	5566	C2	C A 269	121.866	55.936	-34.777	1.00 68.58	C	ATOM	5616	O1P	C A 272	125.403	55.907	-48.664	1.00 67.16	O
ATOM	5567	O2	C A 269	121.173	55.050	-35.305	1.00 68.58	O	ATOM	5617	O2P	C A 272	126.303	56.263	-46.288	1.00 67.16	O
ATOM	5568	N3	C A 269	121.594	57.248	-34.945	1.00 68.58	N	ATOM	5618	O5*	C A 272	124.593	57.818	-47.261	1.00 77.75	O
ATOM	5569	C4	C A 269	122.364	58.165	-34.365	1.00 68.58	C	ATOM	5619	C5*	C A 272	123.444	58.146	-48.065	1.00 77.75	C
ATOM	5570	N4	C A 269	122.071	59.444	-34.575	1.00 68.58	N	ATOM	5620	C4*	C A 272	123.014	59.578	-47.839	1.00 77.75	C
ATOM	5571	C5	C A 269	123.472	57.811	-33.546	1.00 68.58	C	ATOM	5621	O4*	C A 272	122.569	59.748	-46.470	1.00 77.75	O
ATOM	5572	C6	C A 269	123.733	56.512	-33.384	1.00 68.58	C	ATOM	5622	O3*	C A 272	124.068	60.656	-48.028	1.00 77.75	O
ATOM	5573	P	A A 270	126.822	52.728	-36.670	1.00 83.82	P	ATOM	5623	C3*	C A 272	124.238	61.012	-49.390	1.00 77.75	C
ATOM	5574	O1P	A A 270	127.675	51.542	-36.951	1.00 74.04	O	ATOM	5624	C2*	C A 272	123.515	61.808	-47.197	1.00 77.75	C
ATOM	5575	O2P	A A 270	127.431	54.085	-36.659	1.00 74.04	O	ATOM	5625	O2*	C A 272	122.514	62.549	-47.868	1.00 77.75	O
ATOM	5576	O5*	A A 270	125.591	52.748	-37.687	1.00 83.82	O	ATOM	5626	C1*	C A 272	122.874	61.062	-46.029	1.00 77.75	C
ATOM	5577	C5*	A A 270	124.998	51.523	-38.161	1.00 83.82	C	ATOM	5627	N1	C A 272	123.762	60.981	-44.850	1.00 67.16	N
ATOM	5578	C4*	A A 270	123.877	51.816	-39.133	1.00 83.82	C	ATOM	5628	C2	C A 272	123.821	62.075	-43.978	1.00 67.16	C
ATOM	5579	O4*	A A 270	122.814	52.510	-38.435	1.00 83.82	O	ATOM	5629	O2	C A 272	123.128	63.076	-44.220	1.00 67.16	O
ATOM	5580	C3*	A A 270	124.212	52.720	-40.310	1.00 83.82	C	ATOM	5630	N3	C A 272	124.630	62.016	-42.897	1.00 67.16	N
ATOM	5581	O3*	A A 270	124.783	52.020	-41.405	1.00 83.82	O	ATOM	5631	C4	C A 272	125.359	60.924	-42.671	1.00 67.16	C
ATOM	5582	C2*	A A 270	122.858	53.308	-40.676	1.00 83.82	C	ATOM	5632	N4	C A 272	126.140	60.908	-41.593	1.00 67.16	N
ATOM	5583	O2*	A A 270	122.099	52.427	-41.479	1.00 83.82	O	ATOM	5633	C5	C A 272	125.320	59.799	-43.540	1.00 67.16	C
ATOM	5584	C1*	A A 270	122.200	53.451	-39.304	1.00 83.82	C	ATOM	5634	C6	C A 272	124.517	59.868	-44.608	1.00 67.16	C
ATOM	5585	N9	A A 270	122.364	54.789	-38.725	1.00 74.04	N	ATOM	5635	P	A A 273	125.675	61.532	-49.897	1.00 90.20	P
ATOM	5586	C8	A A 270	123.304	55.187	-37.807	1.00 74.04	C	ATOM	5636	O1P	A A 273	125.621	61.583	-51.388	1.00 62.46	O
ATOM	5587	N7	A A 270	123.207	56.445	-37.463	1.00 74.04	N	ATOM	5637	O2P	A A 273	126.735	60.723	-49.225	1.00 62.46	O
ATOM	5588	C5	A A 270	122.131	56.911	-38.202	1.00 74.04	C	ATOM	5638	O5*	A A 273	125.741	63.030	-49.361	1.00 90.20	O
ATOM	5589	C6	A A 270	121.517	58.173	-38.280	1.00 74.04	C	ATOM	5639	C5*	A A 273	124.760	63.987	-49.783	1.00 90.20	C
ATOM	5590	N6	A A 270	121.922	59.237	-37.580	1.00 74.04	N	ATOM	5640	C4*	A A 273	124.824	65.224	-48.927	1.00 90.20	C
ATOM	5591	N1	A A 270	120.464	58.309	-39.114	1.00 74.04	N	ATOM	5641	O4*	A A 273	124.482	64.902	-47.555	1.00 90.20	O
ATOM	5592	C2	A A 270	120.070	57.246	-39.820	1.00 74.04	C	ATOM	5642	C3*	A A 273	126.181	65.890	-48.819	1.00 90.20	C
ATOM	5593	N3	A A 270	120.569	56.008	-39.835	1.00 74.04	N	ATOM	5643	O3*	A A 273	126.450	66.725	-49.924	1.00 90.20	O
ATOM	5594	C4	A A 270	121.606	55.905	-38.990	1.00 74.04	C	ATOM	5644	C2*	A A 273	126.051	66.686	-47.530	1.00 90.20	C
ATOM	5595	P	C A 271	125.817	52.782	-42.374	1.00 71.89	P	ATOM	5645	O2*	A A 273	125.350	67.896	-47.729	1.00 90.20	O
ATOM	5596	O1P	C A 271	126.435	51.773	-43.277	1.00 80.19	O	ATOM	5646	C1*	A A 273	125.201	65.749	-46.675	1.00 90.20	C
ATOM	5597	O2P	C A 271	126.691	53.626	-41.524	1.00 80.19	O	ATOM	5647	N9	A A 273	126.005	64.927	-45.767	1.00 62.46	N
ATOM	5598	O5*	C A 271	124.903	53.747	-43.258	1.00 71.89	O	ATOM	5648	C8	A A 273	126.308	63.588	-45.849	1.00 62.46	C
ATOM	5599	C5*	C A 271	124.085	53.216	-44.310	1.00 71.89	C	ATOM	5649	N7	A A 273	127.037	63.149	-44.849	1.00 62.46	N
ATOM	5600	C4*	C A 271	123.076	54.240	-44.764	1.00 71.89	C	ATOM	5650	C5	A A 273	127.231	64.275	-44.057	1.00 62.46	C
ATOM	5601	O4*	C A 271	122.261	54.656	-43.635	1.00 71.89	O	ATOM	5651	C6	A A 273	127.904	64.475	-42.834	1.00 62.46	C
ATOM	5602	C3*	C A 271	123.632	55.539	-45.317	1.00 71.89	C	ATOM	5652	N6	A A 273	128.514	63.506	-42.149	1.00 62.46	N
ATOM	5603	O3*	C A 271	123.977	55.438	-46.684	1.00 71.89	O	ATOM	5653	N1	A A 273	127.917	65.722	-42.325	1.00 62.46	N
ATOM	5604	O2*	C A 271	122.476	56.504	-45.114	1.00 71.89	O	ATOM	5654	C2	A A 273	127.282	66.692	-42.984	1.00 62.46	C
ATOM	5605	C2*	C A 271	121.500	56.400	-46.129	1.00 71.89	O	ATOM	5655	N3	A A 273	126.601	66.629	-44.123	1.00 62.46	N
ATOM	5606	C1*	C A 271	121.903	56.020	-43.782	1.00 71.89	O	ATOM	5656	C4	A A 273	126.613	65.378	-44.617	1.00 62.46	C
ATOM	5607	N1	C A 271	122.490	56.788	-42.669	1.00 80.19	N	ATOM	5657	P	A A 274	127.954	66.842	-50.473	1.00 70.74	P
ATOM	5608	C2	C A 271	122.030	58.091	-42.434	1.00 80.19	C	ATOM	5658	O1P	A A 274	127.879	67.689	-51.693	1.00 55.57	O
ATOM	5609	O2	C A 271	121.096	58.533	-43.120	1.00 80.19	O	ATOM	5659	O2P	A A 274	128.582	65.488	-50.540	1.00 55.57	O
ATOM	5610	N3	C A 271	122.613	58.830	-41.465	1.00 80.19	N	ATOM	5660	O5*	A A 274	128.739	67.636	-49.335	1.00 70.74	O
ATOM	5611	C4	C A 271	123.602	58.311	-40.736	1.00 80.19	C	ATOM	5661	C5*	A A 274	128.252	68.888	-48.828	1.00 70.74	C
ATOM	5612	N4	C A 271	124.158	59.080	-39.800	1.00 80.19	N	ATOM	5662	C4*	A A 274	129.138	69.364	-47.707	1.00 70.74	C
ATOM	5613	C5	C A 271	124.067	56.980	-40.934	1.00 80.19	C	ATOM	5663	O4*	A A 274	129.069	68.416	-46.607	1.00 70.74	O
ATOM	5614	C6	C A 271	123.488	56.261	-41.898	1.00 80.19	C	ATOM	5664	C3*	A A 274	130.616	69.506	-48.062	1.00 70.74	C
ATOM	5615	P	C A 272	125.179	56.334	-47.259	1.00 77.75	P	ATOM	5665	O3*	A A 274	131.185	70.612	-47.362	1.00 70.74	O



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ATOM	5666	C2*	A A 274	131.220	68.243	-47.466	1.00	70.74	C	ATOM	5716	N7	G A 276	134.332	72.998	-40.569	1.00	52.85	N
ATOM	5667	O2*	A A 274	132.579	68.375	-47.124	1.00	70.74	O	ATOM	5717	C5	G A 276	135.204	72.859	-39.498	1.00	52.85	C
ATOM	5668	C1*	A A 274	130.371	68.085	-46.211	1.00	70.74	C	ATOM	5718	O6	G A 276	136.618	72.819	-39.470	1.00	52.85	C
ATOM	5669	N9	A A 274	130.392	66.747	-45.628	1.00	55.57	N	ATOM	5719	O6	G A 276	137.408	72.895	-40.415	1.00	52.85	O
ATOM	5670	C8	A A 274	130.120	65.537	-46.210	1.00	55.57	C	ATOM	5720	N1	G A 276	137.102	72.673	-38.177	1.00	52.85	N
ATOM	5671	N7	A A 274	130.354	64.511	-45.427	1.00	55.57	N	ATOM	5721	C2	G A 276	136.327	72.570	-37.053	1.00	52.85	C
ATOM	5672	C5	A A 274	130.785	65.089	-44.243	1.00	55.57	C	ATOM	5722	N2	G A 276	136.985	72.436	-35.890	1.00	52.85	N
ATOM	5673	C6	A A 274	131.214	64.541	-43.032	1.00	55.57	C	ATOM	5723	N3	G A 276	135.004	72.600	-37.064	1.00	52.85	N
ATOM	5674	N6	A A 274	131.328	63.237	-42.817	1.00	55.57	N	ATOM	5724	C4	G A 276	134.513	72.752	-38.311	1.00	52.85	C
ATOM	5675	N1	A A 274	131.544	65.389	-42.038	1.00	55.57	N	ATOM	5725	P	C A 277	131.099	77.505	-36.870	1.00	49.40	P
ATOM	5676	C2	A A 274	131.471	66.703	-42.270	1.00	55.57	C	ATOM	5726	O1P	C A 277	130.298	78.301	-35.910	1.00	45.88	O
ATOM	5677	N3	A A 274	131.109	67.342	-43.380	1.00	55.57	N	ATOM	5727	O2P	C A 277	131.282	77.998	-38.264	1.00	45.88	O
ATOM	5678	C4	A A 274	130.775	66.465	-44.340	1.00	55.57	C	ATOM	5728	O5*	C A 277	132.520	77.258	-36.199	1.00	49.40	O
ATOM	5679	P	G A 275	130.809	72.121	-47.785	1.00	61.52	P	ATOM	5729	C5*	C A 277	132.585	76.749	-34.859	1.00	49.40	C
ATOM	5680	O1P	G A 275	130.050	72.113	-49.070	1.00	63.73	O	ATOM	5730	C4*	C A 277	133.999	76.748	-34.339	1.00	49.40	C
ATOM	5681	O2P	G A 275	132.051	72.941	-47.668	1.00	63.73	O	ATOM	5731	O4*	C A 277	134.746	75.621	-34.860	1.00	49.40	O
ATOM	5682	O5*	G A 275	129.799	72.578	-46.642	1.00	61.52	O	ATOM	5732	C3*	C A 277	134.880	77.942	-34.645	1.00	49.40	C
ATOM	5683	C4*	G A 275	130.293	73.059	-45.392	1.00	61.52	C	ATOM	5733	O3*	C A 277	134.603	79.068	-33.838	1.00	49.40	C
ATOM	5684	C4*	G A 275	129.697	72.285	-44.246	1.00	61.52	C	ATOM	5734	C2*	C A 277	136.270	77.382	-34.380	1.00	49.40	C
ATOM	5685	O4*	G A 275	130.177	70.917	-44.261	1.00	61.52	O	ATOM	5735	O2*	C A 277	136.614	77.381	-33.011	1.00	49.40	O
ATOM	5686	C3*	G A 275	130.145	72.832	-42.910	1.00	61.52	C	ATOM	5736	C1*	C A 277	136.122	75.946	-34.882	1.00	49.40	C
ATOM	5687	O3*	G A 275	129.326	73.922	-42.527	1.00	61.52	O	ATOM	5737	N1	C A 277	136.598	75.885	-36.260	1.00	45.88	N
ATOM	5688	C2*	G A 275	130.054	71.625	-41.997	1.00	61.52	C	ATOM	5738	C2	C A 277	137.959	75.731	-36.476	1.00	45.88	C
ATOM	5689	O2*	G A 275	128.745	71.410	-41.518	1.00	61.52	O	ATOM	5739	O2	C A 277	138.700	75.564	-35.496	1.00	45.88	O
ATOM	5690	C1*	G A 275	130.483	70.496	-42.941	1.00	61.52	C	ATOM	5740	N3	C A 277	138.436	75.763	-37.740	1.00	45.88	N
ATOM	5691	N9	G A 275	131.925	70.255	-42.882	1.00	63.73	N	ATOM	5741	C4	C A 277	137.598	75.923	-38.761	1.00	45.88	C
ATOM	5692	C8	G A 275	132.802	70.282	-43.940	1.00	63.73	C	ATOM	5742	N4	C A 277	138.110	75.977	-39.989	1.00	45.88	N
ATOM	5693	N7	G A 275	134.045	70.108	-43.582	1.00	63.73	N	ATOM	5743	C5	C A 277	136.195	76.040	-38.569	1.00	45.88	C
ATOM	5694	C5	G A 275	133.990	69.939	-42.207	1.00	63.73	C	ATOM	5744	C6	C A 277	135.741	76.013	-37.314	1.00	45.88	C
ATOM	5695	C6	G A 275	135.030	69.730	-41.268	1.00	63.73	C	ATOM	5745	P	G A 278	134.985	80.528	-34.380	1.00	50.30	P
ATOM	5696	O6	G A 275	136.245	69.661	-41.469	1.00	63.73	O	ATOM	5746	O1P	G A 278	134.581	80.640	-35.801	1.00	55.24	O
ATOM	5697	N1	G A 275	134.537	69.601	-39.978	1.00	63.73	N	ATOM	5747	O2P	G A 278	136.571	80.526	-34.334	1.00	50.30	O
ATOM	5698	C2	G A 275	133.219	69.670	-39.629	1.00	63.73	C	ATOM	5748	O5*	G A 278	134.485	81.509	-33.387	1.00	55.24	O
ATOM	5699	N2	G A 275	132.956	69.521	-38.332	1.00	63.73	N	ATOM	5749	C5*	G A 278	137.258	80.296	-33.096	1.00	50.30	C
ATOM	5700	N3	G A 275	132.234	69.872	-40.489	1.00	63.73	N	ATOM	5750	C4*	G A 278	138.745	80.375	-33.306	1.00	50.30	C
ATOM	5701	C4	G A 275	132.690	70.001	-41.756	1.00	63.73	C	ATOM	5751	O4*	G A 278	139.185	79.256	-34.108	1.00	50.30	O
ATOM	5702	P	G A 276	130.012	75.280	-42.010	1.00	51.45	P	ATOM	5752	C3*	G A 278	139.205	81.599	-34.071	1.00	50.30	O
ATOM	5703	O1P	G A 276	128.979	76.351	-41.953	1.00	52.85	O	ATOM	5753	O3*	G A 278	139.360	82.713	-33.211	1.00	50.30	O
ATOM	5704	O2P	G A 276	131.255	75.514	-42.786	1.00	52.85	O	ATOM	5754	C2*	G A 278	140.525	81.138	-34.655	1.00	50.30	C
ATOM	5705	O5*	G A 276	130.430	74.908	-40.521	1.00	51.45	O	ATOM	5755	O2*	G A 278	141.551	81.210	-33.695	1.00	50.30	O
ATOM	5706	C5*	G A 276	129.440	74.479	-39.579	1.00	51.45	C	ATOM	5756	C1*	G A 278	140.226	79.673	-34.966	1.00	50.30	C
ATOM	5707	C4*	G A 276	130.093	74.047	-38.298	1.00	51.45	C	ATOM	5757	N9	G A 278	139.789	79.493	-36.345	1.00	55.24	N
ATOM	5708	O4*	G A 276	130.851	72.836	-38.531	1.00	51.45	O	ATOM	5758	C8	G A 278	138.500	79.371	-36.810	1.00	55.24	C
ATOM	5709	C3*	G A 276	131.094	75.026	-37.706	1.00	51.45	C	ATOM	5759	N7	G A 278	138.433	79.259	-38.109	1.00	55.24	N
ATOM	5710	O3*	G A 276	130.469	76.030	-36.915	1.00	51.45	O	ATOM	5760	C5	G A 278	139.760	79.304	-38.525	1.00	55.24	C
ATOM	5711	C2*	G A 276	131.975	74.116	-36.870	1.00	51.45	C	ATOM	5761	C6	G A 278	140.322	79.236	-39.825	1.00	55.24	C
ATOM	5712	O2*	G A 276	131.360	73.836	-35.625	1.00	51.45	O	ATOM	5762	O6	G A 278	139.744	79.117	-40.905	1.00	55.24	O
ATOM	5713	C1*	G A 276	132.032	72.855	-37.744	1.00	51.45	C	ATOM	5763	N1	G A 278	141.707	79.316	-39.792	1.00	55.24	N
ATOM	5714	N9	G A 276	133.179	72.855	-38.654	1.00	52.85	N	ATOM	5764	C2	G A 278	142.465	79.435	-38.656	1.00	55.24	C
ATOM	5715	C8	G A 276	133.146	72.986	-40.025	1.00	52.85	C	ATOM	5765	N2	G A 278	143.798	79.475	-38.830	1.00	55.24	N



Table 2: Sheet 59/520

ATOM	5766	N3	G A 278	141.956	79.505	-37.437	1.00 55.24	N	ATOM	5816	O4*	G A 281	141.964	83.224	-30.512	1.00 61.43	O
ATOM	5767	C4	G A 278	140.606	79.436	-37.447	1.00 55.24	C	ATOM	5817	C3*	G A 281	141.904	82.296	-28.334	1.00 61.43	C
ATOM	5768	P	A A 279	139.248	84.196	-33.809	1.00 51.98	P	ATOM	5818	O3*	G A 281	141.265	81.223	-27.581	1.00 61.43	O
ATOM	5769	O1P	A A 279	138.348	84.954	-32.924	1.00 55.04	O	ATOM	5819	C2*	G A 281	143.306	82.106	-28.882	1.00 61.43	C
ATOM	5770	O2P	A A 279	138.908	84.055	-35.230	1.00 55.04	O	ATOM	5820	O2*	G A 281	143.470	80.803	-29.379	1.00 61.43	O
ATOM	5771	O5*	A A 279	140.732	84.770	-33.689	1.00 51.98	O	ATOM	5821	C1*	G A 281	143.296	83.025	-30.106	1.00 61.43	C
ATOM	5772	C5*	A A 279	141.141	85.591	-32.567	1.00 51.98	C	ATOM	5822	N9	G A 281	143.945	84.328	-29.995	1.00 54.74	N
ATOM	5773	C4*	A A 279	142.429	86.320	-32.900	1.00 51.98	C	ATOM	5823	C8	G A 281	143.417	85.482	-29.473	1.00 54.74	C
ATOM	5774	O4*	A A 279	143.470	85.330	-33.029	1.00 51.98	O	ATOM	5824	N7	G A 281	144.224	86.504	-29.568	1.00 54.74	N
ATOM	5775	C3*	A A 279	142.369	87.045	-34.240	1.00 51.98	C	ATOM	5825	C5	G A 281	145.359	85.989	-30.173	1.00 54.74	C
ATOM	5776	O3*	A A 279	141.979	88.450	-34.190	1.00 51.98	O	ATOM	5826	C6	G A 281	146.573	86.620	-30.532	1.00 54.74	C
ATOM	5777	C2*	A A 279	143.786	86.921	-34.793	1.00 51.98	C	ATOM	5827	O6	G A 281	146.896	87.802	-30.399	1.00 54.74	O
ATOM	5778	O2*	A A 279	144.602	88.011	-34.453	1.00 51.98	O	ATOM	5828	N1	G A 281	147.462	85.725	-31.111	1.00 54.74	N
ATOM	5779	C1*	A A 279	144.307	85.656	-34.114	1.00 51.98	C	ATOM	5829	C2	G A 281	147.213	84.400	-31.334	1.00 54.74	C
ATOM	5780	N9	A A 279	144.439	84.473	-34.959	1.00 55.04	N	ATOM	5830	N2	G A 281	148.203	83.705	-31.908	1.00 54.74	N
ATOM	5781	C8	A A 279	143.465	83.676	-35.533	1.00 55.04	C	ATOM	5831	N3	G A 281	146.080	83.799	-31.016	1.00 54.74	N
ATOM	5782	N7	A A 279	143.945	82.649	-36.201	1.00 55.04	N	ATOM	5832	C4	G A 281	145.206	84.646	-30.437	1.00 54.74	C
ATOM	5783	C5	A A 279	145.314	82.790	-36.067	1.00 55.04	C	ATOM	5833	P	A A 282	141.968	79.770	-27.334	1.00 49.45	P
ATOM	5784	C6	A A 279	146.367	82.028	-36.534	1.00 55.04	C	ATOM	5834	O1P	A A 282	141.297	79.264	-26.126	1.00 52.68	O
ATOM	5785	N6	A A 279	146.207	80.934	-37.261	1.00 55.04	N	ATOM	5835	O2P	A A 282	143.456	79.781	-27.358	1.00 52.68	O
ATOM	5786	N1	A A 279	147.617	82.429	-36.225	1.00 55.04	N	ATOM	5836	O5*	A A 282	141.387	78.875	-28.516	1.00 49.45	O
ATOM	5787	C2	A A 279	147.771	83.546	-35.482	1.00 55.04	C	ATOM	5837	C5*	A A 282	139.957	78.681	-28.645	1.00 49.45	C
ATOM	5788	N3	A A 279	146.846	84.353	-34.980	1.00 55.04	N	ATOM	5838	C4*	A A 282	139.637	77.908	-29.901	1.00 49.45	C
ATOM	5789	C4	A A 279	145.630	83.913	-35.313	1.00 55.04	C	ATOM	5839	O4*	A A 282	140.225	78.598	-31.037	1.00 49.45	O
ATOM	5790	P	C A 280	142.075	89.307	-32.818	1.00 47.63	P	ATOM	5840	C3*	A A 282	140.210	76.503	-29.946	1.00 49.45	C
ATOM	5791	O1P	C A 280	141.752	90.707	-33.177	1.00 83.88	O	ATOM	5841	O3*	A A 282	139.288	75.577	-29.393	1.00 49.45	O
ATOM	5792	O2P	C A 280	143.346	89.009	-32.118	1.00 83.88	O	ATOM	5842	C2*	A A 282	140.400	76.274	-31.439	1.00 49.45	C
ATOM	5793	O5*	C A 280	140.879	88.795	-31.906	1.00 47.63	O	ATOM	5843	O2*	A A 282	139.194	75.931	-32.087	1.00 49.45	O
ATOM	5794	C5*	C A 280	140.895	89.041	-30.481	1.00 47.63	C	ATOM	5844	C1*	A A 282	140.830	77.662	-31.915	1.00 49.45	C
ATOM	5795	O4*	C A 280	139.607	88.578	-29.839	1.00 47.63	O	ATOM	5845	N9	A A 282	142.283	77.853	-31.834	1.00 52.68	N
ATOM	5796	C4*	C A 280	138.509	89.417	-30.291	1.00 47.63	C	ATOM	5846	C8	A A 282	142.950	78.831	-31.143	1.00 52.68	C
ATOM	5797	C3*	C A 280	139.199	87.133	-30.099	1.00 47.63	C	ATOM	5847	N7	A A 282	144.254	78.734	-31.207	1.00 52.68	N
ATOM	5798	O3*	C A 280	138.673	86.551	-28.913	1.00 47.63	O	ATOM	5848	C5	A A 282	144.462	77.620	-32.003	1.00 52.68	C
ATOM	5799	C2*	C A 280	138.091	87.270	-31.134	1.00 47.63	C	ATOM	5849	C6	A A 282	145.631	76.981	-32.441	1.00 52.68	C
ATOM	5800	O2*	C A 280	137.103	86.271	-31.020	1.00 47.63	O	ATOM	5850	N6	A A 282	146.859	77.383	-32.118	1.00 52.68	N
ATOM	5801	C1*	C A 280	137.466	88.610	-30.766	1.00 47.63	C	ATOM	5851	N1	A A 282	145.492	75.894	-33.231	1.00 52.68	N
ATOM	5802	N1	C A 280	136.858	89.259	-31.929	1.00 83.88	N	ATOM	5852	C2	A A 282	144.261	75.484	-33.546	1.00 52.68	C
ATOM	5803	C2	C A 280	135.467	89.376	-31.983	1.00 83.88	C	ATOM	5853	N3	A A 282	143.088	75.997	-33.191	1.00 52.68	N
ATOM	5804	O2	C A 280	134.790	88.995	-31.018	1.00 83.88	O	ATOM	5854	C4	A A 282	143.258	77.076	-32.410	1.00 52.68	C
ATOM	5805	N3	C A 280	134.892	89.904	-33.084	1.00 83.88	N	ATOM	5855	P	C A 283	139.751	74.574	-28.225	1.00 53.58	P
ATOM	5806	C4	C A 280	135.653	90.317	-34.099	1.00 83.88	C	ATOM	5856	O1P	C A 283	138.659	73.591	-28.095	1.00 45.07	O
ATOM	5807	N4	C A 280	135.043	90.797	-35.184	1.00 83.88	N	ATOM	5857	O2P	C A 283	140.160	75.372	-27.043	1.00 45.07	O
ATOM	5808	C5	C A 280	137.075	90.246	-34.051	1.00 83.88	C	ATOM	5858	O5*	C A 283	141.021	73.818	-28.817	1.00 53.58	O
ATOM	5809	C6	C A 280	137.630	89.718	-32.957	1.00 83.88	C	ATOM	5859	C5*	C A 283	140.877	72.845	-29.870	1.00 53.58	C
ATOM	5810	P	G A 281	139.649	85.743	-27.925	1.00 61.43	P	ATOM	5860	C4*	C A 283	142.234	72.387	-30.355	1.00 53.58	C
ATOM	5811	O1P	G A 281	138.813	84.900	-27.039	1.00 54.74	O	ATOM	5861	O4*	C A 283	142.917	73.476	-31.034	1.00 53.58	O
ATOM	5812	O2P	G A 281	140.595	86.727	-27.321	1.00 54.74	O	ATOM	5862	C3*	C A 283	143.197	71.952	-29.269	1.00 53.58	C
ATOM	5813	O5*	G A 281	140.476	84.796	-28.901	1.00 61.43	O	ATOM	5863	O3*	C A 283	142.968	70.610	-28.866	1.00 53.58	O
ATOM	5814	C5*	G A 281	139.946	83.545	-29.357	1.00 61.43	C	ATOM	5864	C2*	C A 283	144.551	72.163	-29.933	1.00 53.58	C
ATOM	5815	C4*	G A 281	141.072	82.584	-29.580	1.00 61.43	C	ATOM	5865	O2*	C A 283	144.884	71.137	-30.845	1.00 53.58	O



ATOM	5866	C1*	C A 283	144.303	73.436	-30.738	1.00	53.58	C	ATOM	5916	N1	G A 285	148.913	77.206	-20.338	1.00	48.55	N
ATOM	5867	N1	C A 283	144.655	74.646	-29.968	1.00	45.07	N	ATOM	5917	C2	G A 285	150.233	76.834	-20.357	1.00	48.55	C
ATOM	5868	C2	C A 283	146.005	74.949	-29.746	1.00	45.07	C	ATOM	5918	N2	G A 285	151.078	77.618	-19.672	1.00	48.55	N
ATOM	5869	O2	C A 283	146.876	74.216	-30.231	1.00	45.07	O	ATOM	5919	N3	G A 285	150.692	75.772	-20.997	1.00	48.55	N
ATOM	5870	N3	C A 283	146.326	76.036	-29.012	1.00	45.07	N	ATOM	5920	C4	G A 285	149.708	75.099	-21.628	1.00	48.55	C
ATOM	5871	C4	C A 283	145.367	76.814	-28.518	1.00	45.07	C	ATOM	5921	P	G A 286	151.117	69.911	-19.175	1.00	46.33	P
ATOM	5872	N4	C A 283	145.728	77.873	-27.804	1.00	45.07	N	ATOM	5922	O1P	G A 286	152.101	68.979	-18.552	1.00	41.61	O
ATOM	5873	C5	C A 283	143.990	76.542	-28.736	1.00	45.07	C	ATOM	5923	O2P	G A 286	149.672	69.543	-19.216	1.00	41.61	O
ATOM	5874	C6	C A 283	143.680	75.460	-29.461	1.00	45.07	C	ATOM	5924	O5*	G A 286	151.274	71.313	-18.448	1.00	46.33	O
ATOM	5875	P	G A 284	143.285	70.171	-27.347	1.00	50.67	P	ATOM	5925	C5*	G A 286	152.570	71.804	-18.160	1.00	46.33	C
ATOM	5876	O1P	G A 284	143.135	68.696	-27.320	1.00	52.87	O	ATOM	5926	C4*	G A 286	152.487	73.084	-17.388	1.00	46.33	C
ATOM	5877	O2P	G A 284	142.520	71.007	-26.385	1.00	52.87	O	ATOM	5927	O4*	G A 286	151.832	74.105	-18.185	1.00	46.33	O
ATOM	5878	O5*	G A 284	144.822	70.533	-27.144	1.00	50.67	O	ATOM	5928	C3*	G A 286	151.681	73.054	-16.112	1.00	46.33	C
ATOM	5879	C5*	G A 284	145.835	69.832	-27.869	1.00	50.67	C	ATOM	5929	O3*	G A 286	152.395	72.474	-15.038	1.00	46.33	O
ATOM	5880	C4*	G A 284	147.197	70.404	-27.562	1.00	50.67	C	ATOM	5930	C2*	G A 286	151.384	74.530	-15.897	1.00	46.33	C
ATOM	5881	O4*	G A 284	147.301	71.757	-28.069	1.00	50.67	O	ATOM	5931	O2*	G A 286	152.490	75.200	-15.345	1.00	46.33	O
ATOM	5882	C3*	G A 284	147.586	70.527	-26.101	1.00	50.67	C	ATOM	5932	C1*	G A 286	151.177	75.018	-17.332	1.00	46.33	C
ATOM	5883	O3*	G A 284	148.054	69.307	-25.564	1.00	50.67	O	ATOM	5933	N9	G A 286	149.765	75.065	-17.691	1.00	41.61	N
ATOM	5884	C2*	G A 284	148.691	71.567	-26.153	1.00	50.67	C	ATOM	5934	C8	G A 286	149.056	74.175	-18.459	1.00	41.61	C
ATOM	5885	O2*	G A 284	149.923	71.007	-26.551	1.00	50.67	O	ATOM	5935	N7	G A 286	147.791	74.484	-18.565	1.00	41.61	N
ATOM	5886	C1*	G A 284	148.190	72.499	-27.255	1.00	50.67	C	ATOM	5936	C5	G A 286	147.665	75.654	-17.835	1.00	41.61	C
ATOM	5887	N9	G A 284	147.484	73.645	-26.687	1.00	52.87	N	ATOM	5937	C6	G A 286	146.541	76.455	-17.595	1.00	41.61	C
ATOM	5888	C8	G A 284	146.132	73.891	-26.685	1.00	52.87	C	ATOM	5938	O6	G A 286	145.386	76.295	-17.999	1.00	41.61	O
ATOM	5889	N7	G A 284	145.811	74.973	-26.028	1.00	52.87	N	ATOM	5939	N1	G A 286	146.855	77.549	-16.798	1.00	41.61	N
ATOM	5890	C5	G A 284	147.024	75.474	-25.581	1.00	52.87	C	ATOM	5940	C2	G A 286	148.103	77.838	-16.308	1.00	41.61	C
ATOM	5891	C6	G A 284	147.311	76.615	-24.798	1.00	52.87	C	ATOM	5941	N2	G A 286	148.218	78.953	-15.585	1.00	41.61	N
ATOM	5892	O6	G A 284	146.523	77.417	-24.299	1.00	52.87	O	ATOM	5942	N3	G A 286	149.162	77.094	-16.522	1.00	41.61	N
ATOM	5893	N1	G A 284	148.679	76.771	-24.599	1.00	52.87	N	ATOM	5943	C4	G A 286	148.874	76.025	-17.291	1.00	41.61	C
ATOM	5894	C2	G A 284	149.643	75.924	-25.077	1.00	52.87	C	ATOM	5944	P	U A 287	151.584	71.695	-13.886	1.00	50.60	P
ATOM	5895	N2	G A 284	150.907	76.249	-24.801	1.00	52.87	N	ATOM	5945	O1P	U A 287	152.576	71.158	-12.920	1.00	56.58	O
ATOM	5896	N3	G A 284	149.387	74.841	-25.783	1.00	52.87	N	ATOM	5946	O2P	U A 287	150.616	70.769	-13.167	1.00	56.58	O
ATOM	5897	C4	G A 284	148.066	74.681	-26.000	1.00	52.87	C	ATOM	5947	O5*	U A 287	150.771	72.860	-13.167	1.00	50.60	O
ATOM	5898	P	G A 285	147.893	69.029	-23.993	1.00	58.92	P	ATOM	5948	C5*	U A 287	151.472	73.920	-12.519	1.00	50.60	C
ATOM	5899	O1P	G A 285	148.273	67.613	-23.736	1.00	48.55	O	ATOM	5949	C4*	U A 287	150.524	75.002	-12.094	1.00	50.60	C
ATOM	5900	O2P	G A 285	146.553	69.500	-23.599	1.00	48.55	O	ATOM	5950	O4*	U A 287	149.979	75.674	-13.255	1.00	50.60	O
ATOM	5901	O5*	G A 285	148.968	69.996	-23.326	1.00	58.92	O	ATOM	5951	C3*	U A 287	149.296	74.574	-11.318	1.00	50.60	C
ATOM	5902	C5*	G A 285	150.359	69.851	-23.639	1.00	58.92	C	ATOM	5952	O3*	U A 287	149.558	74.331	-9.954	1.00	50.60	O
ATOM	5903	C4*	G A 285	151.184	70.916	-22.957	1.00	58.92	C	ATOM	5953	C2*	U A 287	148.364	75.758	-11.520	1.00	50.60	C
ATOM	5904	O4*	G A 285	150.925	72.218	-23.542	1.00	58.92	O	ATOM	5954	O2*	U A 287	148.672	76.855	-10.681	1.00	50.60	O
ATOM	5905	C3*	G A 285	150.955	71.126	-21.471	1.00	58.92	C	ATOM	5955	C1*	U A 287	148.671	76.135	-12.964	1.00	50.60	C
ATOM	5906	O3*	G A 285	151.635	70.187	-20.671	1.00	58.92	O	ATOM	5956	N1	U A 287	147.721	75.459	-13.853	1.00	56.58	N
ATOM	5907	C2*	G A 285	151.514	72.522	-21.261	1.00	58.92	C	ATOM	5957	C2	U A 287	146.461	75.988	-13.943	1.00	56.58	C
ATOM	5908	O2*	G A 285	152.917	72.504	-21.155	1.00	58.92	O	ATOM	5958	O2	U A 287	146.127	76.996	-13.348	1.00	56.58	O
ATOM	5909	C1*	G A 285	151.112	73.222	-22.558	1.00	58.92	C	ATOM	5959	N3	U A 287	145.603	75.296	-14.752	1.00	56.58	N
ATOM	5910	N9	G A 285	149.861	73.948	-22.362	1.00	48.55	N	ATOM	5960	C4	U A 287	145.877	74.162	-15.465	1.00	56.58	C
ATOM	5911	C8	G A 285	148.617	73.617	-22.825	1.00	48.55	C	ATOM	5961	O4	U A 287	144.998	73.656	-16.154	1.00	56.58	O
ATOM	5912	N7	G A 285	147.688	74.442	-22.427	1.00	48.55	N	ATOM	5962	C5	U A 287	147.207	73.685	-15.332	1.00	56.58	C
ATOM	5913	C5	G A 285	148.366	75.385	-21.669	1.00	48.55	C	ATOM	5963	C6	U A 287	148.064	74.333	-14.551	1.00	56.58	C
ATOM	5914	C6	G A 285	147.887	76.531	-20.975	1.00	48.55	C	ATOM	5964	P	A A 288	148.560	73.390	-9.127	1.00	51.57	P
ATOM	5915	O6	G A 285	146.736	76.953	-20.885	1.00	48.55	O	ATOM	5965	O1P	A A 288	149.044	73.413	-7.719	1.00	47.48	O



Table 2: Sheet 61/520

ATOM	5966	O2P	A A 288	148.340	72.089	-9.817	1.00	47.48	O	ATOM	6016	C3*	C A 290	135.913	80.189	-8.167	1.00	38.70	C
ATOM	5967	O5*	A A 288	147.188	74.179	-9.190	1.00	51.57	O	ATOM	6017	O3*	C A 290	136.174	81.525	-8.593	1.00	38.70	O
ATOM	5968	C5*	A A 288	147.083	75.455	-8.576	1.00	51.57	C	ATOM	6018	O2*	C A 290	134.422	79.900	-8.122	1.00	38.70	C
ATOM	5969	C4*	A A 288	145.661	75.916	-8.600	1.00	51.57	C	ATOM	6019	C2*	C A 290	133.742	80.404	-9.255	1.00	38.70	O
ATOM	5970	O4*	A A 288	145.271	76.240	-9.954	1.00	51.57	O	ATOM	6020	C1*	C A 290	134.410	78.374	-8.170	1.00	38.70	C
ATOM	5971	C3*	A A 288	144.637	74.901	-8.133	1.00	51.57	C	ATOM	6021	N1	C A 290	134.483	77.835	-6.794	1.00	39.82	N
ATOM	5972	O3*	A A 288	144.583	74.875	-6.708	1.00	51.57	O	ATOM	6022	C2	C A 290	133.306	77.757	-6.034	1.00	39.82	C
ATOM	5973	C2*	A A 288	143.370	75.418	-8.799	1.00	51.57	C	ATOM	6023	O2	C A 290	132.213	77.972	-6.582	1.00	39.82	O
ATOM	5974	O2*	A A 288	142.847	76.518	-8.086	1.00	51.57	O	ATOM	6024	N3	C A 290	133.387	77.432	-4.726	1.00	39.82	N
ATOM	5975	C1*	A A 288	143.910	75.920	-10.142	1.00	51.57	C	ATOM	6025	C4	C A 290	134.571	77.152	-4.183	1.00	39.82	C
ATOM	5976	N9	A A 288	143.840	74.910	-11.194	1.00	47.48	N	ATOM	6026	N4	C A 290	134.612	76.928	-2.877	1.00	39.82	N
ATOM	5977	C8	A A 288	144.833	73.044	-11.578	1.00	47.48	C	ATOM	6027	C5	C A 290	135.768	77.117	-4.956	1.00	39.82	C
ATOM	5978	N7	A A 288	144.468	73.203	-12.517	1.00	47.48	N	ATOM	6028	C6	C A 290	135.681	77.467	-6.243	1.00	39.82	C
ATOM	5979	C5	A A 288	143.151	73.546	-12.774	1.00	47.48	C	ATOM	6029	P	C A 291	136.338	82.692	-7.495	1.00	40.60	P
ATOM	5980	C6	A A 288	142.199	73.018	-13.651	1.00	47.48	C	ATOM	6030	O1P	C A 291	136.557	83.969	-8.201	1.00	48.45	O
ATOM	5981	N6	A A 288	142.439	71.986	-14.462	1.00	47.48	N	ATOM	6031	O2P	C A 291	137.335	82.233	-6.487	1.00	48.45	O
ATOM	5982	N1	A A 288	140.975	73.588	-13.667	1.00	47.48	N	ATOM	6032	O5*	C A 291	134.892	82.779	-6.830	1.00	40.60	O
ATOM	5983	C2	A A 288	140.741	74.619	-12.848	1.00	47.48	C	ATOM	6033	C5*	C A 291	133.766	83.194	-7.612	1.00	40.60	C
ATOM	5984	N3	A A 288	141.554	75.203	-11.974	1.00	47.48	N	ATOM	6034	C4*	C A 291	132.502	83.176	-6.791	1.00	40.60	C
ATOM	5985	C4	A A 288	142.757	74.609	-11.981	1.00	47.48	C	ATOM	6035	O4*	C A 291	132.265	81.835	-6.299	1.00	40.60	O
ATOM	5986	P	G A 289	143.654	73.802	-5.961	1.00	47.23	P	ATOM	6036	C3*	C A 291	132.482	84.033	-5.543	1.00	40.60	C
ATOM	5987	O1P	G A 289	144.059	73.769	-4.539	1.00	44.13	O	ATOM	6037	O3*	C A 291	132.181	85.385	-5.807	1.00	40.60	O
ATOM	5988	O2P	G A 289	143.622	72.538	-6.745	1.00	44.13	O	ATOM	6038	C2*	C A 291	131.395	83.375	-4.712	1.00	40.60	C
ATOM	5989	O5*	G A 289	142.227	74.496	-6.046	1.00	47.23	O	ATOM	6039	O2*	C A 291	130.100	83.768	-5.102	1.00	40.60	O
ATOM	5990	C5*	G A 289	141.031	73.747	-5.874	1.00	47.23	C	ATOM	6040	C1*	C A 291	131.612	81.898	-5.041	1.00	40.60	C
ATOM	5991	C4*	G A 289	140.086	74.014	-7.015	1.00	47.23	C	ATOM	6041	N1	C A 291	132.479	81.302	-4.014	1.00	48.45	N
ATOM	5992	O4*	G A 289	139.107	72.964	-6.992	1.00	47.23	O	ATOM	6042	C2	C A 291	131.912	80.967	-2.785	1.00	48.45	C
ATOM	5993	C3*	G A 289	139.291	75.309	-6.986	1.00	47.23	C	ATOM	6043	O2	C A 291	130.686	81.075	-2.645	1.00	48.45	O
ATOM	5994	O3*	G A 289	139.936	76.362	-7.678	1.00	47.23	O	ATOM	6044	N3	C A 291	132.711	80.532	-1.784	1.00	48.45	N
ATOM	5995	C2*	G A 289	138.018	74.920	-7.707	1.00	47.23	C	ATOM	6045	C4	C A 291	134.023	80.405	-1.987	1.00	48.45	C
ATOM	5996	O2*	G A 289	138.209	74.860	-9.103	1.00	47.23	O	ATOM	6046	N4	C A 291	134.777	80.021	-0.961	1.00	48.45	N
ATOM	5997	C1*	G A 289	137.826	73.499	-7.199	1.00	47.23	C	ATOM	6047	C5	C A 291	134.619	80.681	-3.250	1.00	48.45	C
ATOM	5998	N9	G A 289	137.139	73.442	-5.917	1.00	44.13	N	ATOM	6048	C6	C A 291	133.818	81.122	-4.227	1.00	48.45	C
ATOM	5999	C8	G A 289	137.678	73.101	-4.701	1.00	44.13	C	ATOM	6049	P	G A 292	132.660	86.507	-4.770	1.00	42.00	P
ATOM	6000	N7	G A 289	136.806	73.119	-3.736	1.00	44.13	N	ATOM	6050	O1P	G A 292	132.470	87.808	-5.439	1.00	44.00	O
ATOM	6001	C5	G A 289	135.624	73.499	-4.356	1.00	44.13	C	ATOM	6051	O2P	G A 292	133.986	86.156	-4.215	1.00	44.00	O
ATOM	6002	C6	G A 289	134.338	73.687	-3.826	1.00	44.13	C	ATOM	6052	O5*	G A 292	131.612	86.377	-3.584	1.00	42.00	O
ATOM	6003	O6	G A 289	133.963	73.548	-2.658	1.00	44.13	O	ATOM	6053	C5*	G A 292	130.211	86.587	-3.820	1.00	42.00	C
ATOM	6004	N1	G A 289	133.435	74.077	-4.807	1.00	44.13	N	ATOM	6054	C4*	G A 292	129.434	86.380	-2.548	1.00	42.00	C
ATOM	6005	C2	G A 289	133.741	74.260	-6.128	1.00	44.13	C	ATOM	6055	O4*	G A 292	129.555	85.000	-2.133	1.00	42.00	O
ATOM	6006	N2	G A 289	132.748	74.640	-6.930	1.00	44.13	N	ATOM	6056	O3*	G A 292	129.914	87.186	-1.357	1.00	42.00	C
ATOM	6007	N3	G A 289	134.935	74.083	-6.631	1.00	44.13	N	ATOM	6057	C3*	G A 292	129.335	88.481	-1.340	1.00	42.00	O
ATOM	6008	C4	G A 289	135.821	73.707	-5.697	1.00	44.13	C	ATOM	6058	C2*	G A 292	129.427	86.357	-0.180	1.00	42.00	C
ATOM	6009	P	C A 290	139.644	77.887	-7.252	1.00	38.70	P	ATOM	6059	O2*	G A 292	128.079	86.644	0.140	1.00	42.00	O
ATOM	6010	O1P	C A 290	140.558	78.730	-8.052	1.00	39.82	O	ATOM	6060	C1*	G A 292	129.565	84.930	-0.720	1.00	42.00	C
ATOM	6011	O2P	C A 290	139.695	77.961	-5.768	1.00	39.82	O	ATOM	6061	N9	G A 292	130.831	84.339	-0.304	1.00	44.00	N
ATOM	6012	O5*	C A 290	138.143	78.167	-7.723	1.00	38.70	O	ATOM	6062	C8	G A 292	131.999	84.303	-1.021	1.00	44.00	C
ATOM	6013	C5*	C A 290	137.861	78.697	-9.032	1.00	38.70	C	ATOM	6063	N7	G A 292	132.991	83.787	-0.353	1.00	44.00	N
ATOM	6014	C4*	C A 290	136.412	79.125	-9.138	1.00	38.70	C	ATOM	6064	C5	G A 292	132.441	83.445	0.870	1.00	44.00	C
ATOM	6015	O4*	C A 290	135.571	77.976	-8.878	1.00	38.70	O	ATOM	6065	C6	G A 292	133.045	82.875	2.009	1.00	44.00	C



Table 2: Sheet 62/520

ATOM	6066	O6	G A 292	134.245	82.568	2.175	1.00	44.00	O	ATOM	6116	O1P	C A 295	139.646	91.368	8.003	1.00	43.40	O
ATOM	6067	N1	G A 292	132.116	82.682	3.034	1.00	44.00	N	ATOM	6117	O2P	C A 295	138.605	92.121	5.776	1.00	43.40	O
ATOM	6068	C2	G A 292	130.785	83.022	2.967	1.00	44.00	C	ATOM	6118	O5*	C A 295	140.952	91.335	5.869	1.00	44.93	O
ATOM	6069	N2	G A 292	130.047	82.771	4.049	1.00	44.00	N	ATOM	6119	C5*	C A 295	142.065	90.631	6.425	1.00	44.93	C
ATOM	6070	N3	G A 292	130.220	83.573	1.912	1.00	44.00	N	ATOM	6120	C4*	C A 295	143.284	90.851	5.582	1.00	44.93	C
ATOM	6071	C4	G A 292	131.101	83.755	0.908	1.00	44.00	C	ATOM	6121	O4*	C A 295	143.092	90.225	4.291	1.00	44.93	O
ATOM	6072	P	G A 293	130.148	89.703	-0.693	1.00	45.24	P	ATOM	6122	C3*	C A 295	143.594	92.294	5.236	1.00	44.93	C
ATOM	6073	O1P	G A 293	129.215	90.847	-0.568	1.00	50.46	O	ATOM	6123	O3*	C A 295	144.266	92.995	6.258	1.00	44.93	O
ATOM	6074	O2P	G A 293	131.413	89.858	-1.453	1.00	50.46	O	ATOM	6124	C2*	C A 295	144.441	92.155	3.989	1.00	44.93	C
ATOM	6075	O5*	G A 293	130.514	89.205	0.764	1.00	45.24	O	ATOM	6125	O2*	C A 295	145.766	91.810	4.321	1.00	44.93	O
ATOM	6076	C5*	G A 293	131.752	89.550	1.354	1.00	45.24	C	ATOM	6126	C1*	C A 295	143.762	90.979	3.298	1.00	44.93	C
ATOM	6077	C4*	G A 293	132.375	88.330	1.959	1.00	45.24	C	ATOM	6127	N1	C A 295	142.779	91.453	2.321	1.00	43.40	N
ATOM	6078	O3*	G A 293	132.608	87.343	0.923	1.00	45.24	O	ATOM	6128	C2	C A 295	143.240	91.899	1.088	1.00	43.40	C
ATOM	6079	C4*	G A 293	133.738	88.602	2.548	1.00	45.24	C	ATOM	6129	O2	C A 295	144.462	91.876	0.867	1.00	43.40	O
ATOM	6080	O3*	G A 293	133.622	89.103	3.852	1.00	45.24	O	ATOM	6130	N3	C A 295	142.355	92.352	0.173	1.00	43.40	N
ATOM	6081	C2*	G A 293	134.437	87.259	2.444	1.00	45.24	C	ATOM	6131	C4	C A 295	141.060	92.371	0.460	1.00	43.40	C
ATOM	6082	O2*	G A 293	134.077	86.364	3.479	1.00	45.24	O	ATOM	6132	N4	C A 295	140.226	92.824	-0.467	1.00	43.40	N
ATOM	6083	C1*	G A 293	133.883	86.742	1.114	1.00	45.24	C	ATOM	6133	C5	C A 295	140.561	91.924	1.712	1.00	43.40	C
ATOM	6084	N9	G A 293	134.729	87.102	-0.025	1.00	50.46	N	ATOM	6134	C6	C A 295	141.445	91.474	2.605	1.00	43.40	C
ATOM	6085	C8	G A 293	134.354	87.823	-1.127	1.00	50.46	C	ATOM	6135	P	U A 296	143.943	94.555	6.465	1.00	40.20	P
ATOM	6086	N7	G A 293	135.310	87.959	-1.998	1.00	50.46	N	ATOM	6136	O1P	U A 296	144.466	94.943	7.803	1.00	37.04	O
ATOM	6087	C5	G A 293	136.384	87.291	-1.439	1.00	50.46	C	ATOM	6137	O2P	U A 296	142.507	94.766	6.143	1.00	37.04	O
ATOM	6088	C6	G A 293	137.692	87.086	-1.938	1.00	50.46	C	ATOM	6138	O5*	U A 296	144.772	95.272	5.309	1.00	40.20	O
ATOM	6089	O6	G A 293	138.174	87.453	-3.021	1.00	50.46	O	ATOM	6139	C5*	U A 296	146.163	94.981	5.096	1.00	40.20	C
ATOM	6090	N1	G A 293	138.473	86.370	-1.043	1.00	50.46	N	ATOM	6140	C4*	U A 296	146.576	95.429	3.714	1.00	40.20	C
ATOM	6091	C2	G A 293	138.052	85.906	0.173	1.00	50.46	C	ATOM	6141	O4*	U A 296	145.868	94.651	2.716	1.00	40.20	O
ATOM	6092	N2	G A 293	138.976	85.252	0.913	1.00	50.46	N	ATOM	6142	C3*	U A 296	146.264	96.871	3.351	1.00	40.20	C
ATOM	6093	N3	G A 293	136.823	86.074	0.640	1.00	50.46	N	ATOM	6143	O3*	U A 296	147.263	97.759	3.817	1.00	40.20	O
ATOM	6094	C4	G A 293	136.050	86.771	-0.214	1.00	50.46	C	ATOM	6144	C2*	U A 296	146.208	96.837	1.828	1.00	40.20	C
ATOM	6095	P	U A 294	134.450	90.406	4.240	1.00	46.05	P	ATOM	6145	O2*	U A 296	147.459	96.975	1.189	1.00	40.20	O
ATOM	6096	O1P	U A 294	134.110	90.849	5.604	1.00	47.07	O	ATOM	6146	C1*	U A 296	145.655	95.438	1.564	1.00	40.20	C
ATOM	6097	O2P	U A 294	134.281	91.345	3.107	1.00	47.07	O	ATOM	6147	N1	U A 296	144.219	95.482	1.271	1.00	37.04	N
ATOM	6098	O5*	U A 294	135.937	89.854	4.274	1.00	46.05	O	ATOM	6148	C2	U A 296	143.857	95.837	-0.010	1.00	37.04	C
ATOM	6099	C5*	U A 294	136.253	88.754	5.118	1.00	46.05	C	ATOM	6149	O2	U A 296	144.674	96.103	-0.880	1.00	37.04	O
ATOM	6100	C4*	U A 294	137.662	88.295	4.885	1.00	46.05	C	ATOM	6150	N3	U A 296	142.508	95.882	-0.238	1.00	37.04	N
ATOM	6101	O4*	U A 294	137.781	87.665	3.591	1.00	46.05	O	ATOM	6151	C4	U A 296	141.509	95.617	0.660	1.00	37.04	C
ATOM	6102	C3*	U A 294	138.709	89.383	4.879	1.00	46.05	C	ATOM	6152	O4	U A 296	140.341	95.701	0.294	1.00	37.04	O
ATOM	6103	O3*	U A 294	139.077	89.720	6.201	1.00	46.05	O	ATOM	6153	C5	U A 296	141.959	95.254	1.964	1.00	37.04	C
ATOM	6104	C2*	U A 294	139.839	88.754	4.074	1.00	46.05	C	ATOM	6154	C6	U A 296	143.268	95.198	2.220	1.00	37.04	C
ATOM	6105	O2*	U A 294	140.638	87.869	4.826	1.00	46.05	O	ATOM	6155	P	G A 297	146.870	99.271	4.173	1.00	36.70	P
ATOM	6106	C1*	U A 294	139.066	87.927	3.049	1.00	46.05	C	ATOM	6156	O1P	G A 297	148.099	99.964	4.669	1.00	44.45	O
ATOM	6107	N1	U A 294	138.887	88.628	1.772	1.00	47.07	N	ATOM	6157	O2P	G A 297	145.661	99.226	5.026	1.00	44.45	O
ATOM	6108	C2	U A 294	139.951	88.693	0.905	1.00	47.07	C	ATOM	6158	O5*	G A 297	146.401	99.913	2.794	1.00	36.70	O
ATOM	6109	O2	U A 294	141.038	88.202	1.142	1.00	47.07	O	ATOM	6159	C5*	G A 297	147.353	100.317	1.809	1.00	36.70	C
ATOM	6110	N3	U A 294	139.698	89.362	-0.254	1.00	47.07	N	ATOM	6160	C4*	G A 297	146.649	100.745	0.550	1.00	36.70	C
ATOM	6111	C4	U A 294	138.518	89.961	-0.621	1.00	47.07	C	ATOM	6161	O4*	G A 297	145.897	99.630	0.016	1.00	36.70	O
ATOM	6112	O4	U A 294	138.433	90.524	-1.710	1.00	47.07	O	ATOM	6162	C3*	G A 297	145.600	101.838	0.664	1.00	36.70	C
ATOM	6113	C5	U A 294	137.475	89.845	0.328	1.00	47.07	C	ATOM	6163	O3*	G A 297	146.178	103.126	0.708	1.00	36.70	O
ATOM	6114	C6	U A 294	137.689	89.200	1.460	1.00	47.07	C	ATOM	6164	C2*	G A 297	144.794	101.637	-0.608	1.00	36.70	C
ATOM	6115	P	C A 295	139.511	91.221	6.529	1.00	44.93	P	ATOM	6165	O2*	G A 297	145.446	102.202	-1.727	1.00	36.70	O



Table 2: Sheet 63/520

ATOM	6166	C1*	G A 297	144.799	100.115	-0.736	1.00	36.70	C	ATOM	6216	C6	G A 299	145.299	104.244	-5.186	1.00	49.96	C
ATOM	6167	N8	G A 297	143.576	99.566	-0.178	1.00	44.45	N	ATOM	6217	O6	G A 299	146.402	103.835	-4.806	1.00	49.96	O
ATOM	6168	C8	G A 297	143.400	99.015	1.062	1.00	44.45	C	ATOM	6218	N1	G A 299	145.194	104.907	-6.399	1.00	49.96	N
ATOM	6169	N7	G A 297	142.156	98.726	1.315	1.00	44.45	N	ATOM	6219	C2	G A 299	144.043	105.419	-6.919	1.00	49.96	C
ATOM	6170	C5	G A 297	141.480	99.092	0.162	1.00	44.45	C	ATOM	6220	N2	G A 299	144.149	106.010	-8.109	1.00	49.96	N
ATOM	6171	C6	G A 297	140.110	99.052	-0.141	1.00	44.45	C	ATOM	6221	N3	G A 299	142.872	105.355	-6.322	1.00	49.96	N
ATOM	6172	O6	G A 297	139.171	98.694	0.582	1.00	44.45	O	ATOM	6222	C4	G A 299	142.943	104.708	-5.141	1.00	49.96	C
ATOM	6173	N1	G A 297	139.858	99.498	-1.430	1.00	44.45	N	ATOM	6223	P	G A 300	137.265	101.543	-5.435	1.00	46.96	P
ATOM	6174	C2	G A 297	140.804	99.928	-2.307	1.00	44.45	C	ATOM	6224	O1P	A A 300	135.839	101.496	-5.839	1.00	44.05	O
ATOM	6175	N2	G A 297	140.366	100.291	-3.513	1.00	44.45	N	ATOM	6225	O2P	A A 300	137.796	100.496	-4.510	1.00	44.05	O
ATOM	6176	N3	G A 297	142.086	99.993	-2.028	1.00	44.45	N	ATOM	6226	O5*	A A 300	138.133	101.552	-6.774	1.00	46.96	O
ATOM	6177	C4	G A 297	142.350	99.567	-0.781	1.00	44.45	C	ATOM	6227	C5*	A A 300	137.627	102.125	-8.004	1.00	46.96	C
ATOM	6178	P	A A 298	145.693	104.170	1.819	1.00	39.08	P	ATOM	6228	C4*	A A 300	138.693	102.085	-9.084	1.00	46.96	C
ATOM	6179	O1P	A A 298	146.701	105.250	1.852	1.00	54.42	O	ATOM	6229	O4*	A A 300	139.811	102.914	-8.666	1.00	46.96	O
ATOM	6180	O2P	A A 298	145.421	103.389	3.055	1.00	54.42	O	ATOM	6230	C3*	A A 300	139.329	100.733	-9.381	1.00	46.96	C
ATOM	6181	O5*	A A 298	144.338	104.743	1.203	1.00	39.08	O	ATOM	6231	O3*	A A 300	138.645	99.956	-10.332	1.00	46.96	O
ATOM	6182	C5*	A A 298	143.253	105.199	2.044	1.00	39.08	C	ATOM	6232	C2*	A A 300	140.672	101.131	-9.946	1.00	46.96	C
ATOM	6183	C4*	A A 298	142.276	106.010	1.231	1.00	39.08	C	ATOM	6233	O2*	A A 300	140.515	101.558	-11.278	1.00	46.96	O
ATOM	6184	O4*	A A 298	142.980	107.146	0.681	1.00	39.08	O	ATOM	6234	C1*	A A 300	141.031	102.310	-9.053	1.00	46.96	C
ATOM	6185	C3*	A A 298	141.711	105.267	0.035	1.00	39.08	C	ATOM	6235	N9	A A 300	141.082	101.389	-6.692	1.00	44.05	N
ATOM	6186	C3*	A A 298	140.495	104.633	0.385	1.00	39.08	O	ATOM	6236	C8	A A 300	141.917	101.051	-5.748	1.00	44.05	C
ATOM	6187	O2*	A A 298	141.460	106.368	-0.980	1.00	39.08	O	ATOM	6237	N7	A A 300	143.160	101.285	-6.308	1.00	44.05	N
ATOM	6188	O2*	A A 298	140.207	106.984	-0.782	1.00	39.08	O	ATOM	6238	C5	A A 300	144.459	101.158	-5.797	1.00	44.05	C
ATOM	6189	C1*	A A 298	142.588	107.352	-0.664	1.00	39.08	C	ATOM	6239	C6	A A 300	144.735	100.752	-4.556	1.00	44.05	N
ATOM	6190	N9	A A 298	143.771	107.167	-1.505	1.00	54.42	N	ATOM	6240	N6	A A 300	145.201	101.914	-7.850	1.00	44.05	N
ATOM	6191	C8	A A 298	144.931	106.537	-1.147	1.00	54.42	C	ATOM	6241	N1	A A 300	144.023	102.087	-8.438	1.00	44.05	N
ATOM	6192	N7	A A 298	145.841	106.530	-2.086	1.00	54.42	N	ATOM	6242	C2	A A 300	143.032	101.754	-7.601	1.00	44.05	C
ATOM	6193	C5	A A 298	145.241	107.203	-3.137	1.00	54.42	C	ATOM	6243	N3	A A 300	138.609	98.352	-10.163	1.00	42.82	P
ATOM	6194	C6	A A 298	145.700	107.544	-4.414	1.00	54.42	C	ATOM	6244	C4	A A 300	138.143	97.812	-11.482	1.00	46.59	O
ATOM	6195	N6	A A 298	146.924	107.254	-4.854	1.00	54.42	N	ATOM	6245	P	G A 301	137.872	98.012	-8.915	1.00	46.59	O
ATOM	6196	N1	A A 298	144.856	108.209	-5.228	1.00	54.42	N	ATOM	6246	O1P	G A 301	140.113	97.896	-9.899	1.00	42.82	O
ATOM	6197	C2	A A 298	143.638	108.511	-4.771	1.00	54.42	C	ATOM	6247	O2P	G A 301	141.076	97.887	-10.951	1.00	42.82	C
ATOM	6198	N3	A A 298	143.094	108.252	-3.583	1.00	54.42	N	ATOM	6248	O5*	G A 301	142.464	97.768	-10.379	1.00	42.82	C
ATOM	6199	C4	A A 298	143.960	107.589	-2.801	1.00	54.42	C	ATOM	6249	C5*	G A 301	142.575	98.622	-9.208	1.00	42.82	C
ATOM	6200	P	G A 299	140.276	103.079	0.045	1.00	35.32	P	ATOM	6250	C4*	G A 301	142.887	96.403	-9.875	1.00	42.82	C
ATOM	6201	O1P	G A 299	139.135	102.601	0.892	1.00	49.96	O	ATOM	6251	O4*	G A 301	143.380	95.579	-10.921	1.00	42.82	O
ATOM	6202	O2P	G A 299	141.608	102.427	0.168	1.00	49.96	O	ATOM	6252	C3*	G A 301	144.007	96.758	-8.912	1.00	42.82	C
ATOM	6203	O5*	G A 299	139.804	103.081	-1.469	1.00	35.32	O	ATOM	6253	O3*	G A 301	145.209	97.013	-9.609	1.00	42.82	O
ATOM	6204	C5*	G A 299	138.586	103.711	-1.822	1.00	35.32	C	ATOM	6254	C2*	G A 301	143.485	98.054	-8.287	1.00	42.82	C
ATOM	6205	C4*	G A 299	138.707	104.326	-3.181	1.00	35.32	C	ATOM	6255	O2*	G A 301	142.797	97.798	-7.024	1.00	46.59	N
ATOM	6206	O4*	G A 299	139.925	105.092	-3.200	1.00	35.32	C	ATOM	6256	C1*	G A 301	141.446	97.788	-6.796	1.00	46.59	C
ATOM	6207	C3*	G A 299	138.832	103.333	-4.323	1.00	35.32	C	ATOM	6257	N9	G A 301	141.136	97.471	-5.568	1.00	46.59	N
ATOM	6208	O3*	G A 299	137.535	102.995	-4.805	1.00	35.32	O	ATOM	6258	C8	G A 301	142.356	97.271	-4.947	1.00	46.59	C
ATOM	6209	C2*	G A 299	139.645	104.103	-5.354	1.00	35.32	C	ATOM	6259	N7	G A 301	142.654	96.901	-3.614	1.00	46.59	O
ATOM	6210	O2*	G A 299	138.852	104.949	-6.154	1.00	35.32	O	ATOM	6260	C5	G A 301	141.872	96.657	-2.690	1.00	46.59	C
ATOM	6211	C1*	G A 299	140.534	104.974	-4.465	1.00	35.32	C	ATOM	6261	C6	G A 301	144.022	96.813	-3.401	1.00	46.59	N
ATOM	6212	N9	G A 299	141.900	104.496	-4.278	1.00	49.96	N	ATOM	6262	O6	G A 301	144.984	97.042	-4.349	1.00	46.59	C
ATOM	6213	C8	G A 299	142.411	103.789	-3.218	1.00	49.96	C	ATOM	6263	N1	G A 301	146.255	96.907	-3.946	1.00	46.59	N
ATOM	6214	N7	G A 299	143.690	103.560	-3.327	1.00	49.96	N	ATOM	6264	C2	G A 301						
ATOM	6215	C5	G A 299	144.041	104.146	-4.535	1.00	49.96	C	ATOM	6265	N2	G A 301						



ATOM	6266	N3	G A 301	144.720	97.379	-5.601	1.00	46.59	N	ATOM	6316	O5*	U A 304	146.132	84.798	-4.486	1.00	46.20	O
ATOM	6267	C4	G A 301	143.392	97.479	-5.827	1.00	46.59	C	ATOM	6317	C5*	U A 304	146.713	84.427	-3.226	1.00	46.20	C
ATOM	6268	P	G A 302	143.533	93.998	-10.681	1.00	43.86	P	ATOM	6318	C4*	U A 304	145.659	84.404	-2.146	1.00	46.20	C
ATOM	6269	O1P	G A 302	144.102	93.419	-11.922	1.00	38.99	O	ATOM	6319	O4*	U A 304	145.081	85.726	-2.008	1.00	46.20	O
ATOM	6270	O2P	G A 302	142.262	93.459	-10.144	1.00	38.99	O	ATOM	6320	C3*	U A 304	144.465	83.493	-2.385	1.00	46.20	C
ATOM	6271	O5*	G A 302	144.622	93.897	-9.526	1.00	43.86	O	ATOM	6321	O3*	U A 304	144.743	82.159	-1.991	1.00	46.20	O
ATOM	6272	C5*	G A 302	145.985	94.251	-9.781	1.00	43.86	C	ATOM	6322	C2*	U A 304	143.388	84.134	-1.520	1.00	46.20	C
ATOM	6273	C4*	G A 302	146.822	93.963	-8.571	1.00	43.86	C	ATOM	6323	O2*	U A 304	143.495	83.803	-0.148	1.00	46.20	O
ATOM	6274	O3*	G A 302	146.358	94.764	-7.457	1.00	43.86	O	ATOM	6324	C1*	U A 304	143.704	85.619	-1.694	1.00	46.20	C
ATOM	6275	C3*	G A 302	146.725	92.539	-8.070	1.00	43.86	C	ATOM	6325	N1	U A 304	142.928	86.201	-2.798	1.00	58.11	N
ATOM	6276	O3*	G A 302	147.623	91.695	-8.753	1.00	43.86	O	ATOM	6326	C2	U A 304	141.590	86.467	-2.582	1.00	58.11	C
ATOM	6277	C2*	G A 302	147.085	92.675	-6.603	1.00	43.86	C	ATOM	6327	O2	U A 304	141.047	86.313	-1.512	1.00	58.11	O
ATOM	6278	O2*	G A 302	148.481	92.767	-6.443	1.00	43.86	O	ATOM	6328	N3	U A 304	140.912	86.932	-3.674	1.00	58.11	N
ATOM	6279	C1*	G A 302	146.461	94.024	-6.258	1.00	43.86	C	ATOM	6329	O4	U A 304	141.424	87.174	-4.924	1.00	58.11	O
ATOM	6280	N9	G A 302	145.123	93.891	-5.693	1.00	38.99	N	ATOM	6330	O4	U A 304	140.671	87.542	-5.822	1.00	58.11	O
ATOM	6281	C8	G A 302	143.937	94.038	-6.358	1.00	38.99	C	ATOM	6331	C5	U A 304	142.816	86.916	-5.056	1.00	58.11	C
ATOM	6282	N7	G A 302	142.898	93.865	-5.590	1.00	38.99	N	ATOM	6332	C6	U A 304	143.503	86.450	-4.017	1.00	58.11	C
ATOM	6283	C5	G A 302	143.430	93.583	-4.345	1.00	38.99	C	ATOM	6333	P	G A 305	143.986	80.940	-2.711	1.00	55.37	P
ATOM	6284	C6	G A 302	142.787	93.308	-3.127	1.00	38.99	C	ATOM	6334	O1P	G A 305	144.780	79.714	-2.446	1.00	54.94	O
ATOM	6285	O6	G A 302	141.582	93.264	-2.887	1.00	38.99	O	ATOM	6335	O2P	G A 305	143.643	81.299	-4.102	1.00	54.94	O
ATOM	6286	N1	G A 302	143.696	93.073	-2.111	1.00	38.99	N	ATOM	6336	O5*	G A 305	142.616	80.835	-1.918	1.00	55.37	O
ATOM	6287	C2	G A 302	145.056	93.113	-2.248	1.00	38.99	C	ATOM	6337	C5*	G A 305	142.585	80.730	-0.491	1.00	55.37	C
ATOM	6288	N2	G A 302	145.761	92.890	-1.139	1.00	38.99	N	ATOM	6338	O4*	G A 305	141.155	80.663	-0.030	1.00	55.37	O
ATOM	6289	N3	G A 302	145.675	93.365	-3.387	1.00	38.99	N	ATOM	6339	C4*	G A 305	140.492	81.889	-0.436	1.00	55.37	C
ATOM	6290	C4	G A 302	144.802	93.592	-4.389	1.00	38.99	C	ATOM	6340	C3*	G A 305	140.356	79.518	-0.636	1.00	55.37	C
ATOM	6291	P	A A 303	147.246	90.161	-8.948	1.00	45.78	P	ATOM	6341	O3*	G A 305	139.471	78.980	0.342	1.00	55.37	O
ATOM	6292	O1P	A A 303	148.357	89.587	-9.725	1.00	41.57	O	ATOM	6342	C2*	G A 305	139.600	80.181	-1.786	1.00	55.37	C
ATOM	6293	O2P	A A 303	145.854	90.053	-9.464	1.00	41.57	O	ATOM	6343	O2*	G A 305	138.366	79.581	-2.126	1.00	55.37	O
ATOM	6294	O5*	A A 303	147.227	89.585	-7.463	1.00	45.78	O	ATOM	6344	C1*	G A 305	139.378	81.594	-1.255	1.00	55.37	C
ATOM	6295	C5*	A A 303	148.438	89.314	-6.765	1.00	45.78	C	ATOM	6345	N9	G A 305	139.318	82.576	-2.337	1.00	54.94	N
ATOM	6296	C4*	A A 303	148.152	88.956	-5.326	1.00	45.78	C	ATOM	6346	C8	G A 305	140.337	82.916	-3.194	1.00	54.94	C
ATOM	6297	O4*	A A 303	147.465	90.061	-4.666	1.00	45.78	O	ATOM	6347	N7	G A 305	139.971	83.765	-4.113	1.00	54.94	N
ATOM	6298	C3*	A A 303	147.251	87.764	-5.030	1.00	45.78	C	ATOM	6348	C5	G A 305	138.636	84.014	-3.841	1.00	54.94	C
ATOM	6299	O3*	A A 303	147.893	86.503	-5.157	1.00	45.78	O	ATOM	6349	C6	G A 305	137.718	84.838	-4.507	1.00	54.94	C
ATOM	6300	C2*	A A 303	146.845	88.043	-3.587	1.00	45.78	C	ATOM	6350	O6	G A 305	137.899	85.539	-5.505	1.00	54.94	O
ATOM	6301	O2*	A A 303	146.657	89.558	-3.608	1.00	45.78	C	ATOM	6351	N1	G A 305	136.475	84.811	-3.899	1.00	54.94	N
ATOM	6302	C1*	A A 303	146.657	89.558	-3.608	1.00	45.78	C	ATOM	6352	C2	G A 305	136.159	84.094	-2.787	1.00	54.94	C
ATOM	6303	N9	A A 303	145.251	89.841	-3.896	1.00	41.57	N	ATOM	6353	N2	G A 305	134.910	84.228	-2.352	1.00	54.94	N
ATOM	6304	C8	A A 303	144.677	90.141	-5.101	1.00	41.57	C	ATOM	6354	N3	G A 305	137.007	83.310	-2.150	1.00	54.94	N
ATOM	6305	N7	A A 303	143.370	90.231	-5.056	1.00	41.57	N	ATOM	6355	C4	G A 305	138.222	83.312	-2.733	1.00	54.94	C
ATOM	6306	C5	A A 303	143.066	89.995	-3.728	1.00	41.57	C	ATOM	6356	P	G A 306	139.842	77.594	1.075	1.00	55.85	P
ATOM	6307	C6	A A 303	141.850	89.919	-3.048	1.00	41.57	C	ATOM	6357	O1P	G A 306	140.653	76.765	0.139	1.00	100.104.56	O
ATOM	6308	N6	A A 303	140.669	90.067	-3.642	1.00	41.57	N	ATOM	6358	O2P	G A 306	138.581	77.039	1.643	1.00	100.104.56	O
ATOM	6309	N1	A A 303	141.887	89.669	-1.721	1.00	41.57	N	ATOM	6359	O5*	G A 306	140.780	78.068	2.269	1.00	55.85	O
ATOM	6310	C2	A A 303	143.077	89.501	-1.135	1.00	41.57	C	ATOM	6360	C5*	G A 306	141.638	77.142	2.952	1.00	55.85	C
ATOM	6311	N3	A A 303	144.293	89.536	-1.675	1.00	41.57	N	ATOM	6361	O4*	G A 306	141.663	77.453	4.426	1.00	55.85	O
ATOM	6312	C4	A A 303	144.216	89.785	-2.993	1.00	41.57	C	ATOM	6362	O4*	G A 306	142.293	78.737	4.631	1.00	55.85	C
ATOM	6313	P	U A 304	147.052	85.242	-5.708	1.00	46.20	P	ATOM	6363	C3*	G A 306	140.287	77.581	5.050	1.00	55.85	C
ATOM	6314	O1P	U A 304	148.040	84.164	-5.960	1.00	58.11	O	ATOM	6364	O3*	G A 306	139.802	76.308	5.452	1.00	55.85	O
ATOM	6315	O2P	U A 304	146.159	85.690	-6.804	1.00	58.11	O	ATOM	6365	C2*	G A 306	140.528	78.529	6.213	1.00	55.85	C



Table 2. Sheet 65/520

ATOM	6366	O2*	G A 306	141.043	77.867	7.350	1.00 55.85	O	ATOM	6416	N4	C A 308	134.813	80.293	3.917	1.00 49.30	N
ATOM	6367	C1*	G A 306	141.609	79.451	5.643	1.00 55.85	C	ATOM	6417	C5	C A 308	134.402	79.235	6.026	1.00 49.30	C
ATOM	6368	N9	G A 306	141.074	80.673	5.048	1.00104.56	N	ATOM	6418	C6	C A 308	133.638	79.198	7.120	1.00 49.30	C
ATOM	6369	C8	G A 306	141.042	81.000	3.711	1.00104.56	C	ATOM	6419	P	G A 309	129.075	76.008	8.017	1.00 47.47	P
ATOM	6370	N7	G A 306	140.479	82.153	3.478	1.00104.56	N	ATOM	6420	O1P	G A 309	128.092	75.147	8.742	1.00 56.52	O
ATOM	6371	C5	G A 306	140.121	82.620	4.734	1.00104.56	C	ATOM	6421	O2P	G A 309	130.250	75.382	7.333	1.00 56.52	O
ATOM	6372	C6	G A 306	139.465	83.817	5.113	1.00104.56	C	ATOM	6422	O5*	G A 309	128.282	76.843	6.923	1.00 47.47	O
ATOM	6373	O6	G A 306	139.054	84.733	4.387	1.00104.56	O	ATOM	6423	C5*	G A 309	127.092	77.544	7.269	1.00 47.47	C
ATOM	6374	N1	G A 306	139.298	83.893	6.495	1.00104.56	N	ATOM	6424	C4*	G A 309	126.615	78.344	6.095	1.00 47.47	C
ATOM	6375	C2	G A 306	139.709	82.938	7.395	1.00104.56	C	ATOM	6425	O4*	G A 309	127.551	79.413	5.835	1.00 47.47	O
ATOM	6376	N2	G A 306	139.461	83.193	8.687	1.00104.56	N	ATOM	6426	C3*	G A 309	126.540	77.593	4.783	1.00 47.47	C
ATOM	6377	N3	G A 306	140.319	81.816	7.052	1.00104.56	N	ATOM	6427	O3*	G A 309	125.349	76.852	4.667	1.00 47.47	O
ATOM	6378	C4	G A 306	140.490	81.722	5.716	1.00104.56	C	ATOM	6428	C2*	G A 309	126.617	78.719	3.771	1.00 47.47	C
ATOM	6379	P	C A 307	138.218	76.054	5.530	1.00 63.25	P	ATOM	6429	O2*	G A 309	125.377	79.373	3.660	1.00 47.47	O
ATOM	6380	O1P	C A 307	137.971	74.594	5.706	1.00 74.20	O	ATOM	6430	C1*	G A 309	127.609	79.666	4.444	1.00 47.47	C
ATOM	6381	O2P	C A 307	137.577	76.765	4.382	1.00 74.20	O	ATOM	6431	N9	G A 309	128.982	79.459	3.987	1.00 56.52	N
ATOM	6382	O5*	C A 307	137.821	76.810	6.875	1.00 63.25	O	ATOM	6432	C8	G A 309	130.024	78.908	4.693	1.00 56.52	C
ATOM	6383	C5*	C A 307	138.403	76.421	8.120	1.00 63.25	C	ATOM	6433	N7	G A 309	131.124	78.815	3.994	1.00 56.52	N
ATOM	6384	C4*	C A 307	137.847	77.247	9.245	1.00 63.25	C	ATOM	6434	C5	G A 309	130.789	79.345	2.756	1.00 56.52	C
ATOM	6385	O4*	C A 307	138.345	78.599	9.143	1.00 63.25	O	ATOM	6435	C6	G A 309	131.574	79.509	1.582	1.00 56.52	C
ATOM	6386	C3*	C A 307	136.339	77.406	9.312	1.00 63.25	C	ATOM	6436	O6	G A 309	132.759	79.183	1.390	1.00 56.52	O
ATOM	6387	O3*	C A 307	135.699	76.293	9.913	1.00 63.25	O	ATOM	6437	N1	G A 309	130.844	80.116	0.562	1.00 56.52	N
ATOM	6388	C2*	C A 307	136.201	78.669	10.148	1.00 63.25	C	ATOM	6438	C2	G A 309	129.531	80.507	0.657	1.00 56.52	C
ATOM	6389	O2*	C A 307	136.422	78.430	11.523	1.00 63.25	O	ATOM	6439	N2	G A 309	129.000	81.095	-0.425	1.00 56.52	N
ATOM	6390	C1*	C A 307	137.376	79.499	9.643	1.00 63.25	C	ATOM	6440	N3	G A 309	128.788	80.342	1.739	1.00 56.52	N
ATOM	6391	N1	C A 307	136.965	80.417	8.570	1.00 74.20	N	ATOM	6441	C4	G A 309	129.477	79.763	2.742	1.00 56.52	C
ATOM	6392	C2	C A 307	136.134	81.487	8.899	1.00 74.20	C	ATOM	6442	P	G A 310	125.277	75.645	3.618	1.00 48.96	P
ATOM	6393	O2	C A 307	135.785	81.631	10.083	1.00 74.20	O	ATOM	6443	O1P	G A 310	123.934	75.035	3.699	1.00 47.11	O
ATOM	6394	N3	C A 307	135.729	82.334	7.928	1.00 74.20	N	ATOM	6444	O2P	G A 310	126.483	74.803	3.783	1.00 47.11	O
ATOM	6395	C4	C A 307	136.124	82.141	6.672	1.00 74.20	C	ATOM	6445	O5*	G A 310	125.395	76.356	2.201	1.00 48.96	O
ATOM	6396	N4	C A 307	135.688	82.989	5.745	1.00 74.20	N	ATOM	6446	C5*	G A 310	124.268	77.025	1.631	1.00 48.96	C
ATOM	6397	C5	C A 307	136.980	81.064	6.308	1.00 74.20	C	ATOM	6447	C4*	G A 310	124.571	77.438	0.223	1.00 48.96	C
ATOM	6398	C6	C A 307	137.371	80.233	7.278	1.00 74.20	C	ATOM	6448	O4*	G A 310	125.724	78.319	0.214	1.00 48.96	O
ATOM	6399	P	C A 308	134.525	75.532	9.118	1.00 53.34	P	ATOM	6449	C3*	G A 310	124.987	76.331	-0.723	1.00 48.96	C
ATOM	6400	O1P	C A 308	134.070	74.391	9.947	1.00 49.30	O	ATOM	6450	O3*	G A 310	123.919	75.574	-1.233	1.00 48.96	O
ATOM	6401	O2P	C A 308	135.010	75.286	7.734	1.00 49.30	O	ATOM	6451	C2*	G A 310	125.706	77.091	-1.824	1.00 48.96	C
ATOM	6402	O5*	C A 308	133.338	76.589	9.034	1.00 53.34	O	ATOM	6452	O2*	G A 310	124.820	77.646	-2.781	1.00 48.96	O
ATOM	6403	C5*	C A 308	132.645	77.025	10.217	1.00 53.34	C	ATOM	6453	C1*	G A 310	126.409	78.184	-1.021	1.00 48.96	C
ATOM	6404	C4*	C A 308	131.678	78.135	9.878	1.00 53.34	C	ATOM	6454	N9	G A 310	127.802	77.828	-0.768	1.00 47.11	N
ATOM	6405	O4*	C A 308	132.422	79.322	9.497	1.00 53.34	O	ATOM	6455	C8	G A 310	128.366	77.414	0.410	1.00 47.11	C
ATOM	6406	C3*	C A 308	130.765	77.862	8.695	1.00 53.34	C	ATOM	6456	N7	G A 310	129.645	77.166	0.305	1.00 47.11	N
ATOM	6407	O3*	C A 308	129.615	77.124	9.038	1.00 53.34	O	ATOM	6457	C5	G A 310	129.940	77.432	-1.024	1.00 47.11	C
ATOM	6408	C2*	C A 308	130.425	79.256	8.192	1.00 53.34	C	ATOM	6458	C6	G A 310	131.159	77.345	-1.719	1.00 47.11	C
ATOM	6409	O2*	C A 308	129.369	79.868	8.909	1.00 53.34	O	ATOM	6459	O6	G A 310	132.262	76.999	-1.291	1.00 47.11	O
ATOM	6410	C1*	C A 308	131.728	80.007	8.465	1.00 53.34	C	ATOM	6460	N1	G A 310	131.016	77.711	-3.050	1.00 47.11	N
ATOM	6411	N1	C A 308	132.582	80.052	7.267	1.00 49.30	N	ATOM	6461	C2	G A 310	129.843	78.110	-3.639	1.00 47.11	C
ATOM	6412	C2	C A 308	132.286	80.988	6.269	1.00 49.30	C	ATOM	6462	N2	G A 310	129.899	78.422	-4.947	1.00 47.11	N
ATOM	6413	O2	C A 308	131.326	81.755	6.429	1.00 49.30	O	ATOM	6463	N3	G A 310	128.695	78.194	-2.996	1.00 47.11	N
ATOM	6414	N3	C A 308	133.050	81.035	5.157	1.00 49.30	N	ATOM	6464	C4	G A 310	128.818	77.842	-1.699	1.00 47.11	C
ATOM	6415	C4	C A 308	134.078	80.200	5.024	1.00 49.30	C	ATOM	6465	P	C A 311	124.138	74.004	-1.492	1.00 42.71	P



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ATOM	6456	O1P	C A 311	122.779	73.402	-1.741	1.00	41.94	O	ATOM	6516	C1*	A A 313	134.013	67.103	-7.407	1.00	46.69	C
ATOM	6467	O2P	C A 311	124.991	73.499	-0.384	1.00	41.94	O	ATOM	6517	N9	A A 313	133.222	67.241	-6.184	1.00	31.15	N
ATOM	6468	O5*	C A 311	124.971	73.944	-2.842	1.00	42.71	O	ATOM	6518	C8	A A 313	131.875	67.452	-6.036	1.00	31.15	C
ATOM	6469	O5*	C A 311	124.362	74.371	-4.057	1.00	42.71	O	ATOM	6519	N7	A A 313	131.489	67.521	-4.788	1.00	31.15	N
ATOM	6470	C4*	C A 311	125.377	74.497	-5.151	1.00	42.71	C	ATOM	6520	C5	A A 313	132.658	67.350	-4.069	1.00	31.15	C
ATOM	6471	O4*	C A 311	126.376	75.484	-4.799	1.00	42.71	O	ATOM	6521	C6	A A 313	132.924	67.328	-2.701	1.00	31.15	C
ATOM	6472	C3*	C A 311	126.202	73.272	-5.469	1.00	42.71	C	ATOM	6522	N6	A A 313	131.993	67.476	-1.755	1.00	31.15	N
ATOM	6473	O3*	C A 311	125.511	72.327	-6.252	1.00	42.71	O	ATOM	6523	N1	A A 313	134.198	67.141	-2.317	1.00	31.15	N
ATOM	6474	C2*	C A 311	127.358	73.887	-6.228	1.00	42.71	C	ATOM	6524	C2	A A 313	135.128	66.976	-3.252	1.00	31.15	C
ATOM	6475	O2*	C A 311	126.958	74.251	-7.530	1.00	42.71	O	ATOM	6525	N3	A A 313	135.002	66.971	-4.568	1.00	31.15	N
ATOM	6476	C1*	C A 311	127.603	75.154	-5.420	1.00	42.71	C	ATOM	6526	C4	A A 313	133.727	67.171	-4.914	1.00	31.15	C
ATOM	6477	N1	C A 311	128.602	74.864	-4.386	1.00	41.94	N	ATOM	6527	P	C A 314	132.866	62.729	-9.102	1.00	43.16	P
ATOM	6478	C2	C A 311	129.935	74.686	-4.783	1.00	41.94	C	ATOM	6528	O1P	C A 314	133.014	61.855	-10.294	1.00	35.37	O
ATOM	6479	O2	C A 311	130.229	74.836	-5.974	1.00	41.94	O	ATOM	6529	O2P	C A 314	131.511	62.898	-8.482	1.00	35.37	O
ATOM	6480	N3	C A 311	130.860	74.354	-3.864	1.00	41.94	N	ATOM	6530	O5*	C A 314	133.880	62.237	-7.972	1.00	43.16	O
ATOM	6481	C4	C A 311	130.504	74.202	-2.596	1.00	41.94	C	ATOM	6531	C5*	C A 314	135.263	62.092	-8.273	1.00	43.16	C
ATOM	6482	N4	C A 311	131.441	73.841	-1.740	1.00	41.94	N	ATOM	6532	C4*	C A 314	136.078	62.032	-7.014	1.00	43.16	C
ATOM	6483	C5	C A 311	129.166	74.409	-2.154	1.00	41.94	C	ATOM	6533	O4*	C A 314	135.900	63.241	-6.249	1.00	43.16	O
ATOM	6484	C6	C A 311	128.255	74.738	-3.072	1.00	41.94	C	ATOM	6534	C3*	C A 314	135.760	60.922	-6.037	1.00	43.16	C
ATOM	6485	P	C A 312	125.897	70.776	-6.118	1.00	39.46	P	ATOM	6535	O3*	C A 314	136.374	59.698	-6.448	1.00	43.16	O
ATOM	6486	O1P	C A 312	124.854	69.975	-6.840	1.00	37.93	O	ATOM	6536	C2*	C A 314	136.326	61.476	-4.731	1.00	43.16	C
ATOM	6487	O2P	C A 312	126.167	70.521	-4.677	1.00	37.93	O	ATOM	6537	O2*	C A 314	137.729	61.374	-4.651	1.00	43.16	O
ATOM	6488	O5*	C A 312	127.286	70.667	-6.881	1.00	39.46	O	ATOM	6538	C1*	C A 314	136.026	62.962	-4.868	1.00	43.16	C
ATOM	6489	C5*	C A 312	127.375	70.972	-8.276	1.00	39.46	C	ATOM	6539	N1	C A 314	134.784	63.359	-4.189	1.00	35.37	N
ATOM	6490	C4*	C A 312	128.810	70.954	-8.722	1.00	39.46	C	ATOM	6540	C2	C A 314	134.811	63.611	-2.806	1.00	35.37	C
ATOM	6491	O4*	C A 312	129.561	71.928	-7.952	1.00	39.46	O	ATOM	6541	O2	C A 314	135.881	63.507	-2.197	1.00	35.37	O
ATOM	6492	C3*	C A 312	129.553	69.649	-8.508	1.00	39.46	C	ATOM	6542	N3	C A 314	133.669	63.963	-2.176	1.00	35.37	N
ATOM	6493	O3*	C A 312	129.315	68.748	-9.578	1.00	39.46	O	ATOM	6543	C4	C A 314	132.536	64.076	-2.871	1.00	35.37	C
ATOM	6494	C2*	C A 312	130.994	70.121	-8.459	1.00	39.46	C	ATOM	6544	N4	C A 314	131.432	64.429	-2.219	1.00	35.37	N
ATOM	6495	O2*	C A 312	131.451	70.465	-9.754	1.00	39.46	O	ATOM	6545	C5	C A 314	132.483	63.832	-4.276	1.00	35.37	C
ATOM	6496	C1*	C A 312	130.854	71.427	-7.686	1.00	39.46	C	ATOM	6546	C6	C A 314	133.617	63.479	-4.888	1.00	35.37	C
ATOM	6497	N1	C A 312	130.983	71.240	-6.234	1.00	37.93	N	ATOM	6547	P	A A 315	135.710	58.303	-6.024	1.00	51.00	P
ATOM	6498	C2	C A 312	132.254	70.995	-5.690	1.00	37.93	C	ATOM	6548	O1P	A A 315	136.389	57.221	-6.788	1.00	44.11	O
ATOM	6499	O2	C A 312	133.236	70.928	-6.454	1.00	37.93	O	ATOM	6549	O2P	A A 315	134.241	58.447	-6.102	1.00	44.11	O
ATOM	6500	N3	C A 312	132.378	70.839	-4.347	1.00	37.93	N	ATOM	6550	O5*	A A 315	136.114	58.159	-4.496	1.00	51.00	O
ATOM	6501	C4	C A 312	131.296	70.927	-3.566	1.00	37.93	C	ATOM	6551	C5*	A A 315	137.487	58.257	-4.104	1.00	51.00	C
ATOM	6502	N4	C A 312	131.461	70.789	-2.258	1.00	37.93	N	ATOM	6552	C4*	A A 315	137.619	57.969	-2.637	1.00	51.00	C
ATOM	6503	C5	C A 312	129.997	71.163	-4.095	1.00	37.93	C	ATOM	6553	O4*	A A 315	136.862	58.964	-1.908	1.00	51.00	O
ATOM	6504	C6	C A 312	129.886	71.308	-5.419	1.00	37.93	C	ATOM	6554	C3*	A A 315	137.069	56.615	-2.222	1.00	51.00	C
ATOM	6505	P	A A 313	129.182	67.177	-9.269	1.00	46.69	P	ATOM	6555	O3*	A A 315	137.857	56.108	-1.140	1.00	51.00	O
ATOM	6506	O1P	A A 313	128.665	66.490	-10.482	1.00	31.15	O	ATOM	6556	C2*	A A 315	135.664	56.956	-1.742	1.00	51.00	C
ATOM	6507	O2P	A A 313	128.477	67.026	-7.976	1.00	31.15	O	ATOM	6557	O2*	A A 315	135.182	56.026	-0.790	1.00	51.00	O
ATOM	6508	O5*	A A 313	130.672	66.686	-9.029	1.00	46.69	O	ATOM	6558	C1*	A A 315	135.883	58.338	-1.126	1.00	51.00	C
ATOM	6509	C5*	A A 313	131.655	66.821	-10.047	1.00	46.69	C	ATOM	6559	N9	A A 315	134.704	59.200	-1.098	1.00	44.11	N
ATOM	6510	C4*	A A 313	133.011	66.597	-9.459	1.00	46.69	C	ATOM	6560	C8	A A 315	133.791	59.438	-2.091	1.00	44.11	C
ATOM	6511	O4*	A A 313	133.279	67.640	-8.491	1.00	46.69	O	ATOM	6561	N7	A A 315	132.816	60.239	-1.731	1.00	44.11	N
ATOM	6512	C3*	A A 313	133.151	65.309	-8.670	1.00	46.69	C	ATOM	6562	C5	A A 315	133.117	60.555	-0.416	1.00	44.11	C
ATOM	6513	O3*	A A 313	133.427	64.190	-9.509	1.00	46.69	O	ATOM	6563	C6	A A 315	132.466	61.351	0.527	1.00	44.11	C
ATOM	6514	C2*	A A 313	134.295	65.639	-7.728	1.00	46.69	C	ATOM	6564	N6	A A 315	131.327	61.993	0.277	1.00	44.11	N
ATOM	6515	O2*	A A 313	135.539	65.571	-8.384	1.00	46.69	O	ATOM	6565	N1	A A 315	133.025	61.465	1.753	1.00	44.11	N



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ATOM	6566	C2	A A 315	134.165	60.806	1.998	1.00	44.11	C	ATOM	6616	O1P	G A 318	140.876	58.499	-11.137	1.00	63.77	O
ATOM	6567	N3	A A 315	134.871	60.023	1.191	1.00	44.11	N	ATOM	6617	O2P	G A 318	139.850	57.057	-9.253	1.00	63.77	O
ATOM	6568	C4	A A 315	134.283	59.935	-0.017	1.00	44.11	C	ATOM	6618	O5*	G A 318	140.646	56.013	-11.383	1.00	62.75	O
ATOM	6569	P	G A 316	138.152	54.528	-1.025	1.00	56.54	P	ATOM	6619	C5*	G A 318	141.416	55.947	-12.587	1.00	62.75	C
ATOM	6570	O1P	G A 316	137.388	53.847	-2.109	1.00	55.25	O	ATOM	6620	C4*	G A 318	141.019	54.752	-13.414	1.00	62.75	C
ATOM	6571	O2P	G A 316	137.949	54.108	0.387	1.00	55.25	O	ATOM	6621	O4*	G A 318	141.374	53.530	-12.717	1.00	62.75	O
ATOM	6572	O5*	G A 316	139.706	54.428	-1.344	1.00	56.54	O	ATOM	6622	C3*	G A 318	139.549	54.572	-13.727	1.00	62.75	C
ATOM	6573	C5*	G A 316	140.622	55.404	-0.838	1.00	56.54	C	ATOM	6623	O3*	G A 318	139.078	55.387	-14.782	1.00	62.75	O
ATOM	6574	C4*	G A 316	141.972	55.221	-1.480	1.00	56.54	C	ATOM	6624	C2*	G A 318	139.479	53.093	-14.073	1.00	62.75	C
ATOM	6575	O4*	G A 316	142.478	53.909	-1.124	1.00	56.54	O	ATOM	6625	O2*	G A 318	139.896	52.811	-15.394	1.00	62.75	O
ATOM	6576	C3*	G A 316	141.966	55.228	-3.000	1.00	56.54	C	ATOM	6626	C1*	G A 318	140.471	52.502	-13.075	1.00	62.75	C
ATOM	6577	O3*	G A 316	142.023	56.550	-3.532	1.00	56.54	O	ATOM	6627	N9	G A 318	139.754	52.068	-11.884	1.00	63.77	N
ATOM	6578	C2*	G A 316	143.190	54.385	-3.342	1.00	56.54	C	ATOM	6628	C8	G A 318	139.671	52.697	-10.669	1.00	63.77	C
ATOM	6579	O2*	G A 316	144.402	55.100	-3.258	1.00	56.54	O	ATOM	6629	N7	G A 318	138.884	52.084	-9.829	1.00	63.77	N
ATOM	6580	C1*	G A 316	143.167	53.338	-2.227	1.00	56.54	C	ATOM	6630	C5	G A 318	138.432	50.978	-10.530	1.00	63.77	C
ATOM	6581	N9	G A 316	142.474	52.113	-2.634	1.00	55.25	N	ATOM	6631	C6	G A 318	137.540	49.950	-10.146	1.00	63.77	C
ATOM	6582	C8	G A 316	141.350	51.557	-2.068	1.00	55.25	C	ATOM	6632	O6	G A 318	136.930	49.820	-9.080	1.00	63.77	O
ATOM	6583	N7	G A 316	140.932	50.493	-2.698	1.00	55.25	N	ATOM	6633	N1	G A 318	137.374	49.015	-11.161	1.00	63.77	N
ATOM	6584	C5	G A 316	141.840	50.328	-3.735	1.00	55.25	C	ATOM	6634	C2	G A 318	137.984	49.074	-12.393	1.00	63.77	C
ATOM	6585	C6	G A 316	141.899	49.353	-4.751	1.00	55.25	C	ATOM	6635	N2	G A 318	137.718	48.081	-13.247	1.00	63.77	N
ATOM	6586	O6	G A 316	141.127	48.409	-4.958	1.00	55.25	O	ATOM	6636	N3	G A 318	138.800	50.034	-12.765	1.00	63.77	N
ATOM	6587	N1	G A 316	142.993	49.548	-5.584	1.00	55.25	N	ATOM	6637	C4	G A 318	138.979	50.945	-11.791	1.00	63.77	C
ATOM	6588	C2	G A 316	143.909	50.551	-5.458	1.00	55.25	C	ATOM	6638	P	G A 319	137.552	55.904	-14.750	1.00	59.84	P
ATOM	6589	N2	G A 316	144.896	50.565	-6.356	1.00	55.25	N	ATOM	6639	O1P	G A 319	137.405	56.897	-15.848	1.00	58.15	O
ATOM	6590	N3	G A 316	143.864	51.474	-4.520	1.00	55.25	N	ATOM	6640	O2P	G A 319	137.258	56.306	-13.351	1.00	58.15	O
ATOM	6591	C4	G A 316	142.809	51.304	-3.698	1.00	55.25	C	ATOM	6641	O5*	G A 319	136.682	54.622	-15.131	1.00	59.84	O
ATOM	6592	P	G A 317	141.242	56.896	-4.901	1.00	59.74	P	ATOM	6642	C5*	G A 319	136.782	54.079	-16.448	1.00	59.84	C
ATOM	6593	O1P	G A 317	141.369	58.365	-5.085	1.00	54.36	O	ATOM	6643	C4*	G A 319	136.178	52.700	-16.526	1.00	59.84	C
ATOM	6594	O2P	G A 317	139.891	56.270	-4.889	1.00	54.36	O	ATOM	6644	O4*	G A 319	136.766	51.814	-15.536	1.00	59.84	O
ATOM	6595	O5*	G A 317	142.075	56.152	-6.036	1.00	59.74	O	ATOM	6645	C3*	G A 319	134.687	52.554	-16.296	1.00	59.84	C
ATOM	6596	C5*	G A 317	143.228	56.758	-6.630	1.00	59.74	C	ATOM	6646	O3*	G A 319	133.939	52.905	-17.429	1.00	59.84	O
ATOM	6597	C4*	G A 317	143.611	56.017	-7.891	1.00	59.74	C	ATOM	6647	C2*	G A 319	134.559	51.065	-16.014	1.00	59.84	C
ATOM	6598	O4*	G A 317	144.019	54.654	-7.567	1.00	59.74	O	ATOM	6648	O2*	G A 319	134.581	50.298	-17.200	1.00	59.84	O
ATOM	6599	C3*	G A 317	142.498	55.831	-8.907	1.00	59.74	C	ATOM	6649	C1*	G A 319	135.827	50.796	-15.199	1.00	59.84	C
ATOM	6600	O3*	G A 317	142.299	56.963	-9.728	1.00	59.74	O	ATOM	6650	N9	G A 319	135.510	50.885	-13.774	1.00	58.15	N
ATOM	6601	C2*	G A 317	142.973	54.624	-9.699	1.00	59.74	C	ATOM	6651	C8	G A 319	135.838	51.890	-12.895	1.00	58.15	C
ATOM	6602	O2*	G A 317	143.958	54.979	-10.646	1.00	59.74	O	ATOM	6652	N7	G A 319	135.358	51.695	-11.696	1.00	58.15	N
ATOM	6603	C1*	G A 317	143.608	53.770	-8.602	1.00	59.74	C	ATOM	6653	C5	G A 319	134.684	50.486	-11.788	1.00	58.15	C
ATOM	6604	N9	G A 317	142.627	52.838	-8.051	1.00	54.36	N	ATOM	6654	C6	G A 319	133.963	49.766	-10.814	1.00	58.15	C
ATOM	6605	C8	G A 317	141.936	52.965	-6.869	1.00	54.36	C	ATOM	6655	O6	G A 319	133.755	50.065	-9.641	1.00	58.15	O
ATOM	6606	N7	G A 317	141.079	51.999	-6.670	1.00	54.36	N	ATOM	6656	N1	G A 319	133.448	48.586	-11.327	1.00	58.15	N
ATOM	6607	C5	G A 317	141.219	51.181	-7.783	1.00	54.36	C	ATOM	6657	C2	G A 319	133.599	48.159	-12.619	1.00	58.15	C
ATOM	6608	C6	G A 317	140.548	49.982	-8.130	1.00	54.36	C	ATOM	6658	N2	G A 319	133.044	46.982	-12.927	1.00	58.15	N
ATOM	6609	O6	G A 317	139.645	49.403	-7.521	1.00	54.36	O	ATOM	6659	N3	G A 319	134.254	48.830	-13.544	1.00	58.15	N
ATOM	6610	N1	G A 317	141.019	49.460	-9.326	1.00	54.36	N	ATOM	6660	C4	G A 319	134.774	49.972	-13.060	1.00	58.15	C
ATOM	6611	C2	G A 317	141.999	50.024	-10.096	1.00	54.36	C	ATOM	6661	P	C A 320	132.446	53.457	-17.242	1.00	60.10	P
ATOM	6612	N2	G A 317	142.328	49.361	-11.202	1.00	54.36	N	ATOM	6662	O1P	C A 320	131.943	53.734	-18.620	1.00	49.94	O
ATOM	6613	N3	G A 317	142.616	51.154	-9.800	1.00	54.36	N	ATOM	6663	O2P	C A 320	132.420	54.534	-16.211	1.00	49.94	O
ATOM	6614	C4	G A 317	142.183	51.673	-8.635	1.00	54.36	C	ATOM	6664	O5*	C A 320	131.657	52.206	-16.654	1.00	60.10	O
ATOM	6615	P	G A 318	140.844	57.223	-10.360	1.00	62.75	P	ATOM	6665	C5*	C A 320	131.434	51.055	-17.464	1.00	60.10	C



Table 2: Sheet 68/520

ATOM	6666	C4*	C A 320	130.663	50.016	-16.705	1.00	60.10	C	ATOM	6716	C2	C A 322	122.286	48.641	-8.194	1.00	55.68	C
ATOM	6667	O4*	C A 320	131.401	49.636	-15.521	1.00	60.10	O	ATOM	6717	O2	C A 322	122.030	47.795	-7.303	1.00	55.68	O
ATOM	6668	C3*	C A 320	129.300	50.400	-16.167	1.00	60.10	C	ATOM	6718	N3	C A 322	122.643	49.914	-7.888	1.00	55.68	N
ATOM	6669	O3*	C A 320	128.295	50.315	-17.164	1.00	60.10	O	ATOM	6719	C4	C A 322	122.913	50.785	-8.864	1.00	55.68	C
ATOM	6670	C5*	C A 320	129.082	49.352	-15.086	1.00	60.10	C	ATOM	6720	N4	C A 322	123.237	52.032	-8.521	1.00	55.68	N
ATOM	6671	O2*	C A 320	128.612	48.125	-15.605	1.00	60.10	O	ATOM	6721	C5	C A 322	122.856	50.420	-10.238	1.00	55.68	C
ATOM	6672	C1*	C A 320	130.498	49.147	-14.552	1.00	60.10	C	ATOM	6722	C6	C A 322	122.498	49.166	-10.534	1.00	55.68	C
ATOM	6673	N1	C A 320	130.690	49.869	-13.292	1.00	49.94	N	ATOM	6723	P	U A 323	117.269	46.898	-11.528	1.00	47.29	P
ATOM	6674	O2	C A 320	130.147	49.319	-12.129	1.00	49.94	C	ATOM	6724	O1P	U A 323	116.242	45.960	-12.064	1.00	53.50	O
ATOM	6675	C2	C A 320	129.617	48.203	-12.188	1.00	49.94	O	ATOM	6725	O2P	U A 323	117.507	48.197	-12.212	1.00	53.50	O
ATOM	6676	N3	C A 320	130.213	50.012	-10.975	1.00	49.94	N	ATOM	6726	O5*	U A 323	116.989	47.208	-9.993	1.00	47.29	O
ATOM	6677	C4	C A 320	130.804	51.199	-10.950	1.00	49.94	C	ATOM	6727	C5*	U A 323	117.023	46.160	-9.017	1.00	47.29	C
ATOM	6678	N4	C A 320	130.792	51.868	-9.806	1.00	49.94	N	ATOM	6728	C4*	U A 323	116.878	46.735	-7.631	1.00	47.29	C
ATOM	6679	C5	C A 320	131.420	51.758	-12.104	1.00	49.94	C	ATOM	6729	O4*	U A 323	118.133	47.297	-7.172	1.00	47.29	O
ATOM	6680	C6	C A 320	131.344	51.064	-13.245	1.00	49.94	C	ATOM	6730	C3*	U A 323	115.886	47.870	-7.512	1.00	47.29	C
ATOM	6681	P	A A 321	127.175	51.468	-17.262	1.00	57.10	P	ATOM	6731	O3*	U A 323	114.562	47.405	-7.412	1.00	47.29	O
ATOM	6682	O1P	A A 321	126.770	51.514	-18.698	1.00	55.03	O	ATOM	6732	C2*	U A 323	116.360	48.609	-6.274	1.00	47.29	C
ATOM	6683	O2P	A A 321	127.654	52.707	-16.588	1.00	55.03	O	ATOM	6733	O2*	U A 323	115.900	47.984	-5.106	1.00	47.29	C
ATOM	6684	O5*	A A 321	125.953	50.936	-16.389	1.00	57.10	O	ATOM	6734	C1*	U A 323	117.879	48.440	-6.375	1.00	47.29	C
ATOM	6685	C5*	A A 321	125.213	49.796	-16.804	1.00	57.10	C	ATOM	6735	N1	U A 323	118.553	49.590	-7.003	1.00	53.50	N
ATOM	6686	C4*	A A 321	124.976	48.872	-15.639	1.00	57.10	C	ATOM	6736	C2	U A 323	119.078	50.573	-6.182	1.00	53.50	C
ATOM	6687	O4*	A A 321	126.116	48.911	-14.743	1.00	57.10	O	ATOM	6737	O2	U A 323	119.020	50.530	-4.968	1.00	53.50	O
ATOM	6688	O3*	A A 321	123.785	49.150	-14.740	1.00	57.10	C	ATOM	6738	N3	U A 323	119.684	51.613	-6.841	1.00	53.50	N
ATOM	6689	O3*	A A 321	122.607	48.598	-15.325	1.00	57.10	O	ATOM	6739	C4	U A 323	119.826	51.766	-8.200	1.00	53.50	C
ATOM	6690	C2*	A A 321	124.176	48.410	-13.465	1.00	57.10	C	ATOM	6740	O4	U A 323	120.439	52.735	-8.640	1.00	53.50	O
ATOM	6691	O2*	A A 321	123.939	47.017	-13.579	1.00	57.10	O	ATOM	6741	C5	U A 323	119.262	50.713	-8.978	1.00	53.50	C
ATOM	6692	C1*	A A 321	125.694	48.607	-13.428	1.00	57.10	C	ATOM	6742	C6	U A 323	118.659	49.687	-8.370	1.00	53.50	C
ATOM	6693	N9	A A 321	126.157	49.651	-12.506	1.00	55.03	N	ATOM	6743	P	G A 324	113.367	48.368	-7.868	1.00	42.75	P
ATOM	6694	C8	A A 321	126.714	50.875	-12.791	1.00	55.03	C	ATOM	6744	O1P	G A 324	112.106	47.597	-8.043	1.00	59.12	O
ATOM	6695	N7	A A 321	127.015	51.581	-11.726	1.00	55.03	N	ATOM	6745	O2P	G A 324	113.869	49.204	-8.990	1.00	59.12	O
ATOM	6696	C5	A A 321	126.630	50.769	-10.669	1.00	55.03	C	ATOM	6746	O5*	G A 324	113.209	49.266	-6.579	1.00	42.75	O
ATOM	6697	C6	A A 321	126.685	50.939	-9.272	1.00	55.03	C	ATOM	6747	C5*	G A 324	112.618	50.534	-6.655	1.00	42.75	C
ATOM	6698	N6	A A 321	127.158	52.029	-8.677	1.00	55.03	N	ATOM	6748	C4*	G A 324	113.233	51.425	-5.627	1.00	42.75	C
ATOM	6699	N1	A A 321	126.229	49.932	-8.499	1.00	55.03	N	ATOM	6749	O4*	G A 324	114.679	51.336	-5.703	1.00	42.75	O
ATOM	6700	C2	A A 321	125.747	48.838	-9.091	1.00	55.03	C	ATOM	6750	C3*	G A 324	112.905	52.875	-5.864	1.00	42.75	C
ATOM	6701	N3	A A 321	125.640	48.561	-10.385	1.00	55.03	N	ATOM	6751	O3*	G A 324	111.647	53.158	-5.288	1.00	42.75	O
ATOM	6702	C4	A A 321	126.105	49.577	-11.132	1.00	55.03	C	ATOM	6752	C2*	G A 324	114.118	53.584	-5.289	1.00	42.75	C
ATOM	6703	P	C A 322	121.157	49.020	-14.770	1.00	50.24	P	ATOM	6753	O2*	G A 324	114.086	53.602	-3.881	1.00	42.75	O
ATOM	6704	O1P	C A 322	120.146	48.534	-15.746	1.00	55.68	O	ATOM	6754	C1*	G A 324	115.241	52.642	-5.722	1.00	42.75	C
ATOM	6705	O2P	C A 322	121.159	50.440	-14.375	1.00	55.68	O	ATOM	6755	N9	G A 324	115.667	52.891	-7.096	1.00	59.12	N
ATOM	6706	O5*	C A 322	121.019	48.191	-13.420	1.00	50.24	O	ATOM	6756	C8	G A 324	115.173	52.268	-8.218	1.00	59.12	C
ATOM	6707	C5*	C A 322	121.122	46.756	-13.413	1.00	50.24	C	ATOM	6757	N7	G A 324	115.702	52.703	-9.324	1.00	59.12	N
ATOM	6708	C4*	C A 322	120.998	46.239	-12.001	1.00	50.24	C	ATOM	6758	C5	G A 324	116.605	53.669	-8.911	1.00	59.12	C
ATOM	6709	O4*	C A 322	122.163	46.618	-11.229	1.00	50.24	O	ATOM	6759	C6	G A 324	117.446	54.500	-9.672	1.00	59.12	C
ATOM	6710	C3*	C A 322	119.832	46.817	-11.229	1.00	50.24	C	ATOM	6760	O6	G A 324	117.559	54.550	-10.905	1.00	59.12	O
ATOM	6711	O3*	C A 322	118.653	46.106	-11.482	1.00	50.24	O	ATOM	6761	N1	G A 324	118.198	55.345	-8.861	1.00	59.12	N
ATOM	6712	C2*	C A 322	120.264	46.686	-9.784	1.00	50.24	C	ATOM	6762	C2	G A 324	118.136	55.386	-7.496	1.00	59.12	C
ATOM	6713	O2*	C A 322	119.975	45.403	-9.275	1.00	50.24	O	ATOM	6763	N2	G A 324	118.933	56.274	-6.898	1.00	59.12	N
ATOM	6714	C1*	C A 322	121.778	46.895	-9.892	1.00	50.24	C	ATOM	6764	N3	G A 324	117.345	54.613	-6.768	1.00	59.12	N
ATOM	6715	N1	C A 322	122.201	48.265	-9.552	1.00	55.68	N	ATOM	6765	C4	G A 324	116.609	53.787	-7.536	1.00	59.12	C



Table 2: Sheet 69/520

ATOM	6766	P	A A 325	110.444	53.628	-6.244	1.00	50.63	P	ATOM	6816	C4*	A A 327	122.549	58.850	-7.150	1.00	47.10	C
ATOM	6767	O1P	A A 325	109.168	53.333	-5.566	1.00	53.23	O	ATOM	6817	O4*	A A 327	122.305	57.882	-6.089	1.00	47.10	O
ATOM	6768	O2P	A A 325	110.697	53.053	-7.591	1.00	53.23	O	ATOM	6818	C3*	A A 327	123.332	58.120	-8.246	1.00	47.10	C
ATOM	6769	O5*	A A 325	110.655	55.211	-6.331	1.00	50.63	O	ATOM	6819	O3*	A A 327	124.742	58.368	-8.090	1.00	47.10	O
ATOM	6770	C5*	A A 325	110.073	55.990	-7.393	1.00	50.63	C	ATOM	6820	C2*	A A 327	123.033	56.649	-7.935	1.00	47.10	C
ATOM	6771	C4*	A A 325	110.632	57.394	-7.388	1.00	50.63	C	ATOM	6821	O2*	A A 327	124.023	55.733	-8.331	1.00	47.10	O
ATOM	6772	C3*	A A 325	110.302	58.059	-6.152	1.00	50.63	C	ATOM	6822	C1*	A A 327	122.941	56.665	-6.408	1.00	47.10	C
ATOM	6773	O4*	A A 325	112.137	57.523	-7.481	1.00	50.63	C	ATOM	6823	N9	A A 327	122.192	55.570	-5.783	1.00	46.97	N
ATOM	6774	O3*	A A 325	112.547	57.508	-8.825	1.00	50.63	O	ATOM	6824	C8	A A 327	121.414	54.613	-6.378	1.00	46.97	C
ATOM	6775	C2*	A A 325	112.399	58.896	-6.891	1.00	50.63	C	ATOM	6825	N7	A A 327	120.863	53.780	-5.535	1.00	46.97	N
ATOM	6776	O2*	A A 325	112.170	59.905	-7.853	1.00	50.63	O	ATOM	6826	C5	A A 327	121.310	54.214	-4.298	1.00	46.97	C
ATOM	6777	C1*	A A 325	111.319	58.983	-5.821	1.00	50.63	C	ATOM	6827	C6	A A 327	121.069	53.755	-2.992	1.00	46.97	C
ATOM	6778	N9	A A 325	111.806	58.686	-4.478	1.00	53.23	N	ATOM	6828	N6	A A 327	120.260	52.717	-2.705	1.00	46.97	N
ATOM	6779	C8	A A 325	111.668	57.531	-3.753	1.00	53.23	C	ATOM	6829	N1	A A 327	121.660	54.412	-1.975	1.00	46.97	N
ATOM	6780	N7	A A 325	112.185	57.597	-2.552	1.00	53.23	N	ATOM	6830	C2	A A 327	122.441	55.455	-2.262	1.00	46.97	C
ATOM	6781	C5	A A 325	112.712	58.877	-2.487	1.00	53.23	C	ATOM	6831	N3	A A 327	122.746	55.981	-3.449	1.00	46.97	N
ATOM	6782	C6	A A 325	113.393	59.563	-1.480	1.00	53.23	C	ATOM	6832	C4	A A 327	122.136	55.309	-4.436	1.00	46.97	C
ATOM	6783	N6	A A 325	113.689	59.036	-0.295	1.00	53.23	N	ATOM	6833	P	C A 328	125.415	59.704	-8.709	1.00	53.12	P
ATOM	6784	N1	A A 325	113.775	60.826	-1.731	1.00	53.23	N	ATOM	6834	O1P	C A 328	126.570	60.060	-7.834	1.00	53.96	O
ATOM	6785	C2	A A 325	113.501	61.350	-2.923	1.00	53.23	C	ATOM	6835	O2P	C A 328	124.358	60.713	-8.993	1.00	53.96	O
ATOM	6786	N3	A A 325	112.876	60.805	-3.957	1.00	53.23	N	ATOM	6836	O5*	C A 328	126.022	59.277	-10.110	1.00	53.12	O
ATOM	6787	C4	A A 325	112.496	59.553	-3.669	1.00	53.23	C	ATOM	6837	C5*	C A 328	125.791	57.982	-10.618	1.00	53.12	C
ATOM	6788	P	G A 326	113.968	56.887	-9.201	1.00	50.43	P	ATOM	6838	C4*	C A 328	126.578	57.002	-9.809	1.00	53.12	C
ATOM	6789	O1P	G A 326	114.073	56.964	-10.681	1.00	62.01	O	ATOM	6839	O4*	C A 328	125.891	55.741	-9.778	1.00	53.12	O
ATOM	6790	O2P	G A 326	114.047	55.571	-8.522	1.00	62.01	O	ATOM	6840	C3*	C A 328	127.976	56.720	-10.278	1.00	53.12	C
ATOM	6791	O5*	G A 326	115.029	57.871	-8.535	1.00	50.43	O	ATOM	6841	O3*	C A 328	128.880	56.797	-9.142	1.00	53.12	O
ATOM	6792	C5*	G A 326	115.219	59.210	-9.039	1.00	50.43	C	ATOM	6842	C2*	C A 328	127.810	55.462	-11.147	1.00	53.12	C
ATOM	6793	C4*	G A 326	116.114	59.986	-8.110	1.00	50.43	C	ATOM	6843	O2*	C A 328	128.904	54.571	-11.122	1.00	53.12	O
ATOM	6794	O4*	G A 326	115.507	60.009	-6.799	1.00	50.43	O	ATOM	6844	C1*	C A 328	126.511	54.826	-10.635	1.00	53.12	C
ATOM	6795	C3*	G A 326	117.494	59.391	-7.904	1.00	50.43	C	ATOM	6845	N1	C A 328	125.459	54.411	-11.601	1.00	53.96	N
ATOM	6796	O3*	G A 326	118.382	59.938	-8.870	1.00	50.43	O	ATOM	6846	C2	C A 328	125.698	54.419	-12.981	1.00	53.96	C
ATOM	6797	C2*	G A 326	117.867	59.866	-6.506	1.00	50.43	C	ATOM	6847	O2	C A 328	126.784	54.811	-13.408	1.00	53.96	O
ATOM	6798	O2*	G A 326	118.428	61.162	-6.533	1.00	50.43	O	ATOM	6848	N3	C A 328	124.731	53.995	-13.821	1.00	53.96	N
ATOM	6799	C1*	G A 326	116.506	59.926	-5.805	1.00	50.43	C	ATOM	6849	C4	C A 328	123.566	53.577	-13.341	1.00	53.96	C
ATOM	6800	N9	G A 326	116.175	58.811	-4.918	1.00	62.01	N	ATOM	6850	N4	C A 328	122.663	53.142	-14.214	1.00	53.96	N
ATOM	6801	C8	G A 326	115.523	57.657	-5.259	1.00	62.01	C	ATOM	6851	C5	C A 328	123.279	53.581	-11.948	1.00	53.96	C
ATOM	6802	N7	G A 326	115.320	56.867	-4.246	1.00	62.01	N	ATOM	6852	C6	C A 328	124.241	54.002	-11.123	1.00	53.96	C
ATOM	6803	C5	G A 326	115.881	57.532	-3.171	1.00	62.01	C	ATOM	6853	P	A A 329	129.048	55.581	-8.089	1.00	52.21	P
ATOM	6804	C6	G A 326	115.960	57.164	-1.799	1.00	62.01	C	ATOM	6854	O1P	A A 329	130.351	55.800	-7.421	1.00	46.83	O
ATOM	6805	O6	G A 326	115.533	56.144	-1.246	1.00	62.01	O	ATOM	6855	O2P	A A 329	128.789	54.297	-8.744	1.00	46.83	O
ATOM	6806	N1	G A 326	116.617	58.125	-1.050	1.00	62.01	N	ATOM	6856	O5*	A A 329	127.896	55.796	-7.002	1.00	52.21	O
ATOM	6807	C2	G A 326	117.127	59.286	-1.547	1.00	62.01	C	ATOM	6857	C5*	A A 329	127.859	56.965	-6.144	1.00	52.21	C
ATOM	6808	N2	G A 326	117.724	60.081	-0.657	1.00	62.01	N	ATOM	6858	C4*	A A 329	127.282	56.601	-4.792	1.00	52.21	C
ATOM	6809	N3	G A 326	117.057	59.646	-2.819	1.00	62.01	N	ATOM	6859	O4*	A A 329	126.003	55.969	-4.979	1.00	52.21	O
ATOM	6810	C4	G A 326	116.424	58.727	-3.568	1.00	62.01	C	ATOM	6860	C3*	A A 329	128.127	55.578	-4.052	1.00	52.21	C
ATOM	6811	P	A A 327	119.553	59.036	-9.500	1.00	47.10	P	ATOM	6861	O3*	A A 329	129.034	56.184	-3.113	1.00	52.21	O
ATOM	6812	O1P	A A 327	120.371	59.965	-10.312	1.00	46.97	O	ATOM	6862	C2*	A A 329	127.125	54.709	-3.282	1.00	52.21	C
ATOM	6813	O2P	A A 327	118.969	57.837	-10.149	1.00	46.97	O	ATOM	6863	O2*	A A 329	127.032	54.952	-1.894	1.00	52.21	O
ATOM	6814	O5*	A A 327	120.410	58.580	-8.238	1.00	47.10	O	ATOM	6864	C1*	A A 329	125.790	55.046	-3.936	1.00	52.21	C
ATOM	6815	C5*	A A 327	121.246	59.508	-7.545	1.00	47.10	C	ATOM	6865	N9	A A 329	125.059	53.894	-4.443	1.00	46.83	N



ATOM	6866	C8	A A 329	124.768	53.569	-5.739	1.00	46.83	C	ATOM	6916	N3	G A 331	129.549	54.305	8.665	1.00	63.44	N
ATOM	6867	N7	A A 329	124.042	52.490	-5.863	1.00	46.83	N	ATOM	6917	C4	G A 331	129.437	54.789	7.415	1.00	63.44	C
ATOM	6868	C5	A A 329	123.852	52.072	-4.560	1.00	46.83	C	ATOM	6918	P	G A 332	128.506	49.435	4.464	1.00	53.84	P
ATOM	6869	C6	A A 329	123.165	50.994	-4.020	1.00	46.83	C	ATOM	6919	O1P	G A 332	127.466	50.479	4.583	1.00	57.32	O
ATOM	6870	N6	A A 329	122.508	50.098	-4.759	1.00	46.83	N	ATOM	6920	O2P	G A 332	128.350	48.158	5.210	1.00	57.32	O
ATOM	6871	N1	A A 329	123.170	50.859	-2.679	1.00	46.83	N	ATOM	6921	O5*	G A 332	128.691	49.061	2.927	1.00	53.84	O
ATOM	6872	C2	A A 329	123.829	51.755	-1.947	1.00	46.83	C	ATOM	6922	C5*	G A 332	127.914	49.677	1.917	1.00	53.84	C
ATOM	6873	N3	A A 329	124.513	52.812	-2.340	1.00	46.83	N	ATOM	6923	C4*	G A 332	127.193	48.634	1.112	1.00	53.84	C
ATOM	6874	C4	A A 329	124.484	52.918	-3.676	1.00	46.83	C	ATOM	6924	O4*	G A 332	126.190	49.331	0.346	1.00	53.84	O
ATOM	6875	P	C A 330	128.939	57.763	-2.749	1.00	60.79	P	ATOM	6925	C3*	G A 332	127.977	47.839	0.073	1.00	53.84	C
ATOM	6876	O1P	C A 330	127.570	58.063	-2.251	1.00	66.18	O	ATOM	6926	O3*	G A 332	128.592	46.649	0.558	1.00	53.84	O
ATOM	6877	O2P	C A 330	129.544	58.600	-3.819	1.00	66.18	O	ATOM	6927	C2*	G A 332	126.891	47.459	-0.915	1.00	53.84	C
ATOM	6878	O5*	C A 330	129.895	57.883	-1.495	1.00	60.79	O	ATOM	6928	O2*	G A 332	126.020	46.366	-0.433	1.00	53.84	O
ATOM	6879	C5*	C A 330	129.826	56.907	-0.471	1.00	60.79	C	ATOM	6929	C1*	G A 332	126.151	48.711	-0.911	1.00	53.84	C
ATOM	6880	C4*	C A 330	131.196	56.414	-0.137	1.00	60.79	C	ATOM	6930	N9	G A 332	126.459	49.657	-1.932	1.00	57.32	N
ATOM	6881	O4*	C A 330	132.001	57.535	0.299	1.00	60.79	O	ATOM	6931	C8	G A 332	127.248	50.763	-1.746	1.00	57.32	C
ATOM	6882	C3*	C A 330	131.168	55.439	1.024	1.00	60.79	C	ATOM	6932	N7	G A 332	127.512	51.392	-2.854	1.00	57.32	N
ATOM	6883	O3*	C A 330	131.032	54.106	0.554	1.00	60.79	O	ATOM	6933	C5	G A 332	126.854	50.663	-3.831	1.00	57.32	C
ATOM	6884	C2*	C A 330	132.484	55.720	1.724	1.00	60.79	C	ATOM	6934	C6	G A 332	126.786	50.859	-5.228	1.00	57.32	C
ATOM	6885	O2*	C A 330	133.563	55.049	1.095	1.00	60.79	O	ATOM	6935	O6	G A 332	127.321	51.738	-5.907	1.00	57.32	O
ATOM	6886	C1*	C A 330	132.586	57.239	1.548	1.00	60.79	C	ATOM	6936	N1	G A 332	125.998	49.895	-5.842	1.00	57.32	N
ATOM	6887	N1	C A 330	131.801	57.950	2.572	1.00	66.18	N	ATOM	6937	C2	G A 332	125.357	48.874	-5.196	1.00	57.32	C
ATOM	6888	C2	C A 330	132.270	57.978	3.888	1.00	66.18	C	ATOM	6938	N2	G A 332	124.624	48.069	-5.961	1.00	57.32	N
ATOM	6889	O2	C A 330	133.365	57.453	4.155	1.00	66.18	O	ATOM	6939	N3	G A 332	125.425	48.067	-3.894	1.00	57.32	N
ATOM	6890	N3	C A 330	131.522	58.576	4.841	1.00	66.18	N	ATOM	6940	C4	G A 332	126.186	49.597	-3.277	1.00	57.32	C
ATOM	6891	C4	C A 330	130.359	59.138	4.521	1.00	66.18	C	ATOM	6941	P	G A 333	129.696	45.888	-0.353	1.00	45.32	P
ATOM	6892	N4	C A 330	129.647	59.684	5.505	1.00	66.18	N	ATOM	6942	O1P	G A 333	130.065	44.637	0.350	1.00	54.37	O
ATOM	6893	C5	C A 330	129.873	59.155	3.183	1.00	66.18	C	ATOM	6943	O2P	G A 333	130.766	46.864	-0.709	1.00	54.37	O
ATOM	6894	C6	C A 330	130.618	58.557	2.251	1.00	66.18	C	ATOM	6944	O5*	G A 333	128.934	45.517	-1.707	1.00	45.32	O
ATOM	6895	P	G A 331	129.753	53.240	0.987	1.00	56.01	P	ATOM	6945	C5*	G A 333	128.029	44.412	-1.777	1.00	45.32	C
ATOM	6896	O1P	G A 331	129.791	52.003	0.168	1.00	63.44	O	ATOM	6946	C4*	G A 333	127.668	44.116	-3.216	1.00	45.32	C
ATOM	6897	O2P	G A 331	128.537	54.092	0.973	1.00	63.44	O	ATOM	6947	O4*	G A 333	127.052	45.290	-3.802	1.00	45.32	O
ATOM	6898	O5*	G A 331	130.064	52.850	2.495	1.00	56.01	O	ATOM	6948	C3*	G A 333	128.808	43.785	-4.166	1.00	45.32	C
ATOM	6899	C5*	G A 331	131.247	52.115	2.824	1.00	56.01	C	ATOM	6949	O3*	G A 333	129.218	42.422	-4.104	1.00	45.32	O
ATOM	6900	C4*	G A 331	131.353	51.922	4.316	1.00	56.01	C	ATOM	6950	C2*	G A 333	128.222	44.150	-5.524	1.00	45.32	C
ATOM	6901	O4*	G A 331	131.655	53.184	4.974	1.00	56.01	O	ATOM	6951	O2*	G A 333	127.356	43.158	-6.030	1.00	45.32	O
ATOM	6902	C3*	G A 331	130.106	51.423	5.019	1.00	56.01	C	ATOM	6952	C1*	G A 333	127.387	45.377	-5.177	1.00	45.32	C
ATOM	6903	O3*	G A 331	129.939	50.029	4.894	1.00	56.01	O	ATOM	6953	N9	G A 333	128.098	46.633	-5.403	1.00	54.37	N
ATOM	6904	C2*	G A 331	130.354	51.856	6.459	1.00	56.01	C	ATOM	6954	C8	G A 333	128.533	47.520	-4.450	1.00	54.37	C
ATOM	6905	O2*	G A 331	131.233	50.984	7.141	1.00	56.01	O	ATOM	6955	N7	G A 333	129.104	48.578	-4.955	1.00	54.37	N
ATOM	6906	C1*	G A 331	131.045	53.210	6.259	1.00	56.01	C	ATOM	6956	C6	G A 333	129.049	49.375	-6.325	1.00	54.37	C
ATOM	6907	N9	G A 331	130.097	54.323	6.306	1.00	63.44	N	ATOM	6957	O5	G A 333	129.501	49.193	-7.392	1.00	54.37	O
ATOM	6908	C8	G A 331	129.682	55.101	5.255	1.00	63.44	C	ATOM	6958	O6	G A 333	130.036	50.309	-7.339	1.00	54.37	O
ATOM	6909	N7	G A 331	128.818	56.013	5.601	1.00	63.44	N	ATOM	6959	N1	G A 333	129.265	48.602	-8.620	1.00	54.37	N
ATOM	6910	C5	G A 331	128.656	55.827	6.965	1.00	63.44	C	ATOM	6960	C2	G A 333	128.662	47.395	-8.804	1.00	54.37	C
ATOM	6911	C6	G A 331	127.840	56.518	7.892	1.00	63.44	C	ATOM	6961	N2	G A 333	128.532	47.008	-10.067	1.00	54.37	N
ATOM	6912	O6	G A 331	127.079	57.473	7.688	1.00	63.44	O	ATOM	6962	N3	G A 333	128.220	46.625	-7.823	1.00	54.37	N
ATOM	6913	N1	G A 331	127.967	55.996	9.170	1.00	63.44	N	ATOM	6963	C4	G A 333	128.446	47.174	-6.618	1.00	54.37	C
ATOM	6914	C2	G A 331	128.776	54.954	9.516	1.00	63.44	C	ATOM	6964	P	C A 334	130.734	42.037	-4.481	1.00	52.69	P
ATOM	6915	N2	G A 331	128.750	54.601	10.803	1.00	63.44	N	ATOM	6965	O1P	C A 334	130.940	40.596	-4.196	1.00	66.38	O



Table 2: Sheet 71/520

ATOM	6966	O2P	C A 334	131.661	43.033	-3.886	1.00 66.38	O	ATOM	7016	N1	C A 336	140.049	45.277	-11.934	1.00 74.31	N
ATOM	6967	O5*	C A 334	130.757	42.222	-6.059	1.00 52.69	O	ATOM	7017	C2	C A 336	140.395	46.550	-11.456	1.00 74.31	C
ATOM	6968	C5*	C A 334	129.929	41.409	-6.896	1.00 52.69	O	ATOM	7018	O2	C A 336	141.089	47.295	-12.171	1.00 74.31	O
ATOM	6969	C4*	C A 334	130.297	41.620	-8.336	1.00 52.69	C	ATOM	7019	N3	C A 336	139.963	46.938	-10.231	1.00 74.31	N
ATOM	6970	O4*	C A 334	129.814	42.909	-8.792	1.00 52.69	O	ATOM	7020	C4	C A 336	139.209	46.119	-9.501	1.00 74.31	C
ATOM	6971	C3*	C A 334	131.788	41.657	-8.598	1.00 52.69	C	ATOM	7021	N4	C A 336	138.829	46.533	-8.293	1.00 74.31	N
ATOM	6972	C2*	C A 334	132.316	40.365	-8.718	1.00 52.69	O	ATOM	7022	C5	C A 336	138.817	44.835	-9.974	1.00 74.31	C
ATOM	6973	O3*	C A 334	131.878	42.459	-9.887	1.00 52.69	C	ATOM	7023	C6	C A 336	139.253	44.457	-11.183	1.00 74.31	C
ATOM	6974	O2*	C A 334	131.595	41.682	-11.039	1.00 52.69	O	ATOM	7024	P	C A 337	144.201	41.932	-12.113	1.00 68.88	P
ATOM	6975	C1*	C A 334	130.762	43.485	-9.677	1.00 52.69	C	ATOM	7025	O1P	C A 337	145.250	41.129	-12.772	1.00 57.16	O
ATOM	6976	N1	C A 334	131.252	44.748	-9.084	1.00 66.38	N	ATOM	7026	O2P	C A 337	143.497	41.382	-10.922	1.00 57.16	O
ATOM	6977	O2	C A 334	131.708	45.763	-9.936	1.00 66.38	C	ATOM	7027	O5*	C A 337	144.808	43.354	-11.726	1.00 68.88	O
ATOM	6978	C2	C A 334	131.693	45.572	-11.162	1.00 66.38	O	ATOM	7028	C5*	C A 337	145.425	44.180	-12.723	1.00 68.88	C
ATOM	6979	N3	C A 334	132.150	46.926	-9.405	1.00 66.38	N	ATOM	7029	C4*	C A 337	145.910	45.479	-12.120	1.00 68.88	C
ATOM	6980	C4	C A 334	132.142	47.098	-8.085	1.00 66.38	C	ATOM	7030	O4*	C A 337	144.797	46.367	-11.836	1.00 68.88	O
ATOM	6981	N4	C A 334	132.567	48.265	-7.607	1.00 66.38	N	ATOM	7031	C3*	C A 337	146.669	45.382	-10.808	1.00 68.88	C
ATOM	6982	C5	C A 334	131.692	46.080	-7.196	1.00 66.38	C	ATOM	7032	C3*	C A 337	148.027	45.026	-11.006	1.00 68.88	O
ATOM	6983	C6	C A 334	131.262	44.932	-7.731	1.00 66.38	C	ATOM	7033	O2*	C A 337	146.519	46.791	-10.246	1.00 68.88	C
ATOM	6984	P	C A 335	133.864	40.120	-8.414	1.00 55.83	P	ATOM	7034	O2*	C A 337	147.435	47.695	-10.831	1.00 68.88	O
ATOM	6985	O1P	C A 335	134.047	38.653	-8.488	1.00 55.75	O	ATOM	7035	C1*	C A 337	145.098	47.151	-10.689	1.00 68.88	C
ATOM	6986	O2P	C A 335	134.232	40.848	-7.178	1.00 55.75	O	ATOM	7036	N1	C A 337	144.099	46.860	-9.635	1.00 57.16	N
ATOM	6987	O5*	C A 335	134.602	40.773	-9.666	1.00 55.83	O	ATOM	7037	C2	C A 337	143.961	47.761	-8.561	1.00 57.16	C
ATOM	6988	C5*	C A 335	134.377	40.247	-10.987	1.00 55.83	C	ATOM	7038	O2	C A 337	144.654	48.794	-8.543	1.00 57.16	O
ATOM	6989	C4*	C A 335	135.076	41.084	-12.028	1.00 55.83	C	ATOM	7039	N3	C A 337	143.076	47.480	-7.572	1.00 57.16	N
ATOM	6990	O4*	C A 335	134.425	42.371	-12.166	1.00 55.83	O	ATOM	7040	C4	C A 337	142.343	46.365	-7.627	1.00 57.16	C
ATOM	6991	C3*	C A 335	136.533	41.409	-11.750	1.00 55.83	C	ATOM	7041	N4	C A 337	141.493	46.127	-6.625	1.00 57.16	N
ATOM	6992	O3*	C A 335	137.394	40.357	-12.139	1.00 55.83	O	ATOM	7042	C5	C A 337	142.450	45.445	-8.711	1.00 57.16	C
ATOM	6993	C2*	C A 335	136.756	42.665	-12.580	1.00 55.83	C	ATOM	7043	C6	C A 337	143.329	45.729	-9.683	1.00 57.16	C
ATOM	6994	O2*	C A 335	137.053	42.395	-13.937	1.00 55.83	O	ATOM	7044	P	A A 338	148.793	44.159	-9.890	1.00 73.25	P
ATOM	6995	C1*	C A 335	135.398	43.362	-12.455	1.00 55.83	C	ATOM	7045	O1P	A A 338	150.084	43.753	-10.496	1.00 60.24	O
ATOM	6996	N1	C A 335	135.424	44.331	-11.346	1.00 55.75	N	ATOM	7046	O2P	A A 338	147.873	43.118	-9.362	1.00 60.24	O
ATOM	6997	C2	C A 335	135.990	45.586	-11.568	1.00 55.75	C	ATOM	7047	O5*	A A 338	149.115	45.217	-8.744	1.00 73.25	O
ATOM	6998	O2	C A 335	136.443	45.847	-12.693	1.00 55.75	O	ATOM	7048	C5*	A A 338	149.978	46.335	-9.013	1.00 73.25	C
ATOM	6999	N3	C A 335	136.041	46.475	-10.551	1.00 55.75	N	ATOM	7049	C4*	A A 338	149.985	47.292	-7.851	1.00 73.25	C
ATOM	7000	C4	C A 335	135.562	46.141	-9.353	1.00 55.75	C	ATOM	7050	O4*	A A 338	148.699	47.939	-7.733	1.00 73.25	O
ATOM	7001	N4	C A 335	135.646	47.035	-8.371	1.00 55.75	N	ATOM	7051	C3*	A A 338	150.222	46.673	-6.491	1.00 73.25	C
ATOM	7002	C5	C A 335	134.977	44.871	-9.103	1.00 55.75	C	ATOM	7052	O3*	A A 338	151.600	46.513	-6.252	1.00 73.25	O
ATOM	7003	C6	C A 335	134.925	44.007	-10.116	1.00 55.75	C	ATOM	7053	C2*	A A 338	149.587	47.679	-5.543	1.00 73.25	C
ATOM	7004	P	C A 336	138.806	40.179	-11.401	1.00 61.22	P	ATOM	7054	O2*	A A 338	150.425	48.783	-5.275	1.00 73.25	O
ATOM	7005	O1P	C A 336	139.314	38.859	-11.843	1.00 74.31	O	ATOM	7055	C1*	A A 338	148.402	48.169	-6.367	1.00 73.25	C
ATOM	7006	O2P	C A 336	138.654	40.460	-9.951	1.00 74.31	O	ATOM	7056	N9	A A 338	147.145	47.492	-6.049	1.00 60.24	N
ATOM	7007	O5*	C A 336	139.714	41.321	-12.037	1.00 61.22	O	ATOM	7057	C8	A A 338	146.516	46.497	-6.753	1.00 60.24	C
ATOM	7008	C5*	C A 336	140.025	41.314	-13.438	1.00 61.22	C	ATOM	7058	N7	A A 338	145.374	46.127	-6.234	1.00 60.24	N
ATOM	7009	C4*	C A 336	140.756	42.574	-13.816	1.00 61.22	C	ATOM	7059	C5	A A 338	145.246	46.925	-5.107	1.00 60.24	C
ATOM	7010	O4*	C A 336	139.858	43.706	-13.698	1.00 61.22	O	ATOM	7060	C6	A A 338	144.247	47.025	-4.129	1.00 60.24	C
ATOM	7011	C3*	C A 336	141.932	42.939	-12.926	1.00 61.22	C	ATOM	7061	N6	A A 338	143.125	46.305	-4.142	1.00 60.24	N
ATOM	7012	O3*	C A 336	143.128	42.262	-13.265	1.00 61.22	O	ATOM	7062	N1	A A 338	144.434	47.906	-3.129	1.00 60.24	N
ATOM	7013	C2*	C A 336	142.050	44.438	-13.133	1.00 61.22	C	ATOM	7063	C2	A A 338	145.543	48.643	-3.128	1.00 60.24	C
ATOM	7014	O2*	C A 336	142.736	44.759	-14.327	1.00 61.22	O	ATOM	7064	N3	A A 338	146.548	48.652	-3.993	1.00 60.24	N
ATOM	7015	C1*	C A 336	140.581	44.844	-13.247	1.00 61.22	C	ATOM	7065	C4	A A 338	146.336	47.758	-4.972	1.00 60.24	C



Table 2: Sheet 72520

ATOM	7066	P	C A 339	152.097	45.303	-5.331	1.00	78.50	P	ATOM	7116	O2*	C A 341	145.527	39.323	8.364	1.00103.77	O
ATOM	7067	O1P	C A 339	153.581	45.302	-5.429	1.00	61.64	O	ATOM	7117	C1*	C A 341	146.045	40.572	6.372	1.00103.77	C
ATOM	7068	O2P	C A 339	151.324	44.074	-5.682	1.00	61.64	O	ATOM	7118	N1	C A 341	146.190	40.258	4.942	1.00 62.24	N
ATOM	7069	O5*	C A 339	151.671	45.734	-3.857	1.00	78.50	O	ATOM	7119	O2	C A 341	145.151	39.573	4.302	1.00 62.24	C
ATOM	7070	C5*	C A 339	152.265	46.881	-3.226	1.00	78.50	C	ATOM	7120	O2	C A 341	144.135	39.280	4.956	1.00 62.24	O
ATOM	7071	C4*	C A 339	151.479	47.274	-2.001	1.00	78.50	C	ATOM	7121	N3	C A 341	145.277	39.249	2.997	1.00 62.24	N
ATOM	7072	O4*	C A 339	150.138	47.671	-2.386	1.00	78.50	O	ATOM	7122	N4	C A 341	146.382	39.587	2.333	1.00 62.24	C
ATOM	7073	C3*	C A 339	151.256	46.188	-0.962	1.00	78.50	C	ATOM	7123	C4	C A 341	146.468	39.235	1.050	1.00 62.24	N
ATOM	7074	O3*	C A 339	152.360	46.023	-0.091	1.00	78.50	O	ATOM	7124	C5	C A 341	147.452	40.298	2.956	1.00 62.24	C
ATOM	7075	C2*	C A 339	150.024	46.685	-0.218	1.00	78.50	C	ATOM	7125	C6	C A 341	147.316	40.609	4.248	1.00 62.24	C
ATOM	7076	O2*	C A 339	150.315	47.625	0.796	1.00	78.50	O	ATOM	7126	P	C A 342	148.668	37.307	8.533	1.00103.78	P
ATOM	7077	C1*	C A 339	149.235	47.355	-1.342	1.00	78.50	C	ATOM	7127	O1P	C A 342	149.159	36.858	9.855	1.00 63.34	O
ATOM	7078	N1	C A 339	148.188	46.463	-1.856	1.00	61.64	N	ATOM	7128	O2P	C A 342	149.546	37.194	7.339	1.00 63.34	O
ATOM	7079	C2	C A 339	147.006	46.346	-1.127	1.00	61.64	C	ATOM	7129	O5*	C A 342	147.310	36.541	8.219	1.00103.78	O
ATOM	7080	O2	C A 339	146.875	47.017	-0.088	1.00	61.64	O	ATOM	7130	C5*	C A 342	146.307	36.381	9.233	1.00103.78	C
ATOM	7081	N3	C A 339	146.040	45.509	-1.563	1.00	61.64	N	ATOM	7131	C4*	C A 342	145.221	35.457	8.748	1.00103.78	C
ATOM	7082	C4	C A 339	146.223	44.812	-2.679	1.00	61.64	C	ATOM	7132	O4*	C A 342	144.516	36.080	7.644	1.00103.78	O
ATOM	7083	N4	C A 339	145.246	43.999	-3.072	1.00	61.64	N	ATOM	7133	C3*	C A 342	145.691	34.131	8.174	1.00103.78	C
ATOM	7084	C5	C A 339	147.415	44.917	-3.446	1.00	61.64	C	ATOM	7134	O3*	C A 342	145.984	33.151	9.151	1.00103.78	O
ATOM	7085	C6	C A 339	148.361	45.748	-3.005	1.00	61.64	C	ATOM	7135	C2*	C A 342	144.533	33.736	7.270	1.00103.78	C
ATOM	7086	P	U A 340	152.551	44.627	0.679	1.00	81.06	P	ATOM	7136	O2*	C A 342	143.442	33.167	7.965	1.00103.78	O
ATOM	7087	O1P	U A 340	153.863	44.710	1.357	1.00	68.07	O	ATOM	7137	C1*	C A 342	144.123	35.091	6.708	1.00103.78	C
ATOM	7088	O2P	U A 340	152.292	43.523	-0.277	1.00	68.07	O	ATOM	7138	N1	C A 342	144.822	35.340	5.440	1.00 63.34	N
ATOM	7089	O5*	U A 340	151.399	44.611	1.783	1.00	81.06	O	ATOM	7139	C2	C A 342	144.279	34.810	4.259	1.00 63.34	C
ATOM	7090	C5*	U A 340	151.454	45.499	2.913	1.00	81.06	C	ATOM	7140	O2	C A 342	143.227	34.149	4.319	1.00 63.34	O
ATOM	7091	C4*	U A 340	150.233	45.335	3.786	1.00	81.06	C	ATOM	7141	N3	C A 342	144.914	35.025	3.084	1.00 63.34	N
ATOM	7092	O4*	U A 340	149.040	45.691	3.041	1.00	81.06	C	ATOM	7142	C4	C A 342	146.046	35.732	3.059	1.00 63.34	C
ATOM	7093	C3*	U A 340	149.944	43.933	4.287	1.00	81.06	C	ATOM	7143	N4	C A 342	146.630	35.922	1.878	1.00 63.34	N
ATOM	7094	O3*	U A 340	150.708	43.588	5.425	1.00	81.06	O	ATOM	7144	C5	C A 342	146.626	36.276	4.245	1.00 63.34	C
ATOM	7095	C2*	U A 340	148.453	43.983	4.592	1.00	81.06	C	ATOM	7145	C6	C A 342	145.985	36.061	5.402	1.00 63.34	C
ATOM	7096	O2*	U A 340	148.148	44.545	5.854	1.00	81.06	O	ATOM	7146	P	U A 343	147.114	32.052	8.841	1.00102.02	P
ATOM	7097	C1*	U A 340	147.947	44.898	3.480	1.00	81.06	C	ATOM	7147	O1P	U A 343	147.222	31.182	10.037	1.00109.46	O
ATOM	7098	N1	U A 340	147.429	44.125	2.340	1.00	68.07	N	ATOM	7148	O2P	U A 343	148.321	32.754	8.336	1.00109.46	O
ATOM	7099	C2	U A 340	146.212	43.472	2.506	1.00	68.07	C	ATOM	7149	O5*	U A 343	146.518	31.214	7.621	1.00102.02	O
ATOM	7100	O2	U A 340	145.558	43.512	3.545	1.00	68.07	O	ATOM	7150	C5*	U A 343	145.344	30.395	7.791	1.00102.02	C
ATOM	7101	N3	U A 340	145.789	42.767	1.414	1.00	68.07	N	ATOM	7151	C4*	U A 343	144.998	29.687	6.502	1.00102.02	C
ATOM	7102	C4	U A 340	146.426	42.643	0.205	1.00	68.07	C	ATOM	7152	O4*	U A 343	144.645	30.664	5.489	1.00102.02	O
ATOM	7103	O4	U A 340	145.904	41.961	-0.681	1.00	68.07	O	ATOM	7153	C3*	U A 343	146.103	28.861	5.863	1.00102.02	C
ATOM	7104	C5	U A 340	147.674	43.342	0.109	1.00	68.07	C	ATOM	7154	O3*	U A 343	146.217	27.566	6.446	1.00102.02	O
ATOM	7105	C6	U A 340	148.120	44.040	1.151	1.00	68.07	C	ATOM	7155	C2*	U A 343	145.674	28.817	4.400	1.00102.02	C
ATOM	7106	P	C A 341	151.106	42.051	5.666	1.00	103.77	P	ATOM	7156	O2*	U A 343	144.689	27.837	4.141	1.00102.02	O
ATOM	7107	O1P	C A 341	152.098	42.061	6.770	1.00	62.24	O	ATOM	7157	C1*	U A 343	145.064	30.207	4.214	1.00102.02	C
ATOM	7108	O2P	C A 341	151.465	41.440	4.356	1.00	62.24	O	ATOM	7158	N1	U A 343	146.047	31.159	3.673	1.00109.46	N
ATOM	7109	O5*	C A 341	149.763	41.377	6.194	1.00	103.77	O	ATOM	7159	C2	U A 343	146.140	31.283	2.294	1.00109.46	C
ATOM	7110	C5*	C A 341	149.257	41.699	7.497	1.00	103.77	C	ATOM	7160	O2	U A 343	145.418	30.676	1.519	1.00109.46	O
ATOM	7111	C4*	C A 341	147.905	41.070	7.710	1.00	103.77	C	ATOM	7161	N3	U A 343	147.113	32.146	1.858	1.00109.46	N
ATOM	7112	O4*	C A 341	146.978	41.582	6.719	1.00	103.77	O	ATOM	7162	C4	U A 343	147.980	32.889	2.639	1.00109.46	C
ATOM	7113	C3*	C A 341	147.826	39.563	7.539	1.00	103.77	C	ATOM	7163	O4	U A 343	148.849	33.574	2.096	1.00109.46	O
ATOM	7114	O3*	C A 341	148.224	38.841	8.690	1.00	103.77	O	ATOM	7164	C5	U A 343	147.802	32.727	4.049	1.00109.46	C
ATOM	7115	C2*	C A 341	146.355	39.342	7.219	1.00	103.77	C	ATOM	7165	C6	U A 343	146.868	31.891	4.506	1.00109.46	C



Table 2: Sheet 73/520

ATOM	7166	P	A A 344	147.613	26.764	6.351	1.00	99.00	P	ATOM	7216	O3*	G A 346	142.249	27.696	-6.490	1.00116.16	O
ATOM	7167	O1P	A A 344	147.477	25.566	7.217	1.00120.71	O	ATOM	7217	C2*	G A 346	141.557	26.545	-4.457	1.00116.16	C	
ATOM	7168	O2P	A A 344	148.729	27.719	6.591	1.00120.71	O	ATOM	7218	O1*	G A 346	140.558	26.013	-5.298	1.00116.16	O	
ATOM	7169	O5*	A A 344	147.678	26.292	4.829	1.00	99.00	O	ATOM	7219	C1*	G A 346	142.262	25.407	-3.714	1.00116.16	C
ATOM	7170	C5*	A A 344	148.464	25.145	4.439	1.00	99.00	C	ATOM	7220	N9	G A 346	142.405	25.547	-2.269	1.00111.78	N
ATOM	7171	C4*	A A 344	147.560	23.968	4.144	1.00	99.00	C	ATOM	7221	C8	G A 346	141.869	24.716	-1.315	1.00111.78	C
ATOM	7172	O4*	A A 344	146.822	23.637	5.341	1.00	99.00	O	ATOM	7222	N7	G A 346	142.186	25.061	-0.098	1.00111.78	N
ATOM	7173	C3*	A A 344	146.518	24.205	3.063	1.00	99.00	C	ATOM	7223	C5	G A 346	142.974	26.192	-0.254	1.00111.78	C
ATOM	7174	O3*	A A 344	147.134	23.867	1.807	1.00	99.00	O	ATOM	7224	C6	G A 346	143.614	27.005	0.717	1.00111.78	C
ATOM	7175	C2*	A A 344	145.347	23.308	3.481	1.00	99.00	C	ATOM	7225	O6	G A 346	143.616	26.879	1.948	1.00111.78	O
ATOM	7176	O2*	A A 344	145.424	21.999	2.962	1.00	99.00	O	ATOM	7226	N1	G A 346	144.311	28.055	0.124	1.00111.78	N
ATOM	7177	C1*	A A 344	145.516	23.234	5.002	1.00	99.00	C	ATOM	7227	C2	G A 346	144.386	28.291	-1.228	1.00111.78	C
ATOM	7178	N9	A A 344	144.592	23.979	5.853	1.00120.71	N	ATOM	7228	N2	G A 346	145.104	29.358	-1.606	1.00111.78	N	
ATOM	7179	C8	A A 344	144.394	25.333	5.931	1.00120.71	C	ATOM	7229	N3	G A 346	143.798	27.536	-2.143	1.00111.78	N	
ATOM	7180	N7	A A 344	143.566	25.691	6.882	1.00120.71	N	ATOM	7230	C4	G A 346	143.114	26.511	-1.589	1.00111.78	C	
ATOM	7181	C5	A A 344	143.174	24.489	7.454	1.00120.71	C	ATOM	7231	P	G A 347	142.335	29.271	-6.810	1.00120.97	P	
ATOM	7182	C6	A A 344	142.312	24.181	8.526	1.00120.71	C	ATOM	7232	O1P	G A 347	141.741	29.512	-8.148	1.00	91.71	O
ATOM	7183	N6	A A 344	141.681	25.099	9.262	1.00120.71	N	ATOM	7233	O2P	G A 347	143.739	29.685	-6.550	1.00	91.71	O
ATOM	7184	N1	A A 344	142.126	22.877	8.826	1.00120.71	N	ATOM	7234	O5*	G A 347	141.386	29.942	-5.716	1.00120.97	O	
ATOM	7185	C2	A A 344	142.776	21.955	8.106	1.00120.71	C	ATOM	7235	C5*	G A 347	140.082	29.398	-5.451	1.00120.97	C	
ATOM	7186	N3	A A 344	143.619	22.120	7.090	1.00120.71	N	ATOM	7236	C4*	G A 347	139.670	29.658	-4.018	1.00120.97	C	
ATOM	7187	C4	A A 344	143.777	23.426	6.811	1.00120.71	C	ATOM	7237	O4*	G A 347	140.792	29.387	-3.132	1.00120.97	O	
ATOM	7188	P	C A 345	146.242	23.384	0.555	1.00115.94	P	ATOM	7238	C3*	G A 347	139.260	31.071	-3.637	1.00120.97	C	
ATOM	7189	O1P	C A 345	144.883	23.988	0.659	1.00116.88	O	ATOM	7239	O3*	G A 347	137.918	31.393	-3.989	1.00120.97	O	
ATOM	7190	O2P	C A 345	146.383	21.907	0.476	1.00116.88	O	ATOM	7240	C2*	G A 347	139.447	31.059	-2.126	1.00120.97	C	
ATOM	7191	O5*	C A 345	146.983	23.989	-0.722	1.00115.94	O	ATOM	7241	O2*	G A 347	138.380	30.427	-1.449	1.00120.97	O	
ATOM	7192	C5*	C A 345	146.281	24.133	-1.973	1.00115.94	C	ATOM	7242	C1*	G A 347	140.703	30.213	-1.981	1.00120.97	C	
ATOM	7193	C4*	C A 345	146.738	25.379	-2.693	1.00115.94	C	ATOM	7243	N9	G A 347	141.873	31.085	-1.912	1.00	91.71	N
ATOM	7194	O4*	C A 345	146.735	26.493	-1.762	1.00115.94	O	ATOM	7244	C8	G A 347	142.697	31.476	-2.941	1.00	91.71	C
ATOM	7195	C3*	C A 345	148.134	25.329	-3.239	1.00115.94	C	ATOM	7245	N7	G A 347	143.636	32.302	-2.561	1.00	91.71	N
ATOM	7196	O2*	C A 345	148.118	26.083	-4.506	1.00115.94	O	ATOM	7246	C5	G A 347	143.425	32.458	-1.197	1.00	91.71	C
ATOM	7197	C2*	C A 345	148.990	26.061	-2.271	1.00115.94	C	ATOM	7247	C6	G A 347	144.132	33.237	-0.234	1.00	91.71	C
ATOM	7198	O2*	C A 345	150.102	26.704	-2.856	1.00115.94	O	ATOM	7248	O6	G A 347	145.118	33.967	-0.402	1.00	91.71	O
ATOM	7199	C1*	C A 345	148.008	27.101	-1.737	1.00115.94	C	ATOM	7249	N1	G A 347	143.579	33.103	1.036	1.00	91.71	N
ATOM	7200	N1	C A 345	148.276	27.573	-0.364	1.00116.88	N	ATOM	7250	C2	G A 347	142.491	32.321	1.346	1.00	91.71	C
ATOM	7201	C2	C A 345	148.619	28.923	-0.165	1.00116.88	C	ATOM	7251	N2	G A 347	142.108	32.319	2.633	1.00	91.71	N
ATOM	7202	O2	C A 345	148.718	29.676	-1.150	1.00116.88	O	ATOM	7252	N3	G A 347	141.828	31.594	0.461	1.00	91.71	N
ATOM	7203	N3	C A 345	148.834	29.371	1.094	1.00116.88	N	ATOM	7253	C4	G A 347	142.346	31.709	-0.781	1.00	91.71	C
ATOM	7204	C4	C A 345	148.723	28.534	2.129	1.00116.88	C	ATOM	7254	P	G A 348	137.375	32.891	-3.738	1.00	93.79	P
ATOM	7205	N4	C A 345	148.929	29.023	3.355	1.00116.88	N	ATOM	7255	O1P	G A 348	135.946	32.985	-4.152	1.00	76.98	O
ATOM	7206	C5	C A 345	148.394	27.159	1.954	1.00116.88	C	ATOM	7256	O2P	G A 348	138.377	33.844	-4.309	1.00	76.98	O
ATOM	7207	C6	C A 345	148.182	26.725	0.704	1.00116.88	C	ATOM	7257	O5*	G A 348	137.416	33.017	-2.156	1.00	93.79	O
ATOM	7208	P	G A 346	147.559	25.417	-5.859	1.00116.16	P	ATOM	7258	C5*	G A 348	137.282	34.275	-1.523	1.00	93.79	C
ATOM	7209	O1P	G A 346	148.127	24.046	-5.968	1.00111.78	O	ATOM	7259	C4*	G A 348	137.490	34.122	-0.049	1.00	93.79	C
ATOM	7210	O2P	G A 346	147.778	26.392	-6.965	1.00111.78	O	ATOM	7260	O4*	G A 348	138.807	33.574	0.195	1.00	93.79	O
ATOM	7211	O5*	G A 346	145.986	25.292	-5.609	1.00116.16	O	ATOM	7261	C3*	G A 348	137.503	35.441	0.679	1.00	93.79	C
ATOM	7212	C5*	G A 346	145.136	26.460	-5.593	1.00116.16	C	ATOM	7262	O3*	G A 348	136.211	35.914	0.945	1.00	93.79	O
ATOM	7213	C4*	G A 346	143.686	26.053	-5.444	1.00116.16	C	ATOM	7263	C2*	G A 348	138.352	35.156	1.901	1.00	93.79	C
ATOM	7214	O4*	G A 346	143.543	25.215	-4.275	1.00116.16	O	ATOM	7264	O2*	G A 348	137.640	34.514	2.942	1.00	93.79	O
ATOM	7215	C3*	G A 346	142.704	27.196	-5.230	1.00116.16	C	ATOM	7265	C1*	G A 348	139.406	34.233	1.298	1.00	93.79	C



Table 2: Sheet 74/520

ATOM	7266	N9	G A 348	140.537	35.003	0.789	1.00	76.98	N	ATOM	7316	O6	G A 350	142.675	43.992	-1.631	1.00	47.00	O
ATOM	7267	C8	G A 348	141.023	35.024	-0.499	1.00	76.98	C	ATOM	7317	N1	G A 350	143.702	45.160	0.020	1.00	47.00	N
ATOM	7268	N7	G A 348	142.052	35.814	-0.647	1.00	76.98	N	ATOM	7318	C2	G A 350	143.773	45.673	1.290	1.00	47.00	C
ATOM	7269	C5	G A 348	142.255	36.347	0.617	1.00	76.98	C	ATOM	7319	N2	G A 350	144.877	46.391	1.575	1.00	47.00	N
ATOM	7270	C6	G A 348	143.227	37.263	1.074	1.00	76.98	C	ATOM	7320	N3	G A 350	142.829	45.504	2.214	1.00	47.00	N
ATOM	7271	O6	G A 348	144.133	37.807	0.428	1.00	76.98	O	ATOM	7321	C4	G A 350	141.789	44.789	1.745	1.00	47.00	C
ATOM	7272	N1	G A 348	143.072	37.535	2.434	1.00	76.98	N	ATOM	7322	P	G A 351	136.579	47.974	4.356	1.00	80.46	P
ATOM	7273	C2	G A 348	142.098	36.993	3.246	1.00	76.98	C	ATOM	7323	O1P	G A 351	135.685	47.919	5.542	1.00	53.97	O
ATOM	7274	N2	G A 348	142.097	37.378	4.535	1.00	76.98	N	ATOM	7324	O2P	G A 351	136.135	47.362	3.071	1.00	53.97	O
ATOM	7275	N3	G A 348	141.189	36.136	2.825	1.00	76.98	N	ATOM	7325	O5*	G A 351	136.919	49.502	4.089	1.00	80.46	O
ATOM	7276	C4	G A 348	141.326	35.858	1.512	1.00	76.98	C	ATOM	7326	C5*	G A 351	137.653	50.268	5.060	1.00	80.46	C
ATOM	7277	P	A A 349	135.897	37.450	0.652	1.00	93.49	P	ATOM	7327	C4*	G A 351	138.720	51.065	4.371	1.00	80.46	C
ATOM	7278	O1P	A A 349	134.461	37.692	0.935	1.00	67.84	O	ATOM	7328	O4*	G A 351	139.632	50.136	3.768	1.00	80.46	O
ATOM	7279	O2P	A A 349	136.449	37.749	-0.697	1.00	67.84	O	ATOM	7329	C3*	G A 351	138.209	51.939	3.235	1.00	80.46	C
ATOM	7280	O5*	A A 349	136.773	38.197	1.749	1.00	93.49	O	ATOM	7330	O3*	G A 351	137.917	53.297	3.619	1.00	80.46	O
ATOM	7281	C5*	A A 349	136.640	37.845	3.136	1.00	93.49	C	ATOM	7331	C2*	G A 351	139.384	51.985	2.265	1.00	80.46	C
ATOM	7282	C4*	A A 349	137.456	38.774	3.985	1.00	93.49	C	ATOM	7332	O2*	G A 351	140.233	53.100	2.481	1.00	80.46	O
ATOM	7283	O4*	A A 349	138.866	38.461	3.877	1.00	93.49	O	ATOM	7333	C1*	G A 351	140.126	50.682	2.577	1.00	80.46	C
ATOM	7284	C3*	A A 349	137.362	40.218	3.558	1.00	93.49	C	ATOM	7334	N9	G A 351	140.106	49.648	1.554	1.00	53.97	N
ATOM	7285	O3*	A A 349	136.199	40.828	4.061	1.00	93.49	O	ATOM	7335	C8	G A 351	139.101	48.761	1.265	1.00	53.97	C
ATOM	7286	C2*	A A 349	138.647	40.814	4.103	1.00	93.49	C	ATOM	7336	N7	G A 351	139.404	47.948	0.288	1.00	53.97	N
ATOM	7287	O2*	A A 349	138.549	41.113	5.479	1.00	93.49	O	ATOM	7337	C5	G A 351	140.682	48.332	-0.089	1.00	53.97	C
ATOM	7288	C1*	A A 349	139.622	39.658	3.891	1.00	93.49	C	ATOM	7338	C6	G A 351	141.530	47.827	-1.101	1.00	53.97	C
ATOM	7289	N9	A A 349	140.324	39.765	2.613	1.00	67.84	N	ATOM	7339	O6	G A 351	141.307	46.925	-1.915	1.00	53.97	O
ATOM	7290	C8	A A 349	140.022	39.147	1.422	1.00	67.84	C	ATOM	7340	N1	G A 351	142.747	48.493	-1.121	1.00	53.97	N
ATOM	7291	N7	A A 349	140.851	39.440	0.450	1.00	67.84	N	ATOM	7341	C2	G A 351	143.099	49.525	-0.281	1.00	53.97	C
ATOM	7292	C5	A A 349	141.758	40.311	1.037	1.00	67.84	C	ATOM	7342	N2	G A 351	144.330	50.042	-0.439	1.00	53.97	N
ATOM	7293	C6	A A 349	142.887	40.975	0.536	1.00	67.84	C	ATOM	7343	N3	G A 351	142.308	50.015	0.648	1.00	53.97	N
ATOM	7294	N6	A A 349	143.320	40.859	-0.718	1.00	67.84	N	ATOM	7344	C4	G A 351	141.127	49.375	0.690	1.00	53.97	C
ATOM	7295	N1	A A 349	143.570	41.772	1.379	1.00	67.84	N	ATOM	7345	P	C A 352	138.335	53.869	5.081	1.00	45.86	P
ATOM	7296	C2	A A 349	143.146	41.885	2.641	1.00	67.84	C	ATOM	7346	O1P	C A 352	139.464	53.143	5.721	1.00	58.72	O
ATOM	7297	N3	A A 349	142.105	41.307	3.234	1.00	67.84	N	ATOM	7347	O2P	C A 352	137.084	54.110	5.856	1.00	58.72	O
ATOM	7298	C4	A A 349	141.444	40.523	2.366	1.00	67.84	C	ATOM	7348	O5*	C A 352	138.935	55.288	4.741	1.00	45.86	C
ATOM	7299	P	G A 350	135.730	42.230	3.451	1.00	82.48	P	ATOM	7349	C5*	C A 352	140.085	55.758	5.427	1.00	45.86	C
ATOM	7300	O1P	G A 350	134.253	42.309	3.608	1.00	47.00	O	ATOM	7350	C4*	C A 352	139.675	56.679	6.536	1.00	45.86	C
ATOM	7301	O2P	G A 350	136.332	42.387	2.095	1.00	47.00	O	ATOM	7351	O4*	C A 352	139.229	55.920	7.692	1.00	45.86	O
ATOM	7302	O5*	G A 350	136.446	43.265	4.421	1.00	82.48	O	ATOM	7352	C3*	C A 352	140.808	57.530	7.055	1.00	45.86	C
ATOM	7303	C5*	G A 350	136.794	44.563	3.963	1.00	82.48	C	ATOM	7353	O3*	C A 352	140.919	58.666	6.231	1.00	45.86	O
ATOM	7304	C4*	G A 350	138.115	44.981	4.543	1.00	82.48	C	ATOM	7354	C2*	C A 352	140.328	57.877	8.451	1.00	45.86	C
ATOM	7305	O4*	G A 350	139.145	44.041	4.159	1.00	82.48	O	ATOM	7355	O2*	C A 352	139.354	58.892	8.401	1.00	45.86	O
ATOM	7306	C3*	G A 350	138.580	46.320	4.010	1.00	82.48	C	ATOM	7356	C1*	C A 352	139.651	56.575	8.878	1.00	45.86	C
ATOM	7307	O3*	G A 350	138.000	47.356	4.789	1.00	82.48	O	ATOM	7357	N1	C A 352	140.601	55.703	9.589	1.00	58.72	N
ATOM	7308	C2*	G A 350	140.096	46.225	4.122	1.00	82.48	C	ATOM	7358	C2	C A 352	140.969	56.026	10.902	1.00	58.72	C
ATOM	7309	O2*	G A 350	140.560	46.531	5.419	1.00	82.48	O	ATOM	7359	O2	C A 352	140.475	57.025	11.439	1.00	58.72	O
ATOM	7310	C1*	G A 350	140.337	44.740	3.839	1.00	82.48	C	ATOM	7360	N3	C A 352	141.867	55.246	11.547	1.00	58.72	N
ATOM	7311	N9	G A 350	140.652	44.444	2.445	1.00	47.00	N	ATOM	7361	C4	C A 352	142.404	54.190	10.927	1.00	58.72	C
ATOM	7312	C8	G A 350	139.862	43.739	1.572	1.00	47.00	C	ATOM	7362	N4	C A 352	143.313	53.468	11.585	1.00	58.72	N
ATOM	7313	N7	G A 350	140.404	43.593	0.394	1.00	47.00	N	ATOM	7363	C5	C A 352	142.037	53.833	9.599	1.00	58.72	C
ATOM	7314	C5	G A 350	141.622	44.246	0.490	1.00	47.00	C	ATOM	7364	C6	C A 352	141.137	54.606	8.976	1.00	58.72	C
ATOM	7315	C6	G A 350	142.641	44.415	-0.476	1.00	47.00	C	ATOM	7365	P	A A 353	142.290	59.506	6.195	1.00	52.41	P



Table 2: Sheet 75/520

ATOM	7366	O1P	A A 353	142.971	59.107	4.929	1.00	50.19	O	ATOM	7416	O4*	C A 355	134.432	61.632	14.846	1.00	48.13	O
ATOM	7367	O2P	A A 353	143.032	59.418	7.485	1.00	50.19	O	ATOM	7417	C3*	C A 355	136.222	63.036	15.400	1.00	48.13	C
ATOM	7368	O5*	A A 353	141.764	61.012	6.142	1.00	52.41	O	ATOM	7418	O3*	C A 355	136.540	64.267	15.990	1.00	48.13	O
ATOM	7369	C5*	A A 353	141.565	61.685	4.908	1.00	52.41	C	ATOM	7419	C2*	C A 355	136.174	61.930	16.437	1.00	48.13	C
ATOM	7370	C4*	A A 353	140.173	62.267	4.827	1.00	52.41	C	ATOM	7420	O2*	C A 355	135.625	62.369	17.660	1.00	48.13	O
ATOM	7371	O4*	A A 353	140.222	63.069	3.630	1.00	52.41	O	ATOM	7421	C1*	C A 355	135.243	60.922	15.765	1.00	48.13	C
ATOM	7372	C3*	A A 353	139.049	61.175	4.624	1.00	52.41	C	ATOM	7422	N1	C A 355	135.993	59.885	15.028	1.00	55.37	N
ATOM	7373	O3*	A A 353	138.184	61.246	5.763	1.00	52.41	O	ATOM	7423	C2	C A 355	136.487	58.778	15.728	1.00	55.37	C
ATOM	7374	C2*	A A 353	138.273	61.769	3.414	1.00	52.41	C	ATOM	7424	O2	C A 355	136.311	58.708	16.952	1.00	55.37	O
ATOM	7375	O2*	A A 353	137.209	62.644	3.730	1.00	52.41	O	ATOM	7425	N3	C A 355	137.149	57.816	15.058	1.00	55.37	N
ATOM	7376	C1*	A A 353	139.348	62.547	2.665	1.00	52.41	C	ATOM	7426	C4	C A 355	137.327	57.922	13.747	1.00	55.37	C
ATOM	7377	N9	A A 353	140.136	61.736	1.741	1.00	50.19	N	ATOM	7427	N4	C A 355	137.947	56.923	13.123	1.00	55.37	N
ATOM	7378	C8	A A 353	141.408	61.227	1.886	1.00	50.19	C	ATOM	7428	C5	C A 355	136.865	59.048	13.014	1.00	55.37	C
ATOM	7379	N7	A A 353	141.825	60.550	0.846	1.00	50.19	N	ATOM	7429	C6	C A 355	136.206	59.995	13.685	1.00	55.37	C
ATOM	7380	C5	A A 353	140.755	60.607	-0.035	1.00	50.19	C	ATOM	7430	P	A A 356	138.072	64.710	16.083	1.00	59.34	P
ATOM	7381	C6	A A 353	140.558	60.083	-1.314	1.00	50.19	C	ATOM	7431	O1P	A A 356	138.105	66.011	16.817	1.00	69.82	O
ATOM	7382	N6	A A 353	141.451	59.337	-1.957	1.00	50.19	N	ATOM	7432	O2P	A A 356	138.648	64.604	14.712	1.00	69.82	O
ATOM	7383	N1	A A 353	139.384	60.348	-1.922	1.00	50.19	N	ATOM	7433	O5*	A A 356	138.760	63.580	16.966	1.00	59.34	O
ATOM	7384	C2	A A 353	138.471	61.078	-1.273	1.00	50.19	C	ATOM	7434	C5*	A A 356	138.661	63.603	18.387	1.00	59.34	C
ATOM	7385	N3	A A 353	138.531	61.608	-0.070	1.00	50.19	N	ATOM	7435	C4*	A A 356	139.304	62.376	18.981	1.00	59.34	C
ATOM	7386	C4	A A 353	139.713	61.336	0.504	1.00	50.19	C	ATOM	7436	O4*	A A 356	138.633	61.185	18.488	1.00	59.34	O
ATOM	7387	P	G A 354	137.000	60.074	5.816	1.00	46.01	P	ATOM	7437	C3*	A A 356	140.770	62.088	18.692	1.00	59.34	C
ATOM	7388	O1P	G A 354	137.617	58.764	6.130	1.00	57.52	O	ATOM	7438	O3*	A A 356	141.660	62.848	19.498	1.00	59.34	O
ATOM	7389	O2P	G A 354	136.139	60.201	4.610	1.00	57.52	O	ATOM	7439	C2*	A A 356	140.863	60.614	19.070	1.00	59.34	O
ATOM	7390	O5*	G A 354	136.174	60.473	7.121	1.00	46.01	O	ATOM	7440	O2*	A A 356	140.940	60.440	20.467	1.00	59.34	O
ATOM	7391	C5*	G A 354	135.392	61.672	7.167	1.00	46.01	C	ATOM	7441	C1*	A A 356	139.508	60.078	18.613	1.00	59.34	C
ATOM	7392	C4*	G A 354	134.507	61.696	8.403	1.00	46.01	C	ATOM	7442	N9	A A 356	139.654	59.397	17.329	1.00	69.82	N
ATOM	7393	O4*	G A 354	133.796	60.433	8.523	1.00	46.01	O	ATOM	7443	C8	A A 356	139.473	59.861	16.053	1.00	69.82	C
ATOM	7394	C3*	G A 354	135.185	61.887	9.753	1.00	46.01	C	ATOM	7444	N7	A A 356	139.824	59.001	15.126	1.00	69.82	N
ATOM	7395	O3*	G A 354	135.382	63.267	10.075	1.00	46.01	O	ATOM	7445	C5	A A 356	140.240	57.889	15.844	1.00	69.82	C
ATOM	7396	C2*	G A 354	134.175	61.281	10.716	1.00	46.01	C	ATOM	7446	C6	A A 356	140.761	56.644	15.451	1.00	69.82	C
ATOM	7397	O2*	G A 354	133.167	62.207	11.066	1.00	46.01	O	ATOM	7447	N6	A A 356	141.009	56.306	14.184	1.00	69.82	N
ATOM	7398	C1*	G A 354	133.583	60.134	9.890	1.00	46.01	C	ATOM	7448	N1	A A 356	141.041	55.750	16.421	1.00	69.82	N
ATOM	7399	N9	G A 354	134.184	58.834	10.189	1.00	57.52	N	ATOM	7449	C2	A A 356	140.835	56.100	17.692	1.00	69.82	C
ATOM	7400	C8	G A 354	134.872	58.032	9.316	1.00	57.52	C	ATOM	7450	N3	A A 356	140.381	57.242	18.186	1.00	69.82	N
ATOM	7401	N7	G A 354	135.322	56.937	9.867	1.00	57.52	N	ATOM	7451	C4	A A 356	140.100	58.106	17.198	1.00	69.82	C
ATOM	7402	C5	G A 354	134.901	57.012	11.185	1.00	57.52	C	ATOM	7452	P	G A 357	143.191	63.043	19.030	1.00	49.71	P
ATOM	7403	C6	G A 354	135.103	56.117	12.253	1.00	57.52	C	ATOM	7453	O1P	G A 357	143.951	63.724	20.108	1.00	61.36	O
ATOM	7404	O6	G A 354	135.708	55.048	12.250	1.00	57.52	O	ATOM	7454	O2P	G A 357	143.164	63.629	17.673	1.00	61.36	O
ATOM	7405	N1	G A 354	134.519	56.575	13.426	1.00	57.52	N	ATOM	7455	O5*	G A 357	143.768	61.564	18.890	1.00	49.71	O
ATOM	7406	C2	G A 354	133.832	57.747	13.558	1.00	57.52	C	ATOM	7456	C5*	G A 357	143.969	60.730	20.049	1.00	49.71	C
ATOM	7407	N2	G A 354	133.375	58.015	14.784	1.00	57.52	N	ATOM	7457	C4*	G A 357	144.455	59.356	19.642	1.00	49.71	C
ATOM	7408	N3	G A 354	133.623	58.596	12.563	1.00	57.52	N	ATOM	7458	O4*	G A 357	143.469	58.701	18.807	1.00	49.71	O
ATOM	7409	C4	G A 354	134.189	58.168	11.408	1.00	57.52	C	ATOM	7459	C3*	G A 357	145.721	59.321	18.813	1.00	49.71	C
ATOM	7410	P	C A 355	136.354	63.676	11.300	1.00	48.13	P	ATOM	7460	O3*	G A 357	146.875	59.384	19.617	1.00	49.71	O
ATOM	7411	O1P	C A 355	136.210	65.133	11.539	1.00	55.37	O	ATOM	7461	C2*	G A 357	145.627	57.982	18.105	1.00	49.71	C
ATOM	7412	O2P	C A 355	137.704	63.107	11.043	1.00	55.37	O	ATOM	7462	O2*	G A 357	146.075	56.901	18.894	1.00	49.71	O
ATOM	7413	O5*	C A 355	135.742	62.930	12.570	1.00	48.13	O	ATOM	7463	C1*	G A 357	144.123	57.869	17.859	1.00	49.71	C
ATOM	7414	C5*	C A 355	134.738	63.554	13.404	1.00	48.13	C	ATOM	7464	N9	G A 357	143.813	58.344	16.515	1.00	61.36	N
ATOM	7415	C4*	C A 355	134.825	63.027	14.816	1.00	48.13	C	ATOM	7465	C8	G A 357	143.179	59.510	16.173	1.00	61.36	C



Table 2: Sheet 76/520

ATOM	7466	N7	G A 357	143.109	59.692	14.885	1.00	61.36	N	ATOM	7516	O1P	A A 360	158.703	56.735	13.128	1.00	63.89	O
ATOM	7467	C5	G A 357	143.721	58.571	14.343	1.00	61.36	C	ATOM	7517	O2P	A A 360	157.021	58.562	13.815	1.00	63.89	O
ATOM	7468	C6	G A 357	143.949	58.217	12.997	1.00	61.36	C	ATOM	7518	O5*	A A 360	157.059	57.632	11.481	1.00	54.84	O
ATOM	7469	O6	G A 357	143.653	58.838	11.983	1.00	61.36	O	ATOM	7519	C5*	A A 360	157.530	56.748	10.456	1.00	54.84	C
ATOM	7470	N1	G A 357	144.598	57.001	12.891	1.00	61.36	N	ATOM	7520	C4*	A A 360	157.231	57.323	9.093	1.00	54.84	C
ATOM	7471	C2	G A 357	144.988	56.223	13.946	1.00	61.36	C	ATOM	7521	O4*	A A 360	155.796	57.427	8.909	1.00	54.84	O
ATOM	7472	N2	G A 357	145.619	55.078	13.635	1.00	61.36	N	ATOM	7522	C3*	A A 360	157.744	58.727	8.826	1.00	54.84	C
ATOM	7473	N3	G A 357	144.781	56.542	15.212	1.00	61.36	N	ATOM	7523	O3*	A A 360	159.085	58.706	7.723	1.00	54.84	O
ATOM	7474	C4	G A 357	144.147	57.722	15.334	1.00	61.36	C	ATOM	7524	C2*	A A 360	156.815	59.207	7.623	1.00	54.84	C
ATOM	7475	P	U A 358	148.275	59.790	18.949	1.00	52.99	P	ATOM	7525	O2*	A A 360	157.175	58.675	6.471	1.00	54.84	O
ATOM	7476	O1P	U A 358	149.236	60.000	20.069	1.00	58.26	O	ATOM	7526	C1*	A A 360	155.490	58.581	8.147	1.00	54.84	C
ATOM	7477	O2P	U A 358	148.035	60.890	17.972	1.00	58.26	O	ATOM	7527	N9	A A 360	154.731	59.496	8.999	1.00	63.89	N
ATOM	7478	O5*	U A 358	148.679	58.482	18.127	1.00	52.99	O	ATOM	7528	C8	A A 360	154.725	59.553	10.373	1.00	63.89	C
ATOM	7479	C5*	U A 358	148.881	57.221	18.792	1.00	52.99	C	ATOM	7529	N7	A A 360	153.960	60.494	10.859	1.00	63.89	N
ATOM	7480	C4*	U A 358	149.454	56.210	17.833	1.00	52.99	C	ATOM	7530	C5	A A 360	153.416	61.097	9.733	1.00	63.89	C
ATOM	7481	O4*	U A 358	148.465	55.832	16.849	1.00	52.99	O	ATOM	7531	C6	A A 360	152.522	62.168	9.574	1.00	63.89	C
ATOM	7482	C3*	U A 358	150.638	56.703	17.028	1.00	52.99	C	ATOM	7532	N6	A A 360	151.995	62.846	10.595	1.00	63.89	N
ATOM	7483	O3*	U A 358	151.830	56.497	17.753	1.00	52.99	O	ATOM	7533	N1	A A 360	152.185	62.526	8.315	1.00	63.89	N
ATOM	7484	C2*	U A 358	150.597	55.835	15.783	1.00	52.99	C	ATOM	7534	C2	A A 360	152.721	61.849	7.292	1.00	63.89	C
ATOM	7485	O2*	U A 358	151.230	54.597	15.984	1.00	52.99	O	ATOM	7535	N3	A A 360	153.572	60.828	7.313	1.00	63.89	N
ATOM	7486	C1*	U A 358	149.097	55.616	15.600	1.00	52.99	C	ATOM	7536	C4	A A 360	153.883	60.494	8.581	1.00	63.89	C
ATOM	7487	N1	U A 358	148.509	56.530	14.607	1.00	58.26	N	ATOM	7537	P	G A 361	160.041	59.947	8.716	1.00	52.29	P
ATOM	7488	C2	U A 358	148.683	56.221	13.268	1.00	58.26	C	ATOM	7538	O1P	G A 361	161.419	59.582	8.299	1.00	59.33	O
ATOM	7489	O2	U A 358	149.279	55.232	12.883	1.00	58.26	O	ATOM	7539	O2P	G A 361	159.780	60.347	10.130	1.00	59.33	O
ATOM	7490	N3	U A 358	148.136	57.120	12.393	1.00	58.26	N	ATOM	7540	O5*	G A 361	159.522	61.091	7.741	1.00	52.29	O
ATOM	7491	C4	U A 358	147.451	58.269	12.704	1.00	58.26	C	ATOM	7541	C5*	G A 361	159.615	60.938	6.319	1.00	52.29	C
ATOM	7492	O4	U A 358	147.057	58.995	11.796	1.00	58.26	O	ATOM	7542	C4*	G A 361	158.902	62.070	5.618	1.00	52.29	C
ATOM	7493	C5	U A 358	147.300	58.515	14.104	1.00	58.26	C	ATOM	7543	O4*	G A 361	157.471	61.956	5.829	1.00	52.29	O
ATOM	7494	C6	U A 358	147.819	57.661	14.986	1.00	58.26	C	ATOM	7544	C3*	G A 361	159.241	63.472	6.094	1.00	52.29	C
ATOM	7495	P	U A 359	153.121	57.367	17.402	1.00	54.67	P	ATOM	7545	O3*	G A 361	160.450	63.977	5.538	1.00	52.29	O
ATOM	7496	O1P	U A 359	154.216	56.944	18.316	1.00	71.48	O	ATOM	7546	C2*	G A 361	158.007	64.261	5.676	1.00	52.29	C
ATOM	7497	O2P	U A 359	152.691	58.792	17.372	1.00	71.48	O	ATOM	7547	O2*	G A 361	158.010	64.618	4.313	1.00	52.29	O
ATOM	7498	O5*	U A 359	153.468	56.936	15.907	1.00	54.67	O	ATOM	7548	C1*	G A 361	156.896	63.246	5.931	1.00	52.29	C
ATOM	7499	C5*	U A 359	153.946	55.618	15.601	1.00	54.67	C	ATOM	7549	N9	G A 361	156.392	63.418	7.289	1.00	59.33	N
ATOM	7500	C4*	U A 359	154.087	55.452	14.108	1.00	54.67	C	ATOM	7550	C8	G A 361	156.934	62.905	8.443	1.00	59.33	C
ATOM	7501	O4*	U A 359	152.779	55.496	13.487	1.00	54.67	O	ATOM	7551	N7	G A 361	156.318	63.305	9.521	1.00	59.33	N
ATOM	7502	C3*	U A 359	154.891	56.529	13.401	1.00	54.67	C	ATOM	7552	C5	G A 361	155.294	64.113	9.050	1.00	59.33	C
ATOM	7503	O3*	U A 359	156.270	56.217	13.418	1.00	54.67	O	ATOM	7553	C6	G A 361	154.305	64.826	9.751	1.00	59.33	C
ATOM	7504	C2*	U A 359	154.341	56.496	11.981	1.00	54.67	C	ATOM	7554	O6	G A 361	154.127	64.891	10.969	1.00	59.33	O
ATOM	7505	O2*	U A 359	154.949	55.535	11.154	1.00	54.67	O	ATOM	7555	N1	G A 361	153.463	65.516	8.887	1.00	59.33	N
ATOM	7506	C1*	U A 359	152.881	56.106	12.211	1.00	54.67	C	ATOM	7556	C2	G A 361	153.561	65.515	7.521	1.00	59.33	C
ATOM	7507	N1	U A 359	151.994	57.278	12.159	1.00	71.48	N	ATOM	7557	N2	G A 361	152.655	66.237	6.866	1.00	59.33	N
ATOM	7508	C2	U A 359	151.662	57.764	10.908	1.00	71.48	C	ATOM	7558	N3	G A 361	154.481	64.852	6.850	1.00	59.33	N
ATOM	7509	O2	U A 359	152.041	57.246	9.870	1.00	71.48	O	ATOM	7559	C4	G A 361	155.313	64.177	7.673	1.00	59.33	C
ATOM	7510	N3	U A 359	150.871	58.878	10.913	1.00	71.48	N	ATOM	7560	P	G A 362	161.504	64.724	6.497	1.00	52.67	P
ATOM	7511	C4	U A 359	150.380	59.536	12.010	1.00	71.48	C	ATOM	7561	O1P	G A 362	162.710	65.072	5.699	1.00	79.00	O
ATOM	7512	O4	U A 359	149.679	60.534	11.847	1.00	71.48	O	ATOM	7562	O2P	G A 362	161.649	63.918	7.735	1.00	79.00	O
ATOM	7513	C5	U A 359	150.751	58.965	13.266	1.00	71.48	C	ATOM	7563	O5*	G A 362	160.755	66.073	6.894	1.00	52.67	O
ATOM	7514	C6	U A 359	151.525	57.884	13.297	1.00	71.48	C	ATOM	7564	C5*	G A 362	160.171	66.905	5.875	1.00	52.67	C
ATOM	7515	P	A A 360	157.346	57.341	13.023	1.00	54.84	P	ATOM	7565	C4*	G A 362	159.287	67.969	6.483	1.00	52.67	C



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ATOM	7566	O4*	G A 362	158.085	67.378	7.043	1.00	52.67	O	ATOM	7616	C1*	A A 364	154.525	72.906	12.260	1.00	55.47	C
ATOM	7567	C3*	G A 362	159.852	68.809	7.615	1.00	52.67	C	ATOM	7617	N9	A A 364	154.825	72.491	10.890	1.00	61.64	N
ATOM	7568	O3*	G A 362	160.699	69.856	7.169	1.00	52.67	O	ATOM	7618	C8	A A 364	155.795	71.618	10.478	1.00	61.64	C
ATOM	7569	C2*	G A 362	158.588	69.361	8.251	1.00	52.67	C	ATOM	7619	N7	A A 364	155.866	71.483	9.179	1.00	61.64	N
ATOM	7570	O2*	G A 362	158.103	70.460	7.502	1.00	52.67	O	ATOM	7620	C5	A A 364	154.870	72.318	8.700	1.00	61.64	C
ATOM	7571	C1*	G A 362	157.624	68.178	8.116	1.00	52.67	C	ATOM	7621	C6	A A 364	154.443	72.628	7.400	1.00	61.64	C
ATOM	7572	N9	G A 362	157.593	67.362	9.326	1.00	79.00	N	ATOM	7622	N6	A A 364	155.011	72.138	6.294	1.00	61.64	N
ATOM	7573	C8	G A 362	158.520	66.428	9.713	1.00	79.00	C	ATOM	7623	N1	A A 364	153.405	73.480	7.270	1.00	61.64	N
ATOM	7574	N7	G A 362	158.254	65.889	10.870	1.00	79.00	N	ATOM	7624	C2	A A 364	152.856	73.996	8.374	1.00	61.64	C
ATOM	7575	C5	G A 362	157.070	66.494	11.265	1.00	79.00	C	ATOM	7625	N3	A A 364	153.179	73.795	9.646	1.00	61.64	N
ATOM	7576	C6	G A 362	156.293	66.309	12.434	1.00	79.00	C	ATOM	7626	C4	A A 364	154.207	72.933	9.743	1.00	61.64	C
ATOM	7577	O6	G A 362	156.488	65.528	13.378	1.00	79.00	O	ATOM	7627	P	U A 365	153.659	69.509	15.457	1.00	52.46	P
ATOM	7578	N1	G A 362	155.179	67.137	12.441	1.00	79.00	N	ATOM	7628	O1P	U A 365	153.734	69.141	16.899	1.00	59.21	O
ATOM	7579	C2	G A 362	154.841	68.011	11.448	1.00	79.00	C	ATOM	7629	O2P	U A 365	154.099	68.537	14.420	1.00	59.21	O
ATOM	7580	N2	G A 362	153.726	68.715	11.650	1.00	79.00	N	ATOM	7630	O5*	U A 365	152.159	69.931	15.119	1.00	52.46	O
ATOM	7581	N3	G A 362	155.545	68.181	10.342	1.00	79.00	N	ATOM	7631	C5*	U A 365	151.364	70.666	16.063	1.00	52.46	C
ATOM	7582	C4	G A 362	156.643	67.399	10.319	1.00	79.00	C	ATOM	7632	C4*	U A 365	149.990	70.904	15.502	1.00	52.46	C
ATOM	7583	P	A A 363	161.961	70.279	8.064	1.00	48.92	P	ATOM	7633	O4*	U A 365	150.083	71.755	14.347	1.00	52.46	O
ATOM	7584	O1P	A A 363	162.971	70.972	7.232	1.00	54.38	O	ATOM	7634	C3*	U A 365	149.276	69.660	15.000	1.00	52.46	C
ATOM	7585	O2P	A A 363	162.347	69.071	8.826	1.00	54.38	O	ATOM	7635	O3*	U A 365	148.525	69.111	16.085	1.00	52.46	O
ATOM	7586	O5*	A A 363	161.372	71.334	9.097	1.00	48.92	O	ATOM	7636	C2*	U A 365	148.328	70.192	13.916	1.00	52.46	C
ATOM	7587	C5*	A A 363	162.176	71.831	10.201	1.00	48.92	C	ATOM	7637	O2*	U A 365	146.992	70.335	14.344	1.00	52.46	O
ATOM	7588	C4*	A A 363	161.357	72.766	11.066	1.00	48.92	C	ATOM	7638	C1*	U A 365	148.935	71.557	13.561	1.00	52.46	C
ATOM	7589	O4*	A A 363	161.047	73.967	10.314	1.00	48.92	O	ATOM	7639	N1	U A 365	149.263	71.790	12.147	1.00	59.21	N
ATOM	7590	C3*	A A 363	160.005	72.216	11.494	1.00	48.92	C	ATOM	7640	C2	U A 365	150.276	71.059	11.558	1.00	59.21	C
ATOM	7591	O3*	A A 363	160.093	71.467	12.690	1.00	48.92	O	ATOM	7641	O2	U A 365	150.914	70.208	12.151	1.00	59.21	O
ATOM	7592	C2*	A A 363	159.165	73.467	11.691	1.00	48.92	C	ATOM	7642	N3	U A 365	150.508	71.361	10.239	1.00	59.21	N
ATOM	7593	O2*	A A 363	159.334	74.031	12.976	1.00	48.92	O	ATOM	7643	C4	U A 365	149.840	72.292	9.472	1.00	59.21	C
ATOM	7594	C1*	A A 363	159.731	74.393	10.614	1.00	48.92	C	ATOM	7644	O4	U A 365	150.175	72.470	8.303	1.00	59.21	O
ATOM	7595	N9	A A 363	158.957	74.345	9.379	1.00	54.38	N	ATOM	7645	C5	U A 365	148.808	72.992	10.154	1.00	59.21	C
ATOM	7596	C8	A A 363	159.244	73.655	8.223	1.00	54.38	C	ATOM	7646	C6	U A 365	148.562	72.726	11.433	1.00	59.21	C
ATOM	7597	N7	A A 363	158.360	73.829	7.271	1.00	54.38	N	ATOM	7647	P	C A 366	148.683	67.563	16.492	1.00	48.10	P
ATOM	7598	C5	A A 363	157.429	74.688	7.837	1.00	54.38	C	ATOM	7648	O1P	C A 366	150.128	67.307	16.708	1.00	60.00	O
ATOM	7599	C6	A A 363	156.257	75.262	7.337	1.00	54.38	C	ATOM	7649	O2P	C A 366	147.914	66.728	15.529	1.00	60.00	O
ATOM	7600	N6	A A 363	155.824	75.070	6.096	1.00	54.38	N	ATOM	7650	O5*	C A 366	147.955	67.483	17.904	1.00	48.10	O
ATOM	7601	N1	A A 363	155.543	76.058	8.160	1.00	54.38	N	ATOM	7651	C5*	C A 366	148.544	68.104	19.058	1.00	48.10	C
ATOM	7602	C2	A A 363	156.006	76.274	9.400	1.00	54.38	C	ATOM	7652	C4*	C A 366	147.509	68.297	20.137	1.00	48.10	C
ATOM	7603	N3	A A 363	157.107	75.805	9.983	1.00	54.38	N	ATOM	7653	O4*	C A 366	146.578	69.328	19.738	1.00	48.10	O
ATOM	7604	C4	A A 363	157.779	75.005	9.139	1.00	54.38	C	ATOM	7654	C3*	C A 366	146.672	67.079	20.475	1.00	48.10	C
ATOM	7605	P	A A 364	159.009	70.322	12.983	1.00	55.47	P	ATOM	7655	O3*	C A 366	147.047	66.230	21.594	1.00	48.10	O
ATOM	7606	O1P	A A 364	159.309	69.737	14.322	1.00	61.64	O	ATOM	7656	C2*	C A 366	145.278	67.344	19.904	1.00	48.10	C
ATOM	7607	O2P	A A 364	158.936	69.441	11.790	1.00	61.64	O	ATOM	7657	O2*	C A 366	144.219	66.865	20.710	1.00	48.10	O
ATOM	7608	O5*	A A 364	157.635	71.116	13.074	1.00	55.47	O	ATOM	7658	C1*	C A 366	145.242	68.873	19.863	1.00	48.10	C
ATOM	7609	C5*	A A 364	157.327	71.965	14.197	1.00	55.47	C	ATOM	7659	N1	C A 366	144.476	69.451	18.736	1.00	60.00	N
ATOM	7610	C4*	A A 364	155.897	72.422	14.098	1.00	55.47	C	ATOM	7660	C2	C A 366	143.115	69.749	18.901	1.00	60.00	C
ATOM	7611	O4*	A A 364	155.752	73.213	12.895	1.00	55.47	O	ATOM	7661	O2	C A 366	142.568	69.482	19.969	1.00	60.00	O
ATOM	7612	C3*	A A 364	154.900	71.282	13.958	1.00	55.47	C	ATOM	7662	N3	C A 366	142.434	70.327	17.885	1.00	60.00	N
ATOM	7613	O3*	A A 364	154.495	70.866	15.264	1.00	55.47	O	ATOM	7663	C4	C A 366	143.062	70.607	16.742	1.00	60.00	C
ATOM	7614	C2*	A A 364	153.772	71.891	13.123	1.00	55.47	C	ATOM	7664	N4	C A 366	142.370	71.206	15.778	1.00	60.00	N
ATOM	7615	O2*	A A 364	152.802	72.582	13.880	1.00	55.47	O	ATOM	7665	C5	C A 366	144.433	70.293	16.539	1.00	60.00	C



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ATOM	7666	C A 366	145.094	69.718	17.547	1.00	60.00	C	ATOM	7716	C2*	C A 369	136.321	62.322	27.500	1.00	54.10	C
ATOM	7667	U A 367	146.752	66.685	23.117	1.00	56.13	P	ATOM	7717	O2*	C A 369	136.434	62.511	28.894	1.00	54.10	O
ATOM	7668	O1P	146.528	68.159	23.153	1.00	75.64	O	ATOM	7718	C1*	C A 369	137.431	63.075	26.753	1.00	54.10	C
ATOM	7669	O2P	147.818	66.097	23.960	1.00	75.64	O	ATOM	7719	N1	C A 369	137.009	63.656	25.458	1.00	70.88	N
ATOM	7670	O5*	145.385	65.956	23.481	1.00	56.13	O	ATOM	7720	C2	C A 369	136.124	64.746	25.449	1.00	70.88	C
ATOM	7671	C5*	145.180	64.570	23.173	1.00	56.13	C	ATOM	7721	O2	C A 369	135.726	65.212	26.521	1.00	70.88	O
ATOM	7672	C4*	144.097	64.011	24.050	1.00	56.13	C	ATOM	7722	N3	C A 369	135.726	65.263	24.272	1.00	70.88	N
ATOM	7673	O4*	142.973	64.917	24.028	1.00	56.13	O	ATOM	7723	C4	C A 369	136.176	64.746	23.133	1.00	70.88	C
ATOM	7674	C3*	143.564	62.648	23.653	1.00	56.13	C	ATOM	7724	N4	C A 369	135.749	65.286	23.107	1.00	70.88	N
ATOM	7675	O3*	143.235	61.962	24.863	1.00	56.13	O	ATOM	7725	C5	C A 369	137.083	63.649	23.107	1.00	70.88	C
ATOM	7676	C2*	142.309	62.996	22.855	1.00	56.13	C	ATOM	7726	C6	C A 369	137.469	63.140	24.279	1.00	70.88	C
ATOM	7677	O2*	141.306	62.003	22.851	1.00	56.13	O	ATOM	7727	P	C A 370	134.645	59.396	27.981	1.00	61.15	P
ATOM	7678	C1*	141.822	64.246	23.583	1.00	56.13	C	ATOM	7728	O1P	C A 370	134.439	58.397	29.069	1.00	61.74	O
ATOM	7679	N1	141.041	65.195	22.775	1.00	75.64	N	ATOM	7729	O2P	C A 370	134.389	59.006	26.565	1.00	61.74	O
ATOM	7680	C2	139.968	65.816	23.388	1.00	75.64	C	ATOM	7730	O5*	C A 370	133.763	60.676	28.326	1.00	61.15	O
ATOM	7681	O2	139.653	65.608	24.548	1.00	75.64	O	ATOM	7731	C5*	C A 370	133.825	61.273	29.629	1.00	61.15	C
ATOM	7682	N3	139.276	66.691	22.596	1.00	75.64	N	ATOM	7732	C4*	C A 370	132.718	62.274	29.802	1.00	61.15	C
ATOM	7683	C4	139.536	67.004	21.290	1.00	75.64	C	ATOM	7733	O4*	C A 370	133.041	63.514	29.125	1.00	61.15	O
ATOM	7684	O4	138.811	67.809	20.712	1.00	75.64	O	ATOM	7734	C3*	C A 370	131.383	61.862	29.219	1.00	61.15	C
ATOM	7685	C5	140.660	66.329	20.723	1.00	75.64	C	ATOM	7735	O3*	C A 370	130.666	61.001	30.067	1.00	61.15	O
ATOM	7686	C6	141.357	65.470	21.464	1.00	75.64	C	ATOM	7736	C2*	C A 370	130.681	63.195	29.025	1.00	61.15	C
ATOM	7687	P	141.178	60.764	25.392	1.00	56.30	P	ATOM	7737	O2*	C A 370	130.090	63.670	30.219	1.00	61.15	O
ATOM	7688	O1P	143.809	60.528	26.817	1.00	81.62	O	ATOM	7738	C1*	C A 370	131.848	64.098	28.618	1.00	61.15	C
ATOM	7689	O2P	145.597	61.083	25.035	1.00	81.62	O	ATOM	7739	N1	C A 370	131.946	64.216	27.147	1.00	61.74	N
ATOM	7690	O5*	143.707	59.506	24.530	1.00	56.30	O	ATOM	7740	C2	C A 370	131.095	65.104	26.486	1.00	61.74	C
ATOM	7691	C5*	142.359	59.018	24.628	1.00	56.30	C	ATOM	7741	O2	C A 370	130.306	65.789	27.153	1.00	61.74	O
ATOM	7692	C4*	141.817	58.690	23.260	1.00	56.30	C	ATOM	7742	N3	C A 370	131.154	65.197	25.139	1.00	61.74	N
ATOM	7693	O4*	142.608	57.656	22.639	1.00	56.30	O	ATOM	7743	C4	C A 370	132.018	64.449	24.458	1.00	61.74	C
ATOM	7694	C3*	140.404	58.138	23.262	1.00	56.30	C	ATOM	7744	N4	C A 370	132.031	64.558	23.135	1.00	61.74	N
ATOM	7695	O3*	139.520	59.244	23.216	1.00	56.30	O	ATOM	7745	C5	C A 370	132.906	63.550	25.105	1.00	61.74	C
ATOM	7696	C2*	140.326	57.305	21.982	1.00	56.30	C	ATOM	7746	C6	C A 370	132.839	63.465	26.436	1.00	61.74	C
ATOM	7697	O2*	139.802	58.012	20.880	1.00	56.30	O	ATOM	7747	P	G A 371	129.607	59.976	29.431	1.00	58.24	P
ATOM	7698	C1*	141.794	56.932	21.737	1.00	56.30	C	ATOM	7748	O1P	G A 371	129.109	59.129	30.548	1.00	62.56	O
ATOM	7699	N1	142.133	55.504	21.830	1.00	81.62	N	ATOM	7749	O2P	G A 371	130.190	59.344	28.205	1.00	62.56	O
ATOM	7700	C2	142.852	54.944	20.783	1.00	81.62	C	ATOM	7750	O5*	G A 371	128.401	60.892	28.981	1.00	58.24	O
ATOM	7701	O2	143.218	55.579	19.806	1.00	81.62	O	ATOM	7751	C5*	G A 371	127.773	61.737	29.925	1.00	58.24	C
ATOM	7702	N3	143.131	53.609	20.926	1.00	81.62	N	ATOM	7752	C4*	G A 371	126.814	62.640	29.228	1.00	58.24	C
ATOM	7703	C4	142.779	52.795	21.976	1.00	81.62	C	ATOM	7753	O4*	G A 371	127.536	63.628	28.444	1.00	58.24	O
ATOM	7704	O4	143.062	51.601	21.933	1.00	81.62	O	ATOM	7754	C3*	G A 371	125.940	61.948	28.209	1.00	58.24	C
ATOM	7705	C5	142.049	53.443	23.018	1.00	81.62	C	ATOM	7755	O3*	G A 371	124.893	61.191	28.811	1.00	58.24	O
ATOM	7706	C6	141.755	54.741	22.913	1.00	81.62	C	ATOM	7756	C2*	G A 371	125.513	63.117	27.329	1.00	58.24	C
ATOM	7707	P	137.955	59.031	23.464	1.00	54.10	P	ATOM	7757	O2*	G A 371	124.530	63.924	27.923	1.00	58.24	O
ATOM	7708	O1P	137.655	57.609	23.778	1.00	70.88	O	ATOM	7758	C1*	G A 371	126.790	63.946	27.284	1.00	58.24	C
ATOM	7709	O2P	137.261	59.684	22.332	1.00	70.88	O	ATOM	7759	N9	G A 371	127.570	63.614	26.096	1.00	62.56	N
ATOM	7710	O5*	137.679	59.902	24.763	1.00	54.10	O	ATOM	7760	C8	G A 371	128.681	62.818	26.012	1.00	62.56	C
ATOM	7711	C5*	138.535	59.818	25.916	1.00	54.10	C	ATOM	7761	N7	G A 371	129.108	62.669	24.789	1.00	62.56	N
ATOM	7712	C4*	138.096	60.833	26.940	1.00	54.10	C	ATOM	7762	C5	G A 371	128.233	63.426	24.022	1.00	62.56	C
ATOM	7713	O4*	138.485	62.160	26.505	1.00	54.10	O	ATOM	7763	C6	G A 371	128.194	63.656	22.624	1.00	62.56	C
ATOM	7714	C3*	136.588	60.884	27.091	1.00	54.10	C	ATOM	7764	O6	G A 371	128.945	63.219	21.753	1.00	62.56	O
ATOM	7715	O3*	136.147	59.950	28.052	1.00	54.10	O	ATOM	7765	N1	G A 371	127.145	64.497	22.272	1.00	62.56	N



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ATOM	7766	C2	G A 371	126.251	65.051	23.147	1.00	62.56	C	ATOM	7816	C5*	A A 374	116.624	69.841	26.070	1.00	55.81	C
ATOM	7767	N2	G A 371	125.309	65.841	22.616	1.00	62.56	N	ATOM	7817	C4*	A A 374	117.268	71.029	25.387	1.00	55.81	C
ATOM	7768	N3	G A 371	126.278	64.847	24.447	1.00	62.56	N	ATOM	7818	O4*	A A 374	118.705	70.959	25.584	1.00	55.81	O
ATOM	7769	C4	G A 371	127.288	64.027	24.813	1.00	62.56	C	ATOM	7819	C3*	A A 374	117.092	71.059	23.880	1.00	55.81	C
ATOM	7770	P	C A 372	124.239	59.963	27.995	1.00	57.19	P	ATOM	7820	O3*	A A 374	115.902	71.722	23.527	1.00	55.81	O
ATOM	7771	O1P	C A 372	123.272	59.280	28.881	1.00	62.74	O	ATOM	7821	C2*	A A 374	118.321	71.812	23.391	1.00	55.81	C
ATOM	7772	O2P	C A 372	125.345	59.199	27.370	1.00	62.74	O	ATOM	7822	O2*	A A 374	118.196	73.219	23.440	1.00	55.81	O
ATOM	7773	O5*	C A 372	123.399	60.720	26.887	1.00	57.19	O	ATOM	7823	C1*	A A 374	119.376	71.365	24.400	1.00	55.81	C
ATOM	7774	C5*	C A 372	122.830	61.992	27.244	1.00	57.19	C	ATOM	7824	N9	A A 374	120.168	70.238	23.902	1.00	69.56	N
ATOM	7775	C4*	C A 372	122.830	62.586	26.112	1.00	57.19	C	ATOM	7825	C8	A A 374	120.171	68.942	24.352	1.00	69.56	C
ATOM	7776	O4*	C A 372	122.915	62.912	25.006	1.00	57.19	O	ATOM	7826	N7	A A 374	120.977	68.155	23.687	1.00	69.56	N
ATOM	7777	C3*	C A 372	121.050	61.641	25.546	1.00	57.19	C	ATOM	7827	C5	A A 374	121.551	68.987	22.739	1.00	69.56	C
ATOM	7778	O3*	C A 372	119.950	61.651	26.487	1.00	57.19	O	ATOM	7828	C6	A A 374	122.491	68.753	21.725	1.00	69.56	C
ATOM	7779	C2*	C A 372	120.941	62.043	24.057	1.00	57.19	C	ATOM	7829	N6	A A 374	123.037	67.561	21.488	1.00	69.56	N
ATOM	7780	O2*	C A 372	119.680	62.442	23.540	1.00	57.19	O	ATOM	7830	N1	A A 374	122.851	69.795	20.949	1.00	69.56	N
ATOM	7781	C1*	C A 372	122.092	63.054	23.880	1.00	57.19	C	ATOM	7831	C2	A A 374	122.297	70.984	21.181	1.00	69.56	C
ATOM	7782	N1	C A 372	122.942	62.906	22.684	1.00	62.74	N	ATOM	7832	N3	A A 374	121.402	71.332	22.101	1.00	69.56	N
ATOM	7783	C2	C A 372	122.547	63.520	21.498	1.00	62.74	C	ATOM	7833	C4	A A 374	121.066	70.272	22.859	1.00	69.56	C
ATOM	7784	O2	C A 372	121.519	64.229	21.494	1.00	62.74	O	ATOM	7834	P	U A 375	115.105	71.255	22.226	1.00	56.76	P
ATOM	7785	N3	C A 372	123.292	63.339	20.384	1.00	62.74	N	ATOM	7835	O1P	U A 375	113.864	72.055	22.169	1.00	61.19	O
ATOM	7786	C4	C A 372	124.392	62.596	20.431	1.00	62.74	C	ATOM	7836	O2P	U A 375	115.025	69.784	22.266	1.00	61.19	O
ATOM	7787	N4	C A 372	125.067	62.409	19.299	1.00	62.74	N	ATOM	7837	O5*	U A 375	116.055	71.670	21.018	1.00	56.76	O
ATOM	7788	C5	C A 372	124.841	62.001	21.636	1.00	62.74	C	ATOM	7838	C5*	U A 375	116.330	73.061	20.725	1.00	56.76	C
ATOM	7789	C6	C A 372	124.093	62.176	22.727	1.00	62.74	C	ATOM	7839	C4*	U A 375	117.156	73.180	19.464	1.00	56.76	C
ATOM	7790	P	A A 373	119.033	62.957	26.685	1.00	50.70	P	ATOM	7840	O4*	U A 375	118.539	72.832	19.735	1.00	56.76	O
ATOM	7791	O1P	A A 373	117.658	62.451	26.964	1.00	72.84	O	ATOM	7841	C3*	U A 375	116.739	72.254	18.334	1.00	56.76	C
ATOM	7792	O2P	A A 373	119.250	63.891	25.542	1.00	72.84	O	ATOM	7842	O3*	U A 375	115.697	72.795	17.553	1.00	56.76	O
ATOM	7793	O5*	A A 373	119.549	63.712	27.986	1.00	50.70	O	ATOM	7843	C2*	U A 375	118.016	72.100	17.526	1.00	56.76	C
ATOM	7794	C5*	A A 373	118.576	64.279	28.911	1.00	50.70	C	ATOM	7844	O2*	U A 375	118.199	73.175	16.624	1.00	56.76	O
ATOM	7795	C4*	A A 373	118.575	65.806	28.899	1.00	50.70	C	ATOM	7845	C1*	U A 375	119.084	72.133	18.624	1.00	56.76	C
ATOM	7796	O4*	A A 373	119.824	66.311	29.425	1.00	50.70	O	ATOM	7846	N1	U A 375	119.467	70.778	19.062	1.00	61.19	N
ATOM	7797	C3*	A A 373	118.362	66.552	27.589	1.00	50.70	C	ATOM	7847	C2	U A 375	120.441	70.115	18.340	1.00	61.19	C
ATOM	7798	O3*	A A 373	116.982	66.741	27.281	1.00	50.70	O	ATOM	7848	O2	U A 375	121.029	70.616	17.397	1.00	61.19	O
ATOM	7799	C2*	A A 373	118.984	67.906	27.884	1.00	50.70	C	ATOM	7849	N3	U A 375	120.702	68.835	18.764	1.00	61.19	N
ATOM	7800	O2*	A A 373	118.098	68.718	28.621	1.00	50.70	O	ATOM	7850	C4	U A 375	120.112	68.171	19.818	1.00	61.19	C
ATOM	7801	C1*	A A 373	120.156	67.526	28.787	1.00	50.70	C	ATOM	7851	O4	U A 375	120.435	67.008	20.058	1.00	61.19	O
ATOM	7802	N9	A A 373	121.397	67.319	28.041	1.00	72.84	N	ATOM	7852	C5	U A 375	119.143	68.932	20.530	1.00	61.19	C
ATOM	7803	C8	A A 373	122.102	66.153	27.918	1.00	72.84	C	ATOM	7853	C6	U A 375	118.861	70.176	20.141	1.00	61.19	C
ATOM	7804	N7	A A 373	123.159	66.252	27.157	1.00	72.84	N	ATOM	7854	P	G A 376	114.683	71.801	16.822	1.00	43.57	P
ATOM	7805	C5	A A 373	123.159	67.577	26.755	1.00	72.84	C	ATOM	7855	O1P	G A 376	113.661	72.599	16.096	1.00	63.56	O
ATOM	7806	C6	A A 373	124.019	68.312	25.918	1.00	72.84	C	ATOM	7856	O2P	G A 376	114.255	70.830	17.863	1.00	63.56	O
ATOM	7807	N6	A A 373	125.093	67.791	25.319	1.00	72.84	N	ATOM	7857	O5*	G A 376	115.608	71.014	15.789	1.00	43.57	O
ATOM	7808	N1	A A 373	123.732	69.612	25.714	1.00	72.84	N	ATOM	7858	C5*	G A 376	116.115	71.658	14.616	1.00	43.57	C
ATOM	7809	C2	A A 373	122.652	70.129	26.313	1.00	72.84	C	ATOM	7859	C4*	G A 376	117.032	70.728	13.843	1.00	43.57	C
ATOM	7810	N3	A A 373	121.770	69.543	27.119	1.00	72.84	N	ATOM	7860	O4*	G A 376	118.240	70.453	14.607	1.00	43.57	O
ATOM	7811	C4	A A 373	122.084	68.251	27.301	1.00	72.84	C	ATOM	7861	C3*	G A 376	116.515	69.349	13.459	1.00	43.57	C
ATOM	7812	P	A A 374	116.557	67.196	25.795	1.00	55.81	P	ATOM	7862	O3*	G A 376	115.675	69.353	12.311	1.00	43.57	O
ATOM	7813	O1P	A A 374	115.078	67.361	25.729	1.00	69.56	O	ATOM	7863	O2*	G A 376	117.806	68.595	13.187	1.00	43.57	C
ATOM	7814	O2P	A A 374	117.233	66.265	24.849	1.00	69.56	O	ATOM	7864	C2*	G A 376	118.324	68.901	11.910	1.00	43.57	O
ATOM	7815	O5*	A A 374	117.248	68.622	25.617	1.00	55.81	O	ATOM	7865	C1*	G A 376	118.739	69.171	14.256	1.00	43.57	C



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ATOM	7866	N9	G A 376	118.756	68.317	15.444	1.00	63.56	N	ATOM	7916	C6	G A 378	115.248	59.206	15.420	1.00	57.12	C
ATOM	7867	C8	G A 376	118.198	68.577	16.670	1.00	63.56	C	ATOM	7917	O6	G A 378	114.896	59.912	16.369	1.00	57.12	O
ATOM	7868	N7	G A 376	118.305	67.579	17.504	1.00	63.56	N	ATOM	7918	N1	G A 378	115.655	57.899	15.641	1.00	57.12	N
ATOM	7869	C5	G A 376	118.988	66.606	16.792	1.00	63.56	C	ATOM	7919	C2	G A 378	116.076	57.033	14.670	1.00	57.12	C
ATOM	7870	C6	G A 376	119.379	65.295	17.169	1.00	63.56	C	ATOM	7920	N2	G A 378	116.441	55.816	15.080	1.00	57.12	N
ATOM	7871	O6	G A 376	119.166	64.700	18.232	1.00	63.56	O	ATOM	7921	N3	G A 378	116.141	57.338	13.391	1.00	57.12	N
ATOM	7872	N1	G A 376	120.076	64.661	16.150	1.00	63.56	N	ATOM	7922	C4	G A 378	115.749	58.602	13.157	1.00	57.12	C
ATOM	7873	C2	G A 376	120.346	65.206	14.922	1.00	63.56	C	ATOM	7923	P	C A 379	112.125	58.426	8.013	1.00	50.02	P
ATOM	7874	N2	G A 376	121.036	64.440	14.071	1.00	63.56	N	ATOM	7924	O1P	C A 379	111.639	58.085	6.655	1.00	58.94	O
ATOM	7875	N3	G A 376	119.968	66.413	14.553	1.00	63.56	N	ATOM	7925	O2P	C A 379	111.594	59.632	8.711	1.00	58.94	O
ATOM	7876	C4	G A 376	119.300	67.055	15.530	1.00	63.56	C	ATOM	7926	O5*	C A 379	111.857	57.199	8.982	1.00	50.02	O
ATOM	7877	P	G A 377	114.616	68.156	12.104	1.00	41.88	P	ATOM	7927	C5*	C A 379	112.217	55.872	8.595	1.00	50.02	C
ATOM	7878	O1P	G A 377	113.783	68.411	10.899	1.00	60.58	O	ATOM	7928	C4*	C A 379	112.043	54.932	9.760	1.00	50.02	C
ATOM	7879	O2P	G A 377	113.957	67.869	13.410	1.00	60.58	O	ATOM	7929	O4*	C A 379	112.966	55.288	10.822	1.00	50.02	O
ATOM	7880	O5*	G A 377	115.543	66.932	11.729	1.00	41.88	O	ATOM	7930	C3*	C A 379	110.686	54.922	10.446	1.00	50.02	C
ATOM	7881	C5*	G A 377	116.315	66.982	10.536	1.00	41.88	C	ATOM	7931	O3*	C A 379	109.712	54.154	9.753	1.00	50.02	O
ATOM	7882	C4*	G A 377	117.039	65.695	10.345	1.00	41.88	C	ATOM	7932	C2*	C A 379	111.022	54.331	11.805	1.00	50.02	C
ATOM	7883	O4*	G A 377	117.940	65.500	11.454	1.00	41.88	O	ATOM	7933	O2*	C A 379	111.122	52.914	11.767	1.00	50.02	O
ATOM	7884	C3*	G A 377	116.163	64.464	10.351	1.00	41.88	C	ATOM	7934	C1*	C A 379	112.402	54.934	12.067	1.00	50.02	C
ATOM	7885	O3*	G A 377	115.602	64.231	9.082	1.00	41.88	O	ATOM	7935	N1	C A 379	112.313	56.131	12.906	1.00	58.94	N
ATOM	7886	C2*	G A 377	117.138	63.372	10.751	1.00	41.88	C	ATOM	7936	C2	C A 379	112.509	55.996	14.283	1.00	58.94	C
ATOM	7887	O2*	G A 377	117.902	62.946	9.642	1.00	41.88	O	ATOM	7937	O2	C A 379	112.822	54.887	14.743	1.00	58.94	O
ATOM	7888	C1*	G A 377	118.047	64.117	11.734	1.00	41.88	C	ATOM	7938	N3	C A 379	112.362	57.076	15.079	1.00	58.94	N
ATOM	7889	N9	G A 377	117.705	63.899	13.136	1.00	60.58	N	ATOM	7939	C4	C A 379	112.045	58.256	14.550	1.00	58.94	C
ATOM	7890	C8	G A 377	117.096	64.786	13.989	1.00	60.58	C	ATOM	7940	N4	C A 379	111.882	59.282	15.378	1.00	58.94	N
ATOM	7891	N7	G A 377	116.925	64.306	15.188	1.00	60.58	N	ATOM	7941	C5	C A 379	111.875	58.431	13.149	1.00	58.94	C
ATOM	7892	C5	G A 377	117.447	63.024	15.122	1.00	60.58	C	ATOM	7942	C6	C A 379	112.020	57.351	12.369	1.00	58.94	C
ATOM	7893	C6	G A 377	117.539	62.024	16.115	1.00	60.58	C	ATOM	7943	P	G A 380	108.167	54.605	9.815	1.00	53.30	P
ATOM	7894	O6	G A 377	117.156	62.067	17.290	1.00	60.58	O	ATOM	7944	O1P	G A 380	107.369	53.658	8.985	1.00	89.57	O
ATOM	7895	N1	G A 377	118.149	60.878	15.627	1.00	60.58	N	ATOM	7945	O2P	G A 380	108.094	56.062	9.531	1.00	89.57	O
ATOM	7896	C2	G A 377	118.607	60.716	14.349	1.00	60.58	C	ATOM	7946	O5*	G A 380	107.780	54.383	11.346	1.00	53.30	O
ATOM	7897	N2	G A 377	119.178	59.545	14.078	1.00	60.58	N	ATOM	7947	C5*	G A 380	107.734	53.059	11.912	1.00	53.30	C
ATOM	7898	N3	G A 377	118.516	61.635	13.409	1.00	60.58	N	ATOM	7948	C4*	G A 380	107.363	53.115	13.374	1.00	53.30	C
ATOM	7899	C4	G A 377	117.933	62.758	13.864	1.00	60.58	C	ATOM	7949	O4*	G A 380	108.430	53.737	14.130	1.00	53.30	O
ATOM	7900	P	G A 378	114.234	63.416	8.975	1.00	46.37	P	ATOM	7950	C3*	G A 380	106.125	53.924	13.721	1.00	53.30	C
ATOM	7901	O1P	G A 378	113.691	63.541	7.599	1.00	57.12	O	ATOM	7951	O3*	G A 380	104.927	53.180	13.523	1.00	53.30	O
ATOM	7902	O2P	G A 378	113.403	63.829	10.121	1.00	57.12	O	ATOM	7952	C2*	G A 380	106.364	54.283	15.183	1.00	53.30	C
ATOM	7903	O5*	G A 378	114.688	61.913	9.219	1.00	46.37	O	ATOM	7953	O2*	G A 380	105.982	53.284	16.097	1.00	53.30	O
ATOM	7904	C5*	G A 378	115.471	61.218	8.243	1.00	46.37	C	ATOM	7954	C1*	G A 380	107.884	54.444	15.228	1.00	53.30	C
ATOM	7905	C4*	G A 378	115.669	59.781	8.657	1.00	46.37	C	ATOM	7955	N9	G A 380	108.227	55.854	15.111	1.00	89.57	N
ATOM	7906	O4*	G A 378	116.529	59.717	9.823	1.00	46.37	O	ATOM	7956	C8	G A 380	108.505	56.561	13.967	1.00	89.57	C
ATOM	7907	C3*	G A 378	114.419	59.029	9.068	1.00	46.37	C	ATOM	7957	N7	G A 380	108.657	57.838	14.182	1.00	89.57	N
ATOM	7908	O3*	G A 378	113.723	58.525	7.951	1.00	46.37	O	ATOM	7958	C5	G A 380	108.493	57.975	15.551	1.00	89.57	C
ATOM	7909	C2*	G A 378	114.973	57.926	9.955	1.00	46.37	C	ATOM	7959	C6	G A 380	108.519	59.127	16.364	1.00	89.57	C
ATOM	7910	O2*	G A 378	115.514	56.848	9.207	1.00	46.37	O	ATOM	7960	O6	G A 380	108.673	60.308	16.026	1.00	89.57	O
ATOM	7911	C1*	G A 378	116.117	58.652	10.659	1.00	46.37	C	ATOM	7961	N1	G A 380	108.323	58.811	17.702	1.00	89.57	N
ATOM	7912	N9	G A 378	115.721	59.223	11.938	1.00	57.12	N	ATOM	7962	C2	G A 380	108.116	57.553	18.191	1.00	89.57	C
ATOM	7913	C8	G A 378	115.258	60.492	12.159	1.00	57.12	C	ATOM	7963	N2	G A 380	107.962	57.458	19.511	1.00	89.57	N
ATOM	7914	N7	G A 378	115.001	60.730	13.413	1.00	57.12	N	ATOM	7964	N3	G A 380	108.067	56.471	17.443	1.00	89.57	N
ATOM	7915	C5	G A 378	115.312	59.543	14.056	1.00	57.12	C	ATOM	7965	C4	G A 380	108.262	56.755	16.141	1.00	89.57	C



Table 2: Sheet 81/520

ATOM	7966	P	C A 381	103.672	53.866	12.783	1.00	59.35	P	ATOM	8016	O3*	A A 383	108.317	57.400	26.851	1.00	58.41	O
ATOM	7967	O1P	C A 381	102.653	52.813	12.510	1.00	78.90	O	ATOM	8017	C2*	A A 383	107.738	55.317	25.801	1.00	58.41	C
ATOM	7968	O2P	C A 381	104.211	54.655	11.651	1.00	78.90	O	ATOM	8018	O2*	A A 383	107.427	54.867	27.102	1.00	58.41	O
ATOM	7969	O5*	C A 381	103.093	54.861	13.884	1.00	59.35	O	ATOM	8019	C1*	A A 383	106.593	54.954	24.864	1.00	58.41	C
ATOM	7970	C5*	C A 381	102.100	55.839	13.540	1.00	59.35	C	ATOM	8020	N9	A A 383	107.092	54.622	23.535	1.00	82.41	N
ATOM	7971	C4*	C A 381	101.399	56.344	14.781	1.00	59.35	C	ATOM	8021	C8	A A 383	107.078	55.395	22.403	1.00	82.41	C
ATOM	7972	O4*	C A 381	100.545	55.303	15.331	1.00	59.35	O	ATOM	8022	N7	A A 383	107.612	54.814	21.360	1.00	82.41	N
ATOM	7973	C3*	C A 381	102.284	56.764	15.946	1.00	59.35	C	ATOM	8023	C5	A A 383	108.004	53.573	21.837	1.00	82.41	C
ATOM	7974	O3*	C A 381	102.777	58.088	15.829	1.00	59.35	O	ATOM	8024	C6	A A 383	108.628	52.486	21.222	1.00	82.41	C
ATOM	7975	C2*	C A 381	101.334	56.652	17.128	1.00	59.35	C	ATOM	8025	N6	A A 383	108.972	52.467	19.933	1.00	82.41	N
ATOM	7976	O2*	C A 381	100.506	57.790	17.258	1.00	59.35	O	ATOM	8026	N1	A A 383	108.887	51.402	21.979	1.00	82.41	N
ATOM	7977	C1*	C A 381	100.500	55.425	16.746	1.00	59.35	C	ATOM	8027	C2	A A 383	108.529	51.421	23.269	1.00	82.41	C
ATOM	7978	N1	C A 381	101.084	54.213	17.358	1.00	78.90	N	ATOM	8028	N3	A A 383	107.929	52.380	23.960	1.00	82.41	N
ATOM	7979	C2	C A 381	101.027	54.073	18.757	1.00	78.90	C	ATOM	8029	C4	A A 383	107.691	53.443	23.176	1.00	82.41	C
ATOM	7980	O2	C A 381	100.413	54.923	19.423	1.00	78.90	O	ATOM	8030	P	G A 384	109.687	58.228	26.766	1.00	65.12	P
ATOM	7981	N3	C A 381	101.640	53.020	19.343	1.00	78.90	N	ATOM	8031	O1P	G A 384	110.252	58.317	28.138	1.00	76.09	O
ATOM	7982	C4	C A 381	102.278	52.121	18.596	1.00	78.90	C	ATOM	8032	O2P	G A 384	109.383	59.476	26.009	1.00	65.12	O
ATOM	7983	N4	C A 381	102.902	51.122	19.224	1.00	78.90	N	ATOM	8033	O5*	G A 384	110.659	57.329	25.878	1.00	65.12	O
ATOM	7984	C5	C A 381	102.312	52.211	17.169	1.00	78.90	C	ATOM	8034	C5*	G A 384	110.993	56.005	26.288	1.00	65.12	C
ATOM	7985	C6	C A 381	101.705	53.260	16.598	1.00	78.90	C	ATOM	8035	C4*	G A 384	111.374	55.149	25.099	1.00	65.12	C
ATOM	7986	P	A A 382	104.184	58.480	16.511	1.00	59.99	P	ATOM	8036	O4*	G A 384	110.481	55.404	23.983	1.00	65.12	O
ATOM	7987	O1P	A A 382	104.279	59.969	16.461	1.00	67.70	O	ATOM	8037	C3*	G A 384	112.761	55.311	24.505	1.00	65.12	C
ATOM	7988	O2P	A A 382	105.247	57.655	15.879	1.00	67.70	O	ATOM	8038	O3*	G A 384	113.736	54.590	25.254	1.00	65.12	O
ATOM	7989	O5*	A A 382	104.037	58.072	18.048	1.00	59.99	O	ATOM	8039	C2*	G A 384	112.581	54.703	23.120	1.00	65.12	C
ATOM	7990	C5*	A A 382	103.271	58.889	18.972	1.00	59.99	C	ATOM	8040	O2*	G A 384	112.623	53.289	23.136	1.00	65.12	O
ATOM	7991	C4*	A A 382	103.235	58.250	20.343	1.00	59.99	C	ATOM	8041	C1*	G A 384	111.152	55.111	22.775	1.00	65.12	C
ATOM	7992	O4*	A A 382	102.793	56.875	20.189	1.00	59.99	O	ATOM	8042	N9	G A 384	111.088	56.264	21.883	1.00	76.09	N
ATOM	7993	C3*	A A 382	104.566	58.153	21.076	1.00	59.99	C	ATOM	8043	C8	G A 384	110.703	57.545	22.190	1.00	76.09	C
ATOM	7994	O3*	A A 382	104.809	59.322	21.845	1.00	59.99	O	ATOM	8044	N7	G A 384	110.734	58.348	21.160	1.00	76.09	N
ATOM	7995	C2*	A A 382	104.380	56.925	21.963	1.00	59.99	C	ATOM	8045	C5	G A 384	111.174	57.551	20.114	1.00	76.09	C
ATOM	7996	O2*	A A 382	103.691	57.206	23.167	1.00	59.99	O	ATOM	8046	C6	G A 384	111.403	57.865	18.746	1.00	76.09	C
ATOM	7997	C1*	A A 382	103.501	56.033	21.085	1.00	59.99	C	ATOM	8047	O6	G A 384	111.266	58.951	18.167	1.00	76.09	O
ATOM	7998	N9	A A 382	104.235	55.039	20.294	1.00	67.70	N	ATOM	8048	N1	G A 384	111.837	56.754	18.034	1.00	76.09	N
ATOM	7999	C8	A A 382	104.646	55.138	18.986	1.00	67.70	C	ATOM	8049	C2	G A 384	112.026	55.505	18.562	1.00	76.09	C
ATOM	8000	N7	A A 382	105.261	54.073	18.541	1.00	67.70	N	ATOM	8050	N2	G A 384	112.440	54.564	17.708	1.00	76.09	N
ATOM	8001	C5	A A 382	105.260	53.209	19.626	1.00	67.70	C	ATOM	8051	N3	G A 384	111.824	55.200	19.830	1.00	76.09	N
ATOM	8002	C6	A A 382	105.759	51.905	19.798	1.00	67.70	C	ATOM	8052	C4	G A 384	111.400	56.264	20.543	1.00	76.09	C
ATOM	8003	N6	A A 382	106.352	51.207	18.831	1.00	67.70	N	ATOM	8053	P	C A 385	115.303	54.942	25.077	1.00	53.18	P
ATOM	8004	N1	A A 382	105.617	51.333	21.011	1.00	67.70	N	ATOM	8054	O1P	C A 385	116.086	54.183	26.098	1.00	64.32	O
ATOM	8005	C2	A A 382	105.002	52.025	21.977	1.00	67.70	C	ATOM	8055	O2P	C A 385	115.445	56.428	25.006	1.00	64.32	O
ATOM	8006	N3	A A 382	104.478	53.251	21.937	1.00	67.70	N	ATOM	8056	O5*	C A 385	115.659	54.361	23.636	1.00	53.18	O
ATOM	8007	C4	A A 382	104.642	53.796	20.718	1.00	67.70	C	ATOM	8057	C5*	C A 385	115.688	52.948	23.406	1.00	53.18	C
ATOM	8008	P	A A 383	106.290	59.624	22.400	1.00	58.41	P	ATOM	8058	C4*	C A 385	116.139	52.653	21.999	1.00	53.18	C
ATOM	8009	O1P	A A 383	106.251	60.909	23.155	1.00	82.41	O	ATOM	8059	O4*	C A 385	115.114	53.033	21.050	1.00	53.18	O
ATOM	8010	O2P	A A 383	107.244	59.473	21.262	1.00	82.41	O	ATOM	8060	C3*	C A 385	117.365	53.410	21.540	1.00	53.18	C
ATOM	8011	O5*	A A 383	106.580	58.456	23.455	1.00	58.41	O	ATOM	8061	O3*	C A 385	118.559	52.808	21.939	1.00	53.18	O
ATOM	8012	C5*	A A 383	106.002	58.477	24.785	1.00	58.41	C	ATOM	8062	C2*	C A 385	117.233	53.377	20.036	1.00	53.18	C
ATOM	8013	C4*	A A 383	106.298	57.187	25.514	1.00	58.41	C	ATOM	8063	O2*	C A 385	117.685	52.144	19.543	1.00	53.18	O
ATOM	8014	O4*	A A 383	105.747	56.083	24.755	1.00	58.41	O	ATOM	8064	C1*	C A 385	115.721	53.515	19.863	1.00	53.18	C
ATOM	8015	C3*	A A 383	107.767	56.833	25.681	1.00	58.41	C	ATOM	8065	N1	C A 385	115.340	54.931	19.683	1.00	64.32	N



Table 2: Sheet 82/520

ATOM	8066	C2	C A 385	115.335	55.468	18.391	1.00	64.32	C	ATOM	8116	O5*	G A 388	128.518	60.237	17.644	1.00	47.93	O
ATOM	8067	O2	C A 385	115.624	54.739	17.435	1.00	64.32	O	ATOM	8117	C5*	G A 388	128.456	61.669	17.470	1.00	47.93	C
ATOM	8068	N3	C A 385	115.013	56.763	18.217	1.00	64.32	N	ATOM	8118	C4*	G A 388	129.804	62.193	17.055	1.00	47.93	C
ATOM	8069	C4	C A 385	114.697	57.516	19.267	1.00	64.32	C	ATOM	8119	O4*	G A 388	130.792	61.664	17.971	1.00	47.93	O
ATOM	8070	N4	C A 385	114.376	58.785	19.040	1.00	64.32	N	ATOM	8120	C3*	G A 388	130.256	61.779	15.665	1.00	47.93	C
ATOM	8071	C5	C A 385	114.691	56.999	20.594	1.00	64.32	C	ATOM	8121	O3*	G A 388	131.126	62.802	15.203	1.00	47.93	O
ATOM	8072	C6	C A 385	115.012	55.716	20.755	1.00	64.32	C	ATOM	8122	C2*	G A 388	131.096	60.539	15.928	1.00	47.93	C
ATOM	8073	P	C A 386	119.854	53.718	22.117	1.00	55.34	P	ATOM	8123	O2*	G A 388	132.072	60.327	14.935	1.00	47.93	O
ATOM	8074	O1P	C A 386	120.908	52.885	22.753	1.00	65.26	O	ATOM	8124	C1*	G A 388	131.739	60.886	17.270	1.00	47.93	C
ATOM	8075	O2P	C A 386	119.424	54.988	22.764	1.00	65.26	O	ATOM	8125	N9	G A 388	132.041	59.721	18.096	1.00	54.92	N
ATOM	8076	O5*	C A 386	120.279	54.035	20.616	1.00	55.34	O	ATOM	8126	C8	G A 388	131.254	58.611	18.276	1.00	54.92	C
ATOM	8077	C5*	C A 386	120.674	52.980	19.735	1.00	55.34	C	ATOM	8127	N7	G A 388	131.787	57.732	19.077	1.00	54.92	N
ATOM	8078	C4*	C A 386	120.876	53.507	18.338	1.00	55.34	C	ATOM	8128	C5	G A 388	132.995	58.296	19.453	1.00	54.92	C
ATOM	8079	O4*	C A 386	119.598	53.893	17.773	1.00	55.34	O	ATOM	8129	C6	G A 388	134.007	57.802	20.315	1.00	54.92	C
ATOM	8080	C3*	C A 386	121.736	54.750	18.191	1.00	55.34	C	ATOM	8130	O6	G A 388	134.032	56.727	20.939	1.00	54.92	O
ATOM	8081	O3*	C A 386	123.122	54.485	18.233	1.00	55.34	O	ATOM	8131	N1	G A 388	135.073	58.695	20.418	1.00	54.92	N
ATOM	8082	C2*	C A 386	121.274	55.293	16.848	1.00	55.34	C	ATOM	8132	C2	G A 388	135.152	59.900	19.774	1.00	54.92	C
ATOM	8083	O2*	C A 386	121.824	54.603	15.737	1.00	55.34	O	ATOM	8133	N2	G A 388	136.264	60.613	19.991	1.00	54.92	N
ATOM	8084	C1*	C A 386	119.774	55.014	16.920	1.00	55.34	C	ATOM	8134	N3	G A 388	134.211	60.371	18.970	1.00	54.92	N
ATOM	8085	N1	C A 386	119.088	56.175	17.520	1.00	65.26	N	ATOM	8135	C4	G A 388	133.169	59.522	18.856	1.00	54.92	C
ATOM	8086	C2	C A 386	118.695	57.226	16.693	1.00	65.26	C	ATOM	8136	P	A A 389	130.946	63.414	13.740	1.00	55.60	P
ATOM	8087	O2	C A 386	118.856	57.119	15.472	1.00	65.26	O	ATOM	8137	O1P	A A 389	130.943	62.275	12.784	1.00	56.54	O
ATOM	8088	N3	C A 386	118.147	58.331	17.244	1.00	65.26	N	ATOM	8138	O2P	A A 389	131.957	64.479	13.600	1.00	56.54	O
ATOM	8089	C4	C A 386	117.974	58.401	18.564	1.00	65.26	C	ATOM	8139	O5*	A A 389	129.506	64.098	13.783	1.00	55.60	O
ATOM	8090	N4	C A 386	117.468	59.522	19.073	1.00	65.26	N	ATOM	8140	C5*	A A 389	128.831	64.347	12.554	1.00	55.60	C
ATOM	8091	C5	C A 386	118.323	57.326	19.423	1.00	65.26	C	ATOM	8141	C4*	A A 389	127.632	65.252	12.721	1.00	55.60	C
ATOM	8092	C6	C A 386	118.870	56.243	18.866	1.00	65.26	C	ATOM	8142	O4*	A A 389	126.468	64.549	13.205	1.00	55.60	O
ATOM	8093	P	U A 387	124.075	55.442	19.105	1.00	53.95	P	ATOM	8143	C3*	A A 389	127.641	66.525	13.545	1.00	55.60	C
ATOM	8094	O1P	U A 387	125.448	54.848	19.138	1.00	66.40	O	ATOM	8144	O3*	A A 389	128.324	67.585	12.906	1.00	55.60	O
ATOM	8095	O2P	U A 387	123.370	55.744	20.380	1.00	66.40	O	ATOM	8145	C2*	A A 389	126.160	66.878	13.493	1.00	55.60	C
ATOM	8096	O5*	U A 387	124.154	56.793	18.262	1.00	53.95	O	ATOM	8146	O2*	A A 389	125.842	67.434	12.229	1.00	55.60	O
ATOM	8097	C5*	U A 387	124.513	56.769	16.871	1.00	53.95	C	ATOM	8147	C1*	A A 389	125.492	65.504	13.557	1.00	55.60	C
ATOM	8098	C4*	U A 387	124.326	58.129	16.240	1.00	53.95	C	ATOM	8148	N9	A A 389	124.983	65.223	14.895	1.00	56.54	N
ATOM	8099	O4*	U A 387	122.919	58.455	16.080	1.00	53.95	O	ATOM	8149	C8	A A 389	125.332	64.246	15.785	1.00	56.54	C
ATOM	8100	C3*	U A 387	124.892	59.325	16.976	1.00	53.95	C	ATOM	8150	N7	A A 389	124.673	64.309	16.918	1.00	56.54	N
ATOM	8101	O3*	U A 387	126.285	59.424	16.804	1.00	53.95	O	ATOM	8151	C5	A A 389	123.826	65.397	16.754	1.00	56.54	C
ATOM	8102	C2*	U A 387	124.135	60.478	16.324	1.00	53.95	C	ATOM	8152	C6	A A 389	122.862	65.987	17.587	1.00	56.54	C
ATOM	8103	O2*	U A 387	124.624	60.840	15.049	1.00	53.95	O	ATOM	8153	N6	A A 389	122.561	65.548	18.805	1.00	56.54	N
ATOM	8104	C1*	U A 387	122.756	59.864	16.115	1.00	53.95	C	ATOM	8154	N1	A A 389	122.201	67.060	17.118	1.00	56.54	N
ATOM	8105	N1	U A 387	121.888	60.233	17.238	1.00	66.40	N	ATOM	8155	C2	A A 389	122.491	67.502	15.897	1.00	56.54	C
ATOM	8106	C2	U A 387	121.073	61.328	17.073	1.00	66.40	C	ATOM	8156	N3	A A 389	123.365	67.033	15.019	1.00	56.54	N
ATOM	8107	O2	U A 387	120.975	61.924	16.017	1.00	66.40	O	ATOM	8157	C4	A A 389	124.007	65.966	15.516	1.00	56.54	C
ATOM	8108	N3	U A 387	120.368	61.697	18.191	1.00	66.40	N	ATOM	8158	P	C A 390	128.861	68.834	13.774	1.00	54.68	P
ATOM	8109	C4	U A 387	120.383	61.079	19.423	1.00	66.40	C	ATOM	8159	O1P	C A 390	128.764	70.023	12.884	1.00	51.22	O
ATOM	8110	O4	U A 387	119.781	61.594	20.372	1.00	66.40	O	ATOM	8160	O2P	C A 390	130.175	68.463	14.367	1.00	51.22	O
ATOM	8111	C5	U A 387	121.209	59.919	19.491	1.00	66.40	C	ATOM	8161	O5*	C A 390	127.830	69.007	14.976	1.00	54.68	O
ATOM	8112	C6	U A 387	121.913	59.545	18.426	1.00	66.40	C	ATOM	8162	C5*	C A 390	126.685	69.854	14.848	1.00	54.68	C
ATOM	8113	P	G A 388	127.236	59.408	18.092	1.00	47.93	P	ATOM	8163	C4*	C A 390	125.810	69.737	16.070	1.00	54.68	C
ATOM	8114	O1P	G A 388	127.674	58.012	18.289	1.00	54.92	O	ATOM	8164	O4*	C A 390	125.594	68.330	16.355	1.00	54.68	O
ATOM	8115	O2P	G A 388	126.547	60.128	19.190	1.00	54.92	O	ATOM	8165	C3*	C A 390	126.355	70.322	17.365	1.00	54.68	C



Table 2: Sheet 83/520

ATOM	8166	O3*	C A 390	125.992	71.693	17.470	1.00	54.68	O	ATOM	8216	C5	G A 392	132.326	68.969	23.720	1.00	58.06	C
ATOM	8167	C2*	C A 390	125.601	69.518	18.409	1.00	54.68	C	ATOM	8217	C6	G A 392	133.334	68.001	23.535	1.00	58.06	C
ATOM	8168	O2*	C A 390	124.286	70.028	18.534	1.00	54.68	O	ATOM	8218	O6	G A 392	133.918	67.694	22.502	1.00	58.06	O
ATOM	8169	C1*	C A 390	125.537	68.133	17.754	1.00	54.68	C	ATOM	8219	N1	G A 392	133.651	67.359	24.725	1.00	58.06	N
ATOM	8170	N1	C A 390	126.669	68.135	18.135	1.00	51.22	N	ATOM	8220	C2	G A 392	133.068	67.613	25.939	1.00	58.06	C
ATOM	8171	C2	C A 390	126.546	66.421	19.245	1.00	51.22	C	ATOM	8221	N2	G A 392	133.513	66.893	26.977	1.00	58.06	N
ATOM	8172	O2	C A 390	125.476	66.394	19.868	1.00	51.22	O	ATOM	8222	N3	G A 392	132.120	68.511	26.123	1.00	58.06	N
ATOM	8173	N3	C A 390	127.601	65.654	19.609	1.00	51.22	N	ATOM	8223	C4	G A 392	131.803	69.151	24.979	1.00	58.06	C
ATOM	8174	C4	C A 390	128.734	65.703	18.908	1.00	51.22	C	ATOM	8224	P	A A 393	132.760	74.536	27.429	1.00	51.69	P
ATOM	8175	N4	C A 390	129.748	64.944	19.303	1.00	51.22	N	ATOM	8225	O1P	A A 393	132.720	75.750	28.285	1.00	62.85	O
ATOM	8176	C5	C A 390	128.878	66.537	17.770	1.00	51.22	C	ATOM	8226	O2P	A A 393	133.153	74.660	26.001	1.00	62.85	O
ATOM	8177	C6	C A 390	127.834	67.294	17.422	1.00	51.22	C	ATOM	8227	O5*	A A 393	133.738	73.477	28.100	1.00	51.69	O
ATOM	8178	P	G A 391	127.029	72.774	18.068	1.00	54.34	P	ATOM	8228	C5*	A A 393	133.525	73.016	29.443	1.00	51.69	C
ATOM	8179	O1P	G A 391	126.584	74.082	17.509	1.00	62.54	O	ATOM	8229	C4*	A A 393	134.320	71.761	29.687	1.00	51.69	C
ATOM	8180	O2P	G A 391	128.432	72.325	17.870	1.00	62.54	O	ATOM	8230	O4*	A A 393	133.813	70.701	28.835	1.00	51.69	O
ATOM	8181	O5*	G A 391	126.742	72.792	19.632	1.00	54.34	O	ATOM	8231	C3*	A A 393	135.785	71.853	29.313	1.00	51.69	C
ATOM	8182	C5*	G A 391	125.439	73.123	20.132	1.00	54.34	C	ATOM	8232	O3*	A A 393	136.572	72.413	30.323	1.00	51.69	O
ATOM	8183	C4*	G A 391	125.264	72.573	21.522	1.00	54.34	C	ATOM	8233	C2*	A A 393	136.161	70.406	29.048	1.00	51.69	C
ATOM	8184	O4*	G A 391	125.300	71.121	21.493	1.00	54.34	O	ATOM	8234	O2*	A A 393	136.427	69.666	30.219	1.00	51.69	O
ATOM	8185	C3*	G A 391	126.369	72.959	22.480	1.00	54.34	C	ATOM	8235	C1*	A A 393	134.889	69.882	28.392	1.00	51.69	C
ATOM	8186	O3*	G A 391	126.150	74.237	23.046	1.00	54.34	O	ATOM	8236	N9	A A 393	135.022	70.020	26.945	1.00	62.85	N
ATOM	8187	C2*	G A 391	126.337	71.842	23.513	1.00	54.34	C	ATOM	8237	C8	A A 393	134.379	70.886	26.104	1.00	62.85	C
ATOM	8188	O2*	G A 391	125.353	72.055	24.510	1.00	54.34	O	ATOM	8238	N7	A A 393	134.775	70.801	24.860	1.00	62.85	N
ATOM	8189	C1*	G A 391	125.957	70.637	22.649	1.00	62.54	C	ATOM	8239	C5	A A 393	135.733	69.802	24.883	1.00	62.85	C
ATOM	8190	N9	G A 391	127.110	69.852	22.223	1.00	62.54	N	ATOM	8240	C6	A A 393	136.528	69.248	23.885	1.00	62.85	C
ATOM	8191	C8	G A 391	127.661	69.816	20.970	1.00	62.54	C	ATOM	8241	N6	A A 393	136.492	69.640	22.617	1.00	62.85	N
ATOM	8192	N7	G A 391	128.670	68.996	20.878	1.00	62.54	N	ATOM	8242	N1	A A 393	137.379	68.265	24.234	1.00	62.85	N
ATOM	8193	C5	G A 391	128.794	68.458	22.149	1.00	62.54	C	ATOM	8243	C2	A A 393	137.414	67.875	25.512	1.00	62.85	C
ATOM	8194	C6	G A 391	129.707	67.495	22.654	1.00	62.54	C	ATOM	8244	N3	A A 393	136.715	68.325	26.546	1.00	62.85	N
ATOM	8195	O6	G A 391	130.619	66.904	22.055	1.00	62.54	O	ATOM	8245	C4	A A 393	135.883	69.301	26.157	1.00	62.85	C
ATOM	8196	N1	G A 391	129.480	67.236	24.001	1.00	62.54	N	ATOM	8246	P	G A 394	138.001	73.017	29.940	1.00	56.17	P
ATOM	8197	C2	G A 391	128.504	67.823	24.761	1.00	62.54	C	ATOM	8247	O1P	G A 394	138.666	73.408	31.217	1.00	63.69	O
ATOM	8198	N2	G A 391	128.436	67.436	26.039	1.00	62.54	N	ATOM	8248	O2P	G A 394	137.796	74.036	28.874	1.00	63.69	O
ATOM	8199	N3	G A 391	127.652	68.721	24.303	1.00	62.54	N	ATOM	8249	O5*	G A 394	138.777	71.779	29.304	1.00	56.17	O
ATOM	8200	C4	G A 391	127.850	68.986	22.996	1.00	62.54	C	ATOM	8250	C5*	G A 394	139.081	70.632	30.105	1.00	56.17	C
ATOM	8201	P	G A 392	127.411	75.099	23.523	1.00	53.28	P	ATOM	8251	C4*	G A 394	140.114	69.775	29.432	1.00	56.17	C
ATOM	8202	O1P	G A 392	126.922	76.430	23.968	1.00	58.06	O	ATOM	8252	O4*	G A 394	139.559	69.114	28.269	1.00	56.17	O
ATOM	8203	O2P	G A 392	128.432	75.006	22.451	1.00	58.06	O	ATOM	8253	C3*	G A 394	141.313	70.522	28.905	1.00	56.17	C
ATOM	8204	O5*	G A 392	127.959	74.282	24.768	1.00	53.28	O	ATOM	8254	O3*	G A 394	142.239	70.792	29.927	1.00	56.17	O
ATOM	8205	C5*	G A 392	129.361	74.138	25.003	1.00	53.28	C	ATOM	8255	C2*	G A 394	141.857	69.584	27.838	1.00	56.17	C
ATOM	8206	C4*	G A 392	129.584	73.044	26.006	1.00	53.28	C	ATOM	8256	O2*	G A 394	142.710	68.590	28.353	1.00	56.17	O
ATOM	8207	O4*	G A 392	129.251	71.760	25.412	1.00	53.28	O	ATOM	8257	C1*	G A 394	140.573	68.954	27.293	1.00	56.17	C
ATOM	8208	C3*	G A 392	131.010	72.875	26.471	1.00	53.28	C	ATOM	8258	N9	G A 394	140.138	69.586	26.053	1.00	63.69	N
ATOM	8209	O3*	G A 392	131.332	73.812	27.474	1.00	53.28	O	ATOM	8259	C8	G A 394	139.100	70.464	25.873	1.00	63.69	C
ATOM	8210	C2*	G A 392	131.030	71.435	26.957	1.00	53.28	C	ATOM	8260	N7	G A 394	138.968	70.852	24.634	1.00	63.69	N
ATOM	8211	O2*	G A 392	130.490	71.273	28.254	1.00	53.28	O	ATOM	8261	C5	G A 394	139.984	70.193	23.959	1.00	63.69	C
ATOM	8212	C1*	G A 392	130.108	70.759	25.940	1.00	53.28	C	ATOM	8262	C6	G A 394	140.353	70.224	22.589	1.00	63.69	C
ATOM	8213	N9	G A 392	130.881	70.162	24.851	1.00	58.06	N	ATOM	8263	O6	G A 394	139.846	70.862	21.659	1.00	63.69	O
ATOM	8214	C8	G A 392	130.871	70.506	23.523	1.00	58.06	C	ATOM	8264	N1	G A 394	141.443	69.406	22.342	1.00	63.69	N
ATOM	8215	N7	G A 392	131.726	69.825	22.811	1.00	58.06	N	ATOM	8265	C2	G A 394	142.105	68.658	23.282	1.00	63.69	C



ATOM	8266	N2	G A 394	143.144	67.931	22.840	1.00	63.69	N	ATOM	8316	C5*	A A 397	150.735	79.626	24.304	1.00	63.08	C
ATOM	8267	N3	G A 394	141.776	68.626	24.559	1.00	63.69	N	ATOM	8317	C4*	A A 397	149.891	80.745	23.799	1.00	63.08	C
ATOM	8268	C4	G A 394	140.713	69.410	24.824	1.00	63.69	C	ATOM	8318	O4*	A A 397	149.689	81.702	24.865	1.00	63.08	O
ATOM	8269	P	C A 395	143.139	72.111	29.828	1.00	50.13	P	ATOM	8319	C3*	A A 397	150.578	81.534	22.709	1.00	63.08	C
ATOM	8270	O1P	C A 395	143.930	72.249	31.084	1.00	58.84	O	ATOM	8320	O3*	A A 397	150.384	80.900	21.464	1.00	63.08	O
ATOM	8271	O2P	C A 395	142.253	73.212	29.407	1.00	58.84	O	ATOM	8321	C2*	A A 397	149.921	82.899	22.826	1.00	63.08	C
ATOM	8272	O5*	C A 395	144.121	71.757	28.627	1.00	50.13	O	ATOM	8322	O2*	A A 397	148.643	82.913	22.214	1.00	63.08	O
ATOM	8273	C5*	C A 395	145.057	70.670	28.743	1.00	50.13	C	ATOM	8323	C1*	A A 397	149.753	83.015	24.342	1.00	63.08	C
ATOM	8274	O4*	C A 395	145.856	70.526	27.472	1.00	50.13	C	ATOM	8324	N9	A A 397	150.837	83.733	25.020	1.00	55.59	N
ATOM	8275	C4*	C A 395	145.001	70.038	26.413	1.00	50.13	O	ATOM	8325	C8	A A 397	150.719	84.931	25.667	1.00	55.59	C
ATOM	8276	C3*	C A 395	146.443	71.801	26.903	1.00	50.13	C	ATOM	8326	N7	A A 397	151.838	85.363	26.194	1.00	55.59	N
ATOM	8277	O3*	C A 395	147.642	72.181	27.524	1.00	50.13	O	ATOM	8327	C5	A A 397	152.756	84.382	25.874	1.00	55.59	C
ATOM	8278	C2*	C A 395	146.637	71.462	25.436	1.00	50.13	C	ATOM	8328	C6	A A 397	154.124	84.254	26.149	1.00	55.59	C
ATOM	8279	O2*	C A 395	147.813	70.732	25.176	1.00	50.13	O	ATOM	8329	N6	A A 397	154.824	85.150	26.847	1.00	55.59	N
ATOM	8280	C1*	C A 395	145.430	70.572	25.174	1.00	50.13	C	ATOM	8330	N1	A A 397	154.758	83.165	25.683	1.00	55.59	N
ATOM	8281	N1	C A 395	144.326	71.325	24.560	1.00	58.84	N	ATOM	8331	C2	A A 397	154.048	82.268	24.996	1.00	55.59	C
ATOM	8282	C2	C A 395	144.365	71.542	23.183	1.00	58.84	C	ATOM	8332	N3	A A 397	152.753	82.273	24.680	1.00	55.59	N
ATOM	8283	O2	C A 395	145.318	71.092	22.534	1.00	58.84	O	ATOM	8333	C4	A A 397	152.157	83.372	25.150	1.00	55.59	C
ATOM	8284	N3	C A 395	143.371	72.234	22.591	1.00	58.84	N	ATOM	8334	P	C A 398	151.248	79.596	21.109	1.00	55.57	P
ATOM	8285	C4	C A 395	142.364	72.701	23.319	1.00	58.84	C	ATOM	8335	O1P	C A 398	150.517	78.479	21.714	1.00	46.00	O
ATOM	8286	N4	C A 395	141.406	73.375	22.684	1.00	58.84	N	ATOM	8336	O2P	C A 398	152.668	79.837	21.467	1.00	46.00	O
ATOM	8287	C5	C A 395	142.294	72.497	24.729	1.00	58.84	C	ATOM	8337	O5*	C A 398	151.093	79.427	19.537	1.00	55.57	O
ATOM	8288	C6	C A 395	143.287	71.809	25.304	1.00	58.84	C	ATOM	8338	C5*	C A 398	151.375	80.517	18.647	1.00	55.57	C
ATOM	8289	P	G A 396	147.976	73.745	27.673	1.00	61.77	P	ATOM	8339	C4*	C A 398	150.137	80.901	17.880	1.00	55.57	C
ATOM	8290	O1P	G A 396	149.214	73.854	28.505	1.00	52.84	O	ATOM	8340	O4*	C A 398	149.171	79.824	17.907	1.00	55.57	C
ATOM	8291	O2P	G A 396	146.746	74.483	28.081	1.00	52.84	O	ATOM	8341	C3*	C A 398	149.364	82.079	18.423	1.00	55.57	C
ATOM	8292	O5*	G A 396	148.348	74.174	26.193	1.00	61.77	O	ATOM	8342	O3*	C A 398	149.958	83.276	17.986	1.00	55.57	O
ATOM	8293	C5*	G A 396	149.567	73.716	25.607	1.00	61.77	C	ATOM	8343	C2*	C A 398	147.982	81.863	17.822	1.00	55.57	C
ATOM	8294	C4*	G A 396	149.784	74.384	24.284	1.00	61.77	C	ATOM	8344	O2*	C A 398	147.913	82.184	16.450	1.00	55.57	O
ATOM	8295	O4*	G A 396	148.844	73.862	23.317	1.00	61.77	O	ATOM	8345	C1*	C A 398	147.858	80.353	17.901	1.00	55.57	C
ATOM	8296	C3*	G A 396	149.570	75.886	24.272	1.00	61.77	C	ATOM	8346	N1	C A 398	147.147	79.927	19.121	1.00	46.00	N
ATOM	8297	O3*	G A 396	150.755	76.554	24.701	1.00	61.77	O	ATOM	8347	C2	C A 398	145.741	79.943	19.114	1.00	46.00	C
ATOM	8298	C2*	G A 396	149.260	76.144	22.807	1.00	61.77	C	ATOM	8348	O2	C A 398	145.150	80.325	18.092	1.00	46.00	O
ATOM	8299	O2*	G A 396	150.442	76.144	22.058	1.00	61.77	O	ATOM	8349	N3	C A 398	145.071	79.541	20.212	1.00	46.00	N
ATOM	8300	C1*	G A 396	148.493	74.883	22.409	1.00	61.77	C	ATOM	8350	C4	C A 398	145.744	79.131	21.288	1.00	46.00	C
ATOM	8301	N9	G A 396	147.050	75.066	22.451	1.00	52.84	N	ATOM	8351	N4	C A 398	145.039	78.717	22.347	1.00	46.00	N
ATOM	8302	C8	G A 396	146.221	74.852	23.517	1.00	52.84	C	ATOM	8352	C5	C A 398	147.174	79.120	21.329	1.00	46.00	C
ATOM	8303	N7	G A 396	144.983	75.171	23.273	1.00	52.84	N	ATOM	8353	C6	C A 398	147.826	79.522	20.237	1.00	46.00	C
ATOM	8304	C5	G A 396	144.994	75.606	21.962	1.00	52.84	C	ATOM	8354	P	G A 399	149.664	84.633	18.775	1.00	45.58	P
ATOM	8305	C6	G A 396	143.944	76.097	21.154	1.00	52.84	C	ATOM	8355	O1P	G A 399	150.634	85.612	18.228	1.00	52.37	O
ATOM	8306	O6	G A 396	142.741	76.252	19.846	1.00	52.84	O	ATOM	8356	O2P	G A 399	149.635	84.365	20.238	1.00	52.37	O
ATOM	8307	N1	G A 396	144.399	76.432	19.886	1.00	52.84	N	ATOM	8357	O5*	G A 399	148.199	85.030	18.293	1.00	45.58	O
ATOM	8308	C2	G A 396	145.693	76.307	19.448	1.00	52.84	C	ATOM	8358	C5*	G A 399	147.972	85.381	16.927	1.00	45.58	C
ATOM	8309	N2	G A 396	145.931	76.692	18.178	1.00	52.84	N	ATOM	8359	C4*	G A 399	146.527	85.720	16.701	1.00	45.58	C
ATOM	8310	N3	G A 396	146.678	75.846	20.194	1.00	52.84	N	ATOM	8360	O4*	G A 399	145.716	84.557	16.949	1.00	45.58	O
ATOM	8311	C4	G A 396	146.260	75.525	21.433	1.00	52.84	C	ATOM	8361	C3*	G A 399	145.949	86.784	17.610	1.00	45.58	C
ATOM	8312	P	A A 397	150.693	77.601	25.925	1.00	63.08	P	ATOM	8362	O3*	G A 399	146.253	88.086	17.141	1.00	45.58	O
ATOM	8313	O1P	A A 397	152.091	77.934	26.281	1.00	55.59	O	ATOM	8363	C2*	G A 399	144.461	86.478	17.575	1.00	45.58	C
ATOM	8314	O2P	A A 397	149.757	77.117	26.976	1.00	55.59	O	ATOM	8364	O2*	G A 399	143.822	86.995	16.431	1.00	45.58	O
ATOM	8315	O5*	A A 397	150.036	78.897	25.292	1.00	63.08	O	ATOM	8365	C1*	G A 399	144.467	84.955	17.481	1.00	45.58	C



Table 2: Sheet 85/520

ATOM	8366	N9	G A 399	144.277	84.303	18.773	1.00	52.37	N	ATOM	8416	C6	C A 401	141.432	90.403	23.532	1.00	58.33	C
ATOM	8367	C8	G A 399	145.222	83.671	19.543	1.00	52.37	C	ATOM	8417	P	G A 402	140.739	95.318	25.395	1.00	51.04	P
ATOM	8368	N7	G A 399	144.726	83.147	20.629	1.00	52.37	N	ATOM	8418	O1P	G A 402	140.433	96.769	25.439	1.00	60.47	O
ATOM	8369	C5	G A 399	143.379	83.464	20.573	1.00	52.37	C	ATOM	8419	O2P	G A 402	142.129	94.876	25.160	1.00	60.47	O
ATOM	8370	C6	G A 399	142.332	83.158	21.467	1.00	52.37	C	ATOM	8420	O5*	G A 402	140.213	94.629	26.729	1.00	51.04	O
ATOM	8371	O6	G A 399	142.380	82.494	22.515	1.00	52.37	O	ATOM	8421	C5*	G A 402	138.836	94.754	27.129	1.00	51.04	C
ATOM	8372	N1	G A 399	141.123	83.699	21.036	1.00	52.37	N	ATOM	8422	C4*	G A 402	138.568	93.924	28.361	1.00	51.04	C
ATOM	8373	C2	G A 399	140.954	84.430	19.885	1.00	52.37	C	ATOM	8423	O4*	G A 402	138.659	92.510	28.033	1.00	51.04	O
ATOM	8374	N2	G A 399	139.720	84.886	19.635	1.00	52.37	N	ATOM	8424	C3*	G A 402	139.565	94.101	29.490	1.00	51.04	C
ATOM	8375	N3	G A 399	141.924	84.701	19.041	1.00	52.37	N	ATOM	8425	O3*	G A 402	139.317	95.236	30.287	1.00	51.04	O
ATOM	8376	C4	G A 399	143.096	84.193	19.443	1.00	52.37	C	ATOM	8426	C2*	G A 402	139.430	92.801	30.266	1.00	51.04	C
ATOM	8377	P	C A 400	146.427	89.283	18.195	1.00	51.08	P	ATOM	8427	O2*	G A 402	138.312	92.821	31.132	1.00	51.04	O
ATOM	8378	O1P	C A 400	146.944	90.438	17.408	1.00	47.72	O	ATOM	8428	C1*	G A 402	139.202	91.791	29.137	1.00	51.04	C
ATOM	8379	O2P	C A 400	147.184	88.813	19.391	1.00	47.72	O	ATOM	8429	N9	G A 402	140.447	91.139	28.721	1.00	60.47	N
ATOM	8380	O5*	C A 400	144.923	89.594	18.601	1.00	51.08	O	ATOM	8430	C8	G A 402	141.152	91.353	27.563	1.00	60.47	C
ATOM	8381	C5*	C A 400	144.028	90.110	17.621	1.00	51.08	C	ATOM	8431	N7	G A 402	142.265	90.674	27.506	1.00	60.47	N
ATOM	8382	C4*	C A 400	142.629	90.133	18.152	1.00	51.08	C	ATOM	8432	C5	G A 402	142.290	89.953	28.691	1.00	60.47	C
ATOM	8383	O4*	C A 400	142.177	88.775	18.356	1.00	51.08	O	ATOM	8433	C6	G A 402	143.266	89.047	29.203	1.00	60.47	C
ATOM	8384	C3*	C A 400	142.444	90.804	19.498	1.00	51.08	C	ATOM	8434	O6	G A 402	144.341	88.695	28.696	1.00	60.47	O
ATOM	8385	O3*	C A 400	142.342	92.214	19.385	1.00	51.08	O	ATOM	8435	N1	G A 402	142.892	88.543	30.439	1.00	60.47	N
ATOM	8386	C2*	C A 400	141.164	90.148	19.998	1.00	51.08	C	ATOM	8436	C2	G A 402	141.739	88.864	31.105	1.00	60.47	C
ATOM	8387	O2*	C A 400	140.004	90.674	19.394	1.00	51.08	O	ATOM	8437	N2	G A 402	141.562	88.282	32.296	1.00	60.47	N
ATOM	8388	C1*	C A 400	141.334	88.719	19.492	1.00	51.08	C	ATOM	8438	N3	G A 402	140.825	89.700	30.642	1.00	60.47	N
ATOM	8389	N1	C A 400	141.966	87.868	20.517	1.00	47.72	N	ATOM	8439	C4	G A 402	141.166	90.210	29.442	1.00	60.47	C
ATOM	8390	C2	C A 400	141.160	87.293	21.497	1.00	47.72	C	ATOM	8440	P	C A 403	140.558	95.986	30.971	1.00	57.84	P
ATOM	8391	O2	C A 400	139.934	87.494	21.453	1.00	47.72	O	ATOM	8441	O1P	C A 403	140.006	97.125	31.743	1.00	58.56	O
ATOM	8392	N3	C A 400	141.728	86.536	22.466	1.00	47.72	N	ATOM	8442	O2P	C A 403	141.614	96.229	29.957	1.00	58.56	O
ATOM	8393	C4	C A 400	143.043	86.345	22.469	1.00	47.72	C	ATOM	8443	O5*	C A 403	141.138	94.903	31.984	1.00	57.84	O
ATOM	8394	N4	C A 400	143.565	85.598	23.434	1.00	47.72	N	ATOM	8444	C5*	C A 403	140.372	94.501	33.121	1.00	57.84	C
ATOM	8395	C5	C A 400	143.886	86.912	21.476	1.00	47.72	C	ATOM	8445	C4*	C A 403	141.162	93.565	33.999	1.00	57.84	C
ATOM	8396	C6	C A 400	143.315	87.657	20.527	1.00	47.72	C	ATOM	8446	O4*	C A 403	141.364	92.293	33.328	1.00	57.84	O
ATOM	8397	P	C A 401	142.824	93.141	20.606	1.00	50.87	P	ATOM	8447	C3*	C A 403	142.569	93.955	34.421	1.00	57.84	C
ATOM	8398	O1P	C A 401	142.792	94.561	20.167	1.00	58.33	O	ATOM	8448	O3*	C A 403	142.636	94.899	35.478	1.00	57.84	O
ATOM	8399	O2P	C A 401	144.080	92.579	21.141	1.00	58.33	O	ATOM	8449	C2*	C A 403	143.124	92.619	34.890	1.00	57.84	C
ATOM	8400	O5*	C A 401	141.676	92.930	21.683	1.00	50.87	O	ATOM	8450	O2*	C A 403	142.684	92.300	36.192	1.00	57.84	O
ATOM	8401	C5*	C A 401	140.332	93.337	21.385	1.00	50.87	C	ATOM	8451	C1*	C A 403	142.485	91.643	33.904	1.00	57.84	C
ATOM	8402	C4*	C A 401	139.422	93.004	22.528	1.00	50.87	C	ATOM	8452	N1	C A 403	143.464	91.262	32.869	1.00	58.56	N
ATOM	8403	O4*	C A 401	139.195	91.576	22.564	1.00	50.87	O	ATOM	8453	C2	C A 403	144.398	90.268	33.189	1.00	58.56	C
ATOM	8404	C3*	C A 401	139.973	93.329	23.902	1.00	50.87	C	ATOM	8454	O2	C A 403	144.292	89.676	34.276	1.00	58.56	O
ATOM	8405	O3*	C A 401	139.801	94.682	24.260	1.00	50.87	O	ATOM	8455	N3	C A 403	145.385	89.975	32.311	1.00	58.56	N
ATOM	8406	C2*	C A 401	139.183	92.389	24.792	1.00	50.87	C	ATOM	8456	C4	C A 403	145.445	90.610	31.144	1.00	58.56	C
ATOM	8407	O2*	C A 401	137.894	92.900	25.069	1.00	50.87	O	ATOM	8457	N4	C A 403	146.452	90.308	30.322	1.00	58.56	N
ATOM	8408	C1*	C A 401	139.102	91.140	23.908	1.00	50.87	C	ATOM	8458	C5	C A 403	144.478	91.589	30.768	1.00	58.56	C
ATOM	8409	N1	C A 401	140.247	90.251	24.193	1.00	58.33	N	ATOM	8459	C6	C A 403	143.510	91.878	31.651	1.00	58.56	C
ATOM	8410	C2	C A 401	140.120	89.279	25.197	1.00	58.33	C	ATOM	8460	P	U A 404	144.058	95.578	35.840	1.00	57.80	P
ATOM	8411	O2	C A 401	139.015	89.098	25.726	1.00	58.33	O	ATOM	8461	O1P	U A 404	143.803	96.701	36.783	1.00	59.63	O
ATOM	8412	N3	C A 401	141.202	88.560	25.562	1.00	58.33	N	ATOM	8462	O2P	U A 404	144.810	95.833	34.578	1.00	59.63	O
ATOM	8413	C4	C A 401	142.368	88.762	24.952	1.00	58.33	C	ATOM	8463	O5*	U A 404	144.845	94.455	36.649	1.00	57.80	O
ATOM	8414	N4	C A 401	143.424	88.079	25.385	1.00	58.33	N	ATOM	8464	C5*	U A 404	144.346	93.988	37.908	1.00	57.80	C
ATOM	8415	C5	C A 401	142.507	89.689	23.878	1.00	58.33	C	ATOM	8465	C4*	U A 404	145.277	92.964	38.496	1.00	57.80	C



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ATOM	8466	O4*	U A 404	145.364	91.809	37.626	1.00	57.80	O	ATOM	8516	C6	G A 406	149.796	97.608	48.548	1.00	64.36	C
ATOM	8467	C3*	U A 404	146.710	93.422	38.682	1.00	57.80	C	ATOM	8517	O6	G A 406	150.450	97.445	49.581	1.00	64.36	O
ATOM	8468	O3*	U A 404	146.857	94.122	39.905	1.00	57.80	O	ATOM	8518	N1	G A 406	148.572	98.266	48.597	1.00	64.36	N
ATOM	8469	C2*	U A 404	147.484	92.112	38.678	1.00	57.80	C	ATOM	8519	C2	G A 406	147.762	98.509	47.517	1.00	64.36	C
ATOM	8470	O2*	U A 404	147.516	91.482	39.940	1.00	57.80	O	ATOM	8520	N2	G A 406	146.617	99.157	47.768	1.00	64.36	N
ATOM	8471	C1*	U A 404	146.668	91.265	37.695	1.00	57.80	C	ATOM	8521	N3	G A 406	148.053	98.142	46.284	1.00	64.36	N
ATOM	8472	N1	U A 404	147.264	91.293	36.354	1.00	59.63	N	ATOM	8522	C4	G A 406	149.239	97.498	46.216	1.00	64.36	C
ATOM	8473	C2	U A 404	148.459	90.978	37.182	1.00	59.63	C	ATOM	8523	P	G A 407	150.683	101.210	41.773	1.00	61.25	P
ATOM	8474	O2	U A 404	148.990	89.925	36.067	1.00	59.63	O	ATOM	8524	O1P	G A 407	150.401	101.978	40.537	1.00	80.22	O
ATOM	8475	N3	U A 404	149.014	90.753	34.937	1.00	59.63	N	ATOM	8525	O2P	G A 407	152.040	101.265	42.377	1.00	80.22	O
ATOM	8476	C4	U A 404	148.510	91.448	33.868	1.00	59.63	C	ATOM	8526	O5*	G A 407	149.603	101.624	42.867	1.00	61.25	O
ATOM	8477	O4	U A 404	149.194	91.560	32.852	1.00	59.63	O	ATOM	8527	C5*	G A 407	148.234	101.864	42.501	1.00	61.25	C
ATOM	8478	C5	U A 404	147.250	92.074	34.107	1.00	59.63	C	ATOM	8528	O4*	G A 407	147.495	102.503	43.651	1.00	61.25	C
ATOM	8479	C6	U A 404	146.682	91.976	35.312	1.00	59.63	C	ATOM	8529	O4*	G A 407	147.353	101.548	44.733	1.00	61.25	O
ATOM	8480	P	U A 405	147.984	95.251	40.040	1.00	56.85	P	ATOM	8530	C3*	G A 407	148.195	103.701	44.274	1.00	61.25	C
ATOM	8481	O1P	U A 405	147.719	95.995	41.308	1.00	62.73	O	ATOM	8531	O3*	G A 407	147.901	104.903	43.564	1.00	61.25	O
ATOM	8482	O2P	U A 405	148.037	95.988	38.753	1.00	62.73	O	ATOM	8532	C2*	G A 407	147.646	103.708	45.696	1.00	61.25	C
ATOM	8483	O5*	U A 405	149.325	94.410	40.202	1.00	56.85	O	ATOM	8533	O2*	G A 407	146.378	104.335	45.803	1.00	61.25	O
ATOM	8484	C5*	U A 405	149.466	93.508	41.299	1.00	56.85	C	ATOM	8534	C1*	G A 407	147.480	102.213	45.975	1.00	61.25	C
ATOM	8485	C4*	U A 405	150.738	92.723	41.182	1.00	56.85	C	ATOM	8535	N9	G A 407	148.604	101.626	46.698	1.00	80.22	N
ATOM	8486	O4*	U A 405	150.657	91.800	40.075	1.00	56.85	O	ATOM	8536	C8	G A 407	149.564	100.790	46.189	1.00	80.22	C
ATOM	8487	C3*	U A 405	152.002	93.523	40.950	1.00	56.85	C	ATOM	8537	N7	G A 407	150.427	100.393	47.084	1.00	80.22	N
ATOM	8488	O3*	U A 405	152.497	93.957	42.201	1.00	56.85	O	ATOM	8538	C5	G A 407	150.018	101.014	48.255	1.00	80.22	C
ATOM	8489	C2*	U A 405	152.923	92.494	40.304	1.00	56.85	C	ATOM	8539	C6	G A 407	150.565	100.958	49.561	1.00	80.22	C
ATOM	8490	O2*	U A 405	153.539	91.646	41.259	1.00	56.85	O	ATOM	8540	O6	G A 407	151.538	100.313	49.962	1.00	80.22	O
ATOM	8491	C1*	U A 405	151.934	91.658	39.485	1.00	56.85	C	ATOM	8541	N1	G A 407	149.854	101.754	50.446	1.00	80.22	N
ATOM	8492	N1	U A 405	151.833	92.037	38.065	1.00	62.73	N	ATOM	8542	C2	G A 407	148.751	102.499	50.121	1.00	80.22	C
ATOM	8493	C2	U A 405	152.850	91.646	37.218	1.00	62.73	C	ATOM	8543	N2	G A 407	148.210	103.207	51.114	1.00	80.22	N
ATOM	8494	O2	U A 405	153.845	91.059	37.602	1.00	62.73	O	ATOM	8544	N3	G A 407	148.220	102.548	48.912	1.00	80.22	N
ATOM	8495	N3	U A 405	152.666	91.977	35.900	1.00	62.73	N	ATOM	8545	C4	G A 407	148.901	101.788	48.033	1.00	80.22	C
ATOM	8496	C4	U A 405	151.607	92.662	35.353	1.00	62.73	C	ATOM	8546	P	A A 408	148.978	106.094	43.541	1.00	72.25	P
ATOM	8497	O4	U A 405	151.570	92.839	34.138	1.00	62.73	O	ATOM	8547	O1P	A A 408	148.484	107.120	42.607	1.00	66.39	O
ATOM	8498	C5	U A 405	150.610	93.065	36.292	1.00	62.73	C	ATOM	8548	O2P	A A 408	150.329	105.513	43.340	1.00	66.39	O
ATOM	8499	C6	U A 405	150.750	92.747	37.583	1.00	62.73	C	ATOM	8549	O5*	A A 408	148.925	106.695	45.014	1.00	72.25	O
ATOM	8500	P	G A 406	153.615	95.098	42.274	1.00	64.46	P	ATOM	8550	C9*	A A 408	147.872	107.591	45.420	1.00	72.25	C
ATOM	8501	O1P	G A 406	154.424	95.020	41.037	1.00	64.46	O	ATOM	8551	C4*	A A 408	148.059	107.993	46.864	1.00	72.25	C
ATOM	8502	O2P	G A 406	154.270	94.930	43.582	1.00	64.36	O	ATOM	8552	O4*	A A 408	147.907	106.824	47.708	1.00	72.25	O
ATOM	8503	O5*	G A 406	152.797	96.468	42.344	1.00	64.46	O	ATOM	8553	C3*	A A 408	149.427	108.550	47.235	1.00	72.25	C
ATOM	8504	C5*	G A 406	151.933	96.853	41.272	1.00	64.46	C	ATOM	8554	O3*	A A 408	149.552	109.938	46.975	1.00	72.25	O
ATOM	8505	C4*	G A 406	150.587	97.300	41.795	1.00	64.46	C	ATOM	8555	O2*	A A 408	149.510	108.263	48.727	1.00	72.25	O
ATOM	8506	O4*	G A 406	150.120	96.391	42.825	1.00	64.46	O	ATOM	8556	O2*	A A 408	148.857	109.235	49.516	1.00	72.25	O
ATOM	8507	C3*	G A 406	150.486	98.674	42.435	1.00	64.46	C	ATOM	8557	C1*	A A 408	148.773	106.929	48.826	1.00	72.25	C
ATOM	8508	O3*	G A 406	150.341	99.676	41.434	1.00	64.46	O	ATOM	8558	N9	A A 408	149.721	105.818	48.800	1.00	66.39	N
ATOM	8509	C2*	G A 406	149.208	98.543	43.260	1.00	64.46	C	ATOM	8559	C8	A A 408	150.004	104.956	47.777	1.00	66.39	C
ATOM	8510	O2*	G A 406	148.023	98.689	42.504	1.00	64.46	O	ATOM	8560	N7	A A 408	150.943	104.089	48.063	1.00	66.39	N
ATOM	8511	C1*	G A 406	149.277	97.090	43.724	1.00	64.46	C	ATOM	8561	C5	A A 408	151.298	104.397	49.366	1.00	66.39	C
ATOM	8512	N9	G A 406	149.823	96.997	45.074	1.00	64.36	N	ATOM	8562	C6	A A 408	152.249	103.845	50.247	1.00	66.39	C
ATOM	8513	C8	G A 406	151.007	96.422	45.465	1.00	64.36	C	ATOM	8563	N6	A A 408	153.055	102.835	49.927	1.00	66.39	N
ATOM	8514	N7	G A 406	151.226	96.526	46.747	1.00	64.36	N	ATOM	8564	N1	A A 408	152.347	104.381	51.483	1.00	66.39	N
ATOM	8515	C5	G A 406	150.118	97.206	47.233	1.00	64.36	C	ATOM	8565	C2	A A 408	151.546	105.406	51.800	1.00	66.39	C



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ATOM	8566	N3	A A 408	150.621	106.016	51.058	1.00	66.39	N	ATOM	8616	O2P	A A 411	159.640	113.032	50.302	1.00	80.83	O
ATOM	8567	C4	A A 408	150.546	105.453	49.837	1.00	66.39	C	ATOM	8617	O5*	A A 411	161.622	112.980	51.809	1.00	78.12	O
ATOM	8568	P	G A 409	151.012	110.587	46.809	1.00	77.22	P	ATOM	8618	C5*	A A 411	162.319	113.158	53.053	1.00	78.12	C
ATOM	8569	O1P	G A 409	150.771	111.999	46.424	1.00	76.85	O	ATOM	8619	C4*	A A 411	163.767	113.477	52.784	1.00	78.12	C
ATOM	8570	O2P	G A 409	151.851	109.721	45.946	1.00	76.85	O	ATOM	8620	O4*	A A 411	164.396	112.317	52.187	1.00	78.12	O
ATOM	8571	O5*	G A 409	151.652	110.528	48.268	1.00	77.22	O	ATOM	8621	C3*	A A 411	163.970	114.599	51.780	1.00	78.12	C
ATOM	8572	C5*	G A 409	151.093	111.285	49.362	1.00	77.22	C	ATOM	8622	O3*	A A 411	163.976	115.861	52.424	1.00	78.12	O
ATOM	8573	C4*	G A 409	151.724	110.871	50.675	1.00	77.22	C	ATOM	8623	C2*	A A 411	165.310	114.258	51.147	1.00	78.12	C
ATOM	8574	O4*	G A 409	151.579	109.436	50.837	1.00	77.22	O	ATOM	8624	O2*	A A 411	166.404	114.728	51.906	1.00	78.12	O
ATOM	8575	C3*	G A 409	153.217	111.123	50.844	1.00	77.22	C	ATOM	8625	C1*	A A 411	165.276	112.725	51.156	1.00	78.12	C
ATOM	8576	O3*	G A 409	153.485	112.435	51.335	1.00	77.22	O	ATOM	8626	N9	A A 411	164.809	112.118	49.903	1.00	80.83	N
ATOM	8577	C2*	G A 409	153.614	110.091	51.889	1.00	77.22	C	ATOM	8627	N8	A A 411	164.055	112.696	48.909	1.00	80.83	C
ATOM	8578	O2*	G A 409	153.325	110.536	53.196	1.00	77.22	O	ATOM	8628	C7	A A 411	163.809	111.898	47.901	1.00	80.83	N
ATOM	8579	C1*	G A 409	152.686	108.926	51.553	1.00	77.22	C	ATOM	8629	C5	A A 411	164.440	110.713	48.251	1.00	80.83	C
ATOM	8580	N9	G A 409	153.334	107.888	50.759	1.00	76.85	N	ATOM	8630	C6	A A 411	164.548	109.471	47.598	1.00	80.83	C
ATOM	8581	C8	G A 409	153.094	107.553	49.450	1.00	76.85	C	ATOM	8631	N6	A A 411	163.999	109.210	46.408	1.00	80.83	N
ATOM	8582	N7	G A 409	153.825	106.554	49.035	1.00	76.85	N	ATOM	8632	N1	A A 411	165.242	108.493	48.219	1.00	80.83	N
ATOM	8583	C5	G A 409	154.600	106.220	50.134	1.00	76.85	C	ATOM	8633	C2	A A 411	165.777	108.752	49.415	1.00	80.83	C
ATOM	8584	C6	G A 409	155.582	105.208	50.297	1.00	76.85	C	ATOM	8634	N3	A A 411	165.740	109.874	50.130	1.00	80.83	N
ATOM	8585	O6	G A 409	155.994	104.387	49.467	1.00	76.85	O	ATOM	8635	C4	A A 411	165.051	110.830	49.483	1.00	80.83	C
ATOM	8586	N1	G A 409	156.104	105.210	51.585	1.00	76.85	N	ATOM	8636	P	A A 412	163.269	117.115	51.717	1.00	109.94	P
ATOM	8587	C2	G A 409	155.736	106.076	52.584	1.00	76.85	C	ATOM	8637	O1P	A A 412	163.196	118.201	52.725	1.00	200.58	O
ATOM	8588	N2	G A 409	156.342	105.912	53.761	1.00	76.85	N	ATOM	8638	O2P	A A 412	162.025	116.642	51.054	1.00	200.58	O
ATOM	8589	N3	G A 409	154.837	107.028	52.440	1.00	76.85	N	ATOM	8639	O5*	A A 412	164.308	117.544	50.591	1.00	109.94	O
ATOM	8590	C4	G A 409	154.310	107.039	51.202	1.00	76.85	C	ATOM	8640	C5*	A A 412	165.703	117.723	50.898	1.00	109.94	C
ATOM	8591	P	G A 410	154.868	113.169	50.948	1.00	70.66	P	ATOM	8641	C4*	A A 412	166.535	117.523	49.654	1.00	109.94	C
ATOM	8592	O1P	G A 410	155.051	114.295	51.906	1.00	85.18	O	ATOM	8642	O4*	A A 412	166.135	118.464	48.627	1.00	109.94	O
ATOM	8593	O2P	G A 410	154.825	113.452	49.488	1.00	85.18	O	ATOM	8643	C3*	A A 412	168.030	117.739	49.814	1.00	109.94	C
ATOM	8594	O5*	G A 410	155.999	112.085	51.250	1.00	70.66	O	ATOM	8644	O3*	A A 412	168.620	116.523	50.261	1.00	109.94	O
ATOM	8595	C3*	G A 410	156.335	111.759	52.601	1.00	70.66	C	ATOM	8645	O2*	A A 412	168.489	118.091	48.398	1.00	109.94	C
ATOM	8596	C4*	G A 410	157.390	110.686	52.645	1.00	70.66	C	ATOM	8646	C2*	A A 412	168.815	116.958	47.623	1.00	109.94	O
ATOM	8597	O4*	G A 410	156.852	109.427	52.177	1.00	70.66	O	ATOM	8647	C1*	A A 412	167.243	118.749	47.796	1.00	109.94	C
ATOM	8598	C3*	G A 410	158.610	110.922	51.784	1.00	70.66	C	ATOM	8648	N9	A A 412	167.304	120.193	47.566	1.00	200.58	C
ATOM	8599	O3*	G A 410	159.535	111.757	52.444	1.00	70.66	O	ATOM	8649	C8	A A 412	168.139	121.130	48.129	1.00	200.58	C
ATOM	8600	C2*	G A 410	159.156	109.516	51.589	1.00	70.66	C	ATOM	8650	N7	A A 412	167.922	122.352	47.706	1.00	200.58	N
ATOM	8601	O2*	G A 410	159.939	109.083	52.677	1.00	70.66	O	ATOM	8651	C5	A A 412	166.875	122.212	46.805	1.00	200.58	C
ATOM	8602	C1*	G A 410	157.873	108.686	51.530	1.00	70.66	C	ATOM	8652	C6	A A 412	166.171	123.142	46.017	1.00	200.58	C
ATOM	8603	N9	G A 410	157.458	108.412	50.155	1.00	85.18	N	ATOM	8653	N6	A A 412	166.423	124.454	46.017	1.00	200.58	N
ATOM	8604	C8	G A 410	156.609	109.160	49.375	1.00	85.18	C	ATOM	8654	N1	A A 412	165.184	122.672	45.222	1.00	200.58	N
ATOM	8605	N7	G A 410	156.455	108.673	48.176	1.00	85.18	N	ATOM	8655	C2	A A 412	164.927	121.358	45.228	1.00	200.58	C
ATOM	8606	C5	G A 410	157.243	107.531	48.167	1.00	85.18	C	ATOM	8656	N3	A A 412	165.514	120.388	45.925	1.00	200.58	N
ATOM	8607	C6	G A 410	157.475	106.584	47.139	1.00	85.18	C	ATOM	8657	C4	A A 412	166.490	120.887	46.704	1.00	200.58	C
ATOM	8608	O6	G A 410	157.008	106.555	45.995	1.00	85.18	O	ATOM	8658	P	G A 413	170.111	116.521	50.856	1.00	107.44	P
ATOM	8609	N1	G A 410	158.346	105.587	47.554	1.00	85.18	N	ATOM	8659	O1P	G A 413	170.052	117.117	52.214	1.00	88.81	O
ATOM	8610	C2	G A 410	158.912	105.501	48.796	1.00	85.18	C	ATOM	8660	O2P	G A 413	171.033	117.098	49.842	1.00	88.81	O
ATOM	8611	N2	G A 410	159.723	104.457	49.002	1.00	85.18	N	ATOM	8661	O5*	G A 413	170.441	114.973	51.026	1.00	89.82	O
ATOM	8612	N3	G A 410	158.701	106.372	49.764	1.00	85.18	N	ATOM	8662	C5*	G A 413	170.790	114.171	49.888	1.00	89.82	C
ATOM	8613	C4	G A 410	157.864	107.355	49.382	1.00	85.18	C	ATOM	8663	C4*	G A 413	169.843	113.000	49.759	1.00	89.82	C
ATOM	8614	P	A A 411	160.037	113.099	51.726	1.00	78.12	P	ATOM	8664	O4*	G A 413	169.485	113.474	49.622	1.00	89.82	O
ATOM	8615	O1P	A A 411	159.596	114.257	52.545	1.00	80.83	O	ATOM	8665	C3*	G A 413	170.088	112.099	48.558	1.00	89.82	C



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ATOM	8666	O3*	G A 413	171.106	111.179	48.982	1.00	89.82	O	ATOM	8716	C8	A A 415	172.425	103.516	48.413	1.00	93.31	C
ATOM	8667	C2*	G A 413	168.709	111.499	48.286	1.00	89.82	C	ATOM	8717	N7	A A 415	171.762	103.714	47.298	1.00	93.31	N
ATOM	8668	O2*	G A 413	168.467	110.362	49.081	1.00	89.82	O	ATOM	8718	C5	A A 415	171.468	102.433	46.853	1.00	93.31	C
ATOM	8669	C1*	G A 413	167.767	112.607	48.769	1.00	89.82	C	ATOM	8719	C6	A A 415	170.786	101.954	45.713	1.00	93.31	C
ATOM	8670	N9	G A 413	167.021	113.414	47.801	1.00	88.81	N	ATOM	8720	N6	A A 415	170.261	102.741	44.773	1.00	93.31	N
ATOM	8671	C8	G A 413	166.703	114.744	47.943	1.00	88.81	C	ATOM	8721	N1	A A 415	170.666	100.617	45.569	1.00	93.31	N
ATOM	8672	N7	G A 413	165.956	115.203	46.978	1.00	88.81	N	ATOM	8722	C2	A A 415	171.198	99.824	46.504	1.00	93.31	C
ATOM	8673	C5	G A 413	165.781	114.120	46.135	1.00	88.81	C	ATOM	8723	N3	A A 415	171.862	100.150	47.609	1.00	93.31	N
ATOM	8674	C6	G A 413	165.046	114.014	44.935	1.00	88.81	C	ATOM	8724	C4	A A 415	171.966	101.485	47.727	1.00	93.31	C
ATOM	8675	O6	G A 413	164.373	114.879	44.366	1.00	88.81	O	ATOM	8725	P	G A 416	178.080	101.968	49.073	1.00	88.88	P
ATOM	8676	N1	G A 413	165.135	112.741	44.396	1.00	88.81	N	ATOM	8726	O1P	G A 416	179.398	101.580	49.626	1.00	83.48	O
ATOM	8677	C2	G A 413	165.836	111.704	44.950	1.00	88.81	C	ATOM	8727	O2P	G A 416	177.893	103.336	48.534	1.00	83.48	O
ATOM	8678	N2	G A 413	165.796	110.561	44.287	1.00	88.81	N	ATOM	8728	O5*	G A 416	177.721	100.928	47.925	1.00	88.88	O
ATOM	8679	N3	G A 413	166.524	111.785	46.075	1.00	88.81	N	ATOM	8729	C5*	G A 416	177.788	99.513	48.171	1.00	88.88	C
ATOM	8680	C4	G A 413	166.452	113.012	46.614	1.00	88.81	C	ATOM	8730	C4*	G A 416	177.150	98.754	47.033	1.00	88.88	C
ATOM	8681	P	A A 414	171.237	109.709	48.336	1.00	85.21	P	ATOM	8731	O4*	G A 416	175.728	99.036	46.998	1.00	88.88	O
ATOM	8682	O1P	A A 414	172.684	109.491	48.083	1.00	85.29	O	ATOM	8732	C3*	G A 416	177.653	99.120	45.650	1.00	88.88	C
ATOM	8683	O2P	A A 414	170.278	109.543	47.227	1.00	85.29	O	ATOM	8733	O3*	G A 416	178.827	98.397	45.323	1.00	88.88	O
ATOM	8684	O5*	A A 414	170.831	108.730	49.532	1.00	85.21	O	ATOM	8734	C2*	G A 416	176.473	98.750	44.765	1.00	88.88	C
ATOM	8685	C5*	A A 414	171.265	109.001	50.895	1.00	85.21	C	ATOM	8735	O2*	G A 416	176.428	97.363	44.508	1.00	88.88	O
ATOM	8686	C4*	A A 414	171.515	107.711	51.654	1.00	85.21	C	ATOM	8736	C1*	G A 416	175.289	99.123	45.657	1.00	88.88	C
ATOM	8687	O4*	A A 414	170.275	106.977	51.792	1.00	85.21	O	ATOM	8737	N8	G A 416	174.848	100.494	45.426	1.00	83.48	N
ATOM	8688	C3*	A A 414	172.492	106.737	51.014	1.00	85.21	C	ATOM	8738	C8	G A 416	175.160	101.599	46.183	1.00	83.48	C
ATOM	8689	O3*	A A 414	173.832	107.028	51.409	1.00	85.21	O	ATOM	8739	N7	G A 416	174.639	102.701	45.721	1.00	83.48	N
ATOM	8690	C2*	A A 414	172.046	105.384	51.556	1.00	85.21	C	ATOM	8740	C5	G A 416	173.938	102.303	44.592	1.00	83.48	C
ATOM	8691	O2*	A A 414	172.645	105.070	52.791	1.00	85.21	O	ATOM	8741	C6	G A 416	173.176	103.065	43.668	1.00	83.48	C
ATOM	8692	C1*	A A 414	170.539	105.586	51.747	1.00	85.21	C	ATOM	8742	O6	G A 416	172.970	104.285	43.657	1.00	83.48	O
ATOM	8693	N9	A A 414	169.713	104.978	50.699	1.00	85.29	N	ATOM	8743	N1	G A 416	172.634	102.262	42.673	1.00	83.48	N
ATOM	8694	C8	A A 414	168.904	105.602	49.781	1.00	85.29	C	ATOM	8744	C2	G A 416	172.809	100.903	42.572	1.00	83.48	C
ATOM	8695	N7	A A 414	168.298	104.775	48.966	1.00	85.29	N	ATOM	8745	N2	G A 416	172.210	100.309	41.535	1.00	83.48	N
ATOM	8696	C5	A A 414	168.735	103.522	49.373	1.00	85.29	C	ATOM	8746	N3	G A 416	173.521	100.182	43.421	1.00	83.48	N
ATOM	8697	C6	A A 414	168.463	102.227	48.904	1.00	85.29	C	ATOM	8747	C4	G A 416	174.052	100.941	44.400	1.00	83.48	C
ATOM	8698	N6	A A 414	167.654	101.964	47.876	1.00	85.29	N	ATOM	8748	P	C A 417	179.905	99.049	44.326	1.00	96.16	P
ATOM	8699	N1	A A 414	169.061	101.195	49.531	1.00	85.29	N	ATOM	8749	O1P	C A 417	180.995	98.055	44.140	1.00	86.09	O
ATOM	8700	C2	A A 414	169.876	101.456	50.553	1.00	85.29	C	ATOM	8750	O2P	C A 417	180.244	100.424	44.789	1.00	86.09	O
ATOM	8701	N3	A A 414	170.213	102.625	51.084	1.00	85.29	N	ATOM	8751	O5*	C A 417	179.101	99.182	42.956	1.00	96.16	O
ATOM	8702	C4	A A 414	169.601	103.631	50.441	1.00	85.29	C	ATOM	8752	C5*	C A 417	178.680	98.008	42.223	1.00	96.16	C
ATOM	8703	P	A A 415	175.060	106.592	50.464	1.00	79.51	P	ATOM	8753	C4*	C A 417	177.925	98.404	40.975	1.00	96.16	C
ATOM	8704	O1P	A A 415	176.321	106.867	51.194	1.00	93.31	O	ATOM	8754	O4*	C A 417	176.648	98.987	41.340	1.00	96.16	O
ATOM	8705	O2P	A A 415	174.849	107.188	49.119	1.00	93.31	O	ATOM	8755	C3*	C A 417	178.603	99.459	40.118	1.00	96.16	C
ATOM	8706	O5*	A A 415	174.915	105.011	50.349	1.00	79.51	O	ATOM	8756	O3*	C A 417	179.553	98.902	39.227	1.00	96.16	C
ATOM	8707	C5*	A A 415	175.227	104.174	51.463	1.00	79.51	C	ATOM	8757	C2*	C A 417	177.433	100.091	39.383	1.00	96.16	C
ATOM	8708	C4*	A A 415	174.921	102.737	51.140	1.00	79.51	C	ATOM	8758	O2*	C A 417	177.042	99.324	38.264	1.00	96.16	O
ATOM	8709	O4*	A A 415	173.502	102.604	50.860	1.00	79.51	O	ATOM	8759	C1*	C A 417	176.337	100.044	40.449	1.00	96.16	C
ATOM	8710	C3*	A A 415	175.609	102.169	49.910	1.00	79.51	C	ATOM	8760	N1	C A 417	176.256	101.303	41.219	1.00	86.09	N
ATOM	8711	O3*	A A 415	176.934	101.725	50.175	1.00	79.51	O	ATOM	8761	C2	C A 417	175.520	102.377	40.693	1.00	86.09	C
ATOM	8712	C2*	A A 415	174.681	101.029	49.511	1.00	79.51	C	ATOM	8762	O2	C A 417	174.953	102.242	39.599	1.00	86.09	O
ATOM	8713	O2*	A A 415	174.933	99.854	50.255	1.00	79.51	O	ATOM	8763	N3	C A 417	175.452	103.534	41.388	1.00	86.09	N
ATOM	8714	C1*	A A 415	173.304	101.601	49.876	1.00	79.51	C	ATOM	8764	C4	C A 417	176.081	103.648	42.556	1.00	86.09	C
ATOM	8715	N9	A A 415	172.594	102.189	48.730	1.00	93.31	N	ATOM	8765	N4	C A 417	175.986	104.806	43.203	1.00	86.09	N



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ATOM	8766	C5	C A 417	176.834	102.577	43.115	1.00	86.09	C	ATOM	8816	O3*	U A 420	185.531	114.055	34.273	1.00	77.65	O
ATOM	8767	C6	C A 417	176.892	101.433	42.423	1.00	86.09	C	ATOM	8817	C2*	U A 420	184.229	113.810	36.314	1.00	77.65	C
ATOM	8768	P	C A 418	180.768	99.813	38.698	1.00	72.67	P	ATOM	8818	O2*	U A 420	183.962	115.187	36.147	1.00	77.65	O
ATOM	8769	O1P	C A 418	181.608	98.976	37.800	1.00	89.73	O	ATOM	8819	C1*	U A 420	182.925	113.063	36.601	1.00	77.65	C
ATOM	8770	O2P	C A 418	181.392	100.479	39.872	1.00	89.73	O	ATOM	8820	N1	U A 420	183.112	111.934	37.528	1.00	70.74	N
ATOM	8771	O5*	C A 418	180.053	100.957	37.840	1.00	72.67	O	ATOM	8821	C2	U A 420	183.066	112.199	38.891	1.00	70.74	C
ATOM	8772	C5*	C A 418	179.474	100.662	36.555	1.00	72.67	C	ATOM	8822	O2	U A 420	182.816	113.313	39.347	1.00	70.74	O
ATOM	8773	C4*	C A 418	178.906	101.912	35.919	1.00	72.67	C	ATOM	8823	N3	U A 420	183.316	111.111	39.700	1.00	70.74	N
ATOM	8774	O4*	C A 418	177.771	102.389	36.679	1.00	72.67	O	ATOM	8824	C4	U A 420	183.580	109.819	39.298	1.00	70.74	C
ATOM	8775	C3*	C A 418	179.819	103.123	35.803	1.00	72.67	C	ATOM	8825	O4	U A 420	183.851	108.968	40.139	1.00	70.74	O
ATOM	8776	O3*	C A 418	180.653	103.045	34.658	1.00	72.67	O	ATOM	8826	C5	U A 420	183.570	109.619	37.885	1.00	70.74	C
ATOM	8777	C2*	C A 418	178.828	104.271	35.672	1.00	72.67	C	ATOM	8827	C6	U A 420	183.346	110.655	37.068	1.00	70.74	C
ATOM	8778	O2*	C A 418	178.339	104.426	34.359	1.00	72.67	O	ATOM	8828	P	U A 421	187.130	113.840	34.294	1.00	89.76	P
ATOM	8779	C1*	C A 418	177.685	103.798	36.566	1.00	72.67	C	ATOM	8829	O1P	U A 421	187.551	113.683	32.880	1.00	87.48	O
ATOM	8780	N1	C A 418	177.784	104.392	37.904	1.00	89.73	N	ATOM	8830	O2P	U A 421	187.470	112.778	35.283	1.00	87.48	O
ATOM	8781	C2	C A 418	177.184	105.635	38.136	1.00	89.73	C	ATOM	8831	O5*	U A 421	187.723	115.227	34.814	1.00	89.76	O
ATOM	8782	O2	C A 418	176.564	106.186	37.217	1.00	89.73	O	ATOM	8832	C5*	U A 421	187.266	115.807	36.044	1.00	89.76	C
ATOM	8783	N3	C A 418	177.297	106.205	39.353	1.00	89.73	N	ATOM	8833	C4*	U A 421	187.250	117.311	35.942	1.00	89.76	C
ATOM	8784	C4	C A 418	177.973	105.582	40.318	1.00	89.73	C	ATOM	8834	O4*	U A 421	186.891	117.673	34.595	1.00	89.76	O
ATOM	8785	N4	C A 418	178.073	106.185	41.499	1.00	89.73	N	ATOM	8835	C3*	U A 421	186.206	117.960	36.843	1.00	89.76	C
ATOM	8786	C5	C A 418	178.582	104.313	40.114	1.00	89.73	C	ATOM	8836	O3*	U A 421	186.644	118.357	38.168	1.00	89.76	O
ATOM	8787	C6	C A 418	178.463	103.758	38.905	1.00	89.73	C	ATOM	8837	C2*	U A 421	185.788	119.211	36.070	1.00	89.76	C
ATOM	8788	P	C A 419	182.048	103.845	34.629	1.00	64.79	P	ATOM	8838	O2*	U A 421	186.525	120.366	36.425	1.00	89.76	O
ATOM	8789	O1P	C A 419	182.750	103.423	33.381	1.00	89.69	O	ATOM	8839	C1*	U A 421	186.070	118.818	34.616	1.00	89.76	C
ATOM	8790	O2P	C A 419	182.717	103.666	35.943	1.00	89.69	O	ATOM	8840	N1	U A 421	184.897	118.566	33.771	1.00	87.48	N
ATOM	8791	O5*	C A 419	181.635	105.379	34.481	1.00	64.79	O	ATOM	8841	C2	U A 421	184.234	119.664	33.240	1.00	87.48	C
ATOM	8792	C5*	C A 419	181.167	105.879	33.229	1.00	64.79	C	ATOM	8842	O2	U A 421	184.568	120.816	33.460	1.00	87.48	O
ATOM	8793	C4*	C A 419	180.646	107.285	33.376	1.00	64.79	C	ATOM	8843	N3	U A 421	183.164	119.361	32.439	1.00	87.48	N
ATOM	8794	O4*	C A 419	179.617	107.334	34.397	1.00	64.79	O	ATOM	8844	C4	U A 421	182.696	118.103	32.124	1.00	87.48	C
ATOM	8795	C3*	C A 419	181.639	108.340	33.808	1.00	64.79	C	ATOM	8845	O4	U A 421	181.706	117.993	31.400	1.00	87.48	O
ATOM	8796	O3*	C A 419	182.417	108.805	32.726	1.00	64.79	O	ATOM	8846	C5	U A 421	184.475	117.284	32.715	1.00	87.48	C
ATOM	8797	C2*	C A 419	180.735	109.430	34.364	1.00	64.79	C	ATOM	8847	C6	U A 421	188.716	119.721	38.443	1.00	94.94	O
ATOM	8798	O2*	C A 419	180.162	110.232	33.356	1.00	64.79	O	ATOM	8848	P	C A 422	188.976	117.207	37.996	1.00	94.94	P
ATOM	8799	C1*	C A 419	179.631	108.608	35.030	1.00	64.79	C	ATOM	8849	O1P	C A 422	188.144	118.026	40.161	1.00	101.60	O
ATOM	8800	N1	C A 419	179.872	108.431	36.482	1.00	89.69	N	ATOM	8850	O2P	C A 422	186.631	117.545	41.987	1.00	101.60	C
ATOM	8801	C2	C A 419	179.919	109.568	37.302	1.00	89.69	C	ATOM	8851	O5*	C A 422	186.030	116.401	41.327	1.00	101.60	O
ATOM	8802	O2	C A 419	179.719	110.681	36.800	1.00	89.69	O	ATOM	8852	C5*	C A 422	187.712	116.996	42.916	1.00	101.60	C
ATOM	8803	N3	C A 419	180.177	109.424	38.617	1.00	89.69	N	ATOM	8853	C4*	C A 422	187.171	116.833	44.223	1.00	101.60	O
ATOM	8804	C4	C A 419	180.375	108.211	39.128	1.00	89.69	C	ATOM	8854	O4*	C A 422	187.987	115.636	42.352	1.00	101.60	O
ATOM	8805	N4	C A 419	180.634	108.120	40.430	1.00	89.69	N	ATOM	8855	C3*	C A 422	188.391	114.687	43.349	1.00	101.60	C
ATOM	8806	C5	C A 419	180.316	107.037	38.327	1.00	89.69	C	ATOM	8856	O3*	C A 422	186.609	115.216	41.826	1.00	101.60	O
ATOM	8807	C6	C A 419	180.064	107.190	37.023	1.00	89.69	C	ATOM	8857	C2*	C A 422	186.637	114.202	40.761	1.00	94.94	N
ATOM	8808	P	U A 420	183.942	109.225	32.984	1.00	77.65	P	ATOM	8858	O2*	C A 422	186.374	112.857	41.096	1.00	94.94	O
ATOM	8809	O1P	U A 420	184.529	109.602	31.671	1.00	70.74	O	ATOM	8859	C1*	C A 422	186.135	112.558	42.281	1.00	94.94	C
ATOM	8810	O2P	U A 420	184.592	108.157	33.796	1.00	70.74	O	ATOM	8860	N1	C A 422	186.387	111.921	40.120	1.00	94.94	N
ATOM	8811	O5*	U A 420	183.808	110.542	33.873	1.00	77.65	O	ATOM	8861	C2	C A 422	186.643	112.278	38.858	1.00	94.94	C
ATOM	8812	C5*	U A 420	183.349	111.776	33.286	1.00	77.65	C	ATOM	8862	O2	C A 422	186.628	111.326	37.924	1.00	94.94	N
ATOM	8813	C4*	U A 420	183.361	112.890	34.308	1.00	77.65	C	ATOM	8863	N3	C A 422						
ATOM	8814	O4*	U A 420	182.434	112.563	35.373	1.00	77.65	O	ATOM	8864	C4	C A 422						
ATOM	8815	C3*	U A 420	184.684	113.166	35.012	1.00	77.65	C	ATOM	8865	U4	C A 422						



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ATOM	8866	C A 422	186.922	113.630	38.495	1.00	94.94	C	ATOM	8916	O2P	175.241	115.826	43.914	1.00	77.55	O
ATOM	8867	C A 422	186.908	114.549	39.467	1.00	94.94	C	ATOM	8917	O5*	174.883	116.154	41.495	1.00	83.99	O
ATOM	8868	P	187.371	117.982	45.327	1.00	92.29	P	ATOM	8918	C5*	174.849	116.922	40.277	1.00	83.99	C
ATOM	8869	O1P	188.570	118.797	44.972	1.00	94.89	O	ATOM	8919	C4*	174.859	116.009	39.073	1.00	83.99	C
ATOM	8870	O2P	187.310	117.307	46.654	1.00	94.89	O	ATOM	8920	O4*	176.145	115.348	38.929	1.00	83.99	C
ATOM	8871	O5*	186.084	118.909	45.145	1.00	92.29	O	ATOM	8921	C3*	173.864	114.868	39.122	1.00	83.99	C
ATOM	8872	C5*	184.744	118.356	45.182	1.00	92.29	C	ATOM	8922	O3*	172.558	115.266	38.764	1.00	83.99	O
ATOM	8873	C4*	183.730	119.429	44.851	1.00	92.29	C	ATOM	8923	C2*	174.460	113.861	38.151	1.00	83.99	C
ATOM	8874	O4*	184.066	120.032	43.576	1.00	92.29	O	ATOM	8924	O2*	174.162	114.142	36.800	1.00	83.99	C
ATOM	8875	C3*	182.289	118.963	44.703	1.00	92.29	C	ATOM	8925	C1*	175.954	114.046	38.401	1.00	83.99	C
ATOM	8876	O3*	181.624	118.992	45.960	1.00	92.29	O	ATOM	8926	N9	176.419	113.077	39.384	1.00	77.55	N
ATOM	8877	C2*	181.682	120.006	43.768	1.00	92.29	C	ATOM	8927	C8	176.811	113.331	40.672	1.00	77.55	C
ATOM	8878	O2*	181.204	121.145	44.456	1.00	92.29	O	ATOM	8928	N7	177.179	112.257	41.315	1.00	77.55	N
ATOM	8879	C1*	182.879	120.399	42.898	1.00	92.29	C	ATOM	8929	C5	177.014	111.231	40.397	1.00	77.55	C
ATOM	8880	N9	182.909	119.836	41.547	1.00	94.89	N	ATOM	8930	C6	177.255	109.834	40.522	1.00	77.55	C
ATOM	8881	C8	182.896	120.554	40.376	1.00	94.89	C	ATOM	8931	O6	177.677	109.209	41.501	1.00	77.55	O
ATOM	8882	N7	182.957	119.804	39.310	1.00	94.89	N	ATOM	8932	N1	176.953	109.154	39.348	1.00	77.55	N
ATOM	8883	C5	183.006	118.508	39.802	1.00	94.89	C	ATOM	8933	C2	176.481	109.733	38.206	1.00	77.55	C
ATOM	8884	C6	183.087	117.275	39.114	1.00	94.89	C	ATOM	8934	N2	176.260	108.901	37.191	1.00	77.55	N
ATOM	8885	O6	183.141	117.080	37.896	1.00	94.89	O	ATOM	8935	N3	176.248	111.032	38.072	1.00	77.55	N
ATOM	8886	N1	183.110	116.197	39.992	1.00	94.89	N	ATOM	8936	C4	176.540	111.717	39.201	1.00	77.55	C
ATOM	8887	C2	183.070	116.295	41.359	1.00	94.89	C	ATOM	8937	P	171.311	114.499	39.412	1.00	73.57	P
ATOM	8888	N2	183.109	115.137	42.032	1.00	94.89	N	ATOM	8938	O1P	170.074	115.228	39.022	1.00	73.43	O
ATOM	8889	N3	182.999	117.443	42.018	1.00	94.89	N	ATOM	8939	O2P	171.619	114.285	40.846	1.00	73.43	O
ATOM	8890	C4	182.971	118.503	41.181	1.00	94.89	C	ATOM	8940	O5*	171.353	113.066	38.718	1.00	73.57	O
ATOM	8891	P	180.663	117.780	46.394	1.00	107.11	P	ATOM	8941	C5*	171.368	112.954	37.284	1.00	73.57	C
ATOM	8892	O1P	179.831	118.285	47.591	1.00	88.36	O	ATOM	8942	C4*	171.419	111.510	36.863	1.00	73.57	C
ATOM	8893	O2P	181.504	116.573	46.591	1.00	88.36	O	ATOM	8943	O4*	172.712	110.942	37.170	1.00	73.57	O
ATOM	8894	O5*	179.702	117.533	45.144	1.00	107.11	O	ATOM	8944	C3*	170.424	110.574	37.523	1.00	73.57	C
ATOM	8895	C5*	178.889	118.597	44.603	1.00	107.11	C	ATOM	8945	O3*	169.169	110.652	36.882	1.00	73.57	O
ATOM	8896	C4*	178.593	118.346	43.136	1.00	107.11	C	ATOM	8946	C2*	171.075	109.210	37.328	1.00	73.57	C
ATOM	8897	O4*	179.784	117.778	42.518	1.00	107.11	O	ATOM	8947	O2*	170.817	108.649	36.056	1.00	73.57	O
ATOM	8898	C3*	177.502	117.340	42.786	1.00	107.11	C	ATOM	8948	C1*	172.563	109.554	37.425	1.00	73.57	C
ATOM	8899	O3*	176.180	117.876	42.819	1.00	107.11	O	ATOM	8949	N9	173.126	109.245	38.735	1.00	73.43	N
ATOM	8900	C2*	177.896	116.923	41.377	1.00	107.11	C	ATOM	8950	C8	173.362	110.115	39.768	1.00	73.43	C
ATOM	8901	O2*	177.546	117.882	40.401	1.00	107.11	O	ATOM	8951	N7	173.861	109.533	40.823	1.00	73.43	N
ATOM	8902	C1*	179.413	116.875	41.492	1.00	107.11	C	ATOM	8952	C5	173.965	108.199	40.462	1.00	73.43	C
ATOM	8903	N9	179.810	115.524	41.874	1.00	88.36	N	ATOM	8953	C6	174.446	107.085	41.196	1.00	73.43	C
ATOM	8904	C8	180.156	115.060	43.122	1.00	88.36	C	ATOM	8954	O6	174.884	107.054	42.348	1.00	73.43	O
ATOM	8905	N7	180.384	113.774	43.146	1.00	88.36	N	ATOM	8955	N1	174.383	105.917	40.450	1.00	73.43	N
ATOM	8906	C5	180.192	113.368	41.832	1.00	88.36	C	ATOM	8956	C2	173.918	105.829	39.164	1.00	73.43	C
ATOM	8907	C6	180.284	112.080	41.240	1.00	88.36	C	ATOM	8957	N2	173.950	104.611	38.611	1.00	73.43	N
ATOM	8908	O6	180.555	111.005	41.777	1.00	88.36	O	ATOM	8958	N3	173.461	106.859	38.470	1.00	73.43	N
ATOM	8909	N1	180.015	112.122	39.876	1.00	88.36	N	ATOM	8959	C4	173.517	108.005	39.176	1.00	73.43	C
ATOM	8910	C2	179.698	113.256	39.169	1.00	88.36	C	ATOM	8960	P	167.869	110.052	37.602	1.00	64.00	P
ATOM	8911	N2	179.486	113.102	37.858	1.00	88.36	N	ATOM	8961	O1P	166.763	110.239	36.640	1.00	85.00	O
ATOM	8912	N3	179.598	114.458	39.707	1.00	88.36	N	ATOM	8962	O2P	167.745	110.599	38.976	1.00	85.00	O
ATOM	8913	C4	179.857	114.441	41.033	1.00	88.36	C	ATOM	8963	O5*	168.175	108.493	37.724	1.00	64.00	O
ATOM	8914	P	174.919	116.873	42.918	1.00	83.99	P	ATOM	8964	C5*	168.038	107.620	36.591	1.00	64.00	C
ATOM	8915	O1P	173.682	117.679	43.078	1.00	77.55	O	ATOM	8965	C4*	168.331	106.195	36.991	1.00	64.00	C



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ATOM	8966	O4*	U A 427	169.655	106.142	37.576	1.00	64.00	O	ATOM	9016	C2	U A 429	161.250	107.258	47.009	1.00	81.14	C
ATOM	8967	C3*	U A 427	167.421	105.579	38.041	1.00	64.00	O	ATOM	9017	O2	U A 429	161.193	106.177	46.447	1.00	81.14	O
ATOM	8968	O3*	U A 427	166.286	104.980	37.433	1.00	64.00	O	ATOM	9018	N3	U A 429	161.826	107.402	48.246	1.00	81.14	N
ATOM	8969	C2*	U A 427	168.305	104.511	38.675	1.00	64.00	C	ATOM	9019	C4	U A 429	161.944	108.561	48.973	1.00	81.14	C
ATOM	8970	O2*	U A 427	168.307	103.308	37.928	1.00	64.00	O	ATOM	9020	O4	U A 429	162.546	108.540	50.047	1.00	81.14	O
ATOM	8971	C1*	U A 427	169.690	105.158	38.594	1.00	64.00	C	ATOM	9021	C5	U A 429	161.399	109.727	48.337	1.00	81.14	C
ATOM	8972	N1	U A 427	170.170	105.780	39.842	1.00	85.00	N	ATOM	9022	C6	U A 429	160.838	109.624	47.128	1.00	81.14	C
ATOM	8973	C2	U A 427	170.753	104.958	40.797	1.00	85.00	C	ATOM	9023	P	U A 429	158.121	107.491	41.612	1.00	57.72	P
ATOM	8974	O2	U A 427	170.851	103.748	40.670	1.00	85.00	O	ATOM	9024	O1P	A A 430	158.393	108.491	40.533	1.00	73.35	O
ATOM	8975	N3	U A 427	171.214	105.607	41.913	1.00	85.00	N	ATOM	9025	O2P	A A 430	156.901	106.644	41.550	1.00	73.35	O
ATOM	8976	C4	U A 427	171.150	106.958	42.177	1.00	85.00	C	ATOM	9026	O5*	A A 430	159.374	106.526	41.750	1.00	57.72	O
ATOM	8977	O4	U A 427	171.644	107.394	43.219	1.00	85.00	O	ATOM	9027	C5*	A A 430	159.530	105.711	42.909	1.00	57.72	C
ATOM	8978	C5	U A 427	170.518	107.735	41.158	1.00	85.00	C	ATOM	9028	C4*	A A 430	160.446	104.564	42.608	1.00	57.72	C
ATOM	8979	C6	U A 427	170.061	107.137	40.055	1.00	85.00	C	ATOM	9029	O4*	A A 430	161.767	105.072	42.287	1.00	57.72	O
ATOM	8980	P	G A 428	164.910	104.863	38.250	1.00	60.88	P	ATOM	9030	C3*	A A 430	160.677	103.622	43.773	1.00	57.72	C
ATOM	8981	O1P	G A 428	165.171	104.038	39.454	1.00	68.51	O	ATOM	9031	O3*	A A 430	159.635	102.662	43.890	1.00	57.72	O
ATOM	8982	O2P	G A 428	163.841	104.454	37.304	1.00	60.88	O	ATOM	9032	C2*	A A 430	162.017	103.002	43.423	1.00	57.72	C
ATOM	8983	O5*	G A 428	164.630	106.366	38.684	1.00	60.88	O	ATOM	9033	O2*	A A 430	161.875	101.984	42.455	1.00	57.72	O
ATOM	8984	C5*	G A 428	163.349	106.782	39.198	1.00	60.88	C	ATOM	9034	C1*	A A 430	162.749	104.191	42.802	1.00	57.72	C
ATOM	8985	C4*	G A 428	163.568	107.704	40.360	1.00	60.88	C	ATOM	9035	N9	A A 430	163.533	104.913	43.802	1.00	73.35	N
ATOM	8986	O4*	G A 428	164.192	106.930	41.395	1.00	60.88	O	ATOM	9036	C8	A A 430	163.329	106.186	44.273	1.00	73.35	C
ATOM	8987	C3*	G A 428	164.550	108.823	40.404	1.00	60.88	C	ATOM	9037	N7	A A 430	164.191	106.555	45.189	1.00	73.35	N
ATOM	8988	O3*	G A 428	163.860	109.993	39.542	1.00	60.88	O	ATOM	9038	C5	A A 430	165.020	105.452	45.330	1.00	73.35	C
ATOM	8989	C2*	G A 428	165.390	109.015	41.297	1.00	60.88	C	ATOM	9039	C6	A A 430	166.128	105.206	46.150	1.00	73.35	C
ATOM	8990	O2*	G A 428	165.016	110.149	42.034	1.00	60.88	O	ATOM	9040	N6	A A 430	166.620	106.098	47.016	1.00	73.35	N
ATOM	8991	C1*	G A 428	165.112	107.733	42.088	1.00	60.88	C	ATOM	9041	N1	A A 430	166.726	104.000	46.050	1.00	73.35	N
ATOM	8992	N9	G A 428	166.244	106.910	42.506	1.00	68.51	N	ATOM	9042	C2	A A 430	166.235	103.112	45.179	1.00	73.35	C
ATOM	8993	C8	G A 428	166.640	105.696	42.006	1.00	68.51	C	ATOM	9043	N3	A A 430	165.201	103.226	44.354	1.00	73.35	N
ATOM	8994	N7	G A 428	167.672	105.198	42.631	1.00	68.51	N	ATOM	9044	C4	A A 430	164.629	104.434	44.479	1.00	73.35	C
ATOM	8995	C5	G A 428	167.977	106.148	43.593	1.00	68.51	C	ATOM	9045	P	A A 431	159.040	102.321	45.346	1.00	68.87	P
ATOM	8996	C6	G A 428	168.999	106.173	44.578	1.00	68.51	C	ATOM	9046	O1P	A A 431	158.051	101.231	45.202	1.00	77.44	O
ATOM	8997	O6	G A 428	169.869	105.327	44.813	1.00	68.51	O	ATOM	9047	O2P	A A 431	158.625	103.595	45.972	1.00	68.87	O
ATOM	8998	N1	G A 428	168.946	107.337	45.335	1.00	68.51	N	ATOM	9048	O5*	A A 431	160.302	101.720	46.107	1.00	68.87	O
ATOM	8999	C2	G A 428	168.032	108.345	45.167	1.00	68.51	C	ATOM	9049	C5*	A A 431	160.970	100.569	45.571	1.00	68.87	C
ATOM	9000	N2	G A 428	168.151	109.404	45.968	1.00	68.51	N	ATOM	9050	C4*	A A 431	162.206	100.242	46.367	1.00	68.87	C
ATOM	9001	N3	G A 428	167.074	108.323	44.272	1.00	68.51	N	ATOM	9051	O4*	A A 431	163.164	101.324	46.261	1.00	68.87	O
ATOM	9002	C4	G A 428	167.107	107.209	43.521	1.00	68.51	C	ATOM	9052	C3*	A A 431	162.027	100.044	47.861	1.00	68.87	C
ATOM	9003	P	U A 429	162.838	110.835	40.485	1.00	68.15	P	ATOM	9053	O3*	A A 431	161.544	98.747	48.182	1.00	68.87	O
ATOM	9004	O1P	U A 429	161.674	111.115	39.619	1.00	81.14	O	ATOM	9054	C2*	A A 431	163.430	100.307	48.398	1.00	68.87	C
ATOM	9005	O2P	U A 429	163.547	111.970	41.136	1.00	81.14	O	ATOM	9055	O2*	A A 431	164.295	99.192	48.285	1.00	68.87	O
ATOM	9006	O5*	U A 429	162.329	109.816	41.607	1.00	68.15	O	ATOM	9056	C1*	A A 431	163.919	101.409	47.459	1.00	68.87	C
ATOM	9007	C5*	U A 429	161.248	110.187	42.484	1.00	68.15	C	ATOM	9057	N9	A A 431	163.742	102.743	48.030	1.00	77.44	N
ATOM	9008	C4*	U A 429	160.449	108.975	42.917	1.00	68.15	C	ATOM	9058	C8	A A 431	162.915	103.758	47.609	1.00	77.44	C
ATOM	9009	O4*	U A 429	161.051	108.388	44.108	1.00	68.15	O	ATOM	9059	N7	A A 431	162.991	104.842	48.344	1.00	77.44	N
ATOM	9010	C3*	U A 429	159.002	109.315	43.299	1.00	68.15	C	ATOM	9060	C5	A A 431	163.929	104.519	49.315	1.00	77.44	C
ATOM	9011	O3*	U A 429	158.088	108.253	43.022	1.00	68.15	O	ATOM	9061	C6	A A 431	164.454	105.243	50.397	1.00	77.44	C
ATOM	9012	C2*	U A 429	159.054	109.398	44.818	1.00	68.15	C	ATOM	9062	N6	A A 431	164.092	106.492	50.694	1.00	77.44	N
ATOM	9013	O2*	U A 429	157.808	109.114	45.422	1.00	68.15	O	ATOM	9063	N1	A A 431	165.376	104.631	51.173	1.00	77.44	N
ATOM	9014	C1*	U A 429	160.082	108.317	45.139	1.00	68.15	C	ATOM	9064	C2	A A 431	165.735	103.375	50.874	1.00	77.44	C
ATOM	9015	N1	U A 429	160.740	108.425	46.454	1.00	81.14	N	ATOM	9065	N3	A A 431	165.312	102.590	49.888	1.00	77.44	N



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ATOM	9066	C4	A A 431	164.400	103.230	49.134	1.00	77.44	C	ATOM	9116	C3*	U A 434	153.683	102.143	58.767	1.00	80.13	C
ATOM	9067	P	A A 432	160.519	98.573	49.409	1.00	88.50	P	ATOM	9117	O3*	U A 434	152.887	101.812	59.891	1.00	80.13	O
ATOM	9068	O1P	A A 432	160.138	97.141	49.475	1.00	72.04	O	ATOM	9118	O2*	U A 434	153.066	103.284	57.974	1.00	80.13	C
ATOM	9069	O2P	A A 432	159.460	99.613	49.296	1.00	72.04	O	ATOM	9119	C2*	U A 434	152.488	104.262	58.815	1.00	80.13	C
ATOM	9070	O5*	A A 432	161.415	98.907	50.683	1.00	88.50	O	ATOM	9120	C1*	U A 434	154.289	103.869	57.266	1.00	80.13	C
ATOM	9071	C5*	A A 432	162.629	98.172	50.933	1.00	88.50	C	ATOM	9121	N1	U A 434	154.453	103.372	55.889	1.00	91.40	N
ATOM	9072	C4*	A A 432	163.419	98.824	52.039	1.00	88.50	C	ATOM	9122	C2	U A 434	153.698	103.972	54.892	1.00	91.40	C
ATOM	9073	O4*	A A 432	163.902	100.116	51.598	1.00	88.50	O	ATOM	9123	O2	U A 434	152.895	104.865	55.111	1.00	91.40	O
ATOM	9074	C3*	A A 432	162.637	99.111	53.308	1.00	88.50	C	ATOM	9124	N3	U A 434	153.917	103.486	53.628	1.00	91.40	N
ATOM	9075	O3*	A A 432	162.609	97.971	54.148	1.00	88.50	O	ATOM	9125	C4	U A 434	154.786	102.484	53.263	1.00	91.40	C
ATOM	9076	C2*	A A 432	163.419	100.261	53.926	1.00	88.50	C	ATOM	9126	O4	U A 434	154.903	102.193	52.074	1.00	91.40	O
ATOM	9077	O2*	A A 432	164.541	99.813	54.661	1.00	88.50	O	ATOM	9127	C5	U A 434	155.514	101.901	54.345	1.00	91.40	C
ATOM	9078	C1*	A A 432	163.882	101.027	52.682	1.00	88.50	C	ATOM	9128	C6	U A 434	155.329	102.351	55.589	1.00	91.40	C
ATOM	9079	N9	A A 432	162.964	102.111	52.339	1.00	72.04	N	ATOM	9129	P	C A 435	151.825	100.613	59.777	1.00	75.59	P
ATOM	9080	C8	A A 432	161.910	102.060	51.464	1.00	72.04	C	ATOM	9130	O1P	C A 435	151.344	100.304	61.147	1.00	95.37	O
ATOM	9081	N7	A A 432	161.224	103.173	51.398	1.00	72.04	N	ATOM	9131	O2P	C A 435	152.436	99.534	58.953	1.00	95.37	O
ATOM	9082	C5	A A 432	161.877	104.019	52.278	1.00	72.04	C	ATOM	9132	O5*	C A 435	150.606	101.240	58.968	1.00	75.59	O
ATOM	9083	C6	A A 432	161.635	105.346	52.662	1.00	72.04	C	ATOM	9133	C5*	C A 435	149.759	102.223	59.571	1.00	75.59	C
ATOM	9084	N6	A A 432	160.612	106.072	52.204	1.00	72.04	N	ATOM	9134	C4*	C A 435	149.004	102.973	58.510	1.00	75.59	C
ATOM	9085	N1	A A 432	162.485	105.909	53.548	1.00	72.04	N	ATOM	9135	O4*	C A 435	149.964	103.507	57.562	1.00	75.59	O
ATOM	9086	C2	A A 432	163.500	105.168	54.018	1.00	72.04	C	ATOM	9136	C3*	C A 435	148.050	102.148	57.659	1.00	75.59	C
ATOM	9087	N3	A A 432	163.824	103.904	53.741	1.00	72.04	N	ATOM	9137	O3*	C A 435	146.772	102.016	58.266	1.00	75.59	O
ATOM	9088	C4	A A 432	162.962	103.383	52.853	1.00	72.04	C	ATOM	9138	C2*	C A 435	147.984	102.949	56.365	1.00	75.59	C
ATOM	9089	P	C A 433	161.210	97.464	54.748	1.00	77.52	P	ATOM	9139	O2*	C A 435	147.101	104.054	56.437	1.00	75.59	O
ATOM	9090	O1P	C A 433	161.539	96.474	55.801	1.00	87.25	O	ATOM	9140	C1*	C A 435	149.416	103.471	56.255	1.00	75.59	C
ATOM	9091	O2P	C A 433	160.303	97.073	53.641	1.00	87.25	O	ATOM	9141	N1	C A 435	150.270	102.619	55.405	1.00	95.37	N
ATOM	9092	O5*	C A 433	160.602	98.769	55.428	1.00	77.52	O	ATOM	9142	C2	C A 435	150.172	102.742	54.015	1.00	95.37	C
ATOM	9093	C5*	C A 433	161.246	99.387	56.553	1.00	77.52	C	ATOM	9143	O2	C A 435	149.366	103.551	53.539	1.00	95.37	O
ATOM	9094	C4*	C A 433	160.613	100.727	56.844	1.00	77.52	C	ATOM	9144	N3	C A 435	150.951	101.973	53.228	1.00	95.37	N
ATOM	9095	O4*	C A 433	160.886	101.644	55.751	1.00	77.52	O	ATOM	9145	C4	C A 435	151.796	101.105	53.777	1.00	95.37	C
ATOM	9096	C3*	C A 433	159.100	100.717	56.971	1.00	77.52	C	ATOM	9146	N4	C A 435	152.540	100.362	52.962	1.00	95.37	N
ATOM	9097	O3*	C A 433	158.686	100.331	58.273	1.00	77.52	O	ATOM	9147	C5	C A 435	151.916	100.957	55.186	1.00	95.37	C
ATOM	9098	C2*	C A 433	158.720	102.152	56.609	1.00	77.52	C	ATOM	9148	C6	C A 435	151.142	101.724	55.954	1.00	95.37	C
ATOM	9099	O2*	C A 433	158.829	103.064	57.688	1.00	77.52	O	ATOM	9149	P	C A 436	145.893	100.697	57.989	1.00	77.16	P
ATOM	9100	C1*	C A 433	159.767	102.489	55.543	1.00	77.52	C	ATOM	9150	O1P	C A 436	144.729	100.717	58.909	1.00	75.33	O
ATOM	9101	N1	C A 433	159.280	102.290	54.161	1.00	87.25	N	ATOM	9151	O2P	C A 436	146.805	99.521	57.977	1.00	75.33	O
ATOM	9102	C2	C A 433	158.590	103.334	53.527	1.00	87.25	C	ATOM	9152	O5*	C A 436	145.348	100.892	56.507	1.00	77.16	O
ATOM	9103	O2	C A 433	158.413	104.393	54.135	1.00	87.25	O	ATOM	9153	C5*	C A 436	144.544	102.029	56.156	1.00	77.16	C
ATOM	9104	N3	C A 433	158.136	103.160	52.269	1.00	87.25	N	ATOM	9154	C4*	C A 436	144.259	102.024	54.670	1.00	77.16	C
ATOM	9105	C4	C A 433	158.350	102.005	51.636	1.00	87.25	C	ATOM	9155	O4*	C A 436	145.460	102.342	53.916	1.00	77.16	O
ATOM	9106	N4	C A 433	157.892	101.885	50.390	1.00	87.25	N	ATOM	9156	C3*	C A 436	143.799	100.694	54.102	1.00	77.16	C
ATOM	9107	C5	C A 433	159.047	100.924	52.253	1.00	87.25	C	ATOM	9157	O3*	C A 436	142.414	100.480	54.304	1.00	77.16	O
ATOM	9108	C6	C A 433	159.491	101.107	53.503	1.00	87.25	C	ATOM	9158	O2*	C A 436	144.169	100.811	52.629	1.00	77.16	C
ATOM	9109	P	U A 434	157.287	99.561	58.463	1.00	80.13	P	ATOM	9159	O2*	C A 436	143.224	101.531	51.865	1.00	77.16	O
ATOM	9110	O1P	U A 434	157.267	99.021	59.845	1.00	91.40	O	ATOM	9160	C1*	C A 436	145.464	101.619	52.696	1.00	77.16	C
ATOM	9111	O2P	U A 434	157.094	98.633	57.312	1.00	91.40	O	ATOM	9161	N1	C A 436	146.656	100.751	52.657	1.00	75.33	N
ATOM	9112	O5*	U A 434	156.203	100.727	58.397	1.00	80.13	O	ATOM	9162	C2	C A 436	146.894	99.974	51.509	1.00	75.33	C
ATOM	9113	C5*	U A 434	156.117	101.695	59.453	1.00	80.13	C	ATOM	9163	O2	C A 436	146.110	100.059	50.542	1.00	75.33	O
ATOM	9114	C4*	U A 434	155.041	102.704	59.155	1.00	80.13	C	ATOM	9164	N3	C A 436	147.971	99.154	51.482	1.00	75.33	N
ATOM	9115	O4*	U A 434	155.436	103.517	58.023	1.00	80.13	O	ATOM	9165	C4	C A 436	148.792	99.094	52.531	1.00	75.33	C



Table 2: Sheet 93/520

ATOM	9166	N4	C A 436	149.829	98.265	52.466	1.00	75.33	N	ATOM	9216	C5*	A A 439	141.254	89.363	44.765	1.00	57.91	C
ATOM	9167	C5	C A 436	148.583	99.883	53.697	1.00	75.33	C	ATOM	9217	C4*	A A 439	141.936	89.125	43.438	1.00	57.91	C
ATOM	9168	C6	C A 436	147.515	100.689	53.718	1.00	75.33	C	ATOM	9218	O4*	A A 439	143.273	89.677	43.483	1.00	57.91	O
ATOM	9169	P	U A 437	141.850	98.982	54.325	1.00	69.70	P	ATOM	9219	C3*	A A 439	142.141	87.657	43.099	1.00	57.91	C
ATOM	9170	O1P	U A 437	140.448	99.013	54.807	1.00	63.20	O	ATOM	9220	O3*	A A 439	141.015	87.107	42.435	1.00	57.91	O
ATOM	9171	O2P	U A 437	142.849	98.119	55.009	1.00	63.20	O	ATOM	9221	C2*	A A 439	143.366	87.669	42.198	1.00	57.91	C
ATOM	9172	O5*	U A 437	141.809	98.582	52.788	1.00	69.70	O	ATOM	9222	O2*	A A 439	143.051	87.931	40.849	1.00	57.91	O
ATOM	9173	C5*	U A 437	140.934	99.265	51.873	1.00	69.70	C	ATOM	9223	C1*	A A 439	144.172	88.822	42.791	1.00	57.91	C
ATOM	9174	C4*	U A 437	141.205	98.803	50.465	1.00	69.70	C	ATOM	9224	N9	A A 439	145.187	88.369	43.740	1.00	78.26	N
ATOM	9175	O4*	U A 437	142.599	99.060	50.150	1.00	69.70	O	ATOM	9225	C8	A A 439	145.206	88.555	45.098	1.00	78.26	C
ATOM	9176	C3*	U A 437	141.034	97.312	50.224	1.00	69.70	C	ATOM	9226	N7	A A 439	146.265	88.062	45.683	1.00	78.26	N
ATOM	9177	O3*	U A 437	139.689	96.981	49.920	1.00	69.70	O	ATOM	9227	C5	A A 439	146.990	87.503	44.642	1.00	78.26	C
ATOM	9178	C2*	U A 437	141.948	97.061	49.037	1.00	69.70	C	ATOM	9228	C6	A A 439	148.227	86.841	44.603	1.00	78.26	C
ATOM	9179	O2*	U A 437	141.309	97.446	47.840	1.00	69.70	O	ATOM	9229	N6	A A 439	148.989	86.625	45.678	1.00	78.26	N
ATOM	9180	C1*	U A 437	143.097	98.029	49.319	1.00	69.70	C	ATOM	9230	N1	A A 439	148.667	86.411	43.405	1.00	78.26	N
ATOM	9181	N1	U A 437	144.251	97.406	49.986	1.00	63.20	N	ATOM	9231	C2	A A 439	147.911	86.644	42.327	1.00	78.26	C
ATOM	9182	C2	U A 437	145.155	96.702	49.199	1.00	63.20	C	ATOM	9232	N3	A A 439	146.740	87.264	42.235	1.00	78.26	N
ATOM	9183	O2	U A 437	145.025	96.567	47.992	1.00	63.20	O	ATOM	9233	C4	A A 439	146.331	87.675	43.442	1.00	78.26	C
ATOM	9184	N3	U A 437	146.216	96.157	49.879	1.00	63.20	N	ATOM	9234	P	A A 440	140.721	85.533	42.554	1.00	79.25	P
ATOM	9185	C4	U A 437	146.463	96.238	51.230	1.00	63.20	C	ATOM	9235	O1P	A A 440	139.659	85.167	41.582	1.00	81.56	O
ATOM	9186	O4	U A 437	147.474	95.707	51.695	1.00	63.20	O	ATOM	9236	O2P	A A 440	140.536	85.217	43.992	1.00	81.56	O
ATOM	9187	C5	U A 437	145.484	96.973	51.970	1.00	63.20	C	ATOM	9237	O5*	A A 440	142.083	84.874	42.068	1.00	79.25	O
ATOM	9188	C6	U A 437	144.439	97.517	51.339	1.00	63.20	C	ATOM	9238	C5*	A A 440	142.432	83.576	42.510	1.00	79.25	C
ATOM	9189	P	G A 438	139.119	95.542	50.338	1.00	80.26	P	ATOM	9239	C4*	A A 440	143.901	83.491	42.811	1.00	79.25	C
ATOM	9190	O1P	G A 438	137.742	95.426	49.804	1.00	78.72	O	ATOM	9240	O4*	A A 440	144.366	84.677	43.501	1.00	79.25	O
ATOM	9191	O2P	G A 438	139.354	95.353	51.784	1.00	78.72	O	ATOM	9241	C3*	A A 440	144.194	82.346	43.753	1.00	79.25	C
ATOM	9192	O5*	G A 438	140.065	94.509	49.581	1.00	80.26	O	ATOM	9242	O3*	A A 440	144.290	81.145	43.015	1.00	79.25	O
ATOM	9193	C5*	G A 438	140.036	94.345	48.147	1.00	80.26	C	ATOM	9243	C2*	A A 440	145.471	82.791	44.453	1.00	79.25	C
ATOM	9194	C4*	G A 438	141.144	93.412	47.730	1.00	80.26	C	ATOM	9244	O2*	A A 440	146.635	82.510	43.713	1.00	79.25	O
ATOM	9195	O4*	G A 438	142.359	93.952	48.297	1.00	80.26	O	ATOM	9245	C1*	A A 440	145.268	84.308	44.530	1.00	79.25	C
ATOM	9196	C3*	G A 438	141.015	92.005	48.312	1.00	80.26	C	ATOM	9246	N9	A A 440	144.687	84.730	45.803	1.00	81.56	N
ATOM	9197	O3*	G A 438	140.410	90.993	47.455	1.00	80.26	O	ATOM	9247	C8	A A 440	143.460	85.305	45.013	1.00	81.56	C
ATOM	9198	C2*	G A 438	142.461	91.572	48.537	1.00	80.26	C	ATOM	9248	N7	A A 440	143.203	85.556	47.270	1.00	81.56	N
ATOM	9199	O2*	G A 438	143.000	90.970	47.386	1.00	80.26	O	ATOM	9249	C5	A A 440	144.338	85.125	47.934	1.00	81.56	C
ATOM	9200	C1*	G A 438	143.188	92.899	48.735	1.00	80.26	C	ATOM	9250	C6	A A 440	144.688	85.119	49.287	1.00	81.56	C
ATOM	9201	N9	G A 438	143.689	93.198	50.072	1.00	78.72	N	ATOM	9251	N6	A A 440	143.895	85.575	50.258	1.00	81.56	N
ATOM	9202	C8	G A 438	143.073	93.942	51.047	1.00	78.72	C	ATOM	9252	N1	A A 440	145.895	84.622	49.619	1.00	81.56	N
ATOM	9203	N7	G A 438	143.799	94.076	52.121	1.00	78.72	N	ATOM	9253	C2	A A 440	146.687	84.161	48.646	1.00	81.56	C
ATOM	9204	C5	G A 438	144.960	93.369	51.844	1.00	78.72	C	ATOM	9254	N3	A A 440	146.471	84.114	47.338	1.00	81.56	N
ATOM	9205	C6	G A 438	146.120	93.163	52.634	1.00	78.72	C	ATOM	9255	C4	A A 440	145.263	84.617	47.044	1.00	81.56	C
ATOM	9206	O6	G A 438	146.363	93.576	53.779	1.00	78.72	O	ATOM	9256	P	C A 442	143.037	80.138	42.986	1.00	93.80	P
ATOM	9207	N1	G A 438	147.059	92.386	51.965	1.00	78.72	N	ATOM	9257	O1P	C A 442	143.443	79.005	42.112	1.00	79.41	O
ATOM	9208	C2	G A 438	146.903	91.868	50.708	1.00	78.72	C	ATOM	9258	O2P	C A 442	141.770	80.862	42.709	1.00	79.41	O
ATOM	9209	N2	G A 438	147.927	91.141	50.244	1.00	78.72	N	ATOM	9259	O5*	C A 442	142.938	79.633	44.491	1.00	93.80	O
ATOM	9210	N3	G A 438	145.826	92.050	49.963	1.00	78.72	N	ATOM	9260	C5*	C A 442	144.064	79.017	45.125	1.00	93.80	C
ATOM	9211	C4	G A 438	144.902	92.809	50.588	1.00	78.72	C	ATOM	9261	C4*	C A 442	144.005	79.233	45.611	1.00	93.80	C
ATOM	9212	P	A A 439	139.938	91.317	45.928	1.00	57.91	P	ATOM	9262	O4*	C A 442	144.152	80.644	46.906	1.00	93.80	O
ATOM	9213	O1P	A A 439	139.823	92.781	45.706	1.00	78.26	O	ATOM	9263	C3*	C A 442	142.705	78.839	47.281	1.00	93.80	C
ATOM	9214	O2P	A A 439	138.754	90.449	45.650	1.00	78.26	O	ATOM	9264	O3*	C A 442	142.666	77.451	47.557	1.00	93.80	O
ATOM	9215	O5*	A A 439	141.130	90.766	45.023	1.00	57.91	O	ATOM	9265	C2*	C A 442	142.721	79.680	48.548	1.00	93.80	C



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ATOM	9266	O2*	C A 442	143.507	79.099	49.570	1.00	93.80	O	ATOM	9316	P	G A 445	131.841	74.772	52.982	1.00	82.18	P
ATOM	9267	Cl*	C A 442	143.393	80.966	48.058	1.00	93.80	C	ATOM	9317	OlP	G A 445	131.316	73.578	53.698	1.00	91.03	O
ATOM	9268	N1	C A 442	142.408	82.008	47.708	1.00	79.41	N	ATOM	9318	O2P	G A 445	132.401	74.621	51.617	1.00	91.03	O
ATOM	9269	C2	C A 442	141.898	82.823	48.730	1.00	79.41	C	ATOM	9319	O5*	G A 445	130.703	75.886	52.928	1.00	82.18	C
ATOM	9270	O2	C A 442	142.328	82.685	49.889	1.00	79.41	O	ATOM	9320	C5*	G A 445	129.918	76.187	54.092	1.00	82.18	C
ATOM	9271	N3	C A 442	140.954	83.737	48.430	1.00	79.41	N	ATOM	9321	C4*	G A 445	128.837	77.190	53.764	1.00	82.18	C
ATOM	9272	C4	C A 442	140.525	83.867	47.176	1.00	79.41	C	ATOM	9322	O4*	G A 445	129.441	78.468	53.426	1.00	82.18	O
ATOM	9273	N4	C A 442	139.578	84.770	46.935	1.00	79.41	N	ATOM	9323	C3*	G A 445	127.946	76.884	52.572	1.00	82.18	C
ATOM	9274	C5	C A 442	141.046	83.074	46.116	1.00	79.41	C	ATOM	9324	O3*	G A 445	126.900	75.970	52.832	1.00	82.18	O
ATOM	9275	C6	C A 442	141.978	82.169	46.421	1.00	79.41	C	ATOM	9325	C2*	G A 445	127.413	78.259	52.198	1.00	82.18	C
ATOM	9276	P	C A 443	141.252	76.692	47.595	1.00	83.19	P	ATOM	9326	O2*	G A 445	126.316	78.673	52.990	1.00	82.18	O
ATOM	9277	OlP	C A 443	141.545	75.235	47.629	1.00	98.27	O	ATOM	9327	Cl*	G A 445	128.633	79.141	52.467	1.00	82.18	C
ATOM	9278	O2P	C A 443	140.386	77.241	46.524	1.00	98.27	O	ATOM	9328	N9	G A 445	129.401	79.311	51.234	1.00	91.03	N
ATOM	9279	O5*	C A 443	140.630	77.117	48.998	1.00	83.19	O	ATOM	9329	C8	G A 445	130.558	78.661	50.873	1.00	91.03	C
ATOM	9280	C5*	C A 443	141.253	76.704	50.228	1.00	83.19	C	ATOM	9330	N7	G A 445	130.973	78.981	49.678	1.00	91.03	N
ATOM	9281	C4*	C A 443	140.454	77.185	51.414	1.00	83.19	C	ATOM	9331	C5	G A 445	130.042	79.906	49.226	1.00	91.03	C
ATOM	9282	O4*	C A 443	140.547	78.627	51.534	1.00	83.19	O	ATOM	9332	C6	G A 445	129.964	80.599	47.997	1.00	91.03	C
ATOM	9283	C3*	C A 443	138.964	76.917	51.365	1.00	83.19	C	ATOM	9333	O6	G A 445	130.721	80.522	47.024	1.00	91.03	O
ATOM	9284	O3*	C A 443	138.632	75.608	51.768	1.00	83.19	O	ATOM	9334	N1	G A 445	128.866	81.451	47.958	1.00	91.03	N
ATOM	9285	C2*	C A 443	138.405	77.956	52.322	1.00	83.19	C	ATOM	9335	C2	G A 445	127.957	81.614	48.971	1.00	91.03	C
ATOM	9286	O2*	C A 443	138.494	77.556	53.674	1.00	83.19	O	ATOM	9336	N2	G A 445	126.971	82.490	48.747	1.00	91.03	N
ATOM	9287	Cl*	C A 443	139.338	79.137	52.072	1.00	83.19	C	ATOM	9337	N3	G A 445	128.012	80.966	50.120	1.00	91.03	N
ATOM	9288	N1	C A 443	138.750	80.097	51.120	1.00	98.27	N	ATOM	9338	C4	G A 445	129.074	80.134	50.179	1.00	91.03	C
ATOM	9289	O2	C A 443	137.804	81.016	51.595	1.00	98.27	C	ATOM	9339	P	G A 446	126.251	75.164	51.601	1.00	78.86	P
ATOM	9290	O2	C A 443	137.511	81.013	52.801	1.00	98.27	O	ATOM	9340	OlP	G A 446	125.222	74.224	52.120	1.00	86.64	O
ATOM	9291	N3	C A 443	137.234	81.882	50.733	1.00	98.27	N	ATOM	9341	O2P	G A 446	127.378	74.643	50.784	1.00	86.64	O
ATOM	9292	C4	C A 443	137.580	81.866	49.446	1.00	98.27	C	ATOM	9342	O5*	G A 446	125.478	76.282	50.769	1.00	78.86	O
ATOM	9293	N4	C A 443	136.991	82.747	48.633	1.00	98.27	N	ATOM	9343	C5*	G A 446	124.376	76.992	51.356	1.00	78.86	C
ATOM	9294	C5	C A 443	138.545	80.950	48.936	1.00	98.27	C	ATOM	9344	C4*	G A 446	123.818	78.020	50.393	1.00	78.86	C
ATOM	9295	C6	C A 443	139.100	80.092	49.799	1.00	98.27	C	ATOM	9345	O4*	G A 446	124.823	79.024	50.088	1.00	78.86	O
ATOM	9296	P	C A 444	137.191	75.023	51.389	1.00	81.17	P	ATOM	9346	C3*	G A 446	123.373	77.514	49.034	1.00	78.86	C
ATOM	9297	OlP	C A 444	137.139	73.641	51.928	1.00	108.57	O	ATOM	9347	O3*	G A 446	122.071	76.969	49.060	1.00	78.86	O
ATOM	9298	O2P	C A 444	136.954	75.257	49.941	1.00	108.57	O	ATOM	9348	C2*	G A 446	123.429	78.771	48.179	1.00	78.86	C
ATOM	9299	O5*	C A 444	136.183	75.953	52.201	1.00	81.17	O	ATOM	9349	O2*	G A 446	122.283	79.580	48.335	1.00	78.86	O
ATOM	9300	C5*	C A 444	136.143	75.919	53.640	1.00	81.17	C	ATOM	9350	Cl*	G A 446	124.650	79.482	48.757	1.00	78.86	C
ATOM	9301	C4*	C A 444	135.000	76.757	54.154	1.00	81.17	C	ATOM	9351	N9	G A 446	125.848	79.145	47.995	1.00	86.64	N
ATOM	9302	O4*	C A 444	135.285	78.167	53.955	1.00	81.17	O	ATOM	9352	C8	G A 446	126.822	78.233	48.325	1.00	86.64	C
ATOM	9303	C3*	C A 444	133.674	76.544	53.447	1.00	81.17	C	ATOM	9353	N7	G A 446	127.749	78.123	47.416	1.00	86.64	N
ATOM	9304	O3*	C A 444	132.965	75.425	53.916	1.00	81.17	O	ATOM	9354	C5	G A 446	127.367	79.021	46.429	1.00	86.64	C
ATOM	9305	C2*	C A 444	132.940	77.848	53.712	1.00	81.17	C	ATOM	9355	C6	G A 446	127.978	79.336	45.196	1.00	86.64	C
ATOM	9306	O2*	C A 444	132.325	77.895	54.984	1.00	81.17	O	ATOM	9356	O6	G A 446	129.005	78.859	44.705	1.00	86.64	O
ATOM	9307	Cl*	C A 444	134.084	78.859	53.634	1.00	81.17	C	ATOM	9357	N1	G A 446	127.265	80.312	44.507	1.00	86.64	N
ATOM	9308	N1	C A 444	134.193	79.394	52.259	1.00	108.57	N	ATOM	9358	C2	G A 446	126.110	80.907	44.949	1.00	86.64	C
ATOM	9309	C2	C A 444	133.259	80.350	51.828	1.00	108.57	C	ATOM	9359	N2	G A 446	125.574	81.837	44.147	1.00	86.64	N
ATOM	9310	O2	C A 444	132.407	80.768	52.626	1.00	108.57	O	ATOM	9360	N3	G A 446	125.524	80.613	46.095	1.00	86.64	N
ATOM	9311	N3	C A 444	133.310	80.792	50.553	1.00	108.57	N	ATOM	9361	C4	G A 446	126.203	79.668	46.779	1.00	86.64	C
ATOM	9312	C4	C A 444	134.249	80.333	49.725	1.00	108.57	C	ATOM	9362	P	G A 447	121.677	75.842	47.993	1.00	74.02	P
ATOM	9313	N4	C A 444	134.244	80.781	48.470	1.00	108.57	N	ATOM	9363	OlP	G A 447	120.196	75.710	47.995	1.00	84.34	O
ATOM	9314	C5	C A 444	135.230	79.389	50.143	1.00	108.57	C	ATOM	9364	O2P	G A 447	122.531	74.645	48.228	1.00	84.34	O
ATOM	9315	C6	C A 444	135.167	78.952	51.405	1.00	108.57	C	ATOM	9365	O5*	G A 447	122.104	76.482	46.603	1.00	74.02	O



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ATOM	9366:	C5*	G A 447	121.324	77.530	46.000	1.00 74.02	C	ATOM	9416	C2*	C A 449	118.413	80.054	32.365	1.00 60.01	C
ATOM	9367	C4*	G A 447	121.816	77.799	44.601	1.00 74.02	C	ATOM	9417	O2*	C A 449	117.779	81.271	32.027	1.00 60.01	O
ATOM	9368	O4*	G A 447	123.134	78.400	44.658	1.00 74.02	O	ATOM	9418	C1*	C A 449	119.487	80.336	33.414	1.00 60.01	C
ATOM	9369	C3*	G A 447	121.994	76.558	43.747	1.00 74.02	C	ATOM	9419	N1	C A 449	120.711	79.527	33.232	1.00 78.73	N
ATOM	9370	O3*	G A 447	120.746	76.156	43.205	1.00 74.02	O	ATOM	9420	C2	C A 449	121.614	79.892	32.228	1.00 78.73	C
ATOM	9371	O2*	G A 447	123.055	76.998	42.746	1.00 74.02	C	ATOM	9421	O2	C A 449	121.358	80.872	31.518	1.00 78.73	O
ATOM	9372	O2*	G A 447	122.561	77.781	41.683	1.00 74.02	O	ATOM	9422	N3	C A 449	122.739	79.164	32.052	1.00 78.73	N
ATOM	9373	C1*	G A 447	123.944	77.880	43.620	1.00 74.02	C	ATOM	9423	C4	C A 449	122.974	78.103	32.823	1.00 78.73	C
ATOM	9374	N9	G A 447	125.005	77.096	44.238	1.00 84.34	N	ATOM	9424	N4	C A 449	124.086	77.407	32.603	1.00 78.73	N
ATOM	9375	C8	G A 447	124.937	76.410	45.426	1.00 84.34	C	ATOM	9425	C5	C A 449	122.074	77.706	33.852	1.00 78.73	C
ATOM	9376	N7	G A 447	126.032	75.764	45.707	1.00 84.34	N	ATOM	9426	C6	C A 449	120.966	78.439	34.021	1.00 78.73	C
ATOM	9377	C5	G A 447	126.879	76.047	44.647	1.00 84.34	C	ATOM	9427	P	G A 450	115.516	77.661	32.241	1.00 59.01	P
ATOM	9378	C6	G A 447	128.206	75.624	44.398	1.00 84.34	C	ATOM	9428	O1P	G A 450	114.081	77.883	31.871	1.00 79.32	O
ATOM	9379	O6	G A 447	128.923	74.889	45.087	1.00 84.34	O	ATOM	9429	O2P	G A 450	115.857	76.695	33.324	1.00 79.32	O
ATOM	9380	N1	G A 447	128.692	76.145	43.205	1.00 84.34	N	ATOM	9430	O5*	G A 450	116.331	77.220	30.947	1.00 59.01	O
ATOM	9381	C2	G A 447	127.989	76.966	42.360	1.00 84.34	C	ATOM	9431	C5*	G A 450	116.365	78.058	29.787	1.00 59.01	C
ATOM	9382	N2	G A 447	128.628	77.353	41.251	1.00 84.34	N	ATOM	9432	C4*	G A 450	117.605	77.781	28.981	1.00 59.01	C
ATOM	9383	N3	G A 447	126.751	77.372	42.583	1.00 84.34	N	ATOM	9433	O4*	G A 450	118.771	78.019	29.808	1.00 59.01	O
ATOM	9384	C4	G A 447	126.261	76.876	43.736	1.00 84.34	C	ATOM	9434	C3*	G A 450	117.798	76.363	28.470	1.00 59.01	C
ATOM	9385	P	A A 448	120.682	75.035	42.053	1.00 80.80	P	ATOM	9435	O3*	G A 450	117.113	76.148	27.248	1.00 59.01	O
ATOM	9386	O1P	A A 448	119.331	74.409	42.151	1.00 62.90	O	ATOM	9436	C2*	G A 450	119.301	76.303	28.257	1.00 59.01	C
ATOM	9387	O2P	A A 448	121.888	74.183	42.067	1.00 62.90	O	ATOM	9437	O2*	G A 450	119.656	76.927	27.040	1.00 59.01	O
ATOM	9388	O5*	A A 448	120.680	75.937	40.751	1.00 80.80	O	ATOM	9438	C1*	G A 450	119.817	77.145	29.424	1.00 59.01	C
ATOM	9389	C5*	A A 448	119.899	77.131	40.779	1.00 80.80	C	ATOM	9439	N9	G A 450	120.180	76.336	30.582	1.00 79.32	N
ATOM	9390	C4*	A A 448	120.071	77.928	39.527	1.00 80.80	C	ATOM	9440	C8	G A 450	119.435	76.148	31.720	1.00 79.32	C
ATOM	9391	O4*	A A 448	121.404	78.458	39.403	1.00 80.80	O	ATOM	9441	N7	G A 450	120.003	75.345	32.576	1.00 79.32	N
ATOM	9392	C3*	A A 448	119.856	77.227	38.213	1.00 80.80	C	ATOM	9442	C5	G A 450	121.196	74.978	31.968	1.00 79.32	C
ATOM	9393	O3*	A A 448	118.464	77.090	38.018	1.00 80.80	O	ATOM	9443	C6	G A 450	122.227	74.111	32.416	1.00 79.32	C
ATOM	9394	C2*	A A 448	120.464	78.234	37.241	1.00 80.80	C	ATOM	9444	O6	G A 450	122.289	73.458	33.466	1.00 79.32	O
ATOM	9395	O2*	A A 448	119.567	79.281	36.957	1.00 80.80	O	ATOM	9445	N1	G A 450	123.264	74.038	31.497	1.00 79.32	N
ATOM	9396	C1*	A A 448	121.588	78.857	38.070	1.00 80.80	C	ATOM	9446	C2	G A 450	123.305	74.702	30.299	1.00 79.32	C
ATOM	9397	N9	A A 448	122.918	78.475	37.624	1.00 62.90	N	ATOM	9447	N2	G A 450	124.393	74.496	29.555	1.00 79.32	N
ATOM	9398	C8	A A 448	123.760	77.509	38.108	1.00 62.90	C	ATOM	9448	N3	G A 450	122.349	75.504	29.865	1.00 79.32	N
ATOM	9399	N7	A A 448	124.889	77.417	37.448	1.00 62.90	N	ATOM	9449	C4	G A 450	121.330	75.595	30.744	1.00 79.32	C
ATOM	9400	C5	A A 448	124.784	78.396	36.471	1.00 62.90	C	ATOM	9450	P	A A 451	116.724	74.655	26.806	1.00 65.11	P
ATOM	9401	C6	A A 448	125.653	78.813	35.464	1.00 62.90	C	ATOM	9451	O1P	A A 451	117.850	73.784	27.195	1.00 72.01	O
ATOM	9402	N6	A A 448	126.853	78.287	35.282	1.00 62.90	N	ATOM	9452	O2P	A A 451	116.282	74.687	25.385	1.00 72.01	O
ATOM	9403	N1	A A 448	125.247	79.808	34.648	1.00 62.90	N	ATOM	9453	O5*	A A 451	115.459	74.305	27.707	1.00 65.11	O
ATOM	9404	C2	A A 448	124.044	80.354	34.856	1.00 62.90	C	ATOM	9454	C5*	A A 451	114.113	74.627	27.268	1.00 65.11	C
ATOM	9405	N3	A A 448	123.139	80.059	35.782	1.00 62.90	N	ATOM	9455	C4*	A A 451	113.129	74.437	28.409	1.00 65.11	C
ATOM	9406	C4	A A 448	123.576	79.055	36.567	1.00 62.90	C	ATOM	9456	O4*	A A 451	113.118	73.040	28.790	1.00 65.11	O
ATOM	9407	P	C A 449	117.907	76.352	36.713	1.00 60.01	P	ATOM	9457	C3*	A A 451	113.458	75.226	29.670	1.00 65.11	C
ATOM	9408	O1P	C A 449	116.474	76.078	36.991	1.00 78.73	O	ATOM	9458	O3*	A A 451	112.249	75.587	30.328	1.00 65.11	O
ATOM	9409	O2P	C A 449	118.813	75.230	36.336	1.00 78.73	O	ATOM	9459	C2*	A A 451	114.221	74.218	30.520	1.00 65.11	C
ATOM	9410	O5*	C A 449	117.991	77.466	35.569	1.00 60.01	O	ATOM	9460	O2*	A A 451	114.085	74.444	31.908	1.00 65.11	O
ATOM	9411	C5*	C A 449	117.176	78.652	35.631	1.00 60.01	C	ATOM	9461	C1*	A A 451	113.570	72.895	30.119	1.00 65.11	C
ATOM	9412	C4*	C A 449	117.552	79.619	34.535	1.00 60.01	C	ATOM	9462	N9	A A 451	114.535	71.798	30.137	1.00 72.01	N
ATOM	9413	O4*	C A 449	118.927	80.052	34.688	1.00 60.01	O	ATOM	9463	C8	A A 451	115.230	71.297	29.059	1.00 72.01	C
ATOM	9414	C3*	C A 449	117.496	79.094	33.116	1.00 60.01	C	ATOM	9464	N7	A A 451	116.049	70.329	29.379	1.00 72.01	N
ATOM	9415	O3*	C A 449	116.172	79.072	32.628	1.00 60.01	O	ATOM	9465	C5	A A 451	115.883	70.180	30.743	1.00 72.01	C



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ATOM	9466	C6	A A 451	116.483	69.326	31.667	1.00	72.01	C	ATOM	9516	P	C A 454	103.031	68.789	23.888	1.00	61.31	P
ATOM	9467	N6	A A 451	117.412	68.421	31.339	1.00	72.01	N	ATOM	9517	O1P	C A 454	102.029	69.106	22.832	1.00	62.86	O
ATOM	9468	N1	A A 451	116.099	69.431	32.956	1.00	72.01	N	ATOM	9518	O2P	C A 454	102.621	68.787	25.316	1.00	62.86	O
ATOM	9469	C2	A A 451	115.172	70.335	33.276	1.00	72.01	C	ATOM	9519	O5*	C A 454	103.702	67.392	23.514	1.00	61.31	O
ATOM	9470	N3	A A 451	114.537	71.197	32.495	1.00	72.01	N	ATOM	9520	C5*	C A 454	104.147	67.154	22.168	1.00	61.31	C
ATOM	9471	C4	A A 451	114.946	71.069	31.224	1.00	72.01	C	ATOM	9521	C4*	C A 454	105.044	65.946	22.094	1.00	61.31	C
ATOM	9472	P	A A 452	111.551	77.001	30.016	1.00	68.18	P	ATOM	9522	O4*	C A 454	106.289	66.183	22.790	1.00	61.31	O
ATOM	9473	O1P	A A 452	112.497	77.825	29.216	1.00	66.89	O	ATOM	9523	C3*	C A 454	104.511	64.672	22.703	1.00	61.31	C
ATOM	9474	O2P	A A 452	111.038	77.524	31.318	1.00	66.89	O	ATOM	9524	O3*	C A 454	103.625	64.020	21.810	1.00	61.31	O
ATOM	9475	O5*	A A 452	110.328	76.606	29.073	1.00	68.18	O	ATOM	9525	C2*	C A 454	105.783	63.868	22.931	1.00	61.31	C
ATOM	9476	C5*	A A 452	109.244	75.801	29.567	1.00	68.18	C	ATOM	9526	O2*	C A 454	106.204	63.219	21.750	1.00	61.31	O
ATOM	9477	C4*	A A 452	108.693	74.927	28.463	1.00	68.18	C	ATOM	9527	C1*	C A 454	106.789	64.961	23.289	1.00	61.31	C
ATOM	9478	O4*	A A 452	109.705	73.970	28.040	1.00	68.18	O	ATOM	9528	N1	C A 454	107.010	65.093	24.738	1.00	62.86	N
ATOM	9479	C3*	A A 452	107.462	74.098	28.828	1.00	68.18	C	ATOM	9529	C2	C A 454	108.173	64.552	25.300	1.00	62.86	C
ATOM	9480	O3*	A A 452	106.622	73.997	27.682	1.00	68.18	O	ATOM	9530	O2	C A 454	109.005	63.994	24.562	1.00	62.86	O
ATOM	9481	C2*	A A 452	108.041	72.717	29.094	1.00	68.18	C	ATOM	9531	N3	C A 454	108.366	64.648	26.633	1.00	62.86	N
ATOM	9482	O2*	A A 452	107.114	71.694	28.847	1.00	68.18	O	ATOM	9532	C4	C A 454	107.458	65.254	27.395	1.00	62.86	C
ATOM	9483	C1*	A A 452	109.156	72.670	28.060	1.00	68.18	C	ATOM	9533	N4	C A 454	107.684	65.313	28.704	1.00	62.86	N
ATOM	9484	N9	A A 452	110.219	71.707	28.319	1.00	66.89	N	ATOM	9534	C5	C A 454	106.278	65.824	26.849	1.00	62.86	C
ATOM	9485	C8	A A 452	110.670	71.192	29.508	1.00	66.89	C	ATOM	9535	C6	C A 454	106.095	65.723	25.530	1.00	62.86	C
ATOM	9486	N7	A A 452	111.659	70.341	29.374	1.00	66.89	N	ATOM	9536	P	C A 455	102.136	63.668	22.296	1.00	76.58	P
ATOM	9487	C5	A A 452	111.871	70.293	28.004	1.00	66.89	C	ATOM	9537	O1P	C A 455	101.571	62.715	21.309	1.00	75.66	O
ATOM	9488	C6	A A 452	112.781	69.580	27.216	1.00	66.89	C	ATOM	9538	O2P	C A 455	101.426	64.940	22.584	1.00	75.66	O
ATOM	9489	N6	A A 452	113.702	68.756	27.711	1.00	66.89	N	ATOM	9539	O5*	C A 455	102.345	62.914	23.679	1.00	76.58	O
ATOM	9490	N1	A A 452	112.719	69.749	25.880	1.00	66.89	N	ATOM	9540	C5*	C A 455	103.026	61.656	23.735	1.00	76.58	C
ATOM	9491	C2	A A 452	111.805	70.594	25.379	1.00	66.89	C	ATOM	9541	C4*	C A 455	103.138	61.200	25.165	1.00	76.58	C
ATOM	9492	N3	A A 452	110.903	71.329	26.017	1.00	66.89	N	ATOM	9542	O4*	C A 455	104.053	62.067	25.878	1.00	76.58	O
ATOM	9493	C4	A A 452	110.989	71.128	27.344	1.00	66.89	C	ATOM	9543	C3*	C A 455	101.840	61.280	25.945	1.00	76.58	C
ATOM	9494	P	A A 453	105.036	73.801	27.860	1.00	57.19	P	ATOM	9544	O3*	C A 455	101.037	60.128	25.742	1.00	76.58	O
ATOM	9495	O1P	A A 453	104.454	75.169	27.956	1.00	67.55	O	ATOM	9545	C2*	C A 455	102.313	61.447	27.382	1.00	76.58	C
ATOM	9496	O2P	A A 453	104.769	72.809	28.944	1.00	67.55	O	ATOM	9546	O2*	C A 455	102.659	60.219	27.993	1.00	76.58	O
ATOM	9497	O5*	A A 453	104.570	73.179	26.467	1.00	57.19	O	ATOM	9547	C1*	C A 455	103.577	62.287	27.191	1.00	76.58	C
ATOM	9498	C5*	A A 453	104.472	71.752	26.287	1.00	57.19	C	ATOM	9548	N1	C A 455	103.367	63.735	27.361	1.00	75.66	N
ATOM	9499	C4*	A A 453	105.421	71.298	25.209	1.00	57.19	C	ATOM	9549	C2	C A 455	103.496	64.294	28.638	1.00	75.66	C
ATOM	9500	O4*	A A 453	106.786	71.350	25.691	1.00	57.19	O	ATOM	9550	O2	C A 455	103.719	63.949	29.605	1.00	75.66	O
ATOM	9501	C3*	A A 453	105.246	69.870	24.730	1.00	57.19	C	ATOM	9551	N3	C A 455	103.368	65.629	28.789	1.00	75.66	N
ATOM	9502	O3*	A A 453	104.241	69.823	23.735	1.00	57.19	O	ATOM	9552	C4	C A 455	103.109	66.396	27.731	1.00	75.66	C
ATOM	9503	C2*	A A 453	106.613	69.541	24.152	1.00	57.19	C	ATOM	9553	N4	C A 455	103.026	67.710	27.923	1.00	75.66	N
ATOM	9504	O2*	A A 453	106.756	70.043	22.837	1.00	57.19	O	ATOM	9554	C5	C A 455	102.934	65.851	26.428	1.00	75.66	C
ATOM	9505	C1*	A A 453	107.539	70.312	25.093	1.00	57.19	C	ATOM	9555	C6	C A 455	103.070	64.530	26.289	1.00	75.66	C
ATOM	9506	N9	A A 453	108.105	69.491	26.159	1.00	67.55	N	ATOM	9556	P	C A 456	99.442	60.266	25.809	1.00	81.05	P
ATOM	9507	C8	A A 453	107.795	69.507	27.494	1.00	67.55	C	ATOM	9557	O1P	C A 456	98.865	58.938	25.488	1.00	100.05	O
ATOM	9508	N7	A A 453	108.508	68.681	28.216	1.00	67.55	N	ATOM	9558	O2P	C A 456	99.030	61.450	25.016	1.00	100.05	O
ATOM	9509	C5	A A 453	109.338	68.069	27.291	1.00	67.55	C	ATOM	9559	O5*	C A 456	99.189	60.593	27.345	1.00	81.05	O
ATOM	9510	C6	A A 453	110.340	67.096	27.421	1.00	67.55	C	ATOM	9560	C5*	C A 456	99.493	59.620	28.353	1.00	81.05	C
ATOM	9511	N6	A A 453	110.701	66.552	28.584	1.00	67.55	N	ATOM	9561	C4*	C A 456	98.979	60.081	29.689	1.00	81.05	C
ATOM	9512	N1	A A 453	110.971	66.699	26.300	1.00	67.55	N	ATOM	9562	O4*	C A 456	99.809	61.165	30.175	1.00	81.05	O
ATOM	9513	C2	A A 453	110.615	67.255	25.132	1.00	67.55	C	ATOM	9563	C3*	C A 456	97.567	60.646	29.678	1.00	81.05	C
ATOM	9514	N3	A A 453	109.695	68.180	24.883	1.00	67.55	N	ATOM	9564	O3*	C A 456	96.568	59.636	29.754	1.00	81.05	O
ATOM	9515	C4	A A 453	109.088	68.549	26.017	1.00	67.55	C	ATOM	9565	C2*	C A 456	97.570	61.587	30.878	1.00	81.05	C



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ATOM	9566	O2*	C A 456	97.319	60.928	32.105	1.00 81.05	O	ATOM	9616	P	G A 459	86.001	65.357	29.464	1.00 90.51	P
ATOM	9567	C1*	C A 456	99.005	62.121	30.847	1.00 81.05	C	ATOM	9617	O1P	G A 459	84.558	65.199	29.781	1.00100.68	O
ATOM	9568	N1	C A 456	99.123	63.403	30.127	1.00105.22	N	ATOM	9618	O2P	G A 459	86.796	64.175	29.038	1.00100.68	O
ATOM	9569	C2	C A 456	99.102	64.596	30.858	1.00105.22	C	ATOM	9619	O5*	G A 459	86.151	66.490	28.351	1.00 90.51	O
ATOM	9570	O2	C A 456	98.983	64.547	32.092	1.00105.22	O	ATOM	9620	C5*	G A 459	85.522	67.782	28.508	1.00 90.51	C
ATOM	9571	N3	C A 456	99.212	65.772	30.203	1.00105.22	N	ATOM	9621	C4*	G A 459	86.047	68.762	27.475	1.00 90.51	C
ATOM	9572	C4	C A 456	99.336	65.787	28.875	1.00105.22	C	ATOM	9622	O4*	G A 459	87.455	69.017	27.715	1.00 90.51	O
ATOM	9573	N4	C A 456	99.439	66.968	28.272	1.00105.22	N	ATOM	9623	C3*	G A 459	85.975	68.312	26.021	1.00 90.51	C
ATOM	9574	C5	C A 456	99.357	64.589	28.106	1.00105.22	C	ATOM	9624	O3*	G A 459	84.720	68.610	25.430	1.00 90.51	O
ATOM	9575	C6	C A 456	99.250	63.432	28.764	1.00105.22	C	ATOM	9625	C2*	G A 459	87.078	69.127	25.362	1.00 90.51	C
ATOM	9576	P	C A 457	95.107	59.926	29.153	1.00 91.38	P	ATOM	9626	O2*	G A 459	86.658	70.435	25.015	1.00 90.51	O
ATOM	9577	O1P	C A 457	94.296	58.690	29.316	1.00131.67	O	ATOM	9627	C1*	G A 459	88.122	69.193	26.477	1.00 90.51	C
ATOM	9578	O2P	C A 457	95.270	60.518	27.800	1.00131.67	O	ATOM	9628	N9	G A 459	89.135	68.151	26.345	1.00100.68	N
ATOM	9579	O5*	C A 457	94.530	61.052	30.127	1.00 91.38	O	ATOM	9629	C8	G A 459	89.343	67.082	27.182	1.00100.68	C
ATOM	9580	C5*	C A 457	94.320	60.779	31.528	1.00 91.38	C	ATOM	9630	N7	G A 459	90.343	66.330	26.813	1.00100.68	N
ATOM	9581	C4*	C A 457	93.775	62.001	32.239	1.00 91.38	C	ATOM	9631	C5	G A 459	90.821	66.936	25.658	1.00100.68	C
ATOM	9582	O4*	C A 457	94.814	63.002	32.381	1.00 91.38	O	ATOM	9632	C6	G A 459	91.903	66.577	24.810	1.00100.68	C
ATOM	9583	C3*	C A 457	92.623	62.728	31.559	1.00 91.38	C	ATOM	9633	O6	G A 459	92.683	65.621	24.915	1.00100.68	O
ATOM	9584	O3*	C A 457	91.363	62.137	31.837	1.00 91.38	O	ATOM	9634	N1	G A 459	92.038	67.469	23.751	1.00100.68	N
ATOM	9585	C2*	C A 457	92.727	64.136	32.135	1.00 91.38	C	ATOM	9635	C2	G A 459	91.540	69.311	22.468	1.00100.68	C
ATOM	9586	O2*	C A 457	92.086	64.272	33.389	1.00 91.38	O	ATOM	9636	N2	G A 459	90.231	68.906	24.313	1.00100.68	N
ATOM	9587	C1*	C A 457	94.242	64.299	32.288	1.00 91.38	C	ATOM	9637	N3	G A 459	91.540	69.311	22.468	1.00100.68	N
ATOM	9588	N1	C A 457	94.849	64.994	31.134	1.00131.67	N	ATOM	9638	C4	G A 459	90.082	68.056	25.351	1.00100.68	C
ATOM	9589	O2	C A 457	95.031	66.388	31.192	1.00131.67	O	ATOM	9639	P	A A 460	83.763	67.418	24.957	1.00110.58	P
ATOM	9590	C2	C A 457	94.686	67.006	32.215	1.00131.67	C	ATOM	9640	O1P	A A 460	82.494	68.046	24.517	1.00 96.35	O
ATOM	9591	N3	C A 457	95.577	67.023	30.129	1.00131.67	N	ATOM	9641	O2P	A A 460	83.754	66.393	26.032	1.00 96.35	O
ATOM	9592	C4	C A 457	95.933	66.328	29.044	1.00131.67	C	ATOM	9642	O5*	A A 460	84.457	66.801	23.666	1.00110.58	O
ATOM	9593	N4	C A 457	96.460	66.995	28.016	1.00131.67	N	ATOM	9643	C5*	A A 460	85.610	65.939	23.759	1.00110.58	C
ATOM	9594	C5	C A 457	95.761	64.917	28.962	1.00131.67	C	ATOM	9644	C4*	A A 460	85.975	65.441	22.383	1.00110.58	C
ATOM	9595	C6	C A 457	95.223	64.297	30.017	1.00131.67	C	ATOM	9645	O4*	A A 460	85.399	66.351	22.428	1.00110.58	O
ATOM	9596	P	C A 458	90.135	62.389	30.835	1.00 89.85	P	ATOM	9646	C3*	A A 460	87.470	65.377	22.090	1.00110.58	C
ATOM	9597	O1P	C A 458	88.976	61.623	31.359	1.00129.89	O	ATOM	9647	O3*	A A 460	87.922	64.027	22.295	1.00110.58	O
ATOM	9598	O2P	C A 458	90.598	62.147	29.444	1.00129.89	O	ATOM	9648	C2*	A A 460	87.561	65.713	20.598	1.00110.58	C
ATOM	9599	O5*	C A 458	89.825	63.946	31.005	1.00 89.85	O	ATOM	9649	O2*	A A 460	86.536	64.540	19.805	1.00110.58	O
ATOM	9600	C5*	C A 458	89.206	64.460	32.206	1.00 89.85	C	ATOM	9650	C1*	A A 460	86.280	66.526	20.348	1.00110.58	C
ATOM	9601	C4*	C A 458	88.808	65.910	32.019	1.00 89.85	C	ATOM	9651	N9	A A 460	86.310	67.954	20.001	1.00 96.35	N
ATOM	9602	C4*	C A 458	89.988	66.754	32.028	1.00 89.85	O	ATOM	9652	C8	A A 460	85.621	68.957	20.643	1.00 96.35	C
ATOM	9603	C3*	C A 458	88.109	66.239	30.709	1.00 89.85	C	ATOM	9653	N7	A A 460	85.719	70.124	20.061	1.00 96.35	N
ATOM	9604	O3*	C A 458	86.720	65.977	30.753	1.00 89.85	O	ATOM	9654	C5	A A 460	86.547	69.888	18.975	1.00 96.35	C
ATOM	9605	C2*	C A 458	88.409	67.721	30.519	1.00 89.85	C	ATOM	9655	C6	A A 460	87.031	70.729	17.956	1.00 96.35	C
ATOM	9606	O2*	C A 458	87.524	68.580	31.207	1.00 89.85	O	ATOM	9656	N6	A A 460	86.718	72.024	17.852	1.00 96.35	N
ATOM	9607	C1*	C A 458	89.812	67.735	31.119	1.00 89.85	C	ATOM	9657	N1	A A 460	87.854	70.188	17.034	1.00 96.35	N
ATOM	9608	N1	C A 458	90.863	67.688	30.079	1.00129.89	N	ATOM	9658	C2	A A 460	88.160	68.890	17.134	1.00 96.35	C
ATOM	9609	C2	C A 458	91.059	68.877	29.239	1.00129.89	C	ATOM	9659	N3	A A 460	87.765	67.996	18.038	1.00 96.35	N
ATOM	9610	O2	C A 458	90.362	69.891	29.402	1.00129.89	O	ATOM	9660	C4	A A 460	86.947	68.563	18.942	1.00 96.35	C
ATOM	9611	N3	C A 458	92.000	68.810	28.270	1.00129.89	N	ATOM	9661	P	C A 461	89.032	63.697	23.412	1.00124.85	P
ATOM	9612	C4	C A 458	92.730	67.701	28.122	1.00129.89	C	ATOM	9662	O1P	C A 461	88.708	62.361	23.979	1.00149.36	O
ATOM	9613	N4	C A 458	93.637	67.672	27.143	1.00129.89	N	ATOM	9663	O2P	C A 461	89.151	64.864	24.320	1.00149.36	O
ATOM	9614	C5	C A 458	92.560	66.568	28.967	1.00129.89	C	ATOM	9664	O5*	C A 461	90.392	63.566	22.590	1.00124.85	O
ATOM	9615	C6	C A 458	91.628	66.644	29.923	1.00129.89	C	ATOM	9665	C5*	C A 461	90.825	64.601	21.674	1.00124.85	C



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ATOM	9666	C A 461	92.296	64.432	21.356	1.00124.85	C	ATOM	9716	N9	A A 463	91.210	74.450	21.228	1.00 82.53	N
ATOM	9667	C A 461	92.564	63.026	21.144	1.00124.85	O	ATOM	9717	C8	A A 463	91.788	73.214	21.353	1.00 82.53	C
ATOM	9668	C A 461	92.817	65.169	20.124	1.00124.85	C	ATOM	9718	N7	A A 463	91.317	72.511	22.351	1.00 82.53	N
ATOM	9669	C A 461	94.179	65.537	20.350	1.00124.85	O	ATOM	9719	C5	A A 463	90.350	73.333	22.909	1.00 82.53	C
ATOM	9670	C A 461	92.793	64.083	19.048	1.00124.85	C	ATOM	9720	C6	A A 463	89.494	73.173	24.009	1.00 82.53	C
ATOM	9671	C A 461	93.763	64.286	18.040	1.00124.85	O	ATOM	9721	N6	A A 463	89.490	72.096	24.795	1.00 82.53	N
ATOM	9672	C A 461	93.122	62.830	19.865	1.00124.85	C	ATOM	9722	N1	A A 463	88.634	74.177	24.286	1.00 82.53	N
ATOM	9673	C A 461	92.599	61.549	19.348	1.00149.36	N	ATOM	9723	C2	A A 463	88.651	75.265	23.508	1.00 82.53	C
ATOM	9674	C A 461	93.456	60.431	19.312	1.00149.36	C	ATOM	9724	N3	A A 463	89.418	75.536	22.456	1.00 82.53	N
ATOM	9675	C A 461	94.639	60.557	19.672	1.00149.36	O	ATOM	9725	C4	A A 463	90.256	74.518	22.209	1.00 82.53	C
ATOM	9676	C A 461	92.971	59.245	18.887	1.00149.36	N	ATOM	9726	P	G A 474	96.002	77.063	21.249	1.00 64.69	P
ATOM	9677	C A 461	91.696	59.141	18.503	1.00149.36	C	ATOM	9727	O1P	G A 474	96.722	78.344	21.036	1.00102.32	O
ATOM	9678	C A 461	91.258	57.942	18.114	1.00149.36	N	ATOM	9728	O2P	G A 474	96.751	75.782	21.194	1.00102.32	O
ATOM	9679	C A 461	90.812	60.261	18.508	1.00149.36	C	ATOM	9729	O5*	G A 474	95.224	77.134	22.641	1.00 64.69	O
ATOM	9680	C A 461	91.300	61.434	18.932	1.00149.36	C	ATOM	9730	C5*	G A 474	94.342	78.235	22.950	1.00 64.69	C
ATOM	9681	P	94.587	67.079	20.577	1.00 84.12	P	ATOM	9731	C4*	G A 474	93.517	77.932	24.188	1.00 64.69	C
ATOM	9682	O1P	96.006	67.182	20.133	1.00 92.23	O	ATOM	9732	O4*	G A 474	92.553	76.880	23.910	1.00 64.69	O
ATOM	9683	O2P	94.231	67.476	21.965	1.00 92.23	O	ATOM	9733	C3*	G A 474	94.268	77.441	25.417	1.00 64.69	C
ATOM	9684	O5*	93.671	67.898	19.556	1.00 84.12	O	ATOM	9734	O3*	G A 474	94.819	78.495	26.190	1.00 64.69	O
ATOM	9685	C5*	94.070	68.081	18.182	1.00 84.12	C	ATOM	9735	C2*	G A 474	93.188	76.714	26.203	1.00 64.69	C
ATOM	9686	C4*	93.396	69.302	17.581	1.00 84.12	C	ATOM	9736	O2*	G A 474	92.439	77.593	27.004	1.00 64.69	O
ATOM	9687	O4*	91.955	69.118	17.589	1.00 84.12	O	ATOM	9737	C1*	G A 474	92.320	76.126	25.091	1.00 64.69	C
ATOM	9688	C3*	93.619	70.638	18.276	1.00 84.12	C	ATOM	9738	N9	G A 474	92.692	74.735	24.848	1.00102.32	N
ATOM	9689	O3*	94.815	71.275	17.851	1.00 84.12	O	ATOM	9739	C8	G A 474	93.507	74.250	23.854	1.00102.32	C
ATOM	9690	C2*	92.399	71.449	17.856	1.00 84.12	C	ATOM	9740	N7	G A 474	93.701	72.962	23.933	1.00102.32	N
ATOM	9691	O2*	92.567	72.088	16.604	1.00 84.12	O	ATOM	9741	C5	G A 474	92.958	72.570	25.037	1.00102.32	C
ATOM	9692	C1*	91.313	70.370	17.765	1.00 84.12	C	ATOM	9742	C6	G A 474	92.787	71.289	25.621	1.00102.32	C
ATOM	9693	N9	90.460	70.294	18.953	1.00 92.23	N	ATOM	9743	O6	G A 474	93.275	70.208	25.268	1.00102.32	O
ATOM	9694	C8	90.271	69.209	19.779	1.00 92.23	C	ATOM	9744	N1	G A 474	91.954	71.343	26.731	1.00102.32	N
ATOM	9695	N7	89.446	69.450	20.762	1.00 92.23	C	ATOM	9745	C2	G A 474	91.360	72.478	27.218	1.00102.32	C
ATOM	9696	C5	89.065	70.775	20.576	1.00 92.23	C	ATOM	9746	N2	G A 474	90.587	72.322	28.296	1.00102.32	N
ATOM	9697	C6	88.172	71.595	21.324	1.00 92.23	C	ATOM	9747	N3	G A 474	91.511	73.678	26.685	1.00102.32	N
ATOM	9698	O6	87.509	71.304	22.330	1.00 92.23	O	ATOM	9748	C4	G A 474	92.319	73.650	25.605	1.00102.32	C
ATOM	9699	N1	88.081	72.874	20.782	1.00 92.23	N	ATOM	9749	P	G A 475	95.851	78.150	27.381	1.00 88.30	P
ATOM	9700	C2	88.746	73.308	19.662	1.00 92.23	C	ATOM	9750	O1P	G A 475	96.227	79.443	28.016	1.00107.23	O
ATOM	9701	N2	88.523	74.575	19.295	1.00 92.23	N	ATOM	9751	O2P	G A 475	96.913	77.261	26.846	1.00107.23	O
ATOM	9702	N3	89.567	72.555	18.954	1.00 92.23	N	ATOM	9752	O5*	G A 475	94.996	77.288	28.417	1.00 88.30	O
ATOM	9703	C4	89.682	71.310	19.465	1.00 92.23	C	ATOM	9753	C5*	G A 475	94.142	77.915	29.395	1.00 88.30	C
ATOM	9704	P	95.599	72.241	18.967	1.00 66.31	P	ATOM	9754	C4*	G A 475	93.707	76.906	30.430	1.00 88.30	C
ATOM	9705	O1P	96.735	72.850	18.126	1.00 82.53	O	ATOM	9755	O4*	G A 475	92.951	75.859	29.778	1.00 88.30	O
ATOM	9706	O2P	95.857	71.500	20.131	1.00 82.53	O	ATOM	9756	C3*	G A 475	94.842	76.181	31.131	1.00 88.30	C
ATOM	9707	O5*	94.546	73.389	19.193	1.00 66.31	O	ATOM	9757	O3*	G A 475	95.303	76.901	32.257	1.00 88.30	O
ATOM	9708	C5*	94.255	74.426	18.238	1.00 66.31	C	ATOM	9758	C2*	G A 475	94.212	74.855	31.529	1.00 88.30	C
ATOM	9709	O4*	93.400	75.492	18.878	1.00 66.31	C	ATOM	9759	O2*	G A 475	93.462	74.944	32.723	1.00 88.30	O
ATOM	9710	C4*	92.069	74.973	19.109	1.00 66.31	O	ATOM	9760	C1*	G A 475	93.272	74.601	30.353	1.00 88.30	C
ATOM	9711	C3*	93.872	75.956	20.246	1.00 66.31	C	ATOM	9761	N9	G A 475	93.891	73.782	29.315	1.00107.23	N
ATOM	9712	O3*	94.838	76.980	20.153	1.00 66.31	O	ATOM	9762	C8	G A 475	94.283	74.209	28.070	1.00107.23	C
ATOM	9713	C2*	92.596	76.459	20.903	1.00 66.31	C	ATOM	9763	N7	G A 475	94.807	73.262	27.343	1.00107.23	N
ATOM	9714	O2*	92.309	77.803	20.604	1.00 66.31	O	ATOM	9764	C5	G A 475	94.763	72.139	28.156	1.00107.23	C
ATOM	9715	C1*	91.540	75.530	20.301	1.00 66.31	C	ATOM	9765	C6	G A 475	95.194	70.813	27.903	1.00107.23	C



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ATOM	9766	O6	G A 475	95.718	70.355	26.871	1.00107.23	O	ATOM	9816	N3	G A 477	101.168	66.545	32.950	1.00102.14	N
ATOM	9767	N1	G A 475	94.963	69.986	29.000	1.00107.23	N	ATOM	9817	C4	G A 477	100.931	67.867	33.052	1.00102.14	C
ATOM	9768	C2	G A 475	94.388	70.383	30.183	1.00107.23	C	ATOM	9818	P	A A 478	103.102	68.940	38.607	1.00 99.13	P
ATOM	9769	N2	G A 475	94.239	69.429	31.116	1.00107.23	N	ATOM	9819	OlP	A A 478	103.437	68.819	40.050	1.00114.68	O
ATOM	9770	N3	G A 475	93.985	71.621	30.432	1.00107.23	N	ATOM	9820	O2P	A A 478	103.465	70.181	37.872	1.00114.68	O
ATOM	9771	C4	G A 475	94.200	72.441	29.380	1.00107.23	C	ATOM	9821	O5*	A A 478	103.739	67.683	37.865	1.00 99.13	O
ATOM	9772	P	G A 476	96.765	76.595	32.844	1.00 91.51	P	ATOM	9822	C5*	A A 478	103.460	66.357	38.338	1.00 99.13	C
ATOM	9773	OlP	G A 476	97.038	77.597	33.907	1.00119.29	O	ATOM	9823	C4*	A A 478	104.036	65.321	37.405	1.00 99.13	C
ATOM	9774	O2P	G A 476	97.698	76.471	31.691	1.00119.29	O	ATOM	9824	O4*	A A 478	103.362	65.365	36.121	1.00 99.13	O
ATOM	9775	O5*	G A 476	96.620	75.169	33.538	1.00 91.51	O	ATOM	9825	C3*	A A 478	105.504	65.466	37.062	1.00 99.13	C
ATOM	9776	C5*	G A 476	95.857	75.014	34.740	1.00 91.51	C	ATOM	9826	C3*	A A 478	106.350	64.946	38.070	1.00 99.13	O
ATOM	9777	C4*	G A 476	95.847	73.571	35.171	1.00 91.51	C	ATOM	9827	O2*	A A 478	105.610	64.692	35.757	1.00 99.13	C
ATOM	9778	O4*	G A 476	95.240	72.769	34.123	1.00 91.51	O	ATOM	9828	O2*	A A 478	105.697	63.295	35.956	1.00 99.13	O
ATOM	9779	C3*	G A 476	97.208	72.927	35.387	1.00 91.51	C	ATOM	9829	C1*	A A 478	104.277	65.030	35.092	1.00 99.13	C
ATOM	9780	O3*	G A 476	97.761	73.180	36.668	1.00 91.51	O	ATOM	9830	N9	A A 478	104.412	66.182	34.200	1.00114.68	N
ATOM	9781	C2*	G A 476	96.907	71.449	35.191	1.00 91.51	C	ATOM	9831	C8	A A 478	104.000	67.477	34.413	1.00114.68	C
ATOM	9782	O2*	G A 476	96.368	70.838	36.351	1.00 91.51	O	ATOM	9832	N7	A A 478	104.286	68.290	33.426	1.00114.68	N
ATOM	9783	C1*	G A 476	95.868	71.498	34.070	1.00 91.51	C	ATOM	9833	C5	A A 478	104.925	67.477	32.499	1.00114.68	C
ATOM	9784	N9	G A 476	96.517	71.354	32.771	1.00119.29	N	ATOM	9834	C6	A A 478	105.477	67.739	31.234	1.00114.68	C
ATOM	9785	C8	G A 476	96.715	72.329	31.824	1.00119.29	C	ATOM	9835	N6	A A 478	105.466	68.943	30.657	1.00114.68	N
ATOM	9786	N7	G A 476	97.371	71.901	30.779	1.00119.29	N	ATOM	9836	N1	A A 478	106.047	66.709	31.533	1.00114.68	N
ATOM	9787	C5	G A 476	97.611	70.562	31.049	1.00119.29	C	ATOM	9837	C2	A A 478	105.566	65.132	32.330	1.00114.68	C
ATOM	9788	C6	G A 476	98.287	69.582	30.285	1.00119.29	C	ATOM	9838	N3	A A 478	105.008	66.177	32.962	1.00114.68	C
ATOM	9789	O6	G A 476	98.832	69.708	29.183	1.00119.29	O	ATOM	9839	C4	A A 478	107.850	65.502	38.194	1.00 92.39	P
ATOM	9790	N1	G A 476	98.299	68.348	30.930	1.00119.29	N	ATOM	9840	OlP	C A 479	108.443	64.909	39.419	1.00 86.33	O
ATOM	9791	C2	G A 476	97.734	68.093	32.154	1.00119.29	C	ATOM	9841	O2P	C A 479	107.825	66.989	38.029	1.00 86.33	O
ATOM	9792	N2	G A 476	97.848	66.839	32.612	1.00119.29	N	ATOM	9842	O5*	C A 479	108.587	64.834	36.954	1.00 92.39	O
ATOM	9793	N3	G A 476	97.103	69.002	32.878	1.00119.29	N	ATOM	9843	C5*	C A 479	108.574	63.408	36.806	1.00 92.39	C
ATOM	9794	C4	G A 476	97.080	70.206	32.269	1.00119.29	C	ATOM	9844	C5*	C A 479	109.408	62.986	35.625	1.00 92.39	C
ATOM	9795	P	G A 477	99.343	72.997	36.892	1.00100.24	P	ATOM	9845	C4*	C A 479	108.713	63.258	34.382	1.00 92.39	C
ATOM	9796	OlP	G A 477	99.632	73.336	38.311	1.00102.14	O	ATOM	9846	O4*	C A 479	110.736	63.695	35.473	1.00 92.39	O
ATOM	9797	O2P	G A 477	100.067	73.707	35.805	1.00102.14	O	ATOM	9847	C3*	C A 479	111.730	63.180	36.329	1.00 92.39	O
ATOM	9798	O5*	G A 477	99.577	71.437	36.700	1.00100.24	O	ATOM	9848	O3*	C A 479	111.046	63.482	34.002	1.00 92.39	C
ATOM	9799	C5*	G A 477	98.966	70.504	37.593	1.00100.24	C	ATOM	9849	O2*	C A 479	111.562	62.192	33.750	1.00 92.39	O
ATOM	9800	C4*	G A 477	99.407	69.104	37.268	1.00100.24	C	ATOM	9850	C2*	C A 479	109.654	63.602	33.379	1.00 92.39	C
ATOM	9801	O4*	G A 477	98.911	68.725	35.958	1.00100.24	O	ATOM	9851	C1*	C A 479	109.383	64.982	32.919	1.00 86.33	N
ATOM	9802	C3*	G A 477	100.906	68.880	37.181	1.00100.24	C	ATOM	9852	N1	C A 479	109.563	65.290	31.568	1.00 86.33	C
ATOM	9803	O3*	G A 477	101.518	68.701	38.451	1.00100.24	O	ATOM	9853	C2	C A 479	109.913	64.394	30.786	1.00 86.33	O
ATOM	9804	C2*	G A 477	100.996	67.635	36.311	1.00100.24	C	ATOM	9854	O2	C A 479	109.354	66.555	31.147	1.00 86.33	N
ATOM	9805	O2*	G A 477	100.778	66.445	37.042	1.00100.24	O	ATOM	9855	N3	C A 479	108.976	67.491	32.013	1.00 86.33	C
ATOM	9806	C1*	G A 477	99.843	67.860	35.331	1.00100.24	C	ATOM	9856	C4	C A 479	108.787	68.726	31.550	1.00 86.33	N
ATOM	9807	N9	G A 477	100.323	68.497	34.109	1.00102.14	N	ATOM	9857	N4	C A 479	108.774	67.205	33.388	1.00 86.33	C
ATOM	9808	C8	G A 477	100.285	69.834	33.794	1.00102.14	C	ATOM	9858	C5	C A 479	108.983	65.951	33.795	1.00 86.33	C
ATOM	9809	N7	G A 477	100.831	70.103	32.640	1.00102.14	N	ATOM	9859	C6	C A 479	112.859	64.173	36.889	1.00 84.60	P
ATOM	9810	C5	G A 477	101.246	68.869	32.162	1.00102.14	C	ATOM	9860	P	U A 480	113.716	63.403	37.833	1.00 85.12	O
ATOM	9811	C6	G A 477	101.911	68.530	30.961	1.00102.14	C	ATOM	9861	OlP	U A 480	112.197	65.428	37.345	1.00 85.12	O
ATOM	9812	O6	G A 477	102.283	69.279	30.047	1.00102.14	O	ATOM	9862	O2P	U A 480	113.727	64.495	35.589	1.00 84.60	O
ATOM	9813	N1	G A 477	102.144	67.162	30.876	1.00102.14	N	ATOM	9863	O5*	U A 480	114.335	63.424	34.836	1.00 84.60	C
ATOM	9814	C2	G A 477	101.789	66.241	31.827	1.00102.14	C	ATOM	9864	C5*	U A 480	114.856	63.924	33.509	1.00 84.60	C
ATOM	9815	N2	G A 477	102.109	64.969	31.566	1.00102.14	N	ATOM	9865	C4*	U A 480					



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ATOM	9866	O4*	U A 480	113.761	64.409	32.695	1.00	84.60	O	ATOM	9916	C8	A A 482	124.675	67.646	30.495	1.00	62.64	C
ATOM	9867	C3*	U A 480	115.831	65.093	33.554	1.00	84.60	C	ATOM	9917	N7	A A 482	123.994	68.748	30.355	1.00	62.64	N
ATOM	9868	O3*	U A 480	117.147	64.642	33.792	1.00	84.60	O	ATOM	9918	C5	A A 482	124.727	69.483	29.451	1.00	62.64	C
ATOM	9869	O2*	U A 480	115.700	65.674	32.161	1.00	84.60	C	ATOM	9919	C6	A A 482	124.538	70.751	28.920	1.00	62.64	C
ATOM	9870	C2*	U A 480	116.450	64.953	31.210	1.00	84.60	O	ATOM	9920	N6	A A 482	123.503	71.532	29.234	1.00	62.64	N
ATOM	9871	C1*	U A 480	114.215	65.470	31.876	1.00	84.60	C	ATOM	9921	N1	A A 482	125.456	71.204	28.050	1.00	62.64	N
ATOM	9872	N1	U A 480	113.433	66.677	32.179	1.00	85.12	N	ATOM	9922	C2	A A 482	126.494	70.415	27.748	1.00	62.64	C
ATOM	9873	C2	U A 480	113.178	67.548	31.138	1.00	85.12	C	ATOM	9923	N3	A A 482	126.781	69.200	28.190	1.00	62.64	N
ATOM	9874	O2	U A 480	113.539	67.337	29.993	1.00	85.12	O	ATOM	9924	C4	A A 482	125.847	68.787	29.054	1.00	62.64	C
ATOM	9875	N3	U A 480	112.479	68.676	31.483	1.00	85.12	N	ATOM	9925	P	C A 483	129.660	67.148	33.692	1.00	62.06	P
ATOM	9876	C4	U A 480	112.010	69.010	32.731	1.00	85.12	C	ATOM	9926	O1P	C A 483	130.991	66.630	34.101	1.00	68.14	O
ATOM	9877	O4	U A 480	111.403	70.070	32.882	1.00	85.12	O	ATOM	9927	O2P	C A 483	128.549	67.206	34.686	1.00	68.14	O
ATOM	9878	C5	U A 480	112.298	68.053	33.752	1.00	85.12	C	ATOM	9928	O5*	C A 483	129.863	68.595	33.057	1.00	62.06	O
ATOM	9879	C6	U A 480	112.982	66.947	33.450	1.00	85.12	C	ATOM	9929	C5*	C A 483	130.770	68.803	31.955	1.00	62.06	C
ATOM	9880	P	G A 481	117.998	65.316	34.963	1.00	85.85	P	ATOM	9930	C4*	C A 483	130.508	70.140	31.295	1.00	62.06	C
ATOM	9881	O1P	G A 481	117.727	64.554	36.198	1.00	100.46	O	ATOM	9931	O4*	C A 483	129.188	70.139	30.700	1.00	62.06	O
ATOM	9882	O2P	G A 481	117.781	66.778	34.947	1.00	100.46	O	ATOM	9932	C3*	C A 483	130.531	71.344	32.221	1.00	62.06	C
ATOM	9883	O5*	G A 481	119.494	65.008	34.553	1.00	85.85	O	ATOM	9933	C3*	C A 483	131.853	71.841	32.352	1.00	62.06	O
ATOM	9884	C5*	G A 481	120.505	66.009	34.671	1.00	85.85	C	ATOM	9934	O2*	C A 483	129.636	72.342	31.503	1.00	62.06	C
ATOM	9885	C4*	G A 481	120.783	66.603	33.320	1.00	85.85	C	ATOM	9935	O2*	C A 483	130.325	73.090	30.517	1.00	62.06	O
ATOM	9886	O4*	G A 481	119.735	67.531	32.952	1.00	85.85	O	ATOM	9936	C1*	C A 483	128.610	71.423	30.834	1.00	62.06	C
ATOM	9887	C3*	G A 481	122.053	67.414	33.227	1.00	85.85	C	ATOM	9937	N1	C A 483	127.361	71.297	31.605	1.00	68.14	N
ATOM	9888	O3*	G A 481	123.100	66.525	32.904	1.00	85.85	O	ATOM	9938	C2	C A 483	126.398	72.304	31.489	1.00	68.14	C
ATOM	9889	C2*	G A 481	121.774	68.312	32.032	1.00	85.85	C	ATOM	9939	O2	C A 483	126.618	73.259	30.736	1.00	68.14	O
ATOM	9890	O2*	G A 481	121.901	67.599	30.819	1.00	85.85	O	ATOM	9940	N3	C A 483	125.253	72.210	32.202	1.00	68.14	N
ATOM	9891	C1*	G A 481	120.285	68.574	32.168	1.00	85.85	C	ATOM	9941	C4	C A 483	125.050	71.163	33.003	1.00	68.14	C
ATOM	9892	N9	G A 481	119.953	69.860	32.766	1.00	100.46	N	ATOM	9942	N4	C A 483	123.911	71.121	33.694	1.00	68.14	N
ATOM	9893	C8	G A 481	120.086	70.228	34.079	1.00	100.46	C	ATOM	9943	C5	C A 483	126.007	70.116	33.133	1.00	68.14	C
ATOM	9894	N7	G A 481	119.575	71.402	34.332	1.00	100.46	N	ATOM	9944	C6	C A 483	127.137	70.222	32.423	1.00	68.14	C
ATOM	9895	C5	G A 481	119.100	71.845	33.104	1.00	100.46	C	ATOM	9945	P	G A 484	132.343	72.448	33.753	1.00	79.56	P
ATOM	9896	C6	G A 481	118.400	73.039	32.754	1.00	100.46	C	ATOM	9946	O1P	G A 484	131.591	73.706	33.972	1.00	76.53	O
ATOM	9897	O6	G A 481	118.009	73.964	33.497	1.00	100.46	O	ATOM	9947	O2P	G A 484	133.823	72.473	33.735	1.00	76.53	O
ATOM	9898	N1	G A 481	118.142	73.092	31.389	1.00	100.46	N	ATOM	9948	O5*	G A 484	131.857	71.361	34.811	1.00	79.56	O
ATOM	9899	C2	G A 481	118.490	72.125	30.486	1.00	100.46	C	ATOM	9949	C5*	G A 484	132.170	71.467	36.218	1.00	79.56	C
ATOM	9900	N2	G A 481	118.171	72.369	29.221	1.00	100.46	N	ATOM	9950	C4*	G A 484	130.933	71.189	37.036	1.00	79.56	C
ATOM	9901	N3	G A 481	119.106	71.002	30.800	1.00	100.46	N	ATOM	9951	O4*	G A 484	130.038	72.306	36.874	1.00	79.56	O
ATOM	9902	C4	G A 481	119.375	70.926	32.118	1.00	100.46	C	ATOM	9952	C3*	G A 484	130.137	69.971	36.581	1.00	79.56	C
ATOM	9903	P	A A 482	124.083	66.008	34.048	1.00	58.19	P	ATOM	9953	O3*	G A 484	130.653	68.718	37.107	1.00	79.56	O
ATOM	9904	O1P	A A 482	123.734	64.583	34.257	1.00	62.64	O	ATOM	9954	C2*	G A 484	128.665	70.326	36.820	1.00	79.56	C
ATOM	9905	O2P	A A 482	124.014	66.964	35.190	1.00	62.64	O	ATOM	9955	O2*	G A 484	128.061	69.769	37.965	1.00	79.56	O
ATOM	9906	O5*	A A 482	125.529	66.109	33.378	1.00	58.19	O	ATOM	9956	C1*	G A 484	128.702	71.856	36.934	1.00	79.56	C
ATOM	9907	C5*	A A 482	126.231	64.941	32.921	1.00	58.19	C	ATOM	9957	N9	G A 484	127.902	72.644	36.001	1.00	76.53	N
ATOM	9908	C4*	A A 482	127.091	65.280	31.726	1.00	58.19	C	ATOM	9958	C8	G A 484	128.326	73.223	34.832	1.00	76.53	C
ATOM	9909	O3*	A A 482	126.258	65.485	30.561	1.00	58.19	O	ATOM	9959	N7	G A 484	127.389	73.901	34.227	1.00	76.53	N
ATOM	9910	C3*	A A 482	127.920	66.543	31.853	1.00	58.19	C	ATOM	9960	C5	G A 484	126.273	73.755	35.042	1.00	76.53	C
ATOM	9911	O3*	A A 482	129.155	66.251	32.469	1.00	58.19	O	ATOM	9961	C6	G A 484	124.956	74.267	34.898	1.00	76.53	C
ATOM	9912	C2*	A A 482	128.116	66.967	30.404	1.00	58.19	C	ATOM	9962	O6	G A 484	124.503	74.979	34.004	1.00	76.53	O
ATOM	9913	O2*	A A 482	129.188	66.301	29.769	1.00	58.19	O	ATOM	9963	N1	G A 484	124.136	73.873	35.944	1.00	76.53	N
ATOM	9914	C1*	A A 482	126.796	66.526	29.765	1.00	58.19	C	ATOM	9964	C2	G A 484	124.528	73.094	37.000	1.00	76.53	C
ATOM	9915	N9	A A 482	125.816	67.606	29.755	1.00	62.64	N	ATOM	9965	N2	G A 484	123.582	72.826	37.913	1.00	76.53	N



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ATOM	9966	N3	G A 484	125.754	72.614	37.152	1.00	76.53	N	ATOM	10016	C4*	A A 487	131.234	80.941	35.875	1.00	80.86	C
ATOM	9967	C4	G A 484	126.569	72.980	36.139	1.00	76.53	C	ATOM	10017	O4*	A A 487	130.051	80.113	35.930	1.00	80.86	O
ATOM	9968	P	G A 485	130.682	68.404	38.704	1.00	80.57	P	ATOM	10018	C3*	A A 487	130.858	82.190	36.650	1.00	80.86	O
ATOM	9969	O1P	G A 485	131.574	67.236	38.839	1.00	85.98	O	ATOM	10019	O3*	A A 487	131.624	83.306	36.236	1.00	80.86	C
ATOM	9970	O2P	G A 485	129.319	68.342	39.289	1.00	85.98	O	ATOM	10020	C2*	A A 487	129.385	82.365	36.313	1.00	80.86	C
ATOM	9971	O5*	G A 485	131.491	69.611	39.355	1.00	80.57	O	ATOM	10021	O2*	A A 487	129.191	83.012	35.072	1.00	80.86	O
ATOM	9972	C5*	G A 485	131.410	69.906	40.774	1.00	80.57	C	ATOM	10022	C1*	A A 487	128.920	80.914	36.208	1.00	80.86	C
ATOM	9973	C4*	G A 485	130.721	71.232	40.963	1.00	80.57	C	ATOM	10023	N9	A A 487	128.293	80.410	37.428	1.00	73.57	N
ATOM	9974	O4*	G A 485	129.325	71.002	41.252	1.00	80.57	O	ATOM	10024	C8	A A 487	128.813	79.572	38.383	1.00	73.57	C
ATOM	9975	C3*	G A 485	131.157	72.180	42.076	1.00	80.57	C	ATOM	10025	N7	A A 487	127.970	79.278	39.339	1.00	73.57	N
ATOM	9976	O3*	G A 485	132.364	72.859	41.679	1.00	80.57	O	ATOM	10026	C5	A A 487	126.821	79.972	38.993	1.00	73.57	C
ATOM	9977	C2*	G A 485	129.944	73.099	42.202	1.00	80.57	C	ATOM	10027	C6	A A 487	125.555	80.061	39.587	1.00	73.57	C
ATOM	9978	O2*	G A 485	129.968	74.153	41.262	1.00	80.57	O	ATOM	10028	N6	A A 487	125.204	79.403	40.694	1.00	73.57	N
ATOM	9979	C1*	G A 485	128.793	72.180	41.803	1.00	80.57	C	ATOM	10029	N1	A A 487	124.639	80.851	38.994	1.00	73.57	N
ATOM	9980	N9	G A 485	127.857	71.869	42.873	1.00	85.98	N	ATOM	10030	C2	A A 487	124.978	81.490	37.874	1.00	73.57	C
ATOM	9981	C8	G A 485	128.015	71.018	43.937	1.00	85.98	C	ATOM	10031	N3	A A 487	126.126	81.473	37.210	1.00	73.57	N
ATOM	9982	N7	G A 485	126.968	70.982	44.716	1.00	85.98	N	ATOM	10032	C4	A A 487	127.015	80.886	37.830	1.00	73.57	C
ATOM	9983	C5	G A 485	126.074	71.863	44.126	1.00	85.98	C	ATOM	10033	P	C A 488	132.037	84.420	37.310	1.00	70.03	P
ATOM	9984	C6	G A 485	124.763	72.248	44.511	1.00	85.98	C	ATOM	10034	O1P	C A 488	132.577	85.569	36.544	1.00	81.65	O
ATOM	9985	O6	G A 485	124.103	71.875	45.491	1.00	85.98	O	ATOM	10035	O2P	C A 488	132.881	83.777	38.353	1.00	81.65	O
ATOM	9986	N1	G A 485	124.220	73.170	43.617	1.00	85.98	N	ATOM	10036	O5*	C A 488	130.642	84.849	37.950	1.00	70.03	O
ATOM	9987	C2	G A 485	124.858	73.656	42.501	1.00	85.98	C	ATOM	10037	C5*	C A 488	129.679	85.608	37.195	1.00	70.03	C
ATOM	9988	N2	G A 485	124.186	74.537	41.751	1.00	85.98	N	ATOM	10038	C4*	C A 488	128.373	85.707	37.955	1.00	70.03	C
ATOM	9989	N3	G A 485	126.070	73.304	42.141	1.00	85.98	N	ATOM	10039	O4*	C A 488	127.777	84.386	38.050	1.00	70.03	O
ATOM	9990	C4	G A 485	126.613	72.413	42.990	1.00	85.98	C	ATOM	10040	C3*	C A 488	128.481	86.180	39.401	1.00	70.03	C
ATOM	9991	P	U A 486	132.551	74.461	41.886	1.00	85.65	P	ATOM	10041	O3*	C A 488	128.506	87.592	39.552	1.00	70.03	O
ATOM	9992	O1P	U A 486	133.996	74.651	42.179	1.00	72.74	O	ATOM	10042	C2*	C A 488	127.249	85.567	40.049	1.00	70.03	O
ATOM	9993	O2P	U A 486	131.547	75.072	42.799	1.00	72.74	O	ATOM	10043	O2*	C A 488	126.081	86.327	39.828	1.00	70.03	C
ATOM	9994	O5*	U A 486	132.323	75.035	40.417	1.00	85.65	O	ATOM	10044	C1*	C A 488	127.155	84.229	39.319	1.00	70.03	C
ATOM	9995	C5*	U A 486	133.299	74.775	39.389	1.00	85.65	C	ATOM	10045	N1	C A 488	127.875	83.182	40.070	1.00	81.65	N
ATOM	9996	C4*	U A 486	132.859	75.355	38.070	1.00	85.65	C	ATOM	10046	C2	C A 488	127.220	82.525	41.116	1.00	81.65	C
ATOM	9997	O4*	U A 486	131.733	74.611	37.549	1.00	85.65	O	ATOM	10047	O2	C A 488	126.043	82.827	41.375	1.00	81.65	O
ATOM	9998	C3*	U A 486	132.391	76.797	38.096	1.00	85.65	C	ATOM	10048	N3	C A 488	127.887	81.581	41.819	1.00	81.65	N
ATOM	9999	O3*	U A 486	133.486	77.702	38.041	1.00	85.65	O	ATOM	10049	C4	C A 488	129.151	81.286	41.508	1.00	81.65	C
ATOM	10000	C2*	U A 486	131.503	76.882	36.862	1.00	85.65	C	ATOM	10050	N4	C A 488	129.771	80.348	42.217	1.00	81.65	N
ATOM	10001	O2*	U A 486	132.223	77.102	35.665	1.00	85.65	O	ATOM	10051	C5	C A 488	129.838	81.938	40.453	1.00	81.65	C
ATOM	10002	C1*	U A 486	130.890	75.483	36.824	1.00	85.65	C	ATOM	10052	C6	C A 488	129.170	82.866	39.763	1.00	81.65	C
ATOM	10003	N1	U A 486	129.553	75.448	37.425	1.00	72.74	N	ATOM	10053	P	C A 489	129.116	88.223	40.894	1.00	76.69	P
ATOM	10004	C2	U A 486	128.524	76.007	36.707	1.00	72.74	C	ATOM	10054	O1P	C A 489	129.046	89.700	40.778	1.00	80.69	O
ATOM	10005	O2	U A 486	128.688	76.513	35.616	1.00	72.74	O	ATOM	10055	O2P	C A 489	130.421	87.572	41.165	1.00	80.69	O
ATOM	10006	N3	U A 486	127.297	75.952	37.314	1.00	72.74	N	ATOM	10056	O5*	C A 489	128.089	87.764	42.019	1.00	76.69	O
ATOM	10007	C4	U A 486	127.008	75.406	38.541	1.00	72.74	C	ATOM	10057	C5*	C A 489	126.759	88.307	42.068	1.00	76.69	C
ATOM	10008	O4	U A 486	125.855	75.423	38.952	1.00	72.74	O	ATOM	10058	C4*	C A 489	126.081	87.909	43.356	1.00	76.69	C
ATOM	10009	C5	U A 486	128.123	74.848	39.221	1.00	72.74	C	ATOM	10059	O4*	C A 489	125.814	86.480	43.340	1.00	76.69	O
ATOM	10010	C6	U A 486	129.330	74.886	38.654	1.00	72.74	C	ATOM	10060	C3*	C A 489	126.907	88.122	44.615	1.00	76.69	C
ATOM	10011	P	A A 487	133.326	79.173	38.668	1.00	80.86	P	ATOM	10061	O3*	C A 489	126.866	89.450	45.119	1.00	76.69	O
ATOM	10012	O1P	A A 487	134.586	79.919	38.415	1.00	73.57	O	ATOM	10062	C2*	C A 489	126.304	87.112	45.582	1.00	76.69	C
ATOM	10013	O2P	A A 487	132.820	79.034	40.067	1.00	73.57	O	ATOM	10063	O2*	C A 489	125.123	87.588	46.202	1.00	76.69	O
ATOM	10014	O5*	A A 487	132.172	79.827	37.787	1.00	80.86	O	ATOM	10064	C1*	C A 489	125.990	85.945	44.645	1.00	76.69	C
ATOM	10015	C5*	A A 487	132.402	80.165	36.417	1.00	80.86	C	ATOM	10065	N1	C A 489	127.109	84.984	44.613	1.00	80.69	N



Table 2: Sheet 102/520

ATOM	10066	C2	C A 489	127.261	84.081	45.676	1.00	80.69	C	ATOM	10116	N2	G A 491	135.604	82.811	53.463	1.00	108.87	N
ATOM	10067	O2	C A 489	126.428	84.086	46.597	1.00	80.69	O	ATOM	10117	N3	G A 491	133.810	84.245	53.363	1.00	108.87	N
ATOM	10068	N3	C A 489	128.311	83.227	45.673	1.00	80.69	N	ATOM	10118	C4	G A 491	133.066	84.957	52.494	1.00	108.87	C
ATOM	10069	C4	C A 489	129.193	83.247	44.664	1.00	80.69	C	ATOM	10119	P	G A 492	133.828	89.957	55.553	1.00	74.31	P
ATOM	10070	N4	C A 489	130.216	82.400	44.708	1.00	80.69	N	ATOM	10120	O1P	G A 492	133.988	90.822	56.753	1.00	110.36	O
ATOM	10071	C5	C A 489	129.041	84.138	43.563	1.00	80.69	C	ATOM	10121	O2P	G A 492	133.927	90.559	54.196	1.00	110.36	O
ATOM	10072	C6	C A 489	128.001	84.980	43.577	1.00	80.69	C	ATOM	10122	O5*	G A 492	134.900	88.785	55.662	1.00	74.31	O
ATOM	10073	P	G A 490	128.072	89.976	46.048	1.00	80.94	P	ATOM	10123	C5*	G A 492	135.000	88.020	56.858	1.00	74.31	C
ATOM	10074	O1P	G A 490	127.844	91.424	46.293	1.00	90.25	O	ATOM	10124	C4*	G A 492	136.029	86.937	56.705	1.00	74.31	C
ATOM	10075	O2P	G A 490	129.377	89.522	45.502	1.00	90.25	O	ATOM	10125	O4*	G A 492	135.648	86.035	55.637	1.00	74.31	O
ATOM	10076	O5*	G A 490	127.859	89.190	47.411	1.00	80.94	O	ATOM	10126	C3*	G A 492	137.422	87.395	56.327	1.00	74.31	C
ATOM	10077	C5*	G A 490	126.750	89.487	48.267	1.00	80.94	C	ATOM	10127	O3*	G A 492	138.160	87.832	57.449	1.00	74.31	O
ATOM	10078	C4*	G A 490	126.864	88.686	49.531	1.00	80.94	C	ATOM	10128	C2*	G A 492	138.027	86.140	55.716	1.00	74.31	C
ATOM	10079	O4*	G A 490	126.762	87.278	49.192	1.00	80.94	O	ATOM	10129	O2*	G A 492	138.515	85.245	56.694	1.00	74.31	O
ATOM	10080	C3*	G A 490	128.205	88.801	50.239	1.00	80.94	C	ATOM	10130	C1*	G A 492	136.817	85.523	55.016	1.00	74.31	C
ATOM	10081	O3*	G A 490	128.310	89.927	51.092	1.00	80.94	O	ATOM	10131	N9	G A 492	136.788	85.853	53.594	1.00	110.36	N
ATOM	10082	C2*	G A 490	128.292	87.491	51.006	1.00	80.94	C	ATOM	10132	C8	G A 492	135.918	86.696	52.945	1.00	110.36	C
ATOM	10083	O2*	G A 490	127.590	87.541	52.233	1.00	80.94	O	ATOM	10133	N7	G A 492	136.155	86.789	51.665	1.00	110.36	N
ATOM	10084	C1*	G A 490	127.620	86.520	50.031	1.00	80.94	C	ATOM	10134	C5	G A 492	137.247	85.958	51.455	1.00	110.36	C
ATOM	10085	N9	G A 490	128.614	85.847	49.199	1.00	90.25	N	ATOM	10135	C6	G A 492	137.954	85.654	50.265	1.00	110.36	C
ATOM	10086	C8	G A 490	128.952	86.140	47.900	1.00	90.25	C	ATOM	10136	O6	G A 492	137.749	86.068	49.120	1.00	110.36	O
ATOM	10087	N7	G A 490	129.938	85.410	47.452	1.00	90.25	N	ATOM	10137	N1	G A 492	138.996	84.768	50.506	1.00	110.36	N
ATOM	10088	C5	G A 490	130.259	84.574	48.513	1.00	90.25	C	ATOM	10138	C2	G A 492	139.316	84.238	51.730	1.00	110.36	C
ATOM	10089	C6	G A 490	131.265	83.577	48.630	1.00	90.25	C	ATOM	10139	N2	G A 492	140.352	83.394	51.757	1.00	110.36	N
ATOM	10090	O6	G A 490	132.109	83.233	47.800	1.00	90.25	O	ATOM	10140	N3	G A 492	138.666	84.514	52.845	1.00	110.36	N
ATOM	10091	N1	G A 490	131.234	82.964	47.875	1.00	90.25	N	ATOM	10141	C4	G A 492	137.650	85.374	52.635	1.00	110.36	C
ATOM	10092	C2	G A 490	130.358	83.273	50.886	1.00	90.25	C	ATOM	10142	P	G A 494	139.251	88.991	57.265	1.00	73.00	P
ATOM	10093	N2	G A 490	130.490	82.566	52.020	1.00	90.25	N	ATOM	10143	O1P	G A 494	139.987	89.130	58.555	1.00	91.06	O
ATOM	10094	N3	G A 490	129.425	84.206	50.795	1.00	90.25	N	ATOM	10144	O2P	G A 494	138.541	90.168	56.693	1.00	91.06	O
ATOM	10095	C4	G A 490	129.434	84.814	49.589	1.00	90.25	C	ATOM	10145	O5*	G A 494	140.259	88.401	56.177	1.00	73.00	O
ATOM	10096	P	G A 491	129.767	90.433	51.549	1.00	69.35	P	ATOM	10146	C5*	G A 494	141.217	87.381	56.528	1.00	73.00	C
ATOM	10097	O1P	G A 491	129.571	91.673	52.343	1.00	108.87	O	ATOM	10147	C4*	G A 494	142.076	87.024	55.334	1.00	73.00	C
ATOM	10098	O2P	G A 491	130.658	90.455	50.364	1.00	108.87	O	ATOM	10148	O4*	G A 494	141.246	86.425	54.305	1.00	73.00	O
ATOM	10099	O5*	G A 491	130.292	89.290	52.530	1.00	69.35	O	ATOM	10149	C3*	G A 494	142.775	88.186	54.644	1.00	73.00	C
ATOM	10100	C5*	G A 491	129.726	89.138	53.847	1.00	69.35	C	ATOM	10150	O3*	G A 494	144.018	88.507	55.256	1.00	73.00	O
ATOM	10101	C4*	G A 491	130.494	88.112	54.638	1.00	69.35	C	ATOM	10151	C2*	G A 494	142.959	87.667	53.226	1.00	73.00	C
ATOM	10102	O4*	G A 491	130.306	86.804	54.044	1.00	69.35	O	ATOM	10152	O2*	G A 494	144.091	86.827	53.115	1.00	73.00	O
ATOM	10103	C3*	G A 491	131.999	88.303	54.676	1.00	69.35	C	ATOM	10153	C1*	G A 494	141.677	86.857	53.026	1.00	73.00	C
ATOM	10104	O3*	G A 491	132.405	89.213	55.683	1.00	69.35	O	ATOM	10154	N9	G A 494	140.614	87.687	52.473	1.00	91.06	N
ATOM	10105	C2*	G A 491	132.506	86.893	54.943	1.00	69.35	C	ATOM	10155	C8	G A 494	139.668	88.379	53.189	1.00	91.06	C
ATOM	10106	O2*	G A 491	132.447	86.531	56.304	1.00	69.35	O	ATOM	10156	N7	G A 494	138.859	89.070	52.438	1.00	91.06	N
ATOM	10107	C1*	G A 491	131.502	86.050	54.158	1.00	69.35	C	ATOM	10157	C5	G A 494	139.290	88.817	51.144	1.00	91.06	C
ATOM	10108	N9	G A 491	132.005	85.773	52.816	1.00	108.87	N	ATOM	10158	C6	G A 494	138.800	89.298	49.906	1.00	91.06	C
ATOM	10109	C8	G A 491	131.543	86.291	51.630	1.00	108.87	C	ATOM	10159	O6	G A 494	137.864	90.080	49.698	1.00	91.06	O
ATOM	10110	N7	G A 491	132.227	85.889	50.594	1.00	108.87	N	ATOM	10160	N1	G A 494	139.519	88.782	48.839	1.00	91.06	N
ATOM	10111	C5	G A 491	133.196	85.050	51.126	1.00	108.87	C	ATOM	10161	C2	G A 494	140.576	87.921	48.942	1.00	91.06	C
ATOM	10112	C6	G A 491	134.234	84.330	50.488	1.00	108.87	C	ATOM	10162	N2	G A 494	141.125	87.536	47.785	1.00	91.06	N
ATOM	10113	O6	G A 491	134.520	84.290	49.284	1.00	108.87	O	ATOM	10163	N3	G A 494	141.055	87.470	50.092	1.00	91.06	N
ATOM	10114	N1	G A 491	134.985	83.604	51.402	1.00	108.87	N	ATOM	10164	C4	G A 494	140.367	87.955	51.146	1.00	91.06	C
ATOM	10115	C2	G A 491	134.770	83.575	52.753	1.00	108.87	C	ATOM	10165	P	U A 495	144.818	89.827	54.791	1.00	78.59	P



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ATOM	10166	O1P	U A 495	145.368	90.544	55.977	1.00	76.76	O	ATOM	10216	C2*	A A 497	152.128	89.645	44.479	1.00	83.13	C
ATOM	10167	O2P	U A 495	143.944	90.561	53.841	1.00	76.76	O	ATOM	10217	O2*	A A 497	152.029	89.011	43.223	1.00	83.13	O
ATOM	10168	O5*	U A 495	146.058	89.225	54.002	1.00	78.59	O	ATOM	10218	C1*	A A 497	151.164	89.004	45.486	1.00	83.13	C
ATOM	10169	C5*	U A 495	146.944	88.298	54.641	1.00	78.59	C	ATOM	10219	N9	A A 497	150.018	89.790	45.948	1.00	88.07	N
ATOM	10170	C4*	U A 495	147.915	87.737	53.638	1.00	78.59	C	ATOM	10220	C8	A A 497	149.760	90.226	47.224	1.00	88.07	C
ATOM	10171	O4*	U A 495	147.198	86.943	52.661	1.00	78.59	O	ATOM	10221	N7	A A 497	148.611	90.842	47.349	1.00	88.07	N
ATOM	10172	C3*	U A 495	148.657	88.780	52.824	1.00	78.59	C	ATOM	10222	C5	A A 497	148.081	90.827	46.066	1.00	88.07	C
ATOM	10173	O3*	U A 495	149.800	89.227	53.520	1.00	78.59	O	ATOM	10223	C6	A A 497	146.875	91.320	45.531	1.00	88.07	C
ATOM	10174	C2*	U A 495	149.002	88.027	51.547	1.00	78.59	C	ATOM	10224	N6	A A 497	145.936	91.927	46.255	1.00	88.07	N
ATOM	10175	O2*	U A 495	150.154	87.220	51.665	1.00	78.59	O	ATOM	10225	N1	A A 497	146.661	91.161	44.211	1.00	88.07	N
ATOM	10176	C1*	U A 495	147.782	87.121	51.385	1.00	78.59	C	ATOM	10226	C2	A A 497	147.591	90.540	43.488	1.00	88.07	C
ATOM	10177	N1	U A 495	146.769	87.703	50.495	1.00	76.76	N	ATOM	10227	N3	A A 497	148.756	90.021	43.874	1.00	88.07	N
ATOM	10178	C2	U A 495	146.891	87.461	49.146	1.00	76.76	C	ATOM	10228	C4	A A 497	148.945	90.201	45.190	1.00	88.07	C
ATOM	10179	O2	U A 495	147.812	86.833	48.664	1.00	76.76	O	ATOM	10229	P	U A 498	154.808	87.896	43.515	1.00	74.68	P
ATOM	10180	N3	U A 495	145.895	87.991	48.376	1.00	76.76	N	ATOM	10230	O1P	U A 498	153.543	87.095	43.485	1.00	73.83	O
ATOM	10181	C4	U A 495	144.822	88.727	48.803	1.00	76.76	C	ATOM	10231	O2P	U A 498	156.061	87.238	43.974	1.00	73.83	O
ATOM	10182	O4	U A 495	143.926	88.969	48.012	1.00	76.76	O	ATOM	10232	O5*	U A 498	155.127	88.440	42.043	1.00	74.68	O
ATOM	10183	C5	U A 495	144.783	88.972	50.205	1.00	76.76	C	ATOM	10233	C5*	U A 498	154.278	88.129	40.924	1.00	74.68	C
ATOM	10184	C6	U A 495	145.730	88.460	50.986	1.00	76.76	C	ATOM	10234	C4*	U A 498	155.090	87.525	39.802	1.00	74.68	C
ATOM	10185	P	A A 496	150.258	90.758	53.393	1.00	84.79	P	ATOM	10235	O3*	U A 498	154.191	86.829	38.910	1.00	74.68	O
ATOM	10186	O1P	A A 496	151.329	90.961	54.404	1.00	77.20	O	ATOM	10236	C4*	U A 498	155.896	88.472	38.916	1.00	74.68	C
ATOM	10187	O2P	A A 496	149.070	91.645	53.404	1.00	77.20	O	ATOM	10237	O3*	U A 498	157.195	88.712	39.437	1.00	74.68	O
ATOM	10188	O5*	A A 496	150.928	90.829	51.950	1.00	84.79	O	ATOM	10238	C2*	U A 498	156.003	87.684	37.619	1.00	74.68	C
ATOM	10189	C5*	A A 496	152.002	91.745	51.704	1.00	84.79	C	ATOM	10239	O2*	U A 498	157.058	86.746	37.652	1.00	74.68	O
ATOM	10190	C4*	A A 496	152.406	91.717	50.254	1.00	84.79	C	ATOM	10240	C1*	U A 498	154.675	86.921	37.587	1.00	73.83	C
ATOM	10191	O4*	A A 496	151.245	91.935	49.416	1.00	84.79	O	ATOM	10241	N1	U A 498	153.642	87.554	36.754	1.00	73.83	N
ATOM	10192	C3*	A A 496	153.419	92.801	49.892	1.00	84.79	C	ATOM	10242	C2	U A 498	153.850	87.605	35.382	1.00	73.83	C
ATOM	10193	O3*	A A 496	154.332	92.345	48.882	1.00	84.79	O	ATOM	10243	O2	U A 498	154.846	87.162	34.840	1.00	73.83	O
ATOM	10194	C2*	A A 496	152.530	93.889	49.288	1.00	84.79	C	ATOM	10244	N3	U A 498	152.846	88.200	34.669	1.00	73.83	N
ATOM	10195	O2*	A A 496	153.193	94.735	48.371	1.00	84.79	O	ATOM	10245	C4	U A 498	151.685	88.739	35.169	1.00	73.83	C
ATOM	10196	C1*	A A 496	151.482	93.038	48.580	1.00	84.79	C	ATOM	10246	O4	U A 498	150.866	89.216	34.393	1.00	73.83	O
ATOM	10197	N9	A A 496	150.208	93.673	48.275	1.00	77.20	N	ATOM	10247	C5	U A 498	151.544	88.655	36.586	1.00	73.83	C
ATOM	10198	C8	A A 496	149.308	94.289	49.102	1.00	77.20	C	ATOM	10248	C6	U A 498	152.501	88.080	37.312	1.00	73.83	C
ATOM	10199	N7	A A 496	148.235	94.719	48.483	1.00	77.20	N	ATOM	10249	P	A A 499	157.997	90.053	39.033	1.00	60.67	P
ATOM	10200	C5	A A 496	148.452	94.367	47.159	1.00	77.20	C	ATOM	10250	O1P	A A 499	159.343	89.956	39.645	1.00	61.30	O
ATOM	10201	C6	A A 496	147.689	94.540	45.995	1.00	77.20	C	ATOM	10251	O2P	A A 499	157.145	91.233	39.330	1.00	61.30	O
ATOM	10202	N6	A A 496	146.493	95.135	45.970	1.00	77.20	N	ATOM	10252	O5*	A A 499	158.168	89.984	37.447	1.00	60.67	O
ATOM	10203	N1	A A 496	148.202	94.075	44.835	1.00	77.20	N	ATOM	10253	C5*	A A 499	159.194	89.175	36.832	1.00	60.67	C
ATOM	10204	C2	A A 496	149.398	93.482	44.855	1.00	77.20	C	ATOM	10254	C4*	A A 499	159.442	89.620	35.402	1.00	60.67	C
ATOM	10205	N3	A A 496	150.206	93.261	45.880	1.00	77.20	N	ATOM	10255	O4*	A A 499	158.211	89.522	34.630	1.00	60.67	O
ATOM	10206	C4	A A 496	149.667	93.732	47.017	1.00	77.20	C	ATOM	10256	C3*	A A 499	159.953	91.044	35.201	1.00	60.67	C
ATOM	10207	P	A A 497	154.910	90.837	48.915	1.00	83.13	P	ATOM	10257	O3*	A A 499	160.795	91.055	34.061	1.00	60.67	O
ATOM	10208	O1P	A A 497	154.926	90.348	50.314	1.00	88.07	O	ATOM	10258	C2*	A A 499	158.703	91.793	34.756	1.00	60.67	C
ATOM	10209	O2P	A A 497	156.167	90.831	48.131	1.00	88.07	O	ATOM	10259	O2*	A A 499	159.004	92.912	33.955	1.00	60.67	O
ATOM	10210	O5*	A A 497	153.809	90.001	48.116	1.00	83.13	O	ATOM	10260	C1*	A A 499	158.026	90.719	33.910	1.00	60.67	C
ATOM	10211	C5*	A A 497	154.116	88.716	47.533	1.00	83.13	C	ATOM	10261	N9	A A 499	156.609	90.888	33.591	1.00	61.30	N
ATOM	10212	C4*	A A 497	153.295	88.498	46.277	1.00	83.13	C	ATOM	10262	C8	A A 499	155.532	90.916	34.434	1.00	61.30	C
ATOM	10213	O4*	A A 497	151.892	88.561	46.608	1.00	83.13	O	ATOM	10263	N7	A A 499	154.381	91.062	33.819	1.00	61.30	N
ATOM	10214	C3*	A A 497	153.483	89.544	45.192	1.00	83.13	C	ATOM	10264	C5	A A 499	154.726	91.139	32.480	1.00	61.30	C
ATOM	10215	O3*	A A 497	154.659	89.273	44.385	1.00	83.13	O	ATOM	10265	C6	A A 499	153.957	91.285	31.314	1.00	61.30	C



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ATOM	10266	ATOM	A A 499	152.623	91.382	31.313	1.00	61.30	N	ATOM	10316	O2P	G A 502	166.585	90.697	24.467	1.00	64.88	O
ATOM	10267	N1	A A 499	154.611	91.324	30.133	1.00	61.30	N	ATOM	10317	O5*	G A 502	165.397	91.329	22.381	1.00	46.96	O
ATOM	10268	C2	A A 499	155.947	91.223	30.136	1.00	61.30	C	ATOM	10318	C5*	G A 502	164.816	91.079	21.087	1.00	46.96	C
ATOM	10269	N3	A A 499	156.779	91.078	31.165	1.00	61.30	N	ATOM	10319	C4*	G A 502	164.476	92.376	20.401	1.00	46.96	C
ATOM	10270	C4	A A 499	156.097	91.041	32.324	1.00	61.30	C	ATOM	10320	O4*	G A 502	163.430	93.047	21.142	1.00	46.96	O
ATOM	10271	P	G A 500	162.326	90.600	34.170	1.00	60.21	P	ATOM	10321	C3*	G A 502	165.596	93.395	20.345	1.00	46.96	C
ATOM	10272	O1P	G A 500	162.497	89.640	35.284	1.00	56.05	O	ATOM	10322	O3*	G A 502	166.477	93.183	19.272	1.00	46.96	O
ATOM	10273	O2P	G A 500	163.167	91.818	34.116	1.00	56.05	O	ATOM	10323	C2*	G A 502	164.853	94.711	20.212	1.00	46.96	C
ATOM	10274	O5*	G A 500	162.543	89.801	32.813	1.00	60.21	O	ATOM	10324	O2*	G A 502	164.449	94.981	18.886	1.00	46.96	O
ATOM	10275	C5*	G A 500	161.856	88.563	32.576	1.00	60.21	C	ATOM	10325	C1*	G A 502	163.628	94.451	21.084	1.00	46.96	C
ATOM	10276	C4*	G A 500	161.090	88.621	31.275	1.00	60.21	C	ATOM	10326	N9	G A 502	163.854	94.948	22.434	1.00	64.88	N
ATOM	10277	O4*	G A 500	160.003	89.573	31.382	1.00	60.21	O	ATOM	10327	C8	G A 502	164.237	94.225	23.536	1.00	64.88	C
ATOM	10278	C3*	G A 500	161.855	89.064	30.038	1.00	60.21	C	ATOM	10328	N7	G A 502	164.408	94.963	24.597	1.00	64.88	N
ATOM	10279	O3*	G A 500	162.609	88.015	29.456	1.00	60.21	O	ATOM	10329	C5	G A 502	164.111	96.248	24.170	1.00	64.88	C
ATOM	10280	C2*	G A 500	160.738	89.532	29.117	1.00	60.21	C	ATOM	10330	C6	G A 502	164.131	97.465	24.873	1.00	64.88	C
ATOM	10281	O2*	G A 500	160.099	88.467	28.437	1.00	60.21	O	ATOM	10331	O6	G A 502	164.448	97.667	26.050	1.00	64.88	O
ATOM	10282	C1*	G A 500	159.760	90.156	30.114	1.00	60.21	C	ATOM	10332	N1	G A 502	163.745	98.525	24.062	1.00	64.88	N
ATOM	10283	N9	G A 500	159.954	91.597	30.216	1.00	56.05	N	ATOM	10333	C2	G A 502	163.403	98.423	22.739	1.00	64.88	C
ATOM	10284	C8	G A 500	160.669	92.274	31.169	1.00	56.05	C	ATOM	10334	N2	G A 502	163.393	97.294	22.070	1.00	64.88	N
ATOM	10285	N7	G A 500	160.660	93.566	30.992	1.00	56.05	N	ATOM	10335	N3	G A 502	163.753	96.252	22.842	1.00	64.88	N
ATOM	10286	C5	G A 500	159.888	93.755	29.855	1.00	56.05	C	ATOM	10336	C4	G A 502	163.753	96.252	22.842	1.00	64.88	C
ATOM	10287	C6	G A 500	159.510	94.949	29.187	1.00	56.05	C	ATOM	10337	P	C A 503	167.994	93.661	19.415	1.00	42.61	P
ATOM	10288	O6	G A 500	159.769	96.114	29.491	1.00	56.05	O	ATOM	10338	O1P	C A 503	168.736	93.110	18.252	1.00	56.24	O
ATOM	10289	N1	G A 500	158.738	94.685	28.065	1.00	56.05	N	ATOM	10339	O2P	C A 503	168.425	93.316	20.799	1.00	56.24	O
ATOM	10290	C2	G A 500	158.356	93.437	27.649	1.00	56.05	C	ATOM	10340	O5*	C A 503	167.913	95.255	19.311	1.00	42.61	O
ATOM	10291	N2	G A 500	157.590	93.392	26.550	1.00	56.05	N	ATOM	10341	C5*	C A 503	167.329	95.891	18.152	1.00	42.61	C
ATOM	10292	N3	G A 500	158.691	92.315	28.267	1.00	56.05	N	ATOM	10342	C4*	C A 503	166.934	97.322	18.450	1.00	42.61	C
ATOM	10293	C4	G A 500	159.452	92.549	29.357	1.00	56.05	C	ATOM	10343	O4*	C A 503	165.986	97.349	19.542	1.00	42.61	O
ATOM	10294	P	C A 501	164.016	88.350	28.754	1.00	53.83	P	ATOM	10344	C3*	C A 503	168.033	98.275	18.890	1.00	42.61	C
ATOM	10295	O1P	C A 501	164.686	87.050	28.510	1.00	53.88	O	ATOM	10345	O3*	C A 503	168.771	98.816	17.800	1.00	42.61	O
ATOM	10296	O2P	C A 501	164.721	89.402	29.542	1.00	53.88	O	ATOM	10346	O2*	C A 503	167.257	99.359	19.632	1.00	42.61	O
ATOM	10297	O5*	C A 501	163.607	89.007	27.356	1.00	53.83	O	ATOM	10347	C2*	C A 503	166.690	100.356	18.810	1.00	42.61	C
ATOM	10298	C5*	C A 501	163.009	88.219	26.307	1.00	53.83	C	ATOM	10348	C1*	C A 503	166.137	98.554	20.280	1.00	42.61	C
ATOM	10299	C4*	C A 501	162.633	89.093	25.130	1.00	53.83	C	ATOM	10349	N1	C A 503	166.506	98.239	21.666	1.00	56.24	N
ATOM	10300	O4*	C A 501	161.531	89.974	25.477	1.00	53.83	O	ATOM	10350	C2	C A 503	166.485	99.265	22.610	1.00	56.24	C
ATOM	10301	C3*	C A 501	163.707	90.026	24.602	1.00	53.83	C	ATOM	10351	O2	C A 503	166.074	100.381	22.272	1.00	56.24	O
ATOM	10302	O3*	C A 501	164.605	89.371	23.725	1.00	53.83	O	ATOM	10352	N3	C A 503	166.901	99.014	23.862	1.00	56.24	N
ATOM	10303	C2*	C A 501	162.887	91.083	23.878	1.00	53.83	C	ATOM	10353	C4	C A 503	167.302	97.790	24.196	1.00	56.24	C
ATOM	10304	O2*	C A 501	162.469	90.621	22.614	1.00	53.83	O	ATOM	10354	N4	C A 503	167.725	97.590	25.436	1.00	56.24	N
ATOM	10305	C1*	C A 501	161.663	91.204	24.782	1.00	53.83	C	ATOM	10355	C5	C A 503	167.292	96.716	23.270	1.00	56.24	C
ATOM	10306	N1	C A 501	161.819	92.294	25.770	1.00	53.83	N	ATOM	10356	C6	C A 503	166.893	96.981	22.027	1.00	56.24	C
ATOM	10307	C2	C A 501	161.405	93.598	25.435	1.00	53.88	C	ATOM	10357	P	C A 504	170.307	99.230	18.014	1.00	59.50	P
ATOM	10308	O2	C A 501	160.855	93.799	24.346	1.00	53.88	O	ATOM	10358	O1P	C A 504	170.922	99.374	16.669	1.00	50.21	O
ATOM	10309	N3	C A 501	161.610	94.602	26.318	1.00	53.88	N	ATOM	10359	O2P	C A 504	170.905	98.296	18.998	1.00	50.21	O
ATOM	10310	C4	C A 501	162.184	94.348	27.495	1.00	53.88	C	ATOM	10360	O5*	C A 504	170.241	100.658	18.711	1.00	59.50	O
ATOM	10311	N4	C A 501	162.395	95.369	28.325	1.00	53.88	N	ATOM	10361	C5*	C A 504	169.716	101.796	18.019	1.00	59.50	C
ATOM	10312	C5	C A 501	162.576	93.036	27.874	1.00	53.88	C	ATOM	10362	C4*	C A 504	169.791	103.012	18.902	1.00	59.50	C
ATOM	10313	C6	C A 501	162.381	92.048	26.992	1.00	53.88	C	ATOM	10363	O4*	C A 504	168.954	102.809	20.063	1.00	59.50	O
ATOM	10314	P	G A 502	165.942	90.127	23.269	1.00	46.96	P	ATOM	10364	C3*	C A 504	171.167	103.292	19.468	1.00	59.50	C
ATOM	10315	O1P	G A 502	166.728	89.239	22.393	1.00	64.88	O	ATOM	10365	O3*	C A 504	171.932	104.057	18.554	1.00	59.50	O



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ATOM	10366	C2*	C A 504	170.857	104.055	20.745	1.00	59.50	C	ATOM	10416	C6	G A 506	170.829	102.856	9.434	1.00	55.42	C
ATOM	10367	O2*	C A 504	170.590	105.420	20.507	1.00	59.50	O	ATOM	10417	O6	G A 506	170.851	101.740	9.948	1.00	55.42	O
ATOM	10368	C1*	C A 504	169.563	103.388	21.198	1.00	59.50	C	ATOM	10418	N1	G A 506	170.587	102.985	8.076	1.00	55.42	N
ATOM	10369	N1	C A 504	169.776	102.337	22.201	1.00	50.21	N	ATOM	10419	C2	G A 506	170.554	104.168	7.390	1.00	55.42	C
ATOM	10370	C2	C A 504	169.982	102.706	23.537	1.00	50.21	C	ATOM	10420	N2	G A 506	170.298	104.090	6.081	1.00	55.42	N
ATOM	10371	O2	C A 504	169.983	103.906	23.839	1.00	50.21	O	ATOM	10421	N3	G A 506	170.757	105.345	7.944	1.00	55.42	N
ATOM	10372	N3	C A 504	170.176	101.744	24.463	1.00	50.21	N	ATOM	10422	C4	G A 506	170.992	105.244	9.267	1.00	55.42	C
ATOM	10373	C4	C A 504	170.172	100.461	24.099	1.00	50.21	C	ATOM	10423	P	C A 507	167.502	109.923	11.600	1.00	51.37	P
ATOM	10374	N4	C A 504	170.375	99.544	25.043	1.00	50.21	N	ATOM	10424	O1P	C A 507	166.871	111.264	11.527	1.00	52.54	O
ATOM	10375	C5	C A 504	169.964	100.060	22.750	1.00	50.21	C	ATOM	10425	O2P	C A 507	167.659	109.244	12.921	1.00	52.54	O
ATOM	10376	C6	C A 504	169.775	101.019	21.843	1.00	50.21	C	ATOM	10426	O5*	C A 507	166.747	108.962	10.582	1.00	51.37	O
ATOM	10377	P	G A 505	173.419	103.579	18.174	1.00	64.66	P	ATOM	10427	C5*	C A 507	166.472	109.418	9.245	1.00	51.37	C
ATOM	10378	O1P	G A 505	173.362	102.138	17.754	1.00	46.63	O	ATOM	10428	C4*	C A 507	165.923	108.302	8.395	1.00	51.37	C
ATOM	10379	O2P	G A 505	174.266	103.976	19.326	1.00	46.63	O	ATOM	10429	O4*	C A 507	166.947	107.312	8.128	1.00	51.37	O
ATOM	10380	O5*	G A 505	173.790	104.459	16.895	1.00	64.66	O	ATOM	10430	C3*	C A 507	164.757	107.520	8.968	1.00	51.37	C
ATOM	10381	C5*	G A 505	174.506	105.692	17.031	1.00	64.66	C	ATOM	10431	O3*	C A 507	163.548	108.232	8.742	1.00	51.37	O
ATOM	10382	C4*	G A 505	174.702	106.344	15.683	1.00	64.66	C	ATOM	10432	C2*	C A 507	164.836	106.220	8.173	1.00	51.37	C
ATOM	10383	O4*	G A 505	175.554	105.524	14.850	1.00	64.66	O	ATOM	10433	O2*	C A 507	164.285	106.342	6.875	1.00	51.37	O
ATOM	10384	C3*	G A 505	173.455	106.563	14.850	1.00	64.66	C	ATOM	10434	C1*	C A 507	166.348	106.038	8.009	1.00	51.37	C
ATOM	10385	O3*	G A 505	172.801	107.762	15.215	1.00	64.66	O	ATOM	10435	N1	C A 507	166.937	105.132	9.016	1.00	52.54	N
ATOM	10386	C2*	G A 505	174.010	106.657	13.439	1.00	64.66	C	ATOM	10436	C2	C A 507	167.006	103.758	8.735	1.00	52.54	C
ATOM	10387	O2*	G A 505	174.521	107.943	13.165	1.00	64.66	O	ATOM	10437	O2	C A 507	166.597	103.348	7.643	1.00	52.54	O
ATOM	10388	C1*	G A 505	175.170	105.666	13.494	1.00	64.66	C	ATOM	10438	N3	C A 507	167.519	102.915	9.660	1.00	52.54	N
ATOM	10389	N9	G A 505	174.832	104.348	12.963	1.00	46.63	N	ATOM	10439	C4	C A 507	167.959	103.393	10.821	1.00	52.54	C
ATOM	10390	C8	G A 505	174.691	103.178	13.674	1.00	46.63	C	ATOM	10440	N4	C A 507	168.458	102.532	11.701	1.00	52.54	N
ATOM	10391	N7	G A 505	174.408	102.151	12.920	1.00	46.63	N	ATOM	10441	C5	C A 507	167.909	104.783	11.131	1.00	52.54	C
ATOM	10392	C5	G A 505	174.355	102.675	11.630	1.00	46.63	C	ATOM	10442	C6	C A 507	167.399	105.610	10.209	1.00	52.54	C
ATOM	10393	O6	G A 505	174.113	102.031	10.382	1.00	46.63	O	ATOM	10443	P	C A 507	162.342	108.149	9.807	1.00	54.16	P
ATOM	10394	C6	G A 505	173.902	100.830	10.162	1.00	46.63	C	ATOM	10443	O1P	C A 508	161.527	106.946	9.531	1.00	55.64	O
ATOM	10395	N1	G A 505	174.149	102.937	9.324	1.00	46.63	N	ATOM	10444	O2P	C A 508	161.703	109.487	9.837	1.00	55.64	O
ATOM	10396	C2	G A 505	174.394	104.278	9.449	1.00	46.63	C	ATOM	10446	O5*	C A 508	163.011	107.924	11.229	1.00	54.16	O
ATOM	10397	N2	G A 505	174.373	104.985	8.325	1.00	46.63	N	ATOM	10447	C5*	C A 508	162.321	108.333	12.431	1.00	54.16	C
ATOM	10398	N3	G A 505	174.639	104.885	10.599	1.00	46.63	N	ATOM	10448	C4*	C A 508	163.111	107.928	13.645	1.00	54.16	C
ATOM	10399	C4	G A 505	174.603	104.029	11.641	1.00	46.63	C	ATOM	10449	O4*	C A 508	163.096	106.487	13.741	1.00	54.16	O
ATOM	10400	P	G A 506	171.211	107.873	15.048	1.00	51.88	P	ATOM	10450	C3*	C A 508	164.571	108.356	13.632	1.00	54.16	C
ATOM	10401	O1P	G A 506	170.786	109.085	15.808	1.00	55.42	O	ATOM	10451	O3*	C A 508	164.957	108.719	14.954	1.00	54.16	O
ATOM	10402	O2P	G A 506	170.639	106.545	15.404	1.00	55.42	O	ATOM	10452	C2*	C A 508	165.294	107.104	13.140	1.00	54.16	C
ATOM	10403	O5*	G A 506	170.997	108.153	13.490	1.00	51.88	O	ATOM	10453	O2*	C A 508	166.592	106.936	13.660	1.00	54.16	O
ATOM	10404	C5*	G A 506	171.453	109.386	12.893	1.00	51.88	C	ATOM	10454	C1*	C A 508	164.405	105.984	13.664	1.00	54.16	C
ATOM	10405	C4*	G A 506	171.232	109.367	11.397	1.00	51.88	C	ATOM	10455	N1	C A 508	164.376	104.836	12.758	1.00	55.64	N
ATOM	10406	O4*	G A 506	172.078	108.357	10.801	1.00	51.88	O	ATOM	10456	C2	C A 508	164.837	103.612	13.210	1.00	55.64	C
ATOM	10407	C3*	G A 506	169.831	108.988	10.962	1.00	51.88	C	ATOM	10457	O2	C A 508	165.293	103.528	14.359	1.00	55.64	O
ATOM	10408	O3*	G A 506	168.954	110.090	10.954	1.00	51.88	O	ATOM	10458	N3	C A 508	164.786	102.546	12.388	1.00	55.64	N
ATOM	10409	C2*	G A 506	170.042	108.399	9.578	1.00	51.88	C	ATOM	10459	C4	C A 508	164.315	102.681	11.151	1.00	55.64	C
ATOM	10410	O2*	G A 506	170.128	109.393	8.583	1.00	51.88	O	ATOM	10460	N4	C A 508	164.298	101.605	10.367	1.00	55.64	N
ATOM	10411	C1*	G A 506	171.386	107.698	9.756	1.00	51.88	C	ATOM	10461	C5	C A 508	163.845	103.925	10.659	1.00	55.64	C
ATOM	10412	N9	G A 506	171.264	106.287	10.121	1.00	55.42	N	ATOM	10462	C6	C A 508	163.891	104.966	11.487	1.00	55.64	C
ATOM	10413	C8	G A 506	171.422	105.733	11.371	1.00	55.42	C	ATOM	10463	P	A A 509	164.329	110.041	15.627	1.00	40.77	P
ATOM	10414	N7	G A 506	171.302	104.434	11.372	1.00	55.42	N	ATOM	10464	O1P	A A 509	163.624	110.828	14.572	1.00	50.86	O
ATOM	10415	C5	G A 506	171.036	104.111	10.047	1.00	55.42	C	ATOM	10465	O2P	A A 509	165.388	110.700	16.443	1.00	50.86	O



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ATOM	10466	O5*	A A 509	163.204	109.449	16.594	1.00	40.77	O	ATOM	10516	C2*	C A 511	175.159	108.645	23.629	1.00	60.74	C
ATOM	10467	C5*	A A 509	162.540	110.282	17.560	1.00	40.77	C	ATOM	10517	O2*	C A 511	176.555	108.432	23.589	1.00	60.74	O
ATOM	10468	C4*	A A 509	162.676	109.693	18.938	1.00	40.77	C	ATOM	10518	C1*	C A 511	174.543	107.967	24.851	1.00	60.74	C
ATOM	10469	O4*	A A 509	161.760	108.569	19.093	1.00	40.77	O	ATOM	10519	N1	C A 511	174.270	106.533	24.768	1.00	59.09	N
ATOM	10470	C3*	A A 509	164.029	109.083	19.238	1.00	40.77	C	ATOM	10520	C2	C A 511	174.279	105.804	25.948	1.00	59.09	C
ATOM	10471	O3*	A A 509	165.141	110.001	19.240	1.00	40.77	O	ATOM	10521	O2	C A 511	174.511	106.399	27.008	1.00	59.09	C
ATOM	10472	C2*	A A 509	163.704	108.085	20.350	1.00	40.77	C	ATOM	10522	N3	C A 511	174.035	104.476	25.912	1.00	59.09	N
ATOM	10473	O2*	A A 509	163.535	108.629	21.629	1.00	40.77	O	ATOM	10523	C4	C A 511	173.786	103.882	24.747	1.00	59.09	C
ATOM	10474	C1*	A A 509	162.370	107.532	19.853	1.00	40.77	C	ATOM	10524	N4	C A 511	173.561	102.570	24.747	1.00	59.09	N
ATOM	10475	N9	A A 509	162.644	106.409	18.947	1.00	50.86	N	ATOM	10525	C5	C A 511	173.762	104.608	23.523	1.00	59.09	C
ATOM	10476	C8	A A 509	163.097	106.511	17.652	1.00	50.86	C	ATOM	10526	C6	C A 511	174.009	105.919	23.578	1.00	59.09	C
ATOM	10477	N7	A A 509	163.375	105.360	17.094	1.00	50.86	N	ATOM	10527	P	U A 512	176.792	111.633	24.626	1.00	62.99	P
ATOM	10478	C5	A A 509	163.060	104.431	18.071	1.00	50.86	C	ATOM	10528	O1P	U A 512	176.184	112.977	24.859	1.00	58.39	O
ATOM	10479	C6	A A 509	163.143	103.031	18.096	1.00	50.86	C	ATOM	10529	O2P	U A 512	177.403	111.319	23.299	1.00	58.39	O
ATOM	10480	N6	A A 509	163.616	102.300	17.085	1.00	50.86	N	ATOM	10530	O5*	U A 512	177.854	111.321	25.776	1.00	62.99	O
ATOM	10481	N1	A A 509	162.731	102.397	19.213	1.00	50.86	N	ATOM	10531	C5*	U A 512	178.784	110.215	25.661	1.00	62.99	C
ATOM	10482	C2	A A 509	162.285	103.132	20.235	1.00	50.86	C	ATOM	10532	C4*	U A 512	178.867	109.452	26.965	1.00	62.99	C
ATOM	10483	N3	A A 509	162.173	104.452	20.337	1.00	50.86	N	ATOM	10533	O4*	U A 512	177.715	108.578	27.103	1.00	62.99	O
ATOM	10484	C4	A A 509	162.581	105.056	19.208	1.00	50.86	C	ATOM	10534	C3*	U A 512	180.058	108.515	27.096	1.00	62.99	C
ATOM	10485	P	A A 510	165.536	110.822	20.538	1.00	49.18	P	ATOM	10535	O3*	U A 512	181.206	109.221	27.554	1.00	62.99	O
ATOM	10486	O1P	A A 510	164.261	111.204	21.188	1.00	74.96	O	ATOM	10536	C2*	U A 512	179.582	107.486	28.114	1.00	62.99	C
ATOM	10487	O2P	A A 510	166.465	111.874	20.085	1.00	74.96	O	ATOM	10537	O2*	U A 512	179.726	107.903	29.456	1.00	62.99	O
ATOM	10488	O5*	A A 510	166.348	109.804	21.443	1.00	49.18	O	ATOM	10538	C1*	U A 512	177.093	107.392	27.790	1.00	62.99	C
ATOM	10489	C5*	A A 510	166.355	109.944	22.865	1.00	49.18	C	ATOM	10539	N1	U A 512	177.760	106.211	26.975	1.00	58.39	N
ATOM	10490	C4*	A A 510	166.813	108.662	23.490	1.00	49.18	C	ATOM	10540	C2	U A 512	177.733	104.990	27.612	1.00	58.39	C
ATOM	10491	O4*	A A 510	166.014	107.575	22.954	1.00	49.18	O	ATOM	10541	O2	U A 512	177.975	104.856	28.789	1.00	58.39	O
ATOM	10492	C3*	A A 510	168.241	108.293	23.139	1.00	49.18	C	ATOM	10542	N3	U A 512	177.410	103.925	26.824	1.00	58.39	N
ATOM	10493	O3*	A A 510	169.123	108.842	24.089	1.00	49.18	O	ATOM	10543	C4	U A 512	177.111	103.943	25.492	1.00	58.39	C
ATOM	10494	C2*	A A 510	168.228	106.780	23.258	1.00	49.18	C	ATOM	10544	O4	U A 512	176.753	102.900	24.942	1.00	58.39	O
ATOM	10495	O2*	A A 510	168.311	106.408	24.619	1.00	49.18	O	ATOM	10545	C5	U A 512	177.169	105.238	24.889	1.00	58.39	C
ATOM	10496	C1*	A A 510	166.829	106.439	22.741	1.00	49.18	C	ATOM	10546	C6	U A 512	177.483	106.301	25.634	1.00	58.39	C
ATOM	10497	N9	A A 510	166.809	106.125	21.313	1.00	74.96	N	ATOM	10547	P	C A 513	182.679	108.688	27.182	1.00	66.59	P
ATOM	10498	C8	A A 510	167.090	106.957	20.257	1.00	74.96	C	ATOM	10548	O1P	C A 513	183.596	109.793	27.590	1.00	66.09	O
ATOM	10499	N7	A A 510	166.991	106.379	19.087	1.00	74.96	N	ATOM	10549	O2P	C A 513	182.692	108.210	25.772	1.00	66.09	O
ATOM	10500	C5	A A 510	166.614	105.079	19.392	1.00	74.96	C	ATOM	10550	O5*	C A 513	182.895	107.434	28.146	1.00	66.59	O
ATOM	10501	C6	A A 510	166.338	103.961	18.589	1.00	74.96	C	ATOM	10551	C5*	C A 513	183.318	107.626	29.506	1.00	66.59	C
ATOM	10502	N6	A A 510	166.386	103.971	17.253	1.00	74.96	N	ATOM	10552	C4*	C A 513	183.569	106.301	30.179	1.00	66.59	C
ATOM	10503	N1	A A 510	165.998	102.815	19.212	1.00	74.96	N	ATOM	10553	O4*	C A 513	182.323	105.569	30.265	1.00	66.59	O
ATOM	10504	C2	A A 510	165.933	102.804	20.545	1.00	74.96	C	ATOM	10554	C3*	C A 513	184.533	105.352	29.480	1.00	66.59	C
ATOM	10505	N3	A A 510	166.159	103.786	21.405	1.00	74.96	N	ATOM	10555	O3*	C A 513	185.889	105.610	29.814	1.00	66.59	O
ATOM	10506	C4	A A 510	166.500	104.910	20.759	1.00	74.96	C	ATOM	10556	C2*	C A 513	184.091	103.995	30.000	1.00	66.59	C
ATOM	10507	P	C A 511	169.572	110.372	23.963	1.00	60.74	P	ATOM	10557	O2*	C A 513	184.638	103.697	31.266	1.00	66.59	O
ATOM	10508	O1P	C A 511	168.735	111.139	24.926	1.00	59.09	O	ATOM	10558	C1*	C A 513	182.578	104.184	30.113	1.00	66.59	C
ATOM	10509	O2P	C A 511	169.595	110.761	22.528	1.00	59.09	O	ATOM	10559	N1	C A 513	181.907	103.724	28.890	1.00	66.09	N
ATOM	10510	C5*	C A 511	171.052	110.353	24.545	1.00	60.74	C	ATOM	10560	C2	C A 513	181.576	102.367	28.763	1.00	66.09	C
ATOM	10511	O5*	C A 511	172.205	110.241	23.696	1.00	60.74	C	ATOM	10561	O2	C A 513	181.850	101.583	29.689	1.00	66.09	O
ATOM	10512	C4*	C A 511	173.411	109.977	24.549	1.00	60.74	C	ATOM	10562	N3	C A 513	180.974	101.943	27.633	1.00	66.09	N
ATOM	10513	O4*	C A 511	173.329	108.636	25.095	1.00	60.74	O	ATOM	10563	C4	C A 513	180.702	102.810	26.656	1.00	66.09	C
ATOM	10514	C3*	C A 511	174.783	110.096	23.900	1.00	60.74	C	ATOM	10564	N4	C A 513	180.103	102.348	25.561	1.00	66.09	N
ATOM	10515	O3*	C A 511	175.636	110.571	24.938	1.00	60.74	O	ATOM	10565	C5	C A 513	181.030	104.191	26.760	1.00	66.09	C



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ATOM	10566	C6	C A 513	181.622	104.601	27.881	1.00	66.09	C	ATOM	10616	O4*	U A 516	188.787	94.254	22.706	1.00	72.15	O
ATOM	10567	P	C A 514	187.070	104.982	28.912	1.00	65.12	P	ATOM	10617	C3*	U A 516	190.746	93.827	21.474	1.00	72.15	C
ATOM	10568	O1P	C A 514	188.343	105.408	29.552	1.00	67.19	O	ATOM	10618	O3*	U A 516	191.550	92.763	20.975	1.00	72.15	O
ATOM	10569	O2P	C A 514	186.827	105.324	27.485	1.00	67.19	O	ATOM	10619	C2*	U A 516	189.657	94.227	20.485	1.00	72.15	C
ATOM	10570	O5*	C A 514	186.920	103.405	29.115	1.00	65.12	O	ATOM	10620	O2*	U A 516	189.122	93.103	19.814	1.00	72.15	O
ATOM	10571	C5*	C A 514	187.159	102.808	30.406	1.00	65.12	C	ATOM	10621	C1*	U A 516	188.577	94.790	21.410	1.00	72.15	C
ATOM	10572	C4*	C A 514	186.889	101.318	30.375	1.00	65.12	C	ATOM	10622	N1	U A 516	188.525	96.262	21.495	1.00	69.27	N
ATOM	10573	O4*	C A 514	185.477	101.067	30.166	1.00	65.12	O	ATOM	10623	C2	U A 516	187.924	96.959	20.448	1.00	69.27	C
ATOM	10574	C3*	C A 514	187.579	100.530	29.274	1.00	65.12	C	ATOM	10624	O2	U A 516	187.476	96.410	19.450	1.00	69.27	O
ATOM	10575	O3*	C A 514	188.903	100.169	29.600	1.00	65.12	O	ATOM	10625	N3	U A 516	187.873	98.323	20.616	1.00	69.27	N
ATOM	10576	C2*	C A 514	186.700	99.300	29.144	1.00	65.12	C	ATOM	10626	C4	U A 516	188.354	99.050	21.685	1.00	69.27	C
ATOM	10577	O2*	C A 514	187.000	98.336	30.126	1.00	65.12	O	ATOM	10627	O4	U A 516	188.176	100.269	21.721	1.00	69.27	O
ATOM	10578	C1*	C A 514	185.314	99.889	29.391	1.00	65.12	C	ATOM	10628	C5	U A 516	188.975	98.269	22.702	1.00	69.27	C
ATOM	10579	N1	C A 514	184.655	100.239	28.116	1.00	67.19	N	ATOM	10629	C6	U A 516	189.038	96.938	22.579	1.00	69.27	C
ATOM	10580	O2	C A 514	184.081	99.217	27.354	1.00	67.19	O	ATOM	10630	P	G A 517	193.038	93.067	20.438	1.00	73.37	P
ATOM	10581	N3	C A 514	184.142	98.052	27.771	1.00	67.19	N	ATOM	10631	O1P	G A 517	193.635	91.750	20.085	1.00	72.49	O
ATOM	10582	O2	C A 514	183.484	99.522	26.181	1.00	67.19	O	ATOM	10632	O5*	G A 517	193.731	93.963	21.409	1.00	72.49	O
ATOM	10583	C4	C A 514	183.452	100.787	25.758	1.00	67.19	C	ATOM	10633	O2P	G A 517	192.845	93.903	19.093	1.00	73.37	O
ATOM	10584	N4	C A 514	182.868	101.040	24.589	1.00	67.19	N	ATOM	10634	C5*	G A 517	192.151	93.347	17.961	1.00	73.37	C
ATOM	10585	C5	C A 514	184.025	101.848	26.514	1.00	67.19	C	ATOM	10635	C4*	G A 517	191.956	94.404	16.907	1.00	73.37	C
ATOM	10586	C6	C A 514	184.609	101.534	27.674	1.00	67.19	C	ATOM	10636	O4*	G A 517	191.359	95.564	17.533	1.00	73.37	O
ATOM	10587	P	G A 515	189.956	99.910	28.422	1.00	62.99	P	ATOM	10637	C3*	G A 517	193.217	94.900	16.216	1.00	73.37	C
ATOM	10588	O1P	G A 515	191.291	99.812	29.059	1.00	72.82	O	ATOM	10638	O3*	G A 517	192.854	95.255	14.889	1.00	73.37	O
ATOM	10589	O2P	G A 515	189.728	100.929	27.364	1.00	72.82	O	ATOM	10639	C2*	G A 517	193.567	96.168	16.978	1.00	73.37	C
ATOM	10590	O5*	G A 515	189.538	98.481	27.849	1.00	62.99	O	ATOM	10640	O2*	G A 517	194.259	97.092	16.166	1.00	73.37	O
ATOM	10591	C5*	G A 515	189.551	97.312	28.686	1.00	62.99	C	ATOM	10641	C1*	G A 517	192.181	96.691	17.340	1.00	73.37	C
ATOM	10592	C4*	G A 515	188.910	96.144	27.971	1.00	62.99	C	ATOM	10642	N9	G A 517	192.108	97.498	18.551	1.00	72.49	N
ATOM	10593	O4*	G A 515	187.515	96.449	27.729	1.00	62.99	O	ATOM	10643	C8	G A 517	192.630	97.211	19.790	1.00	72.49	C
ATOM	10594	C3*	G A 515	189.460	95.810	26.594	1.00	62.99	C	ATOM	10644	N7	G A 517	192.351	98.119	20.684	1.00	72.49	N
ATOM	10595	O3*	G A 515	190.600	94.973	25.627	1.00	62.99	O	ATOM	10645	C5	G A 517	191.608	99.065	19.991	1.00	72.49	C
ATOM	10596	C2*	G A 515	188.289	95.113	26.928	1.00	62.99	C	ATOM	10646	C6	G A 517	191.011	100.272	20.436	1.00	72.49	C
ATOM	10597	O2*	G A 515	188.179	93.768	26.336	1.00	62.99	O	ATOM	10647	O6	G A 517	191.014	100.764	21.573	1.00	72.49	O
ATOM	10598	C1*	G A 515	187.109	95.907	26.480	1.00	62.99	C	ATOM	10648	N1	G A 517	190.345	100.920	19.401	1.00	72.49	N
ATOM	10599	N9	G A 515	186.754	97.010	25.589	1.00	72.82	N	ATOM	10649	C2	G A 517	190.255	100.460	18.109	1.00	72.49	C
ATOM	10600	C8	G A 515	187.024	98.346	25.776	1.00	72.82	C	ATOM	10650	N2	G A 517	189.559	101.217	17.253	1.00	72.49	N
ATOM	10601	N7	G A 515	186.609	99.097	24.793	1.00	72.82	N	ATOM	10651	N3	G A 517	190.804	99.338	17.686	1.00	72.49	N
ATOM	10602	C5	G A 515	186.019	98.207	23.906	1.00	72.82	C	ATOM	10652	C4	G A 517	191.459	98.697	18.672	1.00	72.49	C
ATOM	10603	C6	G A 515	185.395	98.442	22.655	1.00	72.82	C	ATOM	10653	P	C A 518	193.663	94.647	13.652	1.00	74.05	P
ATOM	10604	O6	G A 515	185.229	99.523	22.067	1.00	72.82	O	ATOM	10654	O1P	C A 518	194.468	93.510	14.165	1.00	69.39	O
ATOM	10605	N1	G A 515	184.944	97.256	22.082	1.00	72.82	N	ATOM	10655	O2P	C A 518	194.335	95.786	12.968	1.00	69.39	O
ATOM	10606	C2	G A 515	185.080	96.008	22.641	1.00	72.82	C	ATOM	10656	O5*	C A 518	192.546	93.991	12.717	1.00	74.05	O
ATOM	10607	N2	G A 515	184.596	94.992	21.931	1.00	72.82	N	ATOM	10657	C5*	C A 518	191.385	94.729	12.297	1.00	74.05	C
ATOM	10608	N3	G A 515	185.653	95.776	23.808	1.00	72.82	N	ATOM	10658	C4*	C A 518	190.939	94.278	10.921	1.00	74.05	C
ATOM	10609	C4	G A 515	186.099	96.913	24.382	1.00	72.82	C	ATOM	10659	O4*	C A 518	189.816	95.098	10.532	1.00	74.05	O
ATOM	10610	P	U A 516	191.799	95.255	25.599	1.00	72.15	P	ATOM	10660	C3*	C A 518	191.982	94.480	9.832	1.00	74.05	C
ATOM	10611	O1P	U A 516	192.947	94.387	25.961	1.00	69.27	O	ATOM	10661	O3*	C A 518	192.845	93.326	9.701	1.00	74.05	O
ATOM	10612	O2P	U A 516	191.979	96.731	25.530	1.00	69.27	O	ATOM	10662	C2*	C A 518	191.201	94.875	8.579	1.00	74.05	C
ATOM	10613	O5*	U A 516	191.230	94.779	24.191	1.00	72.15	O	ATOM	10663	O2*	C A 518	190.978	93.860	7.634	1.00	74.05	O
ATOM	10614	C5*	U A 516	190.671	93.465	24.015	1.00	72.15	C	ATOM	10664	C1*	C A 518	189.864	95.354	9.146	1.00	74.05	C
ATOM	10615	C4*	U A 516	189.948	93.382	22.690	1.00	72.15	C	ATOM	10665	N1	C A 518	189.471	96.756	8.891	1.00	69.39	N



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ATOM	10666	C2	C A 518	189.027	97.118	7.603	1.00	69.39	C	ATOM	10716	O1P	G A 521	183.622	83.815	15.877	1.00	50.57	O
ATOM	10667	N3	C A 518	189.052	96.270	6.686	1.00	69.39	O	ATOM	10717	O2P	G A 521	184.502	85.433	14.086	1.00	50.57	O
ATOM	10668	O2	C A 518	188.594	98.383	7.391	1.00	69.39	N	ATOM	10718	O5*	G A 521	182.918	86.195	15.854	1.00	59.91	O
ATOM	10669	C4	C A 518	188.611	99.271	8.387	1.00	69.39	C	ATOM	10719	C5*	G A 521	182.167	86.865	14.828	1.00	59.91	C
ATOM	10670	N4	C A 518	188.161	100.498	8.136	1.00	69.39	N	ATOM	10720	C4*	G A 521	181.715	88.211	15.324	1.00	59.91	C
ATOM	10671	C5	C A 518	189.086	98.940	9.686	1.00	69.39	C	ATOM	10721	O4*	G A 521	182.796	89.176	15.204	1.00	59.91	O
ATOM	10672	C6	C A 518	189.505	97.687	9.892	1.00	69.39	C	ATOM	10722	C3*	G A 521	180.590	88.852	14.544	1.00	59.91	C
ATOM	10673	P	C A 519	192.228	91.834	9.473	1.00	52.41	P	ATOM	10723	O3*	G A 521	179.327	88.319	14.907	1.00	59.91	O
ATOM	10674	O1P	C A 519	193.275	91.008	8.823	1.00	62.38	O	ATOM	10724	C2*	G A 521	180.739	90.318	14.915	1.00	59.91	C
ATOM	10675	O2P	C A 519	190.886	91.881	8.867	1.00	62.38	O	ATOM	10725	O2*	G A 521	180.185	90.607	16.182	1.00	59.91	O
ATOM	10676	O5*	C A 519	192.036	91.276	10.950	1.00	52.41	O	ATOM	10726	C1*	G A 521	182.258	90.468	14.964	1.00	59.91	C
ATOM	10677	C5*	C A 519	190.992	90.335	11.251	1.00	52.41	C	ATOM	10727	N9	G A 521	182.755	90.975	13.685	1.00	50.57	N
ATOM	10678	C4*	C A 519	191.032	89.962	12.711	1.00	52.41	C	ATOM	10728	C8	G A 521	183.493	90.310	12.733	1.00	50.57	N
ATOM	10679	O4*	C A 519	191.099	91.153	13.520	1.00	52.41	O	ATOM	10729	N7	G A 521	183.711	91.026	11.661	1.00	50.57	N
ATOM	10680	C3*	C A 519	189.807	89.226	13.219	1.00	52.41	C	ATOM	10730	C5	G A 521	183.096	92.240	11.929	1.00	50.57	C
ATOM	10681	O3*	C A 519	189.981	87.839	12.980	1.00	52.41	O	ATOM	10731	C6	G A 521	182.992	93.416	11.140	1.00	50.57	C
ATOM	10682	C2*	C A 519	189.772	89.554	14.716	1.00	52.41	C	ATOM	10732	O6	G A 521	183.453	93.638	10.008	1.00	50.57	O
ATOM	10683	O2*	C A 519	190.430	88.621	15.543	1.00	52.41	O	ATOM	10733	N1	G A 521	182.274	94.407	11.798	1.00	50.57	N
ATOM	10684	C1*	C A 519	190.531	90.883	14.785	1.00	52.41	C	ATOM	10734	C2	G A 521	181.747	94.297	13.056	1.00	50.57	C
ATOM	10685	N1	C A 519	189.792	92.107	15.259	1.00	62.38	N	ATOM	10735	N2	G A 521	181.106	95.370	13.526	1.00	50.57	N
ATOM	10686	O2	C A 519	189.379	92.167	16.592	1.00	62.38	C	ATOM	10736	N3	G A 521	181.844	93.217	13.802	1.00	50.57	N
ATOM	10687	C2	C A 519	189.582	91.117	17.315	1.00	62.38	O	ATOM	10737	C4	G A 521	182.521	92.232	13.179	1.00	50.57	C
ATOM	10688	N3	C A 519	188.765	93.223	17.060	1.00	62.38	N	ATOM	10738	P	C A 522	178.129	88.344	13.838	1.00	49.34	P
ATOM	10689	C4	C A 519	188.548	94.261	16.245	1.00	62.38	C	ATOM	10739	O1P	C A 522	176.967	87.607	14.401	1.00	44.50	O
ATOM	10690	N4	C A 519	187.965	95.351	16.755	1.00	62.38	N	ATOM	10740	O2P	C A 522	178.667	87.956	12.509	1.00	44.50	O
ATOM	10691	C5	C A 519	188.928	94.230	14.874	1.00	62.38	C	ATOM	10741	O5*	C A 522	177.766	89.891	13.751	1.00	49.34	O
ATOM	10692	C6	C A 519	189.538	93.125	14.427	1.00	62.38	C	ATOM	10742	C5*	C A 522	177.381	90.629	14.919	1.00	49.34	C
ATOM	10693	P	A A 520	188.704	86.909	12.740	1.00	57.49	P	ATOM	10743	C4*	C A 522	176.961	92.020	14.527	1.00	49.34	C
ATOM	10694	O1P	A A 520	189.159	85.487	12.693	1.00	61.21	O	ATOM	10744	O4*	C A 522	178.104	92.751	14.029	1.00	49.34	O
ATOM	10695	O2P	A A 520	187.932	87.475	11.604	1.00	61.21	O	ATOM	10745	C3*	C A 522	175.935	92.117	13.407	1.00	49.34	C
ATOM	10696	O5*	A A 520	187.848	87.105	14.065	1.00	57.49	O	ATOM	10746	O3*	C A 522	174.614	91.980	13.914	1.00	49.34	O
ATOM	10697	C5*	A A 520	188.223	86.459	15.289	1.00	57.49	C	ATOM	10747	C2*	C A 522	176.170	93.519	12.859	1.00	49.34	C
ATOM	10698	C4*	A A 520	187.380	86.980	16.427	1.00	57.49	C	ATOM	10748	O2*	C A 522	175.522	94.513	13.627	1.00	49.34	O
ATOM	10699	O4*	A A 520	187.684	88.385	16.658	1.00	57.49	O	ATOM	10749	C1*	C A 522	177.674	93.690	13.061	1.00	49.34	C
ATOM	10700	C3*	A A 520	185.883	86.950	16.181	1.00	57.49	C	ATOM	10750	N1	C A 522	178.476	93.555	11.827	1.00	44.50	N
ATOM	10701	O3*	A A 520	185.294	85.674	16.433	1.00	57.49	O	ATOM	10751	C2	C A 522	178.602	94.676	10.988	1.00	44.50	C
ATOM	10702	C2*	A A 520	185.366	88.048	17.102	1.00	57.49	C	ATOM	10752	O2	C A 522	178.037	95.738	11.305	1.00	44.50	O
ATOM	10703	O2*	A A 520	185.213	87.566	18.418	1.00	57.49	O	ATOM	10753	N3	C A 522	179.331	94.575	9.856	1.00	44.50	N
ATOM	10704	C1*	A A 520	186.505	89.071	17.053	1.00	57.49	C	ATOM	10754	C4	C A 522	179.917	93.422	9.537	1.00	44.50	C
ATOM	10705	N9	A A 520	186.291	90.206	16.141	1.00	61.21	N	ATOM	10755	N4	C A 522	180.609	93.373	8.389	1.00	44.50	N
ATOM	10706	C8	A A 520	186.573	90.283	14.796	1.00	61.21	C	ATOM	10756	C5	C A 522	179.813	92.268	10.371	1.00	44.50	C
ATOM	10707	N7	A A 520	186.297	91.448	14.262	1.00	61.21	N	ATOM	10757	C6	C A 522	179.089	92.378	11.494	1.00	44.50	C
ATOM	10708	C5	A A 520	185.792	92.189	15.319	1.00	61.21	C	ATOM	10758	P	A A 523	173.481	91.290	13.011	1.00	51.77	P
ATOM	10709	C6	A A 520	185.325	93.513	15.410	1.00	61.21	C	ATOM	10759	O1P	A A 523	172.188	91.495	13.712	1.00	62.69	O
ATOM	10710	N6	A A 520	185.279	94.363	14.379	1.00	61.21	N	ATOM	10760	O2P	A A 523	173.932	89.913	12.679	1.00	62.69	O
ATOM	10711	N1	A A 520	184.899	93.944	16.615	1.00	61.21	N	ATOM	10761	O5*	A A 523	173.466	92.178	11.695	1.00	51.77	O
ATOM	10712	C2	A A 520	184.934	93.098	17.646	1.00	61.21	C	ATOM	10762	C5*	A A 523	173.013	93.530	11.754	1.00	51.77	C
ATOM	10713	N3	A A 520	185.345	91.836	17.698	1.00	61.21	N	ATOM	10763	C4*	A A 523	173.099	94.168	10.397	1.00	51.77	C
ATOM	10714	C4	A A 520	185.772	91.435	16.480	1.00	61.21	C	ATOM	10764	O4*	A A 523	174.474	94.447	10.054	1.00	51.77	O
ATOM	10715	P	G A 521	184.085	85.177	15.431	1.00	59.91	P	ATOM	10765	C3*	A A 523	172.566	93.325	9.261	1.00	51.77	C



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ATOM 10766	O3*	A A 523	171.167	93.509	9.210	1.00	51.77	O	ATOM 10816	C2	C A 525	170.330	100.705	5.215	1.00	54.66	C
ATOM 10767	C2*	A A 523	173.308	93.900	8.065	1.00	51.77	C	ATOM 10817	O2	C A 525	170.051	101.782	4.655	1.00	54.66	O
ATOM 10768	O2*	A A 523	172.739	95.117	7.647	1.00	51.77	O	ATOM 10818	N3	C A 525	170.570	100.640	6.538	1.00	54.66	N
ATOM 10769	C1*	A A 523	174.675	94.220	8.675	1.00	51.77	C	ATOM 10819	C4	C A 525	170.881	99.471	7.102	1.00	54.66	C
ATOM 10770	N9	A A 523	175.631	93.121	8.549	1.00	62.69	N	ATOM 10820	N4	C A 525	171.135	99.456	8.415	1.00	54.66	N
ATOM 10771	C8	A A 523	175.706	91.999	9.337	1.00	62.69	C	ATOM 10821	C5	C A 525	170.953	98.266	6.350	1.00	54.66	C
ATOM 10772	N7	A A 523	176.638	91.156	8.971	1.00	62.69	N	ATOM 10822	C6	C A 525	170.707	98.340	5.042	1.00	54.66	C
ATOM 10773	C5	A A 523	177.223	91.765	7.872	1.00	62.69	C	ATOM 10823	P	C A 526	174.190	98.665	0.458	1.00	43.06	P
ATOM 10774	C6	A A 523	178.260	91.366	7.020	1.00	62.69	C	ATOM 10824	O1P	C A 526	174.637	98.542	-0.947	1.00	37.75	O
ATOM 10775	N6	A A 523	178.892	90.196	7.121	1.00	62.69	N	ATOM 10825	O2P	C A 526	174.550	97.602	1.433	1.00	37.75	O
ATOM 10776	N1	A A 523	178.619	92.213	6.034	1.00	62.69	N	ATOM 10826	O5*	C A 526	174.714	100.059	1.016	1.00	43.06	O
ATOM 10777	C2	A A 523	177.950	93.370	5.907	1.00	62.69	C	ATOM 10827	C5*	C A 526	174.730	101.229	0.189	1.00	43.06	C
ATOM 10778	N3	A A 523	176.941	93.845	6.632	1.00	62.69	N	ATOM 10828	C4*	C A 526	174.868	102.472	1.038	1.00	43.06	C
ATOM 10779	C4	A A 523	176.623	92.985	7.611	1.00	62.69	C	ATOM 10829	O4*	C A 526	173.807	102.479	2.028	1.00	43.06	O
ATOM 10780	P	G A 524	170.231	92.420	8.501	1.00	56.41	P	ATOM 10830	C3*	C A 526	176.131	102.616	1.874	1.00	43.06	O
ATOM 10781	O1P	G A 524	168.942	92.373	9.255	1.00	46.97	O	ATOM 10831	O3*	C A 526	177.240	103.131	1.153	1.00	43.06	O
ATOM 10782	O2P	G A 524	170.975	91.154	8.269	1.00	46.97	O	ATOM 10832	C2*	C A 526	175.686	103.583	2.956	1.00	43.06	C
ATOM 10783	O5*	G A 524	169.981	93.107	7.092	1.00	56.41	O	ATOM 10833	O2*	C A 526	175.674	104.933	2.525	1.00	43.06	O
ATOM 10784	C5*	G A 524	169.027	92.577	6.180	1.00	56.41	C	ATOM 10834	C1*	C A 526	174.255	103.125	3.202	1.00	43.06	C
ATOM 10785	C4*	G A 524	168.307	93.698	5.490	1.00	56.41	C	ATOM 10835	N1	C A 526	174.215	102.182	4.327	1.00	37.75	N
ATOM 10786	O4*	G A 524	167.435	94.367	6.426	1.00	56.41	O	ATOM 10836	C2	C A 526	174.145	102.702	5.633	1.00	37.75	C
ATOM 10787	C3*	G A 524	169.206	94.792	4.952	1.00	56.41	C	ATOM 10837	O2	C A 526	174.040	103.929	5.788	1.00	37.75	O
ATOM 10788	O3*	G A 524	169.710	94.430	3.688	1.00	56.41	O	ATOM 10838	N3	C A 526	174.183	101.859	6.686	1.00	37.75	N
ATOM 10789	O2*	G A 524	168.277	95.994	4.899	1.00	56.41	C	ATOM 10839	C4	C A 526	174.251	100.545	6.477	1.00	37.75	C
ATOM 10790	C2*	G A 524	167.461	96.004	3.748	1.00	56.41	O	ATOM 10840	N4	C A 526	174.285	99.987	7.543	1.00	37.75	N
ATOM 10791	C1*	G A 524	167.394	95.749	6.122	1.00	56.41	C	ATOM 10841	C5	C A 526	174.285	99.987	5.160	1.00	37.75	C
ATOM 10792	N9	G A 524	167.812	96.489	7.307	1.00	46.97	N	ATOM 10842	C6	C A 526	174.270	100.835	4.126	1.00	37.75	C
ATOM 10793	C8	G A 524	168.340	95.975	8.462	1.00	46.97	C	ATOM 10843	P	G A 527	178.579	102.246	1.031	1.00	51.13	P
ATOM 10794	N7	G A 524	168.558	96.882	9.371	1.00	46.97	N	ATOM 10844	O1P	G A 527	179.484	102.961	0.098	1.00	44.71	O
ATOM 10795	C5	G A 524	168.155	98.064	8.772	1.00	46.97	C	ATOM 10845	O2P	G A 527	178.197	100.838	0.765	1.00	44.71	O
ATOM 10796	C6	G A 524	168.118	99.369	9.281	1.00	46.97	C	ATOM 10846	O5*	G A 527	179.240	102.232	2.473	1.00	51.13	O
ATOM 10797	O6	G A 524	168.391	99.752	10.422	1.00	46.97	O	ATOM 10847	C5*	G A 527	179.263	103.394	3.273	1.00	51.13	C
ATOM 10798	N1	G A 524	167.673	100.273	8.326	1.00	46.97	N	ATOM 10848	C4*	G A 527	178.824	103.051	4.671	1.00	51.13	C
ATOM 10799	C2	G A 524	167.276	99.942	7.060	1.00	46.97	C	ATOM 10849	O4*	G A 527	177.974	101.862	4.649	1.00	51.13	O
ATOM 10800	N2	G A 524	166.869	100.942	6.276	1.00	46.97	N	ATOM 10850	C3*	G A 527	179.882	102.669	5.692	1.00	51.13	C
ATOM 10801	N3	G A 524	167.273	98.719	6.591	1.00	46.97	N	ATOM 10851	O3*	G A 527	180.557	103.786	6.242	1.00	51.13	O
ATOM 10802	C4	G A 524	167.722	97.838	7.490	1.00	46.97	C	ATOM 10852	C2*	G A 527	179.026	102.018	6.758	1.00	51.13	C
ATOM 10803	P	C A 525	171.275	94.586	3.394	1.00	52.21	P	ATOM 10853	O2*	G A 527	178.322	103.027	7.450	1.00	51.13	O
ATOM 10804	O1P	C A 525	171.590	93.612	2.309	1.00	54.66	O	ATOM 10854	C1*	G A 527	178.040	101.222	5.911	1.00	51.13	C
ATOM 10805	O2P	C A 525	172.051	94.540	4.671	1.00	54.66	O	ATOM 10855	N9	G A 527	178.559	99.866	5.760	1.00	44.71	N
ATOM 10806	O5*	C A 525	171.379	96.060	2.810	1.00	52.21	O	ATOM 10856	C8	G A 527	179.135	99.277	4.654	1.00	44.71	C
ATOM 10807	C5*	C A 525	170.729	96.405	1.585	1.00	52.21	C	ATOM 10857	N7	G A 527	179.566	98.060	4.885	1.00	44.71	N
ATOM 10808	C4*	C A 525	170.587	97.894	1.485	1.00	52.21	C	ATOM 10858	C5	G A 527	179.239	97.827	6.217	1.00	44.71	C
ATOM 10809	O4*	C A 525	169.719	98.337	2.548	1.00	52.21	O	ATOM 10859	C6	G A 527	179.465	96.687	7.053	1.00	44.71	C
ATOM 10810	C3*	C A 525	171.871	98.686	1.674	1.00	52.21	C	ATOM 10860	O6	G A 527	180.013	95.616	6.778	1.00	44.71	O
ATOM 10811	O3*	C A 525	172.592	98.822	0.458	1.00	52.21	O	ATOM 10861	N1	G A 527	178.977	96.893	8.341	1.00	44.71	N
ATOM 10812	C2*	C A 525	171.364	100.026	2.181	1.00	52.21	C	ATOM 10862	C2	G A 527	178.361	98.034	8.783	1.00	44.71	C
ATOM 10813	O2*	C A 525	170.958	100.884	1.133	1.00	52.21	O	ATOM 10863	N2	G A 527	177.985	98.032	10.059	1.00	44.71	N
ATOM 10814	C1*	C A 525	170.143	99.606	3.003	1.00	52.21	C	ATOM 10864	N3	G A 527	178.140	99.036	8.026	1.00	44.71	N
ATOM 10815	N1	C A 525*	170.401	99.529	4.449	1.00	54.66	N	ATOM 10865	C4	G A 527	178.602	98.926	6.764	1.00	44.71	C



Table 2: Sheet 110/520

ATOM	10866	P	C A 528	182.067	103.612	6.773	1.00	47.20	P	ATOM	10916	C3*	G A 530	193.258	99.716	13.055	1.00	73.52	C
ATOM	10867	O1P	C A 528	182.582	104.965	7.126	1.00	46.51	O	ATOM	10917	O3*	G A 530	193.925	99.912	14.300	1.00	73.52	O
ATOM	10868	O2P	C A 528	182.790	102.794	5.765	1.00	46.51	O	ATOM	10918	C2*	G A 530	194.217	99.236	11.966	1.00	73.52	C
ATOM	10869	O5*	C A 528	181.917	102.747	8.103	1.00	47.20	O	ATOM	10919	O2*	G A 530	195.333	98.561	12.513	1.00	73.52	O
ATOM	10870	C5*	C A 528	181.124	103.228	9.170	1.00	47.20	C	ATOM	10920	C1*	G A 530	193.363	98.228	11.186	1.00	73.52	C
ATOM	10871	C4*	C A 528	181.124	102.261	10.313	1.00	47.20	C	ATOM	10921	N9	G A 530	192.992	98.566	9.815	1.00	77.65	N
ATOM	10872	O4*	C A 528	180.445	101.033	9.951	1.00	47.20	O	ATOM	10922	C8	G A 530	193.115	97.762	8.698	1.00	77.65	C
ATOM	10873	C3*	C A 528	182.442	101.744	10.854	1.00	47.20	C	ATOM	10923	N7	G A 530	192.676	98.328	7.606	1.00	77.65	N
ATOM	10874	O3*	C A 528	183.155	102.661	11.656	1.00	47.20	O	ATOM	10924	C5	G A 530	192.242	99.577	8.026	1.00	77.65	C
ATOM	10875	C2*	C A 528	181.973	100.576	11.705	1.00	47.20	C	ATOM	10925	C6	G A 530	191.662	100.626	7.298	1.00	77.65	C
ATOM	10876	O2*	C A 528	181.445	101.039	12.935	1.00	47.20	O	ATOM	10926	O6	G A 530	191.393	100.667	6.095	1.00	77.65	O
ATOM	10877	C1*	C A 528	180.846	100.006	10.847	1.00	47.20	C	ATOM	10927	N1	G A 530	191.382	101.715	8.112	1.00	77.65	N
ATOM	10878	N1	C A 528	181.339	98.843	10.095	1.00	46.51	N	ATOM	10928	C2	G A 530	191.626	101.779	9.465	1.00	77.65	C
ATOM	10879	C2	C A 528	181.375	97.596	10.748	1.00	46.51	C	ATOM	10929	N2	G A 530	191.298	102.924	10.079	1.00	77.65	N
ATOM	10880	O2	C A 528	180.906	97.500	11.892	1.00	46.51	O	ATOM	10930	N3	G A 530	192.155	100.797	10.162	1.00	77.65	N
ATOM	10881	N3	C A 528	181.917	96.532	10.113	1.00	46.51	N	ATOM	10931	C4	G A 530	192.438	99.737	9.387	1.00	77.65	C
ATOM	10882	C4	C A 528	182.397	96.669	8.873	1.00	46.51	C	ATOM	10932	P	U A 531	194.898	101.171	14.510	1.00	85.61	P
ATOM	10883	N4	C A 528	182.965	95.603	8.305	1.00	46.51	N	ATOM	10933	O1P	U A 531	194.540	102.243	13.532	1.00	91.08	O
ATOM	10884	C5	C A 528	182.327	97.911	8.165	1.00	46.51	C	ATOM	10934	O2P	U A 531	196.290	100.649	14.564	1.00	91.08	O
ATOM	10885	C6	C A 528	181.793	98.961	8.808	1.00	46.51	C	ATOM	10935	O5*	U A 531	194.514	101.692	15.961	1.00	85.61	O
ATOM	10886	P	G A 529	184.762	102.643	11.617	1.00	47.25	P	ATOM	10936	C5*	U A 531	193.185	102.130	16.236	1.00	85.61	C
ATOM	10887	O1P	G A 529	185.212	103.665	12.600	1.00	57.69	O	ATOM	10937	C4*	U A 531	193.099	102.713	17.618	1.00	85.61	C
ATOM	10888	O2P	G A 529	185.177	102.767	10.194	1.00	57.69	O	ATOM	10938	O4*	U A 531	193.193	101.661	18.613	1.00	85.61	O
ATOM	10889	O5*	G A 529	185.149	101.183	12.139	1.00	47.25	O	ATOM	10939	C3*	U A 531	194.134	103.771	17.978	1.00	85.61	C
ATOM	10890	C5*	G A 529	185.034	100.866	13.531	1.00	47.25	C	ATOM	10940	O3*	U A 531	193.491	104.792	18.705	1.00	85.61	O
ATOM	10891	C4*	G A 529	185.754	99.581	13.865	1.00	47.25	C	ATOM	10941	C2*	U A 531	195.085	103.031	18.919	1.00	85.61	C
ATOM	10892	O4*	G A 529	185.030	98.450	13.324	1.00	47.25	O	ATOM	10942	O2*	U A 531	195.638	103.896	19.894	1.00	85.61	O
ATOM	10893	C3*	G A 529	187.173	99.400	13.359	1.00	47.25	C	ATOM	10943	C1*	U A 531	194.154	102.014	19.584	1.00	85.61	C
ATOM	10894	O3*	G A 529	188.136	100.041	14.180	1.00	47.25	O	ATOM	10944	N1	U A 531	194.824	100.787	20.047	1.00	91.08	N
ATOM	10895	O2*	G A 529	187.338	97.890	13.409	1.00	47.25	O	ATOM	10945	C2	U A 531	194.783	100.489	21.414	1.00	91.08	C
ATOM	10896	C2*	G A 529	187.654	97.467	14.720	1.00	47.25	C	ATOM	10946	O2	U A 531	194.208	101.186	22.247	1.00	91.08	O
ATOM	10897	C1*	G A 529	185.936	97.404	13.023	1.00	47.25	C	ATOM	10947	N3	U A 531	195.438	99.336	21.770	1.00	91.08	N
ATOM	10898	N9	G A 529	185.855	97.110	11.596	1.00	57.69	N	ATOM	10948	C4	U A 531	196.104	98.464	20.934	1.00	91.08	C
ATOM	10899	C8	G A 529	185.595	97.998	10.578	1.00	57.69	C	ATOM	10949	O4	U A 531	196.618	97.446	21.408	1.00	91.08	O
ATOM	10900	N7	G A 529	185.696	97.462	9.391	1.00	57.69	N	ATOM	10950	C5	U A 531	196.095	98.835	19.549	1.00	91.08	C
ATOM	10901	C5	G A 529	186.024	96.134	9.640	1.00	57.69	C	ATOM	10951	C6	U A 531	195.474	99.952	19.163	1.00	91.08	C
ATOM	10902	C6	G A 529	186.296	95.069	8.742	1.00	57.69	C	ATOM	10952	P	A A 532	193.551	106.306	18.190	1.00	95.01	P
ATOM	10903	O6	G A 529	186.318	95.087	7.504	1.00	57.69	O	ATOM	10953	O1P	A A 532	192.988	106.338	16.815	1.00	200.23	O
ATOM	10904	N1	G A 529	186.578	93.889	9.422	1.00	57.69	N	ATOM	10954	O2P	A A 532	194.914	106.838	18.441	1.00	200.23	O
ATOM	10905	C2	G A 529	186.600	93.747	10.785	1.00	57.69	C	ATOM	10955	O5*	A A 532	192.529	107.030	19.179	1.00	95.01	O
ATOM	10906	N2	G A 529	186.877	92.521	11.248	1.00	57.69	N	ATOM	10956	C5*	A A 532	192.446	106.620	20.569	1.00	95.01	C
ATOM	10907	N3	G A 529	186.366	94.732	11.631	1.00	57.69	N	ATOM	10957	C4*	A A 532	191.058	106.855	21.134	1.00	95.01	C
ATOM	10908	C4	G A 529	186.090	95.891	10.996	1.00	57.69	C	ATOM	10958	O4*	A A 532	190.814	108.276	21.277	1.00	95.01	O
ATOM	10909	P	G A 530	189.294	100.913	13.494	1.00	73.52	P	ATOM	10959	C3*	A A 532	189.861	106.326	20.352	1.00	95.01	C
ATOM	10910	O1P	G A 530	189.960	101.684	14.562	1.00	77.65	O	ATOM	10960	O3*	A A 532	189.591	104.957	20.666	1.00	95.01	O
ATOM	10911	O2P	G A 530	188.732	101.622	12.313	1.00	77.65	O	ATOM	10961	C2*	A A 532	188.716	107.204	20.853	1.00	95.01	C
ATOM	10912	O5*	G A 530	190.306	99.835	12.922	1.00	73.52	O	ATOM	10962	O2*	A A 532	188.089	106.677	22.006	1.00	95.01	O
ATOM	10913	C5*	G A 530	190.946	98.889	13.782	1.00	73.52	C	ATOM	10963	C1*	A A 532	189.424	108.521	21.191	1.00	95.01	C
ATOM	10914	C4*	G A 530	192.313	98.541	13.239	1.00	73.52	C	ATOM	10964	N9	A A 532	189.183	109.592	20.224	1.00	200.23	N
ATOM	10915	O4*	G A 530	192.188	97.965	11.920	1.00	73.52	O	ATOM	10965	C8	A A 532	189.776	109.796	19.001	1.00	200.23	C



ATOM	10966	N7	A	A	532	189.318	110.845	18.361	1.00200.23	N	ATOM	11016	P	A	A	535	179.400	102.465	19.118	1.00	57.61	P
ATOM	10967	C5	A	A	532	188.363	111.371	19.222	1.00200.23	C	ATOM	11017	O1P	A	A	535	179.447	101.096	19.707	1.00	48.73	O
ATOM	10968	C6	A	A	532	187.512	112.489	19.125	1.00200.23	C	ATOM	11018	O2P	A	A	535	180.645	103.138	18.733	1.00	48.73	O
ATOM	10969	N6	A	A	532	187.486	113.313	18.074	1.00200.23	N	ATOM	11019	O5*	A	A	535	178.462	102.435	17.833	1.00	57.61	O
ATOM	10970	N1	A	A	532	186.676	112.734	20.160	1.00200.23	N	ATOM	11020	C5*	A	A	535	177.171	101.814	17.895	1.00	57.61	C
ATOM	10971	C2	A	A	532	186.703	111.908	21.215	1.00200.23	C	ATOM	11021	C4*	A	A	535	176.981	100.870	16.732	1.00	57.61	C
ATOM	10972	N3	A	A	532	187.455	110.829	21.422	1.00200.23	N	ATOM	11022	O4*	A	A	535	176.783	101.615	15.509	1.00	57.61	O
ATOM	10973	C4	A	A	532	188.273	110.612	20.375	1.00200.23	C	ATOM	11023	C3*	A	A	535	178.085	99.858	16.457	1.00	57.61	C
ATOM	10974	P	A	A	533	188.645	104.071	19.702	1.00 78.78	P	ATOM	11024	O3*	A	A	535	177.435	98.665	16.068	1.00	57.61	O
ATOM	10975	O1P	A	A	533	187.869	103.137	20.561	1.00 54.86	O	ATOM	11025	C2*	A	A	535	178.810	100.450	15.249	1.00	57.61	C
ATOM	10976	O2P	A	A	533	189.463	103.529	18.600	1.00 54.86	O	ATOM	11026	O2*	A	A	535	179.354	99.468	14.387	1.00	57.61	O
ATOM	10977	O5*	A	A	533	187.638	105.114	19.051	1.00 78.78	O	ATOM	11027	C1*	A	A	535	177.657	101.127	14.524	1.00	57.61	C
ATOM	10978	C5*	A	A	533	186.378	105.373	19.660	1.00 78.78	C	ATOM	11028	N9	A	A	535	177.986	102.228	13.633	1.00	48.73	N
ATOM	10979	C4*	A	A	533	185.259	105.089	18.692	1.00 78.78	C	ATOM	11029	C8	A	A	535	178.448	103.480	13.933	1.00	48.73	C
ATOM	10980	O4*	A	A	533	185.553	103.889	17.943	1.00 78.78	O	ATOM	11030	N7	A	A	535	178.503	104.281	12.896	1.00	48.73	N
ATOM	10981	C3*	A	A	533	183.943	104.835	19.401	1.00 78.78	C	ATOM	11031	C5	A	A	535	178.074	103.488	11.843	1.00	48.73	C
ATOM	10982	O3*	A	A	533	183.339	106.105	19.767	1.00 78.78	O	ATOM	11032	C6	A	A	535	177.880	103.749	10.497	1.00	48.73	C
ATOM	10983	C2*	A	A	533	183.213	103.828	18.510	1.00 78.78	C	ATOM	11033	N6	A	A	535	178.071	104.943	9.939	1.00	48.73	N
ATOM	10984	O2*	A	A	533	182.318	104.389	17.573	1.00 78.78	O	ATOM	11034	N1	A	A	535	177.464	102.736	9.722	1.00	48.73	N
ATOM	10985	C1*	A	A	533	184.368	103.146	17.759	1.00 78.78	C	ATOM	11035	C2	A	A	535	177.247	101.548	10.277	1.00	48.73	C
ATOM	10986	N9	A	A	533	184.670	101.723	17.955	1.00 54.86	N	ATOM	11036	N3	A	A	535	177.372	101.182	11.532	1.00	48.73	N
ATOM	10987	C8	A	A	533	185.573	101.176	18.830	1.00 54.86	C	ATOM	11037	C4	A	A	535	177.793	102.212	12.277	1.00	48.73	C
ATOM	10988	N7	A	A	533	185.731	99.880	18.689	1.00 54.86	N	ATOM	11038	P	C	A	536	177.013	97.593	17.178	1.00	53.34	P
ATOM	10989	C5	A	A	533	184.849	99.542	17.674	1.00 54.86	C	ATOM	11039	O1P	C	A	536	175.778	96.922	16.718	1.00	58.78	O
ATOM	10990	C6	A	A	533	184.551	98.318	17.049	1.00 54.86	C	ATOM	11040	O2P	C	A	536	177.037	98.245	18.512	1.00	58.78	O
ATOM	10991	N6	A	A	533	185.128	97.164	17.366	1.00 54.86	N	ATOM	11041	O5*	C	A	536	178.200	96.535	17.158	1.00	53.34	O
ATOM	10992	N1	A	A	533	183.627	98.319	16.075	1.00 54.86	N	ATOM	11042	C5*	C	A	536	178.262	95.490	16.172	1.00	53.34	C
ATOM	10993	C2	A	A	533	183.040	99.469	15.756	1.00 54.86	C	ATOM	11043	C4*	C	A	536	179.432	94.590	16.472	1.00	53.34	C
ATOM	10994	N3	A	A	533	183.230	100.686	16.265	1.00 54.86	N	ATOM	11044	O4*	C	A	536	180.653	95.362	16.358	1.00	53.34	O
ATOM	10995	C4	A	A	533	184.165	100.658	17.232	1.00 54.86	C	ATOM	11045	C3*	C	A	536	179.431	94.052	17.893	1.00	53.34	C
ATOM	10996	P	U	A	534	182.264	106.860	18.809	1.00 70.23	P	ATOM	11046	O3*	C	A	536	180.909	92.838	17.971	1.00	53.34	O
ATOM	10997	O1P	U	A	534	182.563	106.647	17.371	1.00 80.95	O	ATOM	11047	C2*	C	A	536	180.909	92.838	17.971	1.00	53.34	O
ATOM	10998	O2P	U	A	534	182.173	108.249	19.321	1.00 80.95	O	ATOM	11048	O2*	C	A	536	181.402	92.604	17.730	1.00	53.34	O
ATOM	10999	O5*	U	A	534	180.880	106.186	19.203	1.00 70.23	O	ATOM	11049	C1*	C	A	536	181.545	94.998	17.392	1.00	53.34	C
ATOM	11000	C5*	U	A	534	180.636	105.853	20.571	1.00 70.23	C	ATOM	11050	N1	C	A	536	181.858	96.207	18.181	1.00	58.78	N
ATOM	11001	C4*	U	A	534	179.173	105.662	20.821	1.00 70.23	C	ATOM	11051	C2	C	A	536	182.783	96.121	19.227	1.00	58.78	O
ATOM	11002	O4*	U	A	534	178.482	106.927	20.770	1.00 70.23	O	ATOM	11052	O2	C	A	536	183.282	95.025	19.500	1.00	58.78	O
ATOM	11003	C3*	U	A	534	178.614	103.410	20.156	1.00 70.23	C	ATOM	11053	N3	C	A	536	183.105	97.236	19.912	1.00	58.78	N
ATOM	11004	O3*	U	A	534	176.978	105.214	20.084	1.00 70.23	C	ATOM	11054	C4	C	A	536	182.539	98.398	19.597	1.00	58.78	C
ATOM	11005	C2*	U	A	534	176.437	104.569	21.217	1.00 70.23	O	ATOM	11055	N4	C	A	536	182.900	99.469	20.281	1.00	58.78	N
ATOM	11006	O2*	U	A	534	176.137	106.700	20.410	1.00 70.23	O	ATOM	11056	C5	C	A	536	181.580	98.512	18.561	1.00	58.78	C
ATOM	11007	C1*	U	A	534	177.137	106.700	20.410	1.00 70.23	C	ATOM	11057	C6	C	A	536	181.268	97.403	17.885	1.00	58.78	C
ATOM	11008	N1	U	A	534	176.776	107.602	19.310	1.00 80.95	N	ATOM	11058	P	G	A	537	177.552	92.673	19.071	1.00	52.87	P
ATOM	11009	C2	U	A	534	175.453	107.983	19.212	1.00 80.95	C	ATOM	11059	O1P	A	A	537	176.828	91.428	18.721	1.00	75.12	O
ATOM	11010	O2	U	A	534	174.589	107.595	19.985	1.00 80.95	O	ATOM	11060	O2P	G	A	537	176.804	93.948	19.172	1.00	75.12	O
ATOM	11011	N3	U	A	534	175.172	108.834	18.173	1.00 80.95	N	ATOM	11061	O5*	G	A	537	178.349	92.433	20.427	1.00	52.87	O
ATOM	11012	C4	U	A	534	176.060	109.327	17.242	1.00 80.95	C	ATOM	11062	C5*	G	A	537	178.880	91.129	20.747	1.00	52.87	C
ATOM	11013	O4	U	A	534	175.649	110.072	16.348	1.00 80.95	O	ATOM	11063	C4*	G	A	537	179.605	91.156	22.076	1.00	52.87	C
ATOM	11014	C5	U	A	534	177.408	108.881	17.411	1.00 80.95	C	ATOM	11064	O4*	G	A	537	180.817	91.949	21.968	1.00	52.87	O
ATOM	11015	C6	U	A	534	177.711	108.055	18.412	1.00 80.95	C	ATOM	11065	C3*	G	A	537	178.855	91.799	23.230	1.00	52.87	C



Table 2: Sheet 112/520

ATOM	11066	O3*	G A 537	177.918	90.933	23.847	1.00	52.87	O	ATOM	11116	N9	A A 539	177.812	98.024	30.353	1.00	70.78	N
ATOM	11067	C2*	G A 537	179.972	92.199	24.178	1.00	52.87	C	ATOM	11117	C8	A A 539	177.172	97.253	29.413	1.00	70.78	C
ATOM	11068	O2*	G A 537	180.413	91.129	24.997	1.00	52.87	O	ATOM	11118	N7	A A 539	176.824	97.914	28.336	1.00	70.78	N
ATOM	11069	C1*	G A 537	181.068	92.608	23.198	1.00	52.87	C	ATOM	11119	C5	A A 539	177.271	99.204	28.578	1.00	70.78	C
ATOM	11070	N9	G A 537	181.070	94.047	22.965	1.00	75.12	N	ATOM	11120	C6	A A 539	177.217	100.382	27.817	1.00	70.78	C
ATOM	11071	C8	G A 537	180.503	94.731	21.918	1.00	75.12	C	ATOM	11121	N6	A A 539	176.671	100.453	26.606	1.00	70.78	N
ATOM	11072	N7	G A 537	180.676	96.022	21.995	1.00	75.12	N	ATOM	11122	N1	A A 539	177.752	101.499	28.348	1.00	70.78	N
ATOM	11073	C5	G A 537	181.399	96.199	23.164	1.00	75.12	C	ATOM	11123	C2	A A 539	178.306	101.428	29.561	1.00	70.78	C
ATOM	11074	C6	G A 537	181.891	97.383	23.769	1.00	75.12	C	ATOM	11124	N3	A A 539	178.426	100.380	30.373	1.00	70.78	N
ATOM	11075	O6	G A 537	181.778	98.552	23.383	1.00	75.12	O	ATOM	11125	C4	A A 539	177.883	99.286	29.815	1.00	70.78	C
ATOM	11076	N1	G A 537	182.582	97.104	24.943	1.00	75.12	N	ATOM	11126	P	G A 540	174.426	97.090	34.492	1.00	56.45	P
ATOM	11077	C2	G A 537	182.776	95.847	25.466	1.00	75.12	C	ATOM	11127	O1P	G A 540	174.077	96.602	35.850	1.00	63.13	O
ATOM	11078	N2	G A 537	183.481	95.774	26.603	1.00	75.12	N	ATOM	11128	O2P	G A 540	173.650	96.599	33.320	1.00	63.13	O
ATOM	11079	N3	G A 537	182.318	94.741	24.914	1.00	75.12	N	ATOM	11129	O5*	G A 540	174.419	98.687	34.496	1.00	56.45	O
ATOM	11080	C4	G A 537	181.647	94.989	23.774	1.00	75.12	C	ATOM	11130	C5*	G A 540	174.994	99.423	35.592	1.00	56.45	C
ATOM	11081	P	G A 538	176.686	91.580	24.638	1.00	52.84	P	ATOM	11131	C4*	G A 540	175.052	100.900	35.273	1.00	56.45	C
ATOM	11082	O1P	G A 538	175.761	90.485	25.021	1.00	67.92	O	ATOM	11132	O4*	G A 540	175.965	101.117	34.168	1.00	56.45	O
ATOM	11083	O2P	G A 538	176.187	92.708	23.822	1.00	67.92	O	ATOM	11133	C3*	G A 540	173.751	101.553	34.834	1.00	56.45	C
ATOM	11084	O5*	G A 538	177.361	92.188	25.946	1.00	52.84	O	ATOM	11134	O3*	G A 540	172.966	101.974	35.928	1.00	56.45	O
ATOM	11085	C5*	G A 538	177.999	91.327	26.909	1.00	52.84	C	ATOM	11135	C2*	G A 540	174.229	102.746	34.020	1.00	56.45	C
ATOM	11086	O4*	G A 538	178.621	92.136	28.025	1.00	52.84	O	ATOM	11136	O2*	G A 540	174.547	103.860	34.823	1.00	56.45	O
ATOM	11087	C4*	G A 538	179.666	92.985	27.488	1.00	52.84	C	ATOM	11137	C1*	G A 540	175.494	102.187	33.363	1.00	56.45	C
ATOM	11088	C3*	G A 538	177.710	93.097	28.767	1.00	52.84	C	ATOM	11138	N9	G A 540	175.205	101.666	32.029	1.00	63.13	N
ATOM	11089	O3*	G A 538	176.950	92.455	29.787	1.00	52.84	O	ATOM	11139	C8	G A 540	174.952	100.359	31.679	1.00	63.13	C
ATOM	11090	C2*	G A 538	178.692	94.104	29.348	1.00	52.84	C	ATOM	11140	N7	G A 540	174.666	100.216	30.415	1.00	63.13	N
ATOM	11091	O2*	G A 538	179.295	93.627	30.524	1.00	52.84	O	ATOM	11141	C5	G A 540	174.746	101.504	29.899	1.00	63.13	C
ATOM	11092	C1*	G A 538	179.763	94.167	28.262	1.00	52.84	C	ATOM	11142	C6	G A 540	174.518	101.983	28.586	1.00	63.13	C
ATOM	11093	N9	G A 538	179.601	95.326	27.391	1.00	67.92	N	ATOM	11143	O6	G A 540	174.167	101.343	27.585	1.00	63.13	O
ATOM	11094	C8	G A 538	178.987	95.363	26.166	1.00	67.92	C	ATOM	11144	N1	G A 540	174.724	103.355	28.500	1.00	63.13	N
ATOM	11095	N7	G A 538	178.970	96.556	25.639	1.00	67.92	N	ATOM	11145	C2	G A 540	175.092	104.159	29.544	1.00	63.13	C
ATOM	11096	C5	G A 538	179.618	97.352	26.570	1.00	67.92	C	ATOM	11146	N2	G A 540	175.265	105.451	29.264	1.00	63.13	N
ATOM	11097	C6	G A 538	179.893	98.741	26.551	1.00	67.92	C	ATOM	11147	N3	G A 540	175.283	103.731	30.773	1.00	63.13	N
ATOM	11098	O6	G A 538	179.604	99.570	25.682	1.00	67.92	O	ATOM	11148	C4	G A 540	175.097	102.403	30.878	1.00	63.13	C
ATOM	11099	N1	G A 538	180.572	99.144	27.695	1.00	67.92	N	ATOM	11149	P	G A 541	171.370	101.963	35.800	1.00	64.94	P
ATOM	11100	C2	G A 538	180.938	98.319	28.724	1.00	67.92	C	ATOM	11150	O1P	G A 541	170.806	102.430	37.094	1.00	61.60	O
ATOM	11101	N2	G A 538	181.596	98.902	29.729	1.00	67.92	N	ATOM	11151	O2P	G A 541	170.989	100.629	35.273	1.00	61.60	O
ATOM	11102	N3	G A 538	180.681	97.021	28.759	1.00	67.92	N	ATOM	11152	O5*	G A 541	171.065	103.080	34.709	1.00	64.94	O
ATOM	11103	C4	G A 538	180.022	96.608	27.654	1.00	67.92	C	ATOM	11153	C5*	G A 541	171.364	104.455	34.983	1.00	64.94	C
ATOM	11104	P	G A 539	175.642	93.186	30.372	1.00	68.12	P	ATOM	11154	C4*	G A 541	171.289	105.285	33.720	1.00	64.94	C
ATOM	11105	O1P	A A 539	175.034	92.282	31.378	1.00	70.78	O	ATOM	11155	O4*	G A 541	172.305	104.851	32.773	1.00	64.94	O
ATOM	11106	O2P	A A 539	174.817	93.681	29.240	1.00	70.78	O	ATOM	11156	C3*	G A 541	170.002	105.205	32.922	1.00	64.94	C
ATOM	11107	O5*	A A 539	176.225	94.470	31.114	1.00	68.12	O	ATOM	11157	O3*	G A 541	168.965	106.010	33.425	1.00	64.94	O
ATOM	11108	C5*	A A 539	177.013	94.339	32.309	1.00	68.12	C	ATOM	11158	C2*	G A 541	170.444	105.663	31.542	1.00	64.94	C
ATOM	11109	C4*	A A 539	177.552	95.684	32.737	1.00	68.12	C	ATOM	11159	O2*	G A 541	170.527	107.069	31.424	1.00	64.94	O
ATOM	11110	O4*	A A 539	178.417	96.217	31.702	1.00	68.12	O	ATOM	11160	C1*	G A 541	171.834	105.041	31.448	1.00	64.94	C
ATOM	11111	C3*	A A 539	176.525	96.778	32.969	1.00	68.12	C	ATOM	11161	N9	G A 541	171.735	103.744	30.790	1.00	61.60	N
ATOM	11112	O3*	A A 539	175.970	96.710	34.269	1.00	68.12	O	ATOM	11162	C8	G A 541	171.800	102.501	31.367	1.00	61.60	C
ATOM	11113	C2*	A A 539	177.340	98.047	32.776	1.00	68.12	C	ATOM	11163	N7	G A 541	171.606	101.531	30.517	1.00	61.60	N
ATOM	11114	O2*	A A 539	178.069	98.402	33.933	1.00	68.12	O	ATOM	11164	C5	G A 541	171.414	102.176	29.302	1.00	61.60	C
ATOM	11115	C1*	A A 539	178.307	97.629	31.669	1.00	68.12	C	ATOM	11165	C6	G A 541	171.155	101.649	28.015	1.00	61.60	C



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ATOM	11166	O6	G A 541	171.022	100.466	27.686	1.00	61.60	O	ATOM	11216	O1P	G A 544	158.268	107.277	24.539	1.00	55.55	O
ATOM	11167	N1	G A 541	171.050	102.657	27.059	1.00	61.60	N	ATOM	11217	O2P	G A 544	159.362	105.888	26.408	1.00	55.55	O
ATOM	11168	C2	G A 541	171.179	104.000	27.312	1.00	61.60	C	ATOM	11218	O5*	G A 544	159.123	104.938	24.132	1.00	50.03	O
ATOM	11169	N2	G A 541	171.069	104.820	26.260	1.00	61.60	N	ATOM	11219	C5*	G A 544	159.123	104.957	22.690	1.00	50.03	C
ATOM	11170	N3	G A 541	171.405	104.503	28.510	1.00	61.60	N	ATOM	11220	C4*	G A 544	158.909	103.564	22.128	1.00	50.03	C
ATOM	11171	C4	G A 541	171.512	103.539	29.452	1.00	61.60	C	ATOM	11221	O4*	G A 544	160.036	102.702	22.433	1.00	50.03	O
ATOM	11172	P	G A 542	167.451	105.571	33.154	1.00	62.65	P	ATOM	11222	C3*	G A 544	157.708	102.786	22.636	1.00	50.03	C
ATOM	11173	O1P	G A 542	166.559	106.522	33.845	1.00	55.96	O	ATOM	11223	O3*	G A 544	156.508	103.139	21.978	1.00	50.03	O
ATOM	11174	O2P	G A 542	167.336	104.115	33.437	1.00	55.96	O	ATOM	11224	C2*	G A 544	158.077	101.348	22.315	1.00	50.03	C
ATOM	11175	O5*	G A 542	167.264	105.811	31.594	1.00	62.65	O	ATOM	11225	O2*	G A 544	157.783	101.017	20.972	1.00	50.03	O
ATOM	11176	C5*	G A 542	167.533	107.094	31.026	1.00	62.65	C	ATOM	11226	C1*	G A 544	159.589	101.358	22.520	1.00	50.03	C
ATOM	11177	C4*	G A 542	167.410	107.040	29.529	1.00	62.65	C	ATOM	11227	N9	G A 544	159.982	100.793	23.808	1.00	55.55	N
ATOM	11178	O4*	G A 542	168.371	106.098	28.992	1.00	62.65	O	ATOM	11228	C8	G A 544	160.238	101.468	24.976	1.00	55.55	C
ATOM	11179	C3*	G A 542	166.079	106.552	28.997	1.00	62.65	C	ATOM	11229	N7	G A 544	160.595	100.681	25.955	1.00	55.55	N
ATOM	11180	O3*	G A 542	165.123	107.589	28.962	1.00	62.65	O	ATOM	11230	C5	G A 544	160.564	99.408	25.402	1.00	55.55	C
ATOM	11181	C2*	G A 542	166.437	106.046	27.605	1.00	62.65	C	ATOM	11231	C6	G A 544	160.866	98.144	25.980	1.00	55.55	C
ATOM	11182	O2*	G A 542	166.495	107.060	26.623	1.00	62.65	O	ATOM	11232	O6	G A 544	161.228	97.888	27.134	1.00	55.55	O
ATOM	11183	C1*	G A 542	167.839	105.488	27.832	1.00	62.65	C	ATOM	11233	N1	G A 544	160.713	97.115	25.064	1.00	55.55	N
ATOM	11184	N9	G A 542	167.814	104.047	28.029	1.00	55.96	N	ATOM	11234	C2	G A 544	160.322	97.274	23.763	1.00	55.55	C
ATOM	11185	C8	G A 542	168.005	103.354	29.196	1.00	55.96	C	ATOM	11235	N2	G A 544	160.247	96.154	23.033	1.00	55.55	N
ATOM	11186	N7	G A 542	167.884	102.064	29.047	1.00	55.96	N	ATOM	11236	N3	G A 544	160.031	98.442	23.212	1.00	55.55	N
ATOM	11187	C5	G A 542	167.602	101.899	27.699	1.00	55.96	C	ATOM	11237	C4	G A 544	160.178	99.459	24.082	1.00	55.55	C
ATOM	11188	C6	G A 542	167.359	100.724	26.948	1.00	55.96	C	ATOM	11238	P	C A 545	155.130	103.103	22.795	1.00	53.93	P
ATOM	11189	O6	G A 542	167.352	99.554	27.335	1.00	55.96	O	ATOM	11239	O1P	C A 545	154.083	103.546	21.827	1.00	54.14	O
ATOM	11190	N1	G A 542	167.103	101.014	25.612	1.00	55.96	N	ATOM	11240	O2P	C A 545	155.329	103.855	24.065	1.00	54.14	O
ATOM	11191	C2	G A 542	167.085	102.274	25.069	1.00	55.96	C	ATOM	11241	O5*	C A 545	154.927	101.567	23.178	1.00	53.93	O
ATOM	11192	N2	G A 542	166.790	102.363	23.771	1.00	55.96	N	ATOM	11242	C5*	C A 545	154.163	100.718	22.327	1.00	53.93	C
ATOM	11193	N3	G A 542	167.328	103.371	25.755	1.00	55.96	N	ATOM	11243	C4*	C A 545	154.434	99.258	22.609	1.00	53.93	C
ATOM	11194	C4	G A 542	167.568	103.112	27.057	1.00	55.96	C	ATOM	11244	O4*	C A 545	155.845	99.035	22.857	1.00	53.93	O
ATOM	11195	P	C A 543	163.571	107.214	28.874	1.00	47.31	P	ATOM	11245	C3*	C A 545	153.778	98.580	23.799	1.00	53.93	C
ATOM	11196	O1P	C A 543	162.814	108.485	29.002	1.00	52.43	O	ATOM	11246	O3*	C A 545	152.421	98.222	23.573	1.00	53.93	O
ATOM	11197	O2P	C A 543	163.302	106.093	29.823	1.00	52.43	O	ATOM	11247	C2*	C A 545	154.607	97.313	23.913	1.00	53.93	C
ATOM	11198	O5*	C A 543	163.392	106.677	27.384	1.00	47.31	O	ATOM	11248	O2*	C A 545	154.218	96.360	22.956	1.00	53.93	O
ATOM	11199	C5*	C A 543	163.429	107.591	26.275	1.00	47.31	C	ATOM	11249	C1*	C A 545	156.003	97.815	23.561	1.00	53.93	C
ATOM	11200	C4*	C A 543	163.159	106.870	24.975	1.00	47.31	C	ATOM	11250	N1	C A 545	156.734	98.050	24.809	1.00	54.14	N
ATOM	11201	O4*	C A 543	164.207	105.899	24.728	1.00	47.31	O	ATOM	11251	C2	C A 545	157.214	96.940	25.514	1.00	54.14	C
ATOM	11202	C3*	C A 543	161.875	106.059	24.890	1.00	47.31	C	ATOM	11252	O2	C A 545	157.097	95.816	25.016	1.00	54.14	O
ATOM	11203	O3*	C A 543	160.732	106.829	24.566	1.00	47.31	O	ATOM	11253	N3	C A 545	157.792	97.120	26.713	1.00	54.14	N
ATOM	11204	C2*	C A 543	162.192	105.067	23.787	1.00	47.31	C	ATOM	11254	C4	C A 545	157.914	98.347	27.210	1.00	54.14	C
ATOM	11205	O2*	C A 543	162.083	105.666	22.520	1.00	47.31	O	ATOM	11255	N4	C A 545	158.456	98.474	28.417	1.00	54.14	N
ATOM	11206	C1*	C A 543	163.661	104.776	24.059	1.00	47.31	C	ATOM	11256	C5	C A 545	157.481	99.499	26.494	1.00	54.14	C
ATOM	11207	N1	C A 543	163.793	103.594	24.923	1.00	52.43	N	ATOM	11257	C6	C A 545	156.906	99.307	25.306	1.00	54.14	C
ATOM	11208	O2	C A 543	163.603	102.332	24.356	1.00	52.43	O	ATOM	11258	P	G A 546	151.434	98.047	24.832	1.00	45.83	P
ATOM	11209	C2	C A 543	163.281	102.254	23.161	1.00	52.43	C	ATOM	11259	O1P	G A 546	150.096	97.665	24.306	1.00	56.35	O
ATOM	11210	N3	C A 543	163.759	101.234	25.119	1.00	52.43	N	ATOM	11260	O2P	G A 546	151.570	99.250	25.695	1.00	56.35	O
ATOM	11211	C4	C A 543	164.074	101.357	26.402	1.00	52.43	C	ATOM	11261	O5*	G A 546	152.045	96.807	25.629	1.00	45.83	O
ATOM	11212	N4	C A 543	164.239	100.245	27.104	1.00	52.43	N	ATOM	11262	C5*	G A 546	152.001	95.487	25.063	1.00	45.83	C
ATOM	11213	C5	C A 543	164.244	102.629	27.019	1.00	52.43	C	ATOM	11263	C4*	G A 546	152.655	94.486	25.982	1.00	45.83	C
ATOM	11214	C6	C A 543	164.099	103.713	26.249	1.00	52.43	C	ATOM	11264	O4*	G A 546	154.022	94.883	26.242	1.00	45.83	O
ATOM	11215	P	G A 544	159.283	106.282	24.977	1.00	50.03	P	ATOM	11265	C3*	G A 546	152.037	94.282	27.355	1.00	45.83	C



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ATOM	11266	O3*	G A 546	150.974	93.339	27.256	1.00	45.83	O	ATOM	11316	C8	G A 548	153.876	87.211	24.325	1.00	49.50	C
ATOM	11267	C2*	G A 546	153.208	93.727	28.160	1.00	45.83	C	ATOM	11317	N7	G A 548	154.429	86.159	23.791	1.00	49.50	N
ATOM	11268	O1*	G A 546	153.376	92.337	27.950	1.00	45.83	O	ATOM	11318	C5	G A 548	155.786	86.325	24.026	1.00	49.50	C
ATOM	11269	C1*	G A 546	154.401	94.467	27.542	1.00	45.83	C	ATOM	11319	C6	G A 548	156.880	85.495	23.686	1.00	49.50	C
ATOM	11270	N9	G A 546	154.822	95.648	28.290	1.00	56.35	N	ATOM	11320	O6	G A 548	156.868	84.415	23.087	1.00	49.50	O
ATOM	11271	C8	G A 546	154.507	96.952	28.012	1.00	56.35	C	ATOM	11321	N1	G A 548	158.086	86.034	24.112	1.00	49.50	N
ATOM	11272	N7	G A 546	155.020	97.795	28.863	1.00	56.35	N	ATOM	11322	C2	G A 548	158.224	87.225	24.772	1.00	49.50	C
ATOM	11273	C5	G A 546	155.716	96.999	29.758	1.00	56.35	C	ATOM	11323	N2	G A 548	159.479	87.586	25.076	1.00	49.50	N
ATOM	11274	C6	G A 546	156.475	97.352	30.905	1.00	56.35	C	ATOM	11324	N3	G A 548	157.207	88.009	25.106	1.00	49.50	N
ATOM	11275	O6	G A 546	156.681	98.475	31.380	1.00	56.35	O	ATOM	11325	C4	G A 548	156.025	87.497	24.703	1.00	49.50	C
ATOM	11276	N1	G A 546	157.023	96.236	31.518	1.00	56.35	N	ATOM	11326	P	C A 549	153.841	92.794	22.309	1.00	47.46	P
ATOM	11277	C2	G A 546	156.859	94.950	31.093	1.00	56.35	C	ATOM	11327	O1P	C A 549	153.412	94.200	22.209	1.00	44.98	O
ATOM	11278	N2	G A 546	157.477	94.017	31.820	1.00	56.35	N	ATOM	11328	O2P	C A 549	153.216	91.768	21.426	1.00	44.98	O
ATOM	11279	N3	G A 546	156.147	94.602	30.033	1.00	56.35	N	ATOM	11329	O5*	C A 549	155.416	92.708	22.108	1.00	47.46	O
ATOM	11280	C4	G A 546	155.608	95.672	29.416	1.00	56.35	C	ATOM	11330	C5*	C A 549	156.301	93.509	22.899	1.00	47.46	C
ATOM	11281	P	A A 547	149.938	93.148	28.473	1.00	50.58	P	ATOM	11331	C4*	C A 549	157.706	92.978	22.797	1.00	47.46	C
ATOM	11282	O1P	A A 547	148.636	92.699	27.896	1.00	54.55	O	ATOM	11332	O4*	C A 549	157.717	91.608	23.254	1.00	47.46	O
ATOM	11283	O2P	A A 547	149.976	94.366	29.324	1.00	54.55	O	ATOM	11333	C3*	C A 549	158.285	92.901	21.398	1.00	47.46	C
ATOM	11284	O5*	A A 547	150.555	91.936	29.303	1.00	50.58	O	ATOM	11334	O3*	C A 549	158.909	94.105	21.032	1.00	47.46	O
ATOM	11285	C5*	A A 547	149.958	90.632	29.247	1.00	50.58	C	ATOM	11335	C2*	C A 549	159.330	91.808	21.516	1.00	47.46	C
ATOM	11286	C4*	A A 547	150.741	89.745	28.324	1.00	50.58	C	ATOM	11336	O2*	C A 549	160.536	92.297	22.058	1.00	47.46	O
ATOM	11287	O4*	A A 547	152.102	89.614	28.813	1.00	50.58	O	ATOM	11337	C1*	C A 549	158.686	90.875	22.531	1.00	47.46	C
ATOM	11288	C3*	A A 547	150.194	88.332	28.165	1.00	50.58	C	ATOM	11338	N1	C A 549	158.055	89.691	21.933	1.00	44.98	N
ATOM	11289	O3*	A A 547	150.386	87.916	26.814	1.00	50.58	O	ATOM	11339	C2	C A 549	158.874	88.662	21.477	1.00	44.98	C
ATOM	11290	C2*	A A 547	151.101	87.517	29.092	1.00	50.58	C	ATOM	11340	O2	C A 549	160.102	88.804	21.538	1.00	44.98	O
ATOM	11291	O1*	A A 547	151.281	86.153	28.760	1.00	50.58	O	ATOM	11341	N3	C A 549	158.318	87.542	20.979	1.00	44.98	N
ATOM	11292	C1*	A A 547	152.427	88.248	28.931	1.00	50.58	C	ATOM	11342	C4	C A 549	156.996	87.431	20.919	1.00	44.98	C
ATOM	11293	N9	A A 547	153.361	88.080	30.039	1.00	54.55	N	ATOM	11343	N4	C A 549	156.485	86.299	20.438	1.00	44.98	N
ATOM	11294	C8	A A 547	153.126	88.104	31.390	1.00	54.55	C	ATOM	11344	C5	C A 549	156.134	88.475	21.354	1.00	44.98	C
ATOM	11295	N7	A A 547	154.207	87.956	32.114	1.00	54.55	N	ATOM	11345	C6	C A 549	156.701	89.581	21.845	1.00	44.98	C
ATOM	11296	C5	A A 547	155.220	87.815	31.175	1.00	54.55	C	ATOM	11346	P	G A 550	159.097	94.447	19.481	1.00	54.96	P
ATOM	11297	C6	A A 547	156.605	87.631	31.297	1.00	54.55	C	ATOM	11347	O1P	G A 550	159.822	95.746	19.504	1.00	42.26	O
ATOM	11298	N6	A A 547	157.243	87.565	32.463	1.00	54.55	N	ATOM	11348	O2P	G A 550	157.774	94.344	18.804	1.00	42.26	O
ATOM	11299	N1	A A 547	157.325	87.520	30.162	1.00	54.55	N	ATOM	11349	O5*	G A 550	159.987	93.260	18.879	1.00	54.96	O
ATOM	11300	C2	A A 547	156.688	87.589	28.992	1.00	54.55	C	ATOM	11350	C5*	G A 550	161.416	93.370	18.795	1.00	54.96	C
ATOM	11301	N3	A A 547	155.394	87.766	28.749	1.00	54.55	N	ATOM	11351	C4*	G A 550	162.047	92.070	18.332	1.00	54.96	C
ATOM	11302	C4	A A 547	154.709	87.876	29.896	1.00	54.55	C	ATOM	11352	O4*	G A 550	161.476	90.943	19.050	1.00	54.96	O
ATOM	11303	P	G A 548	149.578	88.632	25.615	1.00	53.66	P	ATOM	11353	C3*	G A 550	161.898	91.622	16.889	1.00	54.96	C
ATOM	11304	O1P	G A 548	148.156	88.917	25.987	1.00	49.50	O	ATOM	11354	O3*	G A 550	162.784	92.269	15.990	1.00	54.96	O
ATOM	11305	O2P	G A 548	149.872	87.820	24.412	1.00	49.50	O	ATOM	11355	C2*	G A 550	162.303	90.156	16.978	1.00	54.96	C
ATOM	11306	O5*	G A 548	150.274	90.054	25.460	1.00	53.66	O	ATOM	11356	O2*	G A 550	163.706	90.001	17.007	1.00	54.96	O
ATOM	11307	C5*	G A 548	151.265	90.292	24.453	1.00	53.66	C	ATOM	11357	C1*	G A 550	161.757	89.749	18.341	1.00	54.96	C
ATOM	11308	C4*	G A 548	152.590	90.588	25.101	1.00	53.66	C	ATOM	11358	N9	G A 550	160.547	88.953	18.176	1.00	42.26	N
ATOM	11309	O4*	G A 548	153.078	89.393	25.759	1.00	53.66	O	ATOM	11359	C8	G A 550	159.242	89.352	18.311	1.00	42.26	C
ATOM	11310	C3*	G A 548	153.695	90.962	24.138	1.00	53.66	C	ATOM	11360	N7	G A 550	158.386	88.411	18.019	1.00	42.26	N
ATOM	11311	O3*	G A 548	153.636	92.336	23.825	1.00	53.66	O	ATOM	11361	C5	G A 550	159.174	87.322	17.690	1.00	42.26	C
ATOM	11312	C2*	G A 548	154.958	90.562	24.889	1.00	53.66	C	ATOM	11362	C6	G A 550	158.807	86.022	17.276	1.00	42.26	C
ATOM	11313	O2*	G A 548	155.371	91.533	25.831	1.00	53.66	O	ATOM	11363	O6	G A 550	157.674	85.562	17.100	1.00	42.26	O
ATOM	11314	C1*	G A 548	154.486	89.303	25.616	1.00	53.66	C	ATOM	11364	N1	G A 550	159.919	85.225	17.040	1.00	42.26	N
ATOM	11315	N9	G A 548	154.784	88.060	24.906	1.00	49.50	N	ATOM	11365	C2	G A 550	161.222	85.634	17.166	1.00	42.26	C



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ATOM	11366	N2	G A 550	162.153	84.721	16.860	1.00	42.26	N	ATOM	11416	C3*	A A 553	159.497	83.977	3.524	1.00	40.54	C
ATOM	11367	N3	G A 550	161.583	86.852	17.555	1.00	42.26	N	ATOM	11417	O3*	A A 553	159.756	83.770	2.145	1.00	40.54	O
ATOM	11368	C4	G A 550	160.510	87.636	17.797	1.00	42.26	C	ATOM	11418	C2*	A A 553	158.114	83.507	3.952	1.00	40.54	C
ATOM	11369	P	U A 551	162.575	92.070	14.408	1.00	42.73	P	ATOM	11419	O2*	A A 553	157.756	82.309	3.302	1.00	40.54	C
ATOM	11370	O1P	U A 551	163.587	92.875	13.676	1.00	40.61	O	ATOM	11420	C1*	A A 553	158.326	83.214	5.441	1.00	40.54	C
ATOM	11371	O2P	U A 551	161.135	92.259	14.121	1.00	40.61	O	ATOM	11421	N9	A A 553	157.970	84.355	6.281	1.00	44.50	N
ATOM	11372	O5*	U A 551	162.915	90.540	14.138	1.00	42.73	O	ATOM	11422	C8	A A 553	158.792	85.390	6.628	1.00	44.50	C
ATOM	11373	C5*	U A 551	164.274	90.122	14.049	1.00	42.73	C	ATOM	11423	N7	A A 553	158.205	86.308	7.354	1.00	44.50	N
ATOM	11374	C4*	U A 551	164.357	88.668	13.680	1.00	42.73	C	ATOM	11424	C5	A A 553	156.912	85.839	7.504	1.00	44.50	C
ATOM	11375	O4*	U A 551	163.547	87.887	14.588	1.00	42.73	O	ATOM	11425	C6	A A 553	155.798	86.367	8.160	1.00	44.50	C
ATOM	11376	C3*	U A 551	163.848	88.273	12.314	1.00	42.73	C	ATOM	11426	N6	A A 553	155.809	87.533	8.803	1.00	44.50	N
ATOM	11377	O3*	U A 551	164.823	88.540	11.334	1.00	42.73	O	ATOM	11427	N1	A A 553	154.656	85.653	8.130	1.00	44.50	N
ATOM	11378	C2*	U A 551	163.564	86.782	12.488	1.00	42.73	C	ATOM	11428	C2	A A 553	154.651	84.492	7.476	1.00	44.50	C
ATOM	11379	O2*	U A 551	164.700	85.946	12.384	1.00	42.73	O	ATOM	11429	N3	A A 553	155.636	83.894	6.814	1.00	44.50	N
ATOM	11380	C1*	U A 551	163.068	86.734	13.932	1.00	42.73	C	ATOM	11430	C4	A A 553	156.755	84.630	6.864	1.00	44.50	C
ATOM	11381	N1	U A 551	161.605	86.745	14.003	1.00	40.61	N	ATOM	11431	P	C A 554	159.501	84.968	1.103	1.00	41.50	P
ATOM	11382	C2	U A 551	160.949	85.591	13.653	1.00	40.61	C	ATOM	11432	O1P	C A 554	159.978	84.545	-0.249	1.00	44.72	O
ATOM	11383	O2	U A 551	161.536	84.582	13.303	1.00	40.61	O	ATOM	11433	O2P	C A 554	160.008	86.239	1.699	1.00	44.72	O
ATOM	11384	N3	U A 551	159.585	85.664	13.717	1.00	40.61	N	ATOM	11434	O5*	C A 554	157.916	85.030	1.042	1.00	41.50	O
ATOM	11385	O4	U A 551	158.839	86.752	14.083	1.00	40.61	O	ATOM	11435	C5*	C A 554	157.170	83.963	0.453	1.00	41.50	C
ATOM	11386	C4	U A 551	157.620	86.683	14.047	1.00	40.61	C	ATOM	11436	C4*	C A 554	155.702	84.179	0.680	1.00	41.50	C
ATOM	11387	C5	U A 551	159.592	87.902	14.438	1.00	40.61	C	ATOM	11437	O4*	C A 554	155.436	84.103	2.102	1.00	41.50	O
ATOM	11388	C6	U A 551	160.917	87.862	14.389	1.00	40.61	C	ATOM	11438	C3*	C A 554	155.159	85.536	0.270	1.00	41.50	O
ATOM	11389	P	U A 552	164.356	88.878	9.843	1.00	44.34	P	ATOM	11439	O3*	C A 554	154.827	85.623	-1.110	1.00	41.50	O
ATOM	11390	O1P	U A 552	165.557	89.376	9.121	1.00	42.37	O	ATOM	11440	C2*	C A 554	153.929	85.680	1.150	1.00	41.50	C
ATOM	11391	O2P	U A 552	163.123	89.711	9.884	1.00	42.37	O	ATOM	11441	O2*	C A 554	152.797	85.031	0.619	1.00	41.50	O
ATOM	11392	O5*	U A 552	163.934	87.457	9.264	1.00	44.34	O	ATOM	11442	C1*	C A 554	154.373	84.972	2.429	1.00	41.50	C
ATOM	11393	C5*	U A 552	164.899	86.415	9.092	1.00	44.34	C	ATOM	11443	N1	C A 554	154.820	85.947	3.432	1.00	44.72	N
ATOM	11394	C4*	U A 552	164.199	85.124	8.790	1.00	44.34	C	ATOM	11444	C2	C A 554	153.861	86.509	4.274	1.00	44.72	C
ATOM	11395	O4*	U A 552	163.403	84.742	9.936	1.00	44.34	O	ATOM	11445	O2	C A 554	152.687	86.099	4.206	1.00	44.72	O
ATOM	11396	C3*	U A 552	163.188	85.183	7.666	1.00	44.34	C	ATOM	11446	N3	C A 554	154.226	87.477	5.140	1.00	44.72	N
ATOM	11397	O3*	U A 552	163.770	85.072	6.387	1.00	44.34	O	ATOM	11447	C4	C A 554	155.492	87.870	5.196	1.00	44.72	C
ATOM	11398	C2*	U A 552	162.262	84.023	7.981	1.00	44.34	C	ATOM	11448	N4	C A 554	155.798	88.846	6.042	1.00	44.72	N
ATOM	11399	O2*	U A 552	162.762	82.780	7.543	1.00	44.34	O	ATOM	11449	C5	C A 554	156.500	87.283	4.382	1.00	44.72	C
ATOM	11400	C1*	U A 552	162.240	84.061	9.505	1.00	44.34	C	ATOM	11450	C6	C A 554	156.125	86.331	3.523	1.00	44.72	C
ATOM	11401	N1	U A 552	161.058	84.785	9.984	1.00	42.37	N	ATOM	11451	P	C A 555	154.705	87.076	-1.805	1.00	44.46	P
ATOM	11402	C2	U A 552	159.852	84.109	9.951	1.00	42.37	C	ATOM	11452	O1P	C A 555	154.651	86.884	-3.286	1.00	47.94	O
ATOM	11403	O2	U A 552	159.757	82.941	9.610	1.00	42.37	O	ATOM	11453	O2P	C A 555	155.724	87.982	-1.223	1.00	47.94	O
ATOM	11404	N3	U A 552	158.763	84.843	10.338	1.00	42.37	N	ATOM	11454	O5*	C A 555	153.288	87.610	-1.313	1.00	44.46	O
ATOM	11405	C4	U A 552	158.759	86.148	10.764	1.00	42.37	C	ATOM	11455	C5*	C A 555	152.078	87.060	-1.838	1.00	44.46	C
ATOM	11406	O4	U A 552	157.683	86.699	11.001	1.00	42.37	O	ATOM	11456	C4*	C A 555	150.901	87.878	-1.388	1.00	44.46	C
ATOM	11407	C5	U A 552	160.054	86.766	10.810	1.00	42.37	C	ATOM	11457	O4*	C A 555	150.724	87.741	0.046	1.00	44.46	O
ATOM	11408	C6	U A 552	161.131	86.080	10.426	1.00	42.37	C	ATOM	11458	C3*	C A 555	151.009	89.373	-1.603	1.00	44.46	C
ATOM	11409	P	A A 553	163.071	85.818	5.151	1.00	40.54	P	ATOM	11459	O3*	C A 555	150.669	89.755	-2.917	1.00	44.46	O
ATOM	11410	O1P	A A 553	163.957	85.593	3.980	1.00	44.50	O	ATOM	11460	C2*	C A 555	150.030	89.920	-0.577	1.00	44.46	C
ATOM	11411	O2P	A A 553	162.725	87.211	5.553	1.00	44.50	O	ATOM	11461	O2*	C A 555	148.690	89.815	-1.032	1.00	44.46	O
ATOM	11412	O5*	A A 553	161.724	84.999	4.954	1.00	40.54	O	ATOM	11462	C1*	C A 555	150.242	88.958	0.591	1.00	44.46	C
ATOM	11413	C5*	A A 553	161.780	83.638	4.586	1.00	40.54	C	ATOM	11463	N1	C A 555	151.243	89.469	1.545	1.00	47.94	N
ATOM	11414	C4*	A A 553	160.400	83.106	4.366	1.00	40.54	C	ATOM	11464	C2	C A 555	150.859	90.428	2.491	1.00	47.94	C
ATOM	11415	O4*	A A 553	159.704	82.955	5.628	1.00	40.54	O	ATOM	11465	O2	C A 555	149.666	90.783	2.553	1.00	47.94	O



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ATOM	11466	N3	C A 555	151.792	90.942	3.319	1.00	47.94	N	ATOM	11516	O2P	G A 558	151.416	100.981	-4.026	1.00	43.67	O
ATOM	11467	C4	C A 555	153.052	90.524	3.245	1.00	47.94	C	ATOM	11517	O5*	G A 558	152.483	102.844	-2.691	1.00	34.43	O
ATOM	11468	N4	C A 555	153.938	91.065	4.075	1.00	47.94	N	ATOM	11518	C5*	G A 558	152.450	104.146	-2.113	1.00	34.43	C
ATOM	11469	C5	C A 555	153.461	89.531	2.318	1.00	47.94	C	ATOM	11519	C4*	G A 558	153.522	104.275	-1.081	1.00	34.43	C
ATOM	11470	C6	C A 555	152.536	89.034	1.497	1.00	47.94	C	ATOM	11520	O4*	G A 558	153.541	103.070	-0.277	1.00	34.43	O
ATOM	11471	P	C A 556	151.384	91.035	-3.564	1.00	41.14	P	ATOM	11521	C3*	G A 558	154.934	104.389	-1.608	1.00	34.43	O
ATOM	11472	O1P	C A 556	151.119	91.017	-5.030	1.00	41.50	O	ATOM	11522	O3*	G A 558	155.218	105.736	-1.869	1.00	34.43	C
ATOM	11473	O2P	C A 556	152.780	92.272	-2.933	1.00	41.14	O	ATOM	11523	C2*	G A 558	155.758	103.889	-0.426	1.00	34.43	C
ATOM	11474	O5*	C A 556	150.615	92.536	-3.266	1.00	41.14	C	ATOM	11524	C1*	G A 558	154.864	102.786	0.128	1.00	34.43	C
ATOM	11475	C5*	C A 556	149.255	92.527	-2.399	1.00	41.14	C	ATOM	11525	C1*	G A 558	155.886	104.851	0.591	1.00	34.43	O
ATOM	11476	C4*	C A 556	148.723	93.637	-2.347	1.00	41.14	C	ATOM	11526	N9	G A 558	155.230	101.484	-0.403	1.00	43.67	N
ATOM	11477	O4*	C A 556	148.698	93.204	-1.017	1.00	41.14	O	ATOM	11527	C8	G A 558	154.693	100.861	-1.497	1.00	43.67	C
ATOM	11478	C3*	C A 556	149.564	94.886	-2.347	1.00	41.14	C	ATOM	11528	N7	G A 558	155.219	99.693	-1.723	1.00	43.67	N
ATOM	11479	O3*	C A 556	149.356	95.697	-3.460	1.00	41.14	O	ATOM	11529	C5	G A 558	156.161	99.537	-0.717	1.00	43.67	C
ATOM	11480	C2*	C A 556	149.090	95.527	-1.058	1.00	41.14	C	ATOM	11530	C6	G A 558	157.021	98.462	-0.435	1.00	43.67	O
ATOM	11481	O2*	C A 556	147.823	96.136	-1.210	1.00	41.14	O	ATOM	11531	O6	G A 558	157.123	97.384	-1.035	1.00	43.67	C
ATOM	11482	C1*	C A 556	148.931	94.305	-0.163	1.00	41.14	C	ATOM	11532	N1	G A 558	157.810	98.712	0.681	1.00	43.67	N
ATOM	11483	N1	C A 556	150.177	94.065	0.580	1.00	41.50	N	ATOM	11533	C2	G A 558	157.766	99.844	1.437	1.00	43.67	C
ATOM	11484	C2	C A 556	150.407	94.774	1.776	1.00	41.50	C	ATOM	11534	N2	G A 558	158.598	99.884	2.477	1.00	43.67	N
ATOM	11485	O2	C A 556	149.517	95.518	2.224	1.00	41.50	O	ATOM	11535	N3	G A 558	156.961	100.859	1.190	1.00	43.67	N
ATOM	11486	N3	C A 556	151.594	94.625	2.411	1.00	41.50	N	ATOM	11536	C4	G A 558	156.186	100.635	0.102	1.00	43.67	C
ATOM	11487	C4	C A 556	152.515	93.802	1.915	1.00	41.50	C	ATOM	11537	P	A A 559	155.270	106.264	-3.376	1.00	42.65	P
ATOM	11488	N4	C A 556	153.670	93.707	2.555	1.00	41.50	N	ATOM	11538	O1P	A A 559	156.489	107.068	-3.498	1.00	43.00	O
ATOM	11489	C5	C A 556	152.288	93.041	0.734	1.00	41.50	C	ATOM	11539	O2P	A A 559	153.972	106.844	-3.779	1.00	43.00	O
ATOM	11490	C6	C A 556	151.118	93.198	0.105	1.00	41.50	C	ATOM	11540	O5*	A A 559	155.500	104.983	-4.271	1.00	42.65	O
ATOM	11491	P	G A 557	150.482	96.749	-3.873	1.00	46.21	P	ATOM	11541	C5*	A A 559	155.681	105.165	-5.679	1.00	42.65	C
ATOM	11492	O1P	G A 557	149.929	97.496	-5.028	1.00	49.57	O	ATOM	11542	C4*	A A 559	155.272	103.930	-6.415	1.00	42.65	C
ATOM	11493	O2P	G A 557	151.782	96.053	-4.003	1.00	49.57	O	ATOM	11543	O4*	A A 559	156.359	102.976	-6.400	1.00	42.65	O
ATOM	11494	O5*	G A 557	150.590	97.707	-2.608	1.00	46.21	O	ATOM	11544	C3*	A A 559	154.077	103.215	-5.831	1.00	42.65	O
ATOM	11495	C5*	G A 557	149.496	98.559	-2.241	1.00	46.21	C	ATOM	11545	O3*	A A 559	152.747	103.646	-6.136	1.00	42.65	O
ATOM	11496	C4*	G A 557	149.866	99.390	-1.046	1.00	46.21	C	ATOM	11546	C2*	A A 559	154.586	101.883	-5.277	1.00	42.65	C
ATOM	11497	O4*	G A 557	150.277	98.504	0.018	1.00	46.21	O	ATOM	11547	O2*	A A 559	153.763	100.773	-5.560	1.00	42.65	O
ATOM	11498	C3*	G A 557	151.036	100.338	-1.234	1.00	46.21	C	ATOM	11548	C1*	A A 559	155.865	101.695	-6.095	1.00	42.65	C
ATOM	11499	O3*	G A 557	150.561	101.569	-1.740	1.00	46.21	O	ATOM	11549	N9	A A 559	156.935	100.934	-5.445	1.00	43.00	N
ATOM	11500	C2*	G A 557	151.561	100.502	0.185	1.00	46.21	C	ATOM	11550	C8	A A 559	157.545	99.818	-5.951	1.00	43.00	C
ATOM	11501	O2*	G A 557	150.795	101.428	0.929	1.00	46.21	O	ATOM	11551	N7	A A 559	158.406	99.268	-5.133	1.00	43.00	N
ATOM	11502	C1*	G A 557	151.298	99.119	0.782	1.00	46.21	C	ATOM	11552	C5	A A 559	158.383	100.091	-4.021	1.00	43.00	C
ATOM	11503	N9	G A 557	152.460	98.236	0.814	1.00	49.57	N	ATOM	11553	C6	A A 559	159.055	100.034	-2.795	1.00	43.00	C
ATOM	11504	C8	G A 557	152.686	97.131	0.038	1.00	49.57	C	ATOM	11554	N6	A A 559	159.939	99.088	-2.480	1.00	43.00	N
ATOM	11505	N7	G A 557	153.806	96.532	0.319	1.00	49.57	N	ATOM	11555	N1	A A 559	158.791	100.995	-1.890	1.00	43.00	N
ATOM	11506	C5	G A 557	154.354	97.294	1.334	1.00	49.57	C	ATOM	11556	C2	A A 559	157.927	101.954	-2.213	1.00	43.00	C
ATOM	11507	C6	G A 557	155.565	97.136	2.039	1.00	49.57	C	ATOM	11557	N3	A A 559	157.238	102.125	-3.340	1.00	43.00	C
ATOM	11508	O6	G A 557	156.435	96.266	1.886	1.00	49.57	O	ATOM	11558	C4	A A 559	157.505	101.141	-4.210	1.00	43.00	C
ATOM	11509	N1	G A 557	155.731	98.126	3.000	1.00	49.57	N	ATOM	11559	P	U A 560	152.009	103.132	-7.452	1.00	42.58	P
ATOM	11510	C2	G A 557	154.845	99.140	3.237	1.00	49.57	C	ATOM	11560	O1P	U A 560	150.559	103.220	-7.163	1.00	79.72	O
ATOM	11511	N2	G A 557	155.176	100.005	4.200	1.00	49.57	N	ATOM	11561	O2P	U A 560	152.591	101.835	-7.863	1.00	79.72	O
ATOM	11512	N3	G A 557	153.715	99.301	2.577	1.00	49.57	N	ATOM	11562	O5*	U A 560	152.360	104.230	-8.538	1.00	42.58	O
ATOM	11513	C4	G A 557	153.536	98.348	1.648	1.00	49.57	C	ATOM	11563	C5*	U A 560	153.167	103.907	-9.685	1.00	42.58	C
ATOM	11514	P	G A 558	151.131	102.135	-3.126	1.00	34.43	P	ATOM	11564	C4*	U A 560	153.639	105.168	-10.361	1.00	42.58	C
ATOM	11515	O1P	G A 558	150.221	103.220	-3.598	1.00	43.67	O	ATOM	11565	O4*	U A 560	152.505	105.837	-10.976	1.00	42.58	O



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ATOM	11566	C3*	U A 560	154.201	106.163	-9.368	1.00	42.58	C	ATOM	11616	N4	C A 562	157.238	95.357	-18.008	1.00	45.66	N
ATOM	11567	O3*	U A 560	155.550	105.856	-8.969	1.00	42.58	O	ATOM	11617	C5	C A 562	156.247	96.728	-16.319	1.00	45.66	C
ATOM	11568	C2*	U A 560	153.857	107.531	-9.965	1.00	42.58	C	ATOM	11618	C6	C A 562	155.132	97.313	-15.882	1.00	45.66	C
ATOM	11569	O2*	U A 560	154.787	108.117	-10.852	1.00	42.58	O	ATOM	11619	P	A A 563	149.026	99.223	-13.931	1.00	36.92	P
ATOM	11570	C1*	U A 560	152.556	107.229	-10.714	1.00	42.58	C	ATOM	11620	O1P	A A 563	149.217	99.341	-12.452	1.00	40.04	O
ATOM	11571	N1	U A 560	151.342	107.610	-9.973	1.00	79.72	N	ATOM	11621	O2P	A A 563	147.750	98.660	-14.462	1.00	40.04	O
ATOM	11572	C2	U A 560	150.587	108.644	-10.472	1.00	79.72	C	ATOM	11622	O5*	A A 563	149.239	100.692	-14.522	1.00	36.92	O
ATOM	11573	O2	U A 560	150.873	109.233	-11.494	1.00	79.72	O	ATOM	11623	C5*	A A 563	148.428	101.785	-14.078	1.00	36.92	C
ATOM	11574	N3	U A 560	149.480	108.966	-9.729	1.00	79.72	N	ATOM	11624	C4*	A A 563	148.915	103.085	-14.670	1.00	36.92	C
ATOM	11575	C4	U A 560	149.064	108.369	-8.556	1.00	79.72	C	ATOM	11625	O4*	A A 563	150.227	103.391	-14.171	1.00	36.92	O
ATOM	11576	O4	U A 560	148.080	108.816	-7.956	1.00	79.72	O	ATOM	11626	C3*	A A 563	149.069	103.193	-16.181	1.00	36.92	C
ATOM	11577	C5	U A 560	149.893	107.298	-8.114	1.00	79.72	C	ATOM	11627	O3*	A A 563	147.836	103.602	-16.739	1.00	36.92	O
ATOM	11578	C6	U A 560	150.975	106.964	-8.918	1.00	79.72	C	ATOM	11628	C2*	A A 563	150.052	104.355	-16.348	1.00	36.92	C
ATOM	11579	P	U A 561	156.715	105.693	-10.061	1.00	46.84	P	ATOM	11629	O2*	A A 563	149.425	105.605	-16.543	1.00	36.92	O
ATOM	11580	O1P	U A 561	157.945	106.000	-9.318	1.00	54.11	O	ATOM	11630	C1*	A A 563	150.787	104.374	-15.005	1.00	36.92	C
ATOM	11581	O2P	U A 561	156.418	106.405	-11.330	1.00	54.11	O	ATOM	11631	N9	A A 563	152.226	104.192	-15.050	1.00	40.04	N
ATOM	11582	O5*	U A 561	156.714	104.143	-10.409	1.00	46.84	O	ATOM	11632	C8	A A 563	153.125	104.865	-14.271	1.00	40.04	C
ATOM	11583	C5*	U A 561	156.735	103.721	-11.787	1.00	46.84	C	ATOM	11633	N7	A A 563	154.369	104.527	-14.492	1.00	40.04	N
ATOM	11584	C4*	U A 561	156.971	102.241	-11.887	1.00	46.84	C	ATOM	11634	C5	A A 563	154.279	103.561	-15.482	1.00	40.04	C
ATOM	11585	O4*	U A 561	158.304	101.933	-11.400	1.00	46.84	O	ATOM	11635	C6	A A 563	155.246	102.806	-16.132	1.00	40.04	C
ATOM	11586	C3*	U A 561	155.999	101.373	-11.100	1.00	46.84	C	ATOM	11636	N6	A A 563	156.537	102.910	-15.861	1.00	40.04	N
ATOM	11587	O3*	U A 561	155.698	100.220	-11.874	1.00	46.84	O	ATOM	11637	N1	A A 563	154.840	101.930	-17.074	1.00	40.04	N
ATOM	11588	C2*	U A 561	156.808	100.997	-9.858	1.00	46.84	C	ATOM	11638	C2	A A 563	153.534	101.832	-17.325	1.00	40.04	C
ATOM	11589	O2*	U A 561	156.483	99.753	-9.272	1.00	46.84	O	ATOM	11639	N3	A A 563	152.520	102.488	-16.770	1.00	40.04	N
ATOM	11590	C1*	U A 561	158.219	100.917	-10.427	1.00	46.84	C	ATOM	11640	C4	A A 563	152.966	103.349	-15.842	1.00	40.04	C
ATOM	11591	N1	U A 561	159.261	101.106	-9.408	1.00	54.11	N	ATOM	11641	P	C A 564	147.228	102.835	-18.000	1.00	38.77	P
ATOM	11592	C2	U A 561	160.136	100.057	-9.181	1.00	54.11	C	ATOM	11642	O1P	C A 564	147.531	101.392	-17.804	1.00	49.30	O
ATOM	11593	O2	U A 561	160.122	99.025	-9.829	1.00	54.11	O	ATOM	11643	O2P	C A 564	147.598	103.508	-19.276	1.00	49.30	O
ATOM	11594	N3	U A 561	161.030	100.261	-8.167	1.00	54.11	N	ATOM	11644	O5*	C A 564	145.671	103.023	-17.760	1.00	38.77	O
ATOM	11595	C4	U A 561	161.142	101.378	-7.377	1.00	54.11	C	ATOM	11645	C5*	C A 564	144.757	103.351	-18.821	1.00	38.77	C
ATOM	11596	O4	U A 561	161.886	101.351	-6.396	1.00	54.11	O	ATOM	11646	C4*	C A 564	143.437	103.742	-18.213	1.00	38.77	C
ATOM	11597	C5	U A 561	160.236	102.433	-7.705	1.00	54.11	C	ATOM	11647	O4*	C A 564	142.876	102.586	-17.537	1.00	38.77	O
ATOM	11598	C6	U A 561	159.351	102.266	-8.684	1.00	54.11	C	ATOM	11648	C3*	C A 564	143.589	104.785	-17.117	1.00	38.77	C
ATOM	11599	P	C A 562	154.418	99.332	-11.515	1.00	41.37	P	ATOM	11649	O3*	C A 564	143.530	106.094	-17.656	1.00	38.77	O
ATOM	11600	O1P	C A 562	153.989	99.691	-10.145	1.00	45.66	O	ATOM	11650	C2*	C A 564	142.407	104.511	-16.212	1.00	38.77	C
ATOM	11601	O2P	C A 562	154.693	97.923	-11.841	1.00	45.66	O	ATOM	11651	O2*	C A 564	141.247	105.125	-16.709	1.00	38.77	O
ATOM	11602	O5*	C A 562	153.271	99.885	-12.467	1.00	41.37	O	ATOM	11652	C1*	C A 564	142.255	102.994	-16.337	1.00	38.77	C
ATOM	11603	C5*	C A 562	153.507	100.107	-13.850	1.00	41.37	C	ATOM	11653	N1	C A 564	142.843	102.268	-15.197	1.00	49.30	N
ATOM	11604	C4*	C A 562	152.335	99.635	-14.670	1.00	41.37	C	ATOM	11654	C2	C A 564	142.190	102.338	-13.962	1.00	49.30	C
ATOM	11605	O4*	C A 562	152.925	99.193	-15.910	1.00	41.37	O	ATOM	11655	O2	C A 564	141.143	102.989	-13.877	1.00	49.30	O
ATOM	11606	C3*	C A 562	151.573	98.432	-14.106	1.00	41.37	C	ATOM	11656	N3	C A 564	142.714	101.707	-12.891	1.00	49.30	N
ATOM	11607	O3*	C A 562	150.222	98.378	-14.623	1.00	41.37	O	ATOM	11657	C4	C A 564	143.846	101.026	-13.013	1.00	49.30	C
ATOM	11608	C2*	C A 562	152.329	97.255	-14.709	1.00	41.37	C	ATOM	11658	N4	C A 564	144.323	100.423	-11.920	1.00	49.30	N
ATOM	11609	O2*	C A 562	151.561	96.087	-14.881	1.00	41.37	O	ATOM	11659	C5	C A 564	144.538	100.931	-14.258	1.00	49.30	C
ATOM	11610	C1*	C A 562	152.721	97.809	-16.074	1.00	41.37	C	ATOM	11660	C6	C A 564	144.002	101.557	-15.317	1.00	49.30	C
ATOM	11611	N1	C A 562	153.961	97.221	-16.588	1.00	45.66	N	ATOM	11661	P	U A 565	144.572	107.212	-17.160	1.00	41.02	P
ATOM	11612	C2	C A 562	153.923	96.554	-17.793	1.00	45.66	C	ATOM	11662	O1P	U A 565	144.339	108.380	-18.039	1.00	51.45	O
ATOM	11613	O2	C A 562	152.872	96.548	-18.432	1.00	45.66	O	ATOM	11663	O2P	U A 565	145.940	106.631	-17.062	1.00	51.45	O
ATOM	11614	N3	C A 562	155.038	95.940	-18.246	1.00	45.66	N	ATOM	11664	O5*	U A 565	144.068	107.577	-15.700	1.00	41.02	O
ATOM	11615	C4	C A 562	156.168	96.004	-17.540	1.00	45.66	C	ATOM	11665	C5*	U A 565	142.773	108.147	-15.516	1.00	41.02	C



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ATOM	11666	C4*	U A 565	142.375	108.081	-14.074	1.00	41.02	C	ATOM	11716	N9	G A 567	153.783	105.839	-17.966	1.00	38.87	N
ATOM	11667	O4*	U A 565	142.209	106.698	-13.688	1.00	41.02	O	ATOM	11717	C8	G A 567	152.488	105.637	-18.352	1.00	38.87	C
ATOM	11668	C3*	U A 565	143.382	108.612	-13.076	1.00	41.02	C	ATOM	11718	N7	G A 567	152.367	104.720	-19.272	1.00	38.87	N
ATOM	11669	O3*	U A 565	143.329	110.018	-12.945	1.00	41.02	O	ATOM	11719	C5	G A 567	153.660	104.289	-19.503	1.00	38.87	C
ATOM	11670	C2*	U A 565	142.969	107.919	-11.790	1.00	41.02	C	ATOM	11720	C6	G A 567	154.141	103.303	-20.377	1.00	38.87	C
ATOM	11671	O2*	U A 565	141.897	108.585	-11.153	1.00	41.02	O	ATOM	11721	O6	G A 567	153.502	102.594	-21.153	1.00	38.87	O
ATOM	11672	C1*	U A 565	142.500	106.559	-12.308	1.00	41.02	C	ATOM	11722	N1	G A 567	155.520	103.167	-20.287	1.00	38.87	N
ATOM	11673	N1	U A 565	143.514	105.511	-12.125	1.00	51.45	N	ATOM	11723	C2	G A 567	156.328	103.890	-19.447	1.00	38.87	C
ATOM	11674	C2	U A 565	143.431	104.736	-10.981	1.00	51.45	C	ATOM	11724	N2	G A 567	157.630	103.597	-19.475	1.00	38.87	N
ATOM	11675	O2	U A 565	142.544	104.860	-10.154	1.00	51.45	O	ATOM	11725	N3	G A 567	155.888	104.825	-18.629	1.00	38.87	N
ATOM	11676	N3	U A 565	144.433	103.809	-10.839	1.00	51.45	N	ATOM	11726	C4	G A 567	154.549	104.967	-18.706	1.00	38.87	C
ATOM	11677	C4	U A 565	145.486	103.583	-11.702	1.00	51.45	C	ATOM	11727	P	G A 568	154.542	111.217	-18.581	1.00	45.42	P
ATOM	11678	O4	U A 565	146.342	102.746	-11.408	1.00	51.45	O	ATOM	11728	O1P	G A 568	154.841	112.609	-18.161	1.00	42.49	O
ATOM	11679	C5	U A 565	145.487	104.410	-12.867	1.00	51.45	C	ATOM	11729	O2P	G A 568	153.645	110.980	-19.751	1.00	42.49	O
ATOM	11680	C6	U A 565	144.523	105.319	-13.037	1.00	51.45	C	ATOM	11730	O5*	G A 568	155.930	110.524	-18.907	1.00	45.42	O
ATOM	11681	P	G A 566	144.679	110.825	-12.614	1.00	37.51	P	ATOM	11731	C5*	G A 568	156.388	110.370	-20.245	1.00	45.42	C
ATOM	11682	O1P	G A 566	145.071	110.557	-11.202	1.00	45.99	O	ATOM	11732	C4*	G A 568	157.304	109.194	-20.311	1.00	45.42	C
ATOM	11683	O2P	G A 566	144.449	112.222	-13.068	1.00	45.99	O	ATOM	11733	O4*	G A 568	156.537	107.980	-20.128	1.00	45.42	O
ATOM	11684	O5*	G A 566	145.759	110.121	-13.556	1.00	37.51	O	ATOM	11734	C3*	G A 568	158.031	108.998	-21.618	1.00	45.42	C
ATOM	11685	C5*	G A 566	147.037	110.720	-13.823	1.00	37.51	C	ATOM	11735	O3*	G A 568	159.186	109.836	-21.656	1.00	45.42	O
ATOM	11686	C4*	G A 566	148.050	109.653	-14.167	1.00	37.51	C	ATOM	11736	O2*	G A 568	158.363	107.515	-21.566	1.00	45.42	C
ATOM	11687	O4*	G A 566	148.401	108.922	-12.972	1.00	37.51	O	ATOM	11737	C2*	G A 568	159.456	107.303	-20.699	1.00	45.42	O
ATOM	11688	C3*	G A 566	147.603	108.626	-15.196	1.00	37.51	C	ATOM	11738	C1*	G A 568	157.127	106.934	-20.871	1.00	45.42	C
ATOM	11689	O3*	G A 566	148.715	108.224	-15.968	1.00	37.51	O	ATOM	11739	N9	G A 568	156.118	106.333	-21.745	1.00	42.49	N
ATOM	11690	O2*	G A 566	147.219	107.428	-14.338	1.00	37.51	O	ATOM	11740	C8	G A 568	154.775	106.601	-21.752	1.00	42.49	C
ATOM	11691	C2*	G A 566	147.452	106.203	-14.996	1.00	37.51	C	ATOM	11741	N7	G A 568	154.114	105.908	-22.641	1.00	42.49	N
ATOM	11692	C1*	G A 566	148.201	107.550	-13.180	1.00	37.51	C	ATOM	11742	C5	G A 568	155.078	105.135	-23.262	1.00	42.49	C
ATOM	11693	N9	G A 566	147.725	106.978	-11.930	1.00	45.99	N	ATOM	11743	C6	G A 568	154.957	104.182	-24.307	1.00	42.49	C
ATOM	11694	C8	G A 566	146.720	107.456	-11.124	1.00	45.99	C	ATOM	11744	O6	G A 568	153.946	103.822	-24.908	1.00	42.49	O
ATOM	11695	N7	G A 566	146.566	106.758	-10.033	1.00	45.99	N	ATOM	11745	N1	G A 568	156.184	103.625	-24.634	1.00	42.49	N
ATOM	11696	C5	G A 566	147.518	105.756	-10.127	1.00	45.99	C	ATOM	11746	C2	G A 568	157.376	103.934	-24.032	1.00	42.49	C
ATOM	11697	C6	G A 566	147.849	104.724	-9.228	1.00	45.99	C	ATOM	11747	N2	G A 568	158.454	103.291	-24.493	1.00	42.49	N
ATOM	11698	O6	G A 566	147.366	104.489	-8.122	1.00	45.99	O	ATOM	11748	N3	G A 568	157.502	104.814	-23.049	1.00	42.49	N
ATOM	11699	N1	G A 566	148.876	103.926	-9.719	1.00	45.99	N	ATOM	11749	C4	G A 568	156.321	105.377	-22.719	1.00	42.49	C
ATOM	11700	C2	G A 566	149.516	104.107	-10.916	1.00	45.99	C	ATOM	11750	P	C A 569	159.451	110.763	-22.949	1.00	40.89	P
ATOM	11701	N2	G A 566	150.480	103.229	-11.205	1.00	45.99	N	ATOM	11751	O1P	C A 569	160.432	111.830	-22.634	1.00	40.95	O
ATOM	11702	N3	G A 566	149.229	105.078	-11.762	1.00	45.99	N	ATOM	11752	O2P	C A 569	158.141	111.133	-23.539	1.00	40.95	O
ATOM	11703	C4	G A 566	148.227	105.863	-11.305	1.00	45.99	C	ATOM	11753	O5*	C A 569	160.138	109.763	-23.970	1.00	40.89	O
ATOM	11704	P	G A 567	149.358	109.221	-17.042	1.00	48.36	P	ATOM	11754	C5*	C A 569	161.407	109.168	-23.687	1.00	40.89	C
ATOM	11705	O1P	G A 567	149.296	110.597	-16.500	1.00	38.87	O	ATOM	11755	C4*	C A 569	161.776	108.218	-24.791	1.00	40.89	C
ATOM	11706	O2P	G A 567	148.804	108.927	-18.395	1.00	38.87	O	ATOM	11756	O4*	C A 569	160.988	107.013	-24.684	1.00	40.89	O
ATOM	11707	O5*	G A 567	150.887	108.801	-17.016	1.00	41.23	O	ATOM	11757	C3*	C A 569	161.522	108.730	-26.200	1.00	40.89	C
ATOM	11708	C5*	G A 567	151.649	108.966	-15.820	1.00	41.23	C	ATOM	11758	O3*	C A 569	162.635	109.479	-26.648	1.00	40.89	O
ATOM	11709	C4*	G A 567	153.078	108.585	-16.060	1.00	41.23	C	ATOM	11759	C2*	C A 569	161.378	107.442	-26.997	1.00	40.89	C
ATOM	11710	O4*	G A 567	153.218	107.143	-16.098	1.00	41.23	O	ATOM	11760	O2*	C A 569	162.621	106.881	-27.356	1.00	40.89	O
ATOM	11711	C3*	G A 567	153.654	109.065	-17.371	1.00	41.23	C	ATOM	11761	C1*	C A 569	160.728	106.507	-25.980	1.00	40.89	C
ATOM	11712	O3*	G A 567	154.055	110.420	-17.266	1.00	41.23	O	ATOM	11762	N1	C A 569	159.273	106.373	-26.170	1.00	40.95	N
ATOM	11713	C2*	G A 567	154.808	108.092	-17.602	1.00	41.23	C	ATOM	11763	C2	C A 569	158.803	105.441	-27.109	1.00	40.95	C
ATOM	11714	O2*	G A 567	156.004	108.442	-16.936	1.00	41.23	O	ATOM	11764	O2	C A 569	159.625	104.753	-27.743	1.00	40.95	O
ATOM	11715	C1*	G A 567	154.272	106.798	-16.978	1.00	41.23	C	ATOM	11765	N3	C A 569	157.470	105.315	-27.303	1.00	40.95	N



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ATOM	11766	C4	C A 569	156.623	106.063	-26.601	1.00	40.95	C	ATOM	11816	O5*	A A 572	171.459	107.653	-23.323	1.00	44.97	O
ATOM	11767	N4	C A 569	155.335	105.899	-26.823	1.00	40.95	N	ATOM	11817	C5*	A A 572	170.181	108.103	-22.866	1.00	44.97	C
ATOM	11768	C5	C A 569	157.070	107.012	-25.638	1.00	40.95	C	ATOM	11818	C4*	A A 572	170.004	107.728	-21.421	1.00	44.97	C
ATOM	11769	C6	C A 569	158.389	107.138	-25.458	1.00	40.95	C	ATOM	11819	O4*	A A 572	169.329	108.777	-20.716	1.00	44.97	O
ATOM	11770	P	G A 570	162.421	110.886	-27.390	1.00	39.81	P	ATOM	11820	C3*	A A 572	169.194	106.486	-21.115	1.00	44.97	C
ATOM	11771	O1P	G A 570	162.083	111.866	-26.327	1.00	48.82	O	ATOM	11821	O3*	A A 572	170.033	105.343	-21.185	1.00	44.97	O
ATOM	11772	O2P	G A 570	161.485	110.676	-28.530	1.00	48.82	O	ATOM	11822	C2*	A A 572	168.758	106.714	-19.668	1.00	44.97	C
ATOM	11773	O5*	G A 570	163.871	111.222	-27.990	1.00	39.81	O	ATOM	11823	O2*	A A 572	169.689	106.193	-18.740	1.00	44.97	O
ATOM	11774	C5*	G A 570	164.338	110.593	-29.223	1.00	39.81	C	ATOM	11824	C1*	A A 572	168.762	108.242	-19.553	1.00	44.97	C
ATOM	11775	C4*	G A 570	165.580	111.279	-29.748	1.00	39.81	C	ATOM	11825	N9	A A 572	167.511	108.944	-19.303	1.00	53.76	N
ATOM	11776	O4*	G A 570	165.309	112.687	-29.923	1.00	39.81	O	ATOM	11826	C8	A A 572	166.250	108.695	-19.753	1.00	53.76	C
ATOM	11777	C3*	G A 570	166.782	111.203	-28.823	1.00	39.81	C	ATOM	11827	N7	A A 572	165.375	109.600	-19.387	1.00	53.76	N
ATOM	11778	O3*	G A 570	167.556	110.056	-29.143	1.00	39.81	O	ATOM	11828	C5	A A 572	166.116	110.496	-18.632	1.00	53.76	C
ATOM	11779	C2*	G A 570	167.554	112.477	-29.132	1.00	39.81	C	ATOM	11829	C6	A A 572	165.785	111.689	-17.974	1.00	53.76	C
ATOM	11780	O2*	G A 570	168.420	112.317	-30.235	1.00	39.81	O	ATOM	11830	N6	A A 572	164.576	112.237	-17.983	1.00	53.76	N
ATOM	11781	C1*	G A 570	166.433	113.452	-29.509	1.00	39.81	C	ATOM	11831	N1	A A 572	166.759	112.321	-17.300	1.00	53.76	N
ATOM	11782	N9	G A 570	166.005	114.367	-28.445	1.00	48.82	N	ATOM	11832	C2	A A 572	167.979	111.800	-17.301	1.00	53.76	C
ATOM	11783	C8	G A 570	164.712	114.617	-28.058	1.00	48.82	C	ATOM	11833	N3	A A 572	168.418	110.702	-17.890	1.00	53.76	N
ATOM	11784	N7	G A 570	164.623	115.499	-27.100	1.00	48.82	N	ATOM	11834	C4	A A 572	167.424	110.088	-18.550	1.00	53.76	C
ATOM	11785	C5	G A 570	165.933	115.852	-26.832	1.00	48.82	C	ATOM	11835	P	A A 573	169.983	104.381	-22.475	1.00	40.76	P
ATOM	11786	C6	G A 570	166.453	116.765	-25.891	1.00	48.82	C	ATOM	11836	O1P	A A 573	171.276	103.648	-22.476	1.00	51.17	O
ATOM	11787	O6	G A 570	165.845	117.483	-25.106	1.00	48.82	O	ATOM	11837	O2P	A A 573	169.590	105.182	-23.677	1.00	51.17	O
ATOM	11788	N1	G A 570	167.833	116.804	-25.924	1.00	48.82	N	ATOM	11838	O5*	A A 573	168.818	103.362	-22.117	1.00	40.76	O
ATOM	11789	C2	G A 570	168.616	116.066	-26.761	1.00	48.82	C	ATOM	11839	C5*	A A 573	169.076	101.990	-21.825	1.00	40.76	C
ATOM	11790	N2	G A 570	169.934	116.228	-26.616	1.00	48.82	N	ATOM	11840	C4*	A A 573	167.795	101.215	-21.960	1.00	40.76	C
ATOM	11791	N3	G A 570	168.146	115.223	-27.669	1.00	48.82	N	ATOM	11841	O4*	A A 573	166.974	101.375	-20.774	1.00	40.76	O
ATOM	11792	C4	G A 570	166.803	115.161	-27.644	1.00	48.82	C	ATOM	11842	C3*	A A 573	166.949	101.716	-23.113	1.00	40.76	C
ATOM	11793	P	U A 571	167.863	108.976	-28.005	1.00	36.66	P	ATOM	11843	O3*	A A 573	167.350	101.051	-24.290	1.00	40.76	O
ATOM	11794	O1P	U A 571	168.339	107.710	-28.614	1.00	52.99	O	ATOM	11844	C2*	A A 573	165.524	101.400	-22.670	1.00	40.76	O
ATOM	11795	O2P	U A 571	166.666	108.961	-27.112	1.00	52.99	O	ATOM	11845	O2*	A A 573	165.169	100.053	-22.921	1.00	40.76	O
ATOM	11796	O5*	U A 571	169.089	109.612	-27.214	1.00	36.66	O	ATOM	11846	C1*	A A 573	165.621	101.577	-21.152	1.00	40.76	C
ATOM	11797	C5*	U A 571	170.410	109.631	-27.786	1.00	36.66	C	ATOM	11847	N9	A A 573	165.213	102.878	-20.618	1.00	51.17	N
ATOM	11798	C4*	U A 571	171.328	110.474	-26.942	1.00	36.66	C	ATOM	11848	C8	A A 573	166.025	103.960	-20.398	1.00	51.17	C
ATOM	11799	O4*	U A 571	170.863	111.846	-26.968	1.00	36.66	O	ATOM	11849	N7	A A 573	165.431	104.953	-19.792	1.00	51.17	N
ATOM	11800	C3*	U A 571	171.394	110.115	-25.471	1.00	36.66	C	ATOM	11850	C5	A A 573	164.130	104.507	-19.624	1.00	51.17	C
ATOM	11801	O3*	U A 571	172.336	109.087	-25.235	1.00	36.66	O	ATOM	11851	C6	A A 573	163.012	105.089	-19.019	1.00	51.17	C
ATOM	11802	C2*	U A 571	171.807	111.433	-24.825	1.00	36.66	C	ATOM	11852	N6	A A 573	163.040	106.269	-18.400	1.00	51.17	N
ATOM	11803	O2*	U A 571	173.187	111.689	-24.909	1.00	36.66	O	ATOM	11853	N1	A A 573	161.853	104.401	-19.052	1.00	51.17	N
ATOM	11804	C1*	U A 571	171.113	112.459	-25.717	1.00	36.66	C	ATOM	11854	C2	A A 573	161.845	103.197	-19.633	1.00	51.17	C
ATOM	11805	N1	U A 571	169.843	112.950	-25.166	1.00	52.99	N	ATOM	11855	N3	A A 573	162.838	102.532	-20.207	1.00	51.17	N
ATOM	11806	C2	U A 571	169.894	113.979	-24.247	1.00	52.99	C	ATOM	11856	C4	A A 573	163.970	103.249	-20.168	1.00	51.17	C
ATOM	11807	O2	U A 571	170.939	114.463	-23.841	1.00	52.99	O	ATOM	11857	P	A A 574	167.501	101.877	-25.650	1.00	40.29	P
ATOM	11808	N3	U A 571	168.677	114.422	-23.815	1.00	52.99	N	ATOM	11858	O1P	A A 574	168.278	101.059	-26.610	1.00	49.03	O
ATOM	11809	C4	U A 571	167.448	113.952	-24.194	1.00	52.99	C	ATOM	11859	O2P	A A 574	167.929	103.268	-25.345	1.00	49.03	O
ATOM	11810	O4	U A 571	166.442	114.556	-23.837	1.00	52.99	O	ATOM	11860	O5*	A A 574	166.019	101.892	-26.212	1.00	40.29	O
ATOM	11811	C5	U A 571	167.484	112.868	-25.116	1.00	52.99	C	ATOM	11861	C5*	A A 574	165.251	100.678	-26.288	1.00	40.29	C
ATOM	11812	C6	U A 571	168.647	112.417	-25.560	1.00	52.99	C	ATOM	11862	C4*	A A 574	163.792	101.012	-26.407	1.00	40.29	C
ATOM	11813	P	A A 572	171.825	107.601	-24.871	1.00	44.97	P	ATOM	11863	O4*	A A 574	163.312	101.553	-25.163	1.00	40.29	O
ATOM	11814	O1P	A A 572	173.026	106.692	-25.003	1.00	53.76	O	ATOM	11864	C3*	A A 574	163.516	102.074	-27.447	1.00	40.29	C
ATOM	11815	O2P	A A 572	170.567	107.277	-25.622	1.00	53.76	O	ATOM	11865	O3*	A A 574	163.311	101.414	-28.680	1.00	40.29	O



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ATOM	11866	C2*	A A 574	162.247	102.740	-26.935	1.00	40.29	C	ATOM	11916	N7	G A 576	157.139	101.632	-36.187	1.00	48.63	N
ATOM	11867	O2*	A A 574	161.074	102.052	-27.322	1.00	40.29	O	ATOM	11917	C5	G A 576	156.540	100.484	-36.670	1.00	48.63	C
ATOM	11868	C1*	A A 574	162.415	102.606	-25.422	1.00	40.29	C	ATOM	11918	C6	G A 576	155.190	100.248	-37.026	1.00	48.63	C
ATOM	11869	N9	A A 574	162.923	103.790	-24.740	1.00	49.03	N	ATOM	11919	O6	G A 576	154.234	101.045	-37.006	1.00	48.63	O
ATOM	11870	C8	A A 574	164.089	104.476	-24.951	1.00	49.03	C	ATOM	11920	N1	G A 576	155.001	98.946	-37.459	1.00	48.63	N
ATOM	11871	N7	A A 574	164.270	105.476	-24.125	1.00	49.03	N	ATOM	11921	C2	G A 576	155.988	98.007	-37.555	1.00	48.63	C
ATOM	11872	C5	A A 574	163.139	105.452	-23.323	1.00	49.03	C	ATOM	11922	N2	G A 576	155.603	96.812	-37.998	1.00	48.63	N
ATOM	11873	C6	A A 574	162.727	106.247	-22.257	1.00	49.03	C	ATOM	11923	N3	G A 576	157.261	98.221	-37.242	1.00	48.63	N
ATOM	11874	N6	A A 574	163.428	107.267	-21.785	1.00	49.03	N	ATOM	11924	C4	G A 576	157.463	99.476	-36.812	1.00	48.63	C
ATOM	11875	N1	A A 574	161.549	105.956	-21.678	1.00	49.03	N	ATOM	11925	P	G A 577	164.324	98.468	-37.449	1.00	45.24	P
ATOM	11876	C2	A A 574	160.836	104.931	-22.146	1.00	49.03	C	ATOM	11926	O1P	G A 577	164.461	97.087	-37.971	1.00	32.17	O
ATOM	11877	N3	A A 574	161.114	104.106	-23.142	1.00	49.03	N	ATOM	11927	O2P	G A 577	165.097	98.875	-36.284	1.00	32.17	O
ATOM	11878	C4	A A 574	162.297	104.425	-23.698	1.00	49.03	C	ATOM	11928	O5*	G A 577	164.547	99.490	-38.649	1.00	45.24	O
ATOM	11879	P	G A 575	164.171	101.827	-29.969	1.00	36.18	P	ATOM	11929	C5*	G A 577	165.310	100.686	-38.487	1.00	45.24	C
ATOM	11880	O1P	G A 575	163.504	101.104	-31.094	1.00	44.97	O	ATOM	11930	C4*	G A 577	165.619	101.268	-39.842	1.00	45.24	C
ATOM	11881	O2P	G A 575	165.618	101.613	-29.708	1.00	44.97	O	ATOM	11931	O4*	G A 577	166.268	100.238	-40.623	1.00	45.24	O
ATOM	11882	O5*	G A 575	163.887	103.381	-30.121	1.00	36.18	O	ATOM	11932	C3*	G A 577	164.394	101.627	-40.664	1.00	45.24	C
ATOM	11883	C5*	G A 575	162.558	103.826	-30.416	1.00	36.18	C	ATOM	11933	O3*	G A 577	163.910	102.926	-40.375	1.00	45.24	O
ATOM	11884	C4*	G A 575	162.263	103.554	-31.856	1.00	36.18	C	ATOM	11934	C2*	G A 577	164.871	101.472	-42.100	1.00	45.24	C
ATOM	11885	O4*	G A 575	160.847	103.603	-32.112	1.00	36.18	O	ATOM	11935	O2*	G A 577	165.552	102.577	-42.655	1.00	45.24	O
ATOM	11886	C3*	G A 575	162.921	104.512	-32.803	1.00	36.18	C	ATOM	11936	C1*	G A 577	165.839	100.308	-41.963	1.00	45.24	C
ATOM	11887	O3*	G A 575	163.856	103.817	-33.649	1.00	36.18	O	ATOM	11937	N9	G A 577	165.197	99.052	-42.314	1.00	32.17	N
ATOM	11888	C2*	G A 575	161.809	105.475	-33.213	1.00	36.18	C	ATOM	11938	C8	G A 577	164.999	97.947	-41.530	1.00	32.17	C
ATOM	11889	O2*	G A 575	161.976	106.023	-34.496	1.00	36.18	O	ATOM	11939	N7	G A 577	164.410	96.971	-42.172	1.00	32.17	N
ATOM	11890	C1*	G A 575	160.537	104.636	-33.027	1.00	36.18	C	ATOM	11940	C5	G A 577	164.210	97.474	-43.453	1.00	32.17	C
ATOM	11891	N9	G A 575	159.374	105.312	-32.445	1.00	44.97	N	ATOM	11941	C6	G A 577	163.646	96.880	-44.595	1.00	32.17	C
ATOM	11892	C8	G A 575	159.370	106.177	-31.379	1.00	44.97	C	ATOM	11942	O6	G A 577	163.203	95.739	-44.730	1.00	32.17	O
ATOM	11893	N7	G A 575	158.171	106.507	-30.991	1.00	44.97	N	ATOM	11943	N1	G A 577	163.634	97.752	-45.671	1.00	32.17	N
ATOM	11894	C5	G A 575	157.328	105.844	-31.877	1.00	44.97	C	ATOM	11944	C2	G A 577	164.107	99.027	-45.657	1.00	32.17	C
ATOM	11895	C6	G A 575	155.889	105.796	-31.951	1.00	44.97	C	ATOM	11945	N2	G A 577	163.990	99.719	-46.792	1.00	32.17	N
ATOM	11896	O6	G A 575	155.046	106.343	-31.224	1.00	44.97	O	ATOM	11946	N3	G A 577	164.652	99.588	-44.608	1.00	32.17	N
ATOM	11897	N1	G A 575	155.466	105.009	-33.002	1.00	44.97	N	ATOM	11947	C4	G A 577	164.673	98.758	-43.548	1.00	32.17	C
ATOM	11898	C2	G A 575	156.284	104.354	-33.866	1.00	44.97	C	ATOM	11948	P	C A 578	162.335	103.222	-40.486	1.00	44.11	P
ATOM	11899	N2	G A 575	155.669	103.659	-34.819	1.00	44.97	N	ATOM	11949	O1P	C A 578	162.218	104.591	-39.920	1.00	24.40	O
ATOM	11900	N3	G A 575	157.605	104.375	-33.810	1.00	44.97	N	ATOM	11950	O2P	C A 578	161.562	102.098	-39.879	1.00	24.40	O
ATOM	11901	C4	G A 575	158.056	105.131	-32.798	1.00	44.97	C	ATOM	11951	O5*	C A 578	162.045	103.249	-42.054	1.00	44.11	O
ATOM	11902	P	G A 576	163.422	103.062	-35.001	1.00	38.06	P	ATOM	11952	C5*	C A 578	162.437	104.375	-42.839	1.00	44.11	C
ATOM	11903	O1P	G A 576	164.579	102.169	-35.184	1.00	48.63	O	ATOM	11953	C4*	C A 578	162.041	104.185	-44.278	1.00	44.11	C
ATOM	11904	O2P	G A 576	163.053	104.017	-36.097	1.00	48.63	O	ATOM	11954	O4*	C A 578	162.652	102.973	-44.781	1.00	44.11	O
ATOM	11905	O5*	G A 576	162.181	102.122	-34.647	1.00	38.06	O	ATOM	11955	C3*	C A 578	160.567	104.006	-44.598	1.00	44.11	C
ATOM	11906	C5*	G A 576	162.384	100.782	-34.161	1.00	38.06	C	ATOM	11956	O3*	C A 578	159.856	105.238	-44.691	1.00	44.11	O
ATOM	11907	C4*	G A 576	161.937	99.742	-35.180	1.00	38.06	C	ATOM	11957	C2*	C A 578	160.626	103.310	-45.948	1.00	44.11	C
ATOM	11908	O4*	G A 576	160.513	99.473	-35.143	1.00	38.06	O	ATOM	11958	O2*	C A 578	160.947	104.225	-46.974	1.00	44.11	O
ATOM	11909	C3*	G A 576	162.316	99.905	-36.637	1.00	38.06	C	ATOM	11959	C1*	C A 578	161.822	102.390	-45.760	1.00	44.11	C
ATOM	11910	O3*	G A 576	162.783	98.647	-37.075	1.00	38.06	O	ATOM	11960	N1	C A 578	161.422	101.059	-45.295	1.00	24.40	N
ATOM	11911	C2*	G A 576	160.985	100.197	-37.325	1.00	38.06	C	ATOM	11961	C2	C A 578	160.847	100.168	-46.211	1.00	24.40	C
ATOM	11912	O2*	G A 576	160.956	99.704	-38.649	1.00	38.06	O	ATOM	11962	O2	C A 578	160.653	100.539	-47.368	1.00	24.40	O
ATOM	11913	C1*	G A 576	159.995	99.419	-36.459	1.00	38.06	C	ATOM	11963	N3	C A 578	160.514	98.930	-45.813	1.00	24.40	N
ATOM	11914	N9	G A 576	158.670	100.032	-36.442	1.00	48.63	N	ATOM	11964	C4	C A 578	160.730	98.563	-44.554	1.00	24.40	C
ATOM	11915	C8	G A 576	158.395	101.317	-36.062	1.00	48.63	C	ATOM	11965	N4	C A 578	160.412	97.322	-44.213	1.00	24.40	N



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ATOM 11966	C A 578	161.291	99.453	-43.591	1.00	24.40	C	ATOM 12016	C4*	G A 581	147.574	98.686	-49.885	1.00	50.25	C
ATOM 11967	C A 578	161.615	100.681	-44.000	1.00	24.40	C	ATOM 12017	O4*	G A 581	148.863	98.468	-49.271	1.00	50.25	O
ATOM 11968	P	158.280	105.264	-44.385	1.00	52.56	P	ATOM 12018	C3*	G A 581	146.606	98.753	-48.718	1.00	50.25	C
ATOM 11969	O1P	157.880	106.690	-44.402	1.00	42.79	O	ATOM 12019	O3*	G A 581	145.326	98.307	-49.148	1.00	50.25	O
ATOM 11970	O2P	158.025	104.437	-43.177	1.00	42.79	O	ATOM 12020	C2*	G A 581	147.191	97.738	-47.758	1.00	50.25	O
ATOM 11971	O5*	157.595	104.510	-45.610	1.00	52.56	O	ATOM 12021	O2*	G A 581	146.808	96.456	-48.177	1.00	50.25	O
ATOM 11972	C5*	157.598	105.091	-46.912	1.00	52.56	C	ATOM 12022	C1*	G A 581	148.690	97.904	-47.993	1.00	50.25	C
ATOM 11973	C4*	157.399	104.030	-47.973	1.00	52.56	C	ATOM 12023	N9	G A 581	149.300	98.790	-47.008	1.00	50.25	C
ATOM 11974	O4*	158.076	102.812	-47.577	1.00	52.56	O	ATOM 12024	C8	G A 581	149.513	100.147	-47.112	1.00	41.86	N
ATOM 11975	C3*	155.979	103.570	-48.250	1.00	52.56	C	ATOM 12025	N7	G A 581	150.031	100.664	-46.030	1.00	41.86	N
ATOM 11976	C3*	155.316	104.462	-49.143	1.00	52.56	O	ATOM 12026	C5	G A 581	150.183	99.580	-45.174	1.00	41.86	C
ATOM 11977	C2*	156.195	102.211	-48.905	1.00	52.56	C	ATOM 12027	C6	G A 581	150.677	99.523	-43.871	1.00	41.86	C
ATOM 11978	O2*	156.485	102.316	-50.284	1.00	52.56	C	ATOM 12028	O6	G A 581	151.094	100.443	-43.178	1.00	41.86	C
ATOM 11979	C1*	157.449	101.712	-48.194	1.00	52.56	C	ATOM 12029	N1	G A 581	150.645	98.232	-43.363	1.00	41.86	N
ATOM 11980	N9	157.212	100.668	-47.205	1.00	42.79	N	ATOM 12030	C2	G A 581	150.181	97.135	-44.029	1.00	41.86	C
ATOM 11981	C8	157.425	100.719	-45.851	1.00	42.79	C	ATOM 12031	N2	G A 581	150.202	95.971	-43.352	1.00	41.86	N
ATOM 11982	N7	157.146	99.596	-45.244	1.00	42.79	N	ATOM 12032	N3	G A 581	149.720	97.173	-45.258	1.00	41.86	N
ATOM 11983	C5	156.713	98.763	-46.262	1.00	42.79	C	ATOM 12033	C4	G A 581	149.747	98.420	-45.766	1.00	41.86	C
ATOM 11984	C6	156.267	97.423	-46.218	1.00	42.79	C	ATOM 12034	P	U A 582	144.090	98.290	-48.123	1.00	53.36	P
ATOM 11985	O6	156.155	96.673	-45.228	1.00	42.79	O	ATOM 12035	O1P	U A 582	142.917	98.336	-49.011	1.00	39.90	O
ATOM 11986	N1	155.919	96.962	-47.486	1.00	42.79	N	ATOM 12036	O2P	U A 582	144.274	99.333	-47.072	1.00	39.90	O
ATOM 11987	C2	155.984	97.701	-48.641	1.00	42.79	C	ATOM 12037	O5*	U A 582	144.154	96.862	-47.419	1.00	53.36	O
ATOM 11988	N2	155.597	97.086	-49.772	1.00	42.79	N	ATOM 12038	C5*	U A 582	143.872	95.673	-48.152	1.00	53.36	C
ATOM 11989	N3	156.395	98.953	-48.688	1.00	42.79	N	ATOM 12039	C4*	U A 582	143.667	94.506	-47.215	1.00	53.36	C
ATOM 11990	C4	156.742	99.415	-47.474	1.00	42.79	C	ATOM 12040	O4*	U A 582	144.932	94.028	-46.689	1.00	53.36	O
ATOM 11991	P	153.711	104.584	-49.103	1.00	46.06	P	ATOM 12041	C3*	U A 582	142.842	94.756	-45.972	1.00	53.36	C
ATOM 11992	O1P	153.342	105.682	-50.042	1.00	45.72	O	ATOM 12042	O3*	U A 582	141.453	94.794	-46.199	1.00	53.36	O
ATOM 11993	O2P	153.256	104.646	-47.690	1.00	45.72	O	ATOM 12043	C2*	U A 582	143.255	93.594	-45.082	1.00	53.36	C
ATOM 11994	O5*	153.210	103.183	-49.670	1.00	46.06	O	ATOM 12044	O2*	U A 582	142.673	92.360	-45.442	1.00	53.36	O
ATOM 11995	C5*	153.111	102.935	-51.078	1.00	46.06	C	ATOM 12045	C1*	U A 582	144.741	93.509	-45.382	1.00	53.36	C
ATOM 11996	C4*	152.580	101.544	-51.309	1.00	46.06	C	ATOM 12046	N1	U A 582	145.482	94.333	-44.413	1.00	39.90	N
ATOM 11997	O4*	153.482	100.588	-50.690	1.00	46.06	O	ATOM 12047	C2	U A 582	145.714	93.786	-43.162	1.00	39.90	C
ATOM 11998	C3*	151.236	101.236	-50.669	1.00	46.06	C	ATOM 12048	O2	U A 582	145.307	92.692	-42.846	1.00	39.90	O
ATOM 11999	O3*	150.145	101.655	-51.464	1.00	46.06	O	ATOM 12049	N3	U A 582	146.428	94.576	-42.296	1.00	39.90	N
ATOM 12000	C2*	151.276	99.724	-50.519	1.00	46.06	C	ATOM 12050	C4	U A 582	146.915	95.846	-42.541	1.00	39.90	C
ATOM 12001	O2*	150.950	99.041	-51.716	1.00	46.06	O	ATOM 12051	O4	U A 582	147.573	96.424	-41.669	1.00	39.90	O
ATOM 12002	C1*	152.745	99.489	-50.185	1.00	46.06	C	ATOM 12052	C5	U A 582	146.613	96.359	-43.848	1.00	39.90	C
ATOM 12003	N1	152.968	99.401	-48.736	1.00	45.72	N	ATOM 12053	C6	U A 582	145.927	95.604	-44.718	1.00	39.90	C
ATOM 12004	C2	152.674	98.199	-48.104	1.00	45.72	C	ATOM 12054	P	A A 583	140.516	95.566	-45.149	1.00	51.73	P
ATOM 12005	O2	152.238	97.221	-48.695	1.00	45.72	O	ATOM 12055	O1P	A A 583	139.141	95.446	-45.673	1.00	39.60	O
ATOM 12006	N3	152.908	98.184	-46.755	1.00	45.72	N	ATOM 12056	O2P	A A 583	141.090	96.922	-44.872	1.00	39.60	O
ATOM 12007	C4	153.396	99.215	-45.990	1.00	45.72	C	ATOM 12057	O5*	A A 583	140.648	94.714	-43.813	1.00	51.73	O
ATOM 12008	O4	153.612	99.029	-44.795	1.00	45.72	O	ATOM 12058	C5*	A A 583	140.133	93.384	-43.738	1.00	51.73	C
ATOM 12009	C5	153.666	100.415	-46.709	1.00	45.72	C	ATOM 12059	O4*	A A 583	140.379	92.819	-42.366	1.00	51.73	C
ATOM 12010	C6	153.449	100.467	-48.024	1.00	45.72	C	ATOM 12060	C4*	A A 583	141.808	92.734	-42.144	1.00	51.73	O
ATOM 12011	P	148.830	102.239	-50.752	1.00	50.25	P	ATOM 12061	C3*	A A 583	139.870	93.674	-41.222	1.00	51.73	O
ATOM 12012	O1P	147.919	102.671	-51.844	1.00	41.86	O	ATOM 12062	O3*	A A 583	138.513	93.415	-40.949	1.00	51.73	C
ATOM 12013	C2P	149.221	103.204	-49.699	1.00	41.86	O	ATOM 12063	C2*	A A 583	140.781	93.269	-40.075	1.00	51.73	C
ATOM 12014	O5*	148.186	100.990	-50.014	1.00	50.25	O	ATOM 12064	O2*	A A 583	140.408	92.044	-39.487	1.00	51.73	O
ATOM 12015	C5*	147.666	99.900	-50.761	1.00	50.25	C	ATOM 12065	C1*	A A 583	142.108	93.066	-40.400	1.00	51.73	C



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ATOM	12066	N9	A A 583	142.914	94.285	-40.808	1.00	39.60	N	ATOM	12116	O6	G A 585	140.634	102.592	-40.468	1.00	40.31	O
ATOM	12067	C8	A A 583	143.068	95.176	-41.838	1.00	39.60	C	ATOM	12117	N1	G A 585	141.871	103.816	-39.009	1.00	40.31	N
ATOM	12068	N7	A A 583	143.849	96.186	-41.550	1.00	39.60	N	ATOM	12118	C2	G A 585	142.374	104.093	-37.759	1.00	40.31	C
ATOM	12069	C5	A A 583	144.236	95.944	-40.241	1.00	39.60	C	ATOM	12119	N2	G A 585	143.174	105.171	-37.673	1.00	40.31	N
ATOM	12070	C6	A A 583	145.059	96.650	-39.366	1.00	39.60	C	ATOM	12120	N3	G A 585	142.105	103.373	-36.674	1.00	40.31	N
ATOM	12071	N6	A A 583	145.661	97.788	-39.698	1.00	39.60	N	ATOM	12121	C4	G A 585	141.257	102.359	-36.945	1.00	40.31	C
ATOM	12072	N1	A A 583	145.246	96.147	-38.127	1.00	39.60	N	ATOM	12122	P	C A 586	136.811	102.854	-32.718	1.00	44.93	P
ATOM	12073	C2	A A 583	144.636	95.003	-37.807	1.00	39.60	C	ATOM	12123	O1P	C A 586	136.241	103.159	-31.366	1.00	30.84	O
ATOM	12074	N3	A A 583	143.833	94.241	-38.547	1.00	39.60	N	ATOM	12124	O2P	C A 586	135.991	102.121	-33.734	1.00	30.84	O
ATOM	12075	C4	A A 583	143.671	94.776	-39.771	1.00	39.60	C	ATOM	12125	O5*	C A 586	137.320	104.196	-33.396	1.00	44.93	O
ATOM	12076	P	G A 584	137.546	94.630	-40.537	1.00	49.21	P	ATOM	12126	C5*	C A 586	138.111	105.095	-32.645	1.00	44.93	C
ATOM	12077	O1P	G A 584	136.281	94.005	-40.054	1.00	44.19	O	ATOM	12127	C4*	C A 586	138.675	106.173	-33.523	1.00	44.93	C
ATOM	12078	O2P	G A 584	137.503	95.637	-41.642	1.00	44.19	O	ATOM	12128	O4*	C A 586	139.592	105.605	-34.487	1.00	44.93	O
ATOM	12079	O5*	G A 584	138.251	95.285	-39.271	1.00	49.21	O	ATOM	12129	C3*	C A 586	137.718	106.970	-34.380	1.00	44.93	C
ATOM	12080	C5*	G A 584	138.314	94.560	-38.044	1.00	49.21	C	ATOM	12130	O3*	C A 586	136.985	107.943	-33.656	1.00	44.93	O
ATOM	12081	C4*	G A 584	139.269	95.218	-37.090	1.00	49.21	C	ATOM	12131	C2*	C A 586	138.666	107.583	-35.400	1.00	44.93	C
ATOM	12082	O4*	G A 584	140.570	95.351	-37.710	1.00	49.21	O	ATOM	12132	O2*	C A 586	139.396	108.689	-34.913	1.00	44.93	O
ATOM	12083	C3*	G A 584	138.927	96.628	-36.669	1.00	49.21	C	ATOM	12133	C1*	C A 586	139.648	106.444	-35.623	1.00	44.93	C
ATOM	12084	O3*	G A 584	137.985	96.651	-35.623	1.00	49.21	O	ATOM	12134	N1	C A 586	139.229	105.699	-36.808	1.00	30.84	N
ATOM	12085	C2*	G A 584	140.271	97.156	-36.210	1.00	49.21	C	ATOM	12135	C2	C A 586	139.515	106.244	-38.056	1.00	30.84	C
ATOM	12086	O2*	G A 584	140.579	96.644	-34.937	1.00	49.21	O	ATOM	12136	O2	C A 586	140.193	107.267	-38.114	1.00	30.84	O
ATOM	12087	C1*	G A 584	141.206	96.517	-37.229	1.00	49.21	C	ATOM	12137	N3	C A 586	139.050	105.648	-39.162	1.00	30.84	N
ATOM	12088	N9	G A 584	141.470	97.404	-38.357	1.00	44.19	N	ATOM	12138	C4	C A 586	138.327	104.541	-39.057	1.00	30.84	C
ATOM	12089	C8	G A 584	140.962	97.315	-39.625	1.00	44.19	C	ATOM	12139	N4	C A 586	137.822	104.031	-40.168	1.00	30.84	N
ATOM	12090	N7	G A 584	141.385	98.266	-40.413	1.00	44.19	N	ATOM	12140	C5	C A 586	138.074	103.919	-37.799	1.00	30.84	C
ATOM	12091	C5	G A 584	142.222	99.021	-39.615	1.00	44.19	C	ATOM	12141	C6	C A 586	138.541	104.526	-36.708	1.00	30.84	C
ATOM	12092	C6	G A 584	142.967	100.176	-39.917	1.00	44.19	C	ATOM	12142	P	G A 587	135.512	108.344	-34.164	1.00	50.16	P
ATOM	12093	O6	G A 584	143.042	100.787	-41.000	1.00	44.19	O	ATOM	12143	O1P	G A 587	134.933	109.291	-33.175	1.00	44.47	O
ATOM	12094	N1	G A 584	143.680	100.624	-38.809	1.00	44.19	N	ATOM	12144	O2P	G A 587	134.776	107.107	-34.519	1.00	44.47	O
ATOM	12095	C2	G A 584	143.673	100.027	-37.575	1.00	44.19	C	ATOM	12145	O5*	G A 587	135.790	109.142	-35.506	1.00	50.16	O
ATOM	12096	N2	G A 584	144.413	100.606	-36.625	1.00	44.19	N	ATOM	12146	C5*	G A 587	136.701	110.239	-35.500	1.00	50.16	C
ATOM	12097	N3	G A 584	142.988	98.946	-37.288	1.00	44.19	N	ATOM	12147	C4*	G A 587	136.650	110.954	-36.813	1.00	50.16	C
ATOM	12098	C4	G A 584	142.286	98.502	-38.345	1.00	44.19	C	ATOM	12148	O4*	G A 587	137.130	110.065	-37.862	1.00	50.16	O
ATOM	12099	P	G A 585	137.070	97.950	-35.427	1.00	37.11	P	ATOM	12149	C3*	G A 587	135.261	111.423	-37.230	1.00	50.16	C
ATOM	12100	O1P	G A 585	136.104	97.585	-34.357	1.00	40.31	O	ATOM	12150	O3*	G A 587	135.297	112.721	-37.774	1.00	50.16	O
ATOM	12101	O2P	G A 585	136.562	98.401	-36.752	1.00	40.31	O	ATOM	12151	C2*	G A 587	134.857	110.438	-38.321	1.00	50.16	C
ATOM	12102	O5*	G A 585	138.099	99.052	-34.900	1.00	37.11	O	ATOM	12152	O2*	G A 587	133.970	110.976	-39.296	1.00	50.16	O
ATOM	12103	C5*	G A 585	138.633	98.983	-33.569	1.00	37.11	C	ATOM	12153	C1*	G A 587	136.209	110.052	-38.929	1.00	50.16	C
ATOM	12104	C4*	G A 585	139.512	100.176	-33.293	1.00	37.11	C	ATOM	12154	N9	G A 587	136.109	108.700	-39.449	1.00	44.47	N
ATOM	12105	O3*	G A 585	140.654	100.121	-34.172	1.00	37.11	O	ATOM	12155	C8	G A 587	136.004	107.549	-38.714	1.00	44.47	C
ATOM	12106	C3*	G A 585	138.894	101.529	-33.571	1.00	37.11	C	ATOM	12156	N7	G A 587	135.732	106.502	-39.447	1.00	44.47	N
ATOM	12107	O3*	G A 585	138.158	102.011	-32.463	1.00	37.11	O	ATOM	12157	C5	G A 587	135.693	106.991	-40.744	1.00	44.47	C
ATOM	12108	C2*	G A 585	140.111	102.389	-33.843	1.00	37.11	C	ATOM	12158	C6	G A 587	135.401	106.337	-41.943	1.00	44.47	C
ATOM	12109	O2*	G A 585	140.746	102.732	-32.630	1.00	37.11	O	ATOM	12159	O6	G A 587	135.045	105.174	-42.107	1.00	44.47	O
ATOM	12110	C1*	G A 585	140.999	101.416	-34.605	1.00	37.11	C	ATOM	12160	N1	G A 587	135.518	107.186	-43.032	1.00	44.47	N
ATOM	12111	N9	G A 585	140.752	101.461	-36.039	1.00	40.31	N	ATOM	12161	C2	G A 587	135.836	108.506	-42.966	1.00	44.47	C
ATOM	12112	C8	G A 585	139.947	100.606	-36.747	1.00	40.31	C	ATOM	12162	N2	G A 587	135.896	109.152	-44.134	1.00	44.47	N
ATOM	12113	N7	G A 585	139.882	100.896	-38.015	1.00	40.31	N	ATOM	12163	N3	G A 587	136.075	109.147	-41.837	1.00	44.47	N
ATOM	12114	C5	G A 585	140.701	102.005	-38.156	1.00	40.31	C	ATOM	12164	C4	G A 587	135.985	108.331	-40.770	1.00	44.47	C
ATOM	12115	C6	G A 585	141.016	102.765	-39.308	1.00	40.31	C	ATOM	12165	P	G A 588	134.000	113.641	-37.680	1.00	48.76	P



Table 2: Sheet 123/520

ATOM	12166	O1P	G A 588	134.097	114.348	-36.376	1.00	54.74	O	ATOM	12216	O3*	C A 590	122.164	121.655	-39.555	1.00	54.65	O
ATOM	12167	O2P	G A 588	132.800	112.817	-37.983	1.00	54.74	O	ATOM	12217	C2*	C A 590	122.423	120.509	-41.694	1.00	54.65	C
ATOM	12168	O5*	G A 588	134.218	114.678	-38.864	1.00	48.76	O	ATOM	12218	O2*	C A 590	121.426	121.378	-42.189	1.00	54.65	O
ATOM	12169	C5*	G A 588	135.296	115.621	-38.800	1.00	48.76	C	ATOM	12219	C1*	C A 590	123.591	120.460	-42.680	1.00	54.65	C
ATOM	12170	C4*	G A 588	135.062	116.754	-39.760	1.00	48.76	C	ATOM	12220	N1	C A 590	124.139	119.096	-42.772	1.00	54.80	C
ATOM	12171	O4*	G A 588	135.215	116.303	-41.125	1.00	48.76	O	ATOM	12221	C2	C A 590	123.478	118.168	-43.577	1.00	54.80	C
ATOM	12172	C3*	G A 588	133.682	117.376	-39.736	1.00	48.76	C	ATOM	12222	O2	C A 590	122.516	118.543	-44.262	1.00	54.80	O
ATOM	12173	O3*	G A 588	133.558	118.286	-38.658	1.00	48.76	O	ATOM	12223	N3	C A 590	123.898	116.890	-43.595	1.00	54.80	N
ATOM	12174	C2*	G A 588	133.604	118.056	-41.099	1.00	48.76	C	ATOM	12224	C4	C A 590	124.941	116.526	-42.859	1.00	54.80	C
ATOM	12175	O2*	G A 588	134.229	119.323	-41.123	1.00	48.76	O	ATOM	12225	N4	C A 590	125.284	115.240	-42.864	1.00	54.80	C
ATOM	12176	C1*	G A 588	134.417	117.101	-41.971	1.00	48.76	C	ATOM	12226	C5	C A 590	125.672	117.459	-42.074	1.00	54.80	C
ATOM	12177	N9	G A 588	133.612	116.231	-42.815	1.00	54.74	N	ATOM	12227	C6	C A 590	125.242	118.724	-42.062	1.00	54.80	C
ATOM	12178	C8	G A 588	133.550	114.861	-42.784	1.00	54.74	C	ATOM	12228	P	U A 591	121.305	120.747	-38.538	1.00	57.15	P
ATOM	12179	N7	G A 588	132.765	114.366	-43.703	1.00	54.74	N	ATOM	12229	O1P	U A 591	120.508	121.684	-37.707	1.00	73.06	O
ATOM	12180	C5	G A 588	132.272	115.479	-44.368	1.00	54.74	C	ATOM	12230	O2P	U A 591	122.212	119.792	-37.868	1.00	73.06	O
ATOM	12181	C6	G A 588	131.380	115.571	-45.457	1.00	54.74	C	ATOM	12231	O5*	U A 591	120.322	119.923	-39.495	1.00	57.15	O
ATOM	12182	O6	G A 588	130.843	114.659	-46.088	1.00	54.74	O	ATOM	12232	C5*	U A 591	119.290	120.609	-40.240	1.00	57.15	C
ATOM	12183	N1	G A 588	131.131	116.892	-45.804	1.00	54.74	N	ATOM	12233	C4*	U A 591	118.426	119.643	-41.029	1.00	57.15	C
ATOM	12184	C2	G A 588	131.679	117.985	-45.186	1.00	54.74	C	ATOM	12234	O4*	U A 591	119.196	119.025	-42.089	1.00	57.15	C
ATOM	12185	N2	G A 588	131.300	119.181	-45.648	1.00	54.74	N	ATOM	12235	C3*	U A 591	117.785	118.473	-40.302	1.00	57.15	C
ATOM	12186	N3	G A 588	132.530	117.912	-44.182	1.00	54.74	N	ATOM	12236	O3*	U A 591	116.597	118.813	-39.604	1.00	57.15	O
ATOM	12187	C4	G A 588	132.777	116.636	-43.825	1.00	54.74	C	ATOM	12237	C2*	U A 591	117.475	117.513	-41.441	1.00	57.15	C
ATOM	12188	P	C A 589	132.137	118.478	-37.948	1.00	52.87	P	ATOM	12238	O2*	U A 591	116.282	117.850	-42.121	1.00	57.15	O
ATOM	12189	O1P	C A 589	132.374	119.441	-36.836	1.00	45.20	O	ATOM	12239	C1*	U A 591	118.672	117.735	-42.366	1.00	57.15	C
ATOM	12190	O2P	C A 589	131.534	117.162	-37.667	1.00	45.20	O	ATOM	12240	N1	U A 591	119.716	116.729	-42.116	1.00	73.06	N
ATOM	12191	O5*	C A 589	131.257	119.166	-39.077	1.00	52.87	O	ATOM	12241	C2	U A 591	119.538	115.466	-42.660	1.00	73.06	C
ATOM	12192	C5*	C A 589	131.454	120.542	-39.405	1.00	52.87	C	ATOM	12242	O2	U A 591	118.588	115.165	-43.358	1.00	73.06	O
ATOM	12193	C4*	C A 589	130.427	120.996	-40.403	1.00	52.87	C	ATOM	12243	N3	U A 591	120.516	114.566	-42.356	1.00	73.06	N
ATOM	12194	O4*	C A 589	130.675	120.391	-41.695	1.00	52.87	O	ATOM	12244	C4	U A 591	121.628	114.786	-41.591	1.00	73.06	C
ATOM	12195	C3*	C A 589	128.978	120.652	-40.114	1.00	52.87	C	ATOM	12245	O4	U A 591	122.397	113.852	-41.372	1.00	73.06	O
ATOM	12196	O3*	C A 589	128.383	121.533	-39.177	1.00	52.87	O	ATOM	12246	C5	U A 591	121.754	116.116	-41.081	1.00	73.06	C
ATOM	12197	C2*	C A 589	128.339	120.792	-41.487	1.00	52.87	C	ATOM	12247	C6	U A 591	120.819	117.017	-41.355	1.00	73.06	C
ATOM	12198	O2*	C A 589	128.072	122.144	-41.801	1.00	52.87	O	ATOM	12248	P	G A 592	116.133	117.908	-38.356	1.00	62.91	P
ATOM	12199	C1*	C A 589	129.455	120.290	-42.402	1.00	52.87	C	ATOM	12249	O1P	G A 592	115.019	118.626	-37.691	1.00	59.71	O
ATOM	12200	N1	C A 589	128.478	118.642	-43.940	1.00	45.20	N	ATOM	12250	O2P	G A 592	117.347	117.553	-37.571	1.00	59.71	O
ATOM	12201	C2	C A 589	128.042	119.599	-44.592	1.00	45.20	C	ATOM	12251	O5*	G A 592	115.566	116.577	-39.020	1.00	62.91	O
ATOM	12202	O2	C A 589	128.237	117.366	-44.307	1.00	45.20	O	ATOM	12252	C5*	G A 592	114.346	116.601	-39.765	1.00	62.91	C
ATOM	12203	N3	C A 589	128.731	116.364	-43.586	1.00	45.20	N	ATOM	12253	C4*	G A 592	114.088	115.257	-40.394	1.00	62.91	C
ATOM	12204	C4	C A 589	128.453	115.121	-43.974	1.00	45.20	C	ATOM	12254	O4*	G A 592	115.177	114.940	-41.295	1.00	62.91	O
ATOM	12205	N4	C A 589	129.528	116.592	-42.429	1.00	45.20	N	ATOM	12255	C3*	G A 592	114.039	114.070	-39.451	1.00	62.91	C
ATOM	12206	C5	C A 589	129.754	117.862	-42.073	1.00	45.20	C	ATOM	12256	O3*	G A 592	112.775	113.916	-38.838	1.00	62.91	O
ATOM	12207	C6	C A 589	127.013	121.105	-38.460	1.00	54.65	P	ATOM	12257	C2*	G A 592	114.375	112.901	-40.364	1.00	62.91	C
ATOM	12208	P	C A 590	126.684	122.176	-37.482	1.00	54.80	P	ATOM	12258	O2*	G A 592	113.267	112.429	-41.101	1.00	62.91	O
ATOM	12209	O1P	C A 590	127.149	119.705	-37.989	1.00	54.80	O	ATOM	12259	C1*	G A 592	115.386	113.536	-41.317	1.00	62.91	C
ATOM	12210	O2P	C A 590	125.957	121.085	-39.655	1.00	54.65	O	ATOM	12260	N9	G A 592	116.750	113.249	-40.885	1.00	59.71	N
ATOM	12211	O5*	C A 590	125.341	122.295	-40.116	1.00	54.65	C	ATOM	12261	C8	G A 592	117.600	114.068	-40.184	1.00	59.71	C
ATOM	12212	C5*	C A 590	124.146	121.985	-40.991	1.00	54.65	C	ATOM	12262	N7	G A 592	118.726	113.486	-39.871	1.00	59.71	N
ATOM	12213	C4*	C A 590	124.595	121.345	-42.213	1.00	54.65	O	ATOM	12263	C5	G A 592	118.616	112.212	-40.415	1.00	59.71	C
ATOM	12214	O4*	C A 590	123.098	121.032	-40.433	1.00	54.65	C	ATOM	12264	C6	G A 592	119.516	111.112	-40.382	1.00	59.71	C
ATOM	12215	C3*	C A 590							ATOM	12265	O6	G A 592	120.621	111.023	-39.809	1.00	59.71	O



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ATOM	12266	N1	G A 592	119.010	110.026	-41.089	1.00	59.71	N	ATOM	12316	C4	G A 594	117.648	105.422	-35.422	1.00	73.78	C
ATOM	12267	C2	G A 592	117.794	109.990	-41.720	1.00	59.71	C	ATOM	12317	P	G A 595	112.369	103.280	-32.419	1.00	57.19	P
ATOM	12268	N2	G A 592	117.486	108.855	-42.353	1.00	59.71	N	ATOM	12318	O1P	G A 595	111.576	102.086	-32.041	1.00	69.83	O
ATOM	12269	N3	G A 592	116.943	110.991	-41.731	1.00	59.71	N	ATOM	12319	O2P	G A 595	111.834	104.634	-32.146	1.00	69.83	O
ATOM	12270	C4	G A 592	117.414	112.063	-41.068	1.00	59.71	C	ATOM	12320	O5*	G A 595	113.768	103.140	-31.685	1.00	57.19	O
ATOM	12271	P	G A 593	112.666	113.092	-37.462	1.00	57.22	P	ATOM	12321	C5*	G A 595	114.657	102.066	-32.003	1.00	57.19	C
ATOM	12272	O1P	G A 593	111.297	113.312	-36.930	1.00	69.50	O	ATOM	12322	C4*	G A 595	116.005	102.337	-31.405	1.00	57.19	C
ATOM	12273	O2P	G A 593	113.844	113.428	-36.614	1.00	69.50	O	ATOM	12323	O4*	G A 595	116.472	103.625	-31.896	1.00	57.19	C
ATOM	12274	O5*	G A 593	112.799	111.570	-37.928	1.00	57.22	O	ATOM	12324	C3*	G A 595	116.018	102.413	-29.883	1.00	57.19	C
ATOM	12275	C5*	G A 593	111.797	110.975	-38.756	1.00	57.22	C	ATOM	12325	O3*	G A 595	117.213	101.833	-29.390	1.00	57.19	O
ATOM	12276	C4*	G A 593	112.118	109.529	-39.019	1.00	57.22	C	ATOM	12326	C2*	G A 595	116.024	103.914	-29.602	1.00	57.19	C
ATOM	12277	O4*	G A 593	113.245	109.425	-39.916	1.00	57.22	O	ATOM	12327	O2*	G A 595	116.700	104.239	-28.403	1.00	57.19	O
ATOM	12278	C3*	G A 593	112.497	108.681	-37.820	1.00	57.22	C	ATOM	12328	C1*	G A 595	116.775	104.468	-30.810	1.00	57.19	C
ATOM	12279	O3*	G A 593	111.355	108.186	-37.146	1.00	57.22	O	ATOM	12329	N9	G A 595	116.372	105.828	-31.149	1.00	69.83	N
ATOM	12280	C2*	G A 593	113.277	107.546	-38.465	1.00	57.22	C	ATOM	12330	C8	G A 595	115.119	106.258	-31.494	1.00	69.83	C
ATOM	12281	O2*	G A 593	112.408	106.579	-39.012	1.00	57.22	O	ATOM	12331	N7	G A 595	115.054	107.545	-31.687	1.00	69.83	N
ATOM	12282	C1*	G A 593	114.004	108.271	-39.599	1.00	57.22	C	ATOM	12332	C5	G A 595	116.346	107.990	-31.466	1.00	69.83	C
ATOM	12283	N9	G A 593	115.334	108.706	-39.185	1.00	69.50	N	ATOM	12333	C6	G A 595	116.885	109.297	-31.512	1.00	69.83	C
ATOM	12284	C8	G A 593	115.721	109.988	-38.882	1.00	69.50	C	ATOM	12334	O6	G A 595	116.307	110.360	-31.760	1.00	69.83	O
ATOM	12285	N7	G A 593	116.958	110.069	-38.483	1.00	69.50	N	ATOM	12335	N1	G A 595	118.244	109.300	-31.227	1.00	69.83	N
ATOM	12286	C5	G A 593	117.421	108.764	-38.532	1.00	69.50	C	ATOM	12336	C2	G A 595	118.989	108.191	-30.935	1.00	69.83	C
ATOM	12287	C6	G A 593	118.689	108.235	-38.198	1.00	69.50	C	ATOM	12337	N2	G A 595	120.282	108.403	-30.694	1.00	69.83	N
ATOM	12288	O6	G A 593	119.683	108.836	-37.749	1.00	69.50	O	ATOM	12338	N3	G A 595	118.500	106.967	-30.882	1.00	69.83	N
ATOM	12289	N1	G A 593	118.741	106.863	-38.423	1.00	69.50	N	ATOM	12339	C4	G A 595	117.177	106.941	-31.153	1.00	69.83	C
ATOM	12290	C2	G A 593	117.699	106.102	-38.902	1.00	69.50	C	ATOM	12340	P	C A 596	117.194	100.342	-28.789	1.00	53.77	P
ATOM	12291	N2	G A 593	117.945	104.796	-39.082	1.00	69.50	N	ATOM	12341	O1P	C A 596	116.339	99.494	-29.661	1.00	64.09	O
ATOM	12292	N3	G A 593	116.504	106.584	-39.192	1.00	69.50	N	ATOM	12342	O2P	C A 596	116.908	100.433	-27.338	1.00	53.77	O
ATOM	12293	C4	G A 593	116.437	107.913	-38.987	1.00	69.50	C	ATOM	12343	O5*	C A 596	118.706	99.887	-28.979	1.00	53.77	O
ATOM	12294	P	G A 594	111.438	107.877	-35.579	1.00	65.35	P	ATOM	12344	C5*	C A 596	119.072	98.516	-29.194	1.00	53.77	C
ATOM	12295	O1P	G A 594	110.090	107.466	-35.130	1.00	73.78	O	ATOM	12345	C4*	C A 596	120.560	98.430	-29.437	1.00	53.77	C
ATOM	12296	O2P	G A 594	112.119	109.014	-34.906	1.00	73.78	O	ATOM	12346	O4*	C A 596	120.856	98.925	-30.768	1.00	53.77	O
ATOM	12297	O5*	G A 594	112.387	106.604	-35.512	1.00	65.35	O	ATOM	12347	C3*	C A 596	121.357	99.329	-28.507	1.00	53.77	C
ATOM	12298	C5*	G A 594	112.034	105.397	-36.197	1.00	65.35	C	ATOM	12348	O3*	C A 596	121.615	98.740	-27.252	1.00	53.77	O
ATOM	12299	C4*	G A 594	113.120	104.364	-36.032	1.00	65.35	C	ATOM	12349	C2*	C A 596	122.596	99.673	-29.319	1.00	53.77	C
ATOM	12300	O4*	G A 594	114.320	104.792	-36.725	1.00	65.35	O	ATOM	12350	O2*	C A 596	123.646	98.729	-29.270	1.00	53.77	O
ATOM	12301	C3*	G A 594	113.573	104.084	-34.607	1.00	65.35	C	ATOM	12351	C1*	C A 596	122.017	99.746	-30.732	1.00	53.77	C
ATOM	12302	O3*	G A 594	112.722	103.135	-33.980	1.00	65.35	O	ATOM	12352	N1	C A 596	121.620	101.129	-31.059	1.00	64.09	N
ATOM	12303	C2*	G A 594	114.972	103.519	-34.814	1.00	65.35	C	ATOM	12353	C2	C A 596	122.596	102.127	-31.045	1.00	64.09	C
ATOM	12304	O2*	G A 594	114.931	102.143	-35.132	1.00	65.35	O	ATOM	12354	O2	C A 596	123.768	101.814	-30.792	1.00	64.09	O
ATOM	12305	C1*	G A 594	115.459	104.312	-36.032	1.00	65.35	C	ATOM	12355	N3	C A 596	122.239	103.404	-31.308	1.00	64.09	N
ATOM	12306	N9	G A 594	116.293	105.449	-35.658	1.00	73.78	N	ATOM	12356	C4	C A 596	120.968	103.698	-31.585	1.00	64.09	C
ATOM	12307	C8	G A 594	115.890	106.747	-35.444	1.00	73.78	C	ATOM	12357	N4	C A 596	120.663	104.971	-31.825	1.00	64.09	N
ATOM	12308	N7	G A 594	116.864	107.532	-35.074	1.00	73.78	N	ATOM	12358	C5	C A 596	119.957	102.701	-31.623	1.00	64.09	C
ATOM	12309	C5	G A 594	117.980	106.706	-35.049	1.00	73.78	C	ATOM	12359	C6	C A 596	120.321	101.442	-31.357	1.00	64.09	C
ATOM	12310	C6	G A 594	119.319	106.989	-34.707	1.00	73.78	C	ATOM	12360	P	G A 597	121.590	99.660	-25.933	1.00	57.95	P
ATOM	12311	O6	G A 594	119.803	108.051	-34.316	1.00	73.78	O	ATOM	12361	O1P	G A 597	121.534	98.731	-24.765	1.00	51.74	O
ATOM	12312	N1	G A 594	120.128	105.870	-34.843	1.00	73.78	N	ATOM	12362	O2P	G A 597	120.539	100.719	-26.081	1.00	51.74	O
ATOM	12313	C2	G A 594	119.702	104.632	-35.235	1.00	73.78	C	ATOM	12363	O5*	G A 597	123.024	100.364	-25.926	1.00	57.95	O
ATOM	12314	N2	G A 594	120.643	103.688	-35.317	1.00	73.78	N	ATOM	12364	C5*	G A 597	124.230	99.584	-26.042	1.00	57.95	C
ATOM	12315	N3	G A 594	118.450	104.344	-35.530	1.00	73.78	N	ATOM	12365	C4*	G A 597	125.412	100.483	-26.279	1.00	57.95	C



Table 2: Sheet 125/520

ATOM	12366	O4*	G A 597	125.198	101.217	-27.505	1.00	57.95	O	ATOM	12416	C2	C A 599	119.149	107.740	-20.878	1.00	57.17	C
ATOM	12367	C3*	G A 597	125.614	101.550	-25.220	1.00	57.95	C	ATOM	12417	O2	C A 599	118.518	108.794	-20.718	1.00	57.17	O
ATOM	12368	O3*	G A 597	126.388	101.085	-24.135	1.00	57.95	O	ATOM	12418	N3	C A 599	118.567	106.627	-21.378	1.00	57.17	N
ATOM	12369	C2*	G A 597	126.323	102.658	-25.973	1.00	57.95	C	ATOM	12419	C4	C A 599	119.287	105.522	-21.543	1.00	57.17	C
ATOM	12370	O2*	G A 597	127.714	102.460	-26.050	1.00	57.95	O	ATOM	12420	N4	C A 599	118.684	104.461	-22.074	1.00	57.17	N
ATOM	12371	C1*	G A 597	125.690	102.541	-27.362	1.00	57.95	C	ATOM	12421	C5	C A 599	120.662	105.459	-21.183	1.00	57.17	C
ATOM	12372	N9	G A 597	124.585	103.488	-27.539	1.00	51.74	N	ATOM	12422	C6	C A 599	121.221	106.567	-20.685	1.00	57.17	C
ATOM	12373	C8	G A 597	123.262	103.205	-27.790	1.00	51.74	C	ATOM	12423	P	C A 600	121.561	108.079	-15.399	1.00	51.19	P
ATOM	12374	N7	G A 597	122.512	104.272	-27.833	1.00	51.74	N	ATOM	12424	O1P	C A 600	122.028	108.618	-14.084	1.00	59.28	O
ATOM	12375	C5	G A 597	123.393	105.327	-27.611	1.00	51.74	C	ATOM	12425	O2P	C A 600	121.743	106.637	-15.708	1.00	59.28	O
ATOM	12376	C6	G A 597	123.166	106.738	-27.530	1.00	51.74	C	ATOM	12426	O5*	C A 600	120.015	108.404	-15.576	1.00	51.19	O
ATOM	12377	O6	G A 597	122.105	107.362	-27.616	1.00	51.74	O	ATOM	12427	C5*	C A 600	119.526	109.742	-15.409	1.00	51.19	O
ATOM	12378	N1	G A 597	124.348	107.428	-27.313	1.00	51.74	N	ATOM	12428	C4*	C A 600	118.024	109.774	-15.546	1.00	51.19	C
ATOM	12379	C2	G A 597	125.582	106.859	-27.179	1.00	51.74	C	ATOM	12429	O4*	C A 600	117.620	109.433	-16.898	1.00	51.19	O
ATOM	12380	N2	G A 597	126.593	107.698	-26.978	1.00	51.74	N	ATOM	12430	C3*	C A 600	117.273	108.788	-14.681	1.00	51.19	C
ATOM	12381	N3	G A 597	125.809	105.566	-27.235	1.00	51.74	N	ATOM	12431	O3*	C A 600	117.113	109.302	-13.383	1.00	51.19	O
ATOM	12382	C4	G A 597	124.678	104.861	-27.451	1.00	51.74	C	ATOM	12432	C2*	C A 600	115.946	108.649	-15.403	1.00	51.19	C
ATOM	12383	P	G A 598	125.857	101.322	-22.648	1.00	44.53	P	ATOM	12433	O2*	C A 600	115.104	109.730	-15.105	1.00	51.19	O
ATOM	12384	O1P	U A 598	126.880	100.956	-21.638	1.00	56.43	O	ATOM	12434	C1*	C A 600	116.370	108.774	-16.864	1.00	51.19	C
ATOM	12385	O2P	U A 598	124.513	100.697	-22.602	1.00	56.43	O	ATOM	12435	N1	C A 600	116.486	107.464	-17.521	1.00	59.28	N
ATOM	12386	O5*	U A 598	125.665	102.897	-22.579	1.00	44.53	O	ATOM	12436	C2	C A 600	115.383	106.970	-18.206	1.00	59.28	C
ATOM	12387	C5*	U A 598	126.781	103.783	-22.771	1.00	44.53	C	ATOM	12437	O2	C A 600	114.373	107.676	-18.300	1.00	59.28	O
ATOM	12388	C4*	U A 598	126.308	105.212	-22.767	1.00	44.53	C	ATOM	12438	N3	C A 600	115.437	105.744	-18.757	1.00	59.28	N
ATOM	12389	O4*	U A 598	125.588	105.493	-23.990	1.00	44.53	O	ATOM	12439	C4	C A 600	116.543	105.022	-18.656	1.00	59.28	C
ATOM	12390	C3*	U A 598	125.327	105.545	-21.666	1.00	44.53	C	ATOM	12440	N4	C A 600	116.539	103.813	-19.196	1.00	59.28	N
ATOM	12391	O3*	U A 598	125.979	105.860	-20.461	1.00	44.53	O	ATOM	12441	C5	C A 600	117.700	105.509	-17.993	1.00	59.28	C
ATOM	12392	C2*	U A 598	124.581	106.733	-22.231	1.00	44.53	C	ATOM	12442	C6	C A 600	117.631	106.727	-17.446	1.00	59.28	C
ATOM	12393	O2*	U A 598	125.312	107.919	-22.029	1.00	44.53	O	ATOM	12443	P	C A 601	117.028	108.289	-12.149	1.00	51.04	P
ATOM	12394	C1*	U A 598	124.528	106.386	-23.721	1.00	44.53	C	ATOM	12444	O1P	C A 601	117.340	109.084	-10.932	1.00	58.62	O
ATOM	12395	N1	U A 598	123.270	105.735	-24.118	1.00	56.43	N	ATOM	12445	O2P	C A 601	117.840	107.082	-12.466	1.00	58.62	O
ATOM	12396	C2	U A 598	122.149	106.531	-24.278	1.00	56.43	C	ATOM	12446	O5*	C A 601	115.497	107.836	-12.154	1.00	51.04	O
ATOM	12397	O2	U A 598	122.174	107.739	-24.148	1.00	56.43	O	ATOM	12447	C5*	C A 601	114.428	108.809	-12.093	1.00	51.04	C
ATOM	12398	N3	U A 598	120.998	105.856	-24.603	1.00	56.43	N	ATOM	12448	C4*	C A 601	113.085	108.159	-12.360	1.00	51.04	C
ATOM	12399	C4	U A 598	120.860	104.496	-24.801	1.00	56.43	C	ATOM	12449	O4*	C A 601	112.950	107.802	-13.761	1.00	51.04	O
ATOM	12400	O4	U A 598	119.754	104.028	-25.071	1.00	56.43	O	ATOM	12450	C3*	C A 601	112.800	106.867	-11.618	1.00	51.04	C
ATOM	12401	C5	U A 598	122.067	103.750	-24.646	1.00	56.43	C	ATOM	12451	O3*	C A 601	112.374	107.074	-10.286	1.00	51.04	O
ATOM	12402	C6	U A 598	123.201	104.378	-24.315	1.00	56.43	C	ATOM	12452	C2*	C A 601	111.729	106.209	-12.479	1.00	51.04	C
ATOM	12403	P	C A 599	125.210	105.619	-19.075	1.00	53.21	P	ATOM	12453	O1*	C A 601	110.430	106.704	-12.223	1.00	51.04	O
ATOM	12404	O1P	C A 599	126.119	105.886	-17.935	1.00	57.17	O	ATOM	12454	C1*	C A 601	112.166	106.624	-13.881	1.00	51.04	C
ATOM	12405	O2P	C A 599	124.506	104.315	-19.163	1.00	57.17	O	ATOM	12455	N1	C A 601	112.974	105.585	-14.538	1.00	58.62	N
ATOM	12406	O5*	C A 599	124.085	106.740	-19.097	1.00	53.21	O	ATOM	12456	C2	C A 601	112.331	104.635	-15.330	1.00	58.62	C
ATOM	12407	C5*	C A 599	124.407	108.120	-18.891	1.00	53.21	C	ATOM	12457	O2	C A 601	111.104	104.682	-15.442	1.00	58.62	O
ATOM	12408	C4*	C A 599	123.141	108.940	-18.865	1.00	53.21	C	ATOM	12458	N3	C A 601	113.062	103.689	-15.956	1.00	58.62	N
ATOM	12409	O4*	C A 599	122.502	108.876	-20.166	1.00	53.21	O	ATOM	12459	C4	C A 601	114.385	103.669	-15.812	1.00	58.62	C
ATOM	12410	C3*	C A 599	122.049	108.480	-17.911	1.00	53.21	C	ATOM	12460	N4	C A 601	115.067	102.735	-16.465	1.00	58.62	N
ATOM	12411	O2*	C A 599	122.244	108.906	-16.585	1.00	53.21	O	ATOM	12461	C5	C A 601	115.068	104.613	-14.996	1.00	58.62	C
ATOM	12412	C2*	C A 599	120.802	109.092	-18.517	1.00	53.21	C	ATOM	12462	C6	C A 601	114.332	105.544	-14.383	1.00	58.62	C
ATOM	12413	O2*	C A 599	120.664	110.469	-18.218	1.00	53.21	O	ATOM	12463	P	A A 602	112.579	105.899	-9.217	1.00	57.46	P
ATOM	12414	C1*	C A 599	121.096	108.942	-20.003	1.00	53.21	C	ATOM	12464	O1P	A A 602	112.194	106.433	-7.880	1.00	66.99	O
ATOM	12415	N1	C A 599	120.494	107.712	-20.533	1.00	57.17	N	ATOM	12465	O2P	A A 602	113.929	105.313	-9.407	1.00	66.99	O



Table 2: Sheet 126/520

ATOM	12466	O5*	A A 602	111.518	104.805	-9.681	1.00	57.46	O	ATOM	12516	Cl*	G A 604	112.244	92.033	-10.001	1.00	58.89	C
ATOM	12467	C5*	A A 602	110.112	105.083	-9.631	1.00	57.46	C	ATOM	12517	N9	G A 604	113.269	93.079	-10.033	1.00	62.18	N
ATOM	12468	C4*	A A 602	109.330	103.907	-10.155	1.00	57.46	C	ATOM	12518	C8	G A 604	113.208	94.334	-9.471	1.00	62.18	C
ATOM	12469	O4*	A A 602	109.596	103.753	-11.569	1.00	57.46	C	ATOM	12519	N7	G A 604	114.309	95.019	-9.628	1.00	62.18	N
ATOM	12470	C3*	A A 602	109.664	102.551	-9.555	1.00	57.46	C	ATOM	12520	C5	G A 604	115.148	94.173	-10.346	1.00	62.18	C
ATOM	12471	O3*	A A 602	108.973	102.306	-8.344	1.00	57.46	O	ATOM	12521	C6	G A 604	116.483	94.359	-10.802	1.00	62.18	C
ATOM	12472	C2*	A A 602	109.224	101.589	-10.647	1.00	57.46	C	ATOM	12522	O6	G A 604	117.217	95.337	-10.660	1.00	62.18	O
ATOM	12473	O2*	A A 602	107.846	101.299	-10.592	1.00	57.46	C	ATOM	12523	N1	G A 604	116.951	93.245	-11.483	1.00	62.18	N
ATOM	12474	Cl*	A A 602	109.557	102.379	-11.916	1.00	57.46	O	ATOM	12524	C2	G A 604	116.240	92.100	-11.699	1.00	62.18	C
ATOM	12475	N9	A A 602	110.863	101.994	-12.460	1.00	66.99	N	ATOM	12525	N2	G A 604	116.860	91.145	-12.387	1.00	62.18	N
ATOM	12476	C8	A A 602	112.069	102.630	-12.291	1.00	66.99	C	ATOM	12526	N3	G A 604	115.006	91.904	-11.275	1.00	62.18	N
ATOM	12477	N5	A A 602	113.077	102.002	-12.844	1.00	66.99	N	ATOM	12527	C4	G A 604	114.522	92.976	-10.612	1.00	62.18	C
ATOM	12478	C7	A A 602	112.496	100.887	-13.428	1.00	66.99	C	ATOM	12528	P	U A 605	112.388	90.575	-5.473	1.00	62.18	C
ATOM	12479	C6	A A 602	113.033	99.822	-14.156	1.00	66.99	C	ATOM	12529	O1P	U A 605	111.837	89.487	-4.641	1.00	66.52	O
ATOM	12480	N6	A A 602	114.331	99.682	-14.406	1.00	66.99	N	ATOM	12530	O2P	U A 605	112.622	91.912	-4.877	1.00	66.52	O
ATOM	12481	N1	A A 602	112.183	98.886	-14.617	1.00	66.99	N	ATOM	12531	O5*	U A 605	113.779	90.080	-6.053	1.00	52.11	O
ATOM	12482	C2	A A 602	110.888	99.014	-14.342	1.00	66.99	C	ATOM	12532	C5*	U A 605	113.886	88.828	-6.738	1.00	52.11	C
ATOM	12483	N3	A A 602	110.263	99.958	-13.654	1.00	66.99	N	ATOM	12533	C4*	U A 605	115.274	88.667	-7.289	1.00	52.11	C
ATOM	12484	C4	A A 602	111.133	100.879	-13.219	1.00	66.99	C	ATOM	12534	O4*	U A 605	115.491	89.656	-8.331	1.00	52.11	O
ATOM	12485	P	U A 603	109.537	101.207	-7.316	1.00	60.60	P	ATOM	12535	C3*	U A 605	116.408	88.911	-6.303	1.00	52.11	C
ATOM	12486	O1P	U A 603	108.532	101.086	-6.221	1.00	65.82	O	ATOM	12536	O3*	U A 605	116.704	87.780	-5.503	1.00	52.11	O
ATOM	12487	O2P	U A 603	110.946	101.555	-6.982	1.00	65.82	O	ATOM	12537	C2*	U A 605	117.571	89.271	-7.218	1.00	52.11	C
ATOM	12488	O5*	U A 603	109.519	99.849	-8.156	1.00	60.60	O	ATOM	12538	O2*	U A 605	118.253	88.142	-7.737	1.00	52.11	O
ATOM	12489	C5*	U A 603	108.276	99.205	-8.483	1.00	60.60	C	ATOM	12539	Cl*	U A 605	116.858	90.041	-8.335	1.00	52.11	C
ATOM	12490	C4*	U A 603	108.523	97.903	-9.209	1.00	60.60	C	ATOM	12540	N1	U A 605	116.960	91.487	-8.096	1.00	66.52	N
ATOM	12491	O4*	U A 603	109.098	98.176	-10.513	1.00	60.60	O	ATOM	12541	C2	U A 605	118.084	92.109	-8.572	1.00	66.52	C
ATOM	12492	C3*	U A 603	109.500	96.931	-8.566	1.00	60.60	C	ATOM	12542	O2	U A 605	118.913	91.529	-9.242	1.00	66.52	O
ATOM	12493	O3*	U A 603	108.922	96.120	-7.559	1.00	60.60	O	ATOM	12543	N3	U A 605	118.202	93.434	-8.244	1.00	66.52	N
ATOM	12494	C2*	U A 603	109.957	96.095	-9.747	1.00	60.60	C	ATOM	12544	C4	U A 605	117.311	94.187	-7.524	1.00	66.52	C
ATOM	12495	O2*	U A 603	109.030	95.083	-10.054	1.00	60.60	O	ATOM	12545	O4	U A 605	117.567	95.370	-7.292	1.00	66.52	O
ATOM	12496	Cl*	U A 603	110.004	97.141	-10.863	1.00	60.60	C	ATOM	12546	C5	U A 605	116.143	93.481	-7.103	1.00	66.52	C
ATOM	12497	N1	U A 603	111.359	97.710	-10.954	1.00	65.82	N	ATOM	12547	C6	U A 605	116.010	92.187	-7.399	1.00	66.52	C
ATOM	12498	C2	U A 603	112.237	97.146	-11.861	1.00	65.82	C	ATOM	12548	P	G A 606	117.263	87.988	-4.014	1.00	64.10	P
ATOM	12499	O2	U A 603	111.906	96.283	-12.650	1.00	65.82	O	ATOM	12549	O1P	G A 606	117.462	86.638	-3.427	1.00	95.33	O
ATOM	12500	N3	U A 603	113.519	97.633	-11.810	1.00	65.82	N	ATOM	12550	O2P	G A 606	116.405	88.977	-3.322	1.00	95.33	O
ATOM	12501	C4	U A 603	114.000	98.616	-10.971	1.00	65.82	C	ATOM	12551	O5*	G A 606	118.699	88.629	-4.229	1.00	64.10	O
ATOM	12502	O4	U A 603	115.219	98.797	-10.891	1.00	65.82	O	ATOM	12552	C5*	G A 606	119.688	87.937	-5.000	1.00	64.10	C
ATOM	12503	C5	U A 603	113.013	99.193	-10.111	1.00	65.82	C	ATOM	12553	C4*	G A 606	120.905	88.799	-5.173	1.00	64.10	C
ATOM	12504	C6	U A 603	111.761	98.736	-10.132	1.00	65.82	C	ATOM	12554	O4*	G A 606	120.566	89.951	-5.980	1.00	64.10	O
ATOM	12505	P	G A 604	109.875	95.438	-6.458	1.00	58.89	P	ATOM	12555	C3*	G A 606	121.471	89.363	-3.884	1.00	64.10	C
ATOM	12506	O1P	G A 604	109.020	94.878	-5.384	1.00	62.18	O	ATOM	12556	O3*	G A 606	122.377	88.425	-3.317	1.00	64.10	O
ATOM	12507	O2P	G A 604	110.957	96.390	-6.096	1.00	62.18	O	ATOM	12557	C2*	G A 606	122.176	90.627	-4.363	1.00	64.10	C
ATOM	12508	O5*	G A 604	110.506	94.216	-7.259	1.00	58.89	O	ATOM	12558	O2*	G A 606	123.442	90.349	-4.921	1.00	64.10	O
ATOM	12509	C5*	G A 604	109.655	93.183	-7.784	1.00	58.89	C	ATOM	12559	Cl*	G A 606	121.260	91.086	-5.499	1.00	64.10	C
ATOM	12510	C4*	G A 604	110.470	92.120	-8.473	1.00	58.89	C	ATOM	12560	N9	G A 606	120.277	92.079	-5.077	1.00	95.33	N
ATOM	12511	O4*	G A 604	110.979	92.618	-9.736	1.00	58.89	O	ATOM	12561	C8	G A 606	119.026	91.841	-4.557	1.00	95.33	C
ATOM	12512	C3*	G A 604	111.706	91.647	-7.740	1.00	58.89	C	ATOM	12562	N7	G A 606	118.380	92.933	-4.260	1.00	95.33	N
ATOM	12513	O3*	G A 604	111.431	90.681	-6.759	1.00	58.89	O	ATOM	12563	C5	G A 606	119.254	93.955	-4.606	1.00	95.33	C
ATOM	12514	C2*	G A 604	112.528	91.056	-8.865	1.00	58.89	C	ATOM	12564	C6	G A 606	119.105	95.363	-4.514	1.00	95.33	C
ATOM	12515	O2*	G A 604	112.036	89.788	-9.222	1.00	58.89	O	ATOM	12565	O6	G A 606	118.136	96.009	-4.101	1.00	95.33	O



Table 2: Sheet 127/520

ATOM	12566	N1	G A 606	120.237	96.027	-4.973	1.00	95.33	N	ATOM	12616	O1P	A A 609	121.925	87.860	9.890	1.00	54.72	O
ATOM	12567	C2	G A 606	121.362	95.420	-5.461	1.00	95.33	C	ATOM	12617	O2P	A A 609	122.322	88.801	7.530	1.00	54.72	O
ATOM	12568	N2	G A 606	122.348	96.236	-5.848	1.00	95.33	N	ATOM	12618	O5*	A A 609	123.806	87.036	8.473	1.00	47.89	O
ATOM	12569	N3	G A 606	121.512	94.111	-5.560	1.00	95.33	N	ATOM	12619	C5*	A A 609	124.168	86.014	9.401	1.00	47.89	C
ATOM	12570	C4	G A 606	120.427	93.444	-5.115	1.00	95.33	C	ATOM	12620	C4*	A A 609	125.570	85.538	9.131	1.00	47.89	C
ATOM	12571	P	A A 607	122.643	88.410	-1.731	1.00	65.72	P	ATOM	12621	O4*	A A 609	125.666	85.084	7.758	1.00	47.89	O
ATOM	12572	O1P	A A 607	122.240	89.708	-1.123	1.00	89.08	O	ATOM	12622	C3*	A A 609	126.663	86.580	9.237	1.00	47.89	C
ATOM	12573	O2P	A A 607	124.033	87.924	-1.552	1.00	89.08	O	ATOM	12623	O3*	A A 609	127.082	86.792	10.564	1.00	47.89	O
ATOM	12574	O5*	A A 607	121.654	87.285	-1.189	1.00	65.72	O	ATOM	12624	C2*	A A 609	127.772	85.985	8.387	1.00	47.89	C
ATOM	12575	C5*	A A 607	120.230	87.506	-1.115	1.00	65.72	C	ATOM	12625	O2*	A A 609	128.522	85.011	9.069	1.00	47.89	O
ATOM	12576	C4*	A A 607	119.607	86.604	-0.062	1.00	65.72	C	ATOM	12626	C1*	A A 609	126.977	85.313	7.275	1.00	47.89	C
ATOM	12577	O4*	A A 607	119.811	85.217	-0.427	1.00	65.72	O	ATOM	12627	N9	A A 609	126.904	86.188	6.114	1.00	54.72	N
ATOM	12578	C3*	A A 607	120.199	86.725	1.329	1.00	65.72	C	ATOM	12628	C8	A A 609	125.839	86.904	5.647	1.00	54.72	C
ATOM	12579	O3*	A A 607	119.573	87.738	2.078	1.00	65.72	O	ATOM	12629	N7	A A 609	126.111	87.614	4.582	1.00	54.72	N
ATOM	12580	C2*	A A 607	119.917	85.368	1.945	1.00	65.72	C	ATOM	12630	C5	A A 609	127.445	87.338	4.327	1.00	54.72	C
ATOM	12581	O2*	A A 607	118.618	85.286	2.476	1.00	65.72	O	ATOM	12631	C6	A A 609	127.978	88.508	2.346	1.00	54.72	C
ATOM	12582	C1*	A A 607	120.048	84.446	0.737	1.00	65.72	C	ATOM	12632	N6	A A 609	128.325	87.772	3.326	1.00	54.72	N
ATOM	12583	N9	A A 607	121.390	83.872	0.643	1.00	89.08	N	ATOM	12633	N1	A A 609	129.591	87.311	3.363	1.00	54.72	N
ATOM	12584	C8	A A 607	122.407	84.212	-0.220	1.00	89.08	C	ATOM	12634	C2	A A 609	129.937	86.471	4.340	1.00	54.72	C
ATOM	12585	N7	A A 607	123.507	83.523	-0.037	1.00	89.08	N	ATOM	12635	N3	A A 609	129.200	85.985	5.333	1.00	54.72	N
ATOM	12586	C5	A A 607	123.195	82.668	1.013	1.00	89.08	C	ATOM	12636	C4	A A 609	127.947	86.464	5.265	1.00	54.72	C
ATOM	12587	C6	A A 607	123.940	81.684	1.687	1.00	89.08	C	ATOM	12637	P	G A 610	127.378	88.293	11.057	1.00	54.39	P
ATOM	12588	N6	A A 607	125.217	81.395	1.409	1.00	89.08	N	ATOM	12638	O1P	G A 610	127.914	88.220	12.449	1.00	55.74	O
ATOM	12589	N1	A A 607	123.324	81.003	2.676	1.00	89.08	N	ATOM	12639	O2P	G A 610	126.183	89.124	10.765	1.00	55.74	O
ATOM	12590	C2	A A 607	122.052	81.307	2.972	1.00	89.08	C	ATOM	12640	O5*	G A 610	128.541	88.785	10.092	1.00	54.39	O
ATOM	12591	N3	A A 607	121.254	82.214	2.423	1.00	89.08	N	ATOM	12641	C5*	G A 610	129.874	88.246	10.213	1.00	54.39	C
ATOM	12592	C4	A A 607	121.892	82.867	1.436	1.00	89.08	C	ATOM	12642	C4*	G A 610	130.754	88.763	9.103	1.00	54.39	C
ATOM	12593	P	A A 608	120.400	88.477	3.228	1.00	57.58	P	ATOM	12643	O4*	G A 610	130.213	88.353	7.823	1.00	54.39	O
ATOM	12594	O1P	A A 608	119.467	89.380	3.941	1.00	48.84	O	ATOM	12644	C3*	G A 610	130.869	90.272	8.988	1.00	54.39	C
ATOM	12595	O2P	A A 608	121.662	89.028	2.615	1.00	48.84	O	ATOM	12645	O3*	G A 610	131.858	90.782	9.847	1.00	54.39	O
ATOM	12596	O5*	A A 608	120.822	87.309	4.225	1.00	57.58	O	ATOM	12646	C2*	G A 610	131.280	90.450	7.543	1.00	54.39	C
ATOM	12597	C5*	A A 608	119.853	86.595	4.997	1.00	57.58	C	ATOM	12647	O2*	G A 610	132.651	90.165	7.402	1.00	54.39	O
ATOM	12598	C4*	A A 608	120.531	85.517	5.808	1.00	57.58	C	ATOM	12648	C1*	G A 610	130.466	89.355	6.861	1.00	54.39	C
ATOM	12599	O4*	A A 608	121.045	84.490	4.927	1.00	57.58	O	ATOM	12649	N9	G A 610	129.187	89.885	6.417	1.00	55.74	N
ATOM	12600	C3*	A A 608	121.743	85.968	6.599	1.00	57.58	C	ATOM	12650	C8	G A 610	127.957	89.691	6.992	1.00	55.74	C
ATOM	12601	O3*	A A 608	121.412	86.507	7.852	1.00	57.58	O	ATOM	12651	N7	G A 610	127.004	90.338	6.383	1.00	55.74	N
ATOM	12602	C2*	A A 608	122.523	84.682	6.772	1.00	57.58	C	ATOM	12652	C5	G A 610	127.646	90.983	5.341	1.00	55.74	C
ATOM	12603	O2*	A A 608	122.013	83.899	7.824	1.00	57.58	O	ATOM	12653	C6	G A 610	127.134	91.824	4.343	1.00	55.74	C
ATOM	12604	C1*	A A 608	122.267	83.990	5.440	1.00	57.58	C	ATOM	12654	O6	G A 610	125.965	92.171	4.162	1.00	55.74	O
ATOM	12605	N9	A A 608	123.337	84.345	4.514	1.00	48.84	N	ATOM	12655	N1	G A 610	128.134	92.279	3.494	1.00	55.74	N
ATOM	12606	C8	A A 608	123.321	85.295	3.530	1.00	48.84	C	ATOM	12656	C2	G A 610	129.459	91.961	3.601	1.00	55.74	C
ATOM	12607	N7	A A 608	124.461	85.421	2.898	1.00	48.84	N	ATOM	12657	N2	G A 610	130.282	92.544	2.727	1.00	55.74	N
ATOM	12608	C5	A A 608	125.281	84.480	3.503	1.00	48.84	C	ATOM	12658	N3	G A 610	129.945	91.147	4.512	1.00	55.74	N
ATOM	12609	C6	A A 608	126.627	84.130	3.302	1.00	48.84	C	ATOM	12659	C4	G A 610	128.990	90.705	5.347	1.00	55.74	C
ATOM	12610	N6	A A 608	127.422	84.727	2.415	1.00	48.84	N	ATOM	12660	P	A A 611	131.648	92.215	10.510	1.00	53.81	P
ATOM	12611	N1	A A 608	127.140	83.145	4.065	1.00	48.84	N	ATOM	12661	O1P	A A 611	132.887	92.514	11.256	1.00	64.89	O
ATOM	12612	C2	A A 608	126.351	82.576	4.978	1.00	48.84	C	ATOM	12662	O2P	A A 611	130.349	92.209	11.221	1.00	64.89	O
ATOM	12613	N3	A A 608	125.075	82.832	5.275	1.00	48.84	N	ATOM	12663	O5*	A A 611	131.588	93.193	9.258	1.00	53.81	O
ATOM	12614	C4	A A 608	124.596	83.802	4.490	1.00	48.84	C	ATOM	12664	C5*	A A 611	132.795	93.515	8.545	1.00	53.81	C
ATOM	12615	P	A A 609	122.338	87.655	8.475	1.00	47.89	P	ATOM	12665	C4*	A A 611	132.529	94.548	7.483	1.00	53.81	C



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ATOM 12666	O4*	A A 611	131.647	93.990	6.480	1.00 53.81	O	ATOM 12716	O2	C A 613	122.439	101.122	12.204	1.00 61.10	O
ATOM 12667	C3*	A A 611	131.823	95.798	7.962	1.00 53.81	C	ATOM 12717	N3	C A 613	123.495	99.127	12.083	1.00 61.10	N
ATOM 12668	O3*	A A 611	132.718	96.743	8.522	1.00 53.81	O	ATOM 12718	C4	C A 613	124.642	98.468	11.920	1.00 61.10	C
ATOM 12669	C2*	A A 611	131.137	96.304	6.701	1.00 53.81	C	ATOM 12719	N4	C A 613	124.611	97.134	11.960	1.00 61.10	N
ATOM 12670	O2*	A A 611	131.967	97.101	5.879	1.00 53.81	O	ATOM 12720	C5	C A 613	125.875	99.146	11.705	1.00 61.10	C
ATOM 12671	C1*	A A 611	130.778	94.995	5.997	1.00 53.81	C	ATOM 12721	C6	C A 613	125.847	100.480	11.664	1.00 61.10	C
ATOM 12672	N9	A A 611	129.413	94.608	6.326	1.00 64.89	N	ATOM 12722	P	A A 614	126.501	104.094	15.880	1.00 58.99	P
ATOM 12673	C8	A A 611	128.964	93.726	7.282	1.00 64.89	C	ATOM 12723	O1P	A A 614	126.954	105.302	16.630	1.00 65.07	O
ATOM 12674	N7	A A 611	127.659	93.642	7.346	1.00 64.89	N	ATOM 12724	O2P	A A 614	127.262	102.823	16.012	1.00 65.07	O
ATOM 12675	C5	A A 611	127.223	94.519	6.364	1.00 64.89	C	ATOM 12725	O5*	A A 614	124.980	103.815	16.254	1.00 58.99	O
ATOM 12676	C6	A A 611	125.946	94.891	5.933	1.00 64.89	C	ATOM 12726	C5*	A A 614	123.997	104.843	16.076	1.00 58.99	C
ATOM 12677	N6	A A 611	124.816	94.414	6.462	1.00 64.89	N	ATOM 12727	C4*	A A 614	122.630	104.334	16.440	1.00 58.99	C
ATOM 12678	N1	A A 611	125.862	95.788	4.928	1.00 64.89	N	ATOM 12728	O4*	A A 614	122.162	103.397	15.443	1.00 58.99	O
ATOM 12679	C2	A A 611	126.992	96.272	4.407	1.00 64.89	C	ATOM 12729	C3*	A A 614	122.576	103.585	17.753	1.00 58.99	C
ATOM 12680	N3	A A 611	128.249	96.003	4.731	1.00 64.89	N	ATOM 12730	O3*	A A 614	122.425	104.471	18.842	1.00 58.99	O
ATOM 12681	C4	A A 611	128.294	95.110	5.724	1.00 64.89	C	ATOM 12731	C2*	A A 614	121.370	102.683	17.570	1.00 58.99	C
ATOM 12682	P	C A 612	132.233	97.630	9.772	1.00 49.63	P	ATOM 12732	O2*	A A 614	120.160	103.351	17.849	1.00 58.99	O
ATOM 12683	O1P	C A 612	133.379	98.434	10.266	1.00 57.13	O	ATOM 12733	C1*	A A 614	121.454	102.351	16.077	1.00 58.99	C
ATOM 12684	O2P	C A 612	131.518	96.720	10.712	1.00 57.13	O	ATOM 12734	N9	A A 614	122.181	101.103	15.836	1.00 65.07	N
ATOM 12685	O5*	C A 612	131.153	98.599	9.130	1.00 49.63	O	ATOM 12735	C8	A A 614	123.502	100.949	15.502	1.00 65.07	C
ATOM 12686	C5*	C A 612	131.545	99.733	8.357	1.00 49.63	C	ATOM 12736	N7	A A 614	123.866	99.702	15.356	1.00 65.07	N
ATOM 12687	C4*	C A 612	130.368	100.649	8.183	1.00 49.63	C	ATOM 12737	C5	A A 614	122.707	98.986	15.609	1.00 65.07	C
ATOM 12688	O4*	C A 612	129.358	100.002	7.367	1.00 49.63	O	ATOM 12738	C6	A A 614	122.429	97.617	15.606	1.00 65.07	C
ATOM 12689	C3*	C A 612	129.659	100.951	9.481	1.00 49.63	C	ATOM 12739	N6	A A 614	123.330	96.687	15.315	1.00 65.07	N
ATOM 12690	O2*	C A 612	130.292	101.995	10.187	1.00 49.63	O	ATOM 12740	N1	A A 614	121.176	97.229	15.910	1.00 65.07	N
ATOM 12691	C2*	C A 612	128.242	101.275	9.035	1.00 49.63	C	ATOM 12741	C2	A A 614	120.270	98.162	16.189	1.00 65.07	C
ATOM 12692	O2*	C A 612	128.107	102.606	8.606	1.00 49.63	O	ATOM 12742	N3	A A 614	120.405	99.480	16.214	1.00 65.07	N
ATOM 12693	C1*	C A 612	128.068	100.340	7.839	1.00 49.63	C	ATOM 12743	C4	A A 614	121.664	99.833	15.911	1.00 65.07	C
ATOM 12694	N1	C A 612	127.350	99.099	8.177	1.00 57.13	N	ATOM 12744	P	C A 615	122.958	104.031	20.287	1.00 68.96	P
ATOM 12695	C2	C A 612	125.954	99.069	8.068	1.00 57.13	C	ATOM 12745	O1P	C A 615	122.908	105.219	21.185	1.00 67.94	O
ATOM 12696	O2	C A 612	125.356	100.076	7.664	1.00 57.13	O	ATOM 12746	O2P	C A 615	124.251	103.315	20.102	1.00 67.94	O
ATOM 12697	N3	C A 612	125.292	97.943	8.404	1.00 57.13	N	ATOM 12747	O5*	C A 615	121.863	102.975	20.771	1.00 68.96	O
ATOM 12698	C4	C A 612	125.967	96.875	8.825	1.00 57.13	C	ATOM 12748	C5*	C A 615	120.496	103.373	20.976	1.00 68.96	C
ATOM 12699	N4	C A 612	125.277	95.789	9.148	1.00 57.13	N	ATOM 12749	C4*	C A 615	119.614	102.160	21.155	1.00 68.96	C
ATOM 12700	C5	C A 612	127.383	96.872	8.933	1.00 57.13	C	ATOM 12750	O4*	C A 615	119.613	101.380	19.931	1.00 68.96	O
ATOM 12701	C6	C A 612	128.029	97.993	8.602	1.00 57.13	C	ATOM 12751	C3*	C A 615	120.024	101.167	22.230	1.00 68.96	C
ATOM 12702	P	C A 613	130.086	102.093	11.769	1.00 55.03	P	ATOM 12752	O3*	C A 615	119.536	101.495	23.509	1.00 68.96	O
ATOM 12703	O1P	C A 613	130.878	103.254	12.252	1.00 61.10	O	ATOM 12753	C2*	C A 615	119.366	99.886	21.762	1.00 68.96	C
ATOM 12704	O2P	C A 613	130.311	100.752	12.372	1.00 61.10	O	ATOM 12754	O2*	C A 615	117.998	99.880	22.112	1.00 68.96	O
ATOM 12705	O5*	C A 613	128.537	102.451	11.900	1.00 55.03	O	ATOM 12755	C1*	C A 615	119.521	100.000	20.247	1.00 68.96	C
ATOM 12706	C9*	C A 613	128.057	103.763	11.552	1.00 55.03	C	ATOM 12756	N1	C A 615	120.744	99.325	19.764	1.00 67.94	N
ATOM 12707	C4*	C A 613	126.606	103.921	11.941	1.00 55.03	C	ATOM 12757	C2	C A 615	120.715	97.939	19.524	1.00 67.94	C
ATOM 12708	O4*	C A 613	125.774	103.110	11.072	1.00 55.03	O	ATOM 12758	O2	C A 615	119.667	97.306	19.719	1.00 67.94	O
ATOM 12709	C3*	C A 613	126.215	103.493	13.349	1.00 55.03	C	ATOM 12759	N3	C A 615	121.832	97.327	19.084	1.00 67.94	N
ATOM 12710	O3*	C A 613	126.442	104.498	14.321	1.00 55.03	O	ATOM 12760	C4	C A 615	122.942	98.032	18.881	1.00 67.94	C
ATOM 12711	C2*	C A 613	124.729	103.227	13.209	1.00 55.03	C	ATOM 12761	N4	C A 615	124.018	97.384	18.454	1.00 67.94	N
ATOM 12712	O2*	C A 613	124.004	104.428	13.266	1.00 55.03	O	ATOM 12762	C5	C A 615	122.999	99.433	19.110	1.00 67.94	C
ATOM 12713	C1*	C A 613	124.648	102.641	11.799	1.00 55.03	C	ATOM 12763	C6	C A 615	121.891	100.033	19.551	1.00 67.94	C
ATOM 12714	N1	C A 613	124.677	101.166	11.830	1.00 61.10	N	ATOM 12764	P	G A 616	120.322	100.966	24.806	1.00 74.55	P
ATOM 12715	C2	C A 613	123.482	100.476	12.046	1.00 61.10	C	ATOM 12765	O1P	G A 616	119.517	101.400	25.979	1.00 66.98	O



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ATOM	12766	O2P	G A 616	121.746	101.375	24.702	1.00 66.98	O	ATOM	12816	O4*	C A 618	125.734	89.240	29.117	1.00 53.58	O
ATOM	12767	O5*	G A 616	120.248	99.371	24.713	1.00 74.55	O	ATOM	12817	C3*	C A 618	126.743	89.503	31.200	1.00 53.58	C
ATOM	12768	C5*	G A 616	119.020	98.682	25.018	1.00 74.55	C	ATOM	12818	O3*	C A 618	126.864	88.915	32.508	1.00 53.58	C
ATOM	12769	C4*	G A 616	119.130	97.201	24.725	1.00 74.55	C	ATOM	12819	C2*	C A 618	127.797	88.915	30.251	1.00 53.58	C
ATOM	12770	O4*	G A 616	119.600	96.998	23.371	1.00 74.55	O	ATOM	12820	O2*	C A 618	128.127	87.572	30.539	1.00 53.58	O
ATOM	12771	C3*	G A 616	120.062	96.348	25.568	1.00 74.55	C	ATOM	12821	C1*	C A 618	127.081	88.899	28.895	1.00 53.58	C
ATOM	12772	O3*	G A 616	119.451	95.962	26.787	1.00 74.55	O	ATOM	12822	N1	C A 618	127.713	89.799	27.914	1.00 65.53	N
ATOM	12773	C2*	G A 616	120.278	95.128	24.679	1.00 74.55	C	ATOM	12823	C2	C A 618	128.735	89.274	27.116	1.00 65.53	C
ATOM	12774	O2*	G A 616	119.237	94.178	24.772	1.00 74.55	O	ATOM	12824	O2	C A 618	128.987	88.064	27.185	1.00 65.53	O
ATOM	12775	C1*	G A 616	120.252	95.746	23.282	1.00 74.55	C	ATOM	12825	N3	C A 618	129.417	90.088	26.290	1.00 65.53	N
ATOM	12776	N9	G A 616	121.596	95.930	22.743	1.00 66.98	N	ATOM	12826	C4	C A 618	129.099	91.377	26.218	1.00 65.53	C
ATOM	12777	C8	G A 616	122.290	97.102	22.572	1.00 66.98	C	ATOM	12827	N4	C A 618	129.821	92.145	25.403	1.00 65.53	N
ATOM	12778	N7	G A 616	123.494	96.917	22.103	1.00 66.98	N	ATOM	12828	C5	C A 618	128.029	91.933	26.980	1.00 65.53	C
ATOM	12779	C5	G A 616	123.596	95.542	21.947	1.00 66.98	C	ATOM	12829	C6	C A 618	127.363	91.114	27.804	1.00 65.53	C
ATOM	12780	C6	G A 616	124.672	94.744	21.486	1.00 66.98	C	ATOM	12830	P	U A 619	128.213	89.104	33.399	1.00 57.40	P
ATOM	12781	O6	G A 616	125.794	95.104	21.103	1.00 66.98	O	ATOM	12831	O1P	U A 619	129.406	88.617	32.654	1.00 65.54	O
ATOM	12782	N1	G A 616	124.344	93.393	21.499	1.00 66.98	N	ATOM	12832	O2P	U A 619	127.921	88.550	34.744	1.00 65.54	O
ATOM	12783	C2	G A 616	123.140	92.877	21.897	1.00 66.98	C	ATOM	12833	O5*	U A 619	127.350	91.489	34.055	1.00 57.40	C
ATOM	12784	N2	G A 616	123.019	91.552	21.849	1.00 66.98	N	ATOM	12834	C5*	U A 619	127.860	92.883	34.248	1.00 57.40	C
ATOM	12785	N3	G A 616	122.131	93.606	22.316	1.00 66.98	N	ATOM	12835	O4*	U A 619	128.763	92.905	35.375	1.00 57.40	C
ATOM	12786	C4	G A 616	122.428	94.921	22.324	1.00 66.98	C	ATOM	12836	O4*	U A 619	128.685	93.390	33.086	1.00 57.40	C
ATOM	12787	P	G A 617	120.354	95.397	27.991	1.00 61.13	P	ATOM	12837	C3*	U A 619	127.871	93.950	32.082	1.00 57.40	C
ATOM	12788	O1P	G A 617	119.420	95.200	29.121	1.00 63.60	O	ATOM	12838	O3*	U A 619	129.611	94.409	33.731	1.00 57.40	C
ATOM	12789	O2P	G A 617	121.557	96.252	28.171	1.00 61.13	O	ATOM	12839	C2*	U A 619	129.024	95.690	33.841	1.00 57.40	C
ATOM	12790	O5*	G A 617	120.843	93.962	27.500	1.00 61.13	O	ATOM	12840	O2*	U A 619	129.833	93.786	35.110	1.00 57.40	C
ATOM	12791	C5*	G A 617	119.964	92.816	27.558	1.00 61.13	C	ATOM	12841	C1*	U A 619	131.077	93.015	35.208	1.00 65.54	N
ATOM	12792	C4*	G A 617	120.747	91.528	27.408	1.00 61.13	C	ATOM	12842	N1	U A 619	132.079	93.534	35.991	1.00 65.54	C
ATOM	12793	O3*	G A 617	121.283	91.431	26.065	1.00 61.13	O	ATOM	12843	C2	U A 619	131.972	94.594	36.589	1.00 65.54	O
ATOM	12794	C4*	G A 617	121.952	91.377	28.316	1.00 61.13	C	ATOM	12844	O2	U A 619	133.217	92.773	36.051	1.00 65.54	N
ATOM	12795	O3*	G A 617	121.586	90.893	29.601	1.00 61.13	O	ATOM	12845	N3	U A 619	133.448	91.582	35.423	1.00 65.54	C
ATOM	12796	C2*	G A 617	122.835	90.398	27.550	1.00 61.13	C	ATOM	12846	C4	U A 619	134.527	91.023	35.583	1.00 65.54	C
ATOM	12797	O2*	G A 617	122.499	89.041	27.755	1.00 61.13	O	ATOM	12847	O4	U A 619	132.365	91.107	34.627	1.00 65.54	C
ATOM	12798	C1*	G A 617	122.532	90.768	26.098	1.00 61.13	C	ATOM	12848	C5	U A 619	131.243	91.821	34.549	1.00 65.54	C
ATOM	12799	N9	G A 617	123.548	91.632	25.505	1.00 63.60	N	ATOM	12849	C6	U A 619	128.263	93.722	30.554	1.00 50.83	F
ATOM	12800	C8	G A 617	123.489	92.992	25.325	1.00 63.60	C	ATOM	12850	P	C A 620	127.180	94.348	29.731	1.00 59.27	O
ATOM	12801	N7	G A 617	124.568	93.483	24.779	1.00 63.60	N	ATOM	12851	O1P	C A 620	128.589	92.288	30.368	1.00 59.27	O
ATOM	12802	C5	G A 617	125.389	92.589	24.589	1.00 63.60	C	ATOM	12852	O2P	C A 620	129.632	94.523	30.392	1.00 50.83	O
ATOM	12803	C6	G A 617	126.699	92.290	24.050	1.00 63.60	C	ATOM	12853	O5*	C A 620	129.646	95.945	30.413	1.00 50.83	C
ATOM	12804	O6	G A 617	127.436	93.204	23.645	1.00 63.60	O	ATOM	12854	C5*	C A 620	130.905	96.469	29.780	1.00 50.83	C
ATOM	12805	N1	G A 617	127.148	90.976	24.024	1.00 63.60	N	ATOM	12855	C4*	C A 620	132.031	96.070	30.589	1.00 50.83	O
ATOM	12806	C2	G A 617	126.442	89.890	24.476	1.00 63.60	C	ATOM	12856	O4*	C A 620	131.251	96.005	28.371	1.00 50.83	C
ATOM	12807	N2	G A 617	127.040	88.695	24.352	1.00 63.60	N	ATOM	12857	C3*	C A 620	130.624	96.214	28.328	1.00 50.83	O
ATOM	12808	N3	G A 617	125.237	89.966	25.005	1.00 63.60	N	ATOM	12858	O3*	C A 620	132.758	96.564	28.042	1.00 50.83	C
ATOM	12809	C4	G A 617	124.772	91.231	25.025	1.00 63.60	C	ATOM	12859	C2*	C A 620	133.073	97.564	28.042	1.00 50.83	O
ATOM	12810	P	C A 618	122.354	91.447	30.904	1.00 53.58	P	ATOM	12860	O2*	C A 620	133.171	95.918	29.766	1.00 50.83	C
ATOM	12811	O1P	C A 618	121.701	90.789	32.070	1.00 65.53	O	ATOM	12861	C1*	C A 620	133.752	94.586	30.005	1.00 59.27	N
ATOM	12812	O2P	C A 618	122.400	92.936	30.837	1.00 65.53	O	ATOM	12862	N1	C A 620	135.131	94.432	29.922	1.00 59.27	C
ATOM	12813	O5*	C A 618	123.042	90.875	30.749	1.00 53.58	O	ATOM	12863	C2	C A 620	135.820	95.401	29.600	1.00 59.27	O
ATOM	12814	C5*	C A 618	124.067	89.474	30.932	1.00 53.58	C	ATOM	12864	O2	C A 620	135.679	93.233	30.192	1.00 59.27	N
ATOM	12815	C4*	C A 618	125.465	89.033	30.522	1.00 53.58	C	ATOM	12865	N3	C A 620					



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ATOM 12866	C4	C A 620	134.898	92.207	30.523	1.00	59.27	C	ATOM	12916	O2P	C A 623	133.628	91.651	17.732	1.00	51.99	O
ATOM 12867	N4	C A 620	135.477	91.041	30.800	1.00	59.27	N	ATOM	12917	O5*	C A 623	133.492	89.302	18.453	1.00	55.53	O
ATOM 12868	C5	C A 620	133.487	92.327	30.588	1.00	59.27	C	ATOM	12918	C5*	C A 623	133.941	87.951	18.563	1.00	55.53	C
ATOM 12869	C6	C A 620	132.959	93.521	30.323	1.00	59.27	C	ATOM	12919	C4*	C A 623	132.971	87.168	19.388	1.00	55.53	C
ATOM 12870	P	A A 621	130.168	96.188	25.983	1.00	51.26	P	ATOM	12920	O4*	C A 623	132.970	87.714	20.729	1.00	55.53	O
ATOM 12871	O1P	A A 621	129.594	97.278	25.159	1.00	67.63	O	ATOM	12921	C3*	C A 623	131.528	87.275	18.924	1.00	55.53	C
ATOM 12872	O2P	A A 621	129.340	94.998	26.282	1.00	67.63	O	ATOM	12922	C3*	C A 623	131.225	86.333	17.915	1.00	55.53	O
ATOM 12873	O5*	A A 621	131.540	95.751	25.308	1.00	51.26	O	ATOM	12923	O2*	C A 623	130.760	87.010	20.204	1.00	55.53	O
ATOM 12874	C5*	A A 621	132.526	96.748	24.963	1.00	51.26	C	ATOM	12924	O2*	C A 623	130.692	85.628	20.508	1.00	55.53	C
ATOM 12875	C4*	A A 621	133.880	96.115	24.748	1.00	51.26	C	ATOM	12925	C1*	C A 623	131.651	87.698	21.242	1.00	55.53	C
ATOM 12876	O4*	A A 621	134.345	95.513	25.981	1.00	51.26	O	ATOM	12926	N1	C A 623	131.215	89.083	21.479	1.00	51.99	N
ATOM 12877	C3*	A A 621	133.917	94.995	23.731	1.00	51.26	C	ATOM	12927	C2	C A 623	130.054	89.294	22.222	1.00	51.99	C
ATOM 12878	O3*	A A 621	134.067	95.525	22.429	1.00	51.26	O	ATOM	12928	O2	C A 623	129.444	88.312	22.673	1.00	51.99	O
ATOM 12879	C2*	A A 621	135.125	94.183	24.174	1.00	51.26	C	ATOM	12929	N3	C A 623	129.623	90.558	22.432	1.00	51.99	N
ATOM 12880	O2*	A A 621	136.340	94.748	23.720	1.00	51.26	O	ATOM	12930	C4	C A 623	130.306	91.583	21.933	1.00	51.99	C
ATOM 12881	C1*	A A 621	135.052	94.321	25.697	1.00	51.26	C	ATOM	12931	N4	C A 623	129.840	92.799	22.165	1.00	51.99	N
ATOM 12882	N9	A A 621	134.344	93.213	26.337	1.00	67.63	N	ATOM	12932	C5	C A 623	131.495	91.400	21.175	1.00	51.99	C
ATOM 12883	C8	A A 621	133.014	93.150	26.674	1.00	67.63	C	ATOM	12933	C6	C A 623	131.912	90.146	20.976	1.00	51.99	C
ATOM 12884	N7	A A 621	132.656	92.005	27.198	1.00	67.63	N	ATOM	12934	P	C A 624	130.225	86.741	16.721	1.00	45.85	P
ATOM 12885	C5	A A 621	133.830	91.266	27.214	1.00	67.63	C	ATOM	12935	O1P	C A 624	130.184	85.620	15.735	1.00	68.95	O
ATOM 12886	C6	A A 621	134.116	89.967	27.642	1.00	67.63	C	ATOM	12936	O2P	C A 624	130.592	88.107	16.249	1.00	68.95	O
ATOM 12887	N6	A A 621	133.204	89.133	28.140	1.00	67.63	N	ATOM	12937	O5*	C A 624	128.806	86.828	17.436	1.00	45.85	O
ATOM 12888	N1	A A 621	135.389	89.538	27.536	1.00	67.63	N	ATOM	12938	C5*	C A 624	128.220	85.667	17.991	1.00	45.85	C
ATOM 12889	C2	A A 621	136.302	90.365	27.026	1.00	67.63	C	ATOM	12939	C4*	C A 624	127.042	86.031	18.849	1.00	45.85	C
ATOM 12890	N3	A A 621	136.154	91.605	26.579	1.00	67.63	N	ATOM	12940	O4*	C A 624	127.489	86.855	19.945	1.00	45.85	O
ATOM 12891	C4	A A 621	134.878	92.002	26.702	1.00	67.63	C	ATOM	12941	C3*	C A 624	125.900	86.806	18.208	1.00	45.85	C
ATOM 12892	P	A A 622	133.275	94.855	21.208	1.00	57.62	P	ATOM	12942	O3*	C A 624	125.000	85.929	17.532	1.00	45.85	O
ATOM 12893	O1P	A A 622	133.609	95.664	20.016	1.00	59.02	O	ATOM	12943	C2*	C A 624	125.240	87.458	19.415	1.00	45.85	C
ATOM 12894	O2P	A A 622	131.852	94.671	21.593	1.00	59.02	O	ATOM	12944	O2*	C A 624	124.320	86.621	20.086	1.00	45.85	O
ATOM 12895	O5*	A A 622	133.989	93.438	21.033	1.00	57.62	O	ATOM	12945	C1*	C A 624	126.438	87.709	20.337	1.00	45.85	C
ATOM 12896	C5*	A A 622	135.334	93.375	20.521	1.00	57.62	C	ATOM	12946	N1	C A 624	126.904	89.094	20.259	1.00	68.95	N
ATOM 12897	C4*	A A 622	135.968	92.036	20.805	1.00	57.62	C	ATOM	12947	C2	C A 624	126.171	90.076	20.912	1.00	68.95	C
ATOM 12898	O4*	A A 622	136.050	91.803	22.231	1.00	57.62	O	ATOM	12948	O2	C A 624	125.187	89.739	21.598	1.00	68.95	O
ATOM 12899	C3*	A A 622	135.258	90.812	20.263	1.00	57.62	C	ATOM	12949	N3	C A 624	126.547	91.361	20.793	1.00	68.95	N
ATOM 12900	O3*	A A 622	135.592	90.597	18.914	1.00	57.62	O	ATOM	12950	C4	C A 624	127.618	91.675	20.072	1.00	68.95	C
ATOM 12901	C2*	A A 622	135.817	89.703	21.139	1.00	57.62	C	ATOM	12951	N4	C A 624	127.942	92.960	19.965	1.00	68.95	N
ATOM 12902	O2*	A A 622	137.085	89.247	20.715	1.00	57.62	O	ATOM	12952	C5	C A 624	128.403	90.689	19.427	1.00	68.95	C
ATOM 12903	C1*	A A 622	135.958	90.412	22.486	1.00	57.62	C	ATOM	12953	C6	C A 624	128.015	89.423	19.545	1.00	68.95	C
ATOM 12904	N9	A A 622	134.755	90.159	23.270	1.00	59.02	N	ATOM	12954	P	G A 625	123.864	86.531	16.572	1.00	48.49	P
ATOM 12905	C8	A A 622	133.643	90.946	23.396	1.00	59.02	C	ATOM	12955	O1P	G A 625	123.111	85.426	15.911	1.00	59.76	O
ATOM 12906	N7	A A 622	132.677	90.384	24.074	1.00	59.02	N	ATOM	12956	O2P	G A 625	124.496	87.570	15.735	1.00	59.76	O
ATOM 12907	C5	A A 622	133.200	89.155	24.443	1.00	59.02	C	ATOM	12957	O5*	G A 625	122.858	87.231	17.591	1.00	48.49	O
ATOM 12908	C6	A A 622	132.666	88.083	25.163	1.00	59.02	C	ATOM	12958	C5*	G A 625	122.915	86.438	18.337	1.00	48.49	C
ATOM 12909	N6	A A 622	131.423	88.065	25.641	1.00	59.02	N	ATOM	12959	C4*	G A 625	120.769	87.288	18.807	1.00	48.49	C
ATOM 12910	N1	A A 622	133.456	87.010	25.374	1.00	59.02	N	ATOM	12960	O4*	G A 625	121.283	88.267	19.734	1.00	48.49	O
ATOM 12911	C2	A A 622	134.698	87.023	24.883	1.00	59.02	C	ATOM	12961	C3*	G A 625	120.057	88.095	17.736	1.00	48.49	C
ATOM 12912	N3	A A 622	135.309	87.967	24.180	1.00	59.02	N	ATOM	12962	O3*	G A 625	119.034	87.345	17.101	1.00	48.49	O
ATOM 12913	C4	A A 622	134.491	89.018	23.987	1.00	59.02	C	ATOM	12963	C2*	G A 625	119.495	89.267	18.525	1.00	48.49	C
ATOM 12914	P	C A 623	134.428	90.418	17.831	1.00	55.53	P	ATOM	12964	O2*	G A 625	118.294	88.937	19.187	1.00	48.49	O
ATOM 12915	O1P	C A 623	135.078	89.870	16.621	1.00	51.99	O	ATOM	12965	C1*	G A 625	120.590	89.487	19.569	1.00	48.49	C



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ATOM	12966	N9	G A 625	121.561	90.503	19.173	1.00	59.76	N	ATOM	13016	C2	G A 627	120.055	98.605	13.050	1.00	68.65	C
ATOM	12967	C8	G A 625	122.839	90.297	18.713	1.00	59.76	C	ATOM	13017	N2	G A 627	120.315	99.908	13.061	1.00	68.65	N
ATOM	12968	N7	G A 625	123.471	91.406	18.451	1.00	59.76	N	ATOM	13018	N3	G A 627	118.845	98.178	13.348	1.00	68.65	N
ATOM	12969	C5	G A 625	122.553	92.401	18.752	1.00	59.76	C	ATOM	13019	C4	G A 627	118.765	96.834	13.312	1.00	68.65	C
ATOM	12970	C6	G A 625	122.666	93.804	18.668	1.00	59.76	C	ATOM	13020	P	G A 628	113.943	96.419	9.772	1.00	80.99	P
ATOM	12971	O6	G A 625	123.623	94.476	18.281	1.00	59.76	O	ATOM	13021	O1P	G A 628	112.643	96.744	9.131	1.00	66.97	O
ATOM	12972	N1	G A 625	121.504	94.433	19.085	1.00	59.76	N	ATOM	13022	O2P	G A 628	114.711	95.240	9.301	1.00	66.97	O
ATOM	12973	C2	G A 625	120.373	93.795	19.519	1.00	59.76	C	ATOM	13023	O5*	G A 628	114.889	97.692	9.652	1.00	80.99	O
ATOM	12974	N2	G A 625	119.352	94.579	19.887	1.00	59.76	N	ATOM	13024	C5*	G A 628	114.428	98.990	10.050	1.00	80.99	C
ATOM	12975	N3	G A 625	120.250	92.487	19.588	1.00	59.76	N	ATOM	13025	C4*	G A 628	115.523	100.010	9.869	1.00	80.99	C
ATOM	12976	C4	G A 625	121.371	91.857	19.196	1.00	59.76	C	ATOM	13026	O4*	G A 628	116.639	99.688	10.741	1.00	80.99	O
ATOM	12977	P	U A 626	118.520	87.784	15.648	1.00	54.71	P	ATOM	13027	C3*	G A 628	116.138	100.090	8.482	1.00	80.99	O
ATOM	12978	O1P	U A 626	117.470	86.838	15.221	1.00	60.44	O	ATOM	13028	O3*	G A 628	115.356	100.887	7.600	1.00	80.99	C
ATOM	12979	O2P	U A 626	119.708	87.994	14.782	1.00	60.44	O	ATOM	13029	C2*	G A 628	117.511	100.688	8.767	1.00	80.99	C
ATOM	12980	O5*	U A 626	117.826	89.186	15.932	1.00	54.71	O	ATOM	13030	O2*	G A 628	117.477	102.090	8.938	1.00	80.99	O
ATOM	12981	C5*	U A 626	116.612	89.254	16.698	1.00	54.71	C	ATOM	13031	C1*	G A 628	117.859	100.042	10.109	1.00	80.99	C
ATOM	12982	C4*	U A 626	116.126	90.681	16.798	1.00	54.71	C	ATOM	13032	N9	G A 628	118.666	98.834	9.942	1.00	66.97	N
ATOM	12983	O4*	U A 626	117.038	91.445	17.621	1.00	54.71	O	ATOM	13033	C8	G A 628	118.236	97.531	10.014	1.00	66.97	C
ATOM	12984	C3*	U A 626	116.026	91.473	15.505	1.00	54.71	C	ATOM	13034	N7	G A 628	119.184	96.665	9.783	1.00	66.97	N
ATOM	12985	O3*	U A 626	114.806	91.245	14.834	1.00	54.71	O	ATOM	13035	C5	G A 628	120.310	97.441	9.551	1.00	66.97	C
ATOM	12986	C2*	U A 626	116.103	92.908	15.995	1.00	54.71	C	ATOM	13036	C6	G A 628	121.632	97.058	9.238	1.00	66.97	O
ATOM	12987	O2*	U A 626	114.857	93.359	16.486	1.00	54.71	O	ATOM	13037	O6	G A 628	122.090	95.921	9.102	1.00	66.97	O
ATOM	12988	C1*	U A 626	117.087	92.783	17.159	1.00	54.71	C	ATOM	13038	N1	G A 628	122.460	98.162	9.078	1.00	66.97	N
ATOM	12989	N1	U A 626	118.466	93.086	16.748	1.00	60.44	N	ATOM	13039	C2	G A 628	122.065	99.465	9.204	1.00	66.97	C
ATOM	12990	C2	U A 626	118.861	94.402	16.754	1.00	60.44	C	ATOM	13040	N2	G A 628	123.014	100.383	9.010	1.00	66.97	N
ATOM	12991	O2	U A 626	118.132	95.316	17.125	1.00	60.44	O	ATOM	13041	N3	G A 628	120.833	99.840	9.497	1.00	66.97	N
ATOM	12992	N3	U A 626	120.141	94.621	16.315	1.00	60.44	N	ATOM	13042	C4	G A 628	120.012	98.781	9.655	1.00	66.97	C
ATOM	12993	C4	U A 626	121.041	93.683	15.892	1.00	60.44	C	ATOM	13043	P	G A 629	115.474	100.662	6.012	1.00	84.35	P
ATOM	12994	O4	U A 626	122.143	94.041	15.483	1.00	60.44	O	ATOM	13044	O1P	G A 629	114.473	101.542	5.364	1.00	78.62	O
ATOM	12995	C5	U A 626	120.565	92.345	15.941	1.00	60.44	C	ATOM	13045	O2P	G A 629	115.469	99.214	5.711	1.00	78.62	O
ATOM	12996	C6	U A 626	119.327	92.098	16.356	1.00	60.44	C	ATOM	13046	O5*	G A 629	116.929	101.207	5.676	1.00	84.35	O
ATOM	12997	P	G A 627	114.720	91.497	13.254	1.00	65.40	P	ATOM	13047	C5*	G A 629	117.299	102.550	6.015	1.00	84.35	C
ATOM	12998	O1P	G A 627	113.340	91.158	12.836	1.00	68.65	O	ATOM	13048	C4*	G A 629	118.721	102.819	5.604	1.00	84.35	C
ATOM	12999	O2P	G A 627	115.872	90.841	12.592	1.00	68.65	O	ATOM	13049	O4*	G A 629	119.647	102.131	6.486	1.00	84.35	O
ATOM	13000	O5*	G A 627	114.894	93.069	13.112	1.00	65.40	O	ATOM	13050	C3*	G A 629	119.087	102.314	4.224	1.00	84.35	C
ATOM	13001	C5*	G A 627	113.894	93.947	13.622	1.00	65.40	C	ATOM	13051	O3*	G A 629	118.652	103.177	3.198	1.00	84.35	O
ATOM	13002	C4*	G A 627	114.350	95.377	13.536	1.00	65.40	C	ATOM	13052	C2*	G A 629	120.598	102.191	4.310	1.00	84.35	C
ATOM	13003	O4*	G A 627	115.503	95.585	14.391	1.00	65.40	O	ATOM	13053	O2*	G A 629	121.253	103.433	4.150	1.00	84.35	O
ATOM	13004	C3*	G A 627	114.799	95.886	12.178	1.00	65.40	C	ATOM	13054	C1*	G A 629	120.778	101.698	5.744	1.00	84.35	C
ATOM	13005	O3*	G A 627	113.715	96.275	11.354	1.00	65.40	O	ATOM	13055	N9	G A 629	120.823	100.239	5.769	1.00	78.62	N
ATOM	13006	C2*	G A 627	115.636	97.093	12.558	1.00	65.40	C	ATOM	13056	C8	G A 629	119.768	99.379	5.951	1.00	78.62	C
ATOM	13007	O2*	G A 627	114.819	98.208	12.845	1.00	65.40	O	ATOM	13057	N7	G A 629	120.112	98.122	5.880	1.00	78.62	N
ATOM	13008	C1*	G A 627	116.308	96.614	13.845	1.00	65.40	C	ATOM	13058	C5	G A 629	121.479	98.152	5.645	1.00	78.62	C
ATOM	13009	N9	G A 627	117.637	96.086	13.556	1.00	68.65	N	ATOM	13059	C6	G A 629	122.405	97.091	5.467	1.00	78.62	C
ATOM	13010	N8	G A 627	118.009	94.772	13.429	1.00	68.65	C	ATOM	13060	O6	G A 629	122.196	95.875	5.486	1.00	78.62	O
ATOM	13011	C7	G A 627	119.264	94.626	13.098	1.00	68.65	N	ATOM	13061	N1	G A 629	123.690	97.568	5.249	1.00	78.62	N
ATOM	13012	C5	G A 627	119.749	95.923	13.009	1.00	68.65	C	ATOM	13062	C2	G A 629	124.044	98.892	5.205	1.00	78.62	C
ATOM	13013	C6	G A 627	121.037	96.400	12.664	1.00	68.65	C	ATOM	13063	N2	G A 629	125.336	99.143	4.981	1.00	78.62	N
ATOM	13014	O6	G A 627	122.027	95.756	12.324	1.00	68.65	O	ATOM	13064	N3	G A 629	123.194	99.894	5.369	1.00	78.62	N
ATOM	13015	N1	G A 627	121.100	97.784	12.723	1.00	68.65	N	ATOM	13065	C4	G A 629	121.936	99.453	5.582	1.00	78.62	C



Table 2: Sheet 132/520

ATOM	13066	P	G A 630	118.354	102.570	1.743	1.00	94.07	P	ATOM	13116	C5*	A A 632	126.533	100.252	-8.452	1.00	85.92	C
ATOM	13067	O1P	G A 630	117.600	103.621	1.013	1.00	87.16	O	ATOM	13117	C4*	A A 632	127.489	99.160	-8.863	1.00	85.92	C
ATOM	13068	O2P	G A 630	117.763	101.215	1.894	1.00	87.16	O	ATOM	13118	O4*	A A 632	127.609	98.173	-7.804	1.00	85.92	O
ATOM	13069	O5*	G A 630	119.807	102.418	1.104	1.00	94.07	O	ATOM	13119	C3*	A A 632	127.074	98.366	-10.084	1.00	85.92	C
ATOM	13070	C5*	G A 630	120.726	103.530	1.118	1.00	94.07	C	ATOM	13120	O3*	A A 632	127.443	99.020	-11.281	1.00	85.92	C
ATOM	13071	C4*	G A 630	122.139	103.065	0.855	1.00	94.07	C	ATOM	13121	C2*	A A 632	127.813	97.049	-9.895	1.00	85.92	C
ATOM	13072	O4*	G A 630	122.579	102.192	1.924	1.00	94.07	O	ATOM	13122	O2*	A A 632	129.150	97.111	-10.341	1.00	85.92	O
ATOM	13073	C3*	G A 630	122.347	102.259	-0.413	1.00	94.07	C	ATOM	13123	C1*	A A 632	127.770	96.882	-8.372	1.00	85.92	O
ATOM	13074	O3*	G A 630	122.518	103.105	-1.542	1.00	94.07	O	ATOM	13124	N9	A A 632	126.639	96.044	-7.960	1.00	85.92	C
ATOM	13075	C2*	G A 630	123.602	101.454	-0.096	1.00	94.07	C	ATOM	13125	C8	A A 632	125.406	96.443	-7.500	1.00	85.92	C
ATOM	13076	O2*	G A 630	124.791	102.177	-0.327	1.00	94.07	O	ATOM	13126	N7	A A 632	124.582	95.452	-7.268	1.00	85.92	N
ATOM	13077	C1*	G A 630	123.443	101.196	1.404	1.00	94.07	C	ATOM	13127	C5	A A 632	125.323	94.323	-7.584	1.00	85.92	C
ATOM	13078	N9	G A 630	122.859	99.885	1.676	1.00	87.16	N	ATOM	13128	C6	A A 632	125.013	92.952	-7.558	1.00	85.92	C
ATOM	13079	C8	G A 630	121.536	99.598	1.921	1.00	87.16	C	ATOM	13129	N6	A A 632	123.823	92.467	-7.199	1.00	85.92	N
ATOM	13080	N7	G A 630	121.307	98.323	2.077	1.00	87.16	N	ATOM	13130	N1	A A 632	125.980	92.083	-7.923	1.00	85.92	N
ATOM	13081	C5	G A 630	122.555	97.730	1.934	1.00	87.16	C	ATOM	13131	C2	A A 632	127.169	92.569	-8.296	1.00	85.92	C
ATOM	13082	C6	G A 630	122.930	96.365	1.983	1.00	87.16	C	ATOM	13132	N3	A A 632	127.578	93.833	-8.370	1.00	85.92	N
ATOM	13083	O6	G A 630	122.210	95.376	2.153	1.00	87.16	O	ATOM	13133	C4	A A 632	126.596	94.671	-7.996	1.00	85.92	C
ATOM	13084	N1	G A 630	124.302	96.205	1.801	1.00	87.16	N	ATOM	13134	P	G A 633	126.484	98.913	-12.561	1.00	65.24	P
ATOM	13085	C2	G A 630	125.197	97.228	1.596	1.00	87.16	C	ATOM	13135	O1P	G A 633	127.201	99.478	-13.738	1.00	70.95	O
ATOM	13086	N2	G A 630	126.484	96.874	1.468	1.00	87.16	N	ATOM	13136	O2P	G A 633	125.149	99.448	-12.200	1.00	70.95	O
ATOM	13087	N3	G A 630	124.855	98.505	1.528	1.00	87.16	N	ATOM	13137	O5*	G A 633	126.352	97.343	-12.798	1.00	65.24	O
ATOM	13088	C4	G A 630	123.527	98.682	1.705	1.00	87.16	C	ATOM	13138	C5*	G A 633	127.497	96.556	-13.165	1.00	65.24	C
ATOM	13089	P	G A 631	122.075	102.585	-2.996	1.00	100.35	P	ATOM	13139	C4*	G A 633	127.117	95.105	-13.270	1.00	65.24	C
ATOM	13090	O1P	G A 631	122.404	103.648	-3.980	1.00	100.35	O	ATOM	13140	O4*	G A 633	126.798	94.594	-11.950	1.00	65.24	O
ATOM	13091	O2P	G A 631	120.678	102.079	-2.904	1.00	100.35	O	ATOM	13141	C3*	G A 633	125.877	94.825	-14.093	1.00	65.24	C
ATOM	13092	O5*	G A 631	123.041	101.344	-3.253	1.00	100.35	O	ATOM	13142	O3*	G A 633	126.137	94.747	-15.474	1.00	65.24	O
ATOM	13093	C5*	G A 631	124.476	101.514	-3.276	1.00	100.35	C	ATOM	13143	C2*	G A 633	125.404	93.500	-13.528	1.00	65.24	C
ATOM	13094	C4*	G A 631	125.164	100.178	-3.448	1.00	100.35	C	ATOM	13144	O2*	G A 633	126.136	92.418	-14.067	1.00	65.24	O
ATOM	13095	O4*	G A 631	125.003	99.372	-2.253	1.00	100.35	O	ATOM	13145	C1*	G A 633	125.729	93.669	-12.041	1.00	65.24	C
ATOM	13096	C3*	G A 631	124.623	99.319	-4.576	1.00	100.35	C	ATOM	13146	N9	G A 633	124.588	94.205	-11.295	1.00	70.95	N
ATOM	13097	O3*	G A 631	125.228	99.669	-5.807	1.00	100.35	O	ATOM	13147	C8	G A 633	124.338	95.521	-10.987	1.00	70.95	C
ATOM	13098	C2*	G A 631	124.985	97.907	-4.134	1.00	100.35	C	ATOM	13148	N7	G A 633	123.221	95.692	-10.336	1.00	70.95	N
ATOM	13099	O2*	G A 631	126.313	97.556	-4.469	1.00	100.35	O	ATOM	13149	C5	G A 633	122.703	94.411	-10.198	1.00	70.95	C
ATOM	13100	C1*	G A 631	124.839	98.010	-2.612	1.00	100.35	C	ATOM	13150	C6	G A 633	121.511	93.964	-9.580	1.00	70.95	C
ATOM	13101	N9	G A 631	123.524	97.578	-2.146	1.00	100.35	N	ATOM	13151	O6	G A 633	120.642	94.628	-9.012	1.00	70.95	O
ATOM	13102	C8	G A 631	122.445	98.379	-1.852	1.00	100.35	C	ATOM	13152	N1	G A 633	121.377	92.587	-9.668	1.00	70.95	N
ATOM	13103	N7	G A 631	121.394	97.706	-1.476	1.00	100.35	N	ATOM	13153	C2	G A 633	122.268	91.742	-10.272	1.00	70.95	C
ATOM	13104	C5	G A 631	121.802	96.380	-1.519	1.00	100.35	C	ATOM	13154	N2	G A 633	121.960	90.436	-10.252	1.00	70.95	N
ATOM	13105	C6	G A 631	121.090	95.192	-1.223	1.00	100.35	C	ATOM	13155	N3	G A 633	123.381	92.143	-10.854	1.00	70.95	N
ATOM	13106	O6	G A 631	119.917	95.068	-0.854	1.00	100.35	O	ATOM	13156	C4	G A 633	123.536	93.482	-10.780	1.00	70.95	C
ATOM	13107	N1	G A 631	121.883	94.064	-1.400	1.00	100.35	N	ATOM	13157	P	C A 634	124.975	95.136	-16.506	1.00	47.05	P
ATOM	13108	C2	G A 631	123.194	94.076	-1.808	1.00	100.35	C	ATOM	13158	O1P	C A 634	125.509	95.050	-17.892	1.00	65.06	O
ATOM	13109	N2	G A 631	123.791	92.881	-1.916	1.00	100.35	N	ATOM	13159	O2P	C A 634	124.348	96.397	-16.033	1.00	65.06	O
ATOM	13110	N3	G A 631	123.870	95.178	-2.089	1.00	100.35	N	ATOM	13160	O5*	C A 634	123.903	93.978	-16.320	1.00	47.05	O
ATOM	13111	C4	G A 631	123.117	96.285	-1.925	1.00	100.35	C	ATOM	13161	C5*	C A 634	124.152	92.665	-16.847	1.00	47.05	C
ATOM	13112	P	A A 632	124.305	100.099	-7.052	1.00	85.92	P	ATOM	13162	C4*	C A 634	123.036	91.721	-16.471	1.00	47.05	C
ATOM	13113	O1P	A A 632	124.150	101.591	-7.011	1.00	113.30	O	ATOM	13163	O4*	C A 634	122.952	91.644	-15.023	1.00	47.05	O
ATOM	13114	O2P	A A 632	123.091	99.234	-7.070	1.00	113.30	O	ATOM	13164	C3*	C A 634	121.637	92.099	-16.923	1.00	47.05	C
ATOM	13115	O5*	A A 632	125.202	99.728	-8.319	1.00	85.92	O	ATOM	13165	O3*	C A 634	121.369	91.684	-16.258	1.00	47.05	O



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ATOM	13166	C2*	C A 634	120.778	91.349	-15.912	1.00	47.05	C	ATOM	13216	C4	U A 636	114.147	96.471	-16.413	1.00	58.54	C
ATOM	13167	O2*	C A 634	120.678	89.972	-16.208	1.00	47.05	O	ATOM	13217	O4	U A 636	114.903	97.388	-16.110	1.00	58.54	O
ATOM	13168	C1*	C A 634	121.604	91.496	-14.634	1.00	47.05	C	ATOM	13218	C5	U A 636	114.489	95.329	-17.191	1.00	58.54	C
ATOM	13169	N1	C A 634	121.206	92.692	-13.872	1.00	65.06	N	ATOM	13219	C6	U A 636	113.562	94.414	-17.465	1.00	58.54	C
ATOM	13170	C2	C A 634	120.049	92.639	-13.091	1.00	65.06	C	ATOM	13220	P	G A 637	110.021	94.314	-21.833	1.00	63.47	P
ATOM	13171	O2	C A 634	119.438	91.569	-12.993	1.00	65.06	O	ATOM	13221	O1P	G A 637	109.145	93.838	-22.931	1.00	55.90	O
ATOM	13172	N3	C A 634	119.626	93.752	-12.460	1.00	65.06	N	ATOM	13222	O2P	G A 637	111.373	94.837	-22.150	1.00	55.90	O
ATOM	13173	C4	C A 634	120.318	94.883	-12.569	1.00	65.06	C	ATOM	13223	O5*	G A 637	109.250	95.420	-20.983	1.00	63.47	O
ATOM	13174	N4	C A 634	119.841	95.964	-11.952	1.00	65.06	N	ATOM	13224	C5*	G A 637	107.880	95.225	-20.601	1.00	63.47	C
ATOM	13175	C5	C A 634	121.524	94.957	-13.319	1.00	65.06	C	ATOM	13225	O4*	G A 637	107.340	96.462	-19.931	1.00	63.47	C
ATOM	13176	C6	C A 634	121.930	93.848	-13.947	1.00	65.06	C	ATOM	13226	O4*	G A 637	107.951	96.642	-18.624	1.00	63.47	O
ATOM	13177	P	G A 635	120.111	92.265	-19.058	1.00	51.57	P	ATOM	13227	C3*	G A 637	107.614	97.772	-20.641	1.00	63.47	C
ATOM	13178	O1P	G A 635	120.075	91.668	-20.426	1.00	61.50	O	ATOM	13228	O3*	G A 637	106.734	98.025	-21.716	1.00	63.47	O
ATOM	13179	O2P	G A 635	120.101	93.736	-18.894	1.00	61.50	O	ATOM	13229	C2*	G A 637	107.466	98.783	-19.516	1.00	63.47	C
ATOM	13180	O5*	G A 635	118.848	91.684	-18.288	1.00	51.57	O	ATOM	13230	O2*	G A 637	106.108	99.050	-19.240	1.00	63.47	O
ATOM	13181	C5*	G A 635	118.471	90.316	-18.448	1.00	51.57	C	ATOM	13231	C1*	G A 637	108.092	98.333	-18.344	1.00	63.47	C
ATOM	13182	C4*	G A 635	117.101	90.085	-17.888	1.00	51.57	C	ATOM	13232	N9	G A 637	109.517	98.333	-18.251	1.00	55.90	N
ATOM	13183	O4*	G A 635	117.113	90.328	-16.462	1.00	51.57	O	ATOM	13233	C8	G A 637	110.547	97.594	-18.774	1.00	55.90	C
ATOM	13184	C3*	G A 635	116.026	91.008	-18.410	1.00	51.57	C	ATOM	13234	N7	G A 637	111.716	98.140	-18.584	1.00	55.90	N
ATOM	13185	O3*	G A 635	115.531	90.583	-19.661	1.00	51.57	O	ATOM	13235	C5	G A 637	111.445	99.303	-17.881	1.00	55.90	C
ATOM	13186	C2*	G A 635	114.986	90.962	-17.302	1.00	51.57	C	ATOM	13236	C6	G A 637	112.326	100.311	-17.392	1.00	55.90	C
ATOM	13187	O2*	G A 635	114.183	89.806	-17.349	1.00	51.57	O	ATOM	13237	O6	G A 637	113.560	100.379	-17.489	1.00	55.90	O
ATOM	13188	C1*	G A 635	115.867	90.866	-16.060	1.00	51.57	C	ATOM	13238	N1	G A 637	111.634	101.313	-16.730	1.00	55.90	N
ATOM	13189	N9	G A 635	116.092	92.175	-15.464	1.00	61.50	N	ATOM	13239	C2	G A 637	110.276	101.350	-16.558	1.00	55.90	C
ATOM	13190	C8	G A 635	117.243	92.915	-15.491	1.00	61.50	C	ATOM	13240	N2	G A 637	109.808	102.403	-15.881	1.00	55.90	N
ATOM	13191	N7	G A 635	117.126	94.063	-14.886	1.00	61.50	N	ATOM	13241	N3	G A 637	109.443	100.422	-17.012	1.00	55.90	N
ATOM	13192	C5	G A 635	115.819	94.076	-14.433	1.00	61.50	C	ATOM	13242	C4	G A 637	110.093	99.434	-17.658	1.00	55.90	C
ATOM	13193	C6	G A 635	115.112	95.064	-13.714	1.00	61.50	C	ATOM	13243	P	G A 638	107.233	98.951	-22.930	1.00	58.07	P
ATOM	13194	O6	G A 635	115.507	96.177	-13.336	1.00	61.50	O	ATOM	13244	O1P	G A 638	106.215	98.919	-24.025	1.00	66.57	O
ATOM	13195	N1	G A 635	113.812	94.660	-13.443	1.00	61.50	N	ATOM	13245	O2P	G A 638	108.627	98.522	-23.220	1.00	66.57	O
ATOM	13196	C2	G A 635	113.262	93.464	-13.824	1.00	61.50	C	ATOM	13246	O5*	G A 638	107.268	100.416	-22.295	1.00	58.07	O
ATOM	13197	N2	G A 635	111.994	93.252	-13.448	1.00	61.50	N	ATOM	13247	C5*	G A 638	106.075	101.004	-21.742	1.00	58.07	C
ATOM	13198	N3	G A 635	113.907	92.544	-14.515	1.00	61.50	N	ATOM	13248	C4*	G A 638	106.387	102.309	-21.047	1.00	58.07	C
ATOM	13199	C4	G A 635	115.173	92.913	-14.777	1.00	61.50	C	ATOM	13249	O4*	G A 638	107.177	102.065	-19.853	1.00	58.07	O
ATOM	13200	P	U A 636	115.009	91.683	-20.705	1.00	48.92	P	ATOM	13250	C3*	G A 638	107.208	103.320	-21.825	1.00	58.07	C
ATOM	13201	O1P	U A 636	114.658	91.022	-21.986	1.00	58.54	O	ATOM	13251	O3*	G A 638	106.479	104.087	-22.760	1.00	58.07	O
ATOM	13202	O2P	U A 636	115.962	92.813	-20.698	1.00	58.54	O	ATOM	13252	C2*	G A 638	107.778	104.193	-20.724	1.00	58.07	C
ATOM	13203	O5*	U A 636	113.669	92.188	-20.033	1.00	48.92	O	ATOM	13253	O2*	G A 638	106.864	105.179	-20.294	1.00	58.07	O
ATOM	13204	C5*	U A 636	112.604	91.271	-19.802	1.00	48.92	C	ATOM	13254	C1*	G A 638	108.058	103.161	-19.630	1.00	58.07	C
ATOM	13205	C4*	U A 636	111.484	91.961	-19.094	1.00	48.92	C	ATOM	13255	N9	G A 638	109.439	102.701	-19.778	1.00	66.57	N
ATOM	13206	O4*	U A 636	111.891	92.318	-17.752	1.00	48.92	O	ATOM	13256	C8	G A 638	109.869	101.528	-20.353	1.00	66.57	C
ATOM	13207	C3*	U A 636	111.064	93.281	-19.705	1.00	48.92	C	ATOM	13257	N7	G A 638	111.169	101.445	-20.439	1.00	66.57	N
ATOM	13208	O3*	U A 636	110.193	93.113	-20.796	1.00	48.92	O	ATOM	13258	C5	G A 638	111.629	102.623	-19.867	1.00	66.57	C
ATOM	13209	C2*	U A 636	110.376	93.966	-18.545	1.00	48.92	C	ATOM	13259	C6	G A 638	112.950	103.107	-19.699	1.00	66.57	C
ATOM	13210	O2*	U A 636	109.073	93.442	-18.383	1.00	48.92	O	ATOM	13260	O6	G A 638	114.013	102.587	-20.053	1.00	66.57	O
ATOM	13211	C1*	U A 636	111.248	93.520	-17.373	1.00	48.92	C	ATOM	13261	N1	G A 638	112.964	104.338	-19.061	1.00	66.57	N
ATOM	13212	N1	U A 636	112.266	94.525	-17.033	1.00	58.54	N	ATOM	13262	C2	G A 638	111.857	105.023	-18.653	1.00	66.57	C
ATOM	13213	C2	U A 636	111.865	95.603	-16.269	1.00	58.54	C	ATOM	13263	N2	G A 638	112.084	106.185	-18.056	1.00	66.57	N
ATOM	13214	O2	U A 636	110.723	95.742	-15.867	1.00	58.54	O	ATOM	13264	N3	G A 638	110.620	104.599	-18.818	1.00	66.57	N
ATOM	13215	N3	U A 636	112.844	96.517	-16.000	1.00	58.54	N	ATOM	13265	C4	G A 638	110.578	103.397	-19.428	1.00	66.57	C



Table 2: Sheet 134/520

ATOM 13266	P	G A 639	107.233	104.651	-24.070	1.00	67.83	P	ATOM 13316	C4*	U A 641	117.173	114.134	-27.646	1.00	52.86	C
ATOM 13267	O1P	G A 639	106.209	105.241	-24.977	1.00	61.46	O	ATOM 13317	O4*	U A 641	117.449	112.802	-27.128	1.00	52.86	O
ATOM 13268	O2P	G A 639	108.131	103.589	-24.589	1.00	61.46	O	ATOM 13318	C3*	U A 641	117.351	114.077	-29.159	1.00	52.86	C
ATOM 13269	O5*	G A 639	108.146	105.825	-23.497	1.00	67.83	O	ATOM 13319	O3*	U A 641	118.604	114.607	-29.534	1.00	52.86	O
ATOM 13270	C5*	G A 639	107.548	106.964	-22.850	1.00	67.83	C	ATOM 13320	C2*	U A 641	117.323	112.586	-29.467	1.00	52.86	C
ATOM 13271	C4*	G A 639	108.606	107.901	-22.313	1.00	67.83	C	ATOM 13321	O2*	U A 641	118.138	112.240	-30.564	1.00	52.86	O
ATOM 13272	O4*	G A 639	109.437	107.200	-21.348	1.00	67.83	O	ATOM 13322	C1*	U A 641	117.878	111.970	-28.183	1.00	52.86	C
ATOM 13273	C3*	G A 639	109.604	108.470	-23.308	1.00	67.83	C	ATOM 13323	N1	U A 641	117.363	110.608	-27.975	1.00	65.73	N
ATOM 13274	O3*	G A 639	109.118	109.597	-24.016	1.00	67.83	O	ATOM 13324	C2	U A 641	118.274	109.574	-27.912	1.00	65.73	C
ATOM 13275	O2*	G A 639	110.769	108.855	-22.410	1.00	67.83	C	ATOM 13325	O2	U A 641	119.477	109.749	-27.865	1.00	65.73	O
ATOM 13276	C2*	G A 639	110.564	110.088	-21.753	1.00	67.83	C	ATOM 13326	N3	U A 641	117.720	108.320	-27.888	1.00	65.73	N
ATOM 13277	C1*	G A 639	110.755	107.727	-21.381	1.00	67.83	C	ATOM 13327	O4	U A 641	116.379	108.008	-27.885	1.00	65.73	C
ATOM 13278	N9	G A 639	111.695	106.674	-21.764	1.00	61.46	N	ATOM 13328	C4	U A 641	116.032	106.850	-28.099	1.00	65.73	O
ATOM 13279	C8	G A 639	111.404	105.437	-22.284	1.00	61.46	C	ATOM 13329	C5	U A 641	115.515	109.131	-27.852	1.00	65.73	C
ATOM 13280	N7	G A 639	112.471	104.734	-22.557	1.00	61.46	N	ATOM 13330	C6	U A 641	116.020	110.359	-27.898	1.00	65.73	C
ATOM 13281	C5	G A 639	113.528	105.552	-22.186	1.00	61.46	C	ATOM 13331	P	A A 642	118.685	116.080	-30.177	1.00	55.45	P
ATOM 13282	C6	G A 639	114.925	105.329	-22.240	1.00	61.46	C	ATOM 13332	O1P	A A 642	118.036	117.019	-29.217	1.00	42.80	O
ATOM 13283	O6	G A 639	115.529	104.322	-22.616	1.00	61.46	O	ATOM 13333	O2P	A A 642	118.203	116.017	-31.580	1.00	42.80	O
ATOM 13284	N1	G A 639	115.634	106.429	-21.782	1.00	61.46	N	ATOM 13334	O5*	A A 642	120.247	116.385	-30.174	1.00	55.45	O
ATOM 13285	C2	G A 639	115.074	107.584	-21.320	1.00	61.46	C	ATOM 13335	C5*	A A 642	120.739	117.649	-29.736	1.00	55.45	C
ATOM 13286	N2	G A 639	115.916	108.529	-20.932	1.00	61.46	N	ATOM 13336	C4*	A A 642	121.985	117.467	-28.911	1.00	55.45	C
ATOM 13287	N3	G A 639	113.779	107.798	-21.245	1.00	61.46	N	ATOM 13337	O4*	A A 642	121.654	116.876	-27.634	1.00	55.45	O
ATOM 13288	C4	G A 639	113.068	106.750	-21.694	1.00	61.46	C	ATOM 13338	C3*	A A 642	123.039	116.546	-29.486	1.00	55.45	C
ATOM 13289	P	A A 640	109.880	110.077	-25.349	1.00	53.90	P	ATOM 13339	O3*	A A 642	123.848	117.173	-30.458	1.00	55.45	O
ATOM 13290	O1P	A A 640	109.168	111.260	-25.898	1.00	54.43	O	ATOM 13340	C2*	A A 642	123.827	116.151	-28.252	1.00	55.45	C
ATOM 13291	O2P	A A 640	110.102	108.889	-26.210	1.00	54.43	O	ATOM 13341	O2*	A A 642	124.717	117.182	-27.885	1.00	55.45	O
ATOM 13292	O5*	A A 640	111.279	110.598	-24.808	1.00	53.90	O	ATOM 13342	C1*	A A 642	122.716	116.040	-27.207	1.00	55.45	O
ATOM 13293	C5*	A A 640	111.355	111.790	-24.006	1.00	53.90	C	ATOM 13343	N9	A A 642	122.195	114.675	-27.082	1.00	42.80	N
ATOM 13294	C4*	A A 640	112.788	112.244	-23.882	1.00	53.90	C	ATOM 13344	C8	A A 642	121.058	114.174	-27.659	1.00	42.80	C
ATOM 13295	O4*	A A 640	113.543	111.286	-23.102	1.00	53.90	O	ATOM 13345	N7	A A 642	120.831	112.919	-27.378	1.00	42.80	N
ATOM 13296	C3*	A A 640	113.558	112.388	-23.186	1.00	53.90	C	ATOM 13346	C5	A A 642	121.885	112.562	-26.556	1.00	42.80	C
ATOM 13297	O3*	A A 640	113.330	113.678	-25.744	1.00	53.90	O	ATOM 13347	C6	A A 642	122.209	111.354	-25.912	1.00	42.80	C
ATOM 13298	C2*	A A 640	114.999	112.238	-24.721	1.00	53.90	C	ATOM 13348	N6	A A 642	121.468	110.250	-26.008	1.00	42.80	N
ATOM 13299	O2*	A A 640	115.493	113.440	-24.164	1.00	53.90	O	ATOM 13349	N1	A A 642	123.330	111.322	-25.160	1.00	42.80	N
ATOM 13300	C1*	A A 640	114.863	111.210	-23.596	1.00	53.90	C	ATOM 13350	C2	A A 642	124.069	112.440	-25.071	1.00	42.80	C
ATOM 13301	N9	A A 640	115.119	109.836	-24.043	1.00	54.43	N	ATOM 13351	N3	A A 642	123.866	113.640	-25.628	1.00	42.80	N
ATOM 13302	C8	A A 640	114.232	108.903	-24.529	1.00	54.43	C	ATOM 13352	C4	A A 642	122.741	113.633	-26.366	1.00	42.80	C
ATOM 13303	N7	A A 640	114.792	107.765	-24.866	1.00	54.43	N	ATOM 13353	P	C A 643	124.372	116.307	-31.699	1.00	48.51	P
ATOM 13304	C5	A A 640	116.133	107.958	-24.581	1.00	54.43	C	ATOM 13354	O1P	C A 643	125.074	117.160	-32.682	1.00	50.17	O
ATOM 13305	C6	A A 640	117.254	107.131	-24.723	1.00	54.43	N	ATOM 13355	O2P	C A 643	123.213	115.500	-32.144	1.00	50.17	O
ATOM 13306	N6	A A 640	117.200	105.885	-25.202	1.00	54.43	N	ATOM 13356	O5*	C A 643	125.445	115.347	-31.020	1.00	48.51	O
ATOM 13307	N1	A A 640	118.452	107.629	-24.352	1.00	54.43	C	ATOM 13357	C5*	C A 643	126.581	115.899	-30.316	1.00	48.51	C
ATOM 13308	C2	A A 640	118.507	108.875	-23.869	1.00	54.43	C	ATOM 13358	C4*	C A 643	127.387	114.798	-29.657	1.00	48.51	C
ATOM 13309	N3	A A 640	117.528	109.749	-23.686	1.00	54.43	N	ATOM 13359	O4*	C A 643	126.687	114.282	-28.492	1.00	48.51	O
ATOM 13310	C4	A A 640	116.350	109.225	-24.068	1.00	54.43	C	ATOM 13360	C3*	C A 643	127.652	113.563	-30.497	1.00	48.51	C
ATOM 13311	P	U A 641	113.296	113.873	-27.338	1.00	52.86	P	ATOM 13361	O3*	C A 643	128.729	113.700	-31.381	1.00	48.51	O
ATOM 13312	O1P	U A 641	112.896	115.285	-27.583	1.00	65.73	O	ATOM 13362	C2*	C A 643	127.940	112.507	-29.449	1.00	48.51	C
ATOM 13313	O2P	U A 641	112.527	112.761	-27.957	1.00	65.73	O	ATOM 13363	O2*	C A 643	129.262	112.618	-28.953	1.00	48.51	O
ATOM 13314	O5*	U A 641	114.813	113.745	-27.789	1.00	52.86	O	ATOM 13364	C1*	C A 643	126.936	112.890	-28.363	1.00	48.51	C
ATOM 13315	C5*	U A 641	115.817	114.566	-27.187	1.00	52.86	C	ATOM 13365	N1	C A 643	125.656	112.166	-28.529	1.00	50.17	N



Table 2: Sheet 135/520

ATOM 13366	C A 643	125.453	110.974	-27.823	1.00	50.17	C	ATOM 13416	P	U A 646	128.041	103.529	-38.192	1.00	63.28	P
ATOM 13367	C A 643	126.350	110.547	-27.087	1.00	50.17	O	ATOM 13417	O1P	U A 646	128.888	102.526	-38.895	1.00	62.75	O
ATOM 13368	C A 643	124.289	110.315	-27.962	1.00	50.17	N	ATOM 13418	O2P	U A 646	128.203	104.974	-38.498	1.00	62.75	O
ATOM 13369	C A 643	123.350	110.787	-28.773	1.00	50.17	C	ATOM 13419	O5*	U A 646	126.533	103.136	-38.475	1.00	63.28	O
ATOM 13370	C A 643	122.223	111.089	-28.881	1.00	50.17	N	ATOM 13420	C5*	U A 646	126.063	101.813	-38.202	1.00	63.28	C
ATOM 13371	C A 643	123.525	111.991	-29.508	1.00	50.17	C	ATOM 13421	C4*	U A 646	124.600	101.727	-38.514	1.00	63.28	C
ATOM 13372	C A 643	124.681	112.643	-29.359	1.00	50.17	C	ATOM 13422	O4*	U A 646	123.853	102.467	-37.518	1.00	63.28	O
ATOM 13373	G A 644	128.724	112.847	-32.728	1.00	48.62	P	ATOM 13423	C3*	U A 646	124.221	102.367	-39.834	1.00	63.28	C
ATOM 13374	G A 644	129.920	113.267	-33.500	1.00	67.88	O	ATOM 13424	O3*	U A 646	124.424	101.475	-40.912	1.00	63.28	O
ATOM 13375	G A 644	127.381	112.978	-33.336	1.00	67.88	O	ATOM 13425	C2*	U A 646	122.764	102.744	-39.618	1.00	63.28	C
ATOM 13376	G A 644	128.890	111.334	-32.231	1.00	48.62	O	ATOM 13426	O2*	U A 646	121.901	101.646	-39.824	1.00	63.28	O
ATOM 13377	G A 644	130.154	110.857	-31.715	1.00	48.62	C	ATOM 13427	C1*	U A 646	122.759	103.120	-38.134	1.00	63.28	C
ATOM 13378	G A 644	130.125	109.360	-31.488	1.00	48.62	C	ATOM 13428	N1	U A 646	122.877	104.565	-37.881	1.00	62.75	N
ATOM 13379	G A 644	129.374	109.039	-30.285	1.00	48.62	O	ATOM 13429	C2	U A 646	121.738	105.329	-37.990	1.00	62.75	C
ATOM 13380	G A 644	129.486	108.511	-32.576	1.00	48.62	C	ATOM 13430	O2	U A 646	120.655	104.866	-38.278	1.00	62.75	O
ATOM 13381	G A 644	130.346	108.221	-33.660	1.00	48.62	C	ATOM 13431	N3	U A 646	121.908	106.660	-37.747	1.00	62.75	N
ATOM 13382	G A 644	129.124	107.241	-31.825	1.00	48.62	C	ATOM 13432	C4	U A 646	123.068	107.295	-37.407	1.00	62.75	C
ATOM 13383	G A 644	130.199	106.349	-31.683	1.00	48.62	O	ATOM 13433	O4	U A 646	123.046	108.506	-37.189	1.00	62.75	O
ATOM 13384	G A 644	128.724	107.789	-30.458	1.00	48.62	C	ATOM 13434	C5	U A 646	124.206	106.446	-37.311	1.00	62.75	C
ATOM 13385	G A 644	127.276	107.982	-30.489	1.00	67.88	N	ATOM 13435	C6	U A 646	124.076	105.142	-37.547	1.00	62.75	C
ATOM 13386	G A 644	126.566	109.157	-30.547	1.00	67.88	C	ATOM 13436	P	C A 647	124.671	102.060	-42.384	1.00	65.94	P
ATOM 13387	G A 644	125.280	108.966	-30.653	1.00	67.88	N	ATOM 13437	O1P	C A 647	125.088	100.928	-43.247	1.00	65.58	O
ATOM 13388	G A 644	125.136	107.584	-30.641	1.00	67.88	C	ATOM 13438	O2P	C A 647	125.529	103.262	-42.283	1.00	65.58	O
ATOM 13389	G A 644	123.978	106.773	-30.743	1.00	67.88	C	ATOM 13439	O5*	C A 647	123.220	102.528	-42.839	1.00	65.94	O
ATOM 13390	G A 644	122.806	107.118	-30.867	1.00	67.88	O	ATOM 13440	C5*	C A 647	122.152	101.575	-42.952	1.00	65.94	C
ATOM 13391	G A 644	124.294	105.424	-30.692	1.00	67.88	N	ATOM 13441	C4*	C A 647	120.843	102.278	-43.182	1.00	65.94	C
ATOM 13392	G A 644	125.557	104.918	-30.564	1.00	67.88	C	ATOM 13442	O4*	C A 647	120.439	102.994	-41.986	1.00	65.94	O
ATOM 13393	G A 644	125.669	103.584	-30.523	1.00	67.88	N	ATOM 13443	C3*	C A 647	120.856	103.338	-44.265	1.00	65.94	C
ATOM 13394	G A 644	126.635	105.658	-30.480	1.00	67.88	N	ATOM 13444	O3*	C A 647	120.724	102.795	-45.565	1.00	65.94	O
ATOM 13395	G A 644	126.355	106.970	-30.524	1.00	67.88	C	ATOM 13445	C2*	C A 647	119.676	104.217	-43.877	1.00	65.94	C
ATOM 13396	C A 645	129.720	107.938	-35.113	1.00	53.49	P	ATOM 13446	O2*	C A 647	118.441	103.678	-44.312	1.00	65.94	O
ATOM 13397	C A 645	130.843	107.532	-35.985	1.00	76.15	O	ATOM 13447	C1*	C A 647	119.761	104.185	-42.350	1.00	65.94	C
ATOM 13398	C A 645	128.875	109.096	-35.495	1.00	76.15	O	ATOM 13448	N1	C A 647	120.525	105.336	-41.836	1.00	65.58	N
ATOM 13399	O5*	128.775	106.677	-34.894	1.00	53.49	O	ATOM 13449	C2	C A 647	119.870	106.568	-41.658	1.00	65.58	C
ATOM 13400	C5*	129.314	105.423	-34.448	1.00	53.49	C	ATOM 13450	O2	C A 647	118.655	106.647	-41.894	1.00	65.58	O
ATOM 13401	C4*	128.237	104.359	-34.425	1.00	53.49	C	ATOM 13451	N3	C A 647	120.582	107.638	-41.233	1.00	65.58	N
ATOM 13402	O4*	127.235	104.695	-33.433	1.00	53.49	O	ATOM 13452	C4	C A 647	121.887	107.515	-40.978	1.00	65.58	C
ATOM 13403	C3*	127.466	104.181	-35.720	1.00	53.49	C	ATOM 13453	N4	C A 647	122.557	108.603	-40.579	1.00	65.58	N
ATOM 13404	O3*	128.161	103.308	-36.603	1.00	53.49	O	ATOM 13454	C5	C A 647	122.569	106.272	-41.124	1.00	65.58	C
ATOM 13405	C2*	126.132	103.615	-35.249	1.00	53.49	C	ATOM 13455	C6	C A 647	121.858	105.219	-41.551	1.00	65.58	C
ATOM 13406	O2*	126.187	102.228	-35.032	1.00	53.49	O	ATOM 13456	P	A A 648	121.372	103.578	-46.809	1.00	69.08	P
ATOM 13407	C1*	125.953	104.304	-33.894	1.00	53.49	C	ATOM 13457	O1P	A A 648	121.276	102.697	-48.013	1.00	70.29	O
ATOM 13408	N1	125.096	105.504	-33.931	1.00	76.15	N	ATOM 13458	O2P	A A 648	122.696	104.079	-46.371	1.00	70.29	O
ATOM 13409	C2	123.739	105.368	-34.226	1.00	76.15	C	ATOM 13459	O5*	A A 648	120.418	104.842	-46.988	1.00	69.08	O
ATOM 13410	O2	123.286	104.242	-34.463	1.00	76.15	O	ATOM 13460	C5*	A A 648	119.049	104.668	-47.374	1.00	69.08	C
ATOM 13411	N3	122.959	106.468	-33.249	1.00	76.15	N	ATOM 13461	C4*	A A 648	118.313	105.979	-47.312	1.00	69.08	C
ATOM 13412	C4	123.484	107.665	-33.992	1.00	76.15	C	ATOM 13462	O4*	A A 648	118.241	106.440	-45.938	1.00	69.08	O
ATOM 13413	N4	122.679	108.724	-34.013	1.00	76.15	N	ATOM 13463	C3*	A A 648	118.939	107.152	-48.039	1.00	69.08	O
ATOM 13414	C5	124.858	107.834	-33.699	1.00	76.15	C	ATOM 13464	O3*	A A 648	118.730	107.153	-49.431	1.00	69.08	O
ATOM 13415	C6	125.622	106.740	-33.677	1.00	76.15	C	ATOM 13465	C2*	A A 648	118.278	108.341	-47.362	1.00	69.08	C



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ATOM	13466	O2*	A A 648	116.977	108.592	-47.858	1.00	69.08	O	ATOM	13516	C5	G A 650	124.808	115.511	-47.382	1.00	71.55	C
ATOM	13467	C1*	A A 648	118.211	107.861	-45.913	1.00	69.08	C	ATOM	13517	C6	G A 650	125.935	115.557	-46.526	1.00	71.55	C
ATOM	13468	N9	A A 648	119.359	108.359	-45.148	1.00	70.29	N	ATOM	13518	O6	G A 650	126.701	114.643	-46.211	1.00	71.55	O
ATOM	13469	C8	A A 648	120.524	107.709	-44.824	1.00	70.29	C	ATOM	13519	N1	G A 650	126.137	116.832	-46.015	1.00	71.55	N
ATOM	13470	N7	A A 648	121.383	108.458	-44.174	1.00	70.29	N	ATOM	13520	C2	G A 650	125.355	117.923	-46.285	1.00	71.55	C
ATOM	13471	C5	A A 648	120.737	109.680	-44.052	1.00	70.29	C	ATOM	13521	N2	G A 650	125.695	119.064	-45.678	1.00	71.55	N
ATOM	13472	C6	A A 648	121.120	110.901	-43.464	1.00	70.29	C	ATOM	13522	N3	G A 650	124.312	117.897	-47.085	1.00	71.55	N
ATOM	13473	N6	A A 648	122.300	111.104	-42.880	1.00	70.29	N	ATOM	13523	C4	G A 650	124.098	116.667	-47.594	1.00	71.55	C
ATOM	13474	N1	A A 648	120.239	111.922	-43.502	1.00	70.29	N	ATOM	13524	P	C A 651	124.120	118.271	-53.183	1.00	51.18	P
ATOM	13475	C2	A A 648	119.062	111.725	-44.100	1.00	70.29	C	ATOM	13525	O1P	C A 651	124.002	119.113	-54.410	1.00	68.39	O
ATOM	13476	N3	A A 648	118.589	110.631	-44.695	1.00	70.29	N	ATOM	13526	O2P	C A 651	124.629	116.874	-53.292	1.00	68.39	O
ATOM	13477	C4	A A 648	119.486	109.631	-44.634	1.00	70.29	C	ATOM	13527	O5*	C A 651	125.022	119.056	-52.129	1.00	51.18	O
ATOM	13478	P	G A 649	119.824	107.852	-50.381	1.00	76.48	P	ATOM	13528	C5*	C A 651	124.691	120.386	-51.749	1.00	51.18	C
ATOM	13479	O1P	G A 649	119.400	107.582	-51.782	1.00	72.76	O	ATOM	13529	C4*	C A 651	125.650	120.900	-50.706	1.00	51.18	C
ATOM	13480	O2P	G A 649	121.175	107.445	-49.934	1.00	72.76	O	ATOM	13530	O4*	C A 651	125.698	119.986	-49.585	1.00	51.18	O
ATOM	13481	O5*	G A 649	119.678	109.410	-50.080	1.00	76.48	O	ATOM	13531	C3*	C A 651	127.101	121.083	-51.104	1.00	51.18	C
ATOM	13482	C5*	G A 649	118.487	110.090	-50.460	1.00	76.48	C	ATOM	13532	O3*	C A 651	127.277	122.324	-51.779	1.00	51.18	O
ATOM	13483	C4*	G A 649	118.498	111.518	-49.989	1.00	76.48	C	ATOM	13533	C2*	C A 651	127.806	121.072	-49.750	1.00	51.18	O
ATOM	13484	O4*	G A 649	118.614	111.576	-48.545	1.00	76.48	O	ATOM	13534	O2*	C A 651	127.721	122.311	-49.080	1.00	51.18	O
ATOM	13485	O3*	G A 649	119.615	112.428	-50.455	1.00	76.48	C	ATOM	13535	C1*	C A 651	126.962	120.075	-48.956	1.00	51.18	C
ATOM	13486	C3*	G A 649	119.466	112.885	-51.783	1.00	76.48	O	ATOM	13536	N1	C A 651	127.555	118.726	-48.857	1.00	68.39	N
ATOM	13487	C2*	G A 649	119.507	113.576	-49.463	1.00	76.48	O	ATOM	13537	C2	C A 651	128.642	118.524	-47.984	1.00	68.39	C
ATOM	13488	O2*	G A 649	118.457	114.467	-49.783	1.00	76.48	O	ATOM	13538	O2	C A 651	129.088	119.486	-47.342	1.00	68.39	O
ATOM	13489	C1*	G A 649	119.157	112.835	-48.176	1.00	76.48	C	ATOM	13539	N3	C A 651	129.176	117.287	-47.873	1.00	68.39	N
ATOM	13490	N9	G A 649	120.358	112.642	-47.368	1.00	72.76	N	ATOM	13540	C4	C A 651	128.679	116.278	-48.594	1.00	68.39	C
ATOM	13491	C8	G A 649	121.149	111.523	-47.263	1.00	72.76	C	ATOM	13541	N4	C A 651	129.234	115.080	-48.452	1.00	68.39	N
ATOM	13492	N7	G A 649	122.179	111.697	-46.479	1.00	72.76	N	ATOM	13542	C5	C A 651	127.591	116.455	-49.495	1.00	68.39	C
ATOM	13493	C5	G A 649	122.053	113.005	-46.034	1.00	72.76	C	ATOM	13543	C6	C A 651	127.063	117.682	-49.594	1.00	68.39	C
ATOM	13494	O6	G A 649	122.871	113.764	-45.156	1.00	72.76	O	ATOM	13544	P	U A 652	128.355	122.443	-52.969	1.00	59.14	P
ATOM	13495	O6	G A 649	123.910	113.423	-44.581	1.00	72.76	O	ATOM	13545	O1P	U A 652	128.177	123.754	-53.641	1.00	54.84	O
ATOM	13496	N1	G A 649	122.367	115.048	-44.972	1.00	72.76	N	ATOM	13546	O2P	U A 652	128.332	121.187	-53.786	1.00	54.84	O
ATOM	13497	C2	G A 649	121.226	115.539	-45.554	1.00	72.76	C	ATOM	13547	O5*	U A 652	129.734	122.548	-52.193	1.00	59.14	O
ATOM	13498	N2	G A 649	120.889	116.795	-45.235	1.00	72.76	N	ATOM	13548	C5*	U A 652	129.954	123.607	-51.257	1.00	59.14	C
ATOM	13499	N3	G A 649	120.465	114.848	-46.380	1.00	72.76	N	ATOM	13549	C4*	U A 652	131.285	123.425	-50.576	1.00	59.14	C
ATOM	13500	C4	G A 649	120.932	113.598	-46.570	1.00	72.76	C	ATOM	13550	O4*	U A 652	131.299	122.135	-49.907	1.00	59.14	O
ATOM	13501	P	G A 650	120.774	113.343	-52.605	1.00	75.92	P	ATOM	13551	C3*	U A 652	132.509	123.454	-51.484	1.00	59.14	C
ATOM	13502	O1P	G A 650	120.293	113.715	-53.964	1.00	71.55	O	ATOM	13552	O3*	U A 652	133.545	124.075	-50.735	1.00	59.14	O
ATOM	13503	O2P	G A 650	121.852	112.321	-52.464	1.00	71.55	O	ATOM	13553	C2*	U A 652	132.805	121.973	-51.703	1.00	59.14	C
ATOM	13504	O5*	G A 650	121.260	114.660	-51.852	1.00	75.92	O	ATOM	13554	O1*	U A 652	134.154	121.677	-51.973	1.00	59.14	O
ATOM	13505	C5*	G A 650	120.479	115.849	-51.932	1.00	75.92	C	ATOM	13555	C1*	U A 652	132.400	121.386	-50.355	1.00	59.14	C
ATOM	13506	C4*	G A 650	121.081	116.947	-51.099	1.00	75.92	C	ATOM	13556	N1	U A 652	132.020	119.969	-50.385	1.00	54.84	N
ATOM	13507	O4*	G A 650	121.111	116.561	-49.702	1.00	75.92	O	ATOM	13557	C2	U A 652	132.693	119.132	-49.526	1.00	54.84	C
ATOM	13508	C3*	G A 650	122.514	117.350	-51.370	1.00	75.92	C	ATOM	13558	O2	U A 652	133.565	119.531	-48.771	1.00	54.84	O
ATOM	13509	O3*	G A 650	122.680	118.193	-52.481	1.00	75.92	O	ATOM	13559	N3	U A 652	132.316	117.810	-49.587	1.00	54.84	N
ATOM	13510	C2*	G A 650	122.865	118.102	-50.102	1.00	75.92	C	ATOM	13560	C4	U A 652	131.358	117.253	-50.409	1.00	54.84	C
ATOM	13511	O2*	G A 650	122.342	119.410	-50.123	1.00	75.92	O	ATOM	13561	O4	U A 652	131.185	116.035	-50.398	1.00	54.84	O
ATOM	13512	C1*	G A 650	122.146	117.270	-49.044	1.00	75.92	C	ATOM	13562	C5	U A 652	130.700	118.187	-51.268	1.00	54.84	C
ATOM	13513	N9	G A 650	123.103	116.331	-48.471	1.00	71.55	N	ATOM	13563	C6	U A 652	131.043	119.484	-51.228	1.00	54.84	C
ATOM	13514	C8	G A 650	123.238	114.985	-48.716	1.00	71.55	C	ATOM	13564	P	A A 653	134.809	124.725	-51.481	1.00	58.98	P
ATOM	13515	N7	G A 650	124.253	114.454	-48.091	1.00	71.55	N	ATOM	13565	O1P	A A 653	134.587	126.180	-51.613	1.00	58.33	O



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ATOM	13566	O2P	A A 653	135.115	123.927	-52.694	1.00	58.33	O	ATOM	13616	C3*	A A 655	142.999	114.079	-50.676	1.00	51.24	C
ATOM	13567	O5*	A A 653	135.964	124.547	-50.399	1.00	58.98	O	ATOM	13617	O3*	A A 655	144.185	113.391	-51.020	1.00	51.24	O
ATOM	13568	C5*	A A 653	136.227	123.261	-49.786	1.00	58.98	C	ATOM	13618	C2*	A A 655	141.764	113.397	-51.240	1.00	51.24	C
ATOM	13569	C4*	A A 653	137.045	123.449	-48.533	1.00	58.98	C	ATOM	13619	O2*	A A 655	141.836	111.989	-51.214	1.00	51.24	O
ATOM	13570	O4*	A A 653	136.266	124.187	-47.555	1.00	58.98	O	ATOM	13620	C1*	A A 655	140.681	113.896	-50.286	1.00	51.24	C
ATOM	13571	C3*	A A 653	137.526	122.183	-47.827	1.00	58.98	C	ATOM	13621	N9	A A 655	140.065	115.090	-50.841	1.00	55.22	N
ATOM	13572	O3*	A A 653	138.805	122.477	-47.260	1.00	58.98	O	ATOM	13622	C8	A A 655	140.310	116.405	-50.530	1.00	55.22	C
ATOM	13573	C2*	A A 653	136.528	122.035	-46.682	1.00	58.98	C	ATOM	13623	N7	A A 655	139.641	117.252	-51.272	1.00	55.22	N
ATOM	13574	O2*	A A 653	137.016	121.331	-45.555	1.00	58.98	O	ATOM	13624	C5	A A 655	138.893	116.437	-52.113	1.00	55.22	C
ATOM	13575	C1*	A A 653	136.302	123.500	-46.324	1.00	58.98	C	ATOM	13625	C6	A A 655	137.991	116.722	-53.141	1.00	55.22	C
ATOM	13576	N9	A A 653	135.094	123.786	-45.553	1.00	58.33	N	ATOM	13626	N6	A A 655	137.681	117.959	-53.523	1.00	55.22	N
ATOM	13577	C8	A A 653	135.037	124.497	-44.382	1.00	58.33	C	ATOM	13627	N1	A A 655	137.417	115.681	-53.779	1.00	55.22	N
ATOM	13578	N7	A A 653	133.838	124.568	-43.865	1.00	58.33	N	ATOM	13628	C2	A A 655	137.743	114.440	-53.401	1.00	55.22	C
ATOM	13579	C5	A A 653	133.051	123.865	-44.760	1.00	58.33	C	ATOM	13629	N3	A A 655	138.583	114.045	-52.457	1.00	55.22	N
ATOM	13580	C6	A A 653	131.688	123.564	-44.768	1.00	58.33	C	ATOM	13630	C4	A A 655	139.132	115.106	-51.844	1.00	55.22	C
ATOM	13581	N6	A A 653	130.851	123.932	-43.796	1.00	58.33	N	ATOM	13631	P	C A 656	145.121	113.978	-52.184	1.00	60.65	P
ATOM	13582	N1	A A 653	131.206	122.853	-45.811	1.00	58.33	N	ATOM	13632	O1P	C A 656	146.421	113.287	-52.029	1.00	54.08	O
ATOM	13583	C2	A A 653	132.062	122.466	-46.772	1.00	58.33	C	ATOM	13633	O2P	C A 656	145.067	115.466	-52.158	1.00	54.08	O
ATOM	13584	N3	A A 653	133.373	122.678	-46.866	1.00	58.33	N	ATOM	13634	O5*	C A 656	144.428	113.488	-53.531	1.00	60.65	O
ATOM	13585	C4	A A 653	133.808	123.392	-45.814	1.00	58.33	C	ATOM	13635	C5*	C A 656	144.293	112.097	-53.804	1.00	60.65	C
ATOM	13586	P	G A 654	140.146	121.959	-47.974	1.00	60.81	P	ATOM	13636	C4*	C A 656	143.179	111.856	-54.790	1.00	60.65	C
ATOM	13587	O1P	G A 654	141.241	122.786	-47.423	1.00	50.13	O	ATOM	13637	O4*	C A 656	141.930	112.372	-54.251	1.00	60.65	O
ATOM	13588	O2P	G A 654	139.955	121.896	-49.449	1.00	50.13	O	ATOM	13638	C3*	C A 656	143.286	112.536	-56.146	1.00	60.65	C
ATOM	13589	O5*	G A 654	140.320	120.473	-47.432	1.00	60.81	C	ATOM	13639	O3*	C A 656	144.151	111.897	-57.069	1.00	60.65	O
ATOM	13590	C5*	G A 654	140.927	120.225	-46.153	1.00	60.81	C	ATOM	13640	C2*	C A 656	141.841	112.529	-56.620	1.00	60.65	C
ATOM	13591	C4*	G A 654	140.916	118.752	-45.852	1.00	60.81	C	ATOM	13641	O2*	C A 656	141.450	111.277	-57.147	1.00	60.65	O
ATOM	13592	O4*	G A 654	139.542	118.308	-45.739	1.00	60.81	C	ATOM	13642	C1*	C A 656	141.103	112.821	-55.316	1.00	60.65	C
ATOM	13593	C3*	G A 654	141.508	117.869	-46.932	1.00	60.81	C	ATOM	13643	N1	C A 656	140.932	114.277	-55.215	1.00	54.08	N
ATOM	13594	O3*	G A 654	142.921	117.763	-46.841	1.00	60.81	C	ATOM	13644	C2	C A 656	139.912	114.870	-55.953	1.00	54.08	C
ATOM	13595	C2*	G A 654	140.806	116.544	-46.695	1.00	60.81	C	ATOM	13645	O2	C A 656	139.116	114.144	-56.554	1.00	54.08	O
ATOM	13596	O2*	G A 654	141.385	115.811	-45.637	1.00	60.81	C	ATOM	13646	N3	C A 656	139.811	116.213	-55.991	1.00	54.08	N
ATOM	13597	C1*	G A 654	139.412	117.007	-46.281	1.00	50.13	N	ATOM	13647	C4	C A 656	140.670	116.959	-55.301	1.00	54.08	C
ATOM	13598	N9	G A 654	138.491	117.063	-47.416	1.00	50.13	N	ATOM	13648	N4	C A 656	140.562	118.279	-55.405	1.00	54.08	N
ATOM	13599	C8	G A 654	138.047	118.183	-48.077	1.00	50.13	C	ATOM	13649	C5	C A 656	141.684	116.380	-54.482	1.00	54.08	C
ATOM	13600	N7	G A 654	137.264	117.903	-49.081	1.00	50.13	N	ATOM	13650	C6	C A 656	141.775	115.045	-54.465	1.00	54.08	C
ATOM	13601	C5	G A 654	137.184	116.518	-49.082	1.00	50.13	C	ATOM	13651	P	G A 657	145.000	112.804	-58.089	1.00	70.63	P
ATOM	13602	C6	G A 654	136.502	115.647	-49.949	1.00	50.13	C	ATOM	13652	O1P	G A 657	146.135	111.952	-58.552	1.00	55.98	O
ATOM	13603	O6	G A 654	135.835	115.924	-50.944	1.00	50.13	O	ATOM	13653	O2P	G A 657	145.262	114.135	-57.471	1.00	55.98	O
ATOM	13604	N1	G A 654	136.668	114.319	-49.581	1.00	50.13	N	ATOM	13654	O5*	G A 657	144.012	113.094	-59.299	1.00	70.63	O
ATOM	13605	C2	G A 654	137.419	113.883	-48.529	1.00	50.13	C	ATOM	13655	C5*	G A 657	143.346	112.027	-59.972	1.00	70.63	C
ATOM	13606	N2	G A 654	137.465	112.559	-48.349	1.00	50.13	N	ATOM	13656	O4*	G A 657	142.222	112.574	-60.805	1.00	70.63	O
ATOM	13607	N3	G A 654	138.080	114.688	-47.718	1.00	50.13	N	ATOM	13657	C4*	G A 657	141.260	113.245	-59.942	1.00	70.63	C
ATOM	13608	C4	G A 654	137.917	115.985	-48.052	1.00	50.13	C	ATOM	13658	C3*	G A 657	142.597	113.643	-61.817	1.00	70.63	C
ATOM	13609	P	A A 655	143.797	117.747	-48.191	1.00	51.24	P	ATOM	13659	O3*	G A 657	143.144	113.123	-63.020	1.00	70.63	O
ATOM	13610	O1P	A A 655	145.205	117.539	-47.781	1.00	55.22	O	ATOM	13660	C2*	G A 657	141.261	114.330	-62.044	1.00	70.63	C
ATOM	13611	O2P	A A 655	143.445	118.946	-49.005	1.00	55.22	O	ATOM	13661	O1*	G A 657	140.426	113.561	-62.886	1.00	70.63	O
ATOM	13612	O5*	A A 655	143.289	116.442	-48.958	1.00	51.24	O	ATOM	13662	C1*	G A 657	140.679	114.334	-60.634	1.00	70.63	C
ATOM	13613	C5*	A A 655	143.446	115.136	-48.365	1.00	51.24	C	ATOM	13663	N9	G A 657	141.041	115.576	-59.958	1.00	55.98	N
ATOM	13614	C4*	A A 655	142.732	114.078	-49.181	1.00	51.24	C	ATOM	13664	C8	G A 657	141.867	115.740	-58.876	1.00	55.98	C
ATOM	13615	O4*	A A 655	141.302	114.253	-49.069	1.00	51.24	O	ATOM	13665	N7	G A 657	142.035	116.993	-58.544	1.00	55.98	N



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ATOM	13666	C5	G A 657	141.265	117.696	-59.458	1.00	55.98	C	ATOM	13716	C6	U A 659	144.476	120.464	-66.359	1.00	66.50	C
ATOM	13667	C6	G A 657	141.061	119.093	-59.612	1.00	55.98	C	ATOM	13717	P	G A 660	146.783	120.932	-71.457	1.00	65.99	P
ATOM	13668	O6	G A 657	141.566	120.022	-58.972	1.00	55.98	C	ATOM	13718	O1P	G A 660	146.887	121.023	-72.931	1.00	65.01	O
ATOM	13669	N1	G A 657	140.177	119.368	-60.645	1.00	55.98	N	ATOM	13719	O2P	G A 660	147.283	119.725	-70.766	1.00	65.01	O
ATOM	13670	C2	G A 657	139.580	118.424	-61.444	1.00	55.98	C	ATOM	13720	O5*	G A 660	147.469	122.223	-70.840	1.00	65.99	O
ATOM	13671	N2	G A 657	138.739	118.875	-62.379	1.00	55.98	N	ATOM	13721	C5*	G A 660	147.067	123.518	-71.293	1.00	65.99	C
ATOM	13672	N3	G A 657	139.786	117.127	-61.332	1.00	55.98	N	ATOM	13722	C4*	G A 660	147.686	124.592	-70.445	1.00	65.99	C
ATOM	13673	C4	G A 657	140.629	116.835	-60.323	1.00	55.98	C	ATOM	13723	O4*	G A 660	147.116	124.571	-69.112	1.00	65.99	O
ATOM	13674	P	G A 658	144.048	114.078	-63.953	1.00	58.25	P	ATOM	13724	C3*	G A 660	149.177	124.481	-70.211	1.00	65.99	C
ATOM	13675	O1P	G A 658	144.521	113.242	-65.088	1.00	58.79	O	ATOM	13725	O3*	G A 660	149.939	124.968	-71.304	1.00	65.99	O
ATOM	13676	O2P	G A 658	145.037	114.817	-63.124	1.00	58.79	O	ATOM	13726	C2*	G A 660	149.370	125.310	-68.947	1.00	65.99	C
ATOM	13677	O5*	G A 658	143.022	115.178	-64.478	1.00	58.25	O	ATOM	13727	C1*	G A 660	149.440	126.701	-69.200	1.00	65.99	O
ATOM	13678	C5*	G A 658	141.932	114.834	-65.358	1.00	58.25	C	ATOM	13728	C1*	G A 660	148.090	124.999	-68.172	1.00	65.99	C
ATOM	13679	C4*	G A 658	141.323	116.091	-65.920	1.00	58.25	C	ATOM	13729	N9	G A 660	148.290	123.943	-67.184	1.00	65.01	N
ATOM	13680	O4*	G A 658	140.804	116.887	-64.825	1.00	58.25	O	ATOM	13730	C8	G A 660	148.000	122.607	-67.324	1.00	65.01	C
ATOM	13681	C3*	G A 658	142.311	117.008	-66.620	1.00	58.25	C	ATOM	13731	N7	G A 660	148.309	121.904	-66.268	1.00	65.01	N
ATOM	13682	O3*	G A 658	142.489	116.622	-67.974	1.00	58.25	C	ATOM	13732	C5	G A 660	148.830	122.832	-65.376	1.00	65.01	C
ATOM	13683	C2*	G A 658	141.672	118.380	-66.464	1.00	58.25	C	ATOM	13733	C6	G A 660	149.339	122.658	-64.063	1.00	65.01	C
ATOM	13684	O2*	G A 658	140.665	118.623	-67.422	1.00	58.25	O	ATOM	13734	O6	G A 660	149.428	121.617	-63.402	1.00	65.01	O
ATOM	13685	C1*	G A 658	141.015	118.262	-65.089	1.00	58.25	C	ATOM	13735	N1	G A 660	149.773	123.861	-63.522	1.00	65.01	N
ATOM	13686	N9	G A 658	141.801	118.828	-63.994	1.00	58.79	N	ATOM	13736	C2	G A 660	149.722	125.073	-64.157	1.00	65.01	C
ATOM	13687	C8	G A 658	142.508	118.142	-63.035	1.00	58.79	C	ATOM	13737	N2	G A 660	150.177	126.120	-63.462	1.00	65.01	N
ATOM	13688	N7	G A 658	143.090	118.925	-62.166	1.00	58.79	N	ATOM	13738	N3	G A 660	149.256	125.248	-65.381	1.00	65.01	N
ATOM	13689	C5	G A 658	142.757	120.203	-62.580	1.00	58.79	C	ATOM	13739	C4	G A 660	148.827	124.093	-65.926	1.00	65.01	C
ATOM	13690	C6	G A 658	143.107	121.457	-62.032	1.00	58.79	C	ATOM	13740	P	G A 661	151.471	124.510	-71.457	1.00	93.64	P
ATOM	13691	O6	G A 658	143.788	121.698	-61.033	1.00	58.79	O	ATOM	13741	O1P	G A 661	152.168	125.575	-72.223	1.00	69.26	O
ATOM	13692	N1	G A 658	142.573	122.504	-62.773	1.00	58.79	N	ATOM	13742	O2P	G A 661	151.550	123.089	-71.915	1.00	69.26	O
ATOM	13693	C2	G A 658	141.795	122.361	-63.896	1.00	58.79	C	ATOM	13743	O5*	G A 661	151.987	124.564	-69.961	1.00	93.64	O
ATOM	13694	N2	G A 658	141.381	123.499	-64.468	1.00	58.79	N	ATOM	13744	C5*	G A 661	153.363	124.675	-69.666	1.00	93.64	C
ATOM	13695	N3	G A 658	141.453	121.191	-64.416	1.00	58.79	N	ATOM	13745	C4*	G A 661	153.578	125.776	-68.664	1.00	93.64	C
ATOM	13696	C4	G A 658	141.968	120.163	-63.712	1.00	58.79	C	ATOM	13746	O4*	G A 661	152.498	125.805	-67.697	1.00	93.64	O
ATOM	13697	P	U A 659	143.909	116.865	-68.691	1.00	65.99	P	ATOM	13747	C3*	G A 661	154.842	125.566	-67.863	1.00	93.64	O
ATOM	13698	O1P	U A 659	143.824	116.281	-70.058	1.00	66.50	O	ATOM	13748	O3*	G A 661	155.949	126.110	-68.540	1.00	93.64	O
ATOM	13699	O2P	U A 659	145.002	116.438	-67.788	1.00	66.50	O	ATOM	13749	C2*	G A 661	154.508	126.182	-66.514	1.00	93.64	C
ATOM	13700	O5*	U A 659	143.981	118.448	-68.821	1.00	65.99	O	ATOM	13750	O2*	G A 661	154.672	127.587	-66.490	1.00	93.64	O
ATOM	13701	C5*	U A 659	143.155	119.127	-69.764	1.00	65.99	C	ATOM	13751	C1*	G A 661	153.030	125.797	-66.383	1.00	93.64	C
ATOM	13702	C4*	U A 659	143.367	120.613	-69.670	1.00	65.99	C	ATOM	13752	N9	G A 661	152.845	124.441	-65.865	1.00	69.26	N
ATOM	13703	O4*	U A 659	142.887	121.103	-68.395	1.00	65.99	O	ATOM	13753	C8	G A 661	152.314	123.373	-66.553	1.00	69.26	C
ATOM	13704	C3*	U A 659	144.805	121.084	-69.748	1.00	65.99	C	ATOM	13754	N7	G A 661	152.275	122.276	-65.851	1.00	69.26	N
ATOM	13705	O3*	U A 659	145.235	121.155	-71.101	1.00	65.99	O	ATOM	13755	C5	G A 661	152.807	122.637	-64.621	1.00	69.26	C
ATOM	13706	C2*	U A 659	144.746	122.439	-69.045	1.00	65.99	C	ATOM	13756	C6	G A 661	153.012	121.863	-63.455	1.00	69.26	C
ATOM	13707	O2*	U A 659	144.297	123.503	-69.864	1.00	65.99	O	ATOM	13757	O6	G A 661	152.744	120.668	-63.269	1.00	69.26	O
ATOM	13708	C1*	U A 659	143.699	122.179	-67.961	1.00	65.99	C	ATOM	13758	N1	G A 661	153.588	122.618	-62.438	1.00	69.26	N
ATOM	13709	N1	U A 659	144.321	121.790	-66.691	1.00	66.50	N	ATOM	13759	C2	G A 661	153.920	123.948	-62.535	1.00	69.26	C
ATOM	13710	C2	U A 659	144.760	122.792	-65.852	1.00	66.50	C	ATOM	13760	N2	G A 661	154.480	124.496	-61.458	1.00	69.26	N
ATOM	13711	O2	U A 659	144.617	123.978	-66.098	1.00	66.50	O	ATOM	13761	N3	G A 661	153.722	121.684	-63.612	1.00	69.26	N
ATOM	13712	N3	U A 659	145.373	122.352	-64.710	1.00	66.50	N	ATOM	13762	C4	G A 661	153.167	123.970	-64.612	1.00	69.26	C
ATOM	13713	C4	U A 659	145.578	121.039	-64.330	1.00	66.50	C	ATOM	13763	P	G A 662	157.223	125.182	-68.804	1.00	81.10	P
ATOM	13714	O4	U A 659	146.203	120.797	-63.296	1.00	66.50	O	ATOM	13764	O1P	G A 662	158.158	126.011	-69.609	1.00	55.80	O
ATOM	13715	C5	U A 659	145.071	120.068	-65.242	1.00	66.50	C	ATOM	13765	O2P	G A 662	156.781	123.855	-69.320	1.00	55.80	O



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ATOM	13766	O5*	G A 662	157.820	125.015	-67.340	1.00	81.10	O	ATOM	13816	O3*	G A 664	168.873	118.427	-60.579	1.00	57.45	O
ATOM	13767	C5*	G A 662	158.013	126.181	-66.530	1.00	81.10	C	ATOM	13817	C2*	G A 664	166.695	117.449	-60.103	1.00	57.45	C
ATOM	13768	C4*	G A 662	158.483	125.816	-65.148	1.00	81.10	C	ATOM	13818	O2*	G A 664	167.264	117.073	-58.869	1.00	57.45	O
ATOM	13769	O4*	G A 662	157.422	125.210	-64.372	1.00	81.10	O	ATOM	13819	C1*	G A 664	165.356	118.143	-59.840	1.00	57.45	C
ATOM	13770	C3*	G A 662	159.629	124.836	-65.015	1.00	81.10	C	ATOM	13820	N9	G A 664	164.347	117.752	-60.820	1.00	52.93	N
ATOM	13771	O3*	G A 662	160.874	125.456	-65.282	1.00	81.10	O	ATOM	13821	C8	G A 664	164.071	118.385	-62.005	1.00	52.93	C
ATOM	13772	C2*	G A 662	159.513	124.424	-63.552	1.00	81.10	C	ATOM	13822	N7	G A 664	163.188	117.758	-62.726	1.00	52.93	N
ATOM	13773	O2*	G A 662	160.093	125.368	-62.675	1.00	81.10	O	ATOM	13823	C5	G A 664	162.839	116.652	-61.963	1.00	52.93	C
ATOM	13774	C1*	G A 662	158.000	124.449	-63.331	1.00	81.10	C	ATOM	13824	C6	G A 664	161.935	115.596	-62.243	1.00	52.93	C
ATOM	13775	N9	G A 662	157.423	123.110	-63.314	1.00	55.80	N	ATOM	13825	O6	G A 664	161.252	115.420	-63.249	1.00	52.93	O
ATOM	13776	C8	G A 662	156.760	122.457	-64.326	1.00	55.80	C	ATOM	13826	N1	G A 664	161.878	114.677	-61.205	1.00	52.93	N
ATOM	13777	N7	G A 662	156.392	121.246	-63.997	1.00	55.80	N	ATOM	13827	C2	G A 664	162.600	114.750	-60.051	1.00	52.93	C
ATOM	13778	C5	G A 662	156.831	121.095	-62.686	1.00	55.80	C	ATOM	13828	N2	G A 664	162.411	113.731	-59.198	1.00	52.93	N
ATOM	13779	C6	G A 662	156.727	119.991	-61.796	1.00	55.80	C	ATOM	13829	N3	G A 664	163.448	115.739	-59.764	1.00	52.93	N
ATOM	13780	O6	G A 662	156.205	118.896	-61.988	1.00	55.80	O	ATOM	13829	N3	G A 664	163.448	115.739	-59.764	1.00	52.93	N
ATOM	13781	N1	G A 662	157.317	120.262	-60.571	1.00	55.80	N	ATOM	13830	C4	G A 664	163.521	116.646	-60.768	1.00	52.93	C
ATOM	13782	C2	G A 662	157.933	121.433	-60.233	1.00	55.80	C	ATOM	13831	P	A A 665	169.867	117.949	-61.753	1.00	59.60	P
ATOM	13783	N2	G A 662	158.456	121.478	-58.999	1.00	55.80	N	ATOM	13832	O1P	A A 665	170.704	119.128	-62.084	1.00	46.61	O
ATOM	13784	N3	G A 662	158.034	122.477	-61.041	1.00	55.80	N	ATOM	13832	O2P	A A 665	169.120	117.249	-62.843	1.00	46.61	O
ATOM	13785	C4	G A 662	157.464	122.236	-62.248	1.00	55.80	C	ATOM	13833	O5*	A A 665	170.796	116.901	-60.993	1.00	59.60	O
ATOM	13786	P	A A 663	162.126	124.561	-65.747	1.00	59.41	P	ATOM	13834	C5*	A A 665	171.421	115.848	-61.708	1.00	59.60	C
ATOM	13787	O1P	A A 663	163.104	125.511	-66.355	1.00	47.89	O	ATOM	13835	C5*	A A 665	171.589	114.627	-60.839	1.00	59.60	C
ATOM	13788	O2P	A A 663	161.658	123.388	-66.531	1.00	47.89	O	ATOM	13836	C4*	A A 665	172.810	114.669	-60.063	1.00	59.60	C
ATOM	13789	O5*	A A 663	162.737	124.039	-64.377	1.00	59.41	O	ATOM	13837	O4*	A A 665	170.532	114.300	-59.811	1.00	59.60	O
ATOM	13790	C5*	A A 663	163.273	124.972	-63.431	1.00	59.41	C	ATOM	13838	C3*	A A 665	169.361	113.763	-60.406	1.00	59.60	C
ATOM	13791	C4*	A A 663	163.613	124.273	-62.146	1.00	59.41	C	ATOM	13839	O2*	A A 665	171.255	113.255	-58.964	1.00	59.60	O
ATOM	13792	O4*	A A 663	162.403	123.839	-61.476	1.00	59.41	O	ATOM	13840	C3*	A A 665	171.234	111.987	-59.583	1.00	59.60	C
ATOM	13793	C3*	A A 663	164.418	123.005	-62.304	1.00	59.41	C	ATOM	13841	O2*	A A 665	173.062	115.708	-57.401	1.00	46.61	O
ATOM	13794	O3*	A A 663	165.793	123.269	-62.495	1.00	59.41	O	ATOM	13842	C1*	A A 665	173.578	115.959	-56.220	1.00	46.61	C
ATOM	13795	C2*	A A 663	164.103	122.257	-61.015	1.00	59.41	C	ATOM	13843	N9	A A 665	174.016	114.720	-55.778	1.00	46.61	N
ATOM	13796	O2*	A A 663	164.831	122.738	-59.902	1.00	59.41	O	ATOM	13844	C8	A A 665	174.659	114.313	-54.609	1.00	46.61	C
ATOM	13797	C1*	A A 663	162.632	122.607	-60.816	1.00	59.41	C	ATOM	13845	N7	A A 665	174.977	115.136	-53.619	1.00	46.61	N
ATOM	13798	N9	A A 663	161.773	121.597	-61.424	1.00	47.89	N	ATOM	13846	C5	A A 665	174.972	113.013	-54.483	1.00	46.61	C
ATOM	13799	C8	A A 663	161.277	121.600	-62.698	1.00	47.89	C	ATOM	13847	C6	A A 665	174.651	112.184	-55.468	1.00	46.61	C
ATOM	13800	N7	A A 663	160.577	120.532	-62.995	1.00	47.89	N	ATOM	13848	N6	A A 665	174.041	112.440	-56.615	1.00	46.61	N
ATOM	13801	C5	A A 663	160.608	119.776	-61.832	1.00	47.89	C	ATOM	13849	N1	A A 665	167.941	113.924	-59.658	1.00	50.43	P
ATOM	13802	C6	A A 663	160.068	118.519	-61.509	1.00	47.89	C	ATOM	13850	C2	A A 665	166.950	114.378	-60.675	1.00	50.83	O
ATOM	13803	N6	A A 663	159.374	117.776	-62.362	1.00	47.89	N	ATOM	13851	N3	A A 665	168.137	114.725	-58.419	1.00	50.83	O
ATOM	13804	N1	A A 663	160.276	118.047	-60.268	1.00	47.89	N	ATOM	13852	C4	A A 665	167.543	112.428	-59.271	1.00	50.43	O
ATOM	13805	C2	A A 663	160.980	118.792	-59.417	1.00	47.89	C	ATOM	13853	P	G A 666	166.703	111.781	-57.707	1.00	50.43	C
ATOM	13806	N3	A A 663	161.546	119.987	-59.601	1.00	47.89	N	ATOM	13854	O1P	G A 666	165.331	111.179	-57.963	1.00	50.43	O
ATOM	13807	C4	A A 663	161.323	120.428	-60.849	1.00	47.89	C	ATOM	13855	O2P	G A 666	166.895	109.592	-58.626	1.00	50.43	C
ATOM	13808	P	G A 664	166.691	122.191	-63.272	1.00	57.45	P	ATOM	13856	O5*	G A 666	167.955	108.750	-58.242	1.00	50.43	O
ATOM	13809	O1P	G A 664	168.074	122.744	-63.328	1.00	52.93	O	ATOM	13857	C5*	G A 666	165.547	108.895	-58.545	1.00	50.43	C
ATOM	13810	O2P	G A 664	165.996	121.807	-64.535	1.00	52.93	O	ATOM	13858	C4*	G A 666	164.599	110.083	-58.488	1.00	50.43	C
ATOM	13811	O5*	G A 664	166.683	120.935	-62.285	1.00	57.45	O	ATOM	13859	O4*	G A 666	164.129	110.411	-59.833	1.00	50.83	N
ATOM	13812	C5*	G A 664	167.164	121.075	-60.940	1.00	57.45	C	ATOM	13860	C3*	G A 666						
ATOM	13813	C4*	G A 664	166.971	119.800	-60.170	1.00	57.45	C	ATOM	13861	O3*	G A 666						
ATOM	13814	O4*	G A 664	165.572	119.542	-59.939	1.00	57.45	O	ATOM	13862	C2*	G A 666						
ATOM	13815	C3*	G A 664	167.484	118.538	-60.824	1.00	57.45	C	ATOM	13863	O2*	G A 666						
										ATOM	13864	C1*	G A 666						
										ATOM	13865	N9	G A 666						



Table 2: Sheet 140/520

ATOM 13866	G A 666	164.346	111.567	-60.547	1.00	50.83	C	ATOM 13916	O6	G A 668	167.267	106.832	-68.251	1.00	49.10	O
ATOM 13867	G A 666	163.847	111.522	-61.755	1.00	50.83	N	ATOM 13917	N1	G A 668	166.251	105.119	-69.349	1.00	49.10	N
ATOM 13868	G A 666	163.258	110.266	-61.839	1.00	50.83	C	ATOM 13918	C2	G A 668	165.696	103.863	-69.415	1.00	49.10	C
ATOM 13869	G A 666	162.578	109.639	-62.912	1.00	50.83	C	ATOM 13919	N2	G A 668	165.213	103.473	-70.605	1.00	49.10	N
ATOM 13870	G A 666	162.390	110.061	-64.054	1.00	50.83	O	ATOM 13920	N3	G A 668	165.613	103.045	-68.388	1.00	49.10	N
ATOM 13871	G A 666	162.111	108.380	-62.556	1.00	50.83	N	ATOM 13921	C4	G A 668	166.119	103.589	-67.269	1.00	49.10	C
ATOM 13872	G A 666	162.294	107.787	-61.336	1.00	50.83	C	ATOM 13922	P	U A 669	169.655	98.955	-65.935	1.00	63.32	P
ATOM 13873	G A 666	161.764	106.565	-61.189	1.00	50.83	N	ATOM 13923	O1P	U A 669	170.101	97.556	-65.731	1.00	47.83	O
ATOM 13874	G A 666	162.947	108.347	-60.336	1.00	50.83	N	ATOM 13924	O2P	U A 669	170.490	100.083	-65.437	1.00	47.83	O
ATOM 13875	G A 666	163.398	109.580	-60.654	1.00	50.83	C	ATOM 13925	O5*	U A 669	169.376	99.192	-67.486	1.00	63.32	O
ATOM 13876	G A 667	168.806	108.009	-59.384	1.00	49.68	P	ATOM 13926	C5*	U A 669	168.729	98.178	-68.264	1.00	63.32	C
ATOM 13877	G A 667	169.974	107.349	-58.741	1.00	46.10	O	ATOM 13927	C4*	U A 669	168.568	98.615	-69.702	1.00	63.32	C
ATOM 13878	G A 667	169.035	108.992	-60.492	1.00	46.10	O	ATOM 13928	O4*	U A 669	167.723	99.791	-69.773	1.00	63.32	C
ATOM 13879	G A 667	167.827	106.867	-59.895	1.00	49.68	O	ATOM 13929	C3*	U A 669	169.811	99.014	-70.479	1.00	63.32	C
ATOM 13880	G A 667	167.341	105.887	-58.991	1.00	49.68	C	ATOM 13930	O3*	U A 669	170.538	97.900	-70.972	1.00	63.32	O
ATOM 13881	G A 667	166.348	105.008	-59.678	1.00	49.68	C	ATOM 13931	C2*	U A 669	169.229	99.852	-71.610	1.00	63.32	C
ATOM 13882	G A 667	165.273	105.839	-60.165	1.00	49.68	C	ATOM 13932	O2*	U A 669	168.689	99.063	-72.651	1.00	63.32	O
ATOM 13883	G A 667	166.838	104.287	-60.921	1.00	49.68	C	ATOM 13933	C1*	U A 669	168.078	100.562	-70.905	1.00	63.32	C
ATOM 13884	G A 667	167.520	103.089	-60.611	1.00	49.68	O	ATOM 13934	N1	U A 669	168.504	101.885	-70.454	1.00	47.83	N
ATOM 13885	G A 667	165.543	104.032	-61.674	1.00	49.68	C	ATOM 13935	C2	U A 669	168.548	102.891	-71.391	1.00	47.83	C
ATOM 13886	G A 667	164.798	102.958	-61.138	1.00	49.68	O	ATOM 13936	O2	U A 669	168.190	102.736	-72.545	1.00	47.83	O
ATOM 13887	G A 667	164.777	105.316	-61.383	1.00	49.68	C	ATOM 13937	N3	U A 669	169.026	104.092	-70.932	1.00	47.83	N
ATOM 13888	G A 667	164.961	106.312	-62.433	1.00	46.10	N	ATOM 13938	C4	U A 669	169.440	104.371	-69.655	1.00	47.83	C
ATOM 13889	G A 667	165.553	107.546	-62.330	1.00	46.10	C	ATOM 13939	O4	U A 669	169.933	105.468	-69.406	1.00	47.83	O
ATOM 13890	G A 667	165.535	108.216	-63.448	1.00	46.10	N	ATOM 13940	C5	U A 669	169.322	103.282	-68.741	1.00	47.83	C
ATOM 13891	G A 667	164.901	107.365	-64.343	1.00	46.10	C	ATOM 13941	C6	U A 669	168.868	102.108	-69.164	1.00	47.83	C
ATOM 13892	G A 667	164.582	107.542	-65.707	1.00	46.10	C	ATOM 13942	P	G A 670	172.130	98.022	-71.148	1.00	57.11	P
ATOM 13893	G A 667	164.796	108.528	-66.433	1.00	46.10	O	ATOM 13943	O1P	G A 670	172.635	96.636	-71.329	1.00	51.08	O
ATOM 13894	G A 667	163.941	106.423	-66.226	1.00	46.10	N	ATOM 13944	O2P	G A 670	172.671	98.860	-70.058	1.00	51.08	O
ATOM 13895	G A 667	163.637	105.290	-65.520	1.00	46.10	C	ATOM 13945	O5*	G A 670	172.312	98.855	-72.494	1.00	57.11	O
ATOM 13896	G A 667	163.006	104.318	-66.185	1.00	46.10	N	ATOM 13946	C5*	G A 670	171.779	98.368	-73.736	1.00	57.11	C
ATOM 13897	G A 667	163.925	105.120	-64.254	1.00	46.10	N	ATOM 13947	C4*	G A 670	171.687	99.485	-74.750	1.00	57.11	C
ATOM 13898	G A 668	164.551	106.187	-63.732	1.00	46.10	C	ATOM 13948	O4*	G A 670	170.875	100.561	-74.209	1.00	57.11	O
ATOM 13899	G A 668	168.756	102.624	-61.526	1.00	57.80	P	ATOM 13949	C3*	G A 670	172.980	100.179	-75.140	1.00	57.11	C
ATOM 13900	G A 668	169.413	101.522	-60.781	1.00	49.10	O	ATOM 13950	O3*	G A 670	173.739	99.465	-76.102	1.00	57.11	O
ATOM 13901	G A 668	169.544	103.820	-61.939	1.00	49.10	O	ATOM 13951	C2*	G A 670	172.495	101.524	-75.665	1.00	57.11	C
ATOM 13902	G A 668	168.052	101.998	-62.803	1.00	57.80	O	ATOM 13952	O2*	G A 670	172.064	101.495	-77.010	1.00	57.11	O
ATOM 13903	G A 668	167.314	100.777	-62.676	1.00	57.80	C	ATOM 13953	C1*	G A 670	171.303	101.798	-74.750	1.00	57.11	C
ATOM 13904	G A 668	166.651	100.434	-63.974	1.00	57.80	C	ATOM 13954	N9	G A 670	171.672	102.686	-73.657	1.00	51.08	N
ATOM 13905	G A 668	165.722	101.487	-64.324	1.00	57.80	O	ATOM 13955	C8	G A 670	171.850	102.361	-72.341	1.00	51.08	C
ATOM 13906	G A 668	167.570	100.337	-65.175	1.00	57.80	C	ATOM 13956	N7	G A 670	172.210	103.381	-71.610	1.00	51.08	N
ATOM 13907	G A 668	168.204	99.069	-65.255	1.00	57.80	O	ATOM 13957	C5	G A 670	172.268	104.439	-72.501	1.00	51.08	C
ATOM 13908	G A 668	166.612	100.588	-66.327	1.00	57.80	C	ATOM 13958	C6	G A 670	172.609	105.800	-72.290	1.00	51.08	C
ATOM 13909	G A 668	165.848	99.439	-66.624	1.00	57.80	O	ATOM 13959	O6	G A 670	172.961	106.353	-71.244	1.00	51.08	O
ATOM 13910	G A 668	165.692	101.646	-65.727	1.00	57.80	C	ATOM 13960	N1	G A 670	172.518	106.539	-73.462	1.00	51.08	N
ATOM 13911	G A 668	166.165	102.987	-66.040	1.00	49.10	N	ATOM 13961	C2	G A 670	172.158	106.036	-74.680	1.00	51.08	C
ATOM 13912	G A 668	166.751	103.890	-65.185	1.00	49.10	C	ATOM 13962	N2	G A 670	172.109	106.917	-75.682	1.00	51.08	N
ATOM 13913	G A 668	167.079	105.008	-65.773	1.00	49.10	N	ATOM 13963	N3	G A 670	171.859	104.761	-74.897	1.00	51.08	N
ATOM 13914	G A 668	166.687	104.829	-67.093	1.00	49.10	C	ATOM 13964	C4	G A 670	171.930	104.029	-73.765	1.00	51.08	C
ATOM 13915	G A 668	166.785	105.695	-68.203	1.00	49.10	C	ATOM 13965	P	G A 671	175.345	99.447	-75.977	1.00	61.97	P



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ATOM	13966	O1P	G A 671	175.826	98.493	-77.015	1.00	56.67	O	ATOM	14016	O3*	G A 673	185.922	112.511	-76.590	1.00	70.31	O
ATOM	13967	O2P	G A 671	175.702	99.214	-74.560	1.00	56.67	O	ATOM	14017	C2*	G A 673	184.761	112.415	-74.448	1.00	70.31	C
ATOM	13968	O5*	G A 671	175.775	100.937	-76.362	1.00	61.97	O	ATOM	14018	O2*	G A 673	184.819	113.826	-74.489	1.00	70.31	O
ATOM	13969	C5*	G A 671	175.513	101.420	-77.678	1.00	61.97	C	ATOM	14019	C1*	G A 673	183.326	112.003	-74.118	1.00	70.31	C
ATOM	13970	C4*	G A 671	175.466	102.925	-77.720	1.00	61.97	C	ATOM	14020	N9	G A 673	183.245	110.771	-73.340	1.00	50.33	N
ATOM	13971	O4*	G A 671	174.681	103.445	-76.620	1.00	61.97	O	ATOM	14021	C8	G A 673	183.014	109.501	-73.812	1.00	50.33	C
ATOM	13972	C3*	G A 671	176.765	103.694	-77.601	1.00	61.97	C	ATOM	14022	N7	G A 673	182.998	108.598	-72.869	1.00	50.33	N
ATOM	13973	O3*	G A 671	177.488	103.709	-78.817	1.00	61.97	O	ATOM	14023	C5	G A 673	183.236	109.315	-71.705	1.00	50.33	C
ATOM	13974	O2*	G A 671	176.272	105.096	-77.252	1.00	61.97	C	ATOM	14024	C6	G A 673	183.337	108.877	-70.363	1.00	50.33	C
ATOM	13975	C2*	G A 671	175.869	105.863	-78.366	1.00	61.97	O	ATOM	14025	O6	G A 673	183.231	107.732	-69.920	1.00	50.33	O
ATOM	13976	C1*	G A 671	175.044	104.797	-76.396	1.00	61.97	C	ATOM	14026	N1	G A 673	183.586	109.934	-69.498	1.00	50.33	N
ATOM	13977	N9	G A 671	175.366	104.997	-74.992	1.00	56.67	N	ATOM	14027	C2	G A 673	183.716	111.248	-69.875	1.00	50.33	C
ATOM	13978	C8	G A 671	175.530	104.049	-74.013	1.00	56.67	C	ATOM	14028	N2	G A 673	183.949	112.134	-68.900	1.00	50.33	N
ATOM	13979	N7	G A 671	175.859	104.563	-72.858	1.00	56.67	N	ATOM	14029	N3	G A 673	183.623	111.669	-71.123	1.00	50.33	N
ATOM	13980	C5	G A 671	175.905	105.930	-73.092	1.00	56.67	C	ATOM	14030	C4	G A 673	183.387	110.656	-71.979	1.00	50.33	C
ATOM	13981	C6	G A 671	176.210	107.007	-72.216	1.00	56.67	C	ATOM	14031	P	G A 674	187.374	111.866	-76.865	1.00	59.80	P
ATOM	13982	O6	G A 671	176.520	106.965	-71.021	1.00	56.67	O	ATOM	14032	O1P	G A 674	187.792	112.427	-78.167	1.00	51.11	O
ATOM	13983	N1	G A 671	176.130	108.233	-72.866	1.00	56.67	N	ATOM	14033	O2P	G A 674	187.369	110.389	-76.679	1.00	51.11	O
ATOM	13984	C2	G A 671	175.805	108.404	-74.184	1.00	56.67	C	ATOM	14034	O5*	G A 674	188.287	112.523	-75.737	1.00	59.80	O
ATOM	13985	N2	G A 671	175.773	109.666	-74.619	1.00	56.67	N	ATOM	14035	C5*	G A 674	188.387	113.949	-75.616	1.00	59.80	C
ATOM	13986	N3	G A 671	175.529	107.411	-75.013	1.00	56.67	N	ATOM	14036	C4*	G A 674	188.578	114.343	-74.170	1.00	59.80	C
ATOM	13987	C4	G A 671	175.595	106.211	-74.401	1.00	56.67	C	ATOM	14037	O4*	G A 674	187.418	113.936	-73.397	1.00	59.80	O
ATOM	13988	P	U A 672	179.095	103.639	-78.785	1.00	68.89	P	ATOM	14038	C3*	G A 674	189.736	113.691	-73.437	1.00	59.80	C
ATOM	13989	O1P	U A 672	179.548	103.510	-80.199	1.00	61.36	O	ATOM	14039	O2*	G A 674	190.983	114.313	-73.667	1.00	59.80	O
ATOM	13990	O2P	U A 672	179.494	102.607	-77.790	1.00	61.36	O	ATOM	14040	C3*	G A 674	189.315	113.816	-71.981	1.00	59.80	C
ATOM	13991	O5*	U A 672	179.541	105.072	-78.251	1.00	68.89	O	ATOM	14041	O2*	G A 674	189.541	115.110	-71.459	1.00	59.80	O
ATOM	13992	C5*	U A 672	179.285	106.247	-79.025	1.00	68.89	C	ATOM	14042	C1*	G A 674	187.814	113.584	-72.080	1.00	59.80	C
ATOM	13993	C4*	U A 672	179.373	107.477	-78.158	1.00	68.89	C	ATOM	14043	N9	G A 674	187.500	112.178	-71.851	1.00	51.11	N
ATOM	13994	O4*	U A 672	178.452	107.338	-77.055	1.00	68.89	O	ATOM	14044	C8	G A 674	187.364	111.204	-72.802	1.00	51.11	C
ATOM	13995	C3*	U A 672	180.708	107.774	-77.492	1.00	68.89	C	ATOM	14045	N7	G A 674	187.094	110.031	-72.301	1.00	51.11	N
ATOM	13996	O3*	U A 672	181.572	108.503	-78.338	1.00	68.89	O	ATOM	14046	C5	G A 674	187.048	110.241	-70.931	1.00	51.11	C
ATOM	13997	C2*	U A 672	180.310	108.629	-76.298	1.00	68.89	C	ATOM	14047	C6	G A 674	186.796	109.332	-69.876	1.00	51.11	C
ATOM	13998	O2*	U A 672	180.132	109.995	-76.617	1.00	68.89	O	ATOM	14048	O6	G A 674	186.570	108.122	-69.944	1.00	51.11	O
ATOM	13999	C1*	U A 672	178.965	108.018	-75.919	1.00	68.89	C	ATOM	14049	N1	G A 674	186.833	109.957	-68.642	1.00	51.11	N
ATOM	14000	N1	U A 672	179.077	107.075	-74.799	1.00	61.36	N	ATOM	14050	C2	G A 674	187.089	111.282	-68.440	1.00	51.11	C
ATOM	14001	C2	U A 672	179.288	107.612	-73.548	1.00	61.36	C	ATOM	14051	N2	G A 674	187.091	111.677	-67.162	1.00	51.11	N
ATOM	14002	O2	U A 672	179.406	108.809	-73.354	1.00	61.36	O	ATOM	14052	N3	G A 674	187.329	112.151	-69.414	1.00	51.11	N
ATOM	14003	N3	U A 672	179.360	106.702	-72.534	1.00	61.36	N	ATOM	14053	C4	G A 674	187.292	111.561	-70.631	1.00	51.11	C
ATOM	14004	C4	U A 672	179.247	105.337	-72.641	1.00	61.36	C	ATOM	14054	P	A A 675	192.329	113.527	-73.272	1.00	58.59	P
ATOM	14005	O4	U A 672	179.293	104.646	-71.620	1.00	61.36	O	ATOM	14055	O1P	A A 675	193.458	114.271	-73.901	1.00	51.17	O
ATOM	14006	C5	U A 672	179.046	104.857	-73.974	1.00	61.36	C	ATOM	14056	O2P	A A 675	192.142	112.080	-73.565	1.00	51.17	O
ATOM	14007	C6	U A 672	178.972	105.720	-74.980	1.00	61.36	C	ATOM	14057	O5*	A A 675	192.426	113.691	-71.689	1.00	58.59	O
ATOM	14008	P	G A 673	183.153	108.452	-78.081	1.00	70.31	P	ATOM	14058	C5*	A A 675	192.674	114.980	-71.100	1.00	58.59	C
ATOM	14009	O1P	G A 673	183.792	108.775	-79.380	1.00	50.33	O	ATOM	14059	C4*	A A 675	192.759	114.865	-69.602	1.00	58.59	C
ATOM	14010	O2P	G A 673	183.489	107.176	-77.390	1.00	50.33	O	ATOM	14060	O4*	A A 675	191.464	114.474	-69.082	1.00	58.59	O
ATOM	14011	O5*	G A 673	183.429	109.673	-77.102	1.00	70.31	O	ATOM	14061	C3*	A A 675	193.698	113.805	-69.057	1.00	58.59	C
ATOM	14012	C5*	G A 673	183.216	111.014	-77.542	1.00	70.31	C	ATOM	14062	O3*	A A 675	195.053	114.217	-69.020	1.00	58.59	O
ATOM	14013	C4*	G A 673	183.570	111.973	-76.443	1.00	70.31	C	ATOM	14063	C2*	A A 675	193.131	113.571	-67.667	1.00	58.59	C
ATOM	14014	O4*	G A 673	182.649	111.796	-75.340	1.00	70.31	O	ATOM	14064	O2*	A A 675	193.493	114.622	-66.796	1.00	58.59	O
ATOM	14015	C3*	G A 673	184.950	111.802	-75.829	1.00	70.31	C	ATOM	14065	C1*	A A 675	191.631	113.649	-67.942	1.00	58.59	C



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ATOM	14066	A A 675	191.078	112.324	-68.238	1.00	51.17	N	ATOM	14116	C5	U A 677	195.798	105.991	-67.178	1.00	56.22	C
ATOM	14067	A A 675	190.835	111.752	-69.462	1.00	51.17	C	ATOM	14117	C6	U A 677	196.274	106.105	-65.934	1.00	56.22	C
ATOM	14068	A A 675	190.401	110.513	-69.394	1.00	51.17	N	ATOM	14118	P	U A 678	201.565	104.553	-64.026	1.00	58.10	P
ATOM	14069	A A 675	190.339	110.255	-68.032	1.00	51.17	C	ATOM	14119	OlP	U A 678	202.798	104.431	-63.197	1.00	45.24	O
ATOM	14070	A A 675	189.968	109.110	-67.296	1.00	51.17	C	ATOM	14120	O2P	U A 678	201.582	105.405	-65.252	1.00	45.24	O
ATOM	14071	A A 675	189.578	107.960	-67.850	1.00	51.17	N	ATOM	14121	O5*	U A 678	201.111	103.076	-64.412	1.00	58.10	O
ATOM	14072	A A 675	190.015	109.187	-65.951	1.00	51.17	N	ATOM	14122	C5*	U A 678	200.968	102.084	-63.397	1.00	58.10	C
ATOM	14073	A A 675	190.406	110.339	-65.385	1.00	51.17	C	ATOM	14123	C4*	U A 678	200.247	100.878	-63.937	1.00	58.10	C
ATOM	14074	A A 675	190.782	111.480	-65.963	1.00	51.17	N	ATOM	14124	O4*	U A 678	198.906	101.231	-64.353	1.00	58.10	O
ATOM	14075	A A 675	190.732	111.370	-67.306	1.00	51.17	C	ATOM	14125	C3*	U A 678	200.861	100.249	-65.168	1.00	58.10	C
ATOM	14076	A A 676	196.216	113.109	-69.142	1.00	60.24	P	ATOM	14126	O3*	U A 678	201.950	99.414	-64.834	1.00	58.10	O
ATOM	14077	OlP	197.509	113.835	-69.083	1.00	41.51	O	ATOM	14127	C2*	U A 678	199.685	99.502	-65.783	1.00	58.10	C
ATOM	14078	O2P	195.941	112.196	-70.278	1.00	41.51	O	ATOM	14128	O2*	U A 678	199.424	98.246	-65.177	1.00	58.10	O
ATOM	14079	O5*	196.060	112.240	-67.818	1.00	60.24	C	ATOM	14129	C1*	U A 678	198.539	100.470	-65.494	1.00	58.10	C
ATOM	14080	C5*	196.342	112.808	-66.533	1.00	60.24	C	ATOM	14130	N1	U A 678	198.309	101.402	-66.608	1.00	45.24	N
ATOM	14081	C4*	196.087	111.794	-65.456	1.00	60.24	C	ATOM	14131	C2	U A 678	197.740	100.908	-67.777	1.00	45.24	C
ATOM	14082	O4*	194.688	111.412	-65.472	1.00	60.24	O	ATOM	14132	O2	U A 678	197.418	99.742	-67.918	1.00	45.24	O
ATOM	14083	C3*	196.833	110.485	-65.615	1.00	60.24	C	ATOM	14133	N3	U A 678	197.563	101.836	-68.771	1.00	45.24	N
ATOM	14084	O3*	198.160	110.599	-65.129	1.00	60.24	C	ATOM	14134	C4	U A 678	197.888	103.182	-68.720	1.00	45.24	C
ATOM	14085	C2*	195.967	109.523	-64.810	1.00	60.24	C	ATOM	14135	O4	U A 678	197.725	103.889	-69.720	1.00	45.24	O
ATOM	14086	O2*	196.190	109.606	-63.420	1.00	60.24	O	ATOM	14136	C5	U A 678	198.461	103.613	-67.479	1.00	45.24	C
ATOM	14087	C1*	194.561	110.049	-65.101	1.00	60.24	C	ATOM	14137	C6	U A 678	198.650	102.734	-66.495	1.00	45.24	C
ATOM	14088	N9	193.956	109.312	-66.210	1.00	41.51	N	ATOM	14138	P	C A 679	203.280	99.469	-65.729	1.00	57.84	P
ATOM	14089	C8	193.923	109.664	-67.533	1.00	41.51	C	ATOM	14139	OlP	C A 679	204.324	98.775	-64.939	1.00	40.64	O
ATOM	14090	N7	193.387	108.750	-68.307	1.00	41.51	N	ATOM	14140	O2P	C A 679	203.514	100.870	-66.190	1.00	40.64	O
ATOM	14091	C5	193.025	107.740	-67.432	1.00	41.51	C	ATOM	14141	O5*	C A 679	202.899	98.551	-66.966	1.00	57.84	O
ATOM	14092	C6	192.420	106.493	-67.636	1.00	41.51	C	ATOM	14142	C5*	C A 679	202.543	97.191	-66.742	1.00	57.84	C
ATOM	14093	N6	192.053	106.035	-68.828	1.00	41.51	N	ATOM	14143	C4*	C A 679	202.543	97.191	-66.742	1.00	57.84	C
ATOM	14094	N1	192.200	105.719	-66.561	1.00	41.51	N	ATOM	14144	O4*	C A 679	201.786	96.656	-67.914	1.00	57.84	O
ATOM	14095	C2	192.563	106.179	-65.362	1.00	41.51	C	ATOM	14145	C3*	C A 679	200.593	97.449	-68.107	1.00	57.84	C
ATOM	14096	N3	193.139	107.338	-65.040	1.00	41.51	N	ATOM	14146	O3*	C A 679	202.499	96.747	-69.248	1.00	57.84	O
ATOM	14097	C4	193.348	108.080	-66.137	1.00	41.51	C	ATOM	14147	C2*	C A 679	203.448	95.709	-69.418	1.00	57.84	C
ATOM	14098	P	199.290	109.555	-65.618	1.00	54.27	P	ATOM	14148	O2*	C A 679	201.341	96.711	-70.237	1.00	57.84	O
ATOM	14099	OlP	200.561	110.054	-65.016	1.00	56.22	O	ATOM	14149	C1*	C A 679	200.822	95.411	-70.461	1.00	57.84	C
ATOM	14100	O2P	199.219	109.318	-67.081	1.00	56.22	O	ATOM	14150	N1	C A 679	200.297	97.532	-69.487	1.00	57.84	C
ATOM	14101	O5*	198.895	108.180	-64.915	1.00	54.27	O	ATOM	14151	C2	C A 679	200.341	98.942	-69.888	1.00	40.64	N
ATOM	14102	C5*	199.036	108.017	-63.500	1.00	54.27	C	ATOM	14152	O2	C A 679	199.681	99.319	-71.056	1.00	40.64	C
ATOM	14103	C4*	198.508	106.677	-63.066	1.00	54.27	C	ATOM	14153	N3	C A 679	199.096	98.442	-71.717	1.00	40.64	O
ATOM	14104	O4*	197.105	106.563	-63.419	1.00	54.27	O	ATOM	14154	C4	C A 679	199.698	100.618	-71.441	1.00	40.64	N
ATOM	14105	C3*	199.135	105.449	-63.695	1.00	54.27	C	ATOM	14155	N4	C A 679	200.347	101.516	-70.704	1.00	40.64	C
ATOM	14106	O3*	200.369	105.101	-63.096	1.00	54.27	O	ATOM	14156	C5	C A 679	200.332	102.785	-71.107	1.00	40.64	N
ATOM	14107	C2*	198.065	104.392	-63.469	1.00	54.27	C	ATOM	14157	C6	C A 679	201.039	101.153	-69.513	1.00	40.64	C
ATOM	14108	O2*	198.072	103.889	-62.146	1.00	54.27	O	ATOM	14158	P	C A 679	201.011	99.869	-69.145	1.00	40.64	C
ATOM	14109	C1*	196.787	105.203	-63.670	1.00	54.27	C	ATOM	14159	OlP	C A 680	204.831	96.031	-70.160	1.00	70.69	P
ATOM	14110	N1	196.241	105.071	-65.031	1.00	56.22	N	ATOM	14160	O2P	C A 680	205.719	94.882	-69.879	1.00	58.18	O
ATOM	14111	C2	195.692	103.848	-65.379	1.00	56.22	C	ATOM	14161	O5*	C A 680	205.276	97.408	-69.814	1.00	58.18	O
ATOM	14112	O2	195.620	102.921	-64.610	1.00	56.22	O	ATOM	14162	C5*	C A 680	204.420	96.023	-71.696	1.00	70.69	O
ATOM	14113	N3	195.223	103.759	-66.663	1.00	56.22	N	ATOM	14163	C4*	C A 680	203.724	94.904	-72.262	1.00	70.69	C
ATOM	14114	C4	195.232	104.749	-67.612	1.00	56.22	C	ATOM	14164	O4*	C A 680	203.200	95.258	-73.631	1.00	70.69	O
ATOM	14115	O4	194.795	104.507	-68.736	1.00	56.22	O	ATOM	14165	C3*	C A 680	202.106	96.203	-73.518	1.00	70.69	C
									ATOM				204.189	95.941	-74.561	1.00	70.69	C



Table 2: Sheet 143/520

ATOM	14166	O3*	C A 680	205.055	95.011	-75.204	1.00	70.69	O	ATOM	14216	N1	G A 682	207.850	106.300	-77.538	1.00	73.49	N
ATOM	14167	C2*	C A 680	203.276	96.664	-75.541	1.00	70.69	C	ATOM	14217	C2	G A 682	207.820	106.488	-78.894	1.00	73.49	C
ATOM	14168	O2*	C A 680	202.792	95.822	-76.566	1.00	70.69	O	ATOM	14218	N2	G A 682	207.753	107.749	-79.320	1.00	73.49	N
ATOM	14169	C1*	C A 680	202.110	97.067	-74.640	1.00	70.69	C	ATOM	14219	N3	G A 682	207.852	105.512	-79.770	1.00	73.49	N
ATOM	14170	N1	C A 680	202.229	98.460	-74.178	1.00	58.18	N	ATOM	14220	C4	G A 682	207.904	104.304	-79.177	1.00	73.49	C
ATOM	14171	C2	C A 680	201.874	99.446	-75.064	1.00	58.18	C	ATOM	14221	P	G A 683	212.754	101.963	-81.656	1.00	75.71	P
ATOM	14172	O2	C A 680	201.462	99.208	-76.193	1.00	58.18	O	ATOM	14222	O1P	G A 683	213.797	101.461	-82.576	1.00	74.91	O
ATOM	14173	N3	C A 680	201.989	100.779	-74.664	1.00	58.18	N	ATOM	14223	O2P	G A 683	212.666	101.402	-80.280	1.00	74.91	O
ATOM	14174	C4	C A 680	202.436	101.055	-73.440	1.00	58.18	C	ATOM	14224	O5*	G A 683	212.888	103.547	-81.543	1.00	75.71	O
ATOM	14175	N4	C A 680	202.535	102.340	-73.091	1.00	58.18	N	ATOM	14225	C5*	G A 683	212.632	104.374	-82.683	1.00	75.71	C
ATOM	14176	C5	C A 680	202.800	100.027	-72.516	1.00	58.18	C	ATOM	14226	C4*	G A 683	212.395	105.806	-82.267	1.00	75.71	C
ATOM	14177	C6	C A 680	202.680	98.756	-72.922	1.00	58.18	C	ATOM	14227	O4*	G A 683	211.222	105.905	-81.416	1.00	75.71	O
ATOM	14178	P	C A 681	206.576	95.434	-75.535	1.00	82.60	P	ATOM	14228	C3*	G A 683	213.492	106.475	-81.464	1.00	75.71	C
ATOM	14179	O1P	C A 681	207.277	94.166	-75.869	1.00	67.03	O	ATOM	14229	O3*	G A 683	214.540	106.939	-82.300	1.00	75.71	O
ATOM	14180	O2P	C A 681	207.117	96.312	-74.461	1.00	67.03	O	ATOM	14230	C2*	G A 683	212.746	107.618	-80.782	1.00	75.71	C
ATOM	14181	O5*	C A 681	206.446	96.326	-76.847	1.00	82.60	O	ATOM	14231	O2*	G A 683	212.558	108.740	-81.621	1.00	75.71	O
ATOM	14182	C5*	C A 681	205.876	95.781	-78.042	1.00	82.60	C	ATOM	14232	C1*	G A 683	211.378	106.990	-80.515	1.00	75.71	C
ATOM	14183	O4*	C A 681	205.683	96.860	-79.070	1.00	82.60	C	ATOM	14233	N9	G A 683	211.236	106.512	-79.140	1.00	74.91	N
ATOM	14184	C4*	C A 681	204.591	97.733	-78.684	1.00	82.60	C	ATOM	14234	C8	G A 683	211.196	105.208	-78.702	1.00	74.91	C
ATOM	14185	C3*	C A 681	206.848	97.808	-79.278	1.00	82.60	O	ATOM	14235	N7	G A 683	211.064	105.105	-77.406	1.00	74.91	N
ATOM	14186	O3*	C A 681	207.871	97.271	-80.093	1.00	82.60	O	ATOM	14236	C5	G A 683	211.010	106.420	-76.958	1.00	74.91	C
ATOM	14187	C2*	C A 681	206.176	99.010	-79.920	1.00	82.60	C	ATOM	14237	C6	G A 683	210.865	106.947	-75.638	1.00	74.91	C
ATOM	14188	O2*	C A 681	205.970	98.844	-81.308	1.00	82.60	O	ATOM	14238	O6	G A 683	210.741	106.330	-74.569	1.00	74.91	O
ATOM	14189	C1*	C A 681	204.831	99.037	-79.192	1.00	82.60	C	ATOM	14239	N1	G A 683	210.870	108.339	-75.640	1.00	74.91	N
ATOM	14190	N1	C A 681	204.878	100.002	-78.079	1.00	67.03	N	ATOM	14240	C2	G A 683	210.989	109.126	-76.758	1.00	74.91	C
ATOM	14191	C2	C A 681	204.551	101.339	-78.343	1.00	67.03	C	ATOM	14241	N2	G A 683	210.981	110.446	-76.556	1.00	74.91	N
ATOM	14192	O2	C A 681	204.146	101.645	-79.472	1.00	67.03	O	ATOM	14242	N3	G A 683	211.111	108.653	-77.989	1.00	74.91	N
ATOM	14193	N3	C A 681	204.680	102.258	-77.363	1.00	67.03	N	ATOM	14243	C4	G A 683	211.117	107.302	-78.015	1.00	74.91	C
ATOM	14194	C4	C A 681	205.097	101.888	-76.155	1.00	67.03	C	ATOM	14244	P	A A 684	216.068	106.663	-81.880	1.00	68.51	P
ATOM	14195	N4	C A 681	205.249	102.836	-75.230	1.00	67.03	N	ATOM	14245	O1P	A A 684	216.897	106.911	-83.092	1.00	61.09	O
ATOM	14196	C5	C A 681	205.389	100.526	-75.842	1.00	67.03	C	ATOM	14246	O2P	A A 684	216.153	105.337	-81.194	1.00	61.09	O
ATOM	14197	C6	C A 681	205.265	99.624	-76.825	1.00	67.03	C	ATOM	14247	O5*	A A 684	216.394	107.808	-80.817	1.00	68.51	O
ATOM	14198	P	G A 682	209.378	97.805	-79.915	1.00	83.05	P	ATOM	14248	C5*	A A 684	216.293	109.197	-81.182	1.00	68.51	C
ATOM	14199	O1P	G A 682	210.220	96.988	-80.833	1.00	73.49	O	ATOM	14250	O4*	A A 684	216.139	110.056	-79.950	1.00	68.51	O
ATOM	14200	O2P	G A 682	209.720	97.864	-78.468	1.00	73.49	O	ATOM	14251	C3*	A A 684	214.859	109.792	-79.326	1.00	68.51	C
ATOM	14201	O5*	G A 682	209.319	99.290	-80.483	1.00	83.05	O	ATOM	14252	C3*	A A 684	217.158	109.824	-78.847	1.00	68.51	C
ATOM	14202	C5*	G A 682	209.067	99.503	-81.871	1.00	83.05	C	ATOM	14253	O2*	A A 684	218.344	110.567	-79.060	1.00	68.51	O
ATOM	14203	C4*	G A 682	209.018	100.971	-82.183	1.00	83.05	C	ATOM	14254	O2*	A A 684	216.418	110.307	-77.612	1.00	68.51	O
ATOM	14204	O4*	G A 682	207.830	101.565	-81.600	1.00	83.05	O	ATOM	14255	C1*	A A 684	216.456	111.713	-77.500	1.00	68.51	C
ATOM	14205	C3*	G A 682	210.149	101.826	-81.648	1.00	83.05	C	ATOM	14256	N9	A A 684	214.990	109.862	-77.919	1.00	68.51	N
ATOM	14206	O3*	G A 682	211.344	101.744	-82.400	1.00	83.05	O	ATOM	14257	C8	A A 684	214.722	108.531	-77.382	1.00	61.09	N
ATOM	14207	C2*	G A 682	209.534	103.214	-81.689	1.00	83.05	C	ATOM	14258	N7	A A 684	214.736	107.341	-78.061	1.00	61.09	C
ATOM	14208	O2*	G A 682	209.562	103.778	-82.983	1.00	83.05	O	ATOM	14259	C5	A A 684	214.462	106.302	-77.316	1.00	61.09	N
ATOM	14209	C1*	G A 682	208.094	102.919	-81.271	1.00	83.05	C	ATOM	14260	C6	A A 684	214.249	106.842	-76.059	1.00	61.09	C
ATOM	14210	N9	G A 682	207.977	103.096	-79.825	1.00	73.49	N	ATOM	14261	N6	A A 684	213.908	106.261	-74.834	1.00	61.09	C
ATOM	14211	C8	G A 682	207.983	102.130	-78.844	1.00	73.49	C	ATOM	14262	N1	A A 684	213.707	104.953	-74.670	1.00	61.09	N
ATOM	14212	N7	G A 682	207.967	102.629	-77.638	1.00	73.49	N	ATOM	14263	C2	A A 684	213.772	107.076	-73.770	1.00	61.09	N
ATOM	14213	C5	G A 682	207.928	104.004	-77.836	1.00	73.49	C	ATOM	14264	N3	A A 684	213.961	108.390	-73.943	1.00	61.09	N
ATOM	14214	C6	G A 682	207.916	105.067	-76.904	1.00	73.49	C	ATOM	14265	C4	A A 684	214.277	109.057	-75.045	1.00	61.09	C
ATOM	14215	O6	G A 682	207.971	105.011	-75.672	1.00	73.49	O					214.409	108.214	-76.082	1.00	61.09	C



Table 2: Sheet 144/520

ATOM	14266	P	G A 685	219.745	109.989	-78.532	1.00	76.91	P	ATOM	14316	C3*	A A 687	224.131	106.689	-63.380	1.00	55.51	C
ATOM	14267	O1P	G A 685	220.765	110.997	-78.895	1.00	56.10	O	ATOM	14317	O3*	A A 687	224.833	107.062	-62.190	1.00	55.51	O
ATOM	14268	O2P	G A 685	219.895	108.581	-78.996	1.00	56.10	O	ATOM	14318	C2*	A A 687	223.463	105.319	-63.532	1.00	55.51	C
ATOM	14269	O5*	G A 685	219.607	110.010	-76.944	1.00	76.91	O	ATOM	14319	O2*	A A 687	223.378	104.536	-62.365	1.00	55.51	O
ATOM	14270	C5*	G A 685	219.606	111.263	-76.228	1.00	76.91	C	ATOM	14320	C1*	A A 687	222.080	105.671	-64.081	1.00	55.51	C
ATOM	14271	C4*	G A 685	219.346	111.035	-74.761	1.00	76.91	C	ATOM	14321	N9	A A 687	221.635	104.805	-65.168	1.00	51.34	N
ATOM	14272	O4*	G A 685	218.041	110.434	-74.593	1.00	76.91	O	ATOM	14322	C8	A A 687	222.077	104.812	-66.469	1.00	51.34	C
ATOM	14273	C3*	G A 685	220.300	110.089	-74.053	1.00	76.91	C	ATOM	14323	N7	A A 687	221.486	103.927	-67.235	1.00	51.34	N
ATOM	14274	O3*	G A 685	221.489	110.762	-73.647	1.00	76.91	O	ATOM	14324	C5	A A 687	220.598	103.292	-66.383	1.00	51.34	C
ATOM	14275	C2*	G A 685	219.465	109.600	-72.876	1.00	76.91	C	ATOM	14325	C6	A A 687	219.688	102.257	-66.589	1.00	51.34	C
ATOM	14276	O2*	G A 685	219.458	110.488	-71.776	1.00	76.91	O	ATOM	14326	N6	A A 687	219.516	101.660	-67.764	1.00	51.34	N
ATOM	14277	C1*	G A 685	218.066	109.550	-73.490	1.00	76.91	C	ATOM	14327	N1	A A 687	218.949	101.850	-65.536	1.00	51.34	N
ATOM	14278	N9	G A 685	217.739	108.212	-73.965	1.00	56.10	N	ATOM	14328	C2	A A 687	219.127	102.456	-64.358	1.00	51.34	C
ATOM	14279	C8	G A 685	217.876	107.729	-75.242	1.00	56.10	C	ATOM	14329	N3	A A 687	219.958	103.444	-64.035	1.00	51.34	N
ATOM	14280	N7	G A 685	217.537	106.473	-75.352	1.00	56.10	N	ATOM	14330	C4	A A 687	220.676	103.822	-65.106	1.00	51.34	C
ATOM	14281	C5	G A 685	217.144	106.107	-74.072	1.00	56.10	C	ATOM	14331	P	G A 688	224.097	107.111	-60.758	1.00	57.77	P
ATOM	14282	C6	G A 685	216.674	104.869	-73.578	1.00	56.10	C	ATOM	14332	O1P	G A 688	225.052	107.852	-59.909	1.00	47.84	O
ATOM	14283	O6	G A 685	216.513	103.806	-74.188	1.00	56.10	O	ATOM	14333	O2P	G A 688	223.596	105.788	-60.317	1.00	47.84	O
ATOM	14284	N1	G A 685	216.376	104.939	-72.224	1.00	56.10	N	ATOM	14334	O5*	G A 688	222.877	108.111	-60.929	1.00	57.77	O
ATOM	14285	C2	G A 685	216.517	106.053	-71.444	1.00	56.10	C	ATOM	14335	C5*	G A 688	221.796	108.110	-59.980	1.00	57.77	C
ATOM	14286	N2	G A 685	216.181	105.907	-70.160	1.00	56.10	N	ATOM	14336	C4*	G A 688	220.546	107.650	-60.668	1.00	57.77	C
ATOM	14287	N3	G A 685	216.956	107.216	-71.888	1.00	56.10	N	ATOM	14337	O4*	G A 688	220.705	106.270	-61.081	1.00	57.77	O
ATOM	14288	C4	G A 685	217.251	107.171	-73.205	1.00	56.10	C	ATOM	14338	C3*	G A 688	219.260	107.639	-59.877	1.00	57.77	C
ATOM	14289	P	U A 686	222.834	109.920	-73.369	1.00	57.02	P	ATOM	14339	O3*	G A 688	218.665	108.919	-59.804	1.00	57.77	O
ATOM	14290	O1P	U A 686	223.940	110.905	-73.310	1.00	63.23	O	ATOM	14340	C2*	G A 688	218.416	106.679	-60.693	1.00	57.77	C
ATOM	14291	O2P	U A 686	222.918	108.764	-74.294	1.00	63.23	O	ATOM	14341	C1*	G A 688	217.964	107.332	-61.865	1.00	57.77	O
ATOM	14292	O5*	U A 686	222.610	109.326	-71.911	1.00	57.02	O	ATOM	14342	O2*	G A 688	219.450	105.625	-61.074	1.00	57.77	O
ATOM	14293	C5*	U A 686	222.228	110.176	-70.816	1.00	57.02	C	ATOM	14343	N9	G A 688	219.504	104.545	-60.095	1.00	47.84	N
ATOM	14294	C4*	U A 686	222.092	109.362	-69.560	1.00	57.02	C	ATOM	14344	C8	G A 688	220.474	104.338	-59.148	1.00	47.84	C
ATOM	14295	O4*	U A 686	220.957	108.458	-69.689	1.00	57.02	O	ATOM	14345	N7	G A 688	220.246	103.294	-58.397	1.00	47.84	N
ATOM	14296	C3*	U A 686	223.297	108.487	-69.205	1.00	57.02	C	ATOM	14346	C5	G A 688	219.054	102.779	-58.878	1.00	47.84	C
ATOM	14297	O3*	U A 686	223.422	108.466	-67.789	1.00	57.02	O	ATOM	14347	C6	G A 688	218.308	101.647	-58.458	1.00	47.84	C
ATOM	14298	C2*	U A 686	222.838	107.095	-69.627	1.00	57.02	C	ATOM	14348	O6	G A 688	218.562	100.852	-57.540	1.00	47.84	O
ATOM	14299	O2*	U A 686	223.459	106.063	-68.892	1.00	57.02	O	ATOM	14349	N1	G A 688	217.161	101.477	-59.228	1.00	47.84	N
ATOM	14300	C1*	U A 686	221.361	107.185	-69.261	1.00	57.02	C	ATOM	14350	C2	G A 688	216.784	102.290	-60.269	1.00	47.84	C
ATOM	14301	N1	U A 686	220.423	106.152	-69.726	1.00	63.23	N	ATOM	14351	N2	G A 688	215.668	101.948	-60.909	1.00	47.84	N
ATOM	14302	C2	U A 686	219.524	105.673	-68.786	1.00	63.23	C	ATOM	14352	N3	G A 688	217.462	103.356	-60.659	1.00	47.84	N
ATOM	14303	O2	U A 686	218.714	104.656	-69.212	1.00	63.23	O	ATOM	14353	C4	G A 688	218.582	103.537	-59.928	1.00	47.84	C
ATOM	14304	N3	U A 686	219.448	106.118	-67.660	1.00	63.23	N	ATOM	14354	P	C A 689	217.737	109.274	-58.545	1.00	48.02	P
ATOM	14305	C4	U A 686	218.695	104.084	-70.462	1.00	63.23	C	ATOM	14355	O1P	C A 689	217.533	110.748	-58.592	1.00	36.98	O
ATOM	14306	O4	U A 686	217.911	103.157	-70.686	1.00	63.23	O	ATOM	14356	O2P	C A 689	218.317	108.644	-57.322	1.00	36.98	O
ATOM	14307	C5	U A 686	219.626	104.658	-71.398	1.00	63.23	C	ATOM	14357	O5*	C A 689	216.375	108.505	-58.841	1.00	48.02	O
ATOM	14308	C6	U A 686	220.436	105.652	-71.006	1.00	63.23	C	ATOM	14358	C5*	C A 689	215.629	108.785	-60.027	1.00	48.02	C
ATOM	14309	P	A A 687	224.821	108.826	-67.094	1.00	55.51	P	ATOM	14359	O4*	C A 689	214.580	107.728	-60.242	1.00	48.02	C
ATOM	14310	O1P	A A 687	224.905	110.316	-67.058	1.00	51.34	O	ATOM	14360	C4*	C A 689	215.213	106.429	-60.337	1.00	48.02	C
ATOM	14311	O2P	A A 687	225.910	108.037	-67.726	1.00	51.34	O	ATOM	14361	C3*	C A 689	213.566	107.571	-59.128	1.00	48.02	O
ATOM	14312	O5*	A A 687	224.661	108.270	-65.610	1.00	55.51	O	ATOM	14362	O3*	C A 689	212.514	108.509	-59.267	1.00	48.02	O
ATOM	14313	C5*	A A 687	223.701	108.823	-64.684	1.00	55.51	C	ATOM	14363	C2*	C A 689	213.088	106.144	-59.332	1.00	48.02	C
ATOM	14314	C4*	A A 687	223.118	107.720	-63.834	1.00	55.51	C	ATOM	14364	O2*	C A 689	212.145	106.041	-60.374	1.00	48.02	O
ATOM	14315	O4*	A A 687	222.159	106.976	-64.595	1.00	55.51	O	ATOM	14365	C1*	C A 689	214.373	105.446	-59.773	1.00	48.02	C



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ATOM	14366	N1	C A 689	215.070	104.830	-58.632	1.00	36.98	N	ATOM	14416	C2	G A 691	214.472	105.173	-49.795	1.00	48.04	C
ATOM	14367	C2	C A 689	214.516	103.673	-58.037	1.00	36.98	C	ATOM	14417	N2	G A 691	215.175	104.322	-49.041	1.00	48.04	N
ATOM	14368	O2	C A 689	213.484	103.181	-58.519	1.00	36.98	O	ATOM	14418	N3	G A 691	213.204	104.931	-50.036	1.00	48.04	N
ATOM	14369	N3	C A 689	215.121	103.129	-56.959	1.00	36.98	N	ATOM	14419	C4	G A 691	212.660	105.872	-50.830	1.00	48.04	C
ATOM	14370	N4	C A 689	216.235	103.681	-56.473	1.00	36.98	C	ATOM	14420	P	U A 692	207.025	107.962	-48.705	1.00	49.92	P
ATOM	14371	C4	C A 689	216.787	103.125	-55.393	1.00	36.98	N	ATOM	14421	O1P	U A 692	205.581	107.984	-48.379	1.00	62.41	O
ATOM	14372	C5	C A 689	216.832	104.836	-57.069	1.00	36.98	C	ATOM	14422	O2P	U A 692	207.599	109.022	-49.568	1.00	49.92	O
ATOM	14373	C6	C A 689	216.224	105.373	-58.135	1.00	36.98	C	ATOM	14423	O5*	U A 692	207.841	107.907	-47.350	1.00	49.92	O
ATOM	14374	P	G A 690	211.930	109.253	-57.966	1.00	50.13	P	ATOM	14424	C5*	U A 692	207.636	106.817	-46.449	1.00	49.92	C
ATOM	14375	O1P	G A 690	210.902	110.193	-58.476	1.00	50.09	O	ATOM	14425	C4*	U A 692	208.665	106.848	-45.360	1.00	49.92	C
ATOM	14376	O2P	G A 690	213.034	109.766	-57.118	1.00	50.09	O	ATOM	14426	O4*	U A 692	209.946	106.396	-45.859	1.00	49.92	O
ATOM	14377	O5*	G A 690	211.207	108.092	-57.162	1.00	50.13	O	ATOM	14427	C3*	U A 692	208.922	108.222	-44.786	1.00	49.92	C
ATOM	14378	C5*	G A 690	210.165	107.326	-57.766	1.00	50.13	C	ATOM	14428	O3*	U A 692	207.939	108.482	-43.797	1.00	49.92	O
ATOM	14379	C4*	G A 690	209.963	106.053	-56.992	1.00	50.13	C	ATOM	14429	C2*	U A 692	210.331	108.078	-44.222	1.00	49.92	C
ATOM	14380	O4*	G A 690	211.208	105.317	-57.002	1.00	50.13	O	ATOM	14430	O2*	U A 692	210.312	107.450	-42.953	1.00	49.92	O
ATOM	14381	C3*	G A 690	209.647	106.258	-55.520	1.00	50.13	C	ATOM	14431	C1*	U A 692	210.978	107.125	-45.232	1.00	49.92	C
ATOM	14382	O3*	G A 690	208.252	106.438	-55.330	1.00	50.13	O	ATOM	14432	N1	U A 692	211.756	107.791	-46.285	1.00	62.41	N
ATOM	14383	C2*	G A 690	210.201	104.999	-54.865	1.00	50.13	C	ATOM	14433	C2	U A 692	213.120	107.903	-46.103	1.00	62.41	C
ATOM	14384	O2*	G A 690	209.322	103.897	-54.928	1.00	50.13	O	ATOM	14434	O2	U A 692	213.693	107.474	-45.112	1.00	62.41	O
ATOM	14385	C1*	G A 690	211.419	104.708	-55.744	1.00	50.13	C	ATOM	14435	N3	U A 692	213.792	108.532	-47.127	1.00	62.41	N
ATOM	14386	N9	G A 690	212.682	105.206	-55.209	1.00	50.09	N	ATOM	14436	C4	U A 692	213.247	109.040	-48.288	1.00	62.41	C
ATOM	14387	C8	G A 690	213.336	106.370	-55.547	1.00	50.09	C	ATOM	14437	O4	U A 692	213.978	109.593	-49.114	1.00	62.41	O
ATOM	14388	N7	G A 690	214.469	106.520	-54.919	1.00	50.09	N	ATOM	14438	C5	U A 692	211.832	108.879	-48.400	1.00	62.41	C
ATOM	14389	C5	G A 690	214.564	105.392	-54.115	1.00	50.09	C	ATOM	14439	C6	U A 692	211.151	108.281	-47.418	1.00	62.41	C
ATOM	14390	C6	G A 690	215.580	104.989	-53.223	1.00	50.09	C	ATOM	14440	P	G A 693	207.719	109.978	-43.250	1.00	72.67	P
ATOM	14391	O6	G A 690	216.644	105.567	-52.950	1.00	50.09	O	ATOM	14441	O1P	G A 693	206.391	109.927	-42.592	1.00	43.65	O
ATOM	14392	N1	G A 690	215.277	103.774	-52.618	1.00	50.09	N	ATOM	14442	O2P	G A 693	207.950	110.970	-44.330	1.00	43.65	O
ATOM	14393	C2	G A 690	214.145	103.039	-52.846	1.00	50.09	C	ATOM	14443	O5*	G A 693	208.842	110.155	-42.126	1.00	72.67	O
ATOM	14394	N2	G A 690	214.049	101.879	-52.179	1.00	50.09	N	ATOM	14444	C5*	G A 693	208.955	111.388	-41.389	1.00	72.67	C
ATOM	14395	N3	G A 690	213.186	103.407	-53.670	1.00	50.09	N	ATOM	14445	C4*	G A 693	210.279	111.456	-40.663	1.00	72.67	C
ATOM	14396	C4	G A 690	213.463	104.582	-54.272	1.00	50.09	C	ATOM	14446	O4*	G A 693	210.261	110.638	-39.472	1.00	72.67	O
ATOM	14397	P	G A 691	207.723	107.686	-54.470	1.00	53.16	P	ATOM	14447	C3*	G A 693	211.475	110.972	-41.454	1.00	72.67	C
ATOM	14398	O1P	G A 691	206.258	107.717	-54.702	1.00	48.04	O	ATOM	14448	O3*	G A 693	211.968	112.018	-42.273	1.00	72.67	O
ATOM	14399	O2P	G A 691	208.528	108.901	-54.761	1.00	48.04	O	ATOM	14449	C2*	G A 693	212.463	110.567	-40.369	1.00	72.67	C
ATOM	14400	O5*	G A 691	207.988	107.207	-52.979	1.00	53.16	O	ATOM	14450	O2*	G A 693	213.172	111.675	-39.866	1.00	72.67	O
ATOM	14401	C5*	G A 691	207.287	106.068	-52.483	1.00	53.16	C	ATOM	14451	C1*	G A 693	211.533	110.053	-39.273	1.00	72.67	C
ATOM	14402	C4*	G A 691	208.039	105.435	-51.357	1.00	53.16	C	ATOM	14452	N9	G A 693	211.353	108.607	-39.252	1.00	43.65	N
ATOM	14403	O4*	G A 691	209.311	104.940	-51.834	1.00	53.16	O	ATOM	14453	C8	G A 693	210.260	107.917	-39.719	1.00	43.65	C
ATOM	14404	C3*	G A 691	208.402	106.351	-50.213	1.00	53.16	C	ATOM	14454	N7	G A 693	210.326	106.634	-39.486	1.00	43.65	N
ATOM	14405	O3*	G A 691	207.308	106.522	-49.344	1.00	53.16	O	ATOM	14455	C5	G A 693	211.548	106.458	-38.852	1.00	43.65	C
ATOM	14406	C2*	G A 691	209.571	105.616	-49.569	1.00	53.16	C	ATOM	14456	C6	G A 693	212.157	105.281	-38.353	1.00	43.65	C
ATOM	14407	O2*	G A 691	209.186	104.556	-48.710	1.00	53.16	O	ATOM	14457	O6	G A 693	211.727	104.121	-38.375	1.00	43.65	O
ATOM	14408	C1*	G A 691	210.275	105.034	-50.798	1.00	53.16	C	ATOM	14458	N1	G A 693	213.392	105.548	-37.784	1.00	43.65	N
ATOM	14409	N9	G A 691	211.347	105.928	-51.226	1.00	48.04	N	ATOM	14459	C2	G A 693	213.976	106.784	-37.713	1.00	43.65	C
ATOM	14410	C8	G A 691	211.236	107.025	-52.043	1.00	48.04	C	ATOM	14460	N2	G A 693	215.188	106.819	-37.139	1.00	43.65	N
ATOM	14411	N7	G A 691	212.349	107.695	-52.151	1.00	48.04	N	ATOM	14461	N3	G A 693	213.419	107.897	-38.170	1.00	43.65	N
ATOM	14412	C5	G A 691	213.253	106.985	-51.378	1.00	48.04	C	ATOM	14462	C4	G A 693	212.209	107.661	-38.720	1.00	43.65	C
ATOM	14413	C6	G A 691	214.596	107.252	-51.091	1.00	48.04	C	ATOM	14463	P	A A 694	212.914	111.666	-43.520	1.00	65.02	P
ATOM	14414	O6	G A 691	215.279	108.225	-51.448	1.00	48.04	O	ATOM	14464	O1P	A A 694	213.163	112.939	-44.254	1.00	47.90	O
ATOM	14415	N1	G A 691	215.147	106.266	-50.280	1.00	48.04	N	ATOM	14465	O2P	A A 694	212.359	110.491	-44.252	1.00	47.90	O



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ATOM 14466	O5*	A A 694	214.261	111.207	-42.817	1.00	65.02	O	ATOM 14516	C2*	A A 696	215.823	97.666	-47.427	1.00	49.60	C
ATOM 14467	C5*	A A 694	215.080	110.250	-43.448	1.00	65.02	C	ATOM 14517	O2*	A A 696	215.960	96.470	-46.687	1.00	49.60	O
ATOM 14468	C4*	A A 694	215.965	109.561	-42.454	1.00	65.02	C	ATOM 14518	C1*	A A 696	215.433	98.798	-46.479	1.00	49.60	C
ATOM 14469	O4*	A A 694	215.207	109.027	-41.346	1.00	65.02	O	ATOM 14519	N9	A A 696	214.646	99.849	-47.121	1.00	44.78	N
ATOM 14470	C3*	A A 694	216.585	108.358	-43.106	1.00	65.02	C	ATOM 14520	C8	A A 696	215.123	101.030	-47.632	1.00	44.78	C
ATOM 14471	O2*	A A 694	217.699	108.807	-43.817	1.00	65.02	O	ATOM 14521	N7	A A 696	214.197	101.794	-48.152	1.00	44.78	N
ATOM 14472	C2*	A A 694	216.851	107.426	-41.940	1.00	65.02	C	ATOM 14522	C5	A A 696	213.028	101.070	-47.969	1.00	44.78	C
ATOM 14473	O2*	A A 694	218.001	107.782	-41.221	1.00	65.02	O	ATOM 14523	C6	A A 696	211.696	101.345	-48.291	1.00	44.78	C
ATOM 14474	C1*	A A 694	215.641	107.708	-41.056	1.00	65.02	C	ATOM 14524	N6	A A 696	211.299	102.477	-48.886	1.00	44.78	N
ATOM 14475	N9	A A 694	214.522	106.805	-41.328	1.00	47.90	N	ATOM 14525	N1	A A 696	210.771	100.416	-47.971	1.00	44.78	N
ATOM 14476	C8	A A 694	213.317	107.134	-41.898	1.00	47.90	C	ATOM 14526	C2	A A 696	211.169	99.299	-47.360	1.00	44.78	C
ATOM 14477	N7	A A 694	212.491	106.125	-42.008	1.00	47.90	N	ATOM 14527	C3	A A 696	212.390	98.931	-46.998	1.00	44.78	C
ATOM 14478	C5	A A 694	213.197	105.060	-41.484	1.00	47.90	C	ATOM 14528	C4	A A 696	213.288	99.870	-47.336	1.00	44.78	C
ATOM 14479	C6	A A 694	212.865	103.717	-41.316	1.00	47.90	C	ATOM 14529	P	U A 697	217.943	96.641	-49.919	1.00	56.79	P
ATOM 14480	N6	A A 694	211.693	103.194	-41.678	1.00	47.90	N	ATOM 14530	O1P	U A 697	219.049	95.674	-50.084	1.00	46.81	O
ATOM 14481	N1	A A 694	213.787	102.911	-40.756	1.00	47.90	N	ATOM 14531	O2P	U A 697	217.896	97.870	-50.759	1.00	46.81	O
ATOM 14482	C2	A A 694	214.964	103.436	-40.404	1.00	47.90	C	ATOM 14532	O5*	U A 697	216.575	95.843	-50.097	1.00	56.79	O
ATOM 14483	N3	A A 694	215.398	104.690	-40.518	1.00	47.90	N	ATOM 14533	C5*	U A 697	216.353	94.617	-49.393	1.00	56.79	C
ATOM 14484	C4	A A 694	214.452	105.460	-41.067	1.00	47.90	C	ATOM 14534	C4*	U A 697	214.881	94.285	-49.349	1.00	56.79	C
ATOM 14485	P	A A 695	217.784	108.528	-45.389	1.00	47.92	P	ATOM 14535	O4*	U A 697	214.147	95.375	-48.738	1.00	56.79	O
ATOM 14486	O1P	A A 695	218.871	109.419	-45.898	1.00	45.64	O	ATOM 14536	C3*	U A 697	214.166	94.096	-50.671	1.00	56.79	C
ATOM 14487	O2P	A A 695	216.438	108.614	-46.015	1.00	45.64	O	ATOM 14537	O3*	U A 697	214.366	92.827	-51.241	1.00	56.79	O
ATOM 14488	O5*	A A 695	218.290	107.017	-45.394	1.00	47.92	O	ATOM 14538	C2*	U A 697	212.714	94.292	-50.286	1.00	56.79	C
ATOM 14489	C5*	A A 695	217.530	105.962	-45.979	1.00	47.92	C	ATOM 14539	O2*	U A 697	212.161	93.147	-49.666	1.00	56.79	O
ATOM 14490	C4*	A A 695	217.687	104.707	-45.161	1.00	47.92	C	ATOM 14540	C1*	U A 697	212.826	95.408	-49.258	1.00	56.79	C
ATOM 14491	O4*	A A 695	216.659	104.681	-44.143	1.00	47.92	O	ATOM 14541	N1	U A 697	212.564	96.718	-49.872	1.00	46.81	N
ATOM 14492	C3*	A A 695	217.494	103.439	-45.972	1.00	47.92	C	ATOM 14542	C2	U A 697	211.239	97.135	-49.942	1.00	46.81	C
ATOM 14493	O3*	A A 695	218.759	103.019	-46.477	1.00	47.92	O	ATOM 14543	O2	U A 697	210.316	96.476	-49.500	1.00	46.81	O
ATOM 14494	C2*	A A 695	216.910	102.461	-44.962	1.00	47.92	C	ATOM 14544	N3	U A 697	211.040	98.353	-50.545	1.00	46.81	N
ATOM 14495	O2*	A A 695	217.903	101.837	-44.184	1.00	47.92	O	ATOM 14545	C4	U A 697	212.007	99.180	-51.063	1.00	46.81	C
ATOM 14496	C1*	A A 695	216.072	103.391	-44.080	1.00	47.92	C	ATOM 14546	O4	U A 697	211.673	100.204	-51.643	1.00	46.81	O
ATOM 14497	N9	A A 695	214.684	103.509	-44.541	1.00	45.64	N	ATOM 14547	C5	U A 697	213.345	98.691	-50.936	1.00	46.81	C
ATOM 14498	C8	A A 695	214.096	104.579	-45.181	1.00	45.64	C	ATOM 14548	C6	U A 697	213.571	97.502	-50.365	1.00	46.81	C
ATOM 14499	N7	A A 695	212.844	104.378	-45.509	1.00	45.64	N	ATOM 14549	P	G A 698	214.866	92.739	-52.761	1.00	53.60	P
ATOM 14500	C5	A A 695	212.586	103.096	-45.053	1.00	45.64	C	ATOM 14550	O1P	G A 698	214.859	91.303	-53.179	1.00	39.98	O
ATOM 14501	C6	A A 695	211.444	102.299	-45.108	1.00	45.64	C	ATOM 14551	O2P	G A 698	216.134	93.521	-52.802	1.00	39.98	O
ATOM 14502	N6	A A 695	211.506	101.068	-44.556	1.00	45.64	N	ATOM 14552	O5*	G A 698	213.788	93.565	-53.604	1.00	53.60	O
ATOM 14503	N1	A A 695	212.653	100.677	-43.989	1.00	45.64	N	ATOM 14553	C5*	G A 698	212.392	93.242	-53.539	1.00	53.60	C
ATOM 14504	C2	A A 695	213.805	101.335	-43.880	1.00	45.64	C	ATOM 14554	C4*	G A 698	211.575	94.281	-54.269	1.00	53.60	C
ATOM 14505	N3	A A 695	213.704	102.554	-44.441	1.00	45.64	C	ATOM 14555	O4*	G A 698	211.671	95.565	-53.607	1.00	53.60	O
ATOM 14506	C4	A A 695	218.862	102.359	-47.937	1.00	49.60	C	ATOM 14556	C3*	G A 698	212.013	94.561	-55.686	1.00	53.60	C
ATOM 14507	P	A A 696	220.295	102.098	-48.165	1.00	44.78	O	ATOM 14557	O3*	G A 698	211.491	93.603	-56.579	1.00	53.60	O
ATOM 14508	O1P	A A 696	218.101	103.184	-48.928	1.00	44.78	O	ATOM 14558	C2*	G A 698	211.478	95.960	-55.940	1.00	53.60	C
ATOM 14509	O2P	A A 696	218.145	100.949	-47.752	1.00	49.60	O	ATOM 14559	O2*	G A 698	210.113	95.963	-56.297	1.00	53.60	O
ATOM 14510	O5*	A A 696	218.753	99.916	-46.959	1.00	49.60	C	ATOM 14560	C1*	G A 698	211.641	96.607	-54.568	1.00	53.60	C
ATOM 14511	C5*	A A 696	217.766	98.814	-46.697	1.00	49.60	C	ATOM 14561	N9	G A 698	212.881	97.364	-54.444	1.00	39.98	N
ATOM 14512	C4*	A A 696	216.632	99.393	-46.015	1.00	49.60	C	ATOM 14562	C8	G A 698	213.975	97.008	-53.698	1.00	39.98	C
ATOM 14513	O4*	A A 696	217.173	98.149	-47.928	1.00	49.60	O	ATOM 14563	N7	G A 698	214.934	97.885	-53.750	1.00	39.98	N
ATOM 14514	C3*	A A 696	217.973	97.069	-48.371	1.00	49.60	O	ATOM 14564	C5	G A 698	214.450	98.877	-54.583	1.00	39.98	C
ATOM 14515	O3*	A A 696							ATOM 14565	C6	G A 698	215.050	100.084	-54.997	1.00	39.98	C



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ATOM	14566	O6	G A 698	216.169	100.539	-54.692	1.00	39.98	O	ATOM	14616	O1P	C A 701	217.068	95.085	-67.528	1.00	70.58	O
ATOM	14567	N1	G A 698	214.221	100.798	-55.850	1.00	39.98	N	ATOM	14617	O2P	C A 701	217.818	95.159	-65.079	1.00	70.58	O
ATOM	14568	C2	G A 698	212.986	100.401	-56.247	1.00	39.98	C	ATOM	14618	O5*	C A 701	218.927	96.616	-66.784	1.00	53.55	O
ATOM	14569	N2	G A 698	212.367	101.234	-57.078	1.00	39.98	N	ATOM	14619	C5*	C A 701	219.108	97.111	-68.127	1.00	53.55	C
ATOM	14570	N3	G A 698	212.403	99.274	-55.861	1.00	39.98	N	ATOM	14620	C4*	C A 701	220.575	97.177	-68.477	1.00	53.55	C
ATOM	14571	C4	G A 698	213.190	98.568	-55.032	1.00	39.98	C	ATOM	14621	O4*	C A 701	221.119	98.465	-68.161	1.00	53.55	O
ATOM	14572	P	C A 699	212.408	93.088	-57.789	1.00	45.84	P	ATOM	14622	C3*	C A 701	221.488	96.214	-67.735	1.00	53.55	C
ATOM	14573	O1P	C A 699	211.709	91.924	-58.438	1.00	39.36	O	ATOM	14623	O3*	C A 701	221.451	94.862	-68.214	1.00	53.55	O
ATOM	14574	O2P	C A 699	213.787	92.907	-57.243	1.00	39.36	O	ATOM	14624	C2*	C A 701	222.841	96.936	-67.627	1.00	53.55	C
ATOM	14575	O5*	C A 699	212.415	94.334	-58.786	1.00	45.84	O	ATOM	14625	O2*	C A 701	223.904	96.340	-68.339	1.00	53.55	O
ATOM	14576	C5*	C A 699	211.226	94.683	-59.488	1.00	45.84	C	ATOM	14626	C1*	C A 701	222.519	98.337	-68.161	1.00	53.55	C
ATOM	14577	C4*	C A 699	211.364	96.028	-60.141	1.00	45.84	C	ATOM	14627	N1	C A 701	223.107	99.468	-67.423	1.00	70.58	N
ATOM	14578	O4*	C A 699	211.543	97.059	-59.144	1.00	45.84	O	ATOM	14628	C2	C A 701	224.237	100.099	-67.960	1.00	70.58	C
ATOM	14579	C3*	C A 699	212.542	96.240	-61.058	1.00	45.84	C	ATOM	14629	O2	C A 701	224.710	99.680	-69.024	1.00	70.58	O
ATOM	14580	O3*	C A 699	212.375	95.616	-62.301	1.00	45.84	O	ATOM	14630	N3	C A 701	224.785	101.148	-67.304	1.00	70.58	N
ATOM	14581	C2*	C A 699	212.619	97.758	-61.128	1.00	45.84	C	ATOM	14631	C4	C A 701	224.253	101.564	-66.155	1.00	70.58	C
ATOM	14582	O2*	C A 699	211.639	98.351	-61.956	1.00	45.84	O	ATOM	14632	N4	C A 701	224.833	102.590	-65.538	1.00	70.58	N
ATOM	14583	C1*	C A 699	212.308	98.126	-59.686	1.00	45.84	C	ATOM	14633	C5	C A 701	223.104	100.942	-65.584	1.00	70.58	C
ATOM	14584	N1	C A 699	213.573	98.233	-58.944	1.00	39.36	N	ATOM	14634	C6	C A 701	222.568	99.907	-66.245	1.00	70.58	C
ATOM	14585	C2	C A 699	214.372	99.355	-59.165	1.00	39.36	C	ATOM	14635	P	A A 702	222.003	94.500	-69.721	1.00	66.28	P
ATOM	14586	O2	C A 699	213.948	100.250	-59.914	1.00	39.36	O	ATOM	14636	O1P	A A 702	223.000	93.407	-69.556	1.00	86.31	O
ATOM	14587	N3	C A 699	215.582	99.433	-58.561	1.00	39.36	N	ATOM	14637	O2P	A A 702	222.372	95.737	-70.467	1.00	86.31	O
ATOM	14588	C4	C A 699	215.992	98.441	-57.763	1.00	39.36	C	ATOM	14638	O5*	A A 702	220.738	93.859	-70.443	1.00	66.28	C
ATOM	14589	N4	C A 699	217.205	98.533	-57.226	1.00	39.36	N	ATOM	14639	C5*	A A 702	220.449	94.168	-71.813	1.00	66.28	C
ATOM	14590	C5	C A 699	215.176	97.308	-57.488	1.00	39.36	C	ATOM	14640	C4*	A A 702	218.987	93.932	-72.116	1.00	66.28	C
ATOM	14591	C6	C A 699	213.985	97.246	-58.088	1.00	39.36	C	ATOM	14641	O4*	A A 702	218.682	92.514	-72.033	1.00	66.28	O
ATOM	14592	P	G A 700	213.639	94.909	-62.978	1.00	51.40	P	ATOM	14642	C3*	A A 702	217.957	94.649	-71.255	1.00	66.28	C
ATOM	14593	O1P	G A 700	213.172	94.324	-64.265	1.00	49.32	O	ATOM	14643	O3*	A A 702	216.927	95.072	-72.143	1.00	66.28	O
ATOM	14594	O2P	G A 700	214.300	94.026	-61.963	1.00	49.32	O	ATOM	14644	C2*	A A 702	217.457	93.544	-70.322	1.00	66.28	C
ATOM	14595	O5*	G A 700	214.556	96.159	-63.318	1.00	51.40	O	ATOM	14645	O2*	A A 702	216.117	93.714	-69.919	1.00	66.28	O
ATOM	14596	C5*	G A 700	214.052	97.143	-64.205	1.00	51.40	C	ATOM	14646	C1*	A A 702	217.550	92.318	-71.223	1.00	66.28	C
ATOM	14597	C4*	G A 700	215.106	98.147	-64.533	1.00	51.40	C	ATOM	14647	N9	A A 702	217.698	91.036	-70.540	1.00	86.31	N
ATOM	14598	O4*	G A 700	215.310	99.046	-63.421	1.00	51.40	O	ATOM	14648	C8	A A 702	218.593	90.680	-69.565	1.00	86.31	C
ATOM	14599	C3*	G A 700	216.483	97.602	-64.819	1.00	51.40	C	ATOM	14649	N7	A A 702	218.474	89.436	-69.166	1.00	86.31	N
ATOM	14600	O3*	G A 700	216.582	97.066	-66.115	1.00	51.40	O	ATOM	14650	C5	A A 702	217.425	88.942	-69.924	1.00	86.31	C
ATOM	14601	C2*	G A 700	217.353	98.829	-64.605	1.00	51.40	C	ATOM	14651	C6	A A 702	216.806	87.681	-69.975	1.00	86.31	C
ATOM	14602	O2*	G A 700	217.313	99.704	-65.715	1.00	51.40	O	ATOM	14652	N6	A A 702	217.164	86.649	-69.208	1.00	86.31	N
ATOM	14603	C1*	G A 700	216.655	99.479	-63.409	1.00	51.40	C	ATOM	14653	N1	A A 702	215.791	87.513	-70.852	1.00	86.31	N
ATOM	14604	N9	G A 700	217.269	99.014	-62.175	1.00	49.32	N	ATOM	14654	C2	A A 702	215.430	88.550	-71.618	1.00	86.31	C
ATOM	14605	C8	G A 700	216.901	97.936	-61.406	1.00	49.32	C	ATOM	14655	N3	A A 702	215.935	89.783	-71.662	1.00	86.31	N
ATOM	14606	N7	G A 700	217.713	97.725	-60.408	1.00	49.32	N	ATOM	14656	C4	A A 702	216.939	89.916	-70.778	1.00	86.31	C
ATOM	14607	C5	G A 700	218.660	98.736	-60.520	1.00	49.32	C	ATOM	14657	P	G A 703	216.018	96.349	-71.785	1.00	58.56	P
ATOM	14608	C6	G A 700	219.799	99.012	-59.743	1.00	49.32	C	ATOM	14658	O1P	G A 703	214.775	95.800	-71.171	1.00	76.48	O
ATOM	14609	O6	G A 700	220.235	98.391	-58.767	1.00	49.32	O	ATOM	14659	O2P	G A 703	215.919	97.207	-72.996	1.00	76.48	O
ATOM	14610	N1	G A 700	220.471	100.138	-60.202	1.00	49.32	N	ATOM	14660	O5*	G A 703	216.862	97.159	-70.699	1.00	58.56	O
ATOM	14611	C2	G A 700	220.100	100.893	-61.276	1.00	49.32	C	ATOM	14661	C5*	G A 703	216.236	97.708	-69.522	1.00	58.56	C
ATOM	14612	N2	G A 700	220.870	101.962	-61.554	1.00	49.32	N	ATOM	14662	C4*	G A 703	216.527	99.183	-69.418	1.00	58.56	C
ATOM	14613	N3	G A 700	219.052	100.632	-62.022	1.00	49.32	N	ATOM	14663	O4*	G A 703	217.960	99.361	-69.339	1.00	58.56	O
ATOM	14614	C4	G A 700	218.382	99.549	-61.589	1.00	49.32	C	ATOM	14664	C3*	G A 703	216.042	100.034	-70.586	1.00	58.56	C
ATOM	14615	P	C A 701	217.589	95.853	-66.371	1.00	53.55	P	ATOM	14665	O3*	G A 703	215.653	101.324	-70.116	1.00	58.56	O



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ATOM	14666	C2*	G A 703	217.294	100.206	-71.430	1.00	58.56	C	ATOM	14716	O2	U A 705	214.937	108.720	-64.089	1.00	73.57	O
ATOM	14667	O2*	G A 703	217.267	101.426	-72.140	1.00	58.56	O	ATOM	14717	N3	U A 705	215.401	108.178	-66.240	1.00	73.57	N
ATOM	14668	C1*	G A 703	218.394	100.216	-70.370	1.00	58.56	C	ATOM	14718	O4	U A 705	215.278	107.418	-67.377	1.00	73.57	O
ATOM	14669	N9	G A 703	219.683	99.728	-70.847	1.00	76.48	N	ATOM	14719	O4	U A 705	215.871	107.766	-68.392	1.00	73.57	O
ATOM	14670	C8	G A 703	219.942	98.523	-71.454	1.00	76.48	C	ATOM	14720	C5	U A 705	214.370	106.320	-67.270	1.00	73.57	C
ATOM	14671	N7	G A 703	221.199	98.363	-71.763	1.00	76.48	N	ATOM	14721	C6	U A 705	213.701	106.126	-66.133	1.00	73.57	C
ATOM	14672	C5	G A 703	221.807	99.535	-71.339	1.00	76.48	C	ATOM	14722	P	A A 706	208.474	108.408	-64.558	1.00	53.87	P
ATOM	14673	C6	G A 703	223.166	99.943	-71.406	1.00	76.48	C	ATOM	14723	O1P	A A 706	207.416	108.898	-63.637	1.00	57.36	O
ATOM	14674	O6	G A 703	224.139	99.329	-71.871	1.00	76.48	O	ATOM	14724	O2P	A A 706	208.107	107.536	-65.705	1.00	57.36	O
ATOM	14675	N1	G A 703	223.347	101.205	-70.855	1.00	76.48	N	ATOM	14725	O5*	A A 706	209.260	109.683	-65.099	1.00	53.87	O
ATOM	14676	C2	G A 703	222.354	101.978	-70.309	1.00	76.48	C	ATOM	14726	C5*	A A 706	209.500	110.816	-64.259	1.00	53.87	C
ATOM	14677	N2	G A 703	222.735	103.170	-69.820	1.00	76.48	N	ATOM	14727	C4*	A A 706	210.374	111.814	-64.974	1.00	53.87	C
ATOM	14678	N3	G A 703	221.084	101.611	-70.244	1.00	76.48	N	ATOM	14728	O4*	A A 706	211.666	111.212	-65.252	1.00	53.87	O
ATOM	14679	C4	G A 703	220.884	100.388	-70.772	1.00	76.48	C	ATOM	14729	C3*	A A 706	209.888	112.250	-66.342	1.00	53.87	C
ATOM	14680	P	A A 704	214.242	101.959	-70.563	1.00	55.23	P	ATOM	14730	O3*	A A 706	208.888	113.248	-66.299	1.00	53.87	O
ATOM	14681	O1P	A A 704	213.573	100.992	-71.465	1.00	60.38	O	ATOM	14731	C2*	A A 706	211.172	112.706	-67.022	1.00	53.87	C
ATOM	14682	O2P	A A 704	214.445	103.362	-71.009	1.00	60.38	O	ATOM	14732	O2*	A A 706	211.606	113.985	-66.613	1.00	53.87	O
ATOM	14683	O5*	A A 704	213.417	101.992	-69.204	1.00	55.23	O	ATOM	14733	C1*	A A 706	212.163	111.676	-66.502	1.00	57.36	N
ATOM	14684	C5*	A A 704	212.878	100.782	-68.641	1.00	55.23	C	ATOM	14734	N9	A A 706	212.261	110.534	-67.415	1.00	57.36	N
ATOM	14685	C4*	A A 704	212.903	100.847	-67.135	1.00	55.23	C	ATOM	14735	C8	A A 706	211.578	109.349	-67.338	1.00	57.36	C
ATOM	14686	O4*	A A 704	214.280	100.791	-66.674	1.00	55.23	O	ATOM	14736	N7	A A 706	211.865	108.508	-68.296	1.00	57.36	N
ATOM	14687	C3*	A A 704	212.357	102.122	-66.511	1.00	55.23	C	ATOM	14737	C5	A A 706	212.805	109.181	-69.057	1.00	57.36	C
ATOM	14688	O3*	A A 704	210.941	102.152	-66.436	1.00	55.23	O	ATOM	14738	C6	A A 706	213.506	108.819	-70.211	1.00	57.36	C
ATOM	14689	C2*	A A 704	213.044	102.136	-65.151	1.00	55.23	C	ATOM	14739	N6	A A 706	213.375	107.632	-70.813	1.00	57.36	N
ATOM	14690	O2*	A A 704	212.436	101.289	-64.196	1.00	55.23	O	ATOM	14740	N1	A A 706	214.361	109.719	-70.731	1.00	57.36	N
ATOM	14691	C1*	A A 704	214.423	101.578	-65.504	1.00	55.23	C	ATOM	14741	C2	A A 706	214.999	110.900	-70.116	1.00	57.36	C
ATOM	14692	N9	A A 704	215.371	102.658	-65.780	1.00	60.38	N	ATOM	14742	N3	A A 706	213.902	111.354	-69.020	1.00	57.36	N
ATOM	14693	C8	A A 704	215.996	102.992	-66.955	1.00	60.38	C	ATOM	14743	C4	A A 706	213.055	110.433	-68.532	1.00	57.36	C
ATOM	14694	N7	A A 704	216.769	104.048	-66.859	1.00	60.38	N	ATOM	14744	P	C A 707	207.675	113.163	-67.339	1.00	62.63	P
ATOM	14695	C5	A A 704	216.651	104.428	-65.529	1.00	60.38	C	ATOM	14745	O1P	C A 707	206.765	114.311	-67.102	1.00	53.42	O
ATOM	14696	C6	A A 704	217.219	105.476	-64.784	1.00	60.38	C	ATOM	14746	O2P	C A 707	207.151	111.774	-67.313	1.00	53.42	O
ATOM	14697	N6	A A 704	218.063	106.377	-65.283	1.00	60.38	N	ATOM	14747	O5*	C A 707	208.384	113.358	-68.742	1.00	62.63	O
ATOM	14698	N1	A A 704	216.883	105.570	-63.482	1.00	60.38	N	ATOM	14748	C5*	C A 707	208.944	114.621	-69.103	1.00	62.63	C
ATOM	14699	C2	A A 704	216.042	104.672	-62.970	1.00	60.38	C	ATOM	14749	C4*	C A 707	209.255	114.634	-70.572	1.00	62.63	C
ATOM	14700	N3	A A 704	215.449	103.645	-63.560	1.00	60.38	N	ATOM	14750	O4*	C A 707	210.375	113.756	-70.828	1.00	62.63	O
ATOM	14701	C4	A A 704	215.798	103.578	-64.854	1.00	60.38	C	ATOM	14751	C3*	C A 707	208.165	114.098	-71.489	1.00	62.63	C
ATOM	14702	P	U A 705	210.156	103.468	-66.926	1.00	57.92	P	ATOM	14752	O3*	C A 707	207.155	115.042	-71.786	1.00	62.63	O
ATOM	14703	O1P	U A 705	208.708	103.248	-66.675	1.00	73.57	O	ATOM	14753	C2*	C A 707	208.942	113.704	-72.734	1.00	62.63	C
ATOM	14704	O2P	U A 705	210.616	103.831	-68.289	1.00	73.57	O	ATOM	14754	O1*	C A 707	209.165	114.782	-73.617	1.00	62.63	O
ATOM	14705	O5*	U A 705	210.648	104.606	-65.927	1.00	57.92	O	ATOM	14755	C1*	C A 707	210.261	113.222	-72.134	1.00	62.63	C
ATOM	14706	C5*	U A 705	210.298	104.558	-64.536	1.00	57.92	C	ATOM	14756	N1	C A 707	210.274	111.762	-72.066	1.00	53.42	N
ATOM	14707	C4*	U A 705	210.985	105.663	-63.772	1.00	57.92	C	ATOM	14757	C2	C A 707	210.384	111.057	-73.263	1.00	53.42	C
ATOM	14708	O4*	U A 705	212.421	105.496	-63.859	1.00	57.92	O	ATOM	14758	O2	C A 707	210.509	111.693	-74.324	1.00	53.42	O
ATOM	14709	C3*	U A 705	210.727	107.089	-64.232	1.00	57.92	C	ATOM	14759	N3	C A 707	210.340	109.713	-73.245	1.00	53.42	N
ATOM	14710	O3*	U A 705	209.534	107.607	-63.651	1.00	57.92	O	ATOM	14760	C4	C A 707	210.187	109.072	-72.090	1.00	53.42	C
ATOM	14711	C2*	U A 705	211.948	107.832	-63.697	1.00	57.92	C	ATOM	14761	N4	C A 707	210.103	107.745	-72.128	1.00	53.42	N
ATOM	14712	O2*	U A 705	211.808	108.250	-62.345	1.00	57.92	O	ATOM	14762	C5	C A 707	210.104	109.764	-70.848	1.00	53.42	C
ATOM	14713	C1*	U A 705	213.046	106.767	-63.815	1.00	57.92	C	ATOM	14763	C6	C A 707	210.154	111.097	-70.881	1.00	53.42	C
ATOM	14714	N1	U A 705	213.846	106.947	-65.036	1.00	73.57	N	ATOM	14764	P	C A 708	205.734	114.529	-72.326	1.00	56.48	P
ATOM	14715	C2	U A 705	214.741	108.001	-65.053	1.00	73.57	C	ATOM	14765	O1P	C A 708	204.853	115.727	-72.300	1.00	57.22	O



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ATOM	14766	O2P	C A 708	205.323	113.289	-71.610	1.00	57.22	O	ATOM	14816	C2*	G A 710	199.501	104.725	-81.244	1.00	71.81	C
ATOM	14767	O5*	C A 708	206.022	114.126	-73.838	1.00	56.48	O	ATOM	14817	O2*	G A 710	199.493	103.876	-82.375	1.00	71.81	O
ATOM	14768	C5*	C A 708	206.416	115.122	-74.796	1.00	56.48	C	ATOM	14818	C1*	G A 710	200.924	105.226	-80.983	1.00	71.81	C
ATOM	14769	C4*	C A 708	206.632	114.492	-76.145	1.00	56.48	C	ATOM	14819	N9	G A 710	201.168	105.346	-79.546	1.00	71.89	N
ATOM	14770	O4*	C A 708	207.727	113.546	-76.059	1.00	56.48	O	ATOM	14820	C8	G A 710	201.309	106.496	-78.801	1.00	71.89	C
ATOM	14771	C3*	C A 708	205.487	113.651	-76.671	1.00	56.48	C	ATOM	14821	N7	G A 710	201.448	106.264	-77.522	1.00	71.89	N
ATOM	14772	O3*	C A 708	204.452	114.394	-77.277	1.00	56.48	O	ATOM	14822	C5	G A 710	201.412	104.881	-77.421	1.00	71.89	C
ATOM	14773	C2*	C A 708	206.172	112.721	-77.657	1.00	56.48	C	ATOM	14823	C6	G A 710	201.505	104.042	-76.283	1.00	71.89	C
ATOM	14774	O2*	C A 708	206.395	113.304	-78.921	1.00	56.48	O	ATOM	14824	O6	G A 710	201.635	104.362	-75.093	1.00	71.89	O
ATOM	14775	C1*	C A 708	207.505	112.481	-76.963	1.00	56.48	C	ATOM	14825	N1	G A 710	201.425	102.699	-76.636	1.00	71.89	N
ATOM	14776	N1	C A 708	207.495	111.212	-76.229	1.00	57.22	N	ATOM	14826	C2	G A 710	201.272	102.228	-77.919	1.00	71.89	C
ATOM	14777	C2	C A 708	207.541	110.024	-76.968	1.00	57.22	C	ATOM	14827	N2	G A 710	201.215	100.902	-78.063	1.00	71.89	N
ATOM	14778	O2	C A 708	207.593	110.090	-78.213	1.00	57.22	O	ATOM	14828	N3	G A 710	201.181	103.000	-78.982	1.00	71.89	N
ATOM	14779	N3	C A 708	207.525	108.840	-76.320	1.00	57.22	N	ATOM	14829	C4	G A 710	201.257	104.303	-78.663	1.00	71.89	C
ATOM	14780	C4	C A 708	207.467	108.812	-74.992	1.00	57.22	C	ATOM	14830	P	G A 711	196.154	105.647	-81.345	1.00	67.36	P
ATOM	14781	N4	C A 708	207.454	107.622	-74.401	1.00	57.22	N	ATOM	14831	O1P	G A 711	195.071	105.621	-82.365	1.00	56.71	O
ATOM	14782	C5	C A 708	207.422	110.005	-74.213	1.00	57.22	C	ATOM	14832	O2P	G A 711	196.063	106.621	-80.215	1.00	67.36	O
ATOM	14783	C6	C A 708	207.439	111.173	-74.866	1.00	57.22	C	ATOM	14833	O5*	G A 711	196.283	104.176	-80.745	1.00	67.36	O
ATOM	14784	P	G A 709	202.988	113.745	-77.363	1.00	71.17	P	ATOM	14834	C5*	G A 711	196.452	103.073	-81.624	1.00	67.36	C
ATOM	14785	O1P	G A 709	202.085	114.764	-77.963	1.00	59.87	O	ATOM	14835	C4*	G A 711	196.685	101.808	-80.852	1.00	67.36	C
ATOM	14786	O2P	G A 709	202.696	113.204	-76.018	1.00	59.87	O	ATOM	14836	O4*	G A 711	197.922	101.893	-80.103	1.00	67.36	O
ATOM	14787	O5*	G A 709	203.159	112.511	-78.364	1.00	71.17	O	ATOM	14837	C3*	G A 711	195.663	101.440	-79.798	1.00	67.36	C
ATOM	14788	C5*	G A 709	203.441	112.737	-79.762	1.00	71.17	C	ATOM	14838	O3*	G A 711	194.487	100.866	-80.325	1.00	67.36	O
ATOM	14789	C4*	G A 709	203.427	111.437	-80.533	1.00	71.17	C	ATOM	14839	O2*	G A 711	196.437	100.452	-78.940	1.00	67.36	C
ATOM	14790	O4*	G A 709	204.576	110.623	-80.182	1.00	71.17	O	ATOM	14840	C2*	G A 711	196.494	99.162	-79.508	1.00	67.36	O
ATOM	14791	C3*	G A 709	202.245	110.517	-80.299	1.00	71.17	C	ATOM	14841	C1*	G A 711	197.829	101.070	-78.953	1.00	67.36	C
ATOM	14792	O3*	G A 709	201.088	110.894	-81.015	1.00	71.17	O	ATOM	14842	N9	G A 711	198.004	101.890	-77.763	1.00	56.71	N
ATOM	14793	C2*	G A 709	202.779	109.158	-80.742	1.00	71.17	C	ATOM	14843	C8	G A 711	197.993	103.260	-77.667	1.00	56.71	C
ATOM	14794	O2*	G A 709	202.667	108.888	-82.123	1.00	71.17	O	ATOM	14844	N7	G A 711	198.177	103.684	-76.446	1.00	56.71	N
ATOM	14795	C1*	G A 709	204.246	109.249	-80.326	1.00	71.17	C	ATOM	14845	C5	G A 711	198.322	102.524	-75.694	1.00	56.71	C
ATOM	14796	N9	G A 709	204.401	108.578	-79.044	1.00	59.87	N	ATOM	14846	C6	G A 711	198.567	102.346	-74.310	1.00	56.71	C
ATOM	14797	C8	G A 709	204.405	109.139	-77.788	1.00	59.87	C	ATOM	14847	O6	G A 711	198.725	103.204	-73.444	1.00	56.71	O
ATOM	14798	N7	G A 709	204.468	108.252	-76.833	1.00	59.87	N	ATOM	14848	N1	G A 711	198.632	100.999	-73.967	1.00	56.71	N
ATOM	14799	C5	G A 709	204.527	107.038	-77.499	1.00	59.87	C	ATOM	14849	C2	G A 711	198.486	99.957	-74.842	1.00	56.71	C
ATOM	14800	C6	G A 709	204.592	105.712	-76.993	1.00	59.87	C	ATOM	14850	N2	G A 711	198.562	98.728	-74.328	1.00	56.71	N
ATOM	14801	O6	G A 709	204.600	105.336	-75.813	1.00	59.87	O	ATOM	14851	N3	G A 711	198.277	100.108	-76.135	1.00	56.71	N
ATOM	14802	N1	G A 709	204.641	104.773	-78.025	1.00	59.87	N	ATOM	14852	C4	G A 711	198.207	101.411	-76.489	1.00	56.71	C
ATOM	14803	C2	G A 709	204.623	105.073	-79.369	1.00	59.87	C	ATOM	14853	P	A A 712	193.111	101.021	-79.510	1.00	61.85	P
ATOM	14804	N2	G A 709	204.676	104.033	-80.206	1.00	59.87	N	ATOM	14854	O1P	A A 712	192.016	100.576	-80.412	1.00	48.27	O
ATOM	14805	N3	G A 709	204.557	106.306	-79.851	1.00	59.87	N	ATOM	14855	O2P	A A 712	193.073	102.397	-78.931	1.00	48.27	O
ATOM	14806	C4	G A 709	204.510	107.229	-78.867	1.00	59.87	C	ATOM	14856	O5*	A A 712	193.247	99.956	-78.332	1.00	61.85	O
ATOM	14807	P	G A 710	199.651	110.403	-80.494	1.00	71.81	P	ATOM	14857	C5*	A A 712	193.479	98.581	-78.639	1.00	61.85	C
ATOM	14808	O1P	G A 710	198.646	111.090	-81.346	1.00	71.89	O	ATOM	14858	C4*	A A 712	193.818	97.814	-77.392	1.00	61.85	C
ATOM	14809	O2P	G A 710	199.591	110.560	-79.019	1.00	71.89	O	ATOM	14859	O4*	A A 712	195.028	98.349	-76.795	1.00	61.85	O
ATOM	14810	O5*	G A 710	199.631	108.840	-80.805	1.00	71.81	O	ATOM	14860	C3*	A A 712	192.806	97.900	-76.274	1.00	61.85	C
ATOM	14811	C5*	G A 710	199.615	108.373	-82.154	1.00	71.81	C	ATOM	14861	O3*	A A 712	191.707	97.043	-76.474	1.00	61.85	O
ATOM	14812	C4*	G A 710	199.775	106.876	-82.199	1.00	71.81	C	ATOM	14862	C2*	A A 712	193.638	97.554	-75.047	1.00	61.85	C
ATOM	14813	O4*	G A 710	201.039	106.509	-81.585	1.00	71.81	O	ATOM	14863	O2*	A A 712	193.868	96.167	-74.927	1.00	61.85	O
ATOM	14814	C3*	G A 710	198.750	106.036	-81.453	1.00	71.81	C	ATOM	14864	C1*	A A 712	194.956	98.239	-75.381	1.00	61.85	C
ATOM	14815	O3*	G A 710	197.532	105.859	-82.165	1.00	71.81	O	ATOM	14865	N9	A A 712	195.042	99.582	-74.807	1.00	48.27	N



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ATOM	14866	C8	A	A	712	194.825	100.791	-75.422	1.00	48.27	C	ATOM	14916	N1	G	A	714	191.343	103.167	-67.290	1.00	45.95	N
ATOM	14867	N7	A	A	712	195.027	101.824	-74.641	1.00	48.27	N	ATOM	14917	C2	G	A	714	191.543	102.304	-66.249	1.00	45.95	C
ATOM	14868	C5	A	A	712	195.396	101.258	-73.428	1.00	48.27	C	ATOM	14918	N2	G	A	714	192.300	102.763	-65.241	1.00	45.95	N
ATOM	14869	C6	A	A	712	195.778	101.821	-72.193	1.00	48.27	C	ATOM	14919	N3	G	A	714	191.029	101.087	-66.192	1.00	45.95	N
ATOM	14870	N6	A	A	712	195.847	103.135	-71.967	1.00	48.27	N	ATOM	14920	C4	G	A	714	190.256	100.821	-67.265	1.00	45.95	C
ATOM	14871	N1	A	A	712	196.093	100.977	-71.187	1.00	48.27	N	ATOM	14921	P	A	A	715	184.920	97.665	-65.508	1.00	50.78	P
ATOM	14872	C2	A	A	712	196.021	99.662	-71.410	1.00	48.27	C	ATOM	14922	O1P	A	A	715	184.099	96.528	-65.008	1.00	42.74	O
ATOM	14873	N3	A	A	712	195.681	99.010	-72.524	1.00	48.27	N	ATOM	14923	O2P	A	A	715	184.578	98.310	-66.790	1.00	42.74	O
ATOM	14874	C4	A	A	712	195.386	99.878	-73.510	1.00	48.27	C	ATOM	14924	O5*	A	A	715	185.040	98.842	-64.433	1.00	50.78	O
ATOM	14875	P	G	A	713	190.244	97.560	-76.069	1.00	65.58	P	ATOM	14925	C5*	A	A	715	185.560	98.601	-63.110	1.00	50.78	C
ATOM	14876	O1P	G	A	713	189.269	96.634	-76.693	1.00	42.83	O	ATOM	14926	C4*	A	A	715	186.204	99.853	-62.557	1.00	50.78	C
ATOM	14877	O2P	G	A	713	190.163	99.032	-76.339	1.00	42.83	O	ATOM	14927	O4*	A	A	715	187.295	100.261	-63.416	1.00	50.78	O
ATOM	14878	O5*	G	A	713	190.193	97.352	-74.494	1.00	65.58	O	ATOM	14928	C3*	A	A	715	185.323	101.087	-62.477	1.00	50.78	C
ATOM	14879	C5*	G	A	713	190.447	96.064	-73.930	1.00	65.58	C	ATOM	14929	O3*	A	A	715	184.526	101.068	-61.310	1.00	50.78	O
ATOM	14880	C4*	G	A	713	190.838	96.197	-72.485	1.00	65.58	C	ATOM	14930	C2*	A	A	715	186.332	102.230	-62.480	1.00	50.78	C
ATOM	14881	O4*	G	A	713	192.035	97.007	-72.378	1.00	65.58	O	ATOM	14931	O2*	A	A	715	186.905	102.496	-61.222	1.00	50.78	O
ATOM	14882	C3*	G	A	713	189.849	96.907	-71.586	1.00	65.58	C	ATOM	14932	C1*	A	A	715	187.423	101.675	-63.391	1.00	50.78	C
ATOM	14883	O3*	G	A	713	188.787	96.055	-71.182	1.00	65.58	O	ATOM	14933	N9	A	A	715	187.343	102.202	-64.758	1.00	42.74	N
ATOM	14884	C2*	G	A	713	190.733	97.352	-70.431	1.00	65.58	C	ATOM	14934	C8	A	A	715	186.731	101.661	-65.864	1.00	42.74	C
ATOM	14885	O2*	G	A	713	192.021	97.721	-71.159	1.00	65.58	O	ATOM	14935	N7	A	A	715	186.836	102.408	-66.940	1.00	42.74	N
ATOM	14886	C1*	G	A	713	192.121	99.146	-71.450	1.00	65.58	C	ATOM	14936	C5	A	A	715	187.566	103.506	-66.515	1.00	42.74	C
ATOM	14887	N9	G	A	713	191.697	99.795	-72.584	1.00	42.83	N	ATOM	14937	C6	A	A	715	188.009	104.650	-67.180	1.00	42.74	C
ATOM	14888	C8	G	A	713	191.918	101.084	-72.553	1.00	42.83	C	ATOM	14938	N6	A	A	715	187.776	104.886	-68.468	1.00	42.74	N
ATOM	14889	N7	G	A	713	192.519	101.299	-71.323	1.00	42.83	N	ATOM	14939	N1	A	A	715	188.712	105.558	-66.474	1.00	42.74	N
ATOM	14890	C5	G	A	713	192.971	102.492	-70.733	1.00	42.83	C	ATOM	14940	C2	A	A	715	188.950	105.314	-65.182	1.00	42.74	C
ATOM	14891	C6	G	A	713	192.920	103.634	-71.183	1.00	42.83	O	ATOM	14941	N3	A	A	715	188.586	104.269	-64.443	1.00	42.74	N
ATOM	14892	O6	G	A	713	193.533	102.266	-69.483	1.00	42.83	O	ATOM	14942	C4	A	A	715	187.888	103.393	-65.178	1.00	42.74	C
ATOM	14893	N1	G	A	713	193.643	101.043	-68.874	1.00	42.83	N	ATOM	14943	P	A	A	716	183.130	101.859	-61.283	1.00	48.18	P
ATOM	14894	C2	G	A	713	194.245	101.041	-67.669	1.00	42.83	C	ATOM	14944	O1P	A	A	716	182.468	101.437	-60.020	1.00	53.04	O
ATOM	14895	N2	G	A	713	193.205	99.911	-69.409	1.00	42.83	N	ATOM	14945	O2P	A	A	716	182.399	101.720	-62.572	1.00	53.04	O
ATOM	14896	N3	G	A	713	192.659	100.113	-70.630	1.00	42.83	C	ATOM	14946	O5*	A	A	716	183.583	103.379	-61.145	1.00	48.18	O
ATOM	14897	C4	G	A	713	187.338	96.689	-70.889	1.00	55.83	P	ATOM	14947	C5*	A	A	716	184.165	103.844	-59.926	1.00	48.18	C
ATOM	14898	P	G	A	714	186.326	95.630	-71.081	1.00	45.95	O	ATOM	14948	C4*	A	A	716	184.722	105.227	-60.097	1.00	48.18	C
ATOM	14899	O1P	G	A	714	187.209	97.967	-71.625	1.00	45.95	O	ATOM	14949	O4*	A	A	716	185.805	105.196	-61.057	1.00	48.18	O
ATOM	14900	O2P	G	A	714	187.377	97.032	-69.337	1.00	55.83	O	ATOM	14950	C3*	A	A	716	183.795	106.299	-60.627	1.00	48.18	C
ATOM	14901	O5*	G	A	714	187.636	96.009	-68.372	1.00	55.83	C	ATOM	14951	O3*	A	A	716	182.934	106.816	-59.622	1.00	48.18	O
ATOM	14902	C5*	G	A	714	188.211	96.619	-67.128	1.00	55.83	C	ATOM	14952	C2*	A	A	716	184.790	107.334	-61.149	1.00	48.18	C
ATOM	14903	C4*	G	A	714	189.420	97.338	-67.464	1.00	55.83	O	ATOM	14953	O2*	A	A	716	185.367	108.116	-60.123	1.00	48.18	O
ATOM	14904	O4*	G	A	714	187.343	97.668	-66.465	1.00	55.83	C	ATOM	14954	C1*	A	A	716	185.887	106.444	-61.725	1.00	48.18	C
ATOM	14905	C3*	G	A	714	186.399	97.055	-65.612	1.00	55.83	O	ATOM	14955	N9	A	A	716	185.696	106.228	-63.158	1.00	48.18	N
ATOM	14906	O3*	G	A	714	188.356	98.491	-65.689	1.00	55.83	C	ATOM	14956	C8	A	A	716	185.085	105.170	-63.781	1.00	53.04	C
ATOM	14907	C2*	G	A	714	188.743	97.818	-64.515	1.00	55.83	O	ATOM	14957	N7	A	A	716	185.009	105.297	-65.082	1.00	53.04	N
ATOM	14908	O2*	G	A	714	189.544	98.481	-66.640	1.00	55.83	C	ATOM	14958	C5	A	A	716	185.623	106.516	-65.335	1.00	53.04	C
ATOM	14909	C1*	G	A	714	189.568	99.655	-67.497	1.00	45.95	N	ATOM	14959	C6	A	A	716	185.848	107.235	-66.523	1.00	53.04	C
ATOM	14910	N9	G	A	714	188.912	99.821	-68.693	1.00	45.95	C	ATOM	14960	N6	A	A	716	185.447	106.817	-67.723	1.00	53.04	N
ATOM	14911	C8	G	A	714	189.127	100.989	-69.234	1.00	45.95	N	ATOM	14961	N1	A	A	716	186.496	108.416	-66.433	1.00	53.04	N
ATOM	14912	N7	G	A	714	189.978	101.628	-68.343	1.00	45.95	C	ATOM	14962	C2	A	A	716	186.880	108.839	-65.228	1.00	53.04	C
ATOM	14913	C5	G	A	714	190.558	102.904	-68.403	1.00	45.95	C	ATOM	14963	N3	A	A	716	186.719	108.258	-64.039	1.00	53.04	N
ATOM	14914	C6	G	A	714	190.446	103.751	-69.289	1.00	45.95	O	ATOM	14964	C4	A	A	716	186.071	107.088	-64.163	1.00	53.04	C
ATOM	14915	O6	G	A	714							ATOM	14965	P	C	A	717	181.799	107.888	-60.023	1.00	51.01	P



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ATOM	14966	O1P	C A 717	180.858	107.967	-58.882	1.00	51.70	O	ATOM	15016	O3*	C A 719	185.306	124.342	-59.782	1.00	52.55	O
ATOM	14967	O2P	C A 717	181.272	107.599	-61.391	1.00	51.70	O	ATOM	15017	C2*	C A 719	185.193	123.547	-62.086	1.00	52.55	C
ATOM	14968	O5*	C A 717	182.605	109.256	-60.098	1.00	51.01	O	ATOM	15018	O2*	C A 719	185.937	124.714	-62.358	1.00	52.55	O
ATOM	14969	C5*	C A 717	182.047	110.410	-60.732	1.00	51.01	C	ATOM	15019	C1*	C A 719	185.932	122.366	-62.720	1.00	52.55	C
ATOM	14970	C4*	C A 717	183.155	111.270	-61.293	1.00	51.01	C	ATOM	15020	N1	C A 719	185.153	121.454	-63.578	1.00	55.78	N
ATOM	14971	O4*	C A 717	183.898	110.488	-62.258	1.00	51.01	C	ATOM	15021	C2	C A 719	184.892	121.837	-64.910	1.00	55.78	C
ATOM	14972	C3*	C A 717	182.703	112.531	-62.013	1.00	51.01	C	ATOM	15022	O2	C A 719	185.303	122.940	-65.322	1.00	55.78	O
ATOM	14973	O3*	C A 717	183.666	113.540	-61.795	1.00	51.01	O	ATOM	15023	N3	C A 719	184.199	121.003	-65.713	1.00	55.78	N
ATOM	14974	C2*	C A 717	182.691	112.120	-63.476	1.00	51.01	C	ATOM	15024	C4	C A 719	183.768	119.832	-65.244	1.00	55.78	C
ATOM	14975	O2*	C A 717	182.974	113.191	-64.342	1.00	51.01	O	ATOM	15025	N4	C A 719	183.092	119.038	-66.083	1.00	55.78	N
ATOM	14976	C1*	C A 717	183.809	111.082	-63.534	1.00	51.01	C	ATOM	15026	C5	C A 719	184.011	119.420	-63.898	1.00	55.78	C
ATOM	14977	N1	C A 717	183.478	110.018	-64.489	1.00	51.70	N	ATOM	15027	C6	C A 719	184.700	120.255	-63.108	1.00	55.78	C
ATOM	14978	C2	C A 717	183.703	110.236	-65.845	1.00	51.70	C	ATOM	15028	P	C A 720	184.157	124.628	-58.704	1.00	57.73	P
ATOM	14979	O2	C A 717	184.222	111.303	-66.199	1.00	51.70	O	ATOM	15029	O1P	C A 720	184.350	125.994	-58.153	1.00	51.73	O
ATOM	14980	N3	C A 717	183.356	109.271	-66.733	1.00	51.70	N	ATOM	15030	O2P	C A 720	184.123	123.464	-57.786	1.00	51.73	O
ATOM	14981	C4	C A 717	182.827	108.123	-66.297	1.00	51.70	C	ATOM	15031	O5*	C A 720	182.824	124.626	-59.570	1.00	57.73	O
ATOM	14982	N4	C A 717	182.501	107.203	-67.193	1.00	51.70	N	ATOM	15032	C5*	C A 720	182.482	125.741	-60.404	1.00	57.73	C
ATOM	14983	C5	C A 717	182.613	107.870	-64.918	1.00	51.70	C	ATOM	15033	C4*	C A 720	181.331	125.372	-61.307	1.00	57.73	C
ATOM	14984	C6	C A 717	182.944	108.833	-64.057	1.00	51.70	C	ATOM	15034	C3*	C A 720	181.738	124.281	-62.172	1.00	57.73	O
ATOM	14985	P	G A 718	183.263	114.850	-60.969	1.00	54.38	P	ATOM	15035	O4*	C A 720	180.069	124.875	-60.614	1.00	57.73	C
ATOM	14986	O1P	G A 718	182.960	114.421	-59.572	1.00	69.10	O	ATOM	15036	O3*	C A 720	179.214	125.964	-60.305	1.00	57.73	O
ATOM	14987	O2P	G A 718	182.238	115.584	-61.754	1.00	69.10	O	ATOM	15037	C2*	C A 720	179.424	124.017	-61.697	1.00	57.73	C
ATOM	14988	O5*	G A 718	184.599	115.717	-60.937	1.00	54.38	O	ATOM	15038	O2*	C A 720	178.719	124.794	-62.645	1.00	57.73	O
ATOM	14989	C5*	G A 718	185.653	115.431	-60.000	1.00	54.38	C	ATOM	15039	C1*	C A 720	180.642	123.415	-62.394	1.00	57.73	C
ATOM	14990	C4*	G A 718	186.848	116.294	-60.295	1.00	54.38	C	ATOM	15040	N1	C A 720	180.995	122.085	-61.877	1.00	51.73	N
ATOM	14991	O4*	G A 718	187.371	115.946	-61.597	1.00	54.38	O	ATOM	15041	C2	C A 720	180.454	120.947	-62.494	1.00	51.73	C
ATOM	14992	O3*	G A 718	186.549	117.779	-60.380	1.00	54.38	O	ATOM	15042	O2	C A 720	179.669	121.089	-63.441	1.00	51.73	O
ATOM	14993	C2*	G A 718	186.650	118.358	-59.090	1.00	54.38	O	ATOM	15043	N3	C A 720	180.801	119.722	-62.041	1.00	51.73	N
ATOM	14994	C2*	G A 718	187.633	118.302	-61.313	1.00	54.38	O	ATOM	15044	C4	C A 720	181.645	119.607	-61.012	1.00	51.73	C
ATOM	14995	O2*	G A 718	188.835	118.567	-60.628	1.00	54.38	O	ATOM	15045	N4	C A 720	181.974	118.381	-60.610	1.00	51.73	N
ATOM	14996	C1*	G A 718	187.855	117.110	-62.245	1.00	54.38	C	ATOM	15046	C5	C A 720	182.195	120.747	-60.353	1.00	51.73	C
ATOM	14997	N9	G A 718	187.200	117.232	-63.545	1.00	69.10	N	ATOM	15047	C6	C A 720	181.847	121.952	-60.813	1.00	51.73	C
ATOM	14998	C8	G A 718	186.117	116.520	-63.997	1.00	69.10	C	ATOM	15048	P	G A 721	178.801	126.289	-58.780	1.00	56.02	P
ATOM	14999	N7	G A 718	185.741	116.866	-65.195	1.00	69.10	N	ATOM	15049	O1P	G A 721	177.309	126.283	-58.747	1.00	54.96	O
ATOM	15000	C5	G A 718	186.630	117.866	-65.557	1.00	69.10	C	ATOM	15050	O2P	G A 721	179.542	127.507	-58.335	1.00	54.96	O
ATOM	15001	C6	G A 718	186.701	118.629	-66.732	1.00	69.10	C	ATOM	15051	O5*	G A 721	179.295	125.079	-57.873	1.00	56.02	O
ATOM	15002	O6	G A 718	185.966	118.583	-67.720	1.00	69.10	O	ATOM	15052	C5*	G A 721	179.048	125.130	-56.457	1.00	56.02	C
ATOM	15003	N1	G A 718	187.754	119.530	-66.694	1.00	69.10	N	ATOM	15053	C4*	G A 721	179.532	123.882	-55.779	1.00	56.02	C
ATOM	15004	C2	G A 718	188.628	119.676	-65.651	1.00	69.10	C	ATOM	15054	O4*	G A 721	178.833	122.742	-56.324	1.00	56.02	O
ATOM	15005	N2	G A 718	189.591	120.597	-65.809	1.00	69.10	N	ATOM	15055	C3*	G A 721	181.013	123.590	-55.893	1.00	56.02	C
ATOM	15006	N3	G A 718	188.565	118.974	-64.537	1.00	69.10	N	ATOM	15056	O3*	G A 721	181.445	123.045	-54.659	1.00	56.02	O
ATOM	15007	C4	G A 718	187.545	118.094	-64.558	1.00	69.10	C	ATOM	15057	C2*	G A 721	181.080	122.530	-56.989	1.00	56.02	C
ATOM	15008	P	C A 719	185.426	119.215	-58.505	1.00	52.55	P	ATOM	15058	O2*	G A 721	182.177	121.651	-56.815	1.00	56.02	C
ATOM	15009	O1P	C A 719	185.797	119.619	-57.124	1.00	55.78	O	ATOM	15059	C1*	G A 721	179.752	121.793	-56.812	1.00	56.02	O
ATOM	15010	O2P	C A 719	184.156	118.470	-58.741	1.00	55.78	O	ATOM	15060	N9	G A 721	179.203	121.307	-58.067	1.00	54.96	N
ATOM	15011	O5*	C A 719	185.438	120.532	-59.390	1.00	52.55	O	ATOM	15061	C8	G A 721	178.617	122.085	-59.031	1.00	54.96	C
ATOM	15012	C5*	C A 719	186.536	121.441	-59.312	1.00	52.55	C	ATOM	15062	N7	G A 721	178.177	121.397	-60.046	1.00	54.96	N
ATOM	15013	C4*	C A 719	186.500	122.390	-60.471	1.00	52.55	C	ATOM	15063	C5	G A 721	178.494	120.084	-59.736	1.00	54.96	C
ATOM	15014	O4*	C A 719	186.557	121.632	-61.695	1.00	52.55	O	ATOM	15064	C6	G A 721	178.255	118.899	-60.465	1.00	54.96	C
ATOM	15015	C3*	C A 719	185.223	123.188	-60.604	1.00	52.55	C	ATOM	15065	O6	G A 721	177.680	118.770	-61.559	1.00	54.96	O



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ATOM 15066	N1	G A 721	178.754	117.784	-59.806	1.00	54.96	N	ATOM 15116	O5*	G A 724	173.248	124.003	-49.811	1.00	65.23	O
ATOM 15067	C2	G A 721	179.392	117.812	-58.599	1.00	54.96	C	ATOM 15117	C5*	G A 724	172.427	125.068	-50.304	1.00	65.23	C
ATOM 15068	N2	G A 721	179.805	116.628	-58.147	1.00	54.96	N	ATOM 15118	C4*	G A 724	171.893	124.737	-51.675	1.00	65.23	C
ATOM 15069	N3	G A 721	179.612	118.915	-57.894	1.00	54.96	N	ATOM 15119	O4*	G A 724	173.010	124.369	-52.524	1.00	65.23	O
ATOM 15070	C4	G A 721	179.139	120.009	-58.523	1.00	54.96	C	ATOM 15120	C3*	G A 724	170.930	123.567	-51.825	1.00	65.23	C
ATOM 15071	P	A A 722	182.112	124.001	-53.564	1.00	84.25	P	ATOM 15121	O3*	G A 724	169.564	123.851	-51.501	1.00	65.23	O
ATOM 15072	O1P	A A 722	182.866	125.064	-54.269	1.00	43.61	O	ATOM 15122	C2*	G A 724	171.087	123.230	-53.303	1.00	65.23	C
ATOM 15073	O2P	A A 722	182.794	123.126	-52.604	1.00	43.61	O	ATOM 15123	O2*	G A 724	170.383	124.106	-54.159	1.00	65.23	C
ATOM 15074	O5*	A A 722	180.891	124.708	-52.830	1.00	84.25	O	ATOM 15124	C1*	G A 724	172.582	123.443	-53.507	1.00	65.23	C
ATOM 15075	C5*	A A 722	180.023	123.984	-51.942	1.00	84.25	C	ATOM 15125	N9	G A 724	173.264	122.171	-53.300	1.00	51.38	N
ATOM 15076	C4*	A A 722	178.746	124.760	-51.741	1.00	84.25	C	ATOM 15126	C8	G A 724	174.059	121.803	-52.240	1.00	51.38	C
ATOM 15077	O4*	A A 722	178.182	125.070	-53.034	1.00	84.25	O	ATOM 15127	N7	G A 724	174.438	120.555	-52.294	1.00	51.38	N
ATOM 15078	C3*	A A 722	177.653	124.034	-50.979	1.00	84.25	C	ATOM 15128	C5	G A 724	173.877	120.077	-53.472	1.00	51.38	C
ATOM 15079	O3*	A A 722	177.782	124.332	-49.593	1.00	84.25	O	ATOM 15129	C6	G A 724	173.927	118.782	-54.057	1.00	51.38	C
ATOM 15080	C2*	A A 722	176.372	124.660	-51.534	1.00	84.25	C	ATOM 15130	O6	G A 724	174.474	117.767	-53.623	1.00	51.38	O
ATOM 15081	O2*	A A 722	176.008	125.862	-50.881	1.00	84.25	O	ATOM 15131	N1	G A 724	173.235	118.739	-55.265	1.00	51.38	N
ATOM 15082	C1*	A A 722	176.773	125.001	-52.972	1.00	84.25	C	ATOM 15132	C2	G A 724	172.571	119.800	-55.831	1.00	51.38	C
ATOM 15083	N9	A A 722	176.327	124.067	-54.006	1.00	43.61	N	ATOM 15133	N2	G A 724	171.968	119.561	-57.004	1.00	51.38	N
ATOM 15084	C8	A A 722	175.548	124.349	-55.106	1.00	43.61	C	ATOM 15134	N3	G A 724	172.502	121.006	-55.289	1.00	51.38	N
ATOM 15085	N7	A A 722	175.350	123.321	-55.895	1.00	43.61	N	ATOM 15135	C4	G A 724	173.174	121.071	-54.119	1.00	51.38	C
ATOM 15086	C5	A A 722	176.030	122.292	-55.267	1.00	43.61	C	ATOM 15136	P	G A 725	168.564	122.630	-51.135	1.00	46.89	P
ATOM 15087	C6	A A 722	176.203	120.964	-55.607	1.00	43.61	C	ATOM 15137	O1P	G A 725	167.229	123.163	-50.806	1.00	41.17	O
ATOM 15088	N6	A A 722	175.699	120.436	-56.719	1.00	43.61	N	ATOM 15138	O2P	G A 725	169.254	121.751	-50.156	1.00	41.17	O
ATOM 15089	N1	A A 722	176.920	120.186	-54.768	1.00	43.61	N	ATOM 15139	O5*	G A 725	168.401	121.837	-52.503	1.00	46.89	O
ATOM 15090	C2	A A 722	177.435	120.742	-53.663	1.00	43.61	C	ATOM 15140	C5*	G A 725	167.902	122.502	-53.674	1.00	46.89	C
ATOM 15091	N3	A A 722	177.355	121.998	-53.238	1.00	43.61	N	ATOM 15141	C4*	G A 725	167.769	121.522	-54.810	1.00	46.89	C
ATOM 15092	C4	A A 722	176.627	122.731	-54.097	1.00	43.61	C	ATOM 15142	O4*	G A 725	169.073	120.986	-55.147	1.00	46.89	O
ATOM 15093	P	U A 723	178.549	123.319	-48.617	1.00	113.09	P	ATOM 15143	C3*	G A 725	166.943	120.299	-54.483	1.00	46.89	C
ATOM 15094	O1P	U A 723	179.974	123.730	-48.620	1.00	162.75	O	ATOM 15144	O3*	G A 725	165.554	120.529	-54.620	1.00	46.89	O
ATOM 15095	O2P	U A 723	178.183	121.928	-48.993	1.00	162.75	O	ATOM 15145	C2*	G A 725	167.482	119.261	-55.455	1.00	46.89	C
ATOM 15096	O5*	U A 723	177.946	123.658	-47.178	1.00	113.09	O	ATOM 15146	O2*	G A 725	166.964	119.410	-56.761	1.00	46.89	O
ATOM 15097	C5*	U A 723	176.594	123.260	-46.795	1.00	113.09	C	ATOM 15147	C1*	G A 725	168.962	119.615	-55.479	1.00	46.89	C
ATOM 15098	C4*	U A 723	175.777	124.474	-46.388	1.00	113.09	C	ATOM 15148	N9	G A 725	169.717	118.845	-54.496	1.00	41.17	N
ATOM 15099	O4*	U A 723	176.694	125.571	-46.123	1.00	113.09	O	ATOM 15149	C8	G A 725	170.277	119.314	-53.338	1.00	41.17	C
ATOM 15100	C3*	U A 723	174.821	124.992	-47.460	1.00	113.09	C	ATOM 15150	N7	G A 725	170.901	118.392	-52.663	1.00	41.17	N
ATOM 15101	O3*	U A 723	173.518	124.431	-47.311	1.00	113.09	O	ATOM 15151	C5	G A 725	170.738	117.238	-53.416	1.00	41.17	C
ATOM 15102	C2*	U A 723	174.776	126.491	-47.182	1.00	113.09	C	ATOM 15152	C6	G A 725	171.189	115.915	-53.180	1.00	41.17	C
ATOM 15103	O2*	U A 723	173.870	126.836	-46.150	1.00	113.09	O	ATOM 15153	O6	G A 725	171.849	115.484	-52.225	1.00	41.17	O
ATOM 15104	C1*	U A 723	176.209	126.770	-46.713	1.00	113.09	C	ATOM 15154	N1	G A 725	170.799	115.051	-54.191	1.00	41.17	N
ATOM 15105	N1	U A 723	177.150	127.161	-47.786	1.00	162.75	N	ATOM 15155	C2	G A 725	170.069	115.405	-55.285	1.00	41.17	C
ATOM 15106	C2	U A 723	176.744	128.105	-48.733	1.00	162.75	C	ATOM 15156	N2	G A 725	169.781	114.420	-56.127	1.00	41.17	N
ATOM 15107	O2	U A 723	175.656	128.662	-48.706	1.00	162.75	O	ATOM 15157	N3	G A 725	169.645	116.636	-55.529	1.00	41.17	N
ATOM 15108	N3	U A 723	177.669	128.374	-49.849	1.00	162.75	N	ATOM 15158	C4	G A 725	170.012	117.497	-54.552	1.00	41.17	C
ATOM 15109	C4	U A 723	178.928	127.826	-49.849	1.00	162.75	C	ATOM 15159	P	C A 726	164.529	119.545	-53.879	1.00	44.39	P
ATOM 15110	O4	U A 723	179.624	128.142	-50.816	1.00	162.75	O	ATOM 15160	O1P	C A 726	163.146	119.988	-54.203	1.00	48.12	O
ATOM 15111	C5	U A 723	179.284	126.888	-48.831	1.00	162.75	C	ATOM 15161	O2P	C A 726	164.947	119.415	-52.449	1.00	48.12	O
ATOM 15112	C6	U A 723	178.411	126.595	-47.861	1.00	162.75	C	ATOM 15162	O5*	C A 726	164.764	118.150	-54.607	1.00	44.39	O
ATOM 15113	P	G A 724	172.964	123.362	-48.362	1.00	65.23	P	ATOM 15163	C5*	C A 726	164.344	117.960	-55.960	1.00	44.39	C
ATOM 15114	O1P	G A 724	171.488	123.352	-48.272	1.00	51.38	O	ATOM 15164	C4*	C A 726	164.507	116.520	-56.352	1.00	44.39	C
ATOM 15115	O2P	G A 724	173.718	122.079	-48.221	1.00	51.38	O	ATOM 15165	O4*	C A 726	165.915	116.173	-56.334	1.00	44.39	O



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ATOM	15166	C A 726	163.889	115.517	-55.402	1.00	44.39	C	ATOM	15216	N7	A A 728	160.542	105.719	-52.264	1.00	41.92	N
ATOM	15167	C A 726	162.498	115.354	-55.560	1.00	44.39	O	ATOM	15217	C5	A A 728	160.754	104.498	-51.648	1.00	41.92	C
ATOM	15168	C A 726	164.679	114.253	-55.697	1.00	44.39	C	ATOM	15218	C6	A A 728	161.045	103.235	-52.154	1.00	41.92	C
ATOM	15169	C A 726	164.257	113.585	-56.860	1.00	44.39	O	ATOM	15219	N6	A A 728	161.155	102.974	-53.454	1.00	41.92	N
ATOM	15170	C1*	166.074	114.822	-55.924	1.00	44.39	C	ATOM	15220	N1	A A 728	161.213	102.226	-51.275	1.00	41.92	N
ATOM	15171	N1	166.838	114.780	-54.663	1.00	48.12	N	ATOM	15221	C2	A A 728	161.080	102.489	-49.977	1.00	41.92	C
ATOM	15172	C2	167.272	113.534	-54.188	1.00	48.12	C	ATOM	15222	N3	A A 728	160.789	103.634	-49.380	1.00	41.92	N
ATOM	15173	O2	167.058	112.523	-54.873	1.00	48.12	O	ATOM	15223	C4	A A 728	160.637	104.612	-50.281	1.00	41.92	C
ATOM	15174	N3	167.914	113.465	-53.001	1.00	48.12	N	ATOM	15224	P	A A 729	163.278	109.891	-47.860	1.00	37.68	P
ATOM	15175	C4	168.146	114.577	-52.306	1.00	48.12	C	ATOM	15225	O1P	A A 729	163.601	110.970	-46.891	1.00	42.97	O
ATOM	15176	N4	168.770	114.460	-51.140	1.00	48.12	N	ATOM	15226	O2P	A A 729	163.434	110.152	-49.321	1.00	42.97	O
ATOM	15177	C5	167.746	115.857	-52.778	1.00	48.12	C	ATOM	15227	O5*	A A 729	164.085	108.583	-47.443	1.00	37.68	O
ATOM	15178	C6	167.100	115.913	-53.949	1.00	48.12	C	ATOM	15228	C5*	A A 729	164.119	108.220	-46.069	1.00	37.68	C
ATOM	15179	P	161.621	114.948	-54.280	1.00	49.11	P	ATOM	15229	C4*	A A 729	164.589	106.812	-45.885	1.00	37.68	C
ATOM	15180	O1P	160.189	114.955	-54.673	1.00	43.66	O	ATOM	15230	O4*	A A 729	163.704	105.896	-46.566	1.00	37.68	O
ATOM	15181	O2P	162.074	115.766	-53.120	1.00	43.66	O	ATOM	15231	C3*	A A 729	165.959	106.445	-46.406	1.00	37.68	C
ATOM	15182	O5*	162.037	113.441	-54.032	1.00	49.11	O	ATOM	15232	O3*	A A 729	167.020	106.887	-45.572	1.00	37.68	O
ATOM	15183	C5*	161.674	112.457	-54.982	1.00	49.11	C	ATOM	15233	C2*	A A 729	165.860	104.933	-46.459	1.00	37.68	C
ATOM	15184	C4*	162.155	111.111	-54.543	1.00	49.11	C	ATOM	15234	O2*	A A 729	166.003	104.389	-45.163	1.00	37.68	O
ATOM	15185	O4*	163.604	111.137	-54.478	1.00	49.11	O	ATOM	15235	C1*	A A 729	164.422	104.743	-46.936	1.00	37.68	C
ATOM	15186	C3*	161.728	110.635	-53.165	1.00	49.11	C	ATOM	15236	N9	A A 729	164.359	104.607	-48.386	1.00	42.97	N
ATOM	15187	O3*	160.406	110.096	-53.138	1.00	49.11	O	ATOM	15237	C8	A A 729	164.260	105.577	-49.349	1.00	42.97	C
ATOM	15188	C2*	162.794	109.592	-52.868	1.00	49.11	C	ATOM	15238	N7	A A 729	164.283	105.108	-50.573	1.00	42.97	N
ATOM	15189	O2*	162.507	108.396	-53.563	1.00	49.11	O	ATOM	15239	C5	A A 729	164.402	103.738	-50.400	1.00	42.97	C
ATOM	15190	C1*	164.046	110.245	-53.471	1.00	49.11	C	ATOM	15240	C6	A A 729	164.506	102.673	-51.305	1.00	42.97	C
ATOM	15191	N9	164.791	111.006	-52.470	1.00	43.66	N	ATOM	15241	N6	A A 729	164.532	102.817	-52.629	1.00	42.97	N
ATOM	15192	C8	164.740	112.360	-52.251	1.00	43.66	C	ATOM	15242	N1	A A 729	164.596	101.426	-50.798	1.00	42.97	N
ATOM	15193	N7	165.408	112.730	-51.195	1.00	43.66	N	ATOM	15243	C2	A A 729	164.594	101.269	-49.472	1.00	42.97	C
ATOM	15194	C5	165.954	111.554	-50.703	1.00	43.66	C	ATOM	15244	N3	A A 729	164.517	102.189	-48.522	1.00	42.97	N
ATOM	15195	C6	166.742	111.322	-49.554	1.00	43.66	C	ATOM	15245	C4	A A 729	164.426	103.417	-49.059	1.00	42.97	C
ATOM	15196	O6	167.108	112.128	-48.694	1.00	43.66	O	ATOM	15246	P	G A 730	168.414	107.299	-46.254	1.00	41.02	P
ATOM	15197	N1	167.099	109.988	-49.440	1.00	43.66	N	ATOM	15247	O1P	G A 730	169.360	107.762	-45.206	1.00	41.40	O
ATOM	15198	C2	166.737	109.000	-50.307	1.00	43.66	C	ATOM	15248	O2P	G A 730	168.106	108.206	-47.398	1.00	41.40	O
ATOM	15199	N2	167.186	107.774	-50.012	1.00	43.66	N	ATOM	15249	O5*	G A 730	168.939	105.894	-46.808	1.00	41.02	O
ATOM	15200	N3	165.987	109.197	-51.378	1.00	43.66	N	ATOM	15250	C5*	G A 730	169.513	104.917	-45.908	1.00	41.02	C
ATOM	15201	C4	165.627	110.490	-51.507	1.00	43.66	C	ATOM	15251	C4*	G A 730	169.781	103.599	-46.615	1.00	41.02	C
ATOM	15202	P	159.381	110.542	-51.954	1.00	50.99	P	ATOM	15252	O4*	G A 730	168.553	103.159	-47.240	1.00	41.02	O
ATOM	15203	O1P	158.018	109.990	-52.252	1.00	41.92	O	ATOM	15253	C3*	G A 730	170.804	103.558	-47.747	1.00	41.02	O
ATOM	15204	O2P	159.536	111.999	-51.665	1.00	41.92	O	ATOM	15254	O3*	G A 730	172.140	103.409	-47.308	1.00	41.02	O
ATOM	15205	O5*	159.888	109.756	-50.671	1.00	50.99	O	ATOM	15255	C2*	G A 730	170.362	102.330	-48.522	1.00	41.02	C
ATOM	15206	C5*	159.221	109.911	-49.426	1.00	50.99	C	ATOM	15256	O2*	G A 730	170.752	101.115	-47.908	1.00	41.02	O
ATOM	15207	C4*	159.628	108.812	-48.501	1.00	50.99	C	ATOM	15257	C1*	G A 730	168.845	102.458	-48.439	1.00	41.02	C
ATOM	15208	O4*	159.078	107.568	-48.973	1.00	50.99	O	ATOM	15258	N9	G A 730	168.379	103.258	-49.568	1.00	41.40	N
ATOM	15209	C3*	161.117	108.566	-48.455	1.00	50.99	C	ATOM	15259	C8	G A 730	167.810	104.506	-49.536	1.00	41.40	C
ATOM	15210	O3*	161.757	109.463	-47.571	1.00	50.99	O	ATOM	15260	N7	G A 730	167.580	104.991	-50.723	1.00	41.40	N
ATOM	15211	C2*	161.205	107.109	-48.034	1.00	50.99	C	ATOM	15261	C5	G A 730	168.004	103.996	-51.587	1.00	41.40	C
ATOM	15212	O2*	160.997	106.934	-46.654	1.00	50.99	O	ATOM	15262	C6	G A 730	168.020	103.956	-52.987	1.00	41.40	C
ATOM	15213	C1*	160.000	106.519	-48.750	1.00	50.99	C	ATOM	15263	O6	G A 730	167.643	104.811	-53.775	1.00	41.40	O
ATOM	15214	N9	160.311	105.922	-50.042	1.00	41.92	N	ATOM	15264	N1	G A 730	168.545	102.766	-53.463	1.00	41.40	N
ATOM	15215	C8	160.295	106.533	-51.269	1.00	41.92	C	ATOM	15265	C2	G A 730	168.996	101.737	-52.683	1.00	41.40	C



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ATOM	15266	N2	G A 730	169.482	100.668	-53.326	1.00	41.40	N	ATOM	15316	C5*	A A 733	176.525	110.128	-60.391	1.00	76.01	C
ATOM	15267	N3	G A 730	168.977	101.757	-51.369	1.00	41.40	N	ATOM	15317	C4*	A A 733	176.182	111.556	-60.641	1.00	76.01	C
ATOM	15268	C4	G A 730	168.478	102.913	-50.890	1.00	41.40	C	ATOM	15318	O4*	A A 733	175.947	112.189	-59.377	1.00	76.01	O
ATOM	15269	P	G A 731	173.148	104.656	-47.402	1.00	51.17	P	ATOM	15319	C3*	A A 733	177.222	112.437	-61.298	1.00	76.01	C
ATOM	15270	O1P	G A 731	174.394	104.171	-46.748	1.00	46.56	O	ATOM	15320	O3*	A A 733	177.069	112.303	-62.705	1.00	76.01	O
ATOM	15271	O2P	G A 731	172.476	105.878	-46.885	1.00	46.56	O	ATOM	15321	C2*	A A 733	176.767	113.843	-60.876	1.00	76.01	C
ATOM	15272	O5*	G A 731	173.394	104.963	-48.955	1.00	51.17	O	ATOM	15322	O2*	A A 733	175.758	114.430	-61.689	1.00	76.01	O
ATOM	15273	C5*	G A 731	173.122	103.997	-49.969	1.00	51.17	C	ATOM	15323	C1*	A A 733	176.615	114.203	-58.378	1.00	43.12	C
ATOM	15274	C4*	G A 731	172.315	104.613	-51.103	1.00	51.17	C	ATOM	15324	N9	A A 733	177.315	113.698	-57.311	1.00	43.12	N
ATOM	15275	O3*	G A 731	171.175	105.335	-50.560	1.00	51.17	O	ATOM	15325	C8	A A 733	177.556	114.587	-56.376	1.00	43.12	C
ATOM	15276	C3*	G A 731	172.945	105.626	-52.055	1.00	51.17	C	ATOM	15326	N7	A A 733	176.994	115.753	-56.878	1.00	43.12	C
ATOM	15277	O3*	G A 731	173.734	105.017	-53.075	1.00	51.17	O	ATOM	15327	C5	A A 733	176.885	117.046	-56.361	1.00	43.12	C
ATOM	15278	C2*	G A 731	171.709	106.276	-52.676	1.00	51.17	C	ATOM	15328	C6	A A 733	177.360	117.410	-55.169	1.00	43.12	C
ATOM	15279	O2*	G A 731	171.110	105.501	-53.703	1.00	51.17	O	ATOM	15329	N6	A A 733	176.260	117.970	-57.117	1.00	43.12	N
ATOM	15280	C1*	G A 731	170.738	106.307	-51.498	1.00	51.17	C	ATOM	15330	N1	A A 733	175.784	117.607	-58.317	1.00	43.12	C
ATOM	15281	N9	G A 731	170.690	107.624	-50.867	1.00	46.56	N	ATOM	15331	C2	A A 733	175.820	116.423	-58.908	1.00	43.12	C
ATOM	15282	C8	G A 731	171.226	107.991	-49.663	1.00	46.56	C	ATOM	15332	N3	A A 733	176.441	115.532	-58.121	1.00	43.12	N
ATOM	15283	N7	G A 731	171.050	109.255	-49.390	1.00	46.56	N	ATOM	15333	C4	A A 733	178.076	111.391	-63.557	1.00	55.41	P
ATOM	15284	C5	G A 731	170.348	109.749	-50.475	1.00	46.56	C	ATOM	15334	P	G A 734	177.235	110.386	-64.263	1.00	51.99	O
ATOM	15285	C6	G A 731	169.867	111.059	-50.739	1.00	46.56	C	ATOM	15335	O1P	G A 734	179.209	110.934	-62.726	1.00	51.99	O
ATOM	15286	O6	G A 731	169.982	112.082	-50.041	1.00	46.56	O	ATOM	15336	O2P	G A 734	179.126	113.692	-64.272	1.00	55.41	O
ATOM	15287	N1	G A 731	169.191	111.119	-51.953	1.00	46.56	N	ATOM	15337	O5*	G A 734	179.703	114.373	-65.483	1.00	55.41	C
ATOM	15288	C2	G A 731	169.004	110.062	-52.799	1.00	46.56	C	ATOM	15338	C5*	G A 734	180.771	113.545	-65.999	1.00	55.41	O
ATOM	15289	N2	G A 731	168.326	110.319	-53.914	1.00	46.56	N	ATOM	15339	C4*	G A 734	178.715	114.489	-66.630	1.00	55.41	C
ATOM	15290	N3	G A 731	169.451	108.840	-52.566	1.00	46.56	N	ATOM	15340	O4*	G A 734	177.987	115.704	-66.538	1.00	55.41	O
ATOM	15291	C4	G A 731	170.108	108.757	-51.393	1.00	46.56	C	ATOM	15341	C3*	G A 734	179.607	114.459	-67.852	1.00	55.41	O
ATOM	15292	P	C A 732	174.797	105.904	-53.907	1.00	49.74	P	ATOM	15342	O3*	G A 734	180.431	112.112	-67.785	1.00	51.99	N
ATOM	15293	O1P	C A 732	175.574	104.999	-54.768	1.00	39.65	O	ATOM	15343	C2*	G A 734	180.229	111.047	-66.945	1.00	51.99	N
ATOM	15294	O2P	C A 732	175.505	106.818	-52.990	1.00	39.65	O	ATOM	15344	O2*	G A 734	179.835	109.503	-70.084	1.00	51.99	C
ATOM	15295	O5*	C A 732	173.922	106.813	-54.872	1.00	49.74	O	ATOM	15345	C1*	G A 734	179.565	108.295	-70.167	1.00	51.99	O
ATOM	15296	C5*	C A 732	173.131	106.235	-55.912	1.00	49.74	C	ATOM	15346	N9	G A 734	179.976	110.263	-71.238	1.00	51.99	N
ATOM	15297	C4*	C A 732	172.463	107.322	-56.707	1.00	49.74	C	ATOM	15347	C8	G A 734	180.266	111.601	-71.274	1.00	51.99	C
ATOM	15298	O4*	C A 732	171.534	108.053	-55.870	1.00	49.74	O	ATOM	15348	N7	G A 734	180.449	112.156	-72.490	1.00	51.99	N
ATOM	15299	C3*	C A 732	173.406	108.387	-57.234	1.00	49.74	C	ATOM	15349	C5	G A 734	180.361	112.342	-72.201	1.00	51.99	N
ATOM	15300	O3*	C A 732	174.015	107.949	-58.443	1.00	49.74	O	ATOM	15350	C6	G A 734	180.316	111.625	-69.064	1.00	51.99	N
ATOM	15301	C2*	C A 732	172.482	109.582	-57.431	1.00	49.74	C	ATOM	15351	O6	G A 734	176.443	115.739	-66.979	1.00	56.11	P
ATOM	15302	O2*	C A 732	171.762	109.504	-58.639	1.00	49.74	O	ATOM	15352	N1	G A 734	175.957	117.113	-66.657	1.00	51.16	O
ATOM	15303	C1*	C A 732	171.504	109.411	-56.271	1.00	49.74	C	ATOM	15353	C2	G A 734	175.767	114.548	-66.380	1.00	51.16	O
ATOM	15304	N1	C A 732	171.821	110.276	-55.121	1.00	39.65	N	ATOM	15354	N2	G A 734	176.485	115.526	-68.562	1.00	56.11	O
ATOM	15305	C2	C A 732	171.395	111.616	-55.154	1.00	39.65	C	ATOM	15355	N3	G A 734	177.118	116.484	-69.442	1.00	56.11	C
ATOM	15306	O2	C A 732	170.729	112.008	-56.109	1.00	39.65	O	ATOM	15356	C4	G A 734	177.119	115.961	-70.859	1.00	56.11	C
ATOM	15307	N3	C A 732	171.711	112.443	-54.139	1.00	39.65	N	ATOM	15357	P	C A 735	177.971	114.789	-70.951	1.00	56.11	O
ATOM	15308	C4	C A 732	172.394	111.980	-53.102	1.00	39.65	C	ATOM	15358	O1P	C A 735	175.767	114.548	-66.657	1.00	51.16	O
ATOM	15309	N4	C A 732	172.665	112.831	-52.123	1.00	39.65	N	ATOM	15359	O2P	C A 735	176.485	115.526	-68.562	1.00	56.11	O
ATOM	15310	C5	C A 732	172.824	110.617	-53.023	1.00	39.65	C	ATOM	15360	O5*	C A 735	177.118	116.484	-69.442	1.00	56.11	C
ATOM	15311	C6	C A 732	172.520	109.808	-54.047	1.00	39.65	C	ATOM	15361	C5*	C A 735	177.119	115.961	-70.859	1.00	56.11	C
ATOM	15312	P	A A 733	175.548	108.319	-58.758	1.00	76.01	P	ATOM	15362	C4*	C A 735	177.119	115.961	-70.859	1.00	56.11	C
ATOM	15313	O1P	A A 733	176.095	107.117	-59.425	1.00	43.12	O	ATOM	15363	O4*	C A 735	177.971	114.789	-70.951	1.00	56.11	O
ATOM	15314	O2P	A A 733	176.252	108.881	-57.569	1.00	43.12	O	ATOM	15364	C3*	C A 735	175.767	115.465	-71.329	1.00	56.11	C
ATOM	15315	O5*	A A 733	175.390	109.480	-59.823	1.00	76.01	O	ATOM	15365	O3*	C A 735	174.940	116.501	-71.804	1.00	56.11	O



ATOM	15366	C2*	C A 735	176.113	114.438	-72.396	1.00	56.11	C	ATOM	15416	C2	A A 737	168.897	106.043	-73.992	1.00	53.03	C
ATOM	15367	O2*	C A 735	176.354	114.986	-73.667	1.00	56.11	O	ATOM	15417	N3	A A 737	168.743	106.986	-74.924	1.00	53.03	N
ATOM	15368	C1*	C A 735	177.401	113.844	-71.839	1.00	56.11	C	ATOM	15418	C4	A A 737	169.017	108.198	-74.421	1.00	53.03	C
ATOM	15369	N1	C A 735	177.135	112.600	-71.104	1.00	51.16	N	ATOM	15419	P	C A 738	164.274	111.575	-76.361	1.00	56.43	P
ATOM	15370	C2	C A 735	176.915	111.423	-71.830	1.00	51.16	C	ATOM	15420	O1P	C A 738	163.229	112.171	-77.228	1.00	55.81	O
ATOM	15371	O2	C A 735	176.957	111.461	-73.072	1.00	51.16	O	ATOM	15421	O2P	C A 738	164.592	112.215	-75.062	1.00	55.81	O
ATOM	15372	N3	C A 735	176.661	110.277	-71.170	1.00	51.16	N	ATOM	15422	O5*	C A 738	163.912	110.048	-76.079	1.00	56.43	O
ATOM	15373	N4	C A 735	176.375	109.118	-69.242	1.00	51.16	N	ATOM	15423	C5*	C A 738	163.618	109.162	-77.160	1.00	56.43	C
ATOM	15375	C5	C A 735	176.840	111.452	-69.080	1.00	51.16	C	ATOM	15424	C4*	C A 738	163.527	107.747	-76.661	1.00	56.43	C
ATOM	15376	C6	C A 735	177.091	112.583	-69.741	1.00	51.16	C	ATOM	15425	O4*	C A 738	164.817	107.334	-76.146	1.00	56.43	O
ATOM	15377	P	C A 736	173.360	116.270	-71.845	1.00	62.58	P	ATOM	15426	C3*	C A 738	162.577	107.529	-75.501	1.00	56.43	C
ATOM	15378	O1P	C A 736	172.763	117.557	-72.289	1.00	48.99	O	ATOM	15427	O3*	C A 738	161.240	107.366	-75.925	1.00	56.43	O
ATOM	15379	O2P	C A 736	172.940	115.658	-70.559	1.00	48.99	O	ATOM	15428	C2*	C A 738	163.132	106.274	-74.851	1.00	56.43	C
ATOM	15380	O5*	C A 736	173.177	115.164	-72.972	1.00	62.58	O	ATOM	15429	O2*	C A 738	162.736	105.106	-75.529	1.00	56.43	O
ATOM	15381	C5*	C A 736	173.541	115.449	-74.324	1.00	62.58	C	ATOM	15430	C1*	C A 738	164.636	106.473	-75.033	1.00	56.43	C
ATOM	15382	C4*	C A 736	173.106	114.331	-75.228	1.00	62.58	C	ATOM	15431	N1	C A 738	165.270	107.079	-73.839	1.00	55.81	N
ATOM	15383	O4*	C A 736	173.918	113.153	-75.009	1.00	62.58	O	ATOM	15432	C2	C A 738	165.554	106.256	-72.734	1.00	55.81	C
ATOM	15384	C3*	C A 736	171.688	113.851	-75.029	1.00	62.58	C	ATOM	15433	O2	C A 738	165.298	105.043	-72.808	1.00	55.81	O
ATOM	15385	O3*	C A 736	170.768	114.701	-75.685	1.00	62.58	O	ATOM	15434	N3	C A 738	166.101	106.804	-71.622	1.00	55.81	N
ATOM	15386	C2*	C A 736	171.733	112.450	-75.622	1.00	62.58	C	ATOM	15435	C4	C A 738	166.373	108.107	-71.590	1.00	55.81	C
ATOM	15387	O2*	C A 736	171.638	112.472	-77.031	1.00	62.58	O	ATOM	15436	N4	C A 738	166.898	108.605	-70.479	1.00	55.81	N
ATOM	15388	C1*	C A 736	173.139	111.995	-75.232	1.00	62.58	C	ATOM	15437	C5	C A 738	166.114	108.963	-72.702	1.00	55.81	C



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ATOM 15466	C3*	U A 740	157.276	105.842	-66.474	1.00	63.99	C	ATOM 15516	N7	G A 742	157.162	112.704	-60.744	1.00	44.22	N
ATOM 15467	O3*	U A 740	156.004	105.699	-65.869	1.00	63.99	O	ATOM 15517	C5	G A 742	157.950	113.624	-60.071	1.00	44.22	C
ATOM 15468	C2*	U A 740	158.355	105.972	-65.413	1.00	63.99	C	ATOM 15518	C6	G A 742	158.503	114.831	-60.511	1.00	44.22	C
ATOM 15469	O2*	U A 740	158.174	105.018	-64.388	1.00	63.99	O	ATOM 15519	O6	G A 742	158.400	115.350	-61.619	1.00	44.22	O
ATOM 15470	C1*	U A 740	159.613	105.625	-66.205	1.00	63.99	C	ATOM 15520	N1	G A 742	159.239	115.458	-59.508	1.00	44.22	N
ATOM 15471	N1	U A 740	160.225	106.873	-66.692	1.00	46.24	N	ATOM 15521	C2	G A 742	159.408	114.970	-58.235	1.00	44.22	C
ATOM 15472	C2	U A 740	161.020	107.603	-65.791	1.00	46.24	C	ATOM 15522	N2	G A 742	160.141	115.715	-57.388	1.00	44.22	N
ATOM 15473	O2	U A 740	161.319	107.205	-64.672	1.00	46.24	O	ATOM 15523	N3	G A 742	158.890	113.835	-57.817	1.00	44.22	N
ATOM 15474	N3	U A 740	161.460	108.813	-66.257	1.00	46.24	N	ATOM 15524	C4	G A 742	158.178	113.222	-58.779	1.00	44.22	C
ATOM 15475	C4	U A 740	161.225	109.356	-67.494	1.00	46.24	C	ATOM 15525	P	U A 743	153.139	112.587	-55.603	1.00	55.37	P
ATOM 15476	O4	U A 740	161.596	110.508	-67.718	1.00	46.24	O	ATOM 15526	O1P	U A 743	152.408	112.466	-54.311	1.00	58.60	O
ATOM 15477	C5	U A 740	160.457	108.525	-68.382	1.00	46.24	C	ATOM 15527	O2P	U A 743	152.384	112.485	-56.890	1.00	58.60	O
ATOM 15478	C6	U A 740	159.998	107.344	-67.962	1.00	46.24	C	ATOM 15528	O5*	U A 743	153.967	113.946	-55.599	1.00	55.37	O
ATOM 15479	P	G A 741	155.292	106.993	-65.219	1.00	50.71	P	ATOM 15529	C5*	U A 743	154.844	114.252	-54.514	1.00	55.37	C
ATOM 15480	O1P	G A 741	153.840	106.718	-65.162	1.00	53.50	O	ATOM 15530	C4*	U A 743	155.612	115.512	-54.804	1.00	55.37	C
ATOM 15481	O2P	G A 741	155.772	108.229	-65.886	1.00	53.50	O	ATOM 15531	O4*	U A 743	156.433	115.326	-55.977	1.00	55.37	O
ATOM 15482	O5*	G A 741	155.843	107.018	-63.728	1.00	50.71	O	ATOM 15532	C3*	U A 743	154.772	116.737	-55.110	1.00	55.37	C
ATOM 15483	C5*	G A 741	155.651	105.890	-62.863	1.00	50.71	C	ATOM 15533	O3*	U A 743	154.397	117.382	-53.908	1.00	55.37	O
ATOM 15484	C4*	G A 741	156.201	106.177	-61.489	1.00	50.71	C	ATOM 15534	C2*	U A 743	155.720	117.595	-55.931	1.00	55.37	C
ATOM 15485	O4*	G A 741	157.651	106.272	-61.532	1.00	50.71	O	ATOM 15535	O2*	U A 743	156.607	118.331	-55.121	1.00	55.37	O
ATOM 15486	C3*	G A 741	155.777	107.486	-60.846	1.00	50.71	C	ATOM 15536	C1*	U A 743	156.506	116.537	-56.700	1.00	55.37	C
ATOM 15487	O3*	G A 741	154.478	107.458	-60.291	1.00	50.71	O	ATOM 15537	N1	U A 743	155.943	116.309	-58.033	1.00	58.60	N
ATOM 15488	C2*	G A 741	156.855	107.671	-59.792	1.00	50.71	C	ATOM 15538	C2	U A 743	156.287	117.194	-59.024	1.00	58.60	C
ATOM 15489	O2*	G A 741	156.651	106.833	-58.667	1.00	50.71	O	ATOM 15539	O2	U A 743	157.029	118.144	-58.834	1.00	58.60	O
ATOM 15490	C1*	G A 741	158.094	107.197	-60.549	1.00	50.71	C	ATOM 15540	N3	U A 743	155.728	116.931	-60.246	1.00	58.60	N
ATOM 15491	N8	G A 741	158.715	108.338	-61.215	1.00	53.50	N	ATOM 15541	C4	U A 743	154.875	115.895	-60.564	1.00	58.60	C
ATOM 15492	C9	G A 741	158.686	108.633	-62.554	1.00	53.50	C	ATOM 15542	O4	U A 743	154.481	115.772	-61.721	1.00	58.60	O
ATOM 15493	N7	G A 741	159.262	109.771	-62.841	1.00	53.50	N	ATOM 15543	C5	U A 743	154.563	115.024	-59.479	1.00	58.60	C
ATOM 15494	C5	G A 741	159.710	110.249	-61.620	1.00	53.50	C	ATOM 15544	C6	U A 743	155.096	115.252	-58.282	1.00	58.60	C
ATOM 15495	O6	G A 741	160.390	111.446	-61.307	1.00	53.50	O	ATOM 15545	P	C A 744	153.091	118.308	-53.870	1.00	54.87	P
ATOM 15496	C6	G A 741	160.721	112.355	-62.065	1.00	53.50	C	ATOM 15546	O1P	C A 744	152.759	118.449	-52.435	1.00	46.35	O
ATOM 15497	N1	G A 741	160.683	111.532	-59.952	1.00	53.50	N	ATOM 15547	O2P	C A 744	152.070	117.753	-54.807	1.00	46.35	O
ATOM 15498	C2	G A 741	160.355	110.583	-59.018	1.00	53.50	C	ATOM 15548	O5*	C A 744	153.617	119.717	-54.398	1.00	54.87	O
ATOM 15499	N2	G A 741	160.738	110.841	-57.765	1.00	53.50	N	ATOM 15549	C5*	C A 744	154.623	120.446	-53.673	1.00	54.87	C
ATOM 15500	N3	G A 741	159.701	109.463	-59.296	1.00	53.50	N	ATOM 15550	C4*	C A 744	155.048	121.671	-54.450	1.00	54.87	C
ATOM 15501	C4	G A 741	159.410	109.365	-60.608	1.00	53.50	C	ATOM 15551	O4*	C A 744	155.737	121.273	-55.665	1.00	54.87	O
ATOM 15502	P	G A 742	153.641	108.826	-60.185	1.00	58.67	P	ATOM 15552	C3*	C A 744	153.917	122.553	-54.941	1.00	54.87	C
ATOM 15503	O1P	G A 742	152.283	108.437	-59.741	1.00	44.22	O	ATOM 15553	O3*	C A 744	153.462	123.458	-53.953	1.00	54.87	O
ATOM 15504	O2P	G A 742	153.806	109.638	-61.401	1.00	44.22	O	ATOM 15554	C2*	C A 744	154.534	123.264	-56.135	1.00	54.87	C
ATOM 15505	O5*	G A 742	154.380	109.648	-59.042	1.00	58.67	O	ATOM 15555	O2*	C A 744	155.349	124.356	-55.762	1.00	54.87	O
ATOM 15506	C5*	G A 742	154.581	109.080	-57.751	1.00	58.67	C	ATOM 15556	C1*	C A 744	155.416	122.169	-56.716	1.00	54.87	C
ATOM 15507	C4*	G A 742	155.553	109.910	-56.961	1.00	58.67	C	ATOM 15557	N1	C A 744	154.728	121.423	-57.783	1.00	46.35	N
ATOM 15508	O4*	G A 742	156.791	110.029	-57.702	1.00	58.67	O	ATOM 15558	C2	C A 744	154.687	121.972	-59.065	1.00	46.35	C
ATOM 15509	C3*	G A 742	155.158	111.348	-56.689	1.00	58.67	C	ATOM 15559	O2	C A 744	155.214	123.085	-59.262	1.00	46.35	O
ATOM 15510	O3*	G A 742	154.277	111.455	-55.590	1.00	58.67	O	ATOM 15560	N3	C A 744	154.075	121.285	-60.054	1.00	46.35	N
ATOM 15511	C2*	G A 742	156.504	112.011	-56.421	1.00	58.67	C	ATOM 15561	C4	C A 744	153.520	120.102	-59.796	1.00	46.35	C
ATOM 15512	O2*	G A 742	157.013	111.827	-55.109	1.00	58.67	O	ATOM 15562	N4	C A 744	152.948	119.448	-60.798	1.00	46.35	N
ATOM 15513	C1*	G A 742	157.401	111.273	-57.410	1.00	58.67	C	ATOM 15563	C5	C A 744	153.533	119.531	-58.499	1.00	46.35	C
ATOM 15514	N9	G A 742	157.501	112.046	-58.638	1.00	44.22	N	ATOM 15564	C6	C A 744	154.142	120.217	-57.533	1.00	46.35	C
ATOM 15515	C8	G A 742	156.924	111.779	-59.856	1.00	44.22	C	ATOM 15565	P	C A 745	151.944	123.980	-54.014	1.00	57.08	P



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ATOM	15566	O1P	C A 745	151.701	124.682	-52.729	1.00	43.75	O	ATOM	15616	C2*	C A 747	141.586	129.038	-62.602	1.00	71.33	C
ATOM	15567	O2P	C A 745	151.063	122.841	-54.418	1.00	43.75	O	ATOM	15617	O2*	C A 747	140.979	129.370	-63.836	1.00	71.33	O
ATOM	15568	O5*	C A 745	151.948	125.041	-55.203	1.00	57.08	O	ATOM	15618	C1*	C A 747	142.994	128.506	-62.871	1.00	71.33	C
ATOM	15569	C5*	C A 745	152.722	126.248	-55.102	1.00	57.08	C	ATOM	15619	N1	C A 747	143.374	127.373	-62.003	1.00	66.85	N
ATOM	15570	C4*	C A 745	152.709	126.992	-56.413	1.00	57.08	C	ATOM	15620	C2	C A 747	143.051	126.069	-62.413	1.00	66.85	C
ATOM	15571	O4*	C A 745	153.246	126.138	-57.446	1.00	57.08	O	ATOM	15621	O2	C A 747	142.498	125.896	-63.512	1.00	66.85	O
ATOM	15572	C3*	C A 745	151.342	127.374	-56.948	1.00	57.08	C	ATOM	15622	N3	C A 747	143.356	125.031	-61.606	1.00	66.85	N
ATOM	15573	O3*	C A 745	150.872	128.570	-56.399	1.00	57.08	O	ATOM	15623	C4	C A 747	143.968	125.248	-60.443	1.00	66.85	C
ATOM	15574	O2*	C A 745	151.579	127.513	-58.438	1.00	57.08	C	ATOM	15624	N4	C A 747	144.223	124.197	-59.676	1.00	66.85	N
ATOM	15575	C2*	C A 745	152.174	128.743	-58.784	1.00	57.08	O	ATOM	15625	C5	C A 747	144.335	126.554	-60.015	1.00	66.85	C
ATOM	15576	C1*	C A 745	152.591	126.406	-58.671	1.00	57.08	C	ATOM	15626	C6	C A 747	144.019	127.579	-60.815	1.00	66.85	C
ATOM	15577	N1	C A 745	151.959	125.176	-59.150	1.00	43.75	N	ATOM	15627	P	C A 748	140.182	131.945	-60.790	1.00	99.58	O
ATOM	15578	C2	C A 745	151.572	125.120	-60.485	1.00	43.75	C	ATOM	15628	O1P	C A 748	140.475	133.394	-60.790	1.00	99.58	O
ATOM	15579	O2	C A 745	151.692	126.142	-61.181	1.00	43.75	O	ATOM	15629	O2P	C A 748	140.580	131.246	-59.400	1.00	99.58	O
ATOM	15580	N3	C A 745	151.072	123.969	-60.984	1.00	43.75	N	ATOM	15630	O5*	C A 748	138.622	131.748	-60.890	1.00	104.10	O
ATOM	15581	C4	C A 745	150.930	122.912	-60.189	1.00	43.75	C	ATOM	15631	C5*	C A 748	137.837	130.867	-60.067	1.00	104.10	C
ATOM	15582	N4	C A 745	150.457	121.791	-60.725	1.00	43.75	N	ATOM	15632	C4*	C A 748	138.019	129.437	-60.516	1.00	104.10	C
ATOM	15583	C5	C A 745	151.273	122.956	-58.804	1.00	43.75	C	ATOM	15633	O4*	C A 748	139.411	129.089	-60.366	1.00	104.10	O
ATOM	15584	C6	C A 745	151.777	124.099	-58.330	1.00	43.75	C	ATOM	15634	C3*	C A 748	137.244	128.400	-59.714	1.00	104.10	C
ATOM	15585	P	A A 746	149.302	128.754	-56.197	1.00	65.18	P	ATOM	15635	O3*	C A 748	135.954	128.258	-60.340	1.00	104.10	O
ATOM	15586	O1P	A A 746	149.146	129.880	-55.238	1.00	56.52	O	ATOM	15636	C2*	C A 748	138.119	127.154	-59.819	1.00	104.10	C
ATOM	15587	O2P	A A 746	148.743	127.419	-55.871	1.00	56.52	O	ATOM	15637	O2*	C A 748	137.867	126.471	-61.023	1.00	104.10	C
ATOM	15588	O5*	A A 746	148.774	129.162	-57.643	1.00	65.18	O	ATOM	15638	C1*	C A 748	139.522	127.748	-59.945	1.00	104.10	C
ATOM	15589	C5*	A A 746	149.260	130.343	-58.290	1.00	65.18	C	ATOM	15639	N1	C A 748	140.460	127.684	-58.804	1.00	99.58	N
ATOM	15590	C4*	A A 746	148.804	130.367	-59.720	1.00	65.18	C	ATOM	15640	C2	C A 748	141.211	126.515	-58.605	1.00	99.58	C
ATOM	15591	O4*	A A 746	149.342	129.219	-60.413	1.00	65.18	O	ATOM	15641	O2	C A 748	140.956	125.508	-59.281	1.00	99.58	O
ATOM	15592	C3*	A A 746	147.307	130.256	-59.908	1.00	65.18	C	ATOM	15642	N3	C A 748	142.190	126.511	-57.676	1.00	99.58	N
ATOM	15593	O3*	A A 746	146.710	131.537	-59.810	1.00	65.18	O	ATOM	15643	C4	C A 748	142.414	127.599	-56.941	1.00	99.58	C
ATOM	15594	C2*	A A 746	147.186	129.666	-61.306	1.00	65.18	C	ATOM	15644	N4	C A 748	143.433	127.573	-56.083	1.00	99.58	N
ATOM	15595	O2*	A A 746	147.300	130.644	-62.319	1.00	65.18	O	ATOM	15645	C5	C A 748	141.613	128.769	-57.062	1.00	99.58	C
ATOM	15596	C1*	A A 746	148.408	128.754	-61.365	1.00	65.18	C	ATOM	15646	C6	C A 748	140.651	128.765	-57.991	1.00	99.58	C
ATOM	15597	N9	A A 746	148.126	127.343	-61.093	1.00	56.52	N	ATOM	15647	P	C A 749	135.055	126.940	-60.092	1.00	64.69	P
ATOM	15598	C8	A A 746	148.425	126.615	-59.965	1.00	56.52	C	ATOM	15648	O1P	C A 749	133.640	127.355	-60.260	1.00	74.78	O
ATOM	15599	N7	A A 746	148.077	125.351	-60.044	1.00	56.52	N	ATOM	15649	O2P	C A 749	135.473	126.265	-58.829	1.00	74.78	O
ATOM	15600	C5	A A 746	147.503	125.245	-61.302	1.00	56.52	C	ATOM	15650	O5*	C A 749	135.417	125.994	-61.323	1.00	64.69	O
ATOM	15601	C6	A A 746	146.945	124.164	-61.990	1.00	56.52	C	ATOM	15651	C5*	C A 749	134.968	126.308	-62.651	1.00	64.69	C
ATOM	15602	N6	A A 746	146.882	122.933	-61.490	1.00	56.52	N	ATOM	15652	C4*	C A 749	135.141	125.115	-63.553	1.00	64.69	C
ATOM	15603	N1	A A 746	146.451	124.390	-63.228	1.00	56.52	N	ATOM	15653	O4*	C A 749	136.527	124.993	-63.947	1.00	64.69	O
ATOM	15604	C2	A A 746	146.525	125.624	-63.728	1.00	56.52	C	ATOM	15654	C3*	C A 749	134.810	123.779	-62.918	1.00	64.69	C
ATOM	15605	N3	A A 746	147.035	126.722	-63.182	1.00	56.52	N	ATOM	15655	O3*	C A 749	133.431	123.479	-62.922	1.00	64.69	O
ATOM	15606	C4	A A 746	147.514	126.463	-61.954	1.00	56.52	C	ATOM	15656	C2*	C A 749	135.626	122.794	-63.739	1.00	64.69	C
ATOM	15607	P	C A 747	145.280	131.692	-59.103	1.00	71.33	P	ATOM	15657	O1*	C A 749	134.987	122.343	-64.916	1.00	64.69	O
ATOM	15608	O1P	C A 747	145.050	133.155	-59.044	1.00	66.85	O	ATOM	15658	C1*	C A 749	136.880	123.618	-64.056	1.00	64.69	C
ATOM	15609	O2P	C A 747	145.253	130.896	-57.848	1.00	66.85	O	ATOM	15659	N1	C A 749	137.984	123.326	-63.109	1.00	74.78	N
ATOM	15610	O5*	C A 747	144.268	131.036	-60.149	1.00	71.33	O	ATOM	15660	C2	C A 749	138.437	122.007	-62.986	1.00	74.78	C
ATOM	15611	C5*	C A 747	144.046	131.648	-61.430	1.00	71.33	C	ATOM	15661	O2	C A 749	137.968	121.132	-63.736	1.00	74.78	O
ATOM	15612	C4*	C A 747	143.185	130.767	-62.307	1.00	71.33	C	ATOM	15662	N3	C A 749	139.374	121.718	-62.061	1.00	74.78	N
ATOM	15613	O4*	C A 747	143.907	129.569	-62.670	1.00	71.33	O	ATOM	15663	C4	C A 749	139.874	122.683	-61.295	1.00	74.78	C
ATOM	15614	C3*	C A 747	141.868	130.265	-61.740	1.00	71.33	C	ATOM	15664	N4	C A 749	140.774	122.340	-60.374	1.00	74.78	N
ATOM	15615	O3*	C A 747	140.837	131.223	-61.918	1.00	71.33	O	ATOM	15665	C5	C A 749	139.471	124.037	-61.433	1.00	74.78	C



Table 2: Sheet 158/520

ATOM	15666	C6	C A 749	138.537	124.312	-62.343	1.00	74.78	C	ATOM	15716	O4*	G A 752	131.851	113.562	-54.427	1.00	53.49	O
ATOM	15667	P	G A 750	132.805	122.662	-61.691	1.00	60.39	P	ATOM	15717	C3*	G A 752	130.185	112.658	-52.986	1.00	53.49	C
ATOM	15668	O1P	G A 750	131.317	122.728	-61.786	1.00	60.51	O	ATOM	15718	O3*	G A 752	130.923	112.328	-51.814	1.00	53.49	O
ATOM	15669	O2P	G A 750	133.488	123.157	-60.453	1.00	60.51	O	ATOM	15719	C2*	G A 752	130.056	114.172	-53.057	1.00	53.49	C
ATOM	15670	O5*	G A 750	133.242	121.160	-61.986	1.00	60.39	O	ATOM	15720	O2*	G A 752	129.798	114.782	-51.818	1.00	53.49	O
ATOM	15671	C5*	G A 750	132.801	120.493	-63.165	1.00	60.39	C	ATOM	15721	C1*	G A 752	131.450	114.562	-53.527	1.00	53.49	C
ATOM	15672	C4*	G A 750	133.302	119.077	-63.168	1.00	60.39	C	ATOM	15722	N9	G A 752	131.522	115.856	-54.189	1.00	63.95	N
ATOM	15673	O4*	G A 750	134.750	119.113	-63.105	1.00	60.39	O	ATOM	15723	C8	G A 752	130.813	116.265	-55.284	1.00	63.95	C
ATOM	15674	C3*	G A 750	132.893	118.236	-61.966	1.00	60.39	C	ATOM	15724	N7	G A 752	131.051	117.504	-55.610	1.00	63.95	N
ATOM	15675	O3*	G A 750	131.610	117.636	-62.107	1.00	60.39	O	ATOM	15725	C5	G A 752	131.983	117.931	-54.678	1.00	63.95	C
ATOM	15676	C2*	G A 750	134.018	117.213	-61.883	1.00	60.39	C	ATOM	15726	C6	G A 752	132.594	119.195	-54.511	1.00	63.95	C
ATOM	15677	O2*	G A 750	133.879	116.157	-62.817	1.00	60.39	O	ATOM	15727	O6	G A 752	132.411	120.230	-55.164	1.00	63.95	O
ATOM	15678	C1*	G A 750	135.223	118.065	-62.273	1.00	60.39	C	ATOM	15728	N1	G A 752	133.493	119.194	-53.452	1.00	63.95	N
ATOM	15679	N9	G A 750	135.898	118.663	-61.121	1.00	60.51	N	ATOM	15729	C2	G A 752	133.764	118.120	-52.657	1.00	63.95	C
ATOM	15680	C8	G A 750	136.035	120.003	-60.847	1.00	60.51	C	ATOM	15730	N2	G A 752	134.683	118.321	-51.707	1.00	63.95	N
ATOM	15681	N7	G A 750	136.717	120.238	-59.759	1.00	60.51	N	ATOM	15731	N3	G A 752	133.182	116.938	-52.786	1.00	63.95	N
ATOM	15682	C5	G A 750	137.045	118.977	-59.279	1.00	60.51	C	ATOM	15732	C4	G A 752	132.305	116.919	-53.811	1.00	63.95	C
ATOM	15683	C6	G A 750	137.785	118.593	-58.126	1.00	60.51	C	ATOM	15733	P	A A 753	130.209	111.643	-50.542	1.00	45.95	P
ATOM	15684	O6	G A 750	138.328	119.316	-57.280	1.00	60.51	O	ATOM	15734	O1P	A A 753	129.821	110.249	-50.902	1.00	48.38	O
ATOM	15685	N1	G A 750	137.867	117.213	-58.009	1.00	60.51	N	ATOM	15735	O2P	A A 753	129.196	112.560	-49.963	1.00	48.38	O
ATOM	15686	C2	G A 750	137.319	116.317	-58.891	1.00	60.51	C	ATOM	15736	O5*	A A 753	131.416	111.526	-49.513	1.00	45.95	O
ATOM	15687	N2	G A 750	137.505	115.024	-58.613	1.00	60.51	N	ATOM	15737	C5*	A A 753	132.531	110.660	-49.812	1.00	45.95	C
ATOM	15688	N3	G A 750	136.639	116.659	-59.971	1.00	60.51	N	ATOM	15738	C4*	A A 753	133.487	110.626	-48.655	1.00	45.95	C
ATOM	15689	C4	G A 750	136.539	117.995	-60.101	1.00	60.51	C	ATOM	15739	O4*	A A 753	134.161	111.902	-48.565	1.00	45.95	O
ATOM	15690	P	U A 751	130.716	117.372	-60.796	1.00	67.88	P	ATOM	15740	C3*	A A 753	132.853	110.366	-47.293	1.00	45.95	C
ATOM	15691	O1P	U A 751	129.385	116.871	-61.219	1.00	49.21	O	ATOM	15741	O3*	A A 753	133.723	109.532	-46.536	1.00	45.95	O
ATOM	15692	O2P	U A 751	130.812	118.580	-59.934	1.00	49.21	O	ATOM	15742	C2*	A A 753	132.783	111.766	-46.680	1.00	45.95	C
ATOM	15693	O5*	U A 751	131.439	116.160	-60.062	1.00	67.88	O	ATOM	15743	O2*	A A 753	132.855	111.803	-45.269	1.00	45.95	O
ATOM	15694	C5*	U A 751	131.472	114.858	-60.666	1.00	67.88	C	ATOM	15744	C1*	A A 753	134.037	112.400	-47.257	1.00	45.95	C
ATOM	15695	C4*	U A 751	132.151	113.868	-59.750	1.00	67.88	C	ATOM	15745	N9	A A 753	134.073	113.856	-47.301	1.00	48.38	N
ATOM	15696	O4*	U A 751	133.527	114.263	-59.519	1.00	67.88	O	ATOM	15746	C8	A A 753	133.459	114.709	-48.170	1.00	48.38	C
ATOM	15697	C3*	U A 751	131.558	113.722	-58.360	1.00	67.88	C	ATOM	15747	N7	A A 753	133.767	115.970	-47.974	1.00	48.38	N
ATOM	15698	O3*	U A 751	130.483	112.801	-58.383	1.00	67.88	O	ATOM	15748	C5	A A 753	134.631	115.938	-46.894	1.00	48.38	C
ATOM	15699	C2*	U A 751	132.729	113.174	-57.538	1.00	67.88	C	ATOM	15749	C6	A A 753	135.324	116.945	-46.211	1.00	48.38	C
ATOM	15700	O2*	U A 751	132.882	111.776	-57.741	1.00	67.88	O	ATOM	15750	N6	A A 753	135.270	118.233	-46.538	1.00	48.38	N
ATOM	15701	C1*	U A 751	133.912	113.893	-58.210	1.00	67.88	C	ATOM	15751	N1	A A 753	136.093	116.582	-45.172	1.00	48.38	N
ATOM	15702	N1	U A 751	134.351	115.101	-57.491	1.00	49.21	N	ATOM	15752	C2	A A 753	136.163	115.291	-44.856	1.00	48.38	C
ATOM	15703	C2	U A 751	135.125	114.933	-56.353	1.00	49.21	C	ATOM	15753	N3	A A 753	135.570	114.248	-45.427	1.00	48.38	N
ATOM	15704	O2	U A 751	135.427	113.839	-55.906	1.00	49.21	O	ATOM	15754	C4	A A 753	134.809	114.647	-46.455	1.00	48.38	C
ATOM	15705	N3	U A 751	135.527	116.091	-55.747	1.00	49.21	N	ATOM	15755	P	C A 754	133.668	107.931	-46.722	1.00	51.40	P
ATOM	15706	C4	U A 751	135.237	117.365	-56.136	1.00	49.21	C	ATOM	15756	O1P	C A 754	132.240	107.497	-46.738	1.00	48.25	O
ATOM	15707	O4	U A 751	135.712	118.302	-55.509	1.00	49.21	O	ATOM	15757	O2P	C A 754	134.611	107.350	-45.725	1.00	48.25	O
ATOM	15708	C5	U A 751	134.421	117.462	-57.302	1.00	49.21	C	ATOM	15758	O5*	C A 754	134.286	107.673	-48.170	1.00	51.40	O
ATOM	15709	C6	U A 751	134.018	116.353	-57.926	1.00	49.21	C	ATOM	15759	C5*	C A 754	135.674	107.920	-48.404	1.00	51.40	C
ATOM	15710	P	G A 752	129.182	113.079	-57.491	1.00	53.49	P	ATOM	15760	C4*	C A 754	136.024	107.654	-49.833	1.00	51.40	C
ATOM	15711	O1P	G A 752	128.285	111.902	-57.672	1.00	63.95	O	ATOM	15761	O4*	C A 754	135.180	108.451	-50.678	1.00	51.40	O
ATOM	15712	O2P	G A 752	128.680	114.448	-57.788	1.00	63.95	O	ATOM	15762	C3*	C A 754	137.441	108.053	-50.201	1.00	51.40	C
ATOM	15713	O5*	G A 752	129.736	113.093	-55.998	1.00	53.49	O	ATOM	15763	O3*	C A 754	138.311	106.952	-49.937	1.00	51.40	O
ATOM	15714	C5*	G A 752	130.429	111.952	-55.446	1.00	53.49	C	ATOM	15764	C2*	C A 754	137.347	108.357	-51.693	1.00	51.40	C
ATOM	15715	C4*	G A 752	131.106	112.346	-54.162	1.00	53.49	C	ATOM	15765	O2*	C A 754	137.609	107.216	-52.490	1.00	51.40	O



ATOM	15766	C A 754	135.887	108.804	-51.847	1.00	51.40	C	ATOM	15816	C5	C A 756	142.176	106.410	-43.457	1.00	36.81	C
ATOM	15767	N1	135.625	110.228	-52.129	1.00	48.25	N	ATOM	15817	C6	C A 756	142.782	107.548	-43.104	1.00	36.81	C
ATOM	15768	C2	136.010	111.204	-51.188	1.00	48.25	C	ATOM	15818	P	U A 757	148.414	108.436	-43.132	1.00	37.43	P
ATOM	15769	O2	136.620	110.849	-50.165	1.00	48.25	O	ATOM	15819	O1P	U A 757	149.683	109.203	-43.150	1.00	41.32	O
ATOM	15770	N3	135.704	112.505	-51.422	1.00	48.25	N	ATOM	15820	O2P	U A 757	147.956	107.741	-44.365	1.00	41.32	O
ATOM	15771	C4	135.056	112.846	-52.533	1.00	48.25	C	ATOM	15821	O5*	U A 757	148.440	107.351	-41.961	1.00	41.32	O
ATOM	15772	N4	134.750	114.123	-52.698	1.00	48.25	N	ATOM	15822	C5*	U A 757	148.740	107.731	-41.604	1.00	37.43	C
ATOM	15773	C5	134.687	111.885	-53.520	1.00	48.25	C	ATOM	15823	C4*	U A 757	148.329	106.638	-39.647	1.00	37.43	C
ATOM	15774	C6	134.989	110.600	-53.281	1.00	48.25	C	ATOM	15824	O4*	U A 757	146.899	106.407	-39.750	1.00	37.43	O
ATOM	15775	P	139.874	107.202	-49.640	1.00	49.01	P	ATOM	15825	C3*	U A 757	148.927	105.261	-39.879	1.00	37.43	C
ATOM	15776	O1P	140.486	107.730	-50.891	1.00	43.87	O	ATOM	15826	O3*	U A 757	147.935	104.350	-39.168	1.00	37.43	C
ATOM	15777	O2P	139.913	108.322	-48.501	1.00	43.87	O	ATOM	15827	C2*	U A 757	148.120	104.328	-37.778	1.00	37.43	O
ATOM	15778	O5*	140.338	109.662	-48.792	1.00	49.01	C	ATOM	15828	O2*	U A 757	146.610	105.047	-39.459	1.00	37.43	C
ATOM	15779	C5*	140.497	110.447	-47.515	1.00	49.01	C	ATOM	15829	C1*	U A 757	145.901	104.439	-40.599	1.00	41.32	N
ATOM	15780	C4*	139.262	110.357	-46.765	1.00	49.01	O	ATOM	15830	N1	U A 757	145.184	103.280	-40.360	1.00	41.32	C
ATOM	15781	O4*	141.544	109.936	-46.547	1.00	49.01	C	ATOM	15831	C2	U A 757	145.090	102.772	-39.275	1.00	41.32	O
ATOM	15782	C3*	142.826	110.424	-46.853	1.00	49.01	C	ATOM	15832	O2	U A 757	144.572	102.736	-41.446	1.00	41.32	N
ATOM	15783	O3*	141.031	110.437	-45.209	1.00	49.01	O	ATOM	15833	N3	U A 757	144.580	103.214	-42.722	1.00	41.32	C
ATOM	15784	C2*	141.257	111.814	-45.023	1.00	49.01	O	ATOM	15834	C4	U A 757	143.891	102.647	-43.571	1.00	41.32	O
ATOM	15785	O2*	139.535	110.231	-45.381	1.00	49.01	C	ATOM	15835	O4	U A 757	145.331	104.416	-42.904	1.00	41.32	C
ATOM	15786	C1*	139.151	108.881	-44.982	1.00	43.87	N	ATOM	15836	C5	U A 757	145.949	104.978	-41.859	1.00	41.32	C
ATOM	15787	N9	138.641	107.891	-45.790	1.00	43.87	C	ATOM	15837	C6	U A 757	151.361	104.565	-41.567	1.00	49.59	O
ATOM	15788	C8	138.782	107.881	-45.790	1.00	43.87	C	ATOM	15838	P	G A 758	150.781	102.774	-39.999	1.00	40.20	O
ATOM	15789	N7	138.407	106.782	-45.148	1.00	43.87	N	ATOM	15839	O1P	G A 758	152.594	104.390	-39.320	1.00	40.20	P
ATOM	15790	C5	138.782	107.055	-43.840	1.00	43.87	C	ATOM	15840	O2P	G A 758	151.361	104.565	-41.567	1.00	49.59	O
ATOM	15791	C6	138.757	106.238	-42.699	1.00	43.87	C	ATOM	15841	O5*	G A 758	150.781	102.774	-39.999	1.00	40.20	O
ATOM	15792	O6	138.372	105.068	-42.600	1.00	43.87	O	ATOM	15842	C5*	G A 758	150.621	102.152	-38.712	1.00	40.20	C
ATOM	15793	N1	139.240	106.903	-41.584	1.00	43.87	N	ATOM	15843	C4*	G A 758	149.735	100.948	-38.831	1.00	40.20	C
ATOM	15794	C2	139.688	108.191	-41.572	1.00	43.87	C	ATOM	15844	O4*	G A 758	148.476	101.348	-39.422	1.00	40.20	O
ATOM	15795	N2	140.146	108.647	-40.408	1.00	43.87	N	ATOM	15845	C3*	G A 758	150.240	99.839	-39.728	1.00	40.20	C
ATOM	15796	N3	139.698	108.974	-42.627	1.00	43.87	N	ATOM	15846	O3*	G A 758	151.102	99.007	-38.962	1.00	40.20	O
ATOM	15797	C4	139.240	108.344	-43.721	1.00	43.87	C	ATOM	15847	C2*	G A 758	148.949	99.137	-40.132	1.00	40.20	O
ATOM	15798	P	144.085	109.444	-46.711	1.00	41.81	P	ATOM	15848	O2*	G A 758	148.475	98.260	-39.125	1.00	40.20	O
ATOM	15799	O1P	145.206	110.045	-47.469	1.00	36.81	O	ATOM	15849	C1*	G A 758	147.970	100.305	-40.224	1.00	40.20	C
ATOM	15800	O2P	143.650	108.066	-47.036	1.00	36.81	O	ATOM	15850	N9	G A 758	147.795	100.810	-41.580	1.00	49.59	N
ATOM	15801	O5*	144.396	109.446	-45.148	1.00	41.81	O	ATOM	15851	C8	G A 758	148.530	101.788	-42.199	1.00	49.59	C
ATOM	15802	C5*	144.888	110.619	-44.482	1.00	41.81	C	ATOM	15852	N7	G A 758	148.147	102.017	-43.428	1.00	49.59	N
ATOM	15803	C4*	145.057	110.339	-43.012	1.00	41.81	C	ATOM	15853	C5	G A 758	147.094	101.139	-43.627	1.00	49.59	C
ATOM	15804	O4*	143.771	109.955	-42.461	1.00	41.81	O	ATOM	15854	C6	G A 758	146.291	100.928	-44.764	1.00	49.59	C
ATOM	15805	C3*	145.955	109.166	-42.662	1.00	41.81	C	ATOM	15855	O6	G A 758	146.360	101.480	-45.863	1.00	49.59	O
ATOM	15806	O3*	147.321	109.513	-42.647	1.00	41.81	O	ATOM	15856	N1	G A 758	145.326	99.959	-44.535	1.00	49.59	N
ATOM	15807	C2*	145.451	108.763	-41.286	1.00	41.81	C	ATOM	15857	C2	G A 758	145.161	99.276	-43.360	1.00	49.59	C
ATOM	15808	O2*	145.939	109.628	-40.284	1.00	41.81	O	ATOM	15858	N2	G A 758	144.149	98.398	-43.327	1.00	49.59	N
ATOM	15809	C1*	143.948	108.978	-41.444	1.00	41.81	C	ATOM	15859	N3	G A 758	145.923	99.445	-42.294	1.00	49.59	N
ATOM	15810	N1	143.238	107.736	-41.831	1.00	36.81	N	ATOM	15860	C4	G A 758	146.860	100.390	-42.495	1.00	49.59	C
ATOM	15811	O2	143.049	106.737	-40.867	1.00	36.81	O	ATOM	15861	P	A A 759	151.671	97.629	-39.582	1.00	42.51	P
ATOM	15812	C2	143.456	106.929	-39.710	1.00	36.81	C	ATOM	15862	O1P	A A 759	153.144	97.696	-39.423	1.00	45.21	O
ATOM	15813	N3	142.435	105.588	-41.213	1.00	36.81	N	ATOM	15863	O2P	A A 759	151.096	97.378	-40.928	1.00	45.21	O
ATOM	15814	C4	142.026	105.405	-42.460	1.00	36.81	C	ATOM	15864	O5*	A A 759	151.087	96.523	-38.597	1.00	42.51	O
ATOM	15815	N4	141.477	104.226	-42.764	1.00	36.81	N	ATOM	15865	C5*	A A 759	151.168	96.694	-37.177	1.00	42.51	C



Table 2: Sheet 160520

ATOM 15866	A A 759	150.730	95.434	-36.477	1.00	42.51	C	ATOM 15916	O2*	G A 761	151.496	88.569	-47.743	1.00	54.83	O	
ATOM 15867	O4*	A A 759	149.289	95.286	-36.536	1.00	42.51	O	ATOM 15917	Cl*	G A 761	151.353	90.029	-45.849	1.00	54.83	C
ATOM 15868	C3*	A A 759	151.248	94.137	-37.063	1.00	42.51	C	ATOM 15918	N9	G A 761	151.865	91.341	-45.465	1.00	43.65	N
ATOM 15869	O3*	A A 759	152.563	93.855	-36.629	1.00	42.51	O	ATOM 15919	C8	G A 761	152.395	91.704	-44.251	1.00	43.65	C
ATOM 15870	C2*	A A 759	150.250	93.117	-36.537	1.00	42.51	C	ATOM 15920	N7	G A 761	152.745	92.958	-44.201	1.00	43.65	N
ATOM 15871	O2*	A A 759	150.545	92.725	-35.214	1.00	42.51	O	ATOM 15921	C5	G A 761	152.434	93.451	-45.462	1.00	43.65	C
ATOM 15872	Cl*	A A 759	148.947	93.913	-36.542	1.00	42.51	C	ATOM 15922	C6	G A 761	152.589	94.754	-46.002	1.00	43.65	C
ATOM 15873	N9	A A 759	148.137	93.618	-37.724	1.00	45.21	N	ATOM 15923	O6	G A 761	153.056	95.771	-45.453	1.00	43.65	O
ATOM 15874	C8	A A 759	148.080	94.275	-38.929	1.00	45.21	C	ATOM 15924	N1	G A 761	152.139	94.815	-47.317	1.00	43.65	N
ATOM 15875	N7	A A 759	147.304	93.689	-39.813	1.00	45.21	N	ATOM 15925	C2	G A 761	151.616	93.762	-48.022	1.00	43.65	C
ATOM 15876	C5	A A 759	146.811	92.582	-39.139	1.00	45.21	C	ATOM 15926	N2	G A 761	151.215	94.023	-49.276	1.00	43.65	N
ATOM 15877	C6	A A 759	145.958	91.538	-39.529	1.00	45.21	C	ATOM 15927	N3	G A 761	151.481	92.543	-47.534	1.00	43.65	N
ATOM 15878	N6	A A 759	145.444	91.413	-40.747	1.00	45.21	N	ATOM 15928	C4	G A 761	151.900	92.463	-46.256	1.00	43.65	C
ATOM 15879	N1	A A 759	145.657	90.600	-38.611	1.00	45.21	N	ATOM 15929	P	C A 762	154.975	87.522	-47.362	1.00	53.51	P
ATOM 15880	C2	A A 759	146.185	90.709	-37.391	1.00	45.21	C	ATOM 15930	O1P	C A 762	155.182	86.284	-48.192	1.00	36.62	O
ATOM 15881	N3	A A 759	147.006	91.632	-36.908	1.00	45.21	N	ATOM 15931	O2P	C A 762	156.000	87.948	-46.370	1.00	36.62	O
ATOM 15882	C4	A A 759	147.289	92.547	-37.844	1.00	45.21	C	ATOM 15932	O5*	C A 762	154.676	88.705	-48.382	1.00	53.51	O
ATOM 15883	P	G A 760	153.686	93.502	-37.712	1.00	48.78	P	ATOM 15933	C5*	C A 762	154.082	88.419	-49.650	1.00	53.51	C
ATOM 15884	O1P	G A 760	154.814	92.919	-36.946	1.00	69.38	O	ATOM 15934	C4*	C A 762	154.113	89.637	-50.517	1.00	53.51	C
ATOM 15885	O2P	G A 760	153.922	94.665	-38.590	1.00	69.38	O	ATOM 15935	O4*	C A 762	153.402	90.692	-49.833	1.00	53.51	O
ATOM 15886	O5*	G A 760	153.002	92.377	-38.594	1.00	48.78	O	ATOM 15936	C3*	C A 762	155.490	90.213	-50.767	1.00	53.51	C
ATOM 15887	C5*	G A 760	152.698	91.135	-38.006	1.00	48.78	C	ATOM 15937	O3*	C A 762	156.147	89.593	-51.852	1.00	53.51	O
ATOM 15888	C4*	G A 760	151.901	90.264	-38.937	1.00	48.78	C	ATOM 15938	C2*	C A 762	155.192	91.677	-51.034	1.00	53.51	C
ATOM 15889	O4*	G A 760	150.604	90.844	-39.235	1.00	48.78	O	ATOM 15939	O2*	C A 762	154.758	91.911	-52.355	1.00	53.51	O
ATOM 15890	C3*	G A 760	152.399	89.942	-40.334	1.00	48.78	C	ATOM 15940	Cl*	C A 762	154.044	91.929	-50.059	1.00	53.51	C
ATOM 15891	O3*	G A 760	153.468	89.024	-40.396	1.00	48.78	O	ATOM 15941	N1	C A 762	154.545	92.431	-48.771	1.00	36.62	N
ATOM 15892	C2*	G A 760	151.157	89.283	-40.923	1.00	48.78	C	ATOM 15942	C2	C A 762	154.899	93.771	-48.671	1.00	36.62	C
ATOM 15893	O2*	G A 760	151.002	87.931	-40.527	1.00	48.78	O	ATOM 15943	O2	C A 762	154.745	94.510	-49.658	1.00	36.62	O
ATOM 15894	Cl*	G A 760	150.038	90.106	-40.295	1.00	48.78	C	ATOM 15944	N3	C A 762	155.398	94.234	-47.516	1.00	36.62	N
ATOM 15895	N9	G A 760	149.514	90.983	-41.327	1.00	69.38	N	ATOM 15945	C4	C A 762	155.539	93.421	-46.479	1.00	36.62	C
ATOM 15896	C8	G A 760	149.823	92.286	-41.630	1.00	69.38	C	ATOM 15946	N4	C A 762	156.028	93.936	-45.355	1.00	36.62	N
ATOM 15897	N7	G A 760	149.198	92.714	-42.693	1.00	69.38	N	ATOM 15947	C5	C A 762	155.179	92.048	-46.543	1.00	36.62	C
ATOM 15898	C5	G A 760	148.424	91.630	-43.091	1.00	69.38	C	ATOM 15948	C6	C A 762	154.686	91.600	-47.695	1.00	36.62	C
ATOM 15899	C6	G A 760	147.522	91.476	-44.171	1.00	69.38	C	ATOM 15949	P	G A 763	157.748	89.444	-51.819	1.00	57.20	P
ATOM 15900	O6	G A 760	147.205	92.295	-45.024	1.00	69.38	O	ATOM 15950	O1P	G A 763	158.111	88.514	-52.934	1.00	39.91	O
ATOM 15901	N1	G A 760	146.957	90.206	-44.201	1.00	69.38	N	ATOM 15951	O2P	G A 763	158.176	89.127	-50.421	1.00	39.91	O
ATOM 15902	C2	G A 760	147.208	89.212	-43.300	1.00	69.38	C	ATOM 15952	O5*	G A 763	158.270	90.899	-52.190	1.00	57.20	O
ATOM 15903	N2	G A 760	146.549	88.049	-43.483	1.00	69.38	N	ATOM 15953	C5*	G A 763	157.929	91.469	-53.450	1.00	57.20	C
ATOM 15904	N3	G A 760	148.038	89.342	-42.289	1.00	69.38	N	ATOM 15954	C4*	G A 763	158.121	92.959	-53.424	1.00	57.20	C
ATOM 15905	C4	G A 760	148.605	90.569	-42.249	1.00	69.38	C	ATOM 15955	O4*	G A 763	157.314	93.551	-52.375	1.00	57.20	O
ATOM 15906	P	G A 761	154.334	88.917	-41.751	1.00	54.83	P	ATOM 15956	C3*	G A 763	159.505	93.478	-53.114	1.00	57.20	C
ATOM 15907	O1P	G A 761	154.926	87.551	-41.758	1.00	43.65	O	ATOM 15957	O3*	G A 763	160.371	93.400	-54.220	1.00	57.20	O
ATOM 15908	O2P	G A 761	155.224	90.105	-41.868	1.00	43.65	O	ATOM 15958	C2*	G A 763	159.217	94.915	-52.713	1.00	57.20	C
ATOM 15909	O5*	G A 761	153.267	88.990	-42.928	1.00	54.83	O	ATOM 15959	O2*	G A 763	159.001	95.766	-53.822	1.00	57.20	O
ATOM 15910	C5*	G A 761	152.660	87.805	-43.434	1.00	54.83	C	ATOM 15960	Cl*	G A 763	157.913	94.755	-51.941	1.00	57.20	C
ATOM 15911	C4*	G A 761	152.085	88.075	-44.791	1.00	54.83	C	ATOM 15961	N9	G A 763	158.172	94.671	-50.509	1.00	39.91	N
ATOM 15912	O3*	G A 761	151.233	88.236	-44.683	1.00	54.83	O	ATOM 15962	C8	G A 763	157.987	93.596	-49.674	1.00	39.91	C
ATOM 15913	C4*	G A 761	153.087	88.450	-45.865	1.00	54.83	C	ATOM 15963	N7	G A 763	158.333	93.846	-48.441	1.00	39.91	N
ATOM 15914	O3*	G A 761	153.623	87.339	-46.534	1.00	54.83	O	ATOM 15964	C5	G A 763	158.768	95.165	-48.467	1.00	39.91	C
ATOM 15915	C2*	G A 761	152.271	89.306	-46.820	1.00	54.83	C	ATOM 15965	C6	G A 763	159.271	95.995	-47.428	1.00	39.91	C



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ATOM	15966	O6	G A 763	159.450	95.719	-46.226	1.00	39.91	O	ATOM	16016	O1P	A A 766	170.802	98.246	-52.222	1.00	32.03	O
ATOM	15967	N1	G A 763	159.589	97.264	-47.901	1.00	39.91	N	ATOM	16017	O2P	A A 766	171.341	96.485	-50.436	1.00	32.03	O
ATOM	15968	C2	G A 763	159.449	97.678	-49.202	1.00	39.91	C	ATOM	16018	O5*	A A 766	172.444	98.736	-50.425	1.00	47.57	O
ATOM	15969	N2	G A 763	159.808	98.939	-49.472	1.00	39.91	N	ATOM	16019	C5*	A A 766	172.470	100.154	-50.550	1.00	47.57	C
ATOM	15970	N3	G A 763	158.992	96.914	-50.169	1.00	39.91	N	ATOM	16020	C4*	A A 766	173.629	100.733	-49.774	1.00	47.57	C
ATOM	15971	C4	G A 763	158.672	95.684	-49.734	1.00	39.91	C	ATOM	16021	O4*	A A 766	173.332	100.842	-48.360	1.00	47.57	O
ATOM	15972	P	C A 764	161.948	93.202	-53.968	1.00	39.67	P	ATOM	16022	C3*	A A 766	174.932	99.960	-49.768	1.00	47.57	C
ATOM	15973	O1P	C A 764	162.543	92.986	-55.327	1.00	36.27	O	ATOM	16023	O3*	A A 766	175.648	100.021	-50.977	1.00	47.57	O
ATOM	15974	O2P	C A 764	162.130	92.164	-52.898	1.00	36.27	O	ATOM	16024	C2*	A A 766	175.681	100.611	-48.615	1.00	47.57	C
ATOM	15975	O5*	C A 764	162.428	94.625	-53.430	1.00	39.67	O	ATOM	16025	O2*	A A 766	176.291	101.841	-48.937	1.00	47.57	O
ATOM	15976	C5*	C A 764	162.384	95.758	-54.299	1.00	39.67	C	ATOM	16026	C1*	A A 766	174.551	100.883	-47.636	1.00	47.57	C
ATOM	15977	C4*	C A 764	162.727	97.011	-53.554	1.00	39.67	C	ATOM	16027	N9	A A 766	174.572	99.847	-46.611	1.00	32.03	N
ATOM	15978	O4*	C A 764	161.816	97.186	-52.448	1.00	39.67	O	ATOM	16028	C8	A A 766	173.743	98.787	-46.380	1.00	32.03	C
ATOM	15979	C3*	C A 764	164.088	97.035	-52.912	1.00	39.67	C	ATOM	16029	N7	A A 766	174.112	98.043	-45.362	1.00	32.03	N
ATOM	15980	O3*	C A 764	165.080	97.417	-53.836	1.00	39.67	O	ATOM	16030	C5	A A 766	175.263	98.661	-44.898	1.00	32.03	C
ATOM	15981	C2*	C A 764	163.916	98.070	-51.818	1.00	39.67	C	ATOM	16031	C6	A A 766	176.148	98.360	-43.851	1.00	32.03	C
ATOM	15982	O2*	C A 764	164.009	99.372	-52.359	1.00	39.67	O	ATOM	16032	N6	A A 766	176.020	97.300	-43.049	1.00	32.03	N
ATOM	15983	C1*	C A 764	162.487	97.787	-51.361	1.00	39.67	C	ATOM	16033	N1	A A 766	177.194	99.192	-43.654	1.00	32.03	N
ATOM	15984	N1	C A 764	162.443	96.849	-50.225	1.00	36.27	N	ATOM	16034	C2	A A 766	177.339	100.244	-44.465	1.00	32.03	C
ATOM	15985	C2	C A 764	162.840	97.301	-48.953	1.00	36.27	C	ATOM	16035	N3	A A 766	176.581	100.625	-45.488	1.00	32.03	N
ATOM	15986	O2	C A 764	163.154	98.494	-48.808	1.00	36.27	O	ATOM	16036	C4	A A 766	175.549	99.779	-45.650	1.00	32.03	C
ATOM	15987	N3	C A 764	162.866	96.426	-47.920	1.00	36.27	N	ATOM	16037	P	A A 767	176.330	98.682	-51.537	1.00	54.50	P
ATOM	15988	C4	C A 764	162.511	95.160	-48.113	1.00	36.27	C	ATOM	16038	O1P	A A 767	176.966	99.097	-52.812	1.00	39.06	O
ATOM	15989	N4	C A 764	162.605	94.329	-47.087	1.00	36.27	N	ATOM	16039	O2P	A A 767	175.337	97.581	-51.533	1.00	39.06	O
ATOM	15990	C5	C A 764	162.057	94.685	-49.378	1.00	36.27	C	ATOM	16040	O5*	A A 767	177.466	98.336	-50.472	1.00	54.50	O
ATOM	15991	C6	G A 765	162.044	95.552	-50.397	1.00	36.27	C	ATOM	16041	C5*	A A 767	178.596	99.212	-50.314	1.00	54.50	C
ATOM	15992	P	G A 765	166.551	96.812	-53.679	1.00	42.35	P	ATOM	16042	C4*	A A 767	179.421	98.812	-49.124	1.00	54.50	C
ATOM	15993	O1P	G A 765	167.437	97.486	-48.661	1.00	31.75	O	ATOM	16043	O4*	A A 767	178.630	98.942	-47.920	1.00	54.50	O
ATOM	15994	O2P	G A 765	166.388	95.346	-53.720	1.00	31.75	O	ATOM	16044	C3*	A A 767	179.907	97.376	-49.121	1.00	54.50	C
ATOM	15995	O5*	G A 765	166.986	97.248	-52.207	1.00	42.35	O	ATOM	16045	O3*	A A 767	181.104	97.244	-49.870	1.00	54.50	O
ATOM	15996	C5*	G A 765	167.443	98.582	-51.951	1.00	42.35	C	ATOM	16046	C2*	A A 767	180.119	97.111	-47.639	1.00	54.50	C
ATOM	15997	C4*	G A 765	167.656	98.781	-50.478	1.00	42.35	C	ATOM	16047	O2*	A A 767	181.352	97.630	-47.176	1.00	54.50	O
ATOM	15998	O4*	G A 765	166.442	98.406	-49.785	1.00	42.35	C	ATOM	16048	C1*	A A 767	178.956	97.896	-47.022	1.00	54.50	C
ATOM	15999	C3*	G A 765	168.740	97.936	-49.828	1.00	42.35	C	ATOM	16049	N9	A A 767	177.776	97.044	-46.884	1.00	39.06	N
ATOM	16000	O3*	G A 765	170.001	98.567	-49.925	1.00	42.35	O	ATOM	16050	C8	A A 767	176.678	97.004	-47.706	1.00	39.06	C
ATOM	16001	C2*	G A 765	168.287	97.878	-48.376	1.00	42.35	O	ATOM	16051	N7	A A 767	175.810	96.079	-47.380	1.00	39.06	N
ATOM	16002	O2*	G A 765	168.661	99.043	-47.664	1.00	42.35	O	ATOM	16052	C5	A A 767	176.363	95.485	-46.257	1.00	39.06	C
ATOM	16003	C1*	G A 765	166.766	97.827	-48.535	1.00	42.35	C	ATOM	16053	C6	A A 767	175.934	94.446	-45.452	1.00	39.06	C
ATOM	16004	N9	G A 765	166.283	96.456	-48.561	1.00	31.75	N	ATOM	16054	N6	A A 767	174.806	93.788	-45.654	1.00	39.06	N
ATOM	16005	C8	G A 765	165.837	95.763	-49.659	1.00	31.75	C	ATOM	16055	N1	A A 767	176.709	94.093	-44.413	1.00	39.06	N
ATOM	16006	N7	G A 765	165.492	94.536	-49.379	1.00	31.75	N	ATOM	16056	C2	A A 767	177.844	94.756	-44.211	1.00	39.06	C
ATOM	16007	C5	G A 765	165.721	94.418	-48.016	1.00	31.75	C	ATOM	16057	N3	A A 767	178.360	95.759	-44.901	1.00	39.06	N
ATOM	16008	C6	G A 765	165.539	93.318	-47.157	1.00	31.75	C	ATOM	16058	C4	A A 767	177.561	96.081	-45.928	1.00	39.06	C
ATOM	16009	O6	G A 765	165.103	92.194	-47.434	1.00	31.75	O	ATOM	16059	P	A A 768	181.358	95.920	-50.750	1.00	35.18	P
ATOM	16010	N1	G A 765	165.903	93.621	-45.852	1.00	31.75	N	ATOM	16060	O1P	A A 768	182.619	96.202	-51.481	1.00	40.16	O
ATOM	16011	C2	G A 765	166.350	94.846	-45.429	1.00	31.75	C	ATOM	16061	O2P	A A 768	180.124	95.562	-51.507	1.00	40.16	O
ATOM	16012	N2	G A 765	166.582	94.976	-44.115	1.00	31.75	N	ATOM	16062	O5*	A A 768	181.639	94.791	-49.668	1.00	35.18	O
ATOM	16013	N3	G A 765	166.535	95.880	-46.229	1.00	31.75	N	ATOM	16063	C5*	A A 768	182.745	94.933	-48.767	1.00	35.18	C
ATOM	16014	C4	G A 765	166.201	95.596	-47.498	1.00	31.75	C	ATOM	16064	C4*	A A 768	182.575	94.031	-47.580	1.00	35.18	C
ATOM	16015	P	A A 766	171.146	97.913	-50.831	1.00	47.57	P	ATOM	16065	O4*	A A 768	181.364	94.374	-46.881	1.00	35.18	O



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ATOM	16066	C3*	A A 768	182.431	92.562	-47.905	1.00	35.18	C	ATOM	16116	N1	C A 770	177.316	84.953	-51.758	1.00	44.52	N
ATOM	16067	O3*	A A 768	183.714	91.971	-48.091	1.00	35.18	O	ATOM	16117	C2	C A 770	176.198	84.956	-52.585	1.00	44.52	C
ATOM	16068	C2*	A A 768	181.685	92.031	-46.686	1.00	35.18	C	ATOM	16118	O2	C A 770	175.430	83.978	-52.553	1.00	44.52	O
ATOM	16069	O2*	A A 768	182.519	91.757	-45.572	1.00	35.18	O	ATOM	16119	N3	C A 770	175.975	86.014	-53.395	1.00	44.52	N
ATOM	16070	C1*	A A 768	180.767	93.206	-46.357	1.00	35.18	C	ATOM	16120	C4	C A 770	176.816	87.038	-53.390	1.00	44.52	C
ATOM	16071	N9	A A 768	179.454	93.062	-46.981	1.00	40.16	N	ATOM	16121	N4	C A 770	176.537	88.067	-54.166	1.00	44.52	N
ATOM	16072	C8	A A 768	178.965	93.763	-48.060	1.00	40.16	C	ATOM	16122	C5	C A 770	177.975	87.054	-52.578	1.00	44.52	C
ATOM	16073	N7	A A 768	177.759	93.401	-48.421	1.00	40.16	N	ATOM	16123	C6	C A 770	178.189	85.999	-51.783	1.00	44.52	C
ATOM	16074	C5	A A 768	177.430	92.400	-47.523	1.00	40.16	C	ATOM	16124	P	G A 771	180.696	80.871	-52.815	1.00	48.93	P
ATOM	16075	C6	A A 768	176.304	91.603	-47.405	1.00	40.16	C	ATOM	16125	O1P	G A 771	181.407	79.603	-52.535	1.00	44.27	O
ATOM	16076	N6	A A 768	175.275	91.677	-48.247	1.00	40.16	N	ATOM	16126	O2P	G A 771	181.437	82.043	-53.346	1.00	44.27	O
ATOM	16077	N1	A A 768	176.270	90.702	-46.401	1.00	40.16	N	ATOM	16127	O5*	G A 771	179.464	80.626	-53.789	1.00	48.93	O
ATOM	16078	C2	A A 768	177.334	90.608	-45.595	1.00	40.16	C	ATOM	16128	C5*	G A 771	178.563	79.536	-53.571	1.00	48.93	C
ATOM	16079	N3	A A 768	178.473	91.292	-45.622	1.00	40.16	N	ATOM	16129	C4*	G A 771	177.568	79.452	-54.702	1.00	48.93	C
ATOM	16080	C4	A A 768	178.455	92.186	-46.622	1.00	40.16	C	ATOM	16130	O4*	G A 771	176.644	80.569	-54.627	1.00	48.93	O
ATOM	16081	P	G A 769	183.929	90.887	-49.252	1.00	37.82	P	ATOM	16131	C3*	G A 771	178.138	79.544	-56.108	1.00	48.93	C
ATOM	16082	O1P	G A 769	185.281	90.318	-49.063	1.00	31.80	O	ATOM	16132	O3*	G A 771	178.672	78.318	-56.584	1.00	48.93	O
ATOM	16083	O2P	G A 769	183.575	91.515	-50.550	1.00	31.80	O	ATOM	16133	C2*	G A 771	176.939	80.008	-56.924	1.00	48.93	C
ATOM	16084	O5*	G A 769	182.872	89.757	-48.891	1.00	37.82	O	ATOM	16134	O2*	G A 771	176.095	78.932	-57.272	1.00	48.93	O
ATOM	16085	C5*	G A 769	182.978	89.079	-47.658	1.00	37.82	C	ATOM	16135	C1*	G A 771	176.225	80.928	-55.932	1.00	48.93	C
ATOM	16086	C4*	G A 769	181.757	88.249	-47.407	1.00	37.82	C	ATOM	16136	N9	G A 771	176.521	82.341	-56.147	1.00	44.27	N
ATOM	16087	O4*	G A 769	180.579	89.085	-47.277	1.00	37.82	O	ATOM	16137	C8	G A 771	177.428	83.113	-55.470	1.00	44.27	C
ATOM	16088	C3*	G A 769	181.350	87.265	-48.476	1.00	37.82	C	ATOM	16138	N7	G A 771	177.472	84.345	-55.899	1.00	44.27	N
ATOM	16089	O3*	G A 769	182.157	86.122	-48.444	1.00	37.82	O	ATOM	16139	C5	G A 771	176.535	84.386	-56.915	1.00	44.27	C
ATOM	16090	C2*	G A 769	179.911	86.963	-48.087	1.00	37.82	C	ATOM	16140	C6	G A 771	176.143	85.452	-57.744	1.00	44.27	C
ATOM	16091	O2*	G A 769	179.850	86.090	-46.975	1.00	37.82	O	ATOM	16141	O6	G A 771	176.566	86.617	-57.749	1.00	44.27	O
ATOM	16092	C1*	G A 769	179.426	88.339	-47.637	1.00	37.82	C	ATOM	16142	N1	G A 771	175.158	85.064	-58.643	1.00	44.27	N
ATOM	16093	N9	G A 769	178.738	89.042	-48.712	1.00	31.80	N	ATOM	16143	C2	G A 771	174.632	83.806	-58.730	1.00	44.27	C
ATOM	16094	C8	G A 769	179.133	90.199	-49.329	1.00	31.80	C	ATOM	16144	N2	G A 771	173.708	83.623	-59.661	1.00	44.27	N
ATOM	16095	N7	G A 769	178.317	90.577	-50.270	1.00	31.80	N	ATOM	16145	N3	G A 771	174.989	82.799	-57.960	1.00	44.27	N
ATOM	16096	C5	G A 769	177.324	89.611	-50.273	1.00	31.80	C	ATOM	16146	C4	G A 771	175.939	83.158	-57.081	1.00	44.27	C
ATOM	16097	C6	G A 769	176.171	89.499	-51.070	1.00	31.80	C	ATOM	16147	P	U A 772	179.859	78.349	-57.676	1.00	59.21	P
ATOM	16098	O6	G A 769	175.809	90.241	-51.985	1.00	31.80	O	ATOM	16148	O1P	U A 772	180.323	76.944	-57.803	1.00	56.08	O
ATOM	16099	N1	G A 769	175.406	88.383	-50.727	1.00	31.80	N	ATOM	16149	O2P	U A 772	180.830	79.410	-57.313	1.00	56.08	O
ATOM	16100	C2	G A 769	175.737	87.482	-49.750	1.00	31.80	C	ATOM	16150	O5*	U A 772	179.150	78.821	-59.024	1.00	59.21	O
ATOM	16101	N2	G A 769	174.894	86.458	-49.572	1.00	31.80	N	ATOM	16151	C5*	U A 772	178.177	77.991	-59.664	1.00	59.21	C
ATOM	16102	N3	G A 769	176.826	87.574	-49.003	1.00	31.80	N	ATOM	16152	C4*	U A 772	177.644	78.662	-60.902	1.00	59.21	C
ATOM	16103	C4	G A 769	177.565	88.661	-49.316	1.00	31.80	C	ATOM	16153	O4*	U A 772	176.782	79.772	-60.537	1.00	59.21	O
ATOM	16104	P	C A 770	182.603	85.449	-49.826	1.00	49.63	P	ATOM	16154	C3*	U A 772	178.681	79.286	-61.816	1.00	59.21	C
ATOM	16105	O1P	C A 770	183.723	84.534	-49.475	1.00	44.52	O	ATOM	16155	O3*	U A 772	179.352	78.349	-62.644	1.00	59.21	O
ATOM	16106	O2P	C A 770	182.796	86.497	-50.855	1.00	44.52	O	ATOM	16156	C2*	U A 772	177.857	80.311	-62.587	1.00	59.21	C
ATOM	16107	O5*	C A 770	181.322	84.606	-50.243	1.00	49.63	O	ATOM	16157	O2*	U A 772	177.124	79.739	-63.652	1.00	59.21	O
ATOM	16108	C5*	C A 770	180.798	83.625	-49.356	1.00	49.63	C	ATOM	16158	C1*	U A 772	176.890	80.801	-61.508	1.00	59.21	C
ATOM	16109	C4*	C A 770	179.496	83.087	-49.873	1.00	49.63	C	ATOM	16159	N1	U A 772	177.412	82.008	-60.854	1.00	56.08	N
ATOM	16110	O4*	C A 770	178.491	84.126	-49.885	1.00	49.63	O	ATOM	16160	C2	U A 772	177.173	83.234	-61.454	1.00	56.08	C
ATOM	16111	C3*	C A 770	179.462	82.569	-51.298	1.00	49.63	C	ATOM	16161	O2	U A 772	176.510	83.365	-62.458	1.00	56.08	O
ATOM	16112	O3*	C A 770	180.014	81.280	-51.430	1.00	49.63	O	ATOM	16162	N3	U A 772	177.743	84.309	-60.829	1.00	56.08	N
ATOM	16113	C2*	C A 770	177.972	82.552	-51.594	1.00	49.63	C	ATOM	16163	C4	U A 772	178.501	84.289	-59.692	1.00	56.08	C
ATOM	16114	O2*	C A 770	177.344	81.417	-51.027	1.00	49.63	O	ATOM	16164	O4	U A 772	179.008	85.330	-59.290	1.00	56.08	O
ATOM	16115	C1*	C A 770	177.510	83.805	-50.858	1.00	49.63	C	ATOM	16165	C5	U A 772	178.677	82.993	-59.112	1.00	56.08	C



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ATOM	16166	C6	U A 772	178.139	81.925	-59.698	1.00	56.08	C	ATOM	16216	O5*	G A 775	186.400	88.218	-68.743	1.00	57.48	O
ATOM	16167	P	G A 773	180.905	78.593	-63.008	1.00	68.98	P	ATOM	16217	C5*	G A 775	185.894	89.382	-69.392	1.00	57.48	C
ATOM	16168	O1P	G A 773	181.375	77.342	-63.648	1.00	61.24	O	ATOM	16218	C4*	G A 775	185.973	90.564	-68.467	1.00	57.48	C
ATOM	16169	O2P	G A 773	181.641	79.126	-61.836	1.00	61.24	O	ATOM	16219	O4*	G A 775	185.188	90.294	-67.282	1.00	57.48	O
ATOM	16170	O5*	G A 773	180.853	79.749	-64.100	1.00	68.98	O	ATOM	16220	C3*	G A 775	187.348	90.891	-67.920	1.00	57.48	C
ATOM	16171	C5*	G A 773	180.053	79.580	-65.266	1.00	68.98	C	ATOM	16221	O3*	G A 775	188.117	91.650	-68.829	1.00	57.48	O
ATOM	16172	C4*	G A 773	179.776	80.901	-65.930	1.00	68.98	C	ATOM	16222	C2*	G A 775	187.019	91.661	-66.650	1.00	57.48	C
ATOM	16173	O4*	G A 773	178.923	81.736	-65.099	1.00	68.98	O	ATOM	16223	O2*	G A 775	186.648	92.996	-66.910	1.00	57.48	O
ATOM	16174	C3*	G A 773	180.952	81.804	-66.250	1.00	68.98	C	ATOM	16224	C1*	G A 775	185.784	90.918	-66.162	1.00	57.48	C
ATOM	16175	O3*	G A 773	181.689	81.398	-67.393	1.00	68.98	O	ATOM	16225	N9	G A 775	186.119	89.897	-65.176	1.00	53.57	N
ATOM	16176	C2*	G A 773	180.252	83.135	-66.491	1.00	68.98	C	ATOM	16226	C8	G A 775	186.145	88.537	-65.344	1.00	53.57	C
ATOM	16177	O2*	G A 773	179.690	83.212	-67.789	1.00	68.98	O	ATOM	16227	N7	G A 775	186.487	87.895	-64.261	1.00	53.57	N
ATOM	16178	C1*	G A 773	179.140	83.100	-65.437	1.00	68.98	C	ATOM	16228	C5	G A 775	186.704	88.896	-63.326	1.00	53.57	C
ATOM	16179	N9	G A 773	179.569	83.853	-64.257	1.00	61.24	N	ATOM	16229	C6	G A 775	187.098	88.815	-61.968	1.00	53.57	C
ATOM	16180	C8	G A 773	180.107	83.370	-63.089	1.00	61.24	C	ATOM	16230	O6	G A 775	187.362	87.802	-61.297	1.00	53.57	O
ATOM	16181	N7	G A 773	180.491	84.316	-62.274	1.00	61.24	N	ATOM	16231	N1	G A 775	187.182	90.078	-61.387	1.00	53.57	N
ATOM	16182	C5	G A 773	180.167	85.490	-62.935	1.00	61.24	C	ATOM	16232	C2	G A 775	186.924	91.265	-62.034	1.00	53.57	C
ATOM	16183	O6	G A 773	180.366	86.840	-62.559	1.00	61.24	O	ATOM	16233	N2	G A 775	187.041	92.388	-61.312	1.00	53.57	N
ATOM	16184	C6	G A 773	180.919	87.284	-61.543	1.00	61.24	C	ATOM	16234	N3	G A 775	186.572	91.348	-63.299	1.00	53.57	N
ATOM	16185	N1	G A 773	179.867	87.716	-63.516	1.00	61.24	N	ATOM	16235	C4	G A 775	186.478	90.135	-63.877	1.00	53.57	C
ATOM	16186	C2	G A 773	179.273	87.338	-64.691	1.00	61.24	C	ATOM	16236	P	G A 776	189.717	91.540	-68.785	1.00	63.20	P
ATOM	16187	N2	G A 773	178.846	88.321	-65.490	1.00	61.24	N	ATOM	16237	O1P	G A 776	190.233	92.379	-69.892	1.00	52.30	O
ATOM	16188	N3	G A 773	179.105	86.085	-65.060	1.00	61.24	N	ATOM	16238	O2P	G A 776	190.096	90.106	-68.697	1.00	52.30	O
ATOM	16189	C4	G A 773	179.569	85.221	-64.143	1.00	61.24	C	ATOM	16239	O5*	G A 776	190.128	92.194	-67.395	1.00	63.20	O
ATOM	16190	P	G A 774	183.272	81.729	-67.485	1.00	70.78	P	ATOM	16240	C5*	G A 776	189.816	93.564	-67.099	1.00	63.20	C
ATOM	16191	O1P	G A 774	183.676	81.139	-68.791	1.00	55.95	O	ATOM	16241	C4*	G A 776	190.242	93.897	-65.691	1.00	63.20	C
ATOM	16192	O2P	G A 774	183.985	81.306	-66.243	1.00	55.95	O	ATOM	16242	O4*	G A 776	189.445	93.155	-64.740	1.00	63.20	O
ATOM	16193	O5*	G A 774	183.345	83.322	-67.599	1.00	70.78	O	ATOM	16243	C3*	G A 776	191.671	93.534	-65.343	1.00	63.20	C
ATOM	16194	C5*	G A 774	182.839	83.963	-68.769	1.00	70.78	C	ATOM	16244	O3*	G A 776	192.524	94.575	-65.766	1.00	63.20	O
ATOM	16195	C4*	G A 774	182.787	85.464	-68.609	1.00	70.78	C	ATOM	16245	C2*	G A 776	191.619	93.412	-63.829	1.00	63.20	C
ATOM	16196	O4*	G A 774	181.994	85.848	-67.459	1.00	70.78	O	ATOM	16246	O2*	G A 776	191.632	94.668	-63.192	1.00	63.20	O
ATOM	16197	C3*	G A 774	184.063	86.252	-68.399	1.00	70.78	C	ATOM	16247	C1*	G A 776	190.231	92.827	-63.613	1.00	63.20	C
ATOM	16198	O3*	G A 774	184.805	86.441	-69.576	1.00	70.78	C	ATOM	16248	N9	G A 776	190.240	91.381	-63.475	1.00	52.30	N
ATOM	16199	C2*	G A 774	183.511	87.598	-67.964	1.00	70.78	C	ATOM	16249	C8	G A 776	190.081	90.468	-64.479	1.00	52.30	C
ATOM	16200	O2*	G A 774	183.053	88.340	-69.071	1.00	70.78	O	ATOM	16250	N7	G A 776	190.116	89.236	-64.057	1.00	52.30	N
ATOM	16201	C1*	G A 774	182.318	87.184	-67.108	1.00	70.78	C	ATOM	16251	C5	G A 776	190.317	89.344	-62.694	1.00	52.30	C
ATOM	16202	N9	G A 774	182.692	87.263	-65.699	1.00	55.95	N	ATOM	16252	C6	G A 776	190.430	88.341	-61.718	1.00	52.30	C
ATOM	16203	C8	G A 774	183.054	86.245	-64.848	1.00	55.95	C	ATOM	16253	O6	G A 776	190.364	87.122	-61.865	1.00	52.30	O
ATOM	16204	N7	G A 774	183.385	86.669	-63.657	1.00	55.95	N	ATOM	16254	N1	G A 776	190.628	88.874	-60.455	1.00	52.30	N
ATOM	16205	C5	G A 774	183.211	88.046	-63.724	1.00	55.95	C	ATOM	16255	C2	G A 776	190.693	90.212	-60.166	1.00	52.30	C
ATOM	16206	C6	G A 774	183.401	89.048	-62.737	1.00	55.95	C	ATOM	16256	N2	G A 776	190.882	90.517	-58.864	1.00	52.30	N
ATOM	16207	O6	G A 774	183.746	88.911	-61.558	1.00	55.95	O	ATOM	16257	N3	G A 776	190.581	91.172	-61.080	1.00	52.30	N
ATOM	16208	N1	G A 774	183.130	90.319	-63.240	1.00	55.95	N	ATOM	16258	C4	G A 776	190.398	90.662	-62.316	1.00	52.30	C
ATOM	16209	C2	G A 774	182.708	90.588	-64.520	1.00	55.95	C	ATOM	16259	P	A A 777	194.088	94.295	-65.996	1.00	51.16	P
ATOM	16210	N2	G A 774	182.495	91.874	-64.826	1.00	55.95	N	ATOM	16260	O1P	A A 777	194.369	94.464	-67.454	1.00	50.14	O
ATOM	16211	N3	G A 774	182.508	89.663	-65.437	1.00	55.95	N	ATOM	16261	O2P	A A 777	194.466	93.025	-65.329	1.00	50.14	O
ATOM	16212	C4	G A 774	182.781	88.425	-64.975	1.00	55.95	C	ATOM	16262	C5*	A A 777	194.732	95.500	-65.177	1.00	51.16	C
ATOM	16213	P	G A 775	186.365	86.803	-69.468	1.00	57.48	P	ATOM	16263	O5*	A A 777	195.560	96.458	-65.825	1.00	51.16	O
ATOM	16214	O1P	G A 775	186.820	86.990	-70.873	1.00	53.57	O	ATOM	16264	C4*	A A 777	195.231	97.867	-65.378	1.00	51.16	C
ATOM	16215	O2P	G A 775	187.076	85.834	-68.578	1.00	53.57	O	ATOM	16265	O4*	A A 777	193.824	98.154	-65.574	1.00	51.16	O



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ATOM 16266	C3*	A A 777	195.489	98.324	-63.952	1.00	51.16	C	ATOM 16316	N1	C A 779	193.240	98.494	-55.497	1.00	47.24	N
ATOM 16267	O3*	A A 777	196.861	98.611	-63.701	1.00	51.16	O	ATOM 16317	C2	C A 779	192.440	97.399	-55.202	1.00	47.24	C
ATOM 16268	C2*	A A 777	194.687	99.615	-63.934	1.00	51.16	C	ATOM 16318	O2	C A 779	191.548	97.528	-54.366	1.00	47.24	O
ATOM 16269	O1*	A A 777	195.329	100.616	-64.684	1.00	51.16	O	ATOM 16319	N3	C A 779	192.654	96.227	-55.836	1.00	47.24	N
ATOM 16270	C1*	A A 777	193.446	99.219	-64.722	1.00	51.16	C	ATOM 16320	C4	C A 779	193.617	96.133	-56.744	1.00	47.24	C
ATOM 16271	N9	A A 777	192.412	98.761	-63.795	1.00	50.14	N	ATOM 16321	N4	C A 779	193.797	94.959	-57.326	1.00	47.24	N
ATOM 16272	C8	A A 777	191.975	97.486	-63.525	1.00	50.14	C	ATOM 16322	C5	C A 779	194.437	97.243	-57.089	1.00	47.24	C
ATOM 16273	N7	A A 777	191.044	97.432	-62.603	1.00	50.14	N	ATOM 16323	C6	C A 779	194.216	98.395	-56.450	1.00	47.24	C
ATOM 16274	C5	A A 777	190.848	98.761	-62.247	1.00	50.14	C	ATOM 16324	P	A A 780	196.270	100.402	-51.232	1.00	41.45	P
ATOM 16275	C6	A A 777	189.994	99.379	-61.315	1.00	50.14	C	ATOM 16325	O1P	A A 780	196.370	101.304	-50.056	1.00	60.92	O
ATOM 16276	N6	A A 777	189.136	98.717	-60.541	1.00	50.14	N	ATOM 16326	O2P	A A 780	197.498	100.056	-51.985	1.00	60.92	O
ATOM 16277	N1	A A 777	190.057	100.723	-61.202	1.00	50.14	N	ATOM 16327	O5*	A A 780	195.572	99.030	-50.806	1.00	41.45	O
ATOM 16278	C2	A A 777	190.925	101.395	-61.975	1.00	50.14	C	ATOM 16328	C5*	A A 780	194.540	98.992	-49.806	1.00	41.45	C
ATOM 16279	N3	A A 777	191.774	100.931	-62.884	1.00	50.14	N	ATOM 16329	C4*	A A 780	193.807	97.676	-49.862	1.00	41.45	C
ATOM 16280	C4	A A 777	191.684	99.590	-62.974	1.00	50.14	C	ATOM 16330	O4*	A A 780	193.524	97.380	-51.249	1.00	41.45	O
ATOM 16281	P	G A 778	197.461	98.441	-62.210	1.00	44.70	P	ATOM 16331	C3*	A A 780	194.540	96.445	-49.362	1.00	41.45	C
ATOM 16282	O1P	G A 778	198.871	98.925	-62.235	1.00	44.70	O	ATOM 16332	O3*	A A 780	194.302	96.259	-47.988	1.00	41.45	O
ATOM 16283	O2P	G A 778	197.163	97.067	-61.702	1.00	44.70	O	ATOM 16333	C2*	A A 780	193.879	95.307	-50.126	1.00	41.45	C
ATOM 16284	O5*	G A 778	196.637	99.479	-61.332	1.00	49.52	O	ATOM 16334	O2*	A A 780	192.686	94.873	-49.524	1.00	41.45	O
ATOM 16285	C5*	G A 778	196.919	100.885	-61.368	1.00	49.52	C	ATOM 16335	C1*	A A 780	193.525	95.978	-51.448	1.00	41.45	C
ATOM 16286	C4*	G A 778	195.984	101.607	-60.432	1.00	49.52	C	ATOM 16336	N8	A A 780	194.465	95.657	-52.514	1.00	60.92	N
ATOM 16287	O4*	G A 778	194.624	101.374	-60.885	1.00	49.52	O	ATOM 16337	C8	A A 780	195.587	96.341	-52.912	1.00	60.92	C
ATOM 16288	O3*	G A 778	195.991	101.096	-59.002	1.00	49.52	O	ATOM 16338	N7	A A 780	196.221	95.777	-53.908	1.00	60.92	N
ATOM 16289	C3*	G A 778	196.986	101.714	-58.210	1.00	49.52	C	ATOM 16339	C5	A A 780	195.464	94.648	-54.183	1.00	60.92	C
ATOM 16290	C2*	G A 778	194.594	101.446	-58.522	1.00	49.52	O	ATOM 16340	C6	A A 780	195.610	93.633	-55.122	1.00	60.92	C
ATOM 16291	O2*	G A 778	194.478	102.810	-58.156	1.00	49.52	O	ATOM 16341	N6	A A 780	194.681	92.651	-55.138	1.00	60.92	N
ATOM 16292	C1*	G A 778	193.768	101.182	-59.779	1.00	49.52	C	ATOM 16342	N1	A A 780	194.681	92.651	-55.138	1.00	60.92	N
ATOM 16293	N9	G A 778	193.313	99.799	-59.811	1.00	44.70	N	ATOM 16343	C2	A A 780	193.682	92.700	-54.252	1.00	60.92	C
ATOM 16294	C8	G A 778	193.855	98.781	-60.543	1.00	44.70	C	ATOM 16344	N3	A A 780	193.443	93.601	-53.310	1.00	60.92	N
ATOM 16295	N7	G A 778	193.294	97.628	-60.315	1.00	44.70	N	ATOM 16345	C4	A A 780	194.382	94.562	-53.332	1.00	60.92	C
ATOM 16296	C5	G A 778	192.308	97.908	-59.381	1.00	44.70	C	ATOM 16346	P	A A 781	195.480	95.727	-47.049	1.00	41.97	P
ATOM 16297	C6	G A 778	191.378	97.046	-58.736	1.00	44.70	C	ATOM 16347	O1P	A A 781	195.611	96.727	-45.951	1.00	52.94	O
ATOM 16298	O6	G A 778	191.255	95.812	-58.841	1.00	44.70	O	ATOM 16348	O2P	A A 781	196.657	95.395	-47.893	1.00	52.94	O
ATOM 16299	N1	G A 778	190.547	97.751	-57.884	1.00	44.70	N	ATOM 16349	O5*	A A 781	194.960	94.363	-46.426	1.00	41.97	O
ATOM 16300	C2	G A 778	190.604	99.097	-57.668	1.00	44.70	C	ATOM 16350	C5*	A A 781	193.844	93.711	-46.960	1.00	41.97	C
ATOM 16301	N2	G A 778	189.705	99.582	-56.815	1.00	44.70	N	ATOM 16351	C4*	A A 781	192.954	93.263	-45.846	1.00	41.97	C
ATOM 16302	N3	G A 778	191.471	99.908	-58.243	1.00	44.70	N	ATOM 16352	O4*	A A 781	191.726	92.777	-46.434	1.00	41.97	O
ATOM 16303	C4	G A 778	192.290	99.249	-59.081	1.00	44.70	C	ATOM 16353	C3*	A A 781	193.497	92.125	-44.999	1.00	41.97	C
ATOM 16304	P	C A 779	197.620	100.907	-56.972	1.00	45.91	P	ATOM 16354	O3*	A A 781	194.251	92.638	-43.902	1.00	41.97	O
ATOM 16305	O1P	C A 779	198.659	101.757	-56.354	1.00	47.24	O	ATOM 16355	C2*	A A 781	192.223	91.403	-44.573	1.00	41.97	C
ATOM 16306	O2P	C A 779	197.962	99.533	-57.427	1.00	47.24	O	ATOM 16356	O2*	A A 781	191.558	92.047	-43.517	1.00	41.97	O
ATOM 16307	O5*	C A 779	196.429	100.756	-55.923	1.00	45.91	O	ATOM 16357	C1*	A A 781	191.338	91.574	-45.809	1.00	41.97	C
ATOM 16308	C5*	C A 779	195.769	101.912	-55.342	1.00	45.91	C	ATOM 16358	N9	A A 781	191.512	90.511	-46.791	1.00	52.94	N
ATOM 16309	C4*	C A 779	194.576	101.467	-54.538	1.00	45.91	C	ATOM 16359	C8	A A 781	192.362	90.517	-47.869	1.00	52.94	C
ATOM 16310	O4*	C A 779	193.638	100.811	-55.423	1.00	45.91	O	ATOM 16360	N7	A A 781	192.339	89.412	-48.564	1.00	52.94	N
ATOM 16311	C3*	C A 779	194.892	100.437	-53.461	1.00	45.91	C	ATOM 16361	C5	A A 781	191.406	88.625	-47.904	1.00	52.94	C
ATOM 16312	O3*	C A 779	195.223	101.081	-52.241	1.00	45.91	O	ATOM 16362	C6	A A 781	190.939	87.331	-48.142	1.00	52.94	C
ATOM 16313	C2*	C A 779	193.594	99.664	-53.320	1.00	45.91	C	ATOM 16363	N6	A A 781	191.376	86.570	-49.148	1.00	52.94	N
ATOM 16314	O2*	C A 779	192.712	100.244	-52.376	1.00	45.91	O	ATOM 16364	N1	A A 781	190.002	86.833	-47.302	1.00	52.94	N
ATOM 16315	C1*	C A 779	193.022	99.736	-54.741	1.00	45.91	C	ATOM 16365	C2	A A 781	189.579	87.603	-46.291	1.00	52.94	C



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ATOM	16366	N3	A A 781	189.949	88.840	-45.960	1.00	52.94	N	ATOM	16416	O4*	C A 784	203.850	86.203	-48.516	1.00	50.24	O
ATOM	16367	C4	A A 781	190.878	89.297	-46.818	1.00	52.94	C	ATOM	16417	C3*	C A 784	205.670	85.750	-47.116	1.00	50.24	C
ATOM	16368	P	A A 782	195.168	91.650	-43.002	1.00	41.63	P	ATOM	16418	O3*	C A 784	206.715	84.838	-46.838	1.00	50.24	O
ATOM	16369	O1P	A A 782	194.582	91.633	-41.647	1.00	47.62	O	ATOM	16419	C2*	C A 784	206.083	86.878	-48.049	1.00	50.24	C
ATOM	16370	O2P	A A 782	196.596	92.036	-43.161	1.00	47.62	O	ATOM	16420	O2*	C A 784	206.965	86.440	-49.062	1.00	50.24	O
ATOM	16371	O5*	A A 782	194.968	90.197	-43.622	1.00	41.63	O	ATOM	16421	C1*	C A 784	204.740	87.293	-48.654	1.00	50.24	C
ATOM	16372	C5*	A A 782	194.163	89.122	-42.958	1.00	41.63	C	ATOM	16422	N1	C A 784	204.157	88.473	-47.992	1.00	55.18	N
ATOM	16373	C4*	A A 782	194.188	87.916	-43.713	1.00	41.63	C	ATOM	16423	C2	C A 784	204.475	89.742	-48.484	1.00	55.18	C
ATOM	16374	O4*	A A 782	193.736	88.113	-45.079	1.00	41.63	O	ATOM	16424	O2	C A 784	205.223	89.833	-49.461	1.00	55.18	O
ATOM	16375	O3*	A A 782	195.542	87.264	-43.884	1.00	41.63	C	ATOM	16425	N3	C A 784	203.968	90.837	-47.875	1.00	55.18	N
ATOM	16376	C3*	A A 782	195.921	86.533	-42.740	1.00	41.63	C	ATOM	16426	C4	C A 784	203.194	90.698	-46.803	1.00	55.18	C
ATOM	16377	C2*	A A 782	195.306	86.352	-45.072	1.00	41.63	C	ATOM	16427	N4	C A 784	202.769	91.801	-46.197	1.00	55.18	N
ATOM	16378	O2*	A A 782	194.577	85.215	-44.683	1.00	41.63	O	ATOM	16428	C5	C A 784	202.837	89.420	-46.292	1.00	55.18	C
ATOM	16379	C1*	A A 782	194.405	87.213	-45.943	1.00	41.63	C	ATOM	16429	C6	C A 784	203.334	88.343	-46.911	1.00	55.18	C
ATOM	16380	N9	A A 782	195.183	87.982	-46.916	1.00	47.62	N	ATOM	16430	P	G A 785	207.880	85.268	-45.819	1.00	48.80	P
ATOM	16381	C8	A A 782	195.566	89.298	-46.848	1.00	47.62	C	ATOM	16431	O1P	G A 785	208.865	84.157	-45.796	1.00	51.96	O
ATOM	16382	N7	A A 782	196.246	89.707	-47.893	1.00	47.62	N	ATOM	16432	O2P	G A 785	207.289	85.741	-44.535	1.00	51.96	O
ATOM	16383	C5	A A 782	196.321	88.585	-48.703	1.00	47.62	C	ATOM	16433	O5*	G A 785	208.530	86.523	-46.548	1.00	48.80	O
ATOM	16384	C6	A A 782	196.894	88.369	-49.966	1.00	47.62	C	ATOM	16434	C5*	G A 785	209.165	87.564	-45.805	1.00	48.80	C
ATOM	16385	N6	A A 782	197.531	89.316	-50.663	1.00	47.62	N	ATOM	16435	C4*	G A 785	209.584	88.669	-46.734	1.00	48.80	C
ATOM	16386	N1	A A 782	196.785	87.135	-50.501	1.00	47.62	N	ATOM	16436	O4*	G A 785	208.419	89.229	-47.390	1.00	48.80	O
ATOM	16387	C2	A A 782	196.143	86.190	-49.806	1.00	47.62	C	ATOM	16437	C3*	G A 785	210.221	89.852	-46.043	1.00	48.80	C
ATOM	16388	N3	A A 782	195.561	86.269	-48.614	1.00	47.62	N	ATOM	16438	O3*	G A 785	211.577	89.623	-45.790	1.00	48.80	O
ATOM	16389	C4	A A 782	195.682	87.510	-48.110	1.00	47.62	C	ATOM	16439	C2*	G A 785	209.970	90.996	-47.016	1.00	48.80	C
ATOM	16390	P	C A 783	197.416	86.686	-42.182	1.00	53.47	P	ATOM	16440	O2*	G A 785	210.890	91.089	-48.077	1.00	48.80	O
ATOM	16391	O1P	C A 783	197.559	85.753	-41.028	1.00	38.29	O	ATOM	16441	C1*	G A 785	208.587	90.636	-47.559	1.00	48.80	C
ATOM	16392	O2P	C A 783	197.680	88.133	-42.006	1.00	38.29	O	ATOM	16442	N9	G A 785	207.558	91.336	-46.790	1.00	51.96	N
ATOM	16393	O5*	C A 783	198.341	86.235	-43.392	1.00	53.47	O	ATOM	16443	C8	G A 785	206.592	90.782	-45.998	1.00	51.96	C
ATOM	16394	C5*	C A 783	198.140	84.978	-44.042	1.00	53.47	C	ATOM	16444	N7	G A 785	205.878	91.670	-45.369	1.00	51.96	N
ATOM	16395	C4*	C A 783	198.754	85.002	-45.419	1.00	53.47	C	ATOM	16445	C5	G A 785	206.394	92.885	-45.787	1.00	51.96	C
ATOM	16396	O4*	C A 783	198.109	86.013	-46.232	1.00	53.47	O	ATOM	16446	C6	G A 785	206.040	94.203	-45.418	1.00	51.96	O
ATOM	16397	C3*	C A 783	200.225	85.365	-45.498	1.00	53.47	C	ATOM	16447	O6	G A 785	205.192	94.566	-44.602	1.00	51.96	O
ATOM	16398	O3*	C A 783	201.055	84.261	-45.222	1.00	53.47	O	ATOM	16448	N1	G A 785	206.811	95.147	-46.085	1.00	51.96	N
ATOM	16399	C2*	C A 783	200.371	85.822	-46.938	1.00	53.47	C	ATOM	16449	C2	G A 785	207.817	94.855	-46.965	1.00	51.96	C
ATOM	16400	O2*	C A 783	200.483	84.743	-47.849	1.00	53.47	O	ATOM	16450	N2	G A 785	208.465	95.898	-47.480	1.00	51.96	N
ATOM	16401	C1*	C A 783	199.038	86.525	-47.168	1.00	53.47	C	ATOM	16451	N3	G A 785	208.167	93.627	-47.306	1.00	51.96	N
ATOM	16402	N1	C A 783	199.163	87.978	-46.994	1.00	38.29	N	ATOM	16452	C4	G A 785	207.415	92.697	-46.682	1.00	51.96	C
ATOM	16403	C2	C A 783	199.821	88.703	-47.988	1.00	38.29	C	ATOM	16453	P	G A 786	212.237	90.222	-44.464	1.00	35.49	P
ATOM	16404	O2	C A 783	200.274	88.088	-48.971	1.00	38.29	O	ATOM	16454	O1P	G A 786	213.626	89.693	-44.452	1.00	45.84	O
ATOM	16405	N3	C A 783	199.952	90.045	-47.859	1.00	38.29	N	ATOM	16455	O2P	G A 786	211.350	89.950	-43.303	1.00	45.84	O
ATOM	16406	C4	C A 783	199.454	90.654	-46.790	1.00	38.29	C	ATOM	16456	O5*	G A 786	212.281	91.791	-44.745	1.00	35.49	O
ATOM	16407	N4	C A 783	199.590	91.965	-46.710	1.00	38.29	N	ATOM	16457	C5*	G A 786	213.148	92.313	-45.746	1.00	35.49	C
ATOM	16408	C5	C A 783	198.788	89.939	-45.756	1.00	38.29	C	ATOM	16458	O4*	G A 786	213.064	93.809	-45.794	1.00	35.49	C
ATOM	16409	C6	C A 783	198.662	88.615	-45.896	1.00	38.29	C	ATOM	16459	O4*	G A 786	211.726	94.197	-46.188	1.00	35.49	O
ATOM	16410	P	C A 784	202.513	84.512	-44.605	1.00	50.24	P	ATOM	16460	C3*	G A 786	213.308	94.580	-44.504	1.00	35.49	C
ATOM	16411	O1P	C A 784	203.079	83.173	-44.297	1.00	55.18	O	ATOM	16461	O3*	G A 786	214.683	94.786	-44.219	1.00	35.49	O
ATOM	16412	O2P	C A 784	202.443	85.547	-43.535	1.00	55.18	O	ATOM	16462	C2*	G A 786	212.624	95.905	-44.800	1.00	35.49	C
ATOM	16413	O5*	C A 784	203.307	85.140	-45.825	1.00	50.24	O	ATOM	16463	O2*	G A 786	213.413	96.752	-45.609	1.00	35.49	O
ATOM	16414	C5*	C A 784	203.575	84.364	-46.985	1.00	50.24	C	ATOM	16464	C1*	G A 786	211.400	95.446	-45.592	1.00	35.49	C
ATOM	16415	C4*	C A 784	204.529	85.101	-47.866	1.00	50.24	C	ATOM	16465	N9	G A 786	210.274	95.256	-44.679	1.00	45.84	N



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ATOM 16466	G A 786	209.762	94.071	-44.211	1.00 45.84	C	ATOM 16516	C5	U A 788	211.156	96.655	-37.056	1.00 48.63	C
ATOM 16467	G A 786	208.771	94.237	-43.380	1.00 45.84	N	ATOM 16517	C6	U A 788	211.182	97.995	-36.993	1.00 48.63	C
ATOM 16468	G A 786	208.617	95.613	-43.304	1.00 45.84	C	ATOM 16518	P	U A 789	213.769	101.415	-33.080	1.00 62.54	P
ATOM 16469	G A 786	207.703	96.386	-42.571	1.00 45.84	C	ATOM 16519	O1P	U A 789	214.082	102.627	-32.271	1.00 55.44	O
ATOM 16470	G A 786	206.813	95.998	-41.814	1.00 45.84	C	ATOM 16520	O2P	U A 789	214.870	100.552	-33.567	1.00 55.44	O
ATOM 16471	G A 786	207.893	97.745	-42.785	1.00 45.84	N	ATOM 16521	O5*	U A 789	212.778	100.459	-32.272	1.00 62.54	O
ATOM 16472	G A 786	208.843	98.283	-43.609	1.00 45.84	C	ATOM 16522	C5*	U A 789	211.689	101.004	-31.512	1.00 62.54	C
ATOM 16473	G A 786	208.872	99.610	-43.716	1.00 45.84	N	ATOM 16523	C4*	U A 789	210.951	99.914	-30.781	1.00 62.54	C
ATOM 16474	G A 786	209.702	97.571	-44.292	1.00 45.84	N	ATOM 16524	O4*	U A 789	210.246	99.070	-31.719	1.00 62.54	O
ATOM 16475	G A 786	209.533	96.253	-44.098	1.00 45.84	C	ATOM 16525	C3*	U A 789	211.790	98.964	-29.946	1.00 62.54	C
ATOM 16476	A A 787	215.198	94.766	-42.692	1.00 58.89	P	ATOM 16526	O3*	U A 789	212.053	99.522	-28.661	1.00 62.54	O
ATOM 16477	A A 787	216.651	95.053	-42.782	1.00 55.00	O	ATOM 16527	C2*	U A 789	210.896	97.733	-29.854	1.00 62.54	C
ATOM 16478	A A 787	214.735	93.522	-42.019	1.00 55.00	O	ATOM 16528	O2*	U A 789	209.934	97.834	-28.831	1.00 62.54	O
ATOM 16479	A A 787	214.482	96.006	-41.993	1.00 58.89	O	ATOM 16529	C1*	U A 789	210.181	97.752	-31.208	1.00 62.54	C
ATOM 16480	A A 787	214.854	97.338	-42.339	1.00 58.89	C	ATOM 16530	N1	U A 789	210.804	96.836	-32.174	1.00 55.44	N
ATOM 16481	A A 787	213.828	98.333	-41.843	1.00 58.89	C	ATOM 16531	C2	U A 789	210.399	95.513	-32.161	1.00 55.44	C
ATOM 16482	A A 787	212.493	97.899	-42.212	1.00 58.89	O	ATOM 16532	O2	U A 789	210.523	95.089	-31.432	1.00 55.44	O
ATOM 16483	A A 787	213.712	98.617	-40.353	1.00 58.89	C	ATOM 16533	N3	U A 789	211.056	94.705	-33.043	1.00 55.44	N
ATOM 16484	A A 787	214.700	99.537	-39.911	1.00 58.89	O	ATOM 16534	C4	U A 789	212.032	95.073	-33.930	1.00 55.44	C
ATOM 16485	A A 787	212.332	99.260	-40.273	1.00 58.89	C	ATOM 16535	O4	U A 789	212.467	94.237	-34.724	1.00 55.44	O
ATOM 16486	A A 787	212.329	100.612	-40.686	1.00 58.89	C	ATOM 16536	C5	U A 789	212.380	96.454	-33.897	1.00 55.44	C
ATOM 16487	A A 787	211.556	98.478	-41.327	1.00 58.89	O	ATOM 16537	C6	U A 789	211.773	97.267	-33.046	1.00 55.44	C
ATOM 16488	A A 787	210.747	97.430	-40.718	1.00 55.00	N	ATOM 16538	P	A A 790	213.402	99.129	-27.871	1.00 58.92	P
ATOM 16489	A A 787	210.940	96.076	-40.691	1.00 55.00	C	ATOM 16539	O1P	A A 790	213.406	99.911	-26.601	1.00 80.63	O
ATOM 16490	A A 787	210.006	95.425	-40.043	1.00 55.00	N	ATOM 16540	O2P	A A 790	214.550	99.258	-28.813	1.00 80.63	O
ATOM 16491	A A 787	209.142	96.418	-39.619	1.00 55.00	C	ATOM 16541	O5*	A A 790	213.197	97.591	-27.514	1.00 58.92	O
ATOM 16492	A A 787	207.951	96.377	-38.890	1.00 55.00	C	ATOM 16542	C5*	A A 790	214.304	96.791	-27.091	1.00 58.92	C
ATOM 16493	A A 787	207.402	95.250	-38.446	1.00 55.00	N	ATOM 16543	C4*	A A 790	213.807	95.515	-26.484	1.00 58.92	C
ATOM 16494	A A 787	207.330	97.546	-38.632	1.00 55.00	N	ATOM 16544	O4*	A A 790	213.100	95.825	-25.266	1.00 58.92	O
ATOM 16495	A A 787	207.886	98.681	-39.092	1.00 55.00	C	ATOM 16545	C3*	A A 790	212.805	94.776	-27.349	1.00 58.92	C
ATOM 16496	A A 787	209.004	98.846	-39.795	1.00 55.00	N	ATOM 16546	O3*	A A 790	213.482	93.915	-28.248	1.00 58.92	O
ATOM 16497	A A 787	209.588	97.659	-40.026	1.00 55.00	C	ATOM 16547	C2*	A A 790	211.967	94.020	-26.330	1.00 58.92	C
ATOM 16498	U A 788	215.193	99.505	-38.380	1.00 63.61	P	ATOM 16548	O2*	A A 790	212.574	92.813	-25.923	1.00 58.92	O
ATOM 16499	U A 788	216.229	100.560	-38.203	1.00 48.63	O	ATOM 16549	C1*	A A 790	211.953	95.001	-25.155	1.00 58.92	C
ATOM 16500	U A 788	215.496	98.107	-38.016	1.00 48.63	O	ATOM 16550	N9	A A 790	210.773	95.869	-25.128	1.00 80.63	N
ATOM 16501	U A 788	213.916	99.940	-37.537	1.00 63.61	C	ATOM 16551	C8	A A 790	210.646	97.120	-25.672	1.00 80.63	C
ATOM 16502	U A 788	213.486	101.311	-37.510	1.00 63.61	C	ATOM 16552	N7	A A 790	209.468	97.659	-25.491	1.00 80.63	N
ATOM 16503	U A 788	212.253	101.453	-36.653	1.00 63.61	C	ATOM 16553	C5	A A 790	208.770	96.698	-24.779	1.00 80.63	C
ATOM 16504	U A 788	211.174	100.669	-37.224	1.00 63.61	O	ATOM 16554	C6	A A 790	207.460	96.664	-24.278	1.00 80.63	C
ATOM 16505	U A 788	212.351	100.956	-35.219	1.00 63.61	C	ATOM 16555	N6	A A 790	206.588	97.663	-24.419	1.00 80.63	N
ATOM 16506	U A 788	212.920	101.914	-34.347	1.00 63.61	C	ATOM 16556	N1	A A 790	207.070	95.559	-23.615	1.00 80.63	N
ATOM 16507	U A 788	210.895	100.711	-34.860	1.00 63.61	C	ATOM 16557	C2	A A 790	207.948	94.561	-23.470	1.00 80.63	C
ATOM 16508	U A 788	210.243	101.919	-34.498	1.00 63.61	C	ATOM 16558	N3	A A 790	209.209	94.476	-23.894	1.00 80.63	N
ATOM 16509	U A 788	210.335	100.194	-36.186	1.00 63.61	C	ATOM 16559	C4	A A 790	209.562	95.591	-24.548	1.00 80.63	C
ATOM 16510	U A 788	210.280	98.725	-36.249	1.00 48.63	N	ATOM 16560	P	G A 791	213.160	93.994	-29.819	1.00 56.95	P
ATOM 16511	U A 788	209.280	98.088	-35.523	1.00 48.63	C	ATOM 16561	O1P	G A 791	214.236	93.249	-30.518	1.00 56.22	O
ATOM 16512	U A 788	208.460	98.701	-34.854	1.00 48.63	O	ATOM 16562	O2P	G A 791	212.904	95.412	-30.181	1.00 56.22	O
ATOM 16513	U A 788	209.279	96.709	-35.609	1.00 48.63	N	ATOM 16563	O5*	G A 791	211.829	93.132	-29.947	1.00 56.95	O
ATOM 16514	U A 788	210.160	95.925	-36.332	1.00 48.63	C	ATOM 16564	C5*	G A 791	211.820	91.755	-29.549	1.00 56.95	C
ATOM 16515	U A 788	210.063	94.699	-36.283	1.00 48.63	O	ATOM 16565	C4*	G A 791	210.408	91.276	-29.358	1.00 56.95	C



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ATOM	16566	O4*	G A 791	209.821	91.927	-28.214	1.00	56.95	O	ATOM	16616	C1*	U A 793	201.219	88.316	-35.191	1.00	62.30	C
ATOM	16567	C3*	G A 791	209.454	91.575	-30.496	1.00	56.95	C	ATOM	16617	N1	U A 793	201.311	87.542	-33.944	1.00	62.91	N
ATOM	16568	O3*	G A 791	209.534	90.543	-31.441	1.00	56.95	O	ATOM	16618	C2	U A 793	201.074	86.185	-34.012	1.00	62.91	C
ATOM	16569	C2*	G A 791	208.091	91.586	-29.821	1.00	56.95	C	ATOM	16619	O2	U A 793	200.817	85.609	-35.057	1.00	62.91	O
ATOM	16570	O1*	G A 791	207.527	90.302	-29.703	1.00	56.95	O	ATOM	16620	N3	U A 793	201.149	85.521	-32.810	1.00	62.91	N
ATOM	16571	C2*	G A 791	208.435	92.123	-28.436	1.00	56.95	C	ATOM	16621	O4	U A 793	201.429	86.066	-31.577	1.00	62.91	C
ATOM	16572	N9	G A 791	208.152	93.542	-28.306	1.00	56.22	N	ATOM	16622	C4	U A 793	201.388	85.352	-30.574	1.00	62.91	O
ATOM	16573	C8	G A 791	208.971	94.587	-28.641	1.00	56.22	C	ATOM	16623	C5	U A 793	201.678	87.469	-31.594	1.00	62.91	C
ATOM	16574	N7	G A 791	208.427	95.747	-28.420	1.00	56.22	N	ATOM	16624	C6	U A 793	201.614	88.143	-32.746	1.00	62.91	C
ATOM	16575	C5	G A 791	207.176	95.446	-27.908	1.00	56.22	C	ATOM	16625	P	A A 794	199.316	91.580	-37.743	1.00	49.08	P
ATOM	16576	C6	G A 791	206.139	96.292	-27.502	1.00	56.22	C	ATOM	16626	O1P	A A 794	198.013	91.285	-37.083	1.00	55.63	O
ATOM	16577	O6	G A 791	206.116	97.527	-27.519	1.00	56.22	O	ATOM	16627	O2P	A A 794	199.365	91.725	-39.225	1.00	55.63	O
ATOM	16578	N1	G A 791	205.035	95.571	-27.046	1.00	56.22	N	ATOM	16628	O5*	A A 794	199.912	92.898	-37.094	1.00	49.08	O
ATOM	16579	C2	G A 791	204.954	94.201	-27.000	1.00	56.22	C	ATOM	16629	C5*	A A 794	200.345	93.985	-37.901	1.00	49.08	C
ATOM	16580	N2	G A 791	203.816	93.670	-26.537	1.00	56.22	N	ATOM	16630	C4*	A A 794	199.814	95.255	-37.324	1.00	49.08	C
ATOM	16581	N3	G A 791	205.922	93.403	-27.384	1.00	56.22	N	ATOM	16631	O4*	A A 794	200.212	95.326	-35.940	1.00	49.08	O
ATOM	16582	C4	G A 791	206.996	94.089	-27.825	1.00	56.22	C	ATOM	16632	C3*	A A 794	200.307	96.544	-37.942	1.00	49.08	C
ATOM	16583	P	A A 792	209.537	90.897	-32.994	1.00	57.34	P	ATOM	16633	O3*	A A 794	199.519	96.879	-39.066	1.00	49.08	O
ATOM	16584	O1P	A A 792	210.137	89.716	-33.652	1.00	53.61	O	ATOM	16634	C2*	A A 794	200.105	97.535	-36.808	1.00	49.08	C
ATOM	16585	O2P	A A 792	210.091	92.252	-33.248	1.00	53.61	O	ATOM	16635	C1*	A A 794	198.764	97.977	-36.743	1.00	49.08	O
ATOM	16586	O5*	A A 792	208.000	90.866	-33.372	1.00	57.34	O	ATOM	16636	O2*	A A 794	200.412	96.673	-35.580	1.00	49.08	O
ATOM	16587	C5*	A A 792	207.046	91.614	-32.631	1.00	57.34	C	ATOM	16637	N9	A A 794	201.787	96.827	-35.124	1.00	55.63	N
ATOM	16588	C4*	A A 792	205.954	92.061	-33.548	1.00	57.34	C	ATOM	16638	C8	A A 794	202.879	96.090	-35.466	1.00	55.63	C
ATOM	16589	O4*	A A 792	205.095	92.963	-32.811	1.00	57.34	O	ATOM	16639	N7	A A 794	203.991	96.523	-34.935	1.00	55.63	N
ATOM	16590	C3*	A A 792	206.495	92.842	-34.726	1.00	57.34	C	ATOM	16640	C5	A A 794	203.598	97.608	-34.175	1.00	55.63	C
ATOM	16591	O3*	A A 792	206.106	92.244	-35.997	1.00	57.34	O	ATOM	16641	C6	A A 794	204.312	98.506	-33.368	1.00	55.63	C
ATOM	16592	C2*	A A 792	206.361	94.297	-34.284	1.00	57.34	C	ATOM	16642	N6	A A 794	205.627	98.444	-33.179	1.00	55.63	N
ATOM	16593	O2*	A A 792	206.362	95.297	-35.265	1.00	57.34	O	ATOM	16643	N1	A A 794	203.620	99.482	-32.752	1.00	55.63	N
ATOM	16594	C1*	A A 792	205.138	94.254	-33.374	1.00	57.34	C	ATOM	16644	C2	A A 794	202.299	99.539	-32.939	1.00	55.63	C
ATOM	16595	N9	A A 792	205.141	95.217	-32.262	1.00	53.61	N	ATOM	16645	N3	A A 794	201.518	98.755	-33.669	1.00	55.63	N
ATOM	16596	C8	A A 792	206.205	95.734	-31.565	1.00	53.61	C	ATOM	16646	C4	A A 794	202.241	97.798	-34.270	1.00	55.63	C
ATOM	16597	N7	A A 792	205.866	96.608	-30.648	1.00	53.61	N	ATOM	16647	P	C A 795	200.181	97.670	-40.291	1.00	52.05	P
ATOM	16598	C5	A A 792	204.484	96.663	-30.738	1.00	53.61	C	ATOM	16648	O1P	C A 795	199.214	97.546	-41.416	1.00	64.20	O
ATOM	16599	C6	A A 792	203.524	97.415	-30.051	1.00	53.61	C	ATOM	16649	O2P	C A 795	201.591	97.225	-40.471	1.00	64.20	O
ATOM	16600	N6	A A 792	203.820	98.304	-29.091	1.00	53.61	N	ATOM	16650	O5*	C A 795	200.230	99.187	-39.806	1.00	52.05	O
ATOM	16601	N1	A A 792	202.229	97.232	-30.388	1.00	53.61	N	ATOM	16651	C5*	C A 795	199.028	99.906	-39.508	1.00	52.05	C
ATOM	16602	C2	A A 792	201.933	96.361	-31.350	1.00	53.61	C	ATOM	16652	C4*	C A 795	199.330	101.071	-38.610	1.00	52.05	C
ATOM	16603	N3	A A 792	202.739	95.604	-32.070	1.00	53.61	N	ATOM	16653	O4*	C A 795	199.890	100.584	-37.372	1.00	52.05	O
ATOM	16604	C4	A A 792	204.021	95.802	-31.714	1.00	53.61	C	ATOM	16654	C3*	C A 795	200.361	102.037	-39.148	1.00	52.05	C
ATOM	16605	P	U A 793	204.781	92.691	-36.806	1.00	62.30	P	ATOM	16655	O3*	C A 795	199.736	103.025	-39.939	1.00	52.05	O
ATOM	16606	O1P	U A 793	204.694	91.741	-37.938	1.00	62.91	O	ATOM	16656	C2*	C A 795	200.939	102.659	-37.889	1.00	52.05	C
ATOM	16607	O2P	U A 793	204.787	94.145	-37.086	1.00	62.91	O	ATOM	16657	O2*	C A 795	200.185	103.762	-37.429	1.00	52.05	O
ATOM	16608	O5*	U A 793	203.549	92.304	-35.872	1.00	62.30	O	ATOM	16658	C1*	C A 795	200.841	101.507	-36.890	1.00	52.05	O
ATOM	16609	C5*	U A 793	203.438	90.992	-35.270	1.00	62.30	C	ATOM	16659	N1	C A 795	202.130	100.828	-36.706	1.00	52.05	C
ATOM	16610	C4*	U A 793	202.431	90.143	-36.019	1.00	62.30	C	ATOM	16660	C2	C A 795	203.049	101.396	-35.827	1.00	64.20	N
ATOM	16611	O4*	U A 793	202.505	88.788	-35.506	1.00	62.30	O	ATOM	16661	O2	C A 795	202.726	102.434	-35.210	1.00	64.20	O
ATOM	16612	C3*	U A 793	200.958	90.549	-35.987	1.00	62.30	C	ATOM	16662	N3	C A 795	204.259	100.812	-35.668	1.00	64.20	N
ATOM	16613	O3*	U A 793	200.363	90.452	-37.273	1.00	62.30	O	ATOM	16663	C4	C A 795	204.556	99.703	-36.347	1.00	64.20	C
ATOM	16614	C2*	U A 793	200.307	89.529	-35.057	1.00	62.30	C	ATOM	16664	N4	C A 795	205.768	99.172	-36.175	1.00	64.20	N
ATOM	16615	O2*	U A 793	199.009	89.156	-35.490	1.00	62.30	O	ATOM	16665	C5	C A 795	203.627	99.091	-37.234	1.00	64.20	C



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ATOM 16666	C6	C A 795	202.439	99.681	-37.382	1.00	64.20	C	ATOM 16716	C2*	G A 798	207.161	97.004	-52.472	1.00	46.98	C
ATOM 16667	P	C A 796	199.965	103.025	-41.516	1.00	45.43	P	ATOM 16717	O2*	G A 798	208.183	96.458	-53.265	1.00	46.98	O
ATOM 16668	O1P	C A 796	199.287	104.205	-42.075	1.00	38.88	O	ATOM 16718	C1*	G A 798	206.649	97.111	-51.030	1.00	46.98	C
ATOM 16669	O2P	C A 796	199.605	101.676	-41.999	1.00	38.88	O	ATOM 16719	N9	G A 798	206.593	96.791	-50.080	1.00	49.15	N
ATOM 16670	O5*	C A 796	201.525	103.263	-41.679	1.00	45.43	O	ATOM 16720	C8	G A 798	205.874	97.678	-49.326	1.00	49.15	C
ATOM 16671	C5*	C A 796	202.060	104.593	-41.617	1.00	45.43	C	ATOM 16721	N7	G A 798	204.983	97.100	-48.570	1.00	49.15	N
ATOM 16672	C4*	C A 796	203.498	104.607	-42.078	1.00	45.43	C	ATOM 16722	C5	G A 798	205.123	95.749	-48.843	1.00	49.15	C
ATOM 16673	O4*	C A 796	204.307	103.879	-41.121	1.00	45.43	O	ATOM 16723	C6	G A 798	204.419	94.633	-48.327	1.00	49.15	C
ATOM 16674	C3*	C A 796	203.785	103.922	-43.403	1.00	45.43	C	ATOM 16724	O6	G A 798	203.489	94.616	-47.513	1.00	49.15	O
ATOM 16675	O3*	C A 796	203.534	104.742	-44.538	1.00	45.43	O	ATOM 16725	N1	G A 798	204.887	93.445	-48.864	1.00	49.15	N
ATOM 16676	C2*	C A 796	205.252	103.559	-43.263	1.00	45.43	C	ATOM 16726	C2	G A 798	205.885	93.345	-49.787	1.00	49.15	C
ATOM 16677	O2*	C A 796	206.074	104.691	-43.428	1.00	45.43	O	ATOM 16727	N2	G A 798	206.182	92.115	-50.170	1.00	49.15	N
ATOM 16678	C1*	C A 796	205.325	103.169	-41.795	1.00	45.43	C	ATOM 16728	N3	G A 798	206.541	94.376	-50.291	1.00	49.15	N
ATOM 16679	N1	C A 796	205.109	101.729	-41.587	1.00	38.88	N	ATOM 16729	C4	G A 798	206.114	95.540	-49.771	1.00	49.15	C
ATOM 16680	C2	C A 796	206.137	100.850	-41.902	1.00	38.88	C	ATOM 16730	P	G A 799	205.622	98.424	-55.109	1.00	44.73	P
ATOM 16681	O2	C A 796	207.187	101.309	-42.381	1.00	38.88	O	ATOM 16731	O1P	G A 799	206.087	98.419	-56.529	1.00	49.65	O
ATOM 16682	N3	C A 796	205.963	99.523	-41.688	1.00	38.88	N	ATOM 16732	O2P	G A 799	204.539	99.365	-54.700	1.00	49.65	O
ATOM 16683	C4	C A 796	204.808	99.077	-41.200	1.00	38.88	C	ATOM 16733	O5*	G A 799	205.281	96.925	-54.671	1.00	44.73	O
ATOM 16684	N4	C A 796	204.665	97.769	-41.013	1.00	38.88	N	ATOM 16734	C5*	G A 799	204.544	96.041	-55.509	1.00	44.73	C
ATOM 16685	C5	C A 796	203.740	99.953	-40.883	1.00	38.88	C	ATOM 16735	C4*	G A 799	204.824	94.606	-55.128	1.00	44.73	C
ATOM 16686	C6	C A 796	203.930	101.258	-41.089	1.00	38.88	C	ATOM 16736	O4*	G A 799	205.124	94.504	-53.718	1.00	44.73	O
ATOM 16687	P	C A 797	203.180	104.036	-45.940	1.00	53.79	P	ATOM 16737	C3*	G A 799	203.627	93.703	-55.314	1.00	44.73	C
ATOM 16688	O1P	C A 797	202.885	105.078	-46.941	1.00	40.56	O	ATOM 16738	O3*	G A 799	203.490	93.253	-56.631	1.00	44.73	O
ATOM 16689	O2P	C A 797	202.193	102.956	-45.689	1.00	40.56	O	ATOM 16739	C2*	G A 799	203.868	92.577	-54.330	1.00	44.73	C
ATOM 16690	O5*	C A 797	204.542	103.330	-46.357	1.00	53.79	O	ATOM 16740	O2*	G A 799	204.686	91.553	-54.825	1.00	44.73	O
ATOM 16691	C5*	C A 797	205.675	104.099	-46.795	1.00	53.79	C	ATOM 16741	C1*	G A 799	204.563	93.311	-53.190	1.00	44.73	C
ATOM 16692	C4*	C A 797	206.728	103.171	-47.337	1.00	53.79	C	ATOM 16742	N9	G A 799	203.612	93.657	-52.137	1.00	49.65	N
ATOM 16693	O4*	C A 797	207.195	102.306	-46.267	1.00	53.79	O	ATOM 16743	C8	G A 799	203.279	94.913	-51.696	1.00	49.65	C
ATOM 16694	O3*	C A 797	206.250	102.201	-48.406	1.00	53.79	O	ATOM 16744	N7	G A 799	202.376	94.901	-50.754	1.00	49.65	N
ATOM 16695	C3*	C A 797	206.244	102.773	-49.701	1.00	53.79	C	ATOM 16745	C5	G A 799	202.102	93.556	-50.556	1.00	49.65	C
ATOM 16696	C2*	C A 797	207.245	101.059	-48.289	1.00	53.79	O	ATOM 16746	C6	G A 799	201.216	92.931	-49.654	1.00	49.65	C
ATOM 16697	O2*	C A 797	208.466	101.363	-48.928	1.00	53.79	O	ATOM 16747	O6	G A 799	200.473	93.459	-48.824	1.00	49.65	O
ATOM 16698	C1*	C A 797	207.491	101.024	-46.786	1.00	53.79	C	ATOM 16748	N1	G A 799	201.248	91.545	-49.783	1.00	49.65	N
ATOM 16699	N1	C A 797	206.645	100.040	-46.111	1.00	40.56	N	ATOM 16749	C2	G A 799	202.031	90.857	-50.674	1.00	49.65	C
ATOM 16700	C2	C A 797	206.954	98.680	-46.251	1.00	40.56	C	ATOM 16750	N2	G A 799	201.906	89.531	-50.667	1.00	49.65	N
ATOM 16701	O2	C A 797	207.906	98.356	-46.964	1.00	40.56	O	ATOM 16751	N3	G A 799	202.870	91.432	-51.513	1.00	49.65	N
ATOM 16702	N3	C A 797	206.207	97.754	-45.609	1.00	40.56	N	ATOM 16752	C4	G A 799	202.856	92.774	-51.400	1.00	49.65	C
ATOM 16703	C4	C A 797	205.187	98.141	-44.856	1.00	40.56	C	ATOM 16753	P	G A 800	202.038	93.231	-57.292	1.00	47.01	P
ATOM 16704	N4	C A 797	204.498	97.202	-44.227	1.00	40.56	N	ATOM 16754	O1P	G A 800	202.185	92.508	-58.579	1.00	42.51	O
ATOM 16705	C5	C A 797	204.834	99.519	-44.709	1.00	40.56	C	ATOM 16755	O2P	G A 800	201.515	94.619	-57.278	1.00	42.51	O
ATOM 16706	C6	C A 797	205.582	100.426	-45.350	1.00	40.56	C	ATOM 16756	O5*	G A 800	201.208	92.285	-56.324	1.00	47.01	O
ATOM 16707	P	G A 798	205.373	102.081	-50.857	1.00	46.98	P	ATOM 16757	C5*	G A 800	201.589	90.913	-56.174	1.00	47.01	C
ATOM 16708	O1P	G A 798	205.507	102.913	-52.082	1.00	49.15	O	ATOM 16758	C4*	G A 800	200.697	90.227	-55.174	1.00	47.01	C
ATOM 16709	O2P	G A 798	204.028	101.810	-50.308	1.00	49.15	O	ATOM 16759	O4*	G A 800	200.918	90.803	-53.861	1.00	47.01	O
ATOM 16710	O5*	G A 798	206.102	100.681	-51.105	1.00	46.98	O	ATOM 16760	C3*	G A 800	199.207	90.362	-55.436	1.00	47.01	C
ATOM 16711	C5*	G A 798	207.443	100.643	-51.656	1.00	46.98	C	ATOM 16761	O3*	G A 800	198.771	89.328	-56.311	1.00	47.01	O
ATOM 16712	C4*	G A 798	207.848	99.229	-52.006	1.00	46.98	C	ATOM 16762	C2*	G A 800	198.618	90.226	-54.036	1.00	47.01	C
ATOM 16713	O4*	G A 798	208.062	98.447	-50.808	1.00	46.98	O	ATOM 16763	O2*	G A 800	198.520	88.864	-53.656	1.00	47.01	O
ATOM 16714	C3*	G A 798	206.823	98.452	-52.795	1.00	46.98	C	ATOM 16764	C1*	G A 800	199.685	90.921	-53.180	1.00	47.01	C
ATOM 16715	O3*	G A 798	206.893	98.745	-54.179	1.00	46.98	O	ATOM 16765	N9	G A 800	199.459	92.349	-52.971	1.00	42.51	N



Table 2: Sheet 169/520

ATOM	16766	C8	G A 800	199.890	93.371	-53.782	1.00	42.51	C	ATOM	16816	N3	A A 802	189.297	89.325	-50.311	1.00	40.01	N
ATOM	16767	N7	G A 800	199.573	94.551	-53.333	1.00	42.51	N	ATOM	16817	C4	A A 802	190.011	89.398	-51.445	1.00	40.01	C
ATOM	16768	C5	G A 800	198.885	94.292	-52.159	1.00	42.51	C	ATOM	16818	P	G A 803	186.294	87.103	-56.027	1.00	47.04	P
ATOM	16769	C6	G A 800	198.317	95.178	-51.231	1.00	42.51	C	ATOM	16819	OLP	G A 803	185.031	86.325	-56.129	1.00	48.48	O
ATOM	16770	O6	G A 800	198.314	96.431	-51.255	1.00	42.51	O	ATOM	16820	O2P	G A 803	187.056	87.436	-57.259	1.00	48.48	O
ATOM	16771	N1	G A 800	197.715	94.493	-50.181	1.00	42.51	N	ATOM	16821	O5P	G A 803	185.987	88.470	-55.265	1.00	47.04	O
ATOM	16772	C2	G A 800	197.680	93.128	-50.043	1.00	42.51	C	ATOM	16822	C5*	G A 803	185.205	88.483	-54.056	1.00	47.04	C
ATOM	16773	N2	G A 800	197.058	92.647	-48.955	1.00	42.51	N	ATOM	16823	C4*	G A 803	185.398	89.787	-53.330	1.00	47.04	C
ATOM	16774	N3	G A 800	198.216	92.294	-50.903	1.00	42.51	N	ATOM	16824	O4*	G A 803	186.809	89.943	-53.044	1.00	47.04	O
ATOM	16775	C4	G A 800	198.798	92.938	-51.929	1.00	42.51	C	ATOM	16825	C3*	G A 803	185.020	91.048	-54.092	1.00	47.04	C
ATOM	16776	P	U A 801	197.531	89.583	-57.311	1.00	52.90	P	ATOM	16826	O3*	G A 803	183.644	91.350	-53.924	1.00	47.04	O
ATOM	16777	OLP	U A 801	197.859	88.896	-58.599	1.00	49.40	O	ATOM	16827	C2*	G A 803	185.892	92.099	-53.425	1.00	47.04	C
ATOM	16778	O2P	U A 801	197.165	91.021	-57.329	1.00	49.40	O	ATOM	16828	O2*	G A 803	185.340	92.541	-52.200	1.00	47.04	O
ATOM	16779	O5*	U A 801	196.354	88.749	-56.634	1.00	52.90	C	ATOM	16829	C1*	G A 803	187.169	91.304	-53.139	1.00	47.04	C
ATOM	16780	C5*	U A 801	196.365	87.326	-56.727	1.00	52.90	C	ATOM	16830	N9	G A 803	188.152	91.449	-54.210	1.00	48.48	N
ATOM	16781	C4*	U A 801	195.429	86.707	-55.729	1.00	52.90	C	ATOM	16831	C8	G A 803	188.379	90.603	-55.266	1.00	48.48	C
ATOM	16782	O4*	U A 801	195.914	86.901	-54.381	1.00	52.90	O	ATOM	16832	N7	G A 803	189.281	91.055	-56.092	1.00	48.48	N
ATOM	16783	C3*	U A 801	194.013	87.229	-55.674	1.00	52.90	C	ATOM	16833	C5	G A 803	189.682	92.261	-55.538	1.00	48.48	C
ATOM	16784	O3*	U A 801	193.203	86.733	-56.702	1.00	52.90	O	ATOM	16834	C6	G A 803	190.619	93.221	-55.996	1.00	48.48	C
ATOM	16785	C2*	U A 801	193.552	86.731	-54.316	1.00	52.90	C	ATOM	16835	O6	G A 803	191.288	93.214	-57.031	1.00	48.48	O
ATOM	16786	O2*	U A 801	193.228	85.358	-54.342	1.00	52.90	O	ATOM	16836	N1	G A 803	190.730	94.288	-55.114	1.00	48.48	N
ATOM	16787	C1*	U A 801	194.814	86.921	-53.485	1.00	52.90	C	ATOM	16837	C2	G A 803	190.022	94.424	-53.949	1.00	48.48	C
ATOM	16788	N1	U A 801	194.776	88.216	-52.792	1.00	49.40	N	ATOM	16838	N2	G A 803	190.293	95.500	-53.207	1.00	48.48	N
ATOM	16789	C2	U A 801	194.144	88.252	-51.572	1.00	49.40	C	ATOM	16839	N3	G A 803	189.123	93.557	-53.533	1.00	48.48	N
ATOM	16790	O2	U A 801	193.639	87.269	-51.066	1.00	49.40	O	ATOM	16840	C4	G A 803	189.010	92.505	-54.367	1.00	48.48	C
ATOM	16791	N3	U A 801	194.119	89.480	-50.966	1.00	49.40	N	ATOM	16841	P	U A 804	182.802	91.984	-55.143	1.00	35.86	P
ATOM	16792	C4	U A 801	194.648	90.654	-51.457	1.00	49.40	C	ATOM	16842	OLP	U A 804	181.414	92.087	-54.619	1.00	53.09	O
ATOM	16793	O4	U A 801	194.461	91.710	-50.841	1.00	49.40	O	ATOM	16843	O2P	U A 804	183.053	91.252	-56.418	1.00	53.09	O
ATOM	16794	C5	U A 801	195.294	90.527	-52.730	1.00	49.40	C	ATOM	16844	O5*	U A 804	183.352	93.470	-55.272	1.00	35.86	O
ATOM	16795	C6	U A 801	195.332	89.345	-53.335	1.00	49.40	C	ATOM	16845	C5*	U A 804	183.052	94.428	-54.255	1.00	35.86	C
ATOM	16796	P	A A 802	191.923	87.582	-57.152	1.00	46.45	P	ATOM	16846	C4*	U A 804	183.944	95.624	-54.384	1.00	35.86	C
ATOM	16797	OLP	A A 802	191.405	86.919	-58.385	1.00	40.01	O	ATOM	16847	O4*	U A 804	185.320	95.205	-54.291	1.00	35.86	O
ATOM	16798	O2P	A A 802	192.281	89.031	-57.193	1.00	40.01	O	ATOM	16848	C3*	U A 804	183.864	96.346	-55.704	1.00	35.86	C
ATOM	16799	O5*	A A 802	190.891	87.314	-55.965	1.00	46.45	O	ATOM	16849	O3*	U A 804	182.802	97.260	-55.680	1.00	35.86	O
ATOM	16800	C5*	A A 802	190.414	85.975	-55.699	1.00	46.45	C	ATOM	16850	C2*	U A 804	185.205	97.045	-55.785	1.00	35.86	C
ATOM	16801	C4*	A A 802	189.557	85.939	-54.447	1.00	46.45	C	ATOM	16851	O2*	U A 804	185.214	98.252	-55.055	1.00	35.86	O
ATOM	16802	O4*	A A 802	190.352	86.295	-53.288	1.00	46.45	O	ATOM	16852	C1*	U A 804	186.123	96.022	-55.118	1.00	35.86	C
ATOM	16803	C3*	A A 802	188.368	86.880	-54.421	1.00	46.45	C	ATOM	16853	N1	U A 804	186.816	95.165	-56.088	1.00	53.09	N
ATOM	16804	O3*	A A 802	187.229	86.263	-55.021	1.00	46.45	O	ATOM	16854	C2	U A 804	187.855	95.722	-56.806	1.00	53.09	C
ATOM	16805	C2*	A A 802	188.156	87.094	-52.928	1.00	46.45	C	ATOM	16855	O2	U A 804	188.258	96.855	-56.623	1.00	53.09	O
ATOM	16806	O2*	A A 802	187.469	85.993	-52.359	1.00	46.45	O	ATOM	16856	N3	U A 804	188.412	94.902	-57.746	1.00	53.09	N
ATOM	16807	C1*	A A 802	189.588	87.080	-52.401	1.00	46.45	C	ATOM	16857	C4	U A 804	188.060	93.612	-58.024	1.00	53.09	C
ATOM	16808	N9	A A 802	190.172	88.420	-52.394	1.00	40.01	N	ATOM	16858	O4	U A 804	188.612	93.031	-58.948	1.00	53.09	O
ATOM	16809	C8	A A 802	190.987	88.965	-53.355	1.00	40.01	C	ATOM	16859	C5	U A 804	187.007	93.090	-57.211	1.00	53.09	C
ATOM	16810	N7	A A 802	191.348	90.198	-53.108	1.00	40.01	N	ATOM	16860	C6	U A 804	186.436	93.865	-56.294	1.00	53.09	C
ATOM	16811	C5	A A 802	190.735	90.487	-51.902	1.00	40.01	C	ATOM	16861	P	C A 805	181.502	96.960	-56.551	1.00	50.96	P
ATOM	16812	C6	A A 802	190.729	91.640	-51.109	1.00	40.01	C	ATOM	16862	OLP	C A 805	180.645	98.166	-56.461	1.00	40.50	O
ATOM	16813	N6	A A 802	191.366	92.768	-51.434	1.00	40.01	N	ATOM	16863	O2P	C A 805	180.975	95.635	-56.142	1.00	40.50	O
ATOM	16814	N1	A A 802	190.033	91.599	-49.958	1.00	40.01	N	ATOM	16864	O5*	C A 805	182.058	96.854	-58.031	1.00	50.96	O
ATOM	16815	C2	A A 802	189.376	90.468	-49.643	1.00	40.01	C	ATOM	16865	C5*	C A 805	182.476	98.029	-58.726	1.00	50.96	C



Table 2: Sheet 170/520

ATOM 16866	C4*	C A 805	182.616	97.723	-60.183	1.00	50.96	C	ATOM 16916	C5	A A 807	176.666	88.812	-62.443	1.00	46.06	C
ATOM 16867	O4*	C A 805	183.743	96.836	-60.380	1.00	50.96	O	ATOM 16917	C6	A A 807	177.066	87.678	-61.725	1.00	46.06	C
ATOM 16868	C3*	C A 805	181.450	96.962	-60.779	1.00	50.96	C	ATOM 16918	N6	A A 807	177.725	87.727	-60.569	1.00	46.06	N
ATOM 16869	O3*	C A 805	180.386	97.821	-61.128	1.00	50.96	O	ATOM 16919	N1	A A 807	176.758	86.468	-62.237	1.00	46.06	N
ATOM 16870	C2*	C A 805	182.082	96.284	-61.980	1.00	50.96	C	ATOM 16920	C2	A A 807	176.090	86.418	-63.390	1.00	46.06	C
ATOM 16871	O2*	C A 805	182.229	97.201	-63.044	1.00	50.96	O	ATOM 16921	N3	A A 807	175.655	87.413	-64.154	1.00	46.06	N
ATOM 16872	C1*	C A 805	183.466	95.940	-61.437	1.00	50.96	C	ATOM 16922	C4	A A 807	175.977	88.594	-63.616	1.00	46.06	C
ATOM 16873	N1	C A 805	183.560	94.570	-60.920	1.00	40.50	N	ATOM 16923	P	C A 808	170.583	91.917	-64.318	1.00	55.51	P
ATOM 16874	C2	C A 805	183.420	93.515	-61.810	1.00	40.50	C	ATOM 16924	O1P	C A 808	169.359	92.339	-65.045	1.00	51.22	O
ATOM 16875	O2	C A 805	183.236	93.771	-63.010	1.00	40.50	O	ATOM 16925	O2P	C A 808	171.078	92.741	-63.184	1.00	51.22	O
ATOM 16876	N3	C A 805	183.495	92.244	-61.354	1.00	40.50	N	ATOM 16926	O5*	C A 808	170.379	90.418	-63.819	1.00	55.51	O
ATOM 16877	C4	C A 805	183.712	92.017	-60.066	1.00	40.50	C	ATOM 16927	C5*	C A 808	169.759	89.460	-64.679	1.00	55.51	C
ATOM 16878	N4	C A 805	183.774	90.760	-59.664	1.00	40.50	N	ATOM 16928	C4*	C A 808	169.884	88.076	-64.110	1.00	55.51	C
ATOM 16879	C5	C A 805	183.872	93.074	-59.131	1.00	40.50	C	ATOM 16929	O4*	C A 808	171.272	87.662	-64.100	1.00	55.51	O
ATOM 16880	C6	C A 805	183.785	94.326	-59.595	1.00	40.50	C	ATOM 16930	C3*	C A 808	169.451	87.900	-62.671	1.00	55.51	C
ATOM 16881	P	C A 806	178.885	97.288	-60.984	1.00	48.54	P	ATOM 16931	O3*	C A 808	168.052	87.816	-62.507	1.00	55.51	O
ATOM 16882	O1P	C A 806	178.005	98.465	-61.131	1.00	36.67	O	ATOM 16932	C2*	C A 808	170.176	86.625	-62.261	1.00	55.51	C
ATOM 16883	O2P	C A 806	178.778	96.432	-59.775	1.00	36.67	O	ATOM 16933	O2*	C A 808	169.520	85.438	-62.659	1.00	55.51	C
ATOM 16884	O5*	C A 806	178.714	96.330	-62.235	1.00	48.54	O	ATOM 16934	C1*	C A 808	171.494	86.778	-63.014	1.00	55.51	C
ATOM 16885	C5*	C A 806	178.902	96.827	-63.559	1.00	48.54	C	ATOM 16935	N1	C A 808	172.510	87.348	-62.115	1.00	51.22	N
ATOM 16886	C4*	C A 806	178.627	95.737	-64.548	1.00	48.54	C	ATOM 16936	C2	C A 808	173.278	86.469	-61.346	1.00	51.22	C
ATOM 16887	O4*	C A 806	179.696	94.763	-64.517	1.00	48.54	O	ATOM 16937	O2	C A 808	173.139	85.249	-61.516	1.00	51.22	O
ATOM 16888	C3*	C A 806	177.378	94.938	-64.243	1.00	48.54	C	ATOM 16938	N3	C A 808	174.151	86.966	-60.444	1.00	51.22	N
ATOM 16889	O3*	C A 806	176.231	95.603	-64.726	1.00	48.54	O	ATOM 16939	C4	C A 808	174.278	88.284	-60.302	1.00	51.22	C
ATOM 16890	C2*	C A 806	177.651	93.600	-64.919	1.00	48.54	C	ATOM 16940	N4	C A 808	175.112	88.727	-59.364	1.00	51.22	N
ATOM 16891	O2*	C A 806	177.346	93.601	-66.296	1.00	48.54	O	ATOM 16941	C5	C A 808	173.546	89.205	-61.107	1.00	51.22	C
ATOM 16892	C1*	C A 806	179.165	93.472	-64.751	1.00	48.54	C	ATOM 16942	C6	C A 808	172.684	88.699	-61.995	1.00	51.22	C
ATOM 16893	N1	C A 806	179.566	92.576	-63.659	1.00	36.67	N	ATOM 16943	P	G A 809	167.392	88.408	-61.166	1.00	50.82	P
ATOM 16894	O2	C A 806	179.501	91.215	-63.886	1.00	36.67	O	ATOM 16944	O1P	G A 809	165.916	88.457	-61.401	1.00	45.69	O
ATOM 16895	C2	C A 806	179.127	90.824	-64.999	1.00	36.67	N	ATOM 16945	O2P	G A 809	168.124	89.660	-60.815	1.00	45.69	O
ATOM 16896	N3	C A 806	179.855	90.352	-62.903	1.00	36.67	N	ATOM 16946	O5*	G A 809	167.723	87.296	-60.076	1.00	50.82	O
ATOM 16897	C4	C A 806	180.285	90.822	-61.736	1.00	36.67	C	ATOM 16947	C5*	G A 809	167.411	85.942	-60.350	1.00	50.82	C
ATOM 16898	N4	C A 806	180.650	89.943	-60.808	1.00	36.67	N	ATOM 16948	C4*	G A 809	168.091	85.029	-59.370	1.00	50.82	C
ATOM 16899	C5	C A 806	180.365	92.221	-61.473	1.00	36.67	C	ATOM 16949	O4*	G A 809	169.535	85.053	-59.536	1.00	50.82	O
ATOM 16900	C6	C A 806	179.994	93.054	-62.453	1.00	36.67	C	ATOM 16950	C3*	G A 809	167.908	85.313	-57.898	1.00	50.82	C
ATOM 16901	P	A A 807	174.818	95.364	-64.003	1.00	55.03	P	ATOM 16951	O3*	G A 809	166.636	84.922	-57.423	1.00	50.82	O
ATOM 16902	O1P	A A 807	173.871	96.324	-64.657	1.00	46.06	O	ATOM 16952	C2*	G A 809	169.045	84.503	-57.282	1.00	50.82	C
ATOM 16903	O2P	A A 807	174.979	95.378	-62.521	1.00	46.06	O	ATOM 16953	O2*	G A 809	168.732	83.129	-57.225	1.00	50.82	O
ATOM 16904	O5*	A A 807	174.450	93.883	-64.442	1.00	55.03	C	ATOM 16954	C1*	G A 809	170.156	84.695	-58.311	1.00	50.82	C
ATOM 16905	C5*	A A 807	174.295	93.578	-65.827	1.00	55.03	C	ATOM 16955	N9	G A 809	171.102	85.739	-57.928	1.00	45.69	N
ATOM 16906	C4*	A A 807	174.031	92.118	-66.015	1.00	55.03	C	ATOM 16956	C8	G A 809	171.195	87.014	-58.433	1.00	45.69	C
ATOM 16907	O4*	A A 807	175.243	91.361	-65.833	1.00	55.03	O	ATOM 16957	N7	G A 809	172.148	87.717	-57.880	1.00	45.69	N
ATOM 16908	C3*	A A 807	173.047	91.491	-65.052	1.00	55.03	C	ATOM 16958	C5	G A 809	172.718	86.854	-56.955	1.00	45.69	C
ATOM 16909	O3*	A A 807	171.719	91.772	-65.440	1.00	55.03	O	ATOM 16959	C6	G A 809	173.794	87.056	-56.048	1.00	45.69	C
ATOM 16910	C2*	A A 807	173.406	90.014	-65.139	1.00	55.03	C	ATOM 16960	O6	G A 809	174.469	88.072	-55.869	1.00	45.69	O
ATOM 16911	O2*	A A 807	172.834	89.386	-66.265	1.00	55.03	O	ATOM 16961	N1	G A 809	174.051	85.915	-55.303	1.00	45.69	N
ATOM 16912	C1*	A A 807	174.920	90.076	-65.341	1.00	55.03	C	ATOM 16962	C2	G A 809	173.364	84.732	-55.412	1.00	45.69	C
ATOM 16913	N9	A A 807	175.678	89.833	-64.115	1.00	46.06	N	ATOM 16963	N2	G A 809	173.784	83.732	-54.638	1.00	45.69	N
ATOM 16914	C8	A A 807	176.217	90.734	-63.228	1.00	46.06	C	ATOM 16964	N3	G A 809	172.347	84.537	-56.232	1.00	45.69	N
ATOM 16915	N7	A A 807	176.815	90.171	-62.206	1.00	46.06	N	ATOM 16965	C4	G A 809	172.085	85.630	-56.974	1.00	45.69	C



Table 2: Sheet 171/520

ATOM	16966	P	C A 810	166.113	85.517	-56.029	1.00	55.38	P	ATOM	17016	O2*	C A 812	168.152	93.199	-43.117	1.00	48.05	O
ATOM	16967	O1P	C A 810	164.766	84.958	-55.796	1.00	39.72	O	ATOM	17017	C1*	C A 812	168.928	91.855	-44.876	1.00	48.05	C
ATOM	16968	O2P	C A 810	166.316	86.989	-55.967	1.00	39.72	O	ATOM	17018	N1	C A 812	168.587	91.596	-46.283	1.00	42.03	N
ATOM	16969	O5*	C A 810	167.098	84.827	-54.989	1.00	55.38	O	ATOM	17019	C2	C A 812	168.930	92.568	-47.233	1.00	42.03	C
ATOM	16970	C5*	C A 810	167.351	85.389	-53.696	1.00	55.38	C	ATOM	17020	O2	C A 812	169.517	93.607	-46.852	1.00	42.03	O
ATOM	16971	C4*	C A 810	168.479	84.639	-53.044	1.00	55.38	C	ATOM	17021	N3	C A 812	168.633	92.350	-48.538	1.00	42.03	N
ATOM	16972	O4*	C A 810	169.696	84.873	-53.788	1.00	55.38	C	ATOM	17022	C4	C A 812	168.052	91.211	-48.904	1.00	42.03	C
ATOM	16973	C3*	C A 810	168.836	85.038	-51.631	1.00	55.38	C	ATOM	17023	N4	C A 812	167.813	91.029	-50.196	1.00	42.03	N
ATOM	16974	O3*	C A 810	167.987	84.399	-50.703	1.00	55.38	O	ATOM	17024	C5	C A 812	167.697	90.207	-47.960	1.00	42.03	C
ATOM	16975	C2*	C A 810	170.271	84.553	-51.518	1.00	55.38	C	ATOM	17025	C6	C A 812	167.970	90.442	-46.672	1.00	42.03	C
ATOM	16976	O2*	C A 810	170.339	83.153	-51.343	1.00	55.38	O	ATOM	17026	P	U A 813	167.367	92.288	-40.862	1.00	42.46	P
ATOM	16977	C1*	C A 810	170.803	84.869	-52.910	1.00	55.38	C	ATOM	17027	O1P	U A 813	166.981	91.877	-39.481	1.00	46.65	O
ATOM	16978	N1	C A 810	171.458	86.182	-52.985	1.00	39.72	N	ATOM	17028	O2P	U A 813	166.609	93.385	-41.524	1.00	46.65	O
ATOM	16979	C2	C A 810	172.578	86.435	-52.176	1.00	39.72	C	ATOM	17029	O5*	U A 813	168.891	92.723	-40.785	1.00	42.46	O
ATOM	16980	O2	C A 810	172.962	85.555	-51.383	1.00	39.72	O	ATOM	17030	C5*	U A 813	169.800	91.997	-39.953	1.00	42.46	C
ATOM	16981	N3	C A 810	173.205	87.630	-52.273	1.00	39.72	N	ATOM	17031	C4*	U A 813	171.165	92.612	-40.028	1.00	42.46	C
ATOM	16982	C4	C A 810	172.743	88.551	-53.115	1.00	39.72	C	ATOM	17032	O4*	U A 813	171.572	92.698	-41.414	1.00	42.46	O
ATOM	16983	N4	C A 810	173.380	89.704	-53.184	1.00	39.72	N	ATOM	17033	C3*	U A 813	171.258	94.042	-39.552	1.00	42.46	C
ATOM	16984	C5	C A 810	171.601	88.328	-53.928	1.00	39.72	C	ATOM	17034	O3*	U A 813	171.368	94.102	-38.144	1.00	42.46	O
ATOM	16985	C6	C A 810	170.995	87.143	-53.834	1.00	39.72	C	ATOM	17035	C2*	U A 813	172.509	94.553	-40.255	1.00	42.46	C
ATOM	16986	P	C A 811	167.333	85.258	-49.518	1.00	41.75	P	ATOM	17036	O2*	U A 813	173.690	94.187	-39.562	1.00	42.46	O
ATOM	16987	O1P	C A 811	166.541	84.318	-48.679	1.00	31.67	O	ATOM	17037	C1*	U A 813	172.438	93.803	-41.585	1.00	42.46	C
ATOM	16988	O2P	C A 811	166.683	86.469	-50.101	1.00	31.67	O	ATOM	17038	N1	U A 813	171.977	94.605	-42.729	1.00	46.65	N
ATOM	16989	O5*	C A 811	168.576	85.734	-48.652	1.00	41.75	O	ATOM	17039	C2	U A 813	172.878	95.482	-43.299	1.00	46.65	C
ATOM	16990	C5*	C A 811	169.390	84.792	-47.938	1.00	41.75	C	ATOM	17040	O2	U A 813	174.023	95.600	-42.904	1.00	46.65	O
ATOM	16991	C4*	C A 811	170.578	85.509	-47.363	1.00	41.75	C	ATOM	17041	N3	U A 813	172.393	96.214	-44.351	1.00	46.65	N
ATOM	16992	O4*	C A 811	171.286	86.156	-48.446	1.00	41.75	O	ATOM	17042	C4	U A 813	171.134	96.150	-44.889	1.00	46.65	C
ATOM	16993	C3*	C A 811	170.200	86.632	-46.414	1.00	41.75	C	ATOM	17043	O4	U A 813	170.860	96.840	-45.869	1.00	46.65	O
ATOM	16994	O3*	C A 811	170.130	86.098	-45.101	1.00	41.75	O	ATOM	17044	C5	U A 813	170.264	95.217	-44.255	1.00	46.65	C
ATOM	16995	C2*	C A 811	171.336	87.644	-46.568	1.00	41.75	C	ATOM	17045	C6	U A 813	170.705	94.495	-43.221	1.00	46.65	C
ATOM	16996	O2*	C A 811	172.426	87.481	-45.687	1.00	41.75	O	ATOM	17046	P	A A 814	170.817	95.394	-37.372	1.00	39.55	P
ATOM	16997	C1*	C A 811	171.828	87.370	-47.987	1.00	41.75	C	ATOM	17047	O1P	A A 814	171.007	95.120	-35.923	1.00	36.19	O
ATOM	16998	N1	C A 811	171.553	88.438	-48.952	1.00	31.67	N	ATOM	17048	O2P	A A 814	169.454	95.690	-37.904	1.00	36.19	O
ATOM	16999	C2	C A 811	172.241	89.620	-48.809	1.00	31.67	C	ATOM	17049	O5*	A A 814	171.770	96.573	-37.857	1.00	39.55	O
ATOM	17000	O2	C A 811	173.095	89.697	-47.930	1.00	31.67	O	ATOM	17050	C5*	A A 814	173.043	96.733	-37.265	1.00	39.55	C
ATOM	17001	N3	C A 811	171.981	90.645	-49.635	1.00	31.67	N	ATOM	17051	C4*	A A 814	173.712	97.963	-37.784	1.00	39.55	C
ATOM	17002	C4	C A 811	171.083	90.501	-50.604	1.00	31.67	C	ATOM	17052	O4*	A A 814	174.018	97.768	-39.165	1.00	39.55	O
ATOM	17003	N4	C A 811	170.838	91.551	-51.378	1.00	31.67	N	ATOM	17053	C3*	A A 814	172.925	99.248	-37.778	1.00	39.55	C
ATOM	17004	C5	C A 811	170.392	89.281	-50.811	1.00	31.67	C	ATOM	17054	O3*	A A 814	172.978	99.845	-36.506	1.00	39.55	O
ATOM	17005	C6	C A 811	170.647	88.283	-49.961	1.00	31.67	C	ATOM	17055	C2*	A A 814	173.671	100.083	-38.805	1.00	39.55	C
ATOM	17006	P	C A 812	169.014	86.619	-44.079	1.00	48.05	P	ATOM	17056	O2*	A A 814	174.827	100.704	-38.289	1.00	39.55	O
ATOM	17007	O1P	C A 812	169.466	86.120	-42.763	1.00	42.03	O	ATOM	17057	C1*	A A 814	174.118	99.017	-39.796	1.00	39.55	C
ATOM	17008	O2P	C A 812	167.688	86.227	-44.591	1.00	42.03	O	ATOM	17058	N9	A A 814	173.294	98.991	-40.990	1.00	36.19	N
ATOM	17009	O5*	C A 812	169.120	88.208	-44.118	1.00	48.05	O	ATOM	17059	C8	A A 814	172.259	98.155	-41.328	1.00	36.19	C
ATOM	17010	C5*	C A 812	169.646	88.931	-42.993	1.00	48.05	C	ATOM	17060	N7	A A 814	171.701	98.452	-42.475	1.00	36.19	N
ATOM	17011	C4*	C A 812	169.318	90.397	-43.105	1.00	48.05	C	ATOM	17061	C5	A A 814	172.427	99.547	-42.920	1.00	36.19	C
ATOM	17012	O4*	C A 812	169.776	90.838	-44.397	1.00	48.05	O	ATOM	17062	C6	A A 814	172.334	100.327	-44.067	1.00	36.19	C
ATOM	17013	C3*	C A 812	167.845	90.790	-43.054	1.00	48.05	C	ATOM	17063	N6	A A 814	171.416	100.136	-45.014	1.00	36.19	N
ATOM	17014	O3*	C A 812	167.378	90.880	-41.682	1.00	48.05	O	ATOM	17064	N1	A A 814	173.227	101.328	-44.217	1.00	36.19	N
ATOM	17015	C2*	C A 812	167.789	92.068	-43.881	1.00	48.05	C	ATOM	17065	C2	A A 814	174.148	101.519	-43.257	1.00	36.19	C



Table 2: Sheet 172/520

ATOM	17066	N3	A	A	814	174.328	100.857	-42.129	1.00	36.19	N	ATOM	17116	C5*	A	A	817	168.148	107.989	-39.108	1.00	38.61	C
ATOM	17067	C4	A	A	814	173.422	99.874	-42.022	1.00	36.19	C	ATOM	17117	C4*	C	A	817	169.133	109.057	-38.741	1.00	38.61	C
ATOM	17068	P	A	A	815	171.748	100.742	-35.994	1.00	36.78	P	ATOM	17118	O4*	C	A	817	169.540	108.832	-37.368	1.00	38.61	C
ATOM	17069	O1P	A	A	815	171.502	100.371	-34.574	1.00	33.17	O	ATOM	17119	C3*	C	A	817	170.413	109.039	-39.569	1.00	38.61	C
ATOM	17070	O5P	A	A	815	170.646	100.664	-36.972	1.00	33.17	O	ATOM	17120	O3*	C	A	817	170.905	110.373	-39.651	1.00	38.61	O
ATOM	17071	O2P	A	A	815	172.309	102.222	-36.085	1.00	36.78	O	ATOM	17121	C2*	C	A	817	171.376	108.244	-38.692	1.00	38.61	C
ATOM	17072	C5*	A	A	815	173.456	102.628	-35.335	1.00	36.78	C	ATOM	17122	O2*	C	A	817	172.738	108.587	-38.819	1.00	38.61	C
ATOM	17073	C4*	A	A	815	173.920	103.956	-35.845	1.00	36.78	C	ATOM	17123	C1*	C	A	817	170.936	108.688	-37.314	1.00	38.61	C
ATOM	17074	O4*	A	A	815	174.756	104.635	-34.880	1.00	36.78	O	ATOM	17124	N1	C	A	817	171.300	107.739	-36.268	1.00	31.97	N
ATOM	17075	C3*	A	A	815	174.676	103.919	-37.154	1.00	36.78	C	ATOM	17125	C2	C	A	817	172.406	108.048	-35.464	1.00	31.97	C
ATOM	17076	O3*	A	A	815	174.218	105.001	-37.937	1.00	36.78	O	ATOM	17126	O2	C	A	817	173.042	109.090	-35.691	1.00	31.97	O
ATOM	17077	C2*	A	A	815	176.122	104.152	-36.725	1.00	36.78	C	ATOM	17127	N3	C	A	817	172.746	107.213	-34.464	1.00	31.97	N
ATOM	17078	O2*	A	A	815	176.889	104.840	-37.695	1.00	36.78	O	ATOM	17128	C4	C	A	817	172.022	106.113	-34.244	1.00	31.97	C
ATOM	17079	C1*	A	A	815	175.945	105.049	-35.503	1.00	36.78	C	ATOM	17129	N4	C	A	817	172.365	105.341	-33.209	1.00	31.97	N
ATOM	17080	N9	A	A	815	177.492	104.961	-34.833	1.00	33.17	N	ATOM	17130	C5	C	A	817	170.907	105.762	-35.067	1.00	31.97	C
ATOM	17081	C8	A	A	815	177.021	104.961	-34.833	1.00	33.17	C	ATOM	17131	C6	C	A	817	170.588	106.593	-36.059	1.00	31.97	C
ATOM	17082	N7	A	A	815	178.452	104.158	-32.989	1.00	33.17	N	ATOM	17132	P	G	A	818	170.146	111.461	-40.553	1.00	45.22	P
ATOM	17083	C5	A	A	815	178.625	105.522	-33.141	1.00	33.17	C	ATOM	17133	O1P	G	A	818	168.427	114.509	-37.995	1.00	45.22	O
ATOM	17084	C6	A	A	815	179.478	106.424	-32.527	1.00	33.17	C	ATOM	17134	O2P	G	A	818	171.186	112.168	-41.355	1.00	47.60	O
ATOM	17085	N6	A	A	815	180.359	106.076	-31.597	1.00	33.17	N	ATOM	17135	O5*	G	A	818	169.558	112.486	-39.492	1.00	45.22	O
ATOM	17086	N1	A	A	815	179.403	107.719	-32.899	1.00	33.17	N	ATOM	17136	C5*	G	A	818	169.377	113.497	-38.920	1.00	45.22	C
ATOM	17087	C2	A	A	815	178.522	108.062	-33.837	1.00	33.17	C	ATOM	17137	C4*	G	A	818	169.738	114.001	-37.660	1.00	45.22	C
ATOM	17088	N3	A	A	815	177.659	107.297	-34.495	1.00	33.17	N	ATOM	17138	O4*	G	A	818	168.427	114.509	-37.995	1.00	45.22	O
ATOM	17089	C4	A	A	815	177.762	106.025	-34.090	1.00	33.17	C	ATOM	17139	C3*	G	A	818	169.515	112.962	-36.566	1.00	45.22	C
ATOM	17090	P	A	A	816	174.154	104.843	-39.523	1.00	40.16	P	ATOM	17140	C3*	G	A	818	169.589	113.637	-35.314	1.00	45.22	C
ATOM	17091	O1P	A	A	816	175.503	104.405	-39.946	1.00	32.13	O	ATOM	17141	O2*	G	A	818	168.064	112.565	-36.776	1.00	45.22	O
ATOM	17092	O2P	A	A	816	173.573	106.098	-40.085	1.00	32.13	O	ATOM	17142	O2*	G	A	818	167.417	112.097	-35.617	1.00	45.22	O
ATOM	17093	O5*	A	A	816	173.164	103.610	-39.746	1.00	40.16	O	ATOM	17143	C1*	G	A	818	167.481	113.912	-37.156	1.00	45.22	C
ATOM	17094	C5*	A	A	816	171.781	103.679	-39.374	1.00	40.16	C	ATOM	17144	N8	G	A	818	166.190	113.924	-37.813	1.00	47.60	N
ATOM	17095	C4*	A	A	816	170.921	103.450	-40.585	1.00	40.16	C	ATOM	17145	C9	G	A	818	165.817	113.309	-38.977	1.00	47.60	C
ATOM	17096	O4*	A	A	816	171.130	102.110	-41.094	1.00	40.16	O	ATOM	17146	N7	G	A	818	164.580	113.561	-39.308	1.00	47.60	N
ATOM	17097	C3*	A	A	816	169.417	103.523	-40.404	1.00	40.16	C	ATOM	17147	C5	G	A	818	164.118	114.384	-38.291	1.00	47.60	C
ATOM	17098	O3*	A	A	816	168.940	104.862	-40.414	1.00	40.16	O	ATOM	17148	C6	G	A	818	162.866	114.980	-38.106	1.00	47.60	C
ATOM	17099	C2*	A	A	816	168.916	102.767	-41.622	1.00	40.16	C	ATOM	17149	O6	G	A	818	161.875	114.912	-38.837	1.00	47.60	O
ATOM	17100	O2*	A	A	816	169.006	103.597	-42.756	1.00	40.16	O	ATOM	17150	N1	G	A	818	162.822	115.729	-36.932	1.00	47.60	N
ATOM	17101	C1*	A	A	816	169.965	101.673	-41.764	1.00	40.16	C	ATOM	17151	C2	G	A	818	163.865	115.878	-36.053	1.00	47.60	C
ATOM	17102	N9	A	A	816	169.549	100.394	-41.202	1.00	32.13	N	ATOM	17152	N2	G	A	818	163.638	116.621	-34.963	1.00	47.60	N
ATOM	17103	C8	A	A	816	169.683	99.950	-39.919	1.00	32.13	C	ATOM	17153	N3	G	A	818	165.045	115.332	-36.226	1.00	47.60	N
ATOM	17104	N7	A	A	816	169.261	98.720	-39.734	1.00	32.13	N	ATOM	17154	C4	G	A	818	165.099	114.603	-37.359	1.00	47.60	C
ATOM	17105	C5	A	A	816	168.811	98.334	-40.984	1.00	32.13	C	ATOM	17155	P	A	A	819	170.710	113.229	-34.245	1.00	46.95	P
ATOM	17106	N6	A	A	816	168.273	97.129	-41.466	1.00	32.13	C	ATOM	17156	O1P	A	A	819	170.532	114.110	-33.067	1.00	33.78	O
ATOM	17107	C6	A	A	816	168.132	96.020	-40.729	1.00	32.13	C	ATOM	17157	O2P	A	A	819	171.998	113.253	-34.979	1.00	33.78	O
ATOM	17108	N1	A	A	816	167.899	97.086	-42.757	1.00	32.13	N	ATOM	17158	O5*	A	A	819	170.300	111.751	-33.798	1.00	46.95	O
ATOM	17109	C2	A	A	816	168.090	98.171	-43.516	1.00	32.13	C	ATOM	17159	C5*	A	A	819	170.074	110.763	-34.801	1.00	46.95	C
ATOM	17110	N3	A	A	816	168.614	99.346	-43.191	1.00	32.13	N	ATOM	17160	C4*	A	A	819	169.499	109.492	-34.233	1.00	46.95	C
ATOM	17111	C4	A	A	816	168.958	99.365	-41.892	1.00	32.13	C	ATOM	17161	O4*	A	A	819	170.525	108.722	-33.581	1.00	46.95	O
ATOM	17112	P	C	A	817	167.997	105.364	-39.221	1.00	38.61	P	ATOM	17162	C3*	A	A	819	168.273	109.500	-33.345	1.00	46.95	C
ATOM	17113	O1P	C	A	817	168.133	104.368	-38.124	1.00	31.97	O	ATOM	17163	O3*	A	A	819	167.407	108.492	-33.857	1.00	46.95	O
ATOM	17114	O2P	C	A	817	166.560	105.649	-39.783	1.00	31.97	O	ATOM	17164	C2*	A	A	819	168.840	109.094	-31.979	1.00	46.95	C
ATOM	17115	O5*	C	A	817	168.678	106.716	-38.742	1.00	38.61	O	ATOM	17165	O2*	A	A	819	167.954	108.292	-31.223	1.00	46.95	O



Table 2: Sheet 173/520

ATOM	17166	A A 819	170.064	108.247	-32.347	1.00	46.95	C	ATOM	17216	C2	G A 821	152.585	106.619	-35.938	1.00	42.71	C
ATOM	17167	A A 819	171.180	108.425	-31.421	1.00	33.78	N	ATOM	17217	N2	G A 821	151.704	106.041	-36.764	1.00	42.71	N
ATOM	17168	A A 819	171.933	109.567	-31.317	1.00	33.78	C	ATOM	17218	N3	G A 821	153.878	106.541	-36.197	1.00	42.71	N
ATOM	17169	A A 819	172.861	109.505	-30.398	1.00	33.78	N	ATOM	17219	C4	G A 821	154.618	107.200	-35.283	1.00	42.71	C
ATOM	17170	A A 819	172.718	108.236	-29.867	1.00	33.78	C	ATOM	17220	P	C A 822	157.850	110.585	-39.225	1.00	37.64	P
ATOM	17171	A A 819	173.408	107.576	-28.857	1.00	33.78	C	ATOM	17221	O1P	C A 822	158.776	110.992	-40.318	1.00	44.66	O
ATOM	17172	A A 819	174.423	108.128	-28.188	1.00	33.78	N	ATOM	17222	O2P	C A 822	157.753	111.422	-37.991	1.00	44.66	O
ATOM	17173	A A 819	173.028	106.321	-28.552	1.00	33.78	N	ATOM	17223	O5*	C A 822	156.401	110.408	-39.837	1.00	37.64	O
ATOM	17174	A A 819	172.015	105.778	-29.246	1.00	33.78	C	ATOM	17224	C5*	C A 822	156.183	109.449	-40.857	1.00	37.64	C
ATOM	17175	A A 819	171.290	106.303	-30.233	1.00	33.78	N	ATOM	17225	C4*	C A 822	154.713	109.200	-41.026	1.00	37.64	C
ATOM	17176	A A 819	171.695	107.552	-30.495	1.00	33.78	C	ATOM	17226	O4*	C A 822	154.183	108.435	-39.914	1.00	37.64	O
ATOM	17177	U A 820	166.315	108.866	-34.982	1.00	40.26	P	ATOM	17227	C3*	C A 822	153.832	110.431	-41.087	1.00	37.64	C
ATOM	17178	U A 820	165.630	107.614	-35.363	1.00	43.84	O	ATOM	17228	O3*	C A 822	153.850	111.012	-42.363	1.00	37.64	O
ATOM	17179	U A 820	166.895	109.717	-36.033	1.00	43.84	O	ATOM	17229	C2*	C A 822	152.470	109.857	-40.752	1.00	37.64	C
ATOM	17180	U A 820	165.257	109.756	-34.196	1.00	40.26	O	ATOM	17230	O2*	C A 822	151.918	109.190	-41.867	1.00	37.64	O
ATOM	17181	U A 820	164.285	109.164	-33.295	1.00	40.26	C	ATOM	17231	C1*	C A 822	152.832	108.809	-39.698	1.00	37.64	C
ATOM	17182	U A 820	163.149	110.133	-33.070	1.00	40.26	C	ATOM	17232	N1	C A 822	152.690	109.360	-38.341	1.00	44.66	N
ATOM	17183	U A 820	163.677	111.330	-32.437	1.00	40.26	O	ATOM	17233	C2	C A 822	151.406	109.507	-37.813	1.00	44.66	C
ATOM	17184	U A 820	162.482	110.588	-34.364	1.00	40.26	C	ATOM	17234	O2	C A 822	150.434	109.111	-38.473	1.00	44.66	O
ATOM	17185	U A 820	161.126	110.951	-34.115	1.00	40.26	C	ATOM	17235	N3	C A 822	151.254	110.072	-36.604	1.00	44.66	N
ATOM	17186	U A 820	163.201	111.904	-34.657	1.00	40.26	C	ATOM	17236	C4	C A 822	152.320	110.478	-35.924	1.00	44.66	C
ATOM	17187	U A 820	162.419	112.792	-35.429	1.00	40.26	O	ATOM	17237	N4	C A 822	152.120	111.066	-34.757	1.00	44.66	N
ATOM	17188	C1*	163.395	112.448	-33.244	1.00	40.26	C	ATOM	17238	C5	C A 822	153.641	110.306	-36.417	1.00	44.66	C
ATOM	17189	U A 820	164.450	113.442	-33.029	1.00	43.84	N	ATOM	17239	C6	C A 822	153.780	109.748	-37.618	1.00	44.66	C
ATOM	17190	U A 820	164.178	114.445	-32.138	1.00	43.84	C	ATOM	17240	P	G A 823	153.579	112.577	-42.509	1.00	54.29	P
ATOM	17191	U A 820	163.103	114.570	-31.601	1.00	43.84	O	ATOM	17241	O1P	G A 823	153.785	112.901	-43.949	1.00	33.06	O
ATOM	17192	U A 820	165.213	115.306	-31.895	1.00	43.84	N	ATOM	17242	O2P	G A 823	154.330	113.317	-41.473	1.00	33.06	O
ATOM	17193	U A 820	166.461	115.275	-32.453	1.00	43.84	C	ATOM	17243	O5*	G A 823	152.041	112.703	-42.166	1.00	54.29	O
ATOM	17194	U A 820	167.299	116.088	-32.086	1.00	43.84	O	ATOM	17244	C5*	G A 823	151.078	112.068	-43.000	1.00	54.29	C
ATOM	17195	U A 820	166.662	114.231	-33.402	1.00	43.84	C	ATOM	17245	C4*	G A 823	149.699	112.409	-42.536	1.00	54.29	C
ATOM	17196	U A 820	165.669	113.370	-33.655	1.00	43.84	C	ATOM	17246	O4*	G A 823	149.379	111.664	-41.336	1.00	54.29	O
ATOM	17197	G A 821	159.993	109.839	-33.876	1.00	38.57	P	ATOM	17247	C3*	G A 823	149.487	113.855	-42.137	1.00	54.29	C
ATOM	17198	G A 821	158.969	110.551	-33.064	1.00	42.71	O	ATOM	17248	O3*	G A 823	149.273	114.691	-43.252	1.00	54.29	O
ATOM	17199	G A 821	160.611	108.583	-33.351	1.00	42.71	O	ATOM	17249	C2*	G A 823	148.263	113.759	-41.246	1.00	54.29	C
ATOM	17200	G A 821	159.363	109.592	-35.317	1.00	38.57	O	ATOM	17250	O2*	G A 823	147.083	113.655	-42.015	1.00	54.29	O
ATOM	17201	G A 821	159.965	108.677	-36.222	1.00	38.57	C	ATOM	17251	C1*	G A 823	148.513	112.434	-40.530	1.00	54.29	C
ATOM	17202	G A 821	158.216	107.007	-35.921	1.00	38.57	O	ATOM	17252	N9	G A 823	149.134	112.660	-39.233	1.00	33.06	N
ATOM	17203	G A 821	158.911	107.839	-36.886	1.00	38.57	C	ATOM	17253	C8	G A 823	150.466	112.742	-38.931	1.00	33.06	C
ATOM	17204	G A 821	157.805	108.623	-37.544	1.00	38.57	C	ATOM	17254	N7	G A 823	150.687	113.052	-37.602	1.00	33.06	N
ATOM	17205	G A 821	158.212	109.090	-38.800	1.00	38.57	O	ATOM	17255	C5	G A 823	149.422	113.162	-37.129	1.00	33.06	C
ATOM	17206	G A 821	156.680	107.610	-37.632	1.00	38.57	C	ATOM	17256	C6	G A 823	149.014	113.510	-35.816	1.00	33.06	C
ATOM	17207	G A 821	156.811	106.751	-38.742	1.00	38.57	O	ATOM	17257	O6	G A 823	149.702	113.827	-34.856	1.00	33.06	O
ATOM	17208	C1*	156.872	106.826	-36.336	1.00	38.57	C	ATOM	17258	N1	G A 823	147.639	113.482	-35.687	1.00	33.06	N
ATOM	17209	G A 821	155.981	107.341	-35.305	1.00	42.71	N	ATOM	17259	C2	G A 823	146.758	113.174	-36.695	1.00	33.06	C
ATOM	17210	G A 821	156.314	108.080	-34.197	1.00	42.71	C	ATOM	17260	N2	G A 823	145.462	113.196	-36.385	1.00	33.06	N
ATOM	17211	G A 821	155.277	108.438	-33.492	1.00	42.71	N	ATOM	17261	N3	G A 823	147.120	112.867	-37.923	1.00	33.06	N
ATOM	17212	C5	154.196	107.889	-34.172	1.00	42.71	C	ATOM	17262	C4	G A 823	148.459	112.886	-38.068	1.00	33.06	C
ATOM	17213	G A 821	152.797	107.948	-33.898	1.00	42.71	C	ATOM	17263	P	C A 824	149.541	116.265	-43.116	1.00	49.06	P
ATOM	17214	G A 821	152.216	108.502	-32.962	1.00	42.71	O	ATOM	17264	O1P	C A 824	149.366	116.813	-44.482	1.00	49.06	O
ATOM	17215	G A 821	152.060	107.271	-34.859	1.00	42.71	N	ATOM	17265	O2P	C A 824	150.794	116.507	-42.382	1.00	49.06	O



ATOM	17266	O5*	C A 824	148.345	116.774	-42.206	1.00	49.45	O	ATOM	17316	O2*	C A 826	146.100	127.455	-32.134	1.00	39.63	O
ATOM	17267	C5*	C A 824	146.996	116.616	-42.643	1.00	49.45	C	ATOM	17317	C1*	C A 826	146.516	125.537	-33.481	1.00	39.63	C
ATOM	17268	C4*	C A 824	146.043	117.044	-41.566	1.00	49.45	C	ATOM	17318	N1	C A 826	147.706	124.855	-34.021	1.00	40.48	N
ATOM	17269	O4*	C A 824	146.076	116.120	-40.451	1.00	49.45	O	ATOM	17319	C2	C A 826	148.778	124.596	-33.162	1.00	40.48	C
ATOM	17270	C3*	C A 824	146.329	118.387	-40.933	1.00	49.45	C	ATOM	17320	O2	C A 826	148.690	124.922	-31.974	1.00	40.48	O
ATOM	17271	O3*	C A 824	145.830	119.429	-41.729	1.00	49.45	O	ATOM	17321	N3	C A 826	149.879	123.990	-33.648	1.00	40.48	N
ATOM	17272	C2*	C A 824	145.582	118.285	-39.617	1.00	49.45	C	ATOM	17322	C4	C A 826	149.928	123.630	-34.930	1.00	40.48	C
ATOM	17273	O2*	C A 824	144.199	118.494	-39.792	1.00	49.45	O	ATOM	17323	N4	C A 826	151.027	123.023	-35.363	1.00	40.48	N
ATOM	17274	C1*	C A 824	145.801	116.820	-39.255	1.00	49.45	C	ATOM	17324	C5	C A 826	148.851	123.873	-35.823	1.00	40.48	C
ATOM	17275	N1	C A 824	146.942	116.703	-38.345	1.00	49.06	N	ATOM	17325	C6	C A 826	147.773	124.484	-35.334	1.00	40.48	C
ATOM	17276	C2	C A 824	146.716	116.929	-36.991	1.00	49.06	C	ATOM	17326	P	U A 827	146.758	130.093	-34.870	1.00	38.21	P
ATOM	17277	O2	C A 824	145.550	117.142	-36.609	1.00	49.06	O	ATOM	17327	O1P	U A 827	146.067	131.394	-34.669	1.00	49.17	O
ATOM	17278	N3	C A 824	147.760	116.912	-36.133	1.00	49.06	N	ATOM	17328	O2P	U A 827	147.345	129.764	-36.195	1.00	49.17	O
ATOM	17279	C4	C A 824	148.989	116.667	-36.587	1.00	49.06	C	ATOM	17329	O5*	U A 827	147.893	130.020	-33.761	1.00	38.21	O
ATOM	17280	N4	C A 824	149.989	116.690	-35.711	1.00	49.06	N	ATOM	17330	C5*	U A 827	147.700	130.666	-32.500	1.00	38.21	C
ATOM	17281	C5	C A 824	149.244	116.393	-37.963	1.00	49.06	C	ATOM	17331	C4*	U A 827	148.946	130.576	-31.665	1.00	38.21	C
ATOM	17282	C6	C A 824	148.201	116.417	-38.798	1.00	49.06	C	ATOM	17332	O4*	U A 827	149.310	129.186	-31.501	1.00	38.21	O
ATOM	17283	P	G A 825	146.464	120.891	-41.593	1.00	41.04	P	ATOM	17333	C3*	U A 827	150.196	131.233	-32.207	1.00	38.21	C
ATOM	17284	O1P	G A 825	145.919	121.676	-42.752	1.00	39.61	O	ATOM	17334	O3*	U A 827	150.227	132.607	-31.861	1.00	38.21	O
ATOM	17285	O2P	G A 825	147.932	120.735	-41.435	1.00	39.61	O	ATOM	17335	C2*	U A 827	151.284	130.483	-31.460	1.00	38.21	C
ATOM	17286	O5*	G A 825	145.841	121.447	-40.236	1.00	41.04	O	ATOM	17336	O2*	U A 827	151.365	130.976	-30.136	1.00	38.21	O
ATOM	17287	C5*	G A 825	144.447	121.747	-40.168	1.00	41.04	C	ATOM	17337	C1*	U A 827	150.711	129.065	-31.420	1.00	38.21	C
ATOM	17288	C4*	G A 825	144.063	122.128	-38.770	1.00	41.04	C	ATOM	17338	N1	U A 827	151.150	128.190	-32.521	1.00	49.17	N
ATOM	17289	O4*	G A 825	144.357	121.029	-37.869	1.00	41.04	O	ATOM	17339	C2	U A 827	152.423	127.649	-32.468	1.00	49.17	C
ATOM	17290	C3*	G A 825	144.806	123.305	-38.166	1.00	41.04	C	ATOM	17340	O2	U A 827	153.214	127.895	-31.581	1.00	49.17	O
ATOM	17291	O3*	G A 825	144.268	124.552	-38.567	1.00	41.04	O	ATOM	17341	N3	U A 827	152.739	126.818	-33.511	1.00	49.17	N
ATOM	17292	C2*	G A 825	144.628	123.065	-36.677	1.00	41.04	C	ATOM	17342	C4	U A 827	151.941	126.495	-34.588	1.00	49.17	C
ATOM	17293	O2*	G A 825	143.342	123.444	-36.265	1.00	41.04	O	ATOM	17343	O4	U A 827	152.368	125.729	-35.452	1.00	49.17	O
ATOM	17294	C1*	G A 825	144.719	121.545	-36.601	1.00	41.04	C	ATOM	17344	C5	U A 827	150.656	127.107	-34.581	1.00	49.17	C
ATOM	17295	N9	G A 825	146.071	121.097	-36.273	1.00	39.61	N	ATOM	17345	C6	U A 827	150.311	127.910	-33.575	1.00	49.17	C
ATOM	17296	C8	G A 825	146.983	120.488	-37.100	1.00	39.61	C	ATOM	17346	P	A A 828	150.530	133.711	-32.992	1.00	45.75	P
ATOM	17297	N7	G A 825	148.105	120.202	-36.496	1.00	39.61	N	ATOM	17347	O1P	A A 828	150.673	134.981	-32.230	1.00	48.94	O
ATOM	17298	C5	G A 825	147.922	120.648	-35.197	1.00	39.61	C	ATOM	17348	O2P	A A 828	149.524	133.606	-34.082	1.00	48.94	O
ATOM	17299	C6	G A 825	148.783	120.601	-34.085	1.00	39.61	C	ATOM	17349	O5*	A A 828	151.935	133.320	-33.628	1.00	45.75	O
ATOM	17300	O6	G A 825	149.916	120.122	-34.009	1.00	39.61	O	ATOM	17350	C5*	A A 828	153.150	133.565	-32.925	1.00	45.75	C
ATOM	17301	N1	G A 825	148.203	121.183	-32.966	1.00	39.61	N	ATOM	17351	C4*	A A 828	153.554	135.008	-33.075	1.00	45.75	C
ATOM	17302	C2	G A 825	146.955	121.729	-32.921	1.00	39.61	C	ATOM	17352	O4*	A A 828	154.540	135.294	-32.061	1.00	45.75	O
ATOM	17303	N2	G A 825	146.583	122.265	-31.769	1.00	39.61	N	ATOM	17353	C3*	A A 828	154.217	135.449	-34.369	1.00	45.75	C
ATOM	17304	N3	G A 825	146.132	121.758	-33.941	1.00	39.61	N	ATOM	17354	O3*	A A 828	153.309	135.777	-35.403	1.00	45.75	O
ATOM	17305	C4	G A 825	146.678	121.208	-35.044	1.00	39.61	C	ATOM	17355	C2*	A A 828	154.994	136.678	-33.923	1.00	45.75	C
ATOM	17306	P	C A 826	145.230	125.835	-38.650	1.00	39.63	P	ATOM	17356	O2*	A A 828	154.184	137.826	-33.797	1.00	45.75	O
ATOM	17307	O1P	C A 826	144.459	126.925	-39.308	1.00	40.48	O	ATOM	17357	C1*	A A 828	155.453	136.261	-32.535	1.00	45.75	C
ATOM	17308	O2P	C A 826	146.532	125.414	-39.231	1.00	40.48	O	ATOM	17358	N9	A A 828	156.781	135.660	-32.564	1.00	48.94	N
ATOM	17309	O5*	C A 826	145.504	126.214	-37.126	1.00	39.63	O	ATOM	17359	C8	A A 828	157.173	134.428	-33.030	1.00	48.94	C
ATOM	17310	C5*	C A 826	144.433	126.537	-36.239	1.00	39.63	C	ATOM	17360	N7	A A 828	158.458	134.215	-32.932	1.00	48.94	N
ATOM	17311	C4*	C A 826	144.945	126.653	-34.826	1.00	39.63	C	ATOM	17361	C5	A A 828	158.946	135.382	-32.358	1.00	48.94	C
ATOM	17312	O4*	C A 826	145.427	125.361	-34.378	1.00	39.63	O	ATOM	17362	C6	A A 828	160.247	135.798	-31.985	1.00	48.94	C
ATOM	17313	C3*	C A 826	146.126	127.583	-34.600	1.00	39.63	C	ATOM	17363	N6	A A 828	161.349	135.065	-32.158	1.00	48.94	N
ATOM	17314	O3*	C A 826	145.733	128.933	-34.462	1.00	39.63	O	ATOM	17364	N1	A A 828	160.374	137.019	-31.419	1.00	48.94	N
ATOM	17315	C2*	C A 826	146.748	127.035	-33.318	1.00	39.63	C	ATOM	17365	C2	A A 828	159.272	137.767	-31.250	1.00	48.94	C



ATOM	17366	N3	A A 828	158.008	137.492	-31.568	1.00	48.94	N	ATOM	17416	O2P	U A 831	162.842	140.044	-42.700	1.00	58.29	O
ATOM	17367	C4	A A 828	157.917	136.273	-32.121	1.00	48.94	C	ATOM	17417	O5*	U A 831	165.268	139.604	-42.193	1.00	58.78	O
ATOM	17368	P	G A 829	153.875	136.124	-36.876	1.00	52.49	P	ATOM	17418	C5*	U A 831	166.563	139.952	-41.673	1.00	58.78	C
ATOM	17369	O1P	G A 829	152.762	136.675	-37.702	1.00	48.30	O	ATOM	17419	C4*	U A 831	167.538	138.827	-41.884	1.00	58.78	C
ATOM	17370	O2P	G A 829	154.626	134.949	-37.363	1.00	48.30	O	ATOM	17420	O4*	U A 831	167.243	137.741	-40.974	1.00	58.78	O
ATOM	17371	O5*	G A 829	154.892	137.317	-36.607	1.00	52.49	O	ATOM	17421	C3*	U A 831	167.516	138.193	-43.263	1.00	58.78	C
ATOM	17372	C5*	G A 829	155.953	137.616	-37.513	1.00	52.49	C	ATOM	17422	O3*	U A 831	168.288	138.913	-44.205	1.00	58.78	O
ATOM	17373	C4*	G A 829	157.025	138.370	-36.786	1.00	52.49	C	ATOM	17423	C2*	U A 831	168.081	136.809	-42.994	1.00	58.78	C
ATOM	17374	O4*	G A 829	157.352	137.637	-35.583	1.00	52.49	O	ATOM	17424	O2*	U A 831	169.489	136.831	-42.921	1.00	58.78	O
ATOM	17375	C3*	G A 829	158.330	138.523	-37.537	1.00	52.49	C	ATOM	17425	C1*	U A 831	167.493	136.501	-41.615	1.00	58.78	C
ATOM	17376	O3*	G A 829	158.323	139.694	-38.333	1.00	52.49	O	ATOM	17426	N1	U A 831	166.220	135.767	-41.726	1.00	58.29	N
ATOM	17377	C2*	G A 829	159.355	138.563	-36.413	1.00	52.49	C	ATOM	17427	C2	U A 831	166.267	134.389	-41.820	1.00	58.29	C
ATOM	17378	O2*	G A 829	159.410	139.815	-35.768	1.00	52.49	O	ATOM	17428	O2	U A 831	167.297	133.751	-41.767	1.00	58.29	O
ATOM	17379	C1*	G A 829	158.756	137.563	-35.428	1.00	52.49	C	ATOM	17429	N3	U A 831	165.056	133.785	-41.981	1.00	58.29	N
ATOM	17380	N9	G A 829	159.152	136.194	-35.744	1.00	48.30	N	ATOM	17430	C4	U A 831	163.827	134.393	-42.053	1.00	58.29	C
ATOM	17381	C8	G A 829	158.344	135.199	-36.244	1.00	48.30	C	ATOM	17431	O4	U A 831	162.824	133.704	-42.244	1.00	58.29	O
ATOM	17382	N7	G A 829	158.977	134.079	-36.446	1.00	48.30	N	ATOM	17432	C5	U A 831	163.854	135.810	-41.923	1.00	58.29	C
ATOM	17383	C5	G A 829	160.281	134.346	-36.049	1.00	48.30	C	ATOM	17433	C6	U A 831	165.015	136.433	-41.764	1.00	58.29	C
ATOM	17384	C6	G A 829	161.419	133.513	-36.036	1.00	48.30	C	ATOM	17434	P	C A 832	168.028	138.683	-45.771	1.00	68.08	P
ATOM	17385	O6	G A 829	161.505	132.324	-36.370	1.00	48.30	O	ATOM	17435	O1P	C A 832	168.777	139.746	-46.481	1.00	67.61	O
ATOM	17386	N1	G A 829	162.538	134.188	-35.569	1.00	48.30	N	ATOM	17436	O2P	C A 832	166.573	138.523	-46.019	1.00	67.61	O
ATOM	17387	C2	G A 829	162.555	135.494	-35.161	1.00	48.30	C	ATOM	17437	O5*	C A 832	168.732	137.280	-46.055	1.00	68.08	O
ATOM	17388	N2	G A 829	163.725	135.970	-34.746	1.00	48.30	N	ATOM	17438	C5*	C A 832	170.148	137.124	-45.853	1.00	68.08	C
ATOM	17389	N3	G A 829	161.501	136.279	-35.159	1.00	48.30	N	ATOM	17439	C4*	C A 832	170.577	135.704	-46.128	1.00	68.08	C
ATOM	17390	C4	G A 829	160.404	135.646	-35.613	1.00	48.30	C	ATOM	17440	O4*	C A 832	170.082	134.817	-45.091	1.00	68.08	O
ATOM	17391	P	G A 830	159.001	139.659	-39.791	1.00	59.23	P	ATOM	17441	C3*	C A 832	170.085	135.070	-47.416	1.00	68.08	C
ATOM	17392	O1P	G A 830	158.805	140.992	-40.410	1.00	52.03	O	ATOM	17442	O3*	C A 832	170.830	135.454	-48.555	1.00	68.08	O
ATOM	17393	O2P	G A 830	158.539	138.436	-40.516	1.00	52.03	O	ATOM	17443	C2*	C A 832	170.223	133.582	-47.123	1.00	68.08	C
ATOM	17394	O5*	G A 830	160.546	139.497	-39.469	1.00	59.23	O	ATOM	17444	O2*	C A 832	171.526	133.080	-47.320	1.00	68.08	O
ATOM	17395	C5*	G A 830	161.212	140.485	-38.697	1.00	59.23	C	ATOM	17445	C1*	C A 832	169.870	133.524	-45.639	1.00	68.08	C
ATOM	17396	C4*	G A 830	162.645	140.099	-38.483	1.00	59.23	C	ATOM	17446	N1	C A 832	168.457	133.155	-45.489	1.00	67.61	N
ATOM	17397	O4*	G A 830	162.725	138.944	-37.613	1.00	59.23	O	ATOM	17447	C2	C A 832	168.127	131.797	-45.390	1.00	67.61	C
ATOM	17398	C3*	G A 830	163.426	139.682	-39.711	1.00	59.23	C	ATOM	17448	O2	C A 832	168.034	130.959	-45.340	1.00	67.61	O
ATOM	17399	O3*	G A 830	163.882	140.786	-40.468	1.00	59.23	O	ATOM	17449	N3	C A 832	166.832	131.434	-45.348	1.00	67.61	N
ATOM	17400	C2*	G A 830	164.573	138.902	-39.098	1.00	59.23	C	ATOM	17450	C4	C A 832	165.882	132.362	-45.382	1.00	67.61	C
ATOM	17401	O2*	G A 830	165.576	139.765	-38.599	1.00	59.23	O	ATOM	17451	N4	C A 832	164.615	131.952	-45.366	1.00	67.61	N
ATOM	17402	C1*	G A 830	163.879	138.197	-37.934	1.00	59.23	C	ATOM	17452	C5	C A 832	166.187	133.754	-45.439	1.00	67.61	C
ATOM	17403	N9	G A 830	163.472	136.853	-38.317	1.00	52.03	N	ATOM	17453	C6	C A 832	167.475	134.103	-45.487	1.00	67.61	C
ATOM	17404	C8	G A 830	162.224	136.435	-38.712	1.00	52.03	C	ATOM	17454	P	U A 833	170.147	135.359	-50.010	1.00	55.02	P
ATOM	17405	N7	G A 830	162.189	135.172	-39.038	1.00	52.03	N	ATOM	17455	O1P	U A 833	171.174	135.779	-51.003	1.00	60.23	O
ATOM	17406	C5	G A 830	163.488	134.731	-38.840	1.00	52.03	C	ATOM	17456	O2P	U A 833	168.823	136.050	-49.985	1.00	60.23	O
ATOM	17407	C6	G A 830	164.060	133.458	-39.039	1.00	52.03	C	ATOM	17457	O5*	U A 833	169.874	133.798	-50.202	1.00	55.02	O
ATOM	17408	O6	G A 830	163.527	132.436	-39.476	1.00	52.03	O	ATOM	17458	C5*	U A 833	170.964	132.880	-50.311	1.00	55.02	C
ATOM	17409	N1	G A 830	165.401	133.441	-38.690	1.00	52.03	N	ATOM	17459	C4*	U A 833	170.467	131.461	-50.379	1.00	55.02	C
ATOM	17410	C2	G A 830	166.109	134.514	-38.225	1.00	52.03	C	ATOM	17460	O4*	U A 833	169.710	131.153	-49.183	1.00	55.02	O
ATOM	17411	N2	G A 830	167.390	134.286	-37.924	1.00	52.03	N	ATOM	17461	C3*	U A 833	169.531	131.098	-51.514	1.00	55.02	C
ATOM	17412	N3	G A 830	165.597	135.719	-38.061	1.00	52.03	N	ATOM	17462	O3*	U A 833	170.240	130.848	-52.714	1.00	55.02	O
ATOM	17413	C4	G A 830	164.287	135.753	-38.381	1.00	52.03	C	ATOM	17463	C2*	U A 833	168.830	129.853	-50.974	1.00	55.02	C
ATOM	17414	P	U A 831	164.057	140.633	-42.063	1.00	58.78	P	ATOM	17464	O2*	U A 833	169.557	128.645	-51.116	1.00	55.02	O
ATOM	17415	O1P	U A 831	164.526	141.965	-42.507	1.00	58.29	O	ATOM	17465	C1*	U A 833	168.725	130.180	-49.485	1.00	55.02	C



ATOM	17466	N1	U A 833	167.398	130.714	-49.152	1.00	60.23	N	ATOM	17516	O2P	G A 836	162.754	129.316	-60.839	1.00	57.85	O
ATOM	17467	C2	U A 833	166.373	129.800	-49.000	1.00	60.23	C	ATOM	17517	O5*	G A 836	160.420	128.414	-60.720	1.00	72.30	O
ATOM	17468	O2	U A 833	166.543	128.594	-49.045	1.00	60.23	O	ATOM	17518	C5*	G A 836	159.362	127.538	-61.149	1.00	72.30	C
ATOM	17469	N3	U A 833	165.142	130.350	-48.777	1.00	60.23	N	ATOM	17519	C4*	G A 836	158.000	127.933	-60.591	1.00	72.30	C
ATOM	17470	C4	U A 833	164.841	131.682	-48.658	1.00	60.23	C	ATOM	17520	O4*	G A 836	157.939	127.829	-59.146	1.00	72.30	O
ATOM	17471	O4	U A 833	163.675	132.014	-48.461	1.00	60.23	O	ATOM	17521	C3*	G A 836	157.339	129.279	-60.852	1.00	72.30	C
ATOM	17472	C5	U A 833	165.957	132.564	-48.783	1.00	60.23	C	ATOM	17522	O3*	G A 836	156.823	129.443	-62.162	1.00	72.30	O
ATOM	17473	C6	U A 833	167.167	132.063	-49.022	1.00	60.23	C	ATOM	17523	C2*	G A 836	156.154	129.195	-59.898	1.00	72.30	C
ATOM	17474	P	C A 834	169.486	130.995	-54.125	1.00	54.17	P	ATOM	17524	O2*	G A 836	155.130	128.358	-60.406	1.00	72.30	O
ATOM	17475	O1P	C A 834	170.540	131.107	-55.166	1.00	54.74	O	ATOM	17525	C1*	G A 836	156.778	128.512	-58.687	1.00	72.30	C
ATOM	17476	O2P	C A 834	168.439	132.049	-54.025	1.00	54.74	O	ATOM	17526	N9	G A 836	157.143	129.540	-57.716	1.00	57.85	N
ATOM	17477	O5*	C A 834	168.727	129.603	-54.309	1.00	54.17	O	ATOM	17527	C8	G A 836	158.381	130.078	-57.468	1.00	57.85	C
ATOM	17478	C5*	C A 834	169.449	128.379	-54.514	1.00	54.17	C	ATOM	17528	N7	G A 836	158.354	131.033	-56.578	1.00	57.85	N
ATOM	17479	C4*	C A 834	168.485	127.223	-54.634	1.00	54.17	C	ATOM	17529	C5	G A 836	157.022	131.121	-56.208	1.00	57.85	C
ATOM	17480	O4*	C A 834	167.832	126.994	-53.359	1.00	54.17	O	ATOM	17530	C6	G A 836	156.383	131.979	-55.280	1.00	57.85	C
ATOM	17481	C3*	C A 834	167.346	127.437	-55.614	1.00	54.17	C	ATOM	17531	O6	G A 836	156.885	132.870	-54.583	1.00	57.85	O
ATOM	17482	O3*	C A 834	167.718	127.159	-56.952	1.00	54.17	O	ATOM	17532	N1	G A 836	155.018	131.716	-55.197	1.00	57.85	N
ATOM	17483	C2*	C A 834	166.253	126.514	-55.083	1.00	54.17	C	ATOM	17533	C2	G A 836	154.352	130.749	-55.919	1.00	57.85	C
ATOM	17484	O2*	C A 834	166.352	125.162	-55.490	1.00	54.17	O	ATOM	17534	N2	G A 836	153.038	130.613	-55.683	1.00	57.85	N
ATOM	17485	C1*	C A 834	166.480	126.614	-53.576	1.00	54.17	C	ATOM	17535	N3	G A 836	154.936	129.962	-56.803	1.00	57.85	N
ATOM	17486	N1	C A 834	165.598	127.629	-52.970	1.00	54.74	N	ATOM	17536	C4	G A 836	156.264	130.197	-56.890	1.00	57.85	C
ATOM	17487	C2	C A 834	164.281	127.274	-52.654	1.00	54.74	C	ATOM	17537	P	G A 837	156.598	130.930	-62.749	1.00	65.91	P
ATOM	17488	O2	C A 834	163.913	126.105	-52.839	1.00	54.74	O	ATOM	17538	O1P	G A 837	156.219	130.712	-64.171	1.00	65.29	O
ATOM	17489	N3	C A 834	163.448	128.206	-52.146	1.00	54.74	N	ATOM	17539	O2P	G A 837	157.763	131.790	-62.423	1.00	65.29	O
ATOM	17490	C4	C A 834	163.889	129.446	-51.934	1.00	54.74	C	ATOM	17540	O5*	G A 837	155.357	131.518	-61.933	1.00	65.91	O
ATOM	17491	N4	C A 834	163.026	130.344	-51.455	1.00	54.74	N	ATOM	17541	C5*	G A 837	154.006	131.110	-62.231	1.00	65.91	C
ATOM	17492	C5	C A 834	165.235	129.827	-52.215	1.00	54.74	C	ATOM	17542	C4*	G A 837	153.020	131.835	-61.340	1.00	65.91	C
ATOM	17493	C6	C A 834	166.044	128.899	-52.731	1.00	54.74	C	ATOM	17543	O4*	G A 837	153.366	131.591	-59.951	1.00	65.91	O
ATOM	17494	P	U A 835	167.030	127.981	-58.140	1.00	52.60	P	ATOM	17544	C3*	G A 837	152.970	133.353	-61.447	1.00	65.91	C
ATOM	17495	O1P	U A 835	167.566	127.480	-59.414	1.00	57.95	O	ATOM	17545	O3*	G A 837	152.155	133.804	-62.524	1.00	65.91	O
ATOM	17496	O2P	U A 835	167.115	129.428	-57.832	1.00	57.95	O	ATOM	17546	C2*	G A 837	152.398	133.755	-60.093	1.00	65.91	C
ATOM	17497	O5*	U A 835	165.510	127.519	-58.073	1.00	52.60	O	ATOM	17547	O2*	G A 837	150.994	133.621	-60.017	1.00	65.91	O
ATOM	17498	C5*	U A 835	165.129	126.237	-58.600	1.00	52.60	C	ATOM	17548	C1*	G A 837	153.037	132.725	-59.167	1.00	65.91	C
ATOM	17499	C4*	U A 835	163.648	125.998	-58.427	1.00	52.60	C	ATOM	17549	N9	G A 837	154.257	133.252	-58.565	1.00	65.29	N
ATOM	17500	O4*	U A 835	163.330	125.980	-57.012	1.00	52.60	O	ATOM	17550	C8	G A 837	155.557	132.955	-58.895	1.00	65.29	C
ATOM	17501	C3*	U A 835	162.681	127.023	-58.999	1.00	52.60	C	ATOM	17551	N7	G A 837	156.429	133.629	-58.195	1.00	65.29	N
ATOM	17502	O3*	U A 835	162.438	126.883	-60.387	1.00	52.60	O	ATOM	17552	C5	G A 837	155.659	134.412	-57.347	1.00	65.29	C
ATOM	17503	C2*	U A 835	161.421	126.754	-58.192	1.00	52.60	C	ATOM	17553	C6	G A 837	156.045	135.361	-56.354	1.00	65.29	C
ATOM	17504	O2*	U A 835	160.687	125.640	-58.668	1.00	52.60	O	ATOM	17554	O6	G A 837	157.186	135.706	-56.014	1.00	65.29	O
ATOM	17505	C1*	U A 835	162.005	126.441	-56.818	1.00	52.60	C	ATOM	17555	N1	G A 837	154.938	135.929	-55.733	1.00	65.29	N
ATOM	17506	N1	U A 835	162.048	127.673	-56.025	1.00	57.95	N	ATOM	17556	C2	G A 837	153.632	135.627	-56.021	1.00	65.29	C
ATOM	17507	C2	U A 835	160.864	128.106	-55.487	1.00	57.95	C	ATOM	17557	N2	G A 837	152.710	136.283	-55.321	1.00	65.29	N
ATOM	17508	O2	U A 835	159.832	127.471	-55.582	1.00	57.95	O	ATOM	17558	N3	G A 837	153.258	134.744	-56.934	1.00	65.29	N
ATOM	17509	N3	U A 835	160.927	129.304	-54.832	1.00	57.95	N	ATOM	17559	C4	G A 837	154.317	134.182	-57.556	1.00	65.29	C
ATOM	17510	C4	U A 835	162.040	130.082	-54.649	1.00	57.95	C	ATOM	17560	P	G A 838	152.498	135.197	-63.255	1.00	97.47	P
ATOM	17511	O4	U A 835	161.933	131.163	-54.072	1.00	57.95	O	ATOM	17561	O1P	G A 838	151.689	135.237	-64.496	1.00	82.02	O
ATOM	17512	C5	U A 835	163.243	129.541	-55.201	1.00	57.95	C	ATOM	17562	O2P	G A 838	153.967	135.345	-63.335	1.00	82.02	O
ATOM	17513	C6	U A 835	163.205	128.382	-55.854	1.00	57.95	C	ATOM	17563	O5*	G A 838	151.947	136.313	-62.266	1.00	97.47	O
ATOM	17514	P	G A 836	161.921	128.155	-61.225	1.00	72.30	P	ATOM	17564	C5*	G A 838	150.534	136.461	-62.052	1.00	97.47	C
ATOM	17515	O1P	G A 836	161.887	127.709	-62.640	1.00	57.85	O	ATOM	17565	C4*	G A 838	150.276	137.315	-60.837	1.00	97.47	C



ATOM	17566	O4*	G A 838	150.982	136.733	-59.717	1.00	97.47	O	ATOM	17616	C2	C A 840	157.093	139.981	-60.432	1.00139.18	C
ATOM	17567	C3*	G A 838	150.785	138.747	-60.907	1.00	97.47	C	ATOM	17617	O2	C A 840	158.155	139.375	-60.201	1.00139.18	O
ATOM	17568	O3*	G A 838	149.828	139.623	-61.487	1.00	97.47	O	ATOM	17618	N3	C A 840	156.169	139.489	-61.291	1.00139.18	N
ATOM	17569	C2*	G A 838	151.003	139.095	-59.441	1.00	97.47	C	ATOM	17619	C4	C A 840	155.048	140.174	-61.528	1.00139.18	C
ATOM	17570	O2*	G A 838	149.823	139.503	-58.779	1.00	97.47	O	ATOM	17620	N4	C A 840	154.149	139.639	-62.360	1.00139.18	N
ATOM	17571	C1*	G A 838	151.471	137.758	-58.875	1.00	97.47	C	ATOM	17621	C5	C A 840	154.793	141.434	-60.919	1.00139.18	C
ATOM	17572	N9	G A 838	152.925	137.678	-58.849	1.00	82.02	N	ATOM	17622	C6	C A 840	155.705	141.908	-60.068	1.00139.18	C
ATOM	17573	C8	G A 838	153.740	136.899	-59.636	1.00	82.02	C	ATOM	17623	P	U A 841	158.415	146.142	-56.892	1.00200.15	P
ATOM	17574	N7	G A 838	155.008	137.056	-59.369	1.00	82.02	N	ATOM	17624	O1P	U A 841	156.973	146.500	-56.904	1.00200.58	O
ATOM	17575	C5	G A 838	155.027	137.994	-58.346	1.00	82.02	C	ATOM	17625	O2P	U A 841	159.435	147.222	-56.933	1.00200.58	O
ATOM	17576	C6	G A 838	156.113	138.561	-57.646	1.00	82.02	C	ATOM	17626	O5*	U A 841	158.695	145.247	-55.604	1.00200.15	O
ATOM	17577	O6	G A 838	157.320	138.330	-57.782	1.00	82.02	O	ATOM	17627	C5*	U A 841	159.187	145.819	-54.377	1.00200.15	C
ATOM	17578	N1	G A 838	155.684	139.482	-56.701	1.00	82.02	N	ATOM	17628	C4*	U A 841	160.691	145.690	-54.314	1.00200.15	C
ATOM	17579	C2	G A 838	154.375	139.810	-56.457	1.00	82.02	C	ATOM	17629	O4*	U A 841	161.286	146.728	-55.138	1.00200.15	O
ATOM	17580	N2	G A 838	154.157	140.736	-55.512	1.00	82.02	N	ATOM	17630	C3*	U A 841	161.312	145.894	-52.942	1.00200.15	C
ATOM	17581	N3	G A 838	153.354	139.277	-57.092	1.00	82.02	N	ATOM	17631	O3*	U A 841	161.339	144.678	-52.206	1.00200.15	O
ATOM	17582	C4	G A 838	153.750	138.387	-58.018	1.00	82.02	C	ATOM	17632	C2*	U A 841	162.720	146.370	-53.270	1.00200.15	C
ATOM	17583	P	U A 839	150.264	140.612	-62.676	1.00131.94	P	ATOM	17633	O2*	U A 841	163.606	145.305	-53.561	1.00200.15	O	
ATOM	17584	O1P	U A 839	149.244	141.692	-62.721	1.00128.73	O	ATOM	17634	C1*	U A 841	162.482	147.199	-54.533	1.00200.15	C	
ATOM	17585	O2P	U A 839	150.521	139.788	-63.886	1.00128.73	O	ATOM	17635	N1	U A 841	162.340	148.642	-54.259	1.00200.58	N	
ATOM	17586	O5*	U A 839	151.649	141.249	-62.213	1.00131.94	O	ATOM	17636	C2	U A 841	163.443	149.321	-53.740	1.00200.58	C	
ATOM	17587	C5*	U A 839	151.862	141.688	-60.861	1.00131.94	C	ATOM	17637	O2	U A 841	164.513	148.779	-53.501	1.00200.58	O	
ATOM	17588	C4*	U A 839	151.452	143.126	-60.707	1.00131.94	C	ATOM	17638	N3	U A 841	163.241	150.660	-53.510	1.00200.58	N	
ATOM	17589	O4*	U A 839	150.003	143.186	-60.684	1.00131.94	O	ATOM	17639	C4	U A 841	162.085	151.381	-53.735	1.00200.58	C	
ATOM	17590	C3*	U A 839	151.893	143.787	-59.410	1.00131.94	C	ATOM	17640	O4	U A 841	162.064	152.588	-53.480	1.00200.58	O	
ATOM	17591	O3*	U A 839	153.198	144.357	-59.546	1.00131.94	O	ATOM	17641	C5	U A 841	160.997	150.615	-54.266	1.00200.58	C	
ATOM	17592	C2*	U A 839	150.832	144.859	-59.204	1.00131.94	C	ATOM	17642	C6	U A 841	161.156	149.308	-54.503	1.00200.58	C	
ATOM	17593	O2*	U A 839	151.109	146.031	-59.945	1.00131.94	O	ATOM	17643	P	C A 848	161.594	144.708	-50.619	1.00177.96	P	
ATOM	17594	C1*	U A 839	149.578	144.173	-59.762	1.00131.94	C	ATOM	17644	O1P	C A 848	161.762	146.131	-50.209	1.00119.02	O	
ATOM	17595	N1	U A 839	148.649	143.538	-58.801	1.00128.73	N	ATOM	17645	O2P	C A 848	160.222	144.173	-50.007	1.00177.96	O	
ATOM	17596	C2	U A 839	148.797	143.762	-57.419	1.00128.73	C	ATOM	17646	O5*	C A 848	159.236	145.091	-49.498	1.00177.96	O	
ATOM	17597	O2	U A 839	149.677	144.454	-56.928	1.00128.73	O	ATOM	17647	C5*	C A 848	157.869	144.769	-50.056	1.00177.96	C	
ATOM	17598	N3	U A 839	147.862	143.136	-56.632	1.00128.73	N	ATOM	17648	C4*	C A 848	157.913	144.813	-51.507	1.00177.96	C	
ATOM	17599	C4	U A 839	146.824	142.328	-57.048	1.00128.73	C	ATOM	17649	O4*	C A 848	156.694	143.391	-49.748	1.00177.96	O	
ATOM	17600	O4	U A 839	146.058	141.850	-56.208	1.00128.73	O	ATOM	17650	C3*	C A 848	156.294	143.189	-50.868	1.00177.96	C	
ATOM	17601	C5	U A 839	146.741	142.139	-58.467	1.00128.73	C	ATOM	17651	O3*	C A 848	155.056	143.827	-50.618	1.00177.96	O	
ATOM	17602	C6	U A 839	147.630	142.732	-59.272	1.00128.73	C	ATOM	17652	C2*	C A 848	156.994	143.320	-48.471	1.00177.96	C	
ATOM	17603	P	C A 840	153.979	144.909	-58.249	1.00191.17	P	ATOM	17653	O2*	C A 848	157.306	143.391	-49.748	1.00177.96	O	
ATOM	17604	O1P	C A 840	152.996	145.133	-57.153	1.00139.18	O	ATOM	17654	C1*	C A 848	156.994	143.872	-52.042	1.00177.96	C	
ATOM	17605	O2P	C A 840	154.828	146.034	-58.709	1.00139.18	O	ATOM	17655	N1	C A 848	157.724	142.894	-52.875	1.00119.02	N	
ATOM	17606	O5*	C A 840	154.936	143.709	-57.819	1.00191.17	O	ATOM	17656	C2	C A 848	157.053	142.302	-53.962	1.00119.02	C	
ATOM	17607	C5*	C A 840	155.918	143.873	-56.767	1.00191.17	C	ATOM	17657	O2	C A 848	155.882	142.646	-54.211	1.00119.02	O	
ATOM	17608	C4*	C A 840	157.263	143.355	-57.227	1.00191.17	C	ATOM	17658	N3	C A 848	157.697	141.373	-54.710	1.00119.02	N	
ATOM	17609	O4*	C A 840	157.096	141.970	-57.610	1.00191.17	O	ATOM	17659	C4	C A 848	158.953	141.030	-54.414	1.00119.02	C	
ATOM	17610	C3*	C A 840	157.810	144.073	-58.457	1.00191.17	C	ATOM	17660	N4	C A 848	159.541	140.099	-55.170	1.00119.02	N	
ATOM	17611	O3*	C A 840	158.725	145.137	-58.121	1.00191.17	O	ATOM	17661	C5	C A 848	159.662	141.626	-53.327	1.00119.02	C	
ATOM	17612	C2*	C A 840	158.581	142.975	-59.191	1.00191.17	C	ATOM	17662	C6	C A 848	159.017	142.545	-52.593	1.00119.02	C	
ATOM	17613	O2*	C A 840	159.926	142.860	-58.766	1.00191.17	O	ATOM	17663	P	C A 849	156.448	141.883	-47.792	1.00128.63	P	
ATOM	17614	C1*	C A 840	157.809	141.710	-58.800	1.00191.17	C	ATOM	17664	O1P	C A 849	155.929	142.139	-46.421	1.00	97.57	O
ATOM	17615	N1	C A 840	156.844	141.207	-59.791	1.00139.18	N	ATOM	17665	O2P	C A 849	157.674	141.053	-47.970	1.00	97.57	O



ATOM	17666	O5*	C A 849	155.283	141.233	-48.668	1.00128.63	O	ATOM	17716	C8	G A 851	154.854	130.725	-51.624	1.00	64.56	C	
ATOM	17667	C5*	C A 849	153.972	141.835	-48.716	1.00128.63	C	ATOM	17717	N7	G A 851	156.112	130.968	-51.873	1.00	64.56	N	
ATOM	17668	C4*	C A 849	153.066	141.078	-49.664	1.00128.63	C	ATOM	17718	C5	G A 851	156.483	129.979	-52.771	1.00	64.56	C	
ATOM	17669	O4*	C A 849	153.532	141.224	-51.031	1.00128.63	O	ATOM	17719	C6	G A 851	157.730	129.725	-53.388	1.00	64.56	C	
ATOM	17670	C3*	C A 849	152.961	139.576	-49.457	1.00128.63	C	ATOM	17720	O6	G A 851	158.796	130.343	-53.256	1.00	64.56	O	
ATOM	17671	O3*	C A 849	152.043	139.235	-48.427	1.00128.63	O	ATOM	17721	N1	G A 851	157.667	128.625	-54.233	1.00	64.56	N	
ATOM	17672	C2*	C A 849	152.501	139.083	-50.824	1.00128.63	C	ATOM	17722	C2	G A 851	156.552	127.864	-54.454	1.00	64.56	C	
ATOM	17673	O2*	C A 849	151.104	139.183	-51.013	1.00128.63	O	ATOM	17723	N2	G A 851	156.695	126.836	-55.303	1.00	64.56	N	
ATOM	17674	C1*	C A 849	153.221	140.051	-51.765	1.00128.63	C	ATOM	17724	N3	G A 851	155.383	128.091	-53.885	1.00	64.56	N	
ATOM	17675	N1	C A 849	154.464	139.477	-52.319	1.00	97.57	N	ATOM	17725	C4	G A 851	155.421	129.156	-53.058	1.00	64.56	C
ATOM	17676	C2	C A 849	154.370	138.636	-53.430	1.00	97.57	C	ATOM	17726	P	G A 852	152.919	126.539	-48.130	1.00	59.84	P
ATOM	17677	O2	C A 849	153.259	138.427	-53.927	1.00	97.57	O	ATOM	17727	O1P	G A 852	152.089	125.571	-47.380	1.00	54.25	O
ATOM	17678	N3	C A 849	155.489	138.076	-53.937	1.00	97.57	N	ATOM	17728	O2P	G A 852	153.764	127.511	-47.390	1.00	54.25	O
ATOM	17679	C4	C A 849	156.672	138.333	-53.380	1.00	97.57	C	ATOM	17729	O5*	G A 852	153.878	125.686	-49.080	1.00	59.84	O
ATOM	17680	N4	C A 849	157.749	137.751	-53.910	1.00	97.57	N	ATOM	17730	C5*	G A 852	153.377	124.553	-49.827	1.00	59.84	C
ATOM	17681	C5	C A 849	156.803	139.195	-52.254	1.00	97.57	C	ATOM	17731	C4*	G A 852	154.494	123.891	-50.607	1.00	59.84	C
ATOM	17682	C6	C A 849	155.684	139.741	-51.760	1.00	97.57	C	ATOM	17732	O4*	G A 852	154.967	124.766	-51.668	1.00	59.84	O
ATOM	17683	P	U A 850	152.193	137.823	-47.671	1.00	85.71	P	ATOM	17733	C3*	G A 852	155.746	123.561	-49.819	1.00	59.84	C
ATOM	17684	O1P	U A 850	151.116	137.735	-46.652	1.00	96.23	O	ATOM	17734	O3*	G A 852	155.639	122.360	-49.092	1.00	59.84	O
ATOM	17685	O2P	U A 850	153.612	137.662	-47.245	1.00	96.23	O	ATOM	17735	C2*	G A 852	156.803	123.475	-50.908	1.00	59.84	C
ATOM	17686	O5*	U A 850	151.884	136.762	-48.821	1.00	85.71	O	ATOM	17736	O2*	G A 852	156.769	122.242	-51.600	1.00	59.84	O
ATOM	17687	C5*	U A 850	150.566	136.656	-49.398	1.00	85.71	C	ATOM	17737	C1*	G A 852	156.368	124.603	-51.837	1.00	59.84	C
ATOM	17688	O4*	U A 850	150.511	135.515	-50.390	1.00	85.71	C	ATOM	17738	N9	G A 852	157.028	125.840	-51.429	1.00	54.25	N
ATOM	17689	C3*	U A 850	151.246	135.858	-51.593	1.00	85.71	C	ATOM	17739	C8	G A 852	156.485	126.861	-50.690	1.00	54.25	C
ATOM	17690	O3*	U A 850	151.131	134.206	-49.933	1.00	85.71	O	ATOM	17740	N7	G A 852	157.327	127.829	-50.453	1.00	54.25	N
ATOM	17691	O3*	U A 850	150.260	133.428	-49.144	1.00	85.71	O	ATOM	17741	C5	G A 852	158.500	127.426	-51.077	1.00	54.25	C
ATOM	17692	C2*	U A 850	151.465	133.511	-51.242	1.00	85.71	C	ATOM	17742	C6	G A 852	159.766	128.069	-51.160	1.00	54.25	C
ATOM	17693	O2*	U A 850	150.366	132.820	-51.800	1.00	85.71	O	ATOM	17743	O6	G A 852	160.114	129.153	-50.666	1.00	54.25	O
ATOM	17694	C1*	U A 850	151.854	134.693	-52.127	1.00	85.71	C	ATOM	17744	N1	G A 852	160.676	127.320	-51.901	1.00	54.25	N
ATOM	17695	N1	U A 850	153.312	134.880	-52.140	1.00	96.23	N	ATOM	17745	C2	G A 852	160.407	126.106	-52.481	1.00	54.25	C
ATOM	17696	C2	U A 850	154.041	134.133	-53.048	1.00	96.23	C	ATOM	17746	N2	G A 852	161.413	125.543	-53.162	1.00	54.25	N
ATOM	17697	O2	U A 850	153.527	133.355	-53.834	1.00	96.23	O	ATOM	17747	N3	G A 852	159.234	125.488	-52.401	1.00	54.25	N
ATOM	17698	N3	U A 850	155.396	134.327	-53.001	1.00	96.23	N	ATOM	17748	C4	G A 852	158.333	126.204	-51.691	1.00	54.25	C
ATOM	17699	C4	U A 850	156.084	135.174	-52.163	1.00	96.23	C	ATOM	17749	P	G A 853	156.363	122.241	-47.663	1.00	55.30	P
ATOM	17700	O4	U A 850	157.312	135.228	-52.240	1.00	96.23	O	ATOM	17750	O1P	G A 853	155.967	120.907	-47.133	1.00	54.98	O
ATOM	17701	C5	U A 850	155.262	135.920	-51.258	1.00	96.23	C	ATOM	17751	O2P	G A 853	156.110	123.465	-46.862	1.00	54.98	O
ATOM	17702	C6	U A 850	153.939	135.753	-51.277	1.00	96.23	C	ATOM	17752	O5*	G A 853	157.926	122.262	-47.979	1.00	55.30	O
ATOM	17703	P	G A 851	150.880	132.372	-48.109	1.00	81.26	P	ATOM	17753	C5*	G A 853	158.526	121.208	-48.726	1.00	55.30	C
ATOM	17704	O1P	G A 851	149.717	131.807	-47.369	1.00	64.56	O	ATOM	17754	C4*	G A 853	159.978	121.505	-49.012	1.00	55.30	C
ATOM	17705	O2P	G A 851	151.991	133.023	-47.357	1.00	64.56	O	ATOM	17755	O4*	G A 853	160.122	122.654	-49.885	1.00	55.30	O
ATOM	17706	O5*	G A 851	151.517	131.232	-49.031	1.00	81.26	O	ATOM	17756	C3*	G A 853	160.924	121.825	-47.867	1.00	55.30	C
ATOM	17707	C5*	G A 851	150.657	130.325	-49.722	1.00	81.26	C	ATOM	17757	O3*	G A 853	161.323	120.658	-47.161	1.00	55.30	O
ATOM	17708	C4*	G A 851	151.430	129.312	-50.540	1.00	81.26	C	ATOM	17758	C2*	G A 853	162.116	122.402	-48.623	1.00	55.30	C
ATOM	17709	O4*	G A 851	152.130	129.932	-51.647	1.00	81.26	O	ATOM	17759	O2*	G A 853	162.938	121.392	-49.167	1.00	55.30	O
ATOM	17710	C3*	G A 851	152.492	128.417	-49.927	1.00	81.26	C	ATOM	17760	C1*	G A 853	161.443	123.142	-49.778	1.00	55.30	C
ATOM	17711	O3*	G A 851	151.956	127.354	-49.141	1.00	81.26	O	ATOM	17761	N9	G A 853	161.423	124.565	-49.490	1.00	54.98	N
ATOM	17712	C2*	G A 851	153.116	127.828	-51.189	1.00	81.26	C	ATOM	17762	C8	G A 853	160.357	125.337	-49.108	1.00	54.98	C
ATOM	17713	O2*	G A 851	152.312	126.796	-51.722	1.00	81.26	O	ATOM	17763	N7	G A 853	160.692	126.570	-48.838	1.00	54.98	N
ATOM	17714	C1*	G A 851	153.062	129.003	-52.167	1.00	81.26	C	ATOM	17764	C5	G A 853	162.060	126.614	-49.078	1.00	54.98	C
ATOM	17715	N9	G A 851	154.380	129.621	-52.287	1.00	64.56	N	ATOM	17765	C6	G A 853	162.986	127.684	-48.948	1.00	54.98	C



ATOM 17766	G A 853	162.777	128.847	-48.573	1.00	54.98	O	ATOM 17816	N3	G A 855	169.159	129.453	-42.529	1.00	49.41	N
ATOM 17767	G A 853	164.270	127.293	-49.303	1.00	54.98	N	ATOM 17817	C4	G A 855	168.054	128.715	-42.763	1.00	49.41	C
ATOM 17768	G A 853	164.624	126.040	-49.726	1.00	54.98	C	ATOM 17818	P	C A 856	169.482	124.779	-38.598	1.00	46.61	P
ATOM 17769	G A 853	165.912	125.867	-50.043	1.00	54.98	N	ATOM 17819	O1P	C A 856	170.275	123.831	-37.774	1.00	44.99	O
ATOM 17770	G A 853	163.776	125.032	-49.838	1.00	54.98	N	ATOM 17820	O2P	C A 856	167.992	124.751	-38.533	1.00	44.99	O
ATOM 17771	G A 853	162.519	125.390	-49.501	1.00	54.98	N	ATOM 17821	O5*	C A 856	169.946	126.273	-38.286	1.00	46.61	O
ATOM 17772	G A 854	162.137	120.795	-45.779	1.00	49.68	P	ATOM 17822	C5*	C A 856	171.304	126.667	-38.466	1.00	46.61	C
ATOM 17773	G A 854	162.449	119.401	-45.343	1.00	47.78	O	ATOM 17823	C4*	C A 856	171.434	128.159	-38.340	1.00	46.61	C
ATOM 17774	G A 854	161.436	121.718	-44.851	1.00	47.78	O	ATOM 17824	O4*	C A 856	170.745	128.809	-39.435	1.00	46.61	O
ATOM 17775	G A 854	163.499	121.495	-46.198	1.00	49.68	O	ATOM 17825	C3*	C A 856	170.816	128.775	-37.105	1.00	46.61	C
ATOM 17776	G A 854	164.479	120.762	-46.931	1.00	49.68	C	ATOM 17826	O3*	C A 856	171.649	128.702	-35.974	1.00	46.61	O
ATOM 17777	G A 854	165.749	121.544	-47.019	1.00	49.68	C	ATOM 17827	C2*	C A 856	170.576	130.215	-37.525	1.00	46.61	C
ATOM 17778	G A 854	165.512	122.790	-47.712	1.00	49.68	O	ATOM 17828	O2*	C A 856	171.722	131.023	-37.392	1.00	46.61	O
ATOM 17779	G A 854	166.334	121.961	-45.691	1.00	49.68	C	ATOM 17829	C1*	C A 856	170.203	130.045	-38.994	1.00	46.61	C
ATOM 17780	G A 854	167.088	120.904	-45.128	1.00	49.68	O	ATOM 17830	N1	C A 856	168.741	129.991	-39.128	1.00	44.99	N
ATOM 17781	G A 854	167.195	123.158	-46.071	1.00	49.68	O	ATOM 17831	C2	C A 856	168.023	131.173	-39.043	1.00	44.99	C
ATOM 17782	G A 854	168.467	122.787	-46.555	1.00	49.68	C	ATOM 17832	O2	C A 856	168.636	132.238	-38.908	1.00	44.99	O
ATOM 17783	G A 854	166.387	123.777	-47.211	1.00	49.68	C	ATOM 17833	N3	C A 856	166.683	131.135	-39.106	1.00	44.99	N
ATOM 17784	G A 854	165.608	124.946	-46.818	1.00	47.78	N	ATOM 17834	C4	C A 856	166.059	129.977	-39.250	1.00	44.99	C
ATOM 17785	G A 854	164.243	125.038	-46.680	1.00	47.78	C	ATOM 17835	N4	C A 856	164.734	129.990	-39.273	1.00	44.99	N
ATOM 17786	G A 854	163.843	126.236	-46.344	1.00	47.78	N	ATOM 17836	C5	C A 856	166.764	128.753	-39.369	1.00	44.99	C
ATOM 17787	G A 854	165.015	126.975	-46.245	1.00	47.78	C	ATOM 17837	C6	C A 856	168.093	128.803	-39.308	1.00	44.99	C
ATOM 17788	G A 854	165.220	128.340	-45.913	1.00	47.78	C	ATOM 17838	P	C A 857	170.975	128.664	-34.518	1.00	48.09	P
ATOM 17789	G A 854	164.383	129.202	-45.618	1.00	47.78	O	ATOM 17839	O1P	C A 857	172.084	128.418	-33.557	1.00	56.93	O
ATOM 17790	G A 854	166.566	128.671	-45.939	1.00	47.78	N	ATOM 17840	O2P	C A 857	169.812	127.728	-34.574	1.00	56.93	O
ATOM 17791	G A 854	167.581	127.809	-46.229	1.00	47.78	C	ATOM 17841	O5*	C A 857	170.393	130.133	-34.316	1.00	48.09	O
ATOM 17792	G A 854	168.803	128.331	-46.190	1.00	47.78	N	ATOM 17842	C5*	C A 857	171.263	131.259	-34.240	1.00	48.09	C
ATOM 17793	G A 854	167.412	126.539	-46.529	1.00	47.78	N	ATOM 17843	C4*	C A 857	170.479	132.513	-33.928	1.00	48.09	C
ATOM 17794	G A 854	166.112	126.192	-46.524	1.00	47.78	P	ATOM 17844	O4*	C A 857	169.636	132.847	-35.056	1.00	48.09	O
ATOM 17795	G A 855	167.572	121.007	-43.605	1.00	42.55	C	ATOM 17845	C3*	C A 857	169.528	132.471	-32.738	1.00	48.09	C
ATOM 17796	G A 855	168.772	120.155	-43.440	1.00	49.41	O	ATOM 17846	O3*	C A 857	170.174	132.733	-31.502	1.00	48.09	O
ATOM 17797	G A 855	166.401	120.793	-42.719	1.00	49.41	O	ATOM 17847	C2*	C A 857	168.537	133.571	-33.069	1.00	48.09	C
ATOM 17798	G A 855	168.030	122.522	-43.519	1.00	42.55	O	ATOM 17848	O2*	C A 857	169.053	134.831	-32.712	1.00	48.09	O
ATOM 17799	G A 855	168.046	123.221	-42.287	1.00	42.55	C	ATOM 17849	C1*	C A 857	168.457	133.476	-34.593	1.00	48.09	C
ATOM 17800	G A 855	169.090	124.292	-42.349	1.00	42.55	C	ATOM 17850	N1	C A 857	167.294	132.712	-35.069	1.00	56.93	N
ATOM 17801	G A 855	168.780	125.210	-43.429	1.00	42.55	O	ATOM 17851	C2	C A 857	166.039	133.323	-35.035	1.00	56.93	C
ATOM 17802	G A 855	169.181	125.175	-41.134	1.00	42.55	C	ATOM 17852	O2	C A 857	165.949	134.480	-34.588	1.00	56.93	O
ATOM 17803	G A 855	169.926	124.561	-40.118	1.00	42.55	O	ATOM 17853	N3	C A 857	164.957	132.643	-35.483	1.00	56.93	N
ATOM 17804	G A 855	169.836	126.426	-41.689	1.00	42.55	O	ATOM 17854	C4	C A 857	165.097	131.399	-35.940	1.00	56.93	C
ATOM 17805	G A 855	171.231	126.279	-41.808	1.00	42.55	O	ATOM 17855	N4	C A 857	164.005	130.766	-36.362	1.00	56.93	N
ATOM 17806	G A 855	169.203	126.511	-43.078	1.00	42.55	C	ATOM 17856	C5	C A 857	166.365	130.749	-35.980	1.00	56.93	C
ATOM 17807	G A 855	168.037	127.379	-43.045	1.00	49.41	N	ATOM 17857	C6	C A 857	167.426	131.435	-35.539	1.00	56.93	C
ATOM 17808	G A 855	166.722	127.036	-43.228	1.00	49.41	C	ATOM 17858	P	G A 858	169.449	132.310	-30.134	1.00	55.10	P
ATOM 17809	G A 855	165.907	128.036	-43.043	1.00	49.41	N	ATOM 17859	O1P	G A 858	170.430	132.418	-29.025	1.00	51.52	O
ATOM 17810	G A 855	166.739	129.102	-42.742	1.00	49.41	C	ATOM 17860	O2P	G A 858	168.726	131.018	-30.354	1.00	51.52	O
ATOM 17811	G A 855	166.434	130.436	-42.429	1.00	49.41	C	ATOM 17861	O5*	G A 858	168.363	133.457	-29.936	1.00	55.10	O
ATOM 17812	G A 855	165.323	130.967	-42.347	1.00	49.41	O	ATOM 17862	C5*	G A 858	167.158	133.225	-29.181	1.00	55.10	C
ATOM 17813	G A 855	167.584	131.184	-42.189	1.00	49.41	N	ATOM 17863	C4*	G A 858	166.023	134.015	-29.778	1.00	55.10	C
ATOM 17814	G A 855	168.865	130.701	-42.244	1.00	49.41	C	ATOM 17864	O4*	G A 858	165.970	133.745	-31.200	1.00	55.10	O
ATOM 17815	G A 855	169.853	131.568	-41.990	1.00	49.41	N	ATOM 17865	C3*	G A 858	164.645	133.672	-29.241	1.00	55.10	C



ATOM	17866	O3*	G A 858	164.366	134.459	-28.086	1.00	55.10	O	ATOM	17916	C8	A A 860	157.364	131.498	-26.802	1.00	54.30	C
ATOM	17867	C2*	G A 858	163.742	133.997	-30.426	1.00	55.10	C	ATOM	17917	N7	A A 860	158.008	130.535	-27.405	1.00	54.30	N
ATOM	17868	O2*	G A 858	163.456	135.371	-30.520	1.00	55.10	O	ATOM	17918	C5	A A 860	157.033	129.586	-27.652	1.00	54.30	C
ATOM	17869	C1*	G A 858	164.629	133.605	-31.613	1.00	55.10	C	ATOM	17919	C6	A A 860	157.078	128.331	-28.260	1.00	54.30	C
ATOM	17870	N9	G A 858	164.459	132.220	-32.043	1.00	51.52	N	ATOM	17920	N6	A A 860	158.194	127.774	-28.729	1.00	54.30	N
ATOM	17871	C8	G A 858	165.389	131.206	-31.965	1.00	51.52	C	ATOM	17921	N1	A A 860	155.924	127.648	-28.369	1.00	54.30	N
ATOM	17872	N7	G A 858	164.953	130.074	-32.442	1.00	51.52	N	ATOM	17922	C2	A A 860	154.814	128.194	-27.883	1.00	54.30	C
ATOM	17873	C5	G A 858	163.662	130.359	-32.857	1.00	51.52	C	ATOM	17923	N3	A A 860	154.647	129.357	-27.279	1.00	54.30	N
ATOM	17874	C6	G A 858	162.697	129.535	-33.460	1.00	51.52	C	ATOM	17924	C4	A A 860	155.809	130.016	-27.194	1.00	54.30	C
ATOM	17875	O6	G A 858	162.789	128.337	-33.773	1.00	51.52	O	ATOM	17925	P	G A 861	155.772	131.748	-21.186	1.00	39.66	P
ATOM	17876	N1	G A 858	161.521	130.227	-33.705	1.00	51.52	N	ATOM	17926	O1P	G A 861	154.967	131.980	-19.952	1.00	52.26	O
ATOM	17877	C2	G A 858	161.303	131.539	-33.404	1.00	51.52	C	ATOM	17927	O2P	G A 861	157.237	132.052	-21.177	1.00	52.26	O
ATOM	17878	N2	G A 858	160.099	132.020	-33.700	1.00	51.52	N	ATOM	17928	O5*	G A 861	155.590	130.229	-21.639	1.00	39.66	O
ATOM	17879	N3	G A 858	162.196	132.321	-32.852	1.00	51.52	N	ATOM	17929	C5*	G A 861	154.286	129.669	-21.852	1.00	39.66	C
ATOM	17880	C4	G A 858	163.344	131.675	-32.607	1.00	51.52	C	ATOM	17930	C4*	G A 861	154.387	128.335	-22.561	1.00	39.66	C
ATOM	17881	P	A A 859	163.239	133.985	-27.035	1.00	47.59	P	ATOM	17931	O4*	G A 861	154.843	128.529	-23.927	1.00	39.66	O
ATOM	17882	O1P	A A 859	163.261	134.971	-25.929	1.00	58.04	O	ATOM	17932	C3*	G A 861	155.362	127.334	-21.968	1.00	39.66	C
ATOM	17883	O2P	A A 859	163.392	132.542	-26.724	1.00	58.04	O	ATOM	17933	O3*	G A 861	154.823	126.590	-20.893	1.00	39.66	C
ATOM	17884	O5*	A A 859	161.878	134.169	-27.841	1.00	47.59	O	ATOM	17934	C2*	G A 861	155.674	126.445	-23.156	1.00	39.66	C
ATOM	17885	C5*	A A 859	161.491	135.464	-28.303	1.00	47.59	C	ATOM	17935	O2*	G A 861	154.675	125.476	-23.382	1.00	39.66	O
ATOM	17886	C4*	A A 859	160.011	135.685	-28.111	1.00	47.59	C	ATOM	17936	C1*	G A 861	155.687	127.455	-24.305	1.00	39.66	C
ATOM	17887	O4*	A A 859	159.272	135.358	-29.305	1.00	47.59	O	ATOM	17937	N9	G A 861	157.039	127.979	-24.492	1.00	52.26	N
ATOM	17888	C3*	A A 859	159.306	134.917	-27.015	1.00	47.59	C	ATOM	17938	C8	G A 861	157.528	129.166	-24.010	1.00	52.26	C
ATOM	17889	O3*	A A 859	159.509	135.488	-25.746	1.00	47.59	O	ATOM	17939	N7	G A 861	158.781	129.359	-24.301	1.00	52.26	N
ATOM	17890	C2*	A A 859	157.852	135.044	-27.428	1.00	47.59	C	ATOM	17940	C5	G A 861	159.142	128.235	-25.030	1.00	52.26	C
ATOM	17891	O2*	A A 859	157.319	136.284	-27.026	1.00	47.59	O	ATOM	17941	C6	G A 861	160.377	127.893	-25.631	1.00	52.26	C
ATOM	17892	C1*	A A 859	157.951	135.018	-28.954	1.00	47.59	C	ATOM	17942	O6	G A 861	161.429	128.538	-25.647	1.00	52.26	O
ATOM	17893	N9	A A 859	157.648	133.697	-29.486	1.00	58.04	N	ATOM	17943	N1	G A 861	160.309	126.669	-26.269	1.00	52.26	N
ATOM	17894	C8	A A 859	158.502	132.700	-29.868	1.00	58.04	C	ATOM	17944	C2	G A 861	159.199	125.878	-26.329	1.00	52.26	C
ATOM	17895	N7	A A 859	157.893	131.607	-30.261	1.00	58.04	N	ATOM	17945	N2	G A 861	159.333	124.730	-26.986	1.00	52.26	N
ATOM	17896	C5	A A 859	156.546	131.913	-30.137	1.00	58.04	C	ATOM	17946	N3	G A 861	158.042	126.187	-25.784	1.00	52.26	N
ATOM	17897	C6	A A 859	155.373	131.170	-30.383	1.00	58.04	C	ATOM	17947	C4	G A 861	158.083	127.374	-25.156	1.00	52.26	C
ATOM	17898	N6	A A 859	155.369	129.904	-30.813	1.00	58.04	N	ATOM	17948	P	C A 862	155.819	125.953	-19.809	1.00	46.18	P
ATOM	17899	N1	A A 859	154.187	131.780	-30.160	1.00	58.04	N	ATOM	17949	O1P	C A 862	155.084	125.394	-18.651	1.00	41.22	O
ATOM	17900	C2	A A 859	154.191	133.041	-29.708	1.00	58.04	C	ATOM	17950	O2P	C A 862	156.883	126.957	-19.576	1.00	41.22	O
ATOM	17901	N3	A A 859	155.222	133.834	-29.430	1.00	58.04	N	ATOM	17951	O5*	C A 862	156.461	124.722	-20.583	1.00	46.18	O
ATOM	17902	C4	A A 859	156.383	133.202	-29.671	1.00	58.04	C	ATOM	17952	C5*	C A 862	155.633	123.727	-21.209	1.00	46.18	C
ATOM	17903	P	A A 860	159.466	134.546	-24.450	1.00	42.09	P	ATOM	17953	C4*	C A 862	156.489	122.759	-21.986	1.00	46.18	C
ATOM	17904	O1P	A A 860	159.549	135.438	-23.265	1.00	54.30	O	ATOM	17954	O4*	C A 862	157.119	123.442	-23.100	1.00	46.18	O
ATOM	17905	O2P	A A 860	160.451	133.439	-24.592	1.00	54.30	O	ATOM	17955	C3*	C A 862	157.641	122.170	-21.193	1.00	46.18	C
ATOM	17906	O5*	A A 860	158.015	133.889	-24.528	1.00	42.09	O	ATOM	17956	O3*	C A 862	157.241	121.048	-20.418	1.00	46.18	O
ATOM	17907	C5*	A A 860	156.831	134.632	-24.201	1.00	42.09	C	ATOM	17957	C2*	C A 862	158.641	121.810	-22.278	1.00	46.18	C
ATOM	17908	C4*	A A 860	155.614	133.774	-24.422	1.00	42.09	C	ATOM	17958	O2*	C A 862	158.319	120.596	-22.912	1.00	46.18	O
ATOM	17909	O4*	A A 860	155.558	133.401	-25.823	1.00	42.09	O	ATOM	17959	C1*	C A 862	158.434	122.947	-23.276	1.00	46.18	C
ATOM	17910	C3*	A A 860	155.608	132.449	-23.683	1.00	42.09	C	ATOM	17960	N1	C A 862	159.393	124.052	-23.080	1.00	41.22	N
ATOM	17911	O3*	A A 860	155.093	132.577	-22.382	1.00	42.09	O	ATOM	17961	C2	C A 862	160.678	123.936	-23.617	1.00	41.22	C
ATOM	17912	C2*	A A 860	154.712	131.575	-24.543	1.00	42.09	C	ATOM	17962	O2	C A 862	160.985	122.907	-24.214	1.00	41.22	O
ATOM	17913	O2*	A A 860	153.347	131.788	-24.267	1.00	42.09	O	ATOM	17963	N3	C A 862	161.554	124.947	-23.469	1.00	41.22	N
ATOM	17914	C1*	A A 860	155.036	132.084	-25.951	1.00	42.09	C	ATOM	17964	C4	C A 862	161.196	126.042	-22.811	1.00	41.22	C
ATOM	17915	N9	A A 860	156.031	131.246	-26.628	1.00	54.30	N	ATOM	17965	N4	C A 862	162.085	127.042	-22.710	1.00	41.22	N



ATOM	17966	C A 862	159.903	126.184	-22.233	1.00	41.22	C	ATOM	18016	O4*	A A 865	169.407	120.404	-17.241	1.00	40.33	O
ATOM	17967	C A 862	159.040	125.176	-22.391	1.00	41.22	C	ATOM	18017	C3*	A A 865	169.943	122.253	-18.591	1.00	40.33	C
ATOM	17968	P U A 863	157.997	120.744	-19.035	1.00	39.50	P	ATOM	18018	O3*	A A 865	170.742	123.428	-18.617	1.00	40.33	O
ATOM	17969	O1P U A 863	157.434	119.504	-18.441	1.00	53.64	O	ATOM	18019	C2*	A A 865	170.683	121.042	-19.134	1.00	40.33	C
ATOM	17970	O2P U A 863	158.057	121.985	-18.232	1.00	53.64	O	ATOM	18020	O2*	A A 865	172.025	121.017	-18.700	1.00	40.33	O
ATOM	17971	O5* U A 863	159.475	120.408	-19.505	1.00	39.50	O	ATOM	18021	C1*	A A 865	169.953	119.896	-18.435	1.00	40.33	C
ATOM	17972	C5* U A 863	159.738	119.244	-20.297	1.00	39.50	C	ATOM	18022	N9	A A 865	168.866	119.369	-19.255	1.00	43.81	N
ATOM	17973	C4* U A 863	161.200	119.135	-20.589	1.00	39.50	C	ATOM	18023	C8	A A 865	167.566	119.792	-19.323	1.00	43.81	C
ATOM	17974	O4* U A 863	161.601	120.196	-21.482	1.00	39.50	O	ATOM	18024	N7	A A 865	166.835	119.123	-20.180	1.00	43.81	N
ATOM	17975	C3* U A 863	162.120	119.278	-19.402	1.00	39.50	C	ATOM	18025	C5	A A 865	167.712	118.191	-20.708	1.00	43.81	C
ATOM	17976	O3* U A 863	162.225	118.040	-18.740	1.00	39.50	O	ATOM	18026	C6	A A 865	167.548	117.184	-21.668	1.00	43.81	C
ATOM	17977	C2* U A 863	163.431	119.683	-20.052	1.00	39.50	C	ATOM	18027	N6	A A 865	166.407	116.956	-22.300	1.00	43.81	N
ATOM	17978	O2* U A 863	164.123	118.557	-20.552	1.00	39.50	O	ATOM	18028	N1	A A 865	168.617	116.416	-21.964	1.00	43.81	N
ATOM	17979	C1* U A 863	162.950	120.530	-21.233	1.00	39.50	C	ATOM	18029	C2	A A 865	169.781	116.669	-21.340	1.00	43.81	C
ATOM	17980	N1 U A 863	163.043	121.976	-20.996	1.00	53.64	N	ATOM	18030	N3	A A 865	170.064	117.600	-20.425	1.00	43.81	N
ATOM	17981	C2 U A 863	164.216	122.612	-21.353	1.00	53.64	C	ATOM	18031	C4	A A 865	168.969	118.331	-20.147	1.00	43.81	C
ATOM	17982	O2 U A 863	165.130	122.052	-21.928	1.00	53.64	O	ATOM	18032	P	C A 866	170.755	124.353	-19.930	1.00	41.38	P
ATOM	17983	N3 U A 863	164.272	123.937	-21.027	1.00	53.64	N	ATOM	18033	O1P	C A 866	171.668	125.505	-19.690	1.00	42.46	O
ATOM	17984	C4 U A 863	163.285	124.676	-20.425	1.00	53.64	C	ATOM	18034	O2P	C A 866	169.346	124.605	-20.351	1.00	42.46	O
ATOM	17985	O4 U A 863	163.500	125.851	-20.148	1.00	53.64	O	ATOM	18035	O5*	C A 866	171.382	123.419	-21.060	1.00	41.38	O
ATOM	17986	C5 U A 863	162.091	123.959	-20.137	1.00	53.64	C	ATOM	18036	C5*	C A 866	172.740	122.960	-20.984	1.00	41.38	C
ATOM	17987	C6 U A 863	162.014	122.668	-20.423	1.00	53.64	C	ATOM	18037	C4*	C A 866	173.051	122.061	-22.153	1.00	41.38	C
ATOM	17988	P A A 864	162.149	117.985	-17.135	1.00	38.37	P	ATOM	18038	O4*	C A 866	172.377	120.784	-22.005	1.00	41.38	O
ATOM	17989	O1P A A 864	162.004	116.549	-16.787	1.00	46.95	O	ATOM	18039	C3*	C A 866	172.595	122.591	-23.500	1.00	41.38	C
ATOM	17990	O2P A A 864	161.145	118.968	-16.640	1.00	46.95	O	ATOM	18040	O3*	C A 866	173.544	123.494	-24.048	1.00	41.38	O
ATOM	17991	O5* A A 864	163.570	118.483	-16.652	1.00	38.37	O	ATOM	18041	C2*	C A 866	172.463	121.317	-24.320	1.00	41.38	C
ATOM	17992	C5* A A 864	163.825	118.658	-15.268	1.00	38.37	C	ATOM	18042	O2*	C A 866	173.710	120.872	-24.794	1.00	41.38	O
ATOM	17993	C4* A A 864	165.294	118.538	-15.007	1.00	38.37	C	ATOM	18043	C1*	C A 866	171.959	120.320	-23.277	1.00	41.38	C
ATOM	17994	O4* A A 864	165.692	117.154	-15.159	1.00	38.37	O	ATOM	18044	N1	C A 866	170.487	120.221	-23.290	1.00	42.46	N
ATOM	17995	C3* A A 864	166.142	119.310	-15.993	1.00	38.37	C	ATOM	18045	C2	C A 866	169.880	119.122	-23.904	1.00	42.46	C
ATOM	17996	O3* A A 864	166.295	120.649	-15.559	1.00	38.37	O	ATOM	18046	O2	C A 866	170.586	118.229	-24.390	1.00	42.46	O
ATOM	17997	C2* A A 864	167.441	118.527	-15.966	1.00	38.37	C	ATOM	18047	N3	C A 866	168.533	119.054	-23.948	1.00	42.46	N
ATOM	17998	O2* A A 864	168.173	118.861	-14.801	1.00	38.37	O	ATOM	18048	C4	C A 866	167.797	120.012	-23.394	1.00	42.46	C
ATOM	17999	C1* A A 864	166.934	117.085	-15.828	1.00	38.37	C	ATOM	18049	N4	C A 866	166.483	119.883	-23.440	1.00	42.46	N
ATOM	18000	N9 A A 864	166.732	116.355	-17.092	1.00	46.95	N	ATOM	18050	C5	C A 866	168.382	121.136	-22.760	1.00	42.46	C
ATOM	18001	C8 A A 864	165.566	116.224	-17.809	1.00	46.95	C	ATOM	18051	C6	C A 866	169.716	121.201	-22.727	1.00	42.46	C
ATOM	18002	N7 A A 864	165.681	115.487	-18.886	1.00	46.95	N	ATOM	18052	P	G A 867	173.127	124.437	-25.281	1.00	38.76	P
ATOM	18003	C5 A A 864	167.011	115.107	-18.893	1.00	46.95	C	ATOM	18053	O1P	G A 867	174.363	125.043	-25.830	1.00	45.69	O
ATOM	18004	C6 A A 864	167.760	114.300	-19.748	1.00	46.95	C	ATOM	18054	O2P	G A 867	171.985	125.320	-24.899	1.00	45.69	O
ATOM	18005	N6 A A 864	167.262	113.687	-20.816	1.00	46.95	N	ATOM	18055	O5*	G A 867	172.622	123.403	-26.377	1.00	38.76	O
ATOM	18006	N1 A A 864	169.062	114.132	-19.468	1.00	46.95	N	ATOM	18056	C5*	G A 867	171.572	123.753	-27.280	1.00	38.76	C
ATOM	18007	C2 A A 864	169.569	114.725	-18.383	1.00	46.95	C	ATOM	18057	C4*	G A 867	170.522	122.687	-27.270	1.00	38.76	C
ATOM	18008	N3 A A 864	168.969	115.492	-17.488	1.00	46.95	N	ATOM	18058	O4*	G A 867	170.045	122.481	-25.914	1.00	38.76	O
ATOM	18009	C4 A A 864	167.674	115.647	-17.794	1.00	46.95	C	ATOM	18059	C3*	G A 867	169.285	123.023	-28.070	1.00	38.76	C
ATOM	18010	P A A 865	165.933	121.859	-16.555	1.00	40.33	P	ATOM	18060	O3*	G A 867	169.479	122.729	-29.445	1.00	38.76	O
ATOM	18011	O1P A A 865	165.644	123.031	-15.693	1.00	43.81	O	ATOM	18061	C2*	G A 867	168.231	122.151	-27.397	1.00	38.76	C
ATOM	18012	O2P A A 865	164.944	121.419	-17.591	1.00	43.81	O	ATOM	18062	O2*	G A 867	168.336	120.801	-27.787	1.00	38.76	O
ATOM	18013	O5* A A 865	167.296	122.179	-17.297	1.00	40.33	O	ATOM	18063	C1*	G A 867	168.651	122.230	-25.930	1.00	38.76	C
ATOM	18014	C5* A A 865	168.467	122.484	-16.540	1.00	40.33	C	ATOM	18064	N9	G A 867	167.976	123.315	-25.216	1.00	45.69	N
ATOM	18015	C4* A A 865	169.657	121.828	-17.163	1.00	40.33	C	ATOM	18065	C8	G A 867	168.561	124.414	-24.643	1.00	45.69	C



Table 2: Sheet 182/520

ATOM	18066	N7	G A 867	167.699	125.232	-24.102	1.00	45.69	N	ATOM	18116	N3	G A 869	161.269	129.008	-29.150	1.00	53.83	N
ATOM	18067	C5	G A 867	166.473	124.636	-24.324	1.00	45.69	C	ATOM	18117	C4	G A 869	162.283	128.317	-29.695	1.00	53.83	C
ATOM	18068	C6	G A 867	165.189	125.059	-23.971	1.00	45.69	C	ATOM	18118	P	U A 870	159.976	127.185	-35.529	1.00	43.11	P
ATOM	18069	O6	G A 867	164.860	126.094	-23.399	1.00	45.69	O	ATOM	18119	O1P	U A 870	161.064	126.514	-36.288	1.00	53.42	O
ATOM	18070	N1	G A 867	164.225	124.148	-24.362	1.00	45.69	N	ATOM	18120	O2P	U A 870	160.089	128.629	-35.207	1.00	53.42	O
ATOM	18071	C2	G A 867	164.472	122.986	-25.027	1.00	45.69	C	ATOM	18121	O5*	U A 870	158.613	126.954	-36.310	1.00	43.11	O
ATOM	18072	N2	G A 867	163.417	122.240	-25.326	1.00	45.69	N	ATOM	18122	C5*	U A 870	158.244	125.655	-36.765	1.00	43.11	C
ATOM	18073	N3	G A 867	165.670	122.582	-25.379	1.00	45.69	N	ATOM	18123	C4*	U A 870	157.179	125.774	-37.816	1.00	43.11	C
ATOM	18074	C4	G A 867	166.622	123.448	-24.997	1.00	45.69	C	ATOM	18124	O4*	U A 870	155.944	126.164	-37.175	1.00	43.11	O
ATOM	18075	P	C A 868	168.881	123.720	-30.558	1.00	45.76	P	ATOM	18125	C3*	U A 870	157.444	126.798	-38.912	1.00	43.11	C
ATOM	18076	O1P	C A 868	169.466	123.385	-31.899	1.00	46.10	O	ATOM	18126	O3*	U A 870	156.973	126.310	-40.161	1.00	43.11	O
ATOM	18077	O2P	C A 868	168.964	125.121	-30.055	1.00	46.10	O	ATOM	18127	C2*	U A 870	156.605	127.998	-38.485	1.00	43.11	C
ATOM	18078	O5*	C A 868	167.347	123.311	-30.607	1.00	45.76	O	ATOM	18128	O2*	U A 870	156.145	128.761	-39.585	1.00	43.11	O
ATOM	18079	C5*	C A 868	166.967	121.938	-30.765	1.00	45.76	C	ATOM	18129	C1*	U A 870	155.433	127.325	-37.782	1.00	43.11	C
ATOM	18080	C4*	C A 868	165.487	121.773	-30.554	1.00	45.76	C	ATOM	18130	N1	U A 870	154.793	128.136	-36.738	1.00	53.42	N
ATOM	18081	O4*	C A 868	165.164	121.924	-29.149	1.00	45.76	O	ATOM	18131	C2	U A 870	153.481	128.512	-36.931	1.00	53.42	C
ATOM	18082	C3*	C A 868	164.580	122.772	-31.245	1.00	45.76	C	ATOM	18132	O2	U A 870	152.851	128.220	-37.928	1.00	53.42	O
ATOM	18083	O3*	C A 868	164.370	122.493	-32.615	1.00	45.76	O	ATOM	18133	N3	U A 870	152.930	129.244	-35.913	1.00	53.42	N
ATOM	18084	C2*	C A 868	163.301	122.638	-30.436	1.00	45.76	C	ATOM	18134	C4	U A 870	153.549	129.631	-34.751	1.00	53.42	C
ATOM	18085	O2*	C A 868	162.557	121.498	-30.815	1.00	45.76	O	ATOM	18135	O4	U A 870	152.931	130.306	-33.932	1.00	53.42	O
ATOM	18086	C1*	C A 868	163.848	122.435	-29.022	1.00	45.76	C	ATOM	18136	C5	U A 870	154.905	129.207	-34.628	1.00	53.42	C
ATOM	18087	N1	C A 868	163.878	123.717	-28.289	1.00	46.10	N	ATOM	18137	C6	U A 870	155.467	128.495	-35.603	1.00	53.42	C
ATOM	18088	C2	C A 868	162.660	124.308	-27.925	1.00	46.10	C	ATOM	18138	P	U A 871	158.030	125.880	-41.289	1.00	40.53	P
ATOM	18089	O2	C A 868	161.609	123.676	-28.109	1.00	46.10	O	ATOM	18139	O1P	U A 871	159.157	126.847	-41.276	1.00	53.79	O
ATOM	18090	N3	C A 868	162.658	125.541	-27.374	1.00	46.10	N	ATOM	18140	O2P	U A 871	157.300	125.615	-42.557	1.00	53.79	O
ATOM	18091	C4	C A 868	163.803	126.169	-27.157	1.00	46.10	C	ATOM	18141	O5*	U A 871	158.608	124.523	-40.718	1.00	40.53	O
ATOM	18092	N4	C A 868	163.751	127.407	-26.683	1.00	46.10	N	ATOM	18142	C5*	U A 871	157.836	123.337	-40.775	1.00	40.53	C
ATOM	18093	C5	C A 868	165.059	125.561	-27.438	1.00	46.10	C	ATOM	18143	C4*	U A 871	158.703	122.172	-40.436	1.00	40.53	C
ATOM	18094	C6	C A 868	165.052	124.346	-28.002	1.00	46.10	C	ATOM	18144	O4*	U A 871	159.775	122.074	-41.413	1.00	40.53	O
ATOM	18095	P	G A 869	164.378	123.704	-33.676	1.00	37.58	P	ATOM	18145	C3*	U A 871	159.368	122.266	-39.073	1.00	40.53	C
ATOM	18096	O1P	G A 869	164.109	123.166	-35.027	1.00	53.83	O	ATOM	18146	O3*	U A 871	159.402	120.972	-38.537	1.00	40.53	O
ATOM	18097	O2P	G A 869	165.591	124.531	-33.441	1.00	53.83	O	ATOM	18147	C2*	U A 871	160.789	122.705	-39.396	1.00	40.53	C
ATOM	18098	O5*	G A 869	163.109	124.579	-33.284	1.00	37.58	O	ATOM	18148	O2*	U A 871	161.727	122.257	-38.438	1.00	40.53	O
ATOM	18099	C5*	G A 869	161.793	124.000	-33.221	1.00	37.58	C	ATOM	18149	C1*	U A 871	161.012	122.028	-40.746	1.00	40.53	C
ATOM	18100	C4*	G A 869	160.829	124.957	-32.553	1.00	37.58	C	ATOM	18150	N1	U A 871	162.038	122.642	-41.598	1.00	53.79	N
ATOM	18101	O4*	G A 869	161.238	125.207	-31.182	1.00	37.58	O	ATOM	18151	C2	U A 871	163.125	121.860	-41.943	1.00	53.79	C
ATOM	18102	C3*	G A 869	160.725	126.334	-33.185	1.00	37.58	C	ATOM	18152	O2	U A 871	163.246	120.688	-41.604	1.00	53.79	O
ATOM	18103	O3*	G A 869	159.758	126.310	-34.208	1.00	37.58	O	ATOM	18153	N3	U A 871	164.071	122.492	-42.701	1.00	53.79	N
ATOM	18104	C2*	G A 869	160.263	127.215	-32.033	1.00	37.58	C	ATOM	18154	C4	U A 871	164.044	123.779	-43.142	1.00	53.79	C
ATOM	18105	O2*	G A 869	158.857	127.222	-31.871	1.00	37.58	O	ATOM	18155	O4	U A 871	165.003	124.213	-43.769	1.00	53.79	O
ATOM	18106	C1*	G A 869	160.929	126.541	-30.834	1.00	37.58	C	ATOM	18156	C5	U A 871	162.884	124.514	-42.766	1.00	53.79	C
ATOM	18107	N9	G A 869	162.165	127.196	-30.457	1.00	53.83	N	ATOM	18157	C6	U A 871	161.943	123.934	-42.027	1.00	53.79	C
ATOM	18108	C8	G A 869	163.433	126.816	-30.799	1.00	53.83	C	ATOM	18158	P	A A 872	158.263	120.514	-37.523	1.00	48.16	P
ATOM	18109	N7	G A 869	164.347	127.608	-30.322	1.00	53.83	N	ATOM	18159	O1P	A A 872	158.467	119.062	-37.316	1.00	39.74	O
ATOM	18110	C5	G A 869	163.631	128.565	-29.620	1.00	53.83	C	ATOM	18160	O2P	A A 872	156.953	121.012	-38.024	1.00	39.74	O
ATOM	18111	C6	G A 869	164.080	129.687	-28.892	1.00	53.83	C	ATOM	18161	O5*	A A 872	158.636	121.281	-36.180	1.00	48.16	O
ATOM	18112	O6	G A 869	165.239	130.078	-28.715	1.00	53.83	O	ATOM	18162	C5*	A A 872	159.929	121.118	-35.610	1.00	48.16	C
ATOM	18113	N1	G A 869	163.021	130.387	-28.338	1.00	53.83	N	ATOM	18163	C4*	A A 872	159.831	120.802	-34.142	1.00	48.16	C
ATOM	18114	C2	G A 869	161.701	130.048	-28.466	1.00	53.83	C	ATOM	18164	O4*	A A 872	159.585	122.006	-33.372	1.00	48.16	O
ATOM	18115	N2	G A 869	160.832	130.845	-27.840	1.00	53.83	N	ATOM	18165	C3*	A A 872	158.792	119.782	-33.690	1.00	48.16	C



Table 2: Sheet 183/520

ATOM	18166	O3*	A A 872	159.411	119.021	-32.667	1.00	48.16	O	ATOM	18216	N7	G A 874	154.878	121.925	-30.981	1.00	35.88	N
ATOM	18167	C2*	A A 872	157.752	120.658	-32.987	1.00	48.16	C	ATOM	18217	C5	G A 874	153.778	122.755	-31.103	1.00	35.88	C
ATOM	18168	O2*	A A 872	157.045	119.990	-31.959	1.00	48.16	O	ATOM	18218	C6	G A 874	152.844	122.869	-32.144	1.00	35.88	C
ATOM	18169	C1*	A A 872	158.669	121.701	-32.360	1.00	48.16	C	ATOM	18219	O6	G A 874	152.820	122.272	-33.211	1.00	35.88	O
ATOM	18170	N9	A A 872	158.089	122.930	-31.833	1.00	39.74	N	ATOM	18220	N1	G A 874	151.865	123.806	-31.858	1.00	35.88	N
ATOM	18171	C8	A A 872	158.439	123.528	-30.645	1.00	39.74	C	ATOM	18221	C2	G A 874	151.803	124.553	-30.717	1.00	35.88	C
ATOM	18172	N7	A A 872	157.742	124.599	-30.367	1.00	39.74	N	ATOM	18222	N2	G A 874	150.772	125.388	-30.628	1.00	35.88	N
ATOM	18173	C5	A A 872	156.878	124.720	-31.449	1.00	39.74	C	ATOM	18223	N3	G A 874	152.692	124.479	-29.734	1.00	35.88	N
ATOM	18174	C6	A A 872	155.870	125.646	-31.748	1.00	39.74	C	ATOM	18224	C4	G A 874	153.647	123.562	-29.994	1.00	35.88	C
ATOM	18175	N6	A A 872	155.538	126.653	-30.941	1.00	39.74	N	ATOM	18225	P	C A 875	153.200	121.067	-24.433	1.00	43.40	P
ATOM	18176	N1	A A 872	155.204	125.498	-32.913	1.00	39.74	N	ATOM	18226	O1P	C A 875	152.996	120.991	-22.966	1.00	36.58	O
ATOM	18177	C2	A A 872	155.533	124.473	-33.708	1.00	39.74	C	ATOM	18227	O2P	C A 875	153.461	119.843	-25.211	1.00	36.58	O
ATOM	18178	N3	A A 872	156.454	123.524	-33.529	1.00	39.74	N	ATOM	18228	O5*	C A 875	151.909	121.710	-25.080	1.00	43.40	O
ATOM	18179	C4	A A 872	157.096	123.708	-32.368	1.00	39.74	C	ATOM	18229	C5*	C A 875	151.345	122.892	-24.535	1.00	43.40	C
ATOM	18180	P	A A 873	159.831	117.500	-32.930	1.00	38.26	P	ATOM	18230	C4*	C A 875	150.109	123.240	-25.291	1.00	43.40	C
ATOM	18181	O1P	A A 873	161.069	117.536	-33.736	1.00	44.18	O	ATOM	18231	O4*	C A 875	150.477	123.556	-26.652	1.00	43.40	O
ATOM	18182	O2P	A A 873	158.649	116.761	-33.446	1.00	44.18	O	ATOM	18232	O3*	C A 875	149.108	122.114	-25.439	1.00	43.40	C
ATOM	18183	O5*	A A 873	160.169	116.998	-31.459	1.00	38.26	O	ATOM	18233	C3*	C A 875	148.291	121.965	-24.285	1.00	43.40	C
ATOM	18184	C5*	A A 873	159.116	116.625	-30.558	1.00	38.26	C	ATOM	18234	C2*	C A 875	148.335	122.524	-26.683	1.00	43.40	C
ATOM	18185	C4*	A A 873	159.288	117.317	-29.234	1.00	38.26	C	ATOM	18235	O2*	C A 875	147.313	123.469	-26.443	1.00	43.40	O
ATOM	18186	O4*	A A 873	160.648	117.108	-28.808	1.00	38.26	O	ATOM	18236	C1*	C A 875	149.425	123.194	-27.514	1.00	43.40	C
ATOM	18187	C3*	A A 873	159.061	118.822	-29.230	1.00	38.26	C	ATOM	18237	N1	C A 875	149.945	122.322	-28.565	1.00	36.58	N
ATOM	18188	O3*	A A 873	158.649	119.184	-27.902	1.00	38.26	O	ATOM	18238	C2	C A 875	149.193	122.185	-29.715	1.00	36.58	C
ATOM	18189	C2*	A A 873	160.470	119.373	-29.444	1.00	38.26	C	ATOM	18239	O2	C A 875	148.108	122.786	-29.788	1.00	36.58	O
ATOM	18190	O2*	A A 873	160.672	120.645	-28.854	1.00	38.26	O	ATOM	18240	N3	C A 875	149.648	121.397	-30.716	1.00	36.58	N
ATOM	18191	C1*	A A 873	161.310	118.345	-28.691	1.00	38.26	C	ATOM	18241	C4	C A 875	150.797	120.746	-30.576	1.00	36.58	C
ATOM	18192	N9	A A 873	162.673	118.161	-29.178	1.00	44.18	N	ATOM	18242	N4	C A 875	151.187	119.958	-31.572	1.00	36.58	N
ATOM	18193	C8	A A 873	163.092	117.434	-30.266	1.00	44.18	C	ATOM	18243	C5	C A 875	151.588	120.867	-29.406	1.00	36.58	C
ATOM	18194	N7	A A 873	164.390	117.374	-30.387	1.00	44.18	N	ATOM	18244	C6	C A 875	151.129	121.659	-28.431	1.00	36.58	C
ATOM	18195	C5	A A 873	164.857	118.132	-29.325	1.00	44.18	C	ATOM	18245	P	G A 876	147.753	120.498	-23.884	1.00	39.04	P
ATOM	18196	C6	A A 873	166.145	118.448	-28.892	1.00	44.18	C	ATOM	18246	O1P	G A 876	147.000	120.636	-22.607	1.00	46.68	O
ATOM	18197	N6	A A 873	167.250	117.995	-29.474	1.00	44.18	N	ATOM	18247	O2P	G A 876	148.892	119.526	-23.961	1.00	46.68	O
ATOM	18198	N1	A A 873	166.264	119.244	-27.814	1.00	44.18	N	ATOM	18248	O5*	G A 876	146.715	120.185	-25.047	1.00	39.04	O
ATOM	18199	C2	A A 873	165.155	119.672	-27.207	1.00	44.18	C	ATOM	18249	C5*	G A 876	146.603	118.883	-25.604	1.00	39.04	C
ATOM	18200	N3	A A 873	163.892	119.427	-27.508	1.00	44.18	N	ATOM	18250	C4*	G A 876	145.666	118.922	-26.767	1.00	39.04	C
ATOM	18201	C4	A A 873	163.810	118.642	-28.590	1.00	44.18	C	ATOM	18251	O4*	G A 876	146.250	119.688	-27.840	1.00	39.04	O
ATOM	18202	P	G A 874	157.115	119.015	-27.428	1.00	40.71	P	ATOM	18252	C3*	G A 876	145.364	117.589	-27.387	1.00	39.04	C
ATOM	18203	O1P	G A 874	157.208	118.440	-26.064	1.00	35.88	O	ATOM	18253	O3*	G A 876	144.339	116.964	-26.652	1.00	39.04	O
ATOM	18204	O2P	G A 874	156.323	118.324	-28.466	1.00	35.88	O	ATOM	18254	C2*	G A 876	144.946	117.964	-28.802	1.00	39.04	C
ATOM	18205	O5*	G A 874	156.575	120.508	-27.305	1.00	40.71	O	ATOM	18255	O2*	G A 876	143.608	118.402	-28.904	1.00	39.04	O
ATOM	18206	C5*	G A 874	157.052	121.390	-26.274	1.00	40.71	C	ATOM	18256	C1*	G A 876	145.862	119.147	-29.088	1.00	39.04	C
ATOM	18207	C4*	G A 874	156.198	122.628	-26.234	1.00	40.71	C	ATOM	18257	N9	G A 876	147.060	118.714	-29.793	1.00	46.68	N
ATOM	18208	O4*	G A 874	156.315	123.330	-27.499	1.00	40.71	O	ATOM	18258	C8	G A 876	148.326	118.576	-29.276	1.00	46.68	C
ATOM	18209	C3*	G A 874	154.720	122.328	-26.113	1.00	40.71	C	ATOM	18259	N7	G A 876	149.183	118.113	-30.143	1.00	46.68	N
ATOM	18210	O3*	G A 874	154.343	122.133	-24.766	1.00	40.71	O	ATOM	18260	C5	G A 876	148.441	117.945	-31.302	1.00	46.68	C
ATOM	18211	C2*	G A 874	154.062	123.530	-26.776	1.00	40.71	C	ATOM	18261	C6	G A 876	148.825	117.465	-32.569	1.00	46.68	C
ATOM	18212	O2*	G A 874	153.964	124.648	-25.918	1.00	40.71	O	ATOM	18262	O6	G A 876	149.930	117.069	-32.937	1.00	46.68	O
ATOM	18213	C1*	G A 874	155.053	123.841	-27.894	1.00	40.71	C	ATOM	18263	N1	G A 876	147.761	117.466	-33.460	1.00	46.68	N
ATOM	18214	N9	G A 874	154.710	123.240	-29.180	1.00	35.88	N	ATOM	18264	C2	G A 876	146.497	117.879	-33.169	1.00	46.68	C
ATOM	18215	C8	G A 874	155.399	122.244	-29.828	1.00	35.88	C	ATOM	18265	N2	G A 876	145.625	117.813	-34.165	1.00	46.68	N



ATOM	18266	N3	G A 876	146.119	118.326	-31.989	1.00	46.68	N	ATOM	18316	C4*	C A 879	144.469	103.974	-34.500	1.00	36.98	C
ATOM	18267	C4	G A 876	147.135	118.329	-31.108	1.00	46.68	C	ATOM	18317	O4*	C A 879	144.969	105.199	-35.092	1.00	36.98	O
ATOM	18268	P	C A 877	144.365	115.380	-26.473	1.00	38.26	P	ATOM	18318	C3*	C A 879	145.712	103.320	-33.931	1.00	36.98	C
ATOM	18269	O1P	C A 877	143.457	115.067	-25.343	1.00	39.44	O	ATOM	18319	O3*	C A 879	145.556	101.931	-33.742	1.00	36.98	O
ATOM	18270	O2P	C A 877	145.780	114.950	-26.420	1.00	39.44	O	ATOM	18320	C2*	C A 879	146.723	103.622	-35.019	1.00	36.98	C
ATOM	18271	O5*	C A 877	143.744	114.843	-27.834	1.00	38.26	O	ATOM	18321	O2*	C A 879	146.534	102.789	-36.138	1.00	36.98	O
ATOM	18272	C5*	C A 877	142.347	114.924	-28.076	1.00	38.26	C	ATOM	18322	C1*	C A 879	146.339	105.050	-35.398	1.00	36.98	C
ATOM	18273	C4*	C A 877	142.036	114.427	-29.460	1.00	38.26	C	ATOM	18323	N1	C A 879	147.114	105.979	-34.561	1.00	35.62	N
ATOM	18274	C4*	C A 877	142.657	115.301	-30.438	1.00	38.26	C	ATOM	18324	C2	C A 879	148.410	106.352	-34.970	1.00	35.62	C
ATOM	18275	O3*	C A 877	142.577	113.053	-29.807	1.00	38.26	O	ATOM	18325	O2	C A 879	148.817	106.008	-36.096	1.00	35.62	O
ATOM	18276	O3*	C A 877	141.742	112.006	-29.384	1.00	38.26	O	ATOM	18326	N3	C A 879	149.178	107.080	-34.125	1.00	35.62	N
ATOM	18277	C2*	C A 877	142.649	113.091	-31.319	1.00	38.26	C	ATOM	18327	C4	C A 879	148.698	107.450	-32.938	1.00	35.62	C
ATOM	18278	O2*	C A 877	141.399	112.824	-31.892	1.00	38.26	O	ATOM	18328	N4	C A 879	149.507	108.095	-32.112	1.00	35.62	N
ATOM	18279	C1*	C A 877	143.055	114.542	-31.572	1.00	38.26	C	ATOM	18329	C5	C A 879	147.369	107.155	-32.537	1.00	35.62	C
ATOM	18280	N1	C A 877	144.520	114.617	-31.706	1.00	39.44	N	ATOM	18330	C6	C A 879	146.613	106.429	-33.372	1.00	35.62	C
ATOM	18281	C2	C A 877	145.096	114.308	-32.941	1.00	39.44	C	ATOM	18331	P	C A 880	146.444	101.183	-32.639	1.00	35.49	P
ATOM	18282	O2	C A 877	144.359	114.082	-33.904	1.00	39.44	O	ATOM	18332	O1P	C A 880	145.877	99.827	-32.477	1.00	44.42	O
ATOM	18283	N3	C A 877	146.436	114.258	-33.050	1.00	39.44	N	ATOM	18333	O2P	C A 880	146.632	102.056	-31.458	1.00	44.42	O
ATOM	18284	C4	C A 877	147.197	114.506	-31.988	1.00	39.44	C	ATOM	18334	C5*	C A 880	147.840	100.996	-33.370	1.00	35.49	C
ATOM	18285	N4	C A 877	148.516	114.383	-32.122	1.00	39.44	N	ATOM	18335	O5*	C A 880	147.900	100.320	-34.625	1.00	35.49	C
ATOM	18286	C5	C A 877	146.637	114.881	-30.729	1.00	39.44	C	ATOM	18336	C4*	C A 880	149.290	100.399	-35.201	1.00	35.49	C
ATOM	18287	C6	C A 877	145.309	114.931	-30.635	1.00	39.44	C	ATOM	18337	O4*	C A 880	149.623	101.774	-35.503	1.00	35.49	O
ATOM	18288	P	G A 878	142.365	110.549	-29.199	1.00	39.71	P	ATOM	18338	C3*	C A 880	150.435	99.926	-34.326	1.00	35.49	C
ATOM	18289	O1P	G A 878	141.320	109.703	-28.569	1.00	46.47	O	ATOM	18339	O3*	C A 880	150.601	98.526	-34.360	1.00	35.49	O
ATOM	18290	O2P	G A 878	143.691	110.703	-28.530	1.00	46.47	O	ATOM	18340	C2*	C A 880	151.620	100.624	-34.961	1.00	35.49	C
ATOM	18291	O5*	G A 878	142.585	110.064	-30.692	1.00	39.71	O	ATOM	18341	O2*	C A 880	152.012	99.957	-36.142	1.00	35.49	O
ATOM	18292	C5*	G A 878	141.474	109.920	-31.547	1.00	39.71	C	ATOM	18342	C1*	C A 880	151.010	101.972	-35.331	1.00	35.49	C
ATOM	18293	C4*	G A 878	141.909	109.354	-32.858	1.00	39.71	C	ATOM	18343	N1	C A 880	151.214	102.931	-34.239	1.00	44.42	N
ATOM	18294	O4*	G A 878	142.739	110.323	-33.544	1.00	39.71	O	ATOM	18344	C2	C A 880	152.398	103.663	-34.213	1.00	44.42	C
ATOM	18295	C3*	G A 878	142.776	108.113	-32.801	1.00	39.71	C	ATOM	18345	O2	C A 880	153.211	103.523	-35.143	1.00	44.42	O
ATOM	18296	O3*	G A 878	142.053	106.914	-32.599	1.00	39.71	O	ATOM	18346	N3	C A 880	152.635	104.501	-33.182	1.00	44.42	N
ATOM	18297	C2*	G A 878	143.458	108.147	-34.153	1.00	39.71	C	ATOM	18347	C4	C A 880	151.744	104.615	-32.204	1.00	44.42	C
ATOM	18298	O2*	G A 878	142.583	107.673	-35.161	1.00	39.71	O	ATOM	18348	N4	C A 880	152.048	105.404	-31.176	1.00	44.42	N
ATOM	18299	C1*	G A 878	143.702	109.648	-34.336	1.00	39.71	C	ATOM	18349	C5	C A 880	150.508	103.911	-32.227	1.00	44.42	C
ATOM	18300	N9	G A 878	145.042	110.059	-33.906	1.00	46.47	N	ATOM	18350	C6	C A 880	150.286	103.089	-33.253	1.00	44.42	C
ATOM	18301	C8	G A 878	145.410	110.506	-32.664	1.00	46.47	C	ATOM	18351	P	G A 881	151.035	97.767	-33.023	1.00	38.15	P
ATOM	18302	N7	G A 878	146.684	110.770	-32.572	1.00	46.47	N	ATOM	18352	O1P	G A 881	150.730	96.318	-33.227	1.00	34.75	O
ATOM	18303	C5	G A 878	147.190	110.480	-33.831	1.00	46.47	C	ATOM	18353	O2P	G A 881	150.459	98.472	-31.861	1.00	34.75	O
ATOM	18304	C6	G A 878	148.519	110.560	-34.332	1.00	46.47	C	ATOM	18354	O5*	G A 881	152.598	98.043	-32.941	1.00	38.15	O
ATOM	18305	O6	G A 878	149.547	110.892	-33.742	1.00	46.47	O	ATOM	18355	C5*	G A 881	153.449	97.789	-34.055	1.00	38.15	C
ATOM	18306	N1	G A 878	148.586	110.189	-35.660	1.00	46.47	N	ATOM	18356	C4*	G A 881	154.810	98.386	-33.825	1.00	38.15	C
ATOM	18307	C2	G A 878	147.528	109.771	-36.410	1.00	46.47	C	ATOM	18357	O4*	G A 881	154.734	99.832	-33.922	1.00	38.15	O
ATOM	18308	N2	G A 878	147.805	109.429	-37.671	1.00	46.47	N	ATOM	18358	C3*	G A 881	155.461	98.150	-32.473	1.00	38.15	C
ATOM	18309	N3	G A 878	146.288	109.683	-35.961	1.00	46.47	N	ATOM	18359	O3*	G A 881	156.022	96.853	-32.338	1.00	38.15	O
ATOM	18310	C4	G A 878	146.192	110.053	-34.670	1.00	46.47	C	ATOM	18360	C2*	G A 881	156.492	99.277	-32.425	1.00	38.15	C
ATOM	18311	P	C A 879	142.641	105.822	-31.576	1.00	36.98	P	ATOM	18361	O2*	G A 881	157.661	99.050	-33.196	1.00	38.15	O
ATOM	18312	O1P	C A 879	141.553	104.876	-31.187	1.00	35.62	O	ATOM	18362	C1*	G A 881	155.723	100.418	-33.087	1.00	38.15	C
ATOM	18313	O2P	C A 879	143.352	106.589	-30.522	1.00	35.62	O	ATOM	18363	N9	G A 881	155.070	101.234	-32.070	1.00	34.75	N
ATOM	18314	O5*	C A 879	143.730	105.040	-32.437	1.00	36.98	O	ATOM	18364	C8	G A 881	153.728	101.302	-31.785	1.00	34.75	C
ATOM	18315	C5*	C A 879	143.313	104.259	-33.568	1.00	36.98	C	ATOM	18365	N7	G A 881	153.458	102.089	-30.783	1.00	34.75	N



Table 2: Sheet 185/520

ATOM	18366	C5	G A 881	154.694	102.583	-30.395	1.00	34.75	C	ATOM	18416	O2P	U A 884	161.648	95.611	-21.935	1.00	51.46	O
ATOM	18367	C6	G A 881	155.027	103.473	-29.367	1.00	34.75	C	ATOM	18417	O5*	U A 884	162.047	97.263	-20.114	1.00	39.02	O
ATOM	18368	O6	G A 881	154.275	104.026	-28.568	1.00	34.75	C	ATOM	18418	C5*	U A 884	162.818	98.226	-19.402	1.00	39.02	C
ATOM	18369	N1	G A 881	156.395	103.701	-29.311	1.00	34.75	N	ATOM	18419	C4*	U A 884	162.172	98.525	-18.089	1.00	39.02	C
ATOM	18370	C2	G A 881	157.321	103.140	-30.145	1.00	34.75	C	ATOM	18420	O4*	U A 884	160.935	99.247	-18.316	1.00	39.02	O
ATOM	18371	N2	G A 881	158.589	103.501	-29.938	1.00	34.75	N	ATOM	18421	C3*	U A 884	161.830	97.305	-17.250	1.00	39.02	C
ATOM	18372	N3	G A 881	157.023	102.298	-31.109	1.00	34.75	N	ATOM	18422	O3*	U A 884	162.124	97.598	-15.897	1.00	39.02	O
ATOM	18373	C4	G A 881	155.698	102.068	-31.179	1.00	34.75	C	ATOM	18423	C2*	U A 884	160.322	97.155	-17.448	1.00	39.02	C
ATOM	18374	P	C A 882	155.878	96.064	-30.934	1.00	41.16	P	ATOM	18424	O2*	U A 884	159.666	96.601	-16.323	1.00	39.02	O
ATOM	18375	O1P	C A 882	156.401	94.685	-31.131	1.00	37.04	O	ATOM	18425	C1*	U A 884	159.890	98.608	-17.629	1.00	39.02	C
ATOM	18376	O2P	C A 882	154.517	96.244	-30.369	1.00	37.04	O	ATOM	18426	N1	U A 884	158.620	98.843	-18.339	1.00	51.46	N
ATOM	18377	O5*	C A 882	156.916	96.817	-29.995	1.00	41.16	O	ATOM	18427	C2	U A 884	157.865	99.932	-17.944	1.00	51.46	C
ATOM	18378	C5*	C A 882	158.295	96.833	-30.343	1.00	41.16	C	ATOM	18428	O2	U A 884	158.237	100.722	-17.098	1.00	51.46	O
ATOM	18379	C4*	C A 882	159.017	97.937	-29.621	1.00	41.16	C	ATOM	18429	N3	U A 884	156.661	100.067	-18.583	1.00	51.46	N
ATOM	18380	O4*	C A 882	158.400	99.217	-29.891	1.00	41.16	O	ATOM	18430	C4	U A 884	156.156	99.257	-19.569	1.00	51.46	C
ATOM	18381	C3*	C A 882	159.046	97.851	-28.116	1.00	41.16	C	ATOM	18431	O4	U A 884	155.022	99.457	-19.994	1.00	51.46	O
ATOM	18382	O3*	C A 882	160.057	96.974	-27.698	1.00	41.16	O	ATOM	18432	C5	U A 884	157.009	98.186	-19.950	1.00	51.46	C
ATOM	18383	C2*	C A 882	159.357	99.284	-27.727	1.00	41.16	C	ATOM	18433	C6	U A 884	158.181	98.018	-19.338	1.00	51.46	C
ATOM	18384	O2*	C A 882	160.714	99.603	-27.923	1.00	41.16	O	ATOM	18434	P	G A 885	163.180	96.688	-15.090	1.00	41.21	P
ATOM	18385	C1*	C A 882	158.545	100.059	-28.760	1.00	41.16	C	ATOM	18435	O1P	G A 885	163.069	95.269	-15.561	1.00	39.04	O
ATOM	18386	N1	C A 882	157.209	100.377	-28.228	1.00	37.04	N	ATOM	18436	O2P	G A 885	162.994	97.008	-13.638	1.00	39.04	O
ATOM	18387	C2	C A 882	157.093	101.357	-27.253	1.00	37.04	C	ATOM	18437	O5*	G A 885	164.607	97.257	-15.502	1.00	41.21	O
ATOM	18388	O2	C A 882	158.099	101.951	-26.884	1.00	37.04	O	ATOM	18438	C5*	G A 885	164.814	98.662	-15.619	1.00	41.21	C
ATOM	18389	N3	C A 882	155.891	101.631	-26.739	1.00	37.04	N	ATOM	18439	C4*	G A 885	166.154	99.048	-15.062	1.00	41.21	C
ATOM	18390	C4	C A 882	154.817	100.975	-27.171	1.00	37.04	C	ATOM	18440	O4*	G A 885	166.168	98.887	-13.624	1.00	41.21	O
ATOM	18391	N4	C A 882	153.634	101.283	-26.638	1.00	37.04	N	ATOM	18441	C3*	G A 885	167.348	98.236	-15.520	1.00	41.21	C
ATOM	18392	C5	C A 882	154.901	99.975	-28.171	1.00	37.04	C	ATOM	18442	O3*	G A 885	167.802	98.600	-16.799	1.00	41.21	O
ATOM	18393	C6	C A 882	156.103	99.711	-28.669	1.00	37.04	C	ATOM	18443	C2*	G A 885	168.370	98.545	-14.441	1.00	41.21	C
ATOM	18394	P	C A 883	159.939	96.267	-26.271	1.00	43.33	P	ATOM	18444	O2*	G A 885	168.955	99.820	-14.622	1.00	41.21	O
ATOM	18395	O1P	C A 883	160.954	95.177	-26.245	1.00	45.71	O	ATOM	18445	C1*	G A 885	167.487	98.561	-13.198	1.00	41.21	C
ATOM	18396	O2P	C A 883	158.503	95.936	-26.068	1.00	45.71	O	ATOM	18446	N9	G A 885	167.465	97.235	-12.589	1.00	39.04	N
ATOM	18397	O5*	C A 883	160.366	97.423	-25.256	1.00	43.33	C	ATOM	18447	C8	G A 885	166.411	96.358	-12.560	1.00	39.04	C
ATOM	18398	C5*	C A 883	161.617	98.113	-25.420	1.00	43.33	C	ATOM	18448	N7	G A 885	166.705	95.228	-11.977	1.00	39.04	N
ATOM	18399	C4*	C A 883	161.855	99.056	-24.270	1.00	43.33	C	ATOM	18449	C5	G A 885	168.034	95.369	-11.591	1.00	39.04	C
ATOM	18400	O4*	C A 883	160.974	100.203	-24.356	1.00	43.33	O	ATOM	18450	C6	G A 885	168.898	94.468	-10.926	1.00	39.04	C
ATOM	18401	C3*	C A 883	161.591	98.453	-22.909	1.00	43.33	C	ATOM	18451	O6	G A 885	168.671	93.319	-10.550	1.00	39.04	O
ATOM	18402	O3*	C A 883	162.754	97.808	-22.463	1.00	43.33	C	ATOM	18452	N1	G A 885	170.146	95.019	-10.722	1.00	39.04	N
ATOM	18403	C2*	C A 883	161.261	99.664	-22.050	1.00	43.33	C	ATOM	18453	C2	G A 885	170.531	96.258	-11.123	1.00	39.04	C
ATOM	18404	O2*	C A 883	162.423	100.307	-21.586	1.00	43.33	O	ATOM	18454	N2	G A 885	171.789	96.591	-10.850	1.00	39.04	N
ATOM	18405	C1*	C A 883	160.566	100.583	-23.053	1.00	43.33	C	ATOM	18455	N3	G A 885	169.745	97.108	-11.751	1.00	39.04	N
ATOM	18406	N1	C A 883	159.092	100.546	-22.984	1.00	45.71	N	ATOM	18456	C4	G A 885	168.516	96.602	-11.950	1.00	39.04	C
ATOM	18407	C2	C A 883	158.458	101.289	-22.001	1.00	45.71	C	ATOM	18457	P	G A 886	168.468	97.482	-17.736	1.00	39.24	P
ATOM	18408	O2	C A 883	159.149	101.903	-21.186	1.00	45.71	O	ATOM	18458	O1P	G A 886	168.672	98.164	-19.049	1.00	43.61	O
ATOM	18409	N3	C A 883	157.113	101.322	-21.956	1.00	45.71	N	ATOM	18459	O2P	G A 886	167.663	96.236	-17.673	1.00	43.61	O
ATOM	18410	C4	C A 883	156.406	100.635	-22.841	1.00	45.71	C	ATOM	18460	O5*	G A 886	169.886	97.207	-17.063	1.00	39.24	O
ATOM	18411	N4	C A 883	155.083	100.713	-22.773	1.00	45.71	N	ATOM	18461	C5*	G A 886	170.870	98.244	-17.030	1.00	39.24	C
ATOM	18412	C5	C A 883	157.024	99.840	-23.841	1.00	45.71	C	ATOM	18462	C4*	G A 886	172.138	97.772	-16.364	1.00	39.24	C
ATOM	18413	C6	C A 883	158.358	99.821	-23.876	1.00	45.71	C	ATOM	18463	O4*	G A 886	171.919	97.501	-14.952	1.00	39.24	O
ATOM	18414	P	U A 884	162.633	96.596	-21.430	1.00	39.02	P	ATOM	18464	C3*	G A 886	172.755	96.485	-16.863	1.00	39.24	C
ATOM	18415	O1P	U A 884	164.021	96.171	-21.142	1.00	51.46	O	ATOM	18465	O3*	G A 886	173.467	96.601	-18.074	1.00	39.24	O



ATOM	18466	C2*	G A 886	173.684	96.138	-15.721	1.00	39.24	C	ATOM	18516	C8	G A 888	173.213	88.761	-18.493	1.00	50.04	C
ATOM	18467	O2*	G A 886	174.826	96.972	-15.798	1.00	39.24	O	ATOM	18517	N7	G A 888	172.055	89.298	-18.752	1.00	50.04	N
ATOM	18468	Cl*	G A 886	172.826	96.510	-14.513	1.00	39.24	C	ATOM	18518	C5	G A 888	171.140	88.422	-18.190	1.00	50.04	C
ATOM	18469	N9	G A 886	172.079	95.348	-14.041	1.00	43.61	N	ATOM	18519	C6	G A 888	169.729	88.469	-18.174	1.00	50.04	C
ATOM	18470	C8	G A 886	170.739	95.081	-14.195	1.00	43.61	C	ATOM	18520	O6	G A 888	168.982	89.325	-18.681	1.00	50.04	O
ATOM	18471	N7	G A 886	170.381	93.923	-13.696	1.00	43.61	N	ATOM	18521	N1	G A 888	169.186	87.379	-17.490	1.00	50.04	N
ATOM	18472	C5	G A 886	171.557	93.402	-13.173	1.00	43.61	C	ATOM	18522	C2	G A 888	169.916	86.379	-16.906	1.00	50.04	C
ATOM	18473	C6	G A 886	171.811	92.165	-12.505	1.00	43.61	C	ATOM	18523	N2	G A 888	169.214	85.429	-16.289	1.00	50.04	N
ATOM	18474	O6	G A 886	171.028	91.247	-12.236	1.00	43.61	O	ATOM	18524	N3	G A 888	171.237	86.319	-16.925	1.00	50.04	N
ATOM	18475	N1	G A 886	173.141	92.053	-12.144	1.00	43.61	N	ATOM	18525	C4	G A 888	171.780	87.364	-17.581	1.00	50.04	C
ATOM	18476	C2	G A 886	174.109	92.993	-12.388	1.00	43.61	C	ATOM	18526	P	A A 889	176.177	85.043	-21.465	1.00	55.08	P
ATOM	18477	N2	G A 886	175.338	92.695	-11.949	1.00	43.61	N	ATOM	18527	O1P	A A 889	175.052	84.069	-21.391	1.00	41.23	O
ATOM	18478	N3	G A 886	173.894	94.136	-13.009	1.00	43.61	N	ATOM	18528	O2P	A A 889	177.456	84.654	-22.128	1.00	41.23	O
ATOM	18479	C4	G A 886	172.608	94.277	-13.369	1.00	43.61	C	ATOM	18529	O5*	A A 889	175.664	86.357	-22.190	1.00	55.08	O
ATOM	18480	P	G A 887	173.411	95.382	-19.122	1.00	52.04	P	ATOM	18530	C5*	A A 889	175.803	86.505	-23.604	1.00	55.08	C
ATOM	18481	O1P	G A 887	174.147	95.853	-20.324	1.00	43.23	O	ATOM	18531	C4*	A A 889	174.820	87.518	-24.094	1.00	55.08	C
ATOM	18482	O2P	G A 887	172.000	94.933	-19.253	1.00	43.23	O	ATOM	18532	O4*	A A 889	173.488	87.002	-23.872	1.00	55.08	O
ATOM	18483	O5*	G A 887	174.230	94.223	-18.396	1.00	52.04	O	ATOM	18533	C3*	A A 889	174.903	88.852	-23.366	1.00	55.08	C
ATOM	18484	C5*	G A 887	175.592	94.455	-18.028	1.00	52.04	C	ATOM	18534	O3*	A A 889	174.506	89.872	-24.251	1.00	55.08	O
ATOM	18485	C4*	G A 887	176.174	93.292	-17.263	1.00	52.04	C	ATOM	18535	C2*	A A 889	173.798	88.745	-22.329	1.00	55.08	C
ATOM	18486	O4*	G A 887	175.573	93.179	-15.950	1.00	52.04	O	ATOM	18536	O2*	A A 889	173.282	90.026	-22.018	1.00	55.08	O
ATOM	18487	C3*	G A 887	176.064	91.896	-17.845	1.00	52.04	C	ATOM	18537	Cl*	A A 889	172.762	87.907	-23.079	1.00	55.08	C
ATOM	18488	O3*	G A 887	177.011	91.649	-18.866	1.00	52.04	O	ATOM	18538	N9	A A 889	171.837	87.154	-22.234	1.00	41.23	N
ATOM	18489	C2*	G A 887	176.355	91.048	-16.617	1.00	52.04	C	ATOM	18539	C8	A A 889	172.080	86.071	-21.432	1.00	41.23	C
ATOM	18490	O2*	G A 887	177.737	91.049	-16.301	1.00	52.04	O	ATOM	18540	N7	A A 889	171.024	85.652	-20.772	1.00	41.23	N
ATOM	18491	Cl*	G A 887	175.614	91.824	-15.531	1.00	52.04	C	ATOM	18541	C5	A A 889	170.017	86.515	-21.175	1.00	41.23	C
ATOM	18492	N9	G A 887	174.246	91.318	-15.414	1.00	43.23	N	ATOM	18542	C6	A A 889	168.654	86.508	-20.836	1.00	41.23	C
ATOM	18493	C8	G A 887	173.091	91.883	-15.906	1.00	43.23	C	ATOM	18543	N6	A A 889	168.037	85.793	-19.982	1.00	41.23	N
ATOM	18494	N7	G A 887	172.032	91.156	-15.682	1.00	43.23	N	ATOM	18544	N1	A A 889	167.934	87.582	-21.420	1.00	41.23	N
ATOM	18495	C5	G A 887	172.514	90.053	-14.992	1.00	43.23	C	ATOM	18545	C2	A A 889	168.543	88.398	-22.293	1.00	41.23	C
ATOM	18496	C6	G A 887	171.832	88.914	-14.484	1.00	43.23	C	ATOM	18546	N3	A A 889	169.806	88.409	-22.696	1.00	41.23	N
ATOM	18497	O6	G A 887	170.623	88.644	-14.536	1.00	43.23	O	ATOM	18547	C4	A A 889	170.501	87.435	-22.088	1.00	41.23	C
ATOM	18498	N1	G A 887	172.706	88.036	-13.859	1.00	43.23	N	ATOM	18548	P	G A 890	175.540	90.464	-25.311	1.00	55.54	P
ATOM	18499	C2	G A 887	174.052	88.226	-13.729	1.00	43.23	C	ATOM	18549	O1P	G A 890	176.321	89.329	-25.854	1.00	62.43	O
ATOM	18500	N2	G A 887	174.711	87.265	-13.080	1.00	43.23	N	ATOM	18550	O2P	G A 890	176.247	91.616	-24.700	1.00	62.43	O
ATOM	18501	N3	G A 887	174.703	89.279	-14.196	1.00	43.23	N	ATOM	18551	O5*	G A 890	174.567	91.013	-26.440	1.00	55.54	O
ATOM	18502	C4	G A 887	173.876	90.145	-14.811	1.00	43.23	C	ATOM	18552	C5*	G A 890	174.425	90.327	-27.696	1.00	55.54	C
ATOM	18503	P	G A 888	176.612	90.707	-20.107	1.00	44.89	P	ATOM	18553	C4*	G A 890	173.307	89.309	-27.630	1.00	55.54	C
ATOM	18504	O1P	G A 888	177.891	90.496	-20.839	1.00	50.04	O	ATOM	18554	O4*	G A 890	172.045	89.929	-27.242	1.00	55.54	O
ATOM	18505	O2P	G A 888	175.465	91.317	-20.825	1.00	50.04	O	ATOM	18555	C3*	G A 890	173.034	88.612	-28.962	1.00	55.54	C
ATOM	18506	O5*	G A 888	176.116	89.340	-19.433	1.00	44.89	O	ATOM	18556	O3*	G A 890	172.689	87.260	-28.670	1.00	55.54	O
ATOM	18507	C5*	G A 888	177.045	88.476	-18.742	1.00	44.89	C	ATOM	18557	C2*	G A 890	171.795	89.335	-29.470	1.00	55.54	C
ATOM	18508	C4*	G A 888	176.362	87.217	-18.256	1.00	44.89	C	ATOM	18558	O2*	G A 890	171.071	88.573	-30.410	1.00	55.54	O
ATOM	18509	O4*	G A 888	175.370	87.551	-17.256	1.00	44.89	O	ATOM	18559	Cl*	G A 890	171.051	89.520	-28.153	1.00	55.54	C
ATOM	18510	C3*	G A 888	175.614	86.417	-19.306	1.00	44.89	C	ATOM	18560	N9	G A 890	169.903	90.417	-28.082	1.00	62.43	N
ATOM	18511	O3*	G A 888	176.486	85.508	-19.957	1.00	44.89	O	ATOM	18561	C8	G A 890	169.764	91.658	-28.642	1.00	62.43	C
ATOM	18512	C2*	G A 888	174.559	85.685	-18.486	1.00	44.89	C	ATOM	18562	N7	G A 890	168.607	92.206	-28.384	1.00	62.43	N
ATOM	18513	O2*	G A 888	175.053	84.495	-17.909	1.00	44.89	O	ATOM	18563	C5	G A 890	167.947	91.267	-27.607	1.00	62.43	C
ATOM	18514	Cl*	G A 888	174.232	86.719	-17.404	1.00	44.89	C	ATOM	18564	C6	G A 890	166.653	91.301	-27.020	1.00	62.43	C
ATOM	18515	N9	G A 888	173.119	87.578	-17.798	1.00	50.04	N	ATOM	18565	O6	G A 890	165.792	92.197	-27.079	1.00	62.43	O



Table 2: Sheet 187520

ATOM	18566	N1	G A 890	166.386	90.138	-26.312	1.00	62.43	N	ATOM	18616	O5*	C A 893	170.001	75.427	-27.527	1.00	49.18	O
ATOM	18567	C2	G A 890	167.237	89.077	-26.195	1.00	62.43	C	ATOM	18617	C5*	C A 893	169.624	74.586	-26.439	1.00	49.18	C
ATOM	18568	N2	G A 890	166.780	88.037	-25.491	1.00	62.43	N	ATOM	18618	C4*	C A 893	168.157	74.726	-26.155	1.00	49.18	C
ATOM	18569	N3	G A 890	166.441	89.034	-26.733	1.00	62.43	N	ATOM	18619	O4*	C A 893	167.851	76.016	-25.560	1.00	49.18	O
ATOM	18570	C4	G A 890	168.729	90.157	-27.418	1.00	62.43	C	ATOM	18620	C3*	C A 893	167.247	74.665	-27.359	1.00	49.18	C
ATOM	18571	P	U A 891	172.875	86.112	-29.718	1.00	57.18	P	ATOM	18621	O3*	C A 893	167.065	73.336	-27.792	1.00	49.18	O
ATOM	18572	O1P	U A 891	173.958	86.539	-30.719	1.00	50.21	O	ATOM	18622	C2*	C A 893	165.970	75.303	-26.826	1.00	49.18	C
ATOM	18573	O2P	U A 891	171.531	85.745	-30.326	1.00	50.21	O	ATOM	18623	O2*	C A 893	165.210	74.405	-26.039	1.00	49.18	C
ATOM	18574	O5*	U A 891	173.376	84.867	-28.922	1.00	57.18	O	ATOM	18624	C1*	C A 893	166.533	76.399	-25.921	1.00	49.18	C
ATOM	18575	C5*	U A 891	174.691	84.852	-28.349	1.00	57.18	C	ATOM	18625	N1	C A 893	166.571	77.708	-26.598	1.00	55.38	N
ATOM	18576	C4*	U A 891	174.674	84.138	-27.024	1.00	57.18	C	ATOM	18626	C2	C A 893	165.399	78.480	-26.628	1.00	55.38	C
ATOM	18577	O4*	U A 891	174.133	84.996	-25.995	1.00	57.18	O	ATOM	18627	O2	C A 893	164.371	78.048	-26.055	1.00	55.38	O
ATOM	18578	C3*	U A 891	173.827	82.881	-26.984	1.00	57.18	C	ATOM	18628	N3	C A 893	165.408	79.674	-27.275	1.00	55.38	N
ATOM	18579	O3*	U A 891	174.558	81.772	-27.482	1.00	57.18	O	ATOM	18629	C4	C A 893	166.521	80.103	-27.866	1.00	55.38	C
ATOM	18580	C2*	U A 891	173.479	82.755	-25.506	1.00	57.18	C	ATOM	18630	N4	C A 893	166.481	81.283	-28.486	1.00	55.38	N
ATOM	18581	O1*	U A 891	174.461	82.121	-24.727	1.00	57.18	O	ATOM	18631	C5	C A 893	167.727	79.344	-27.842	1.00	55.38	C
ATOM	18582	C1*	U A 891	173.401	84.219	-25.071	1.00	57.18	C	ATOM	18632	C6	C A 893	167.709	78.165	-27.201	1.00	55.38	C
ATOM	18583	N1	U A 891	172.022	84.724	-25.013	1.00	50.21	N	ATOM	18633	P	G A 894	166.756	73.046	-29.340	1.00	55.50	P
ATOM	18584	C2	U A 891	171.191	84.196	-24.039	1.00	50.21	C	ATOM	18634	O1P	G A 894	166.644	71.563	-29.414	1.00	51.88	O
ATOM	18585	O2	U A 891	171.542	83.315	-23.264	1.00	50.21	O	ATOM	18635	O2P	G A 894	167.716	73.758	-30.232	1.00	51.88	O
ATOM	18586	N3	U A 891	169.935	84.729	-24.009	1.00	50.21	N	ATOM	18636	O5*	G A 894	165.323	73.702	-29.558	1.00	55.50	O
ATOM	18587	C4	U A 891	169.426	85.698	-24.828	1.00	50.21	C	ATOM	18637	C5*	G A 894	164.161	73.142	-28.942	1.00	55.50	C
ATOM	18588	O4	U A 891	168.281	86.104	-24.634	1.00	50.21	O	ATOM	18638	C4*	G A 894	162.940	73.899	-29.374	1.00	55.50	C
ATOM	18589	C5	U A 891	170.333	86.179	-25.824	1.00	50.21	C	ATOM	18639	O4*	G A 894	162.967	75.227	-28.799	1.00	55.50	O
ATOM	18590	C6	U A 891	171.567	85.690	-25.881	1.00	50.21	C	ATOM	18640	C3*	G A 894	162.822	74.156	-30.864	1.00	55.50	C
ATOM	18591	P	A A 892	173.798	80.612	-28.289	1.00	48.35	P	ATOM	18641	O3*	G A 894	162.297	73.068	-31.592	1.00	55.50	O
ATOM	18592	O1P	A A 892	174.825	79.665	-28.792	1.00	44.44	O	ATOM	18642	C2*	G A 894	161.901	75.359	-30.922	1.00	55.50	C
ATOM	18593	O2P	A A 892	172.836	81.221	-29.247	1.00	44.44	O	ATOM	18643	O2*	G A 894	160.552	74.970	-30.803	1.00	55.50	O
ATOM	18594	O5*	A A 892	172.984	79.861	-27.155	1.00	48.35	O	ATOM	18644	C1*	G A 894	162.341	76.142	-29.687	1.00	55.50	C
ATOM	18595	C5*	A A 892	173.665	79.124	-26.159	1.00	48.35	C	ATOM	18645	N9	G A 894	163.292	77.193	-30.038	1.00	51.88	N
ATOM	18596	C4*	A A 892	172.675	78.470	-25.248	1.00	48.35	C	ATOM	18646	C8	G A 894	164.663	77.129	-29.998	1.00	51.88	C
ATOM	18597	O4*	A A 892	172.024	79.477	-24.447	1.00	48.35	O	ATOM	18647	N7	G A 894	165.237	78.222	-30.419	1.00	51.88	N
ATOM	18598	C3*	A A 892	171.543	77.739	-25.937	1.00	48.35	C	ATOM	18648	C5	G A 894	164.183	79.060	-30.749	1.00	51.88	C
ATOM	18599	O3*	A A 892	171.930	76.429	-26.280	1.00	48.35	O	ATOM	18649	C6	G A 894	164.185	80.375	-31.269	1.00	51.88	C
ATOM	18600	C2*	A A 892	170.458	77.743	-24.876	1.00	48.35	C	ATOM	18650	O6	G A 894	165.150	81.089	-31.561	1.00	51.88	O
ATOM	18601	O2*	A A 892	170.675	76.713	-23.922	1.00	48.35	O	ATOM	18651	N1	G A 894	162.899	80.853	-31.449	1.00	51.88	N
ATOM	18602	C1*	A A 892	170.675	79.113	-24.229	1.00	48.35	C	ATOM	18652	C2	G A 894	161.755	80.165	-31.166	1.00	51.88	C
ATOM	18603	N9	A A 892	169.828	80.163	-24.799	1.00	44.44	N	ATOM	18653	N2	G A 894	160.612	80.815	-31.403	1.00	51.88	N
ATOM	18604	C8	A A 892	170.188	81.170	-25.662	1.00	44.44	C	ATOM	18654	N3	G A 894	161.732	78.935	-30.687	1.00	51.88	N
ATOM	18605	N7	A A 892	169.198	81.952	-26.001	1.00	44.44	N	ATOM	18655	C4	G A 894	162.976	78.447	-30.505	1.00	51.88	C
ATOM	18606	C5	A A 892	168.115	81.429	-25.311	1.00	44.44	C	ATOM	18656	P	G A 895	162.623	72.957	-33.161	1.00	49.79	P
ATOM	18607	C6	A A 892	166.768	81.806	-25.247	1.00	44.44	C	ATOM	18657	O1P	G A 895	162.091	71.661	-33.675	1.00	47.52	O
ATOM	18608	N6	A A 892	166.261	82.859	-25.903	1.00	44.44	N	ATOM	18658	O2P	G A 895	164.063	73.274	-33.329	1.00	47.52	O
ATOM	18609	N1	A A 892	165.945	81.061	-24.477	1.00	44.44	N	ATOM	18659	O5*	G A 895	161.790	74.154	-33.800	1.00	49.79	O
ATOM	18610	C2	A A 892	166.459	80.020	-23.818	1.00	44.44	C	ATOM	18660	C5*	G A 895	160.371	74.234	-33.620	1.00	49.79	C
ATOM	18611	N3	A A 892	167.704	79.574	-23.793	1.00	44.44	N	ATOM	18661	C4*	G A 895	159.851	75.541	-34.155	1.00	49.79	C
ATOM	18612	C4	A A 892	168.490	80.328	-24.570	1.00	44.44	C	ATOM	18662	O4*	G A 895	160.376	76.638	-33.374	1.00	49.79	O
ATOM	18613	P	C A 893	171.522	75.841	-27.708	1.00	49.18	P	ATOM	18663	C3*	G A 895	160.254	75.872	-35.576	1.00	49.79	C
ATOM	18614	O1P	C A 893	172.331	74.609	-27.869	1.00	55.38	O	ATOM	18664	O3*	G A 895	159.406	75.256	-36.519	1.00	49.79	O
ATOM	18615	O2P	C A 893	171.619	76.936	-28.707	1.00	55.38	O	ATOM	18665	C2*	G A 895	160.136	77.387	-35.620	1.00	49.79	C



ATOM	18666	O2*	G A 895	158.818	77.827	-35.870	1.00	49.79	O	ATOM	18716	N4	C A 897	167.595	78.576	-39.935	1.00	46.71	N
ATOM	18667	C1*	G A 895	160.560	77.769	-34.204	1.00	49.79	C	ATOM	18717	C5	C A 897	165.434	78.935	-40.862	1.00	46.71	C
ATOM	18668	N9	G A 895	161.964	78.160	-34.155	1.00	47.52	N	ATOM	18718	C6	C A 897	164.644	79.766	-41.545	1.00	46.71	C
ATOM	18669	C8	G A 895	163.043	77.381	-33.806	1.00	47.52	C	ATOM	18719	P	G A 898	164.272	79.562	-47.033	1.00	49.98	P
ATOM	18670	N7	G A 895	164.180	78.017	-33.895	1.00	47.52	N	ATOM	18720	O1P	G A 898	163.790	79.724	-48.423	1.00	49.56	O
ATOM	18671	C5	G A 895	163.830	79.291	-34.320	1.00	47.52	C	ATOM	18721	O2P	G A 898	164.137	78.250	-46.347	1.00	49.56	O
ATOM	18672	C6	G A 895	164.633	80.418	-34.600	1.00	47.52	C	ATOM	18722	O5*	G A 898	165.815	79.936	-46.968	1.00	49.98	O
ATOM	18673	O6	G A 895	165.854	80.527	-34.525	1.00	47.52	O	ATOM	18723	C5*	G A 898	166.277	81.185	-47.475	1.00	49.98	C
ATOM	18674	N1	G A 895	163.869	81.500	-35.008	1.00	47.52	N	ATOM	18724	C4*	G A 898	167.747	81.341	-47.208	1.00	49.98	C
ATOM	18675	C2	G A 895	162.507	81.501	-35.131	1.00	47.52	C	ATOM	18725	O4*	G A 898	167.990	81.575	-45.797	1.00	49.98	O
ATOM	18676	N2	G A 895	161.954	82.635	-35.551	1.00	47.52	N	ATOM	18726	C3*	G A 898	168.603	80.135	-47.526	1.00	49.98	C
ATOM	18677	N3	G A 895	161.743	80.463	-34.869	1.00	47.52	N	ATOM	18727	O3*	G A 898	168.856	80.007	-48.915	1.00	49.98	O
ATOM	18678	C4	G A 895	162.465	79.397	-34.475	1.00	47.52	C	ATOM	18728	C2*	G A 898	169.851	80.411	-46.700	1.00	49.98	C
ATOM	18679	P	C A 896	159.973	74.922	-37.978	1.00	48.23	P	ATOM	18729	O2*	G A 898	170.711	81.322	-47.348	1.00	49.98	O
ATOM	18680	O1P	C A 896	158.938	74.089	-38.656	1.00	50.16	O	ATOM	18730	C1*	G A 898	169.253	81.046	-45.440	1.00	49.98	C
ATOM	18681	O2P	C A 896	161.357	74.390	-37.825	1.00	50.16	O	ATOM	18731	N9	G A 898	169.060	80.014	-44.429	1.00	49.56	N
ATOM	18682	O5*	C A 896	160.083	76.345	-38.694	1.00	48.23	O	ATOM	18732	C8	G A 898	167.919	79.302	-44.168	1.00	49.56	C
ATOM	18683	C5*	C A 896	158.917	77.106	-38.981	1.00	48.23	C	ATOM	18733	N7	G A 898	168.111	78.320	-43.330	1.00	49.56	N
ATOM	18684	C4*	C A 896	159.291	78.480	-39.466	1.00	48.23	C	ATOM	18734	C5	G A 898	169.450	78.417	-42.992	1.00	49.56	C
ATOM	18685	O4*	C A 896	159.911	79.239	-38.395	1.00	48.23	O	ATOM	18735	C6	G A 898	170.248	77.596	-42.162	1.00	49.56	C
ATOM	18686	C3*	C A 896	160.298	78.573	-40.595	1.00	48.23	C	ATOM	18736	O6	G A 898	169.922	76.559	-41.551	1.00	49.56	O
ATOM	18687	O3*	C A 896	159.740	78.349	-41.874	1.00	48.23	O	ATOM	18737	N1	G A 898	171.557	78.067	-42.086	1.00	49.56	N
ATOM	18688	O2*	C A 896	160.788	80.006	-40.458	1.00	48.23	O	ATOM	18738	C2	G A 898	172.035	79.177	-42.732	1.00	49.56	C
ATOM	18689	C2*	C A 896	159.884	80.938	-41.000	1.00	48.23	C	ATOM	18739	N2	G A 898	173.319	79.491	-42.511	1.00	49.56	N
ATOM	18690	C1*	C A 896	160.817	80.180	-38.944	1.00	48.23	C	ATOM	18740	N3	G A 898	171.308	79.929	-43.531	1.00	49.56	N
ATOM	18691	N1	C A 896	162.175	79.909	-38.442	1.00	50.16	N	ATOM	18741	C4	G A 898	170.035	79.492	-43.618	1.00	49.56	C
ATOM	18692	O2	C A 896	163.130	80.945	-38.479	1.00	50.16	O	ATOM	18742	P	C A 899	168.771	78.553	-49.600	1.00	48.03	P
ATOM	18693	C2	C A 896	162.786	82.083	-38.875	1.00	50.16	C	ATOM	18743	O1P	C A 899	169.019	78.746	-51.055	1.00	47.89	O
ATOM	18694	N3	C A 896	164.394	80.682	-38.083	1.00	50.16	N	ATOM	18744	O2P	C A 899	167.520	77.886	-49.141	1.00	47.89	O
ATOM	18695	C4	C A 896	164.716	79.466	-37.652	1.00	50.16	C	ATOM	18745	O5*	C A 899	169.993	77.756	-48.961	1.00	48.03	O
ATOM	18696	N4	C A 896	165.964	79.252	-37.288	1.00	50.16	N	ATOM	18746	C5*	C A 899	170.258	76.385	-49.301	1.00	48.03	C
ATOM	18697	C5	C A 896	163.766	78.414	-37.578	1.00	50.16	C	ATOM	18747	C4*	C A 899	171.751	76.149	-49.334	1.00	48.03	C
ATOM	18698	C6	C A 896	162.520	78.675	-37.976	1.00	50.16	C	ATOM	18748	O4*	C A 899	172.318	76.882	-50.445	1.00	48.03	O
ATOM	18699	P	C A 897	160.668	77.751	-43.046	1.00	52.57	P	ATOM	18749	C3*	C A 899	172.496	76.656	-48.113	1.00	48.03	C
ATOM	18700	O1P	C A 897	159.806	77.621	-44.256	1.00	46.71	O	ATOM	18750	O3*	C A 899	172.544	75.665	-47.110	1.00	48.03	O
ATOM	18701	O2P	C A 897	161.394	76.565	-42.527	1.00	46.71	O	ATOM	18751	C2*	C A 899	173.882	76.987	-48.645	1.00	48.03	C
ATOM	18702	O5*	C A 897	161.718	78.909	-43.328	1.00	52.57	O	ATOM	18752	O2*	C A 899	174.741	75.870	-48.659	1.00	48.03	O
ATOM	18703	C5*	C A 897	161.276	80.137	-43.879	1.00	52.57	C	ATOM	18753	C1*	C A 899	173.576	77.408	-50.081	1.00	48.03	C
ATOM	18704	C4*	C A 897	162.419	81.105	-44.012	1.00	52.57	C	ATOM	18754	N1	C A 899	173.555	78.855	-50.317	1.00	47.89	N
ATOM	18705	O4*	C A 897	162.913	81.482	-42.702	1.00	52.57	O	ATOM	18755	C2	C A 899	174.739	79.485	-50.673	1.00	47.89	C
ATOM	18706	C3*	C A 897	163.668	80.659	-44.748	1.00	52.57	C	ATOM	18756	O2	C A 899	175.783	78.812	-50.719	1.00	47.89	O
ATOM	18707	O3*	C A 897	163.540	80.691	-46.155	1.00	52.57	O	ATOM	18757	N3	C A 899	174.731	80.810	-50.957	1.00	47.89	N
ATOM	18708	C2*	C A 897	164.685	81.684	-44.270	1.00	52.57	C	ATOM	18758	C4	C A 899	173.599	81.496	-50.880	1.00	47.89	C
ATOM	18709	O2*	C A 897	164.560	82.916	-44.964	1.00	52.57	O	ATOM	18759	N4	C A 899	173.635	82.789	-51.186	1.00	47.89	N
ATOM	18710	C1*	C A 897	164.275	81.861	-42.806	1.00	52.57	C	ATOM	18760	C5	C A 899	172.377	80.882	-50.488	1.00	47.89	C
ATOM	18711	N1	C A 897	165.092	80.990	-41.947	1.00	46.71	N	ATOM	18761	C6	C A 899	172.400	79.572	-50.217	1.00	47.89	C
ATOM	18712	C2	C A 897	166.363	81.421	-41.590	1.00	46.71	C	ATOM	18762	P	A A 900	172.503	76.105	-45.572	1.00	49.32	P
ATOM	18713	O2	C A 897	166.721	82.558	-41.916	1.00	46.71	O	ATOM	18763	O1P	A A 900	172.473	74.855	-44.762	1.00	42.20	O
ATOM	18714	N3	C A 897	167.172	80.593	-40.901	1.00	46.71	N	ATOM	18764	O2P	A A 900	171.408	77.078	-45.431	1.00	42.20	O
ATOM	18715	C4	C A 897	166.746	79.380	-40.561	1.00	46.71	C	ATOM	18765	O5*	A A 900	173.883	76.879	-45.356	1.00	49.32	O



ATOM	18766	C5*	A	A	900	175.132	76.161	-45.339	1.00	49.32	C	ATOM	18816	O2*	G	A	902	173.753	86.176	-40.578	1.00	53.51	O
ATOM	18767	C4*	A	A	900	176.295	77.120	-45.377	1.00	49.32	C	ATOM	18817	C1*	G	A	902	174.317	83.897	-40.509	1.00	53.51	C
ATOM	18768	O4*	A	A	900	176.182	77.937	-46.560	1.00	49.32	O	ATOM	18818	N9	G	A	902	173.597	82.679	-40.167	1.00	39.67	N
ATOM	18769	C3*	A	A	900	176.369	78.094	-44.222	1.00	49.32	C	ATOM	18819	C8	G	A	902	174.041	81.581	-39.477	1.00	39.67	C
ATOM	18770	O3*	A	A	900	177.140	77.534	-43.172	1.00	49.32	O	ATOM	18820	N7	G	A	902	173.111	80.679	-39.302	1.00	39.67	N
ATOM	18771	C2*	A	A	900	177.081	79.292	-44.830	1.00	49.32	C	ATOM	18821	C5	G	A	902	171.991	81.216	-39.925	1.00	39.67	C
ATOM	18772	O2*	A	A	900	178.481	79.120	-44.827	1.00	49.32	O	ATOM	18822	C6	G	A	902	170.672	80.709	-40.054	1.00	39.67	C
ATOM	18773	C1*	A	A	900	176.589	79.255	-46.276	1.00	49.32	C	ATOM	18823	O6	G	A	902	170.209	79.651	-39.627	1.00	39.67	O
ATOM	18774	N9	A	A	900	175.471	80.147	-46.595	1.00	42.20	N	ATOM	18824	N1	G	A	902	169.855	81.583	-40.762	1.00	39.67	N
ATOM	18775	C8	A	A	900	174.128	79.853	-46.555	1.00	42.20	C	ATOM	18825	C2	G	A	902	170.252	82.787	-41.276	1.00	39.67	C
ATOM	18776	N7	A	A	900	173.361	80.832	-46.971	1.00	42.20	N	ATOM	18826	N2	G	A	902	169.324	83.485	-41.938	1.00	39.67	N
ATOM	18777	C5	A	A	900	174.252	81.840	-47.293	1.00	42.20	C	ATOM	18827	N3	G	A	902	171.471	83.274	-41.155	1.00	39.67	N
ATOM	18778	C6	A	A	900	174.065	83.115	-47.816	1.00	42.20	C	ATOM	18828	C4	G	A	902	172.281	82.441	-40.474	1.00	39.67	C
ATOM	18779	N6	A	A	900	172.873	83.610	-48.132	1.00	42.20	N	ATOM	18829	P	G	A	903	173.570	86.717	-36.787	1.00	44.70	P
ATOM	18780	N1	A	A	900	175.157	83.877	-48.021	1.00	42.20	N	ATOM	18830	O1P	G	A	903	173.910	87.984	-36.066	1.00	41.44	O
ATOM	18781	C2	A	A	900	176.360	83.366	-47.721	1.00	42.20	C	ATOM	18831	O2P	G	A	903	173.362	85.464	-36.008	1.00	41.44	O
ATOM	18782	N3	A	A	900	176.667	82.172	-47.233	1.00	42.20	N	ATOM	18832	O5*	G	A	903	172.248	86.980	-37.627	1.00	44.70	O
ATOM	18783	C4	A	A	900	175.554	81.445	-47.042	1.00	42.20	C	ATOM	18833	C5*	G	A	903	172.195	88.063	-38.566	1.00	44.70	C
ATOM	18784	P	A	A	901	176.988	78.110	-41.683	1.00	47.95	P	ATOM	18834	C4*	G	A	903	170.839	88.124	-39.219	1.00	44.70	C
ATOM	18785	O1P	A	A	901	177.955	77.410	-40.805	1.00	44.97	O	ATOM	18835	O4*	G	A	903	170.581	86.870	-39.898	1.00	44.70	O
ATOM	18786	O2P	A	A	901	175.533	78.054	-41.357	1.00	44.97	O	ATOM	18836	C3*	G	A	903	169.668	88.280	-38.267	1.00	44.70	C
ATOM	18787	O5*	A	A	901	177.463	79.629	-41.796	1.00	47.95	O	ATOM	18837	O3*	G	A	903	169.439	89.629	-37.926	1.00	44.70	O
ATOM	18788	C5*	A	A	901	178.859	79.955	-41.808	1.00	47.95	C	ATOM	18838	C2*	G	A	903	168.518	87.684	-39.053	1.00	44.70	C
ATOM	18789	C4*	A	A	901	179.062	81.434	-42.047	1.00	47.95	C	ATOM	18839	O2*	G	A	903	168.028	88.603	-40.007	1.00	44.70	O
ATOM	18790	O4*	A	A	901	178.523	81.788	-43.342	1.00	47.95	O	ATOM	18840	C1*	G	A	903	169.215	86.535	-39.773	1.00	44.70	C
ATOM	18791	C3*	A	A	901	178.380	82.383	-41.078	1.00	47.95	C	ATOM	18841	N9	G	A	903	169.139	85.277	-39.047	1.00	41.44	N
ATOM	18792	O3*	A	A	901	179.164	82.604	-39.922	1.00	47.95	O	ATOM	18842	C8	G	A	903	170.157	84.657	-38.372	1.00	41.44	C
ATOM	18793	C2*	A	A	901	178.245	83.652	-41.905	1.00	47.95	C	ATOM	18843	N7	G	A	903	169.807	83.507	-37.870	1.00	41.44	N
ATOM	18794	O2*	A	A	901	179.450	84.381	-41.977	1.00	47.95	O	ATOM	18844	C5	G	A	903	168.475	83.370	-38.223	1.00	41.44	C
ATOM	18795	C1*	A	A	901	177.962	83.088	-43.289	1.00	47.95	C	ATOM	18845	C6	G	A	903	167.577	82.325	-37.967	1.00	41.44	C
ATOM	18796	N9	A	A	901	176.526	82.968	-43.512	1.00	44.97	N	ATOM	18846	O6	G	A	903	167.777	81.282	-37.359	1.00	41.44	O
ATOM	18797	C8	A	A	901	175.704	81.936	-43.119	1.00	44.97	C	ATOM	18847	N1	G	A	903	166.325	82.580	-38.500	1.00	41.44	N
ATOM	18798	N7	A	A	901	174.447	82.114	-43.436	1.00	44.97	N	ATOM	18848	C2	G	A	903	165.976	83.714	-39.186	1.00	41.44	C
ATOM	18799	C5	A	A	901	174.439	83.341	-44.083	1.00	44.97	C	ATOM	18849	N2	G	A	903	164.695	83.778	-39.602	1.00	41.44	N
ATOM	18800	C6	A	A	901	173.407	84.087	-44.654	1.00	44.97	C	ATOM	18850	N3	G	A	903	166.816	84.710	-39.439	1.00	41.44	N
ATOM	18801	N6	A	A	901	172.132	83.702	-44.638	1.00	44.97	N	ATOM	18851	C4	G	A	903	168.043	84.465	-38.932	1.00	41.44	C
ATOM	18802	N1	A	A	901	173.730	85.262	-45.240	1.00	44.97	N	ATOM	18852	P	C	A	904	168.950	89.981	-36.439	1.00	49.70	P
ATOM	18803	C2	A	A	901	175.017	85.655	-45.229	1.00	44.97	C	ATOM	18853	O1P	C	A	904	168.951	91.465	-36.364	1.00	44.11	O
ATOM	18804	N3	A	A	901	176.081	85.040	-44.709	1.00	44.97	N	ATOM	18854	O2P	C	A	904	169.734	89.203	-35.452	1.00	44.11	O
ATOM	18805	C4	A	A	901	175.717	83.874	-44.145	1.00	44.97	C	ATOM	18855	O5*	C	A	904	167.449	89.446	-36.413	1.00	49.70	O
ATOM	18806	P	G	A	902	178.610	82.132	-38.494	1.00	53.51	P	ATOM	18856	C5*	C	A	904	166.462	90.021	-37.281	1.00	49.70	C
ATOM	18807	O1P	G	A	902	179.608	82.577	-37.493	1.00	39.67	O	ATOM	18857	C4*	C	A	904	165.172	89.253	-37.196	1.00	49.70	C
ATOM	18808	O2P	G	A	902	178.251	80.683	-38.585	1.00	39.67	O	ATOM	18858	O4*	C	A	904	165.367	87.908	-37.690	1.00	49.70	O
ATOM	18809	O5*	G	A	902	177.252	82.944	-38.289	1.00	53.51	O	ATOM	18859	C3*	C	A	904	164.587	89.060	-35.810	1.00	49.70	C
ATOM	18810	C5*	G	A	902	177.222	84.367	-38.386	1.00	53.51	C	ATOM	18860	C2*	C	A	904	163.837	90.187	-35.391	1.00	49.70	C
ATOM	18811	C4*	G	A	902	176.040	84.820	-39.224	1.00	53.51	C	ATOM	18861	O3*	C	A	904	163.698	87.841	-35.993	1.00	49.70	O
ATOM	18812	O4*	G	A	902	175.680	83.770	-40.161	1.00	53.51	O	ATOM	18862	O2*	C	A	904	162.433	88.163	-36.531	1.00	49.70	O
ATOM	18813	C3*	G	A	902	174.713	85.141	-38.547	1.00	53.51	C	ATOM	18863	C1*	C	A	904	164.493	87.027	-37.015	1.00	49.70	C
ATOM	18814	O3*	G	A	902	174.674	86.426	-37.923	1.00	53.51	O	ATOM	18864	N1	C	A	904	165.283	85.963	-36.378	1.00	44.11	N
ATOM	18815	C2*	G	A	902	173.740	85.057	-39.717	1.00	53.51	C	ATOM	18865	C2	C	A	904	164.645	84.774	-36.019	1.00	44.11	C



ATOM	18866	O2	C A 904	163.441	84.643	-36.257	1.00	44.11	O	ATOM	18916	OlP	A A 907	162.436	88.471	-22.696	1.00	44.43	O
ATOM	18867	N3	C A 904	165.352	83.800	-35.425	1.00	44.11	N	ATOM	18917	O2P	A A 907	163.828	89.305	-24.686	1.00	44.43	O
ATOM	18868	C4	C A 904	166.645	83.968	-35.194	1.00	44.11	C	ATOM	18918	O5*	A A 907	164.628	87.402	-23.317	1.00	52.49	O
ATOM	18869	N4	C A 904	167.302	82.975	-34.620	1.00	44.11	N	ATOM	18919	C5*	A A 907	164.775	87.039	-21.941	1.00	52.49	C
ATOM	18870	C5	C A 904	167.324	85.162	-35.547	1.00	44.11	C	ATOM	18920	C4*	A A 907	164.078	85.736	-21.683	1.00	52.49	C
ATOM	18871	C6	C A 904	166.613	86.127	-36.132	1.00	44.11	C	ATOM	18921	O4*	A A 907	164.500	84.767	-22.666	1.00	52.49	O
ATOM	18872	P	U A 905	163.909	90.655	-33.858	1.00	45.93	P	ATOM	18922	C3*	A A 907	164.427	85.115	-20.351	1.00	52.49	C
ATOM	18873	OlP	U A 905	163.163	91.936	-33.777	1.00	63.18	O	ATOM	18923	O3*	A A 907	163.613	85.631	-19.322	1.00	52.49	O
ATOM	18874	O2P	U A 905	165.321	90.600	-33.401	1.00	63.18	O	ATOM	18924	C2*	A A 907	164.219	83.630	-20.608	1.00	52.49	C
ATOM	18875	O5*	U A 905	163.112	89.525	-33.075	1.00	45.93	O	ATOM	18925	O2*	A A 907	162.871	83.228	-20.562	1.00	52.49	O
ATOM	18876	C5*	U A 905	161.713	89.382	-33.259	1.00	45.93	C	ATOM	18926	Cl*	A A 907	164.703	83.506	-22.048	1.00	52.49	C
ATOM	18877	C4*	U A 905	161.252	88.043	-32.762	1.00	45.93	C	ATOM	18927	N9	A A 907	166.135	83.213	-22.093	1.00	44.43	N
ATOM	18878	O4*	U A 905	161.941	86.981	-33.471	1.00	45.93	O	ATOM	18928	C8	A A 907	167.120	83.946	-22.711	1.00	44.43	C
ATOM	18879	C3*	U A 905	161.505	87.727	-33.304	1.00	45.93	C	ATOM	18929	N7	A A 907	168.318	83.442	-22.566	1.00	44.43	N
ATOM	18880	O3*	U A 905	160.532	88.314	-30.474	1.00	45.93	O	ATOM	18930	C5	A A 907	168.113	82.302	-21.803	1.00	44.43	C
ATOM	18881	C2*	U A 905	161.401	86.211	-31.290	1.00	45.93	C	ATOM	18931	C6	A A 907	168.990	81.334	-21.302	1.00	44.43	C
ATOM	18882	O2*	U A 905	160.053	85.772	-31.281	1.00	45.93	O	ATOM	18932	N6	A A 907	170.308	81.362	-21.498	1.00	44.43	N
ATOM	18883	Cl*	U A 905	162.037	85.847	-32.632	1.00	45.93	C	ATOM	18933	N1	A A 907	168.464	80.325	-20.578	1.00	44.43	N
ATOM	18884	N1	U A 905	163.450	85.492	-32.456	1.00	63.18	N	ATOM	18934	C2	A A 907	167.148	80.306	-20.375	1.00	44.43	C
ATOM	18885	C2	U A 905	163.727	84.167	-32.230	1.00	63.18	C	ATOM	18935	N3	A A 907	166.222	81.157	-20.790	1.00	44.43	N
ATOM	18886	O2	U A 905	162.871	83.308	-32.242	1.00	63.18	O	ATOM	18936	C4	A A 907	166.775	82.146	-21.507	1.00	44.43	C
ATOM	18887	N3	U A 905	165.042	83.879	-31.994	1.00	63.18	N	ATOM	18937	P	A A 908	164.262	85.936	-17.894	1.00	55.42	P
ATOM	18888	C4	U A 905	166.091	84.761	-31.976	1.00	63.18	C	ATOM	18938	OlP	A A 908	163.194	86.452	-17.007	1.00	49.76	O
ATOM	18889	O4	U A 905	167.203	84.359	-31.641	1.00	63.18	O	ATOM	18939	O2P	A A 908	165.489	86.755	-18.119	1.00	49.76	O
ATOM	18890	C5	U A 905	165.733	86.118	-32.261	1.00	63.18	C	ATOM	18940	O5*	A A 908	164.665	84.495	-17.349	1.00	55.42	O
ATOM	18891	C6	U A 905	164.453	86.429	-32.484	1.00	63.18	C	ATOM	18941	C5*	A A 908	163.664	83.587	-16.881	1.00	55.42	C
ATOM	18892	P	G A 906	160.996	89.173	-29.202	1.00	46.29	P	ATOM	18942	C4*	A A 908	164.306	82.324	-16.373	1.00	55.42	C
ATOM	18893	OlP	G A 906	159.764	89.548	-28.469	1.00	49.44	O	ATOM	18943	O4*	A A 908	165.051	81.719	-17.456	1.00	55.42	O
ATOM	18894	O2P	G A 906	161.917	90.243	-29.684	1.00	49.44	O	ATOM	18944	C3*	A A 908	165.330	82.489	-15.262	1.00	55.42	C
ATOM	18895	O5*	G A 906	161.799	88.128	-28.305	1.00	46.29	O	ATOM	18945	O3*	A A 908	164.731	82.511	-13.983	1.00	55.42	O
ATOM	18896	C5*	G A 906	161.117	87.037	-27.656	1.00	46.29	C	ATOM	18946	C2*	A A 908	166.202	81.258	-15.438	1.00	55.42	C
ATOM	18897	O4*	G A 906	162.106	86.137	-26.940	1.00	46.29	O	ATOM	18947	O2*	A A 908	165.574	80.101	-14.921	1.00	55.42	O
ATOM	18898	O4*	G A 906	162.932	85.435	-27.910	1.00	46.29	O	ATOM	18948	Cl*	A A 908	166.252	81.145	-16.959	1.00	55.42	C
ATOM	18899	C3*	G A 906	163.106	86.832	-26.031	1.00	46.29	C	ATOM	18949	N9	A A 908	167.381	81.887	-17.529	1.00	49.76	N
ATOM	18900	O3*	G A 906	162.602	87.102	-24.747	1.00	46.29	O	ATOM	18950	C8	A A 908	167.337	83.093	-18.181	1.00	49.76	C
ATOM	18901	C2*	G A 906	164.252	85.838	-25.983	1.00	46.29	C	ATOM	18951	N7	A A 908	168.505	83.515	-18.587	1.00	49.76	N
ATOM	18902	O2*	G A 906	163.995	84.766	-25.105	1.00	46.29	O	ATOM	18952	C5	A A 908	169.378	82.522	-18.179	1.00	49.76	C
ATOM	18903	Cl*	G A 906	164.260	85.326	-27.419	1.00	46.29	C	ATOM	18953	C6	A A 908	170.757	82.374	-18.326	1.00	49.76	C
ATOM	18904	N9	G A 906	165.116	86.196	-28.219	1.00	49.44	N	ATOM	18954	N6	A A 908	171.525	83.258	-18.957	1.00	49.76	N
ATOM	18905	C8	G A 906	164.754	87.366	-28.832	1.00	49.44	C	ATOM	18955	N1	A A 908	171.331	81.273	-17.804	1.00	49.76	N
ATOM	18906	N7	G A 906	165.748	87.965	-29.419	1.00	49.44	N	ATOM	18956	Cl	A A 908	170.552	80.384	-17.181	1.00	49.76	C
ATOM	18907	C5	G A 906	166.827	87.132	-29.189	1.00	49.44	C	ATOM	18957	N3	A A 908	169.236	80.410	-16.985	1.00	49.76	N
ATOM	18908	C6	G A 906	168.165	87.266	-29.577	1.00	49.44	C	ATOM	18958	C4	A A 908	168.703	81.518	-17.518	1.00	49.76	C
ATOM	18909	O6	G A 906	168.686	88.189	-30.205	1.00	49.44	O	ATOM	18959	P	A A 909	165.500	83.221	-12.764	1.00	53.50	P
ATOM	18910	N1	G A 906	168.930	86.187	-29.158	1.00	49.44	N	ATOM	18960	OlP	A A 909	164.498	83.270	-11.648	1.00	44.34	O
ATOM	18911	C2	G A 906	168.457	85.115	-28.446	1.00	49.44	C	ATOM	18961	O2P	A A 909	166.157	84.496	-13.239	1.00	44.34	O
ATOM	18912	N2	G A 906	169.347	84.156	-28.148	1.00	49.44	N	ATOM	18962	O5*	A A 909	166.620	82.165	-12.351	1.00	53.50	O
ATOM	18913	N3	G A 906	167.203	84.988	-28.059	1.00	49.44	N	ATOM	18963	C5*	A A 909	166.256	80.901	-11.774	1.00	53.50	C
ATOM	18914	C4	G A 906	166.448	86.026	-28.466	1.00	49.44	C	ATOM	18964	C4*	A A 909	167.466	80.014	-11.662	1.00	53.50	C
ATOM	18915	P	A A 907	163.343	88.185	-23.835	1.00	52.49	P	ATOM	18965	O4*	A A 909	168.042	79.883	-12.980	1.00	53.50	O



Table 2: Sheet 191/520

ATOM	18966	C3*	A A 909	168.598	80.551	-10.801	1.00	53.50	C	ATOM	19016	N3	U A 911	171.794	89.061	-10.693	1.00	52.25	N
ATOM	18967	O3*	A A 909	168.438	80.212	-9.435	1.00	53.50	O	ATOM	19017	C4	U A 911	170.821	88.234	-10.183	1.00	52.25	C
ATOM	18968	C2*	A A 909	169.826	79.889	-11.405	1.00	53.50	C	ATOM	19018	O4	U A 911	169.644	88.463	-10.433	1.00	52.25	O
ATOM	18969	O2*	A A 909	170.031	78.572	-10.933	1.00	53.50	O	ATOM	19019	C5	U A 911	171.306	87.184	-9.357	1.00	52.25	C
ATOM	18970	C1*	A A 909	169.451	79.863	-12.886	1.00	53.50	C	ATOM	19020	C6	U A 911	172.609	87.077	-9.126	1.00	52.25	C
ATOM	18971	N9	A A 909	169.961	81.028	-13.602	1.00	44.34	N	ATOM	19021	P	C A 912	175.516	89.272	-4.913	1.00	53.17	P
ATOM	18972	C8	A A 909	169.281	82.136	-14.053	1.00	44.34	C	ATOM	19022	O1P	C A 912	176.419	89.285	-3.745	1.00	47.54	O
ATOM	18973	N7	A A 909	170.038	83.001	-14.680	1.00	44.34	N	ATOM	19023	O2P	C A 912	174.073	88.972	-4.715	1.00	47.54	O
ATOM	18974	C5	A A 909	171.300	82.428	-14.633	1.00	44.34	C	ATOM	19024	O5*	C A 912	175.679	90.666	-5.660	1.00	53.17	O
ATOM	18975	C6	A A 909	172.542	82.839	-15.128	1.00	44.34	C	ATOM	19025	C5*	C A 912	176.987	91.167	-5.943	1.00	53.17	C
ATOM	18976	N6	A A 909	172.737	83.971	-15.791	1.00	44.34	N	ATOM	19026	C4*	C A 912	176.913	92.513	-6.620	1.00	53.17	C
ATOM	18977	N1	A A 909	173.598	82.029	-14.914	1.00	44.34	N	ATOM	19027	O4*	C A 912	176.338	92.363	-7.936	1.00	53.17	O
ATOM	18978	C2	A A 909	173.409	80.883	-14.242	1.00	44.34	C	ATOM	19028	C3*	C A 912	176.063	93.568	-5.935	1.00	53.17	C
ATOM	18979	N3	A A 909	172.294	80.388	-13.730	1.00	44.34	N	ATOM	19029	O3*	C A 912	176.805	94.244	-4.944	1.00	53.17	O
ATOM	18980	C4	A A 909	171.264	81.216	-13.965	1.00	44.34	C	ATOM	19030	C2*	C A 912	175.702	94.483	-7.093	1.00	53.17	C
ATOM	18981	P	C A 910	168.633	81.343	-8.314	1.00	46.49	P	ATOM	19031	O2*	C A 912	176.793	95.309	-7.450	1.00	53.17	O
ATOM	18982	O1P	C A 910	168.497	80.661	-7.004	1.00	52.45	O	ATOM	19032	C1*	C A 912	175.506	93.474	-8.219	1.00	53.17	C
ATOM	18983	O2P	C A 910	167.769	82.504	-8.637	1.00	52.45	O	ATOM	19033	N1	C A 912	174.115	92.988	-8.333	1.00	47.54	N
ATOM	18984	O5*	C A 910	170.136	81.829	-8.492	1.00	46.49	O	ATOM	19034	C2	C A 912	173.227	93.674	-9.158	1.00	47.54	C
ATOM	18985	C5*	C A 910	171.232	80.913	-8.340	1.00	46.49	C	ATOM	19035	O2	C A 912	173.615	94.693	-9.738	1.00	47.54	O
ATOM	18986	C4*	C A 910	172.485	81.517	-8.910	1.00	46.49	C	ATOM	19036	N3	C A 912	171.969	93.213	-9.303	1.00	47.54	N
ATOM	18987	O4*	C A 910	172.300	81.729	-10.331	1.00	46.49	O	ATOM	19037	C3	C A 912	171.584	92.116	-8.655	1.00	47.54	C
ATOM	18988	C3*	C A 910	172.819	82.889	-8.371	1.00	46.49	C	ATOM	19038	N4	C A 912	170.339	91.680	-8.849	1.00	47.54	N
ATOM	18989	O3*	C A 910	173.523	82.822	-7.151	1.00	46.49	O	ATOM	19039	C5	C A 912	172.460	91.409	-7.785	1.00	47.54	C
ATOM	18990	C2*	C A 910	173.629	83.515	-9.439	1.00	46.49	C	ATOM	19040	C6	C A 912	173.702	91.875	-7.654	1.00	47.54	C
ATOM	18991	O1*	C A 910	174.995	83.176	-9.439	1.00	46.49	O	ATOM	19041	P	A A 913	176.064	94.802	-3.639	1.00	53.56	P
ATOM	18992	C1*	C A 910	172.975	82.903	-10.730	1.00	46.49	C	ATOM	19042	O1P	A A 913	177.145	95.114	-2.679	1.00	41.43	O
ATOM	18993	N1	C A 910	172.005	83.812	-11.347	1.00	52.45	N	ATOM	19043	O2P	A A 913	174.970	93.894	-3.236	1.00	41.43	O
ATOM	18994	C2	C A 910	172.487	84.877	-12.102	1.00	52.45	C	ATOM	19044	O5*	A A 913	175.472	96.204	-4.104	1.00	53.56	O
ATOM	18995	O2	C A 910	173.703	84.975	-12.274	1.00	52.45	O	ATOM	19045	C5*	A A 913	176.349	97.339	-4.313	1.00	53.56	C
ATOM	18996	N3	C A 910	171.620	85.771	-12.624	1.00	52.45	N	ATOM	19046	C4*	A A 913	175.575	98.486	-4.908	1.00	53.56	C
ATOM	18997	C4	C A 910	170.313	85.624	-12.420	1.00	52.45	C	ATOM	19047	O4*	A A 913	174.847	97.944	-6.019	1.00	53.56	O
ATOM	18998	N4	C A 910	169.502	86.550	-12.918	1.00	52.45	N	ATOM	19048	C3*	A A 913	174.537	99.106	-3.983	1.00	53.56	C
ATOM	18999	C5	C A 910	169.783	84.522	-11.685	1.00	52.45	C	ATOM	19049	O3*	A A 913	175.067	100.243	-3.272	1.00	53.56	O
ATOM	19000	C6	C A 910	170.657	83.645	-11.172	1.00	52.45	C	ATOM	19050	C2*	A A 913	173.376	99.460	-4.883	1.00	53.56	C
ATOM	19001	P	U A 911	173.284	83.966	-6.053	1.00	46.78	P	ATOM	19051	O2*	A A 913	173.459	100.777	-5.371	1.00	53.56	O
ATOM	19002	O1P	U A 911	173.961	83.591	-4.776	1.00	52.25	O	ATOM	19052	C1*	A A 913	173.546	98.471	-6.034	1.00	53.56	C
ATOM	19003	O2P	U A 911	171.823	84.276	-6.053	1.00	52.25	O	ATOM	19053	N9	A A 913	172.587	97.372	-6.132	1.00	41.43	N
ATOM	19004	O5*	U A 911	174.009	85.239	-6.668	1.00	46.78	O	ATOM	19054	C8	A A 913	172.560	96.163	-5.486	1.00	41.43	C
ATOM	19005	C5*	U A 911	175.399	85.226	-6.922	1.00	46.78	C	ATOM	19055	N7	A A 913	171.576	95.384	-5.870	1.00	41.43	N
ATOM	19006	C4*	U A 911	175.798	86.484	-7.633	1.00	46.78	C	ATOM	19056	C5	A A 913	170.900	96.142	-6.813	1.00	41.43	C
ATOM	19007	O4*	U A 911	175.230	86.492	-8.964	1.00	46.78	O	ATOM	19057	C6	A A 913	169.764	95.889	-7.581	1.00	41.43	C
ATOM	19008	C3*	U A 911	175.302	87.775	-7.019	1.00	46.78	C	ATOM	19058	N6	A A 913	169.056	94.763	-7.507	1.00	41.43	N
ATOM	19009	O3*	U A 911	176.113	88.221	-5.958	1.00	46.78	O	ATOM	19059	N1	A A 913	169.361	96.848	-8.438	1.00	41.43	N
ATOM	19010	C2*	U A 911	175.356	88.735	-8.193	1.00	46.78	C	ATOM	19060	C2	A A 913	170.054	97.992	-8.493	1.00	41.43	C
ATOM	19011	O2*	U A 911	176.656	89.234	-8.394	1.00	46.78	O	ATOM	19061	N3	A A 913	171.132	98.353	-7.812	1.00	41.43	N
ATOM	19012	C1*	U A 911	174.959	87.825	-9.352	1.00	46.78	C	ATOM	19062	C4	A A 913	171.509	97.369	-6.980	1.00	41.43	C
ATOM	19013	N1	U A 911	173.529	87.944	-9.653	1.00	52.25	N	ATOM	19063	P	A A 914	175.536	101.612	-4.049	1.00	45.83	P
ATOM	19014	C2	U A 911	173.142	88.973	-10.476	1.00	52.25	C	ATOM	19064	O1P	A A 914	176.717	101.941	-3.246	1.00	39.80	O
ATOM	19015	O2	U A 911	173.936	89.753	-10.975	1.00	52.25	O	ATOM	19065	O2P	A A 914	174.494	102.646	-4.266	1.00	39.80	O



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ATOM	19066	O5*	A A 914	176.044	101.154	-5.474	1.00	33.44	O	ATOM	19116	C2*	G A 916	173.386	106.510	-17.858	1.00	44.93	C
ATOM	19067	C5*	A A 914	175.902	101.958	-6.648	1.00	33.44	C	ATOM	19117	O2*	G A 916	172.609	106.324	-19.020	1.00	44.93	O
ATOM	19068	C4*	A A 914	175.849	101.028	-7.826	1.00	33.44	C	ATOM	19118	C1*	G A 916	172.857	105.562	-16.780	1.00	44.93	C
ATOM	19069	O4*	A A 914	174.557	100.384	-7.817	1.00	33.44	O	ATOM	19119	N9	G A 916	172.938	106.153	-15.445	1.00	46.75	N
ATOM	19070	C3*	A A 914	176.008	101.564	-9.231	1.00	33.44	C	ATOM	19120	C8	G A 916	173.726	105.753	-14.397	1.00	46.75	C
ATOM	19071	O3*	A A 914	177.373	101.595	-9.587	1.00	33.44	O	ATOM	19121	N7	G A 916	173.612	106.524	-13.347	1.00	46.75	N
ATOM	19072	C2*	A A 914	175.308	100.501	-10.066	1.00	33.44	C	ATOM	19122	C5	G A 916	172.684	107.486	-13.721	1.00	46.75	C
ATOM	19073	O1*	A A 914	176.166	99.395	-10.272	1.00	33.44	O	ATOM	19123	C6	G A 916	172.167	108.607	-13.004	1.00	46.75	C
ATOM	19074	C1*	A A 914	174.165	100.072	-9.140	1.00	33.44	C	ATOM	19124	O6	G A 916	172.457	109.003	-11.876	1.00	46.75	O
ATOM	19075	N9	A A 914	172.888	100.739	-9.423	1.00	39.80	N	ATOM	19125	N1	G A 916	171.231	109.301	-13.751	1.00	46.75	N
ATOM	19076	C8	A A 914	172.279	101.759	-8.739	1.00	39.80	C	ATOM	19126	C2	G A 916	170.847	108.978	-15.021	1.00	46.75	C
ATOM	19077	N7	A A 914	171.159	102.163	-9.283	1.00	39.80	N	ATOM	19127	N2	G A 916	169.916	109.758	-15.567	1.00	46.75	N
ATOM	19078	C5	A A 914	171.014	101.348	-10.394	1.00	39.80	C	ATOM	19128	N3	G A 916	171.335	107.962	-15.710	1.00	46.75	N
ATOM	19079	C6	A A 914	170.034	101.278	-11.396	1.00	39.80	C	ATOM	19129	C4	G A 916	172.242	107.261	-15.003	1.00	46.75	C
ATOM	19080	N6	A A 914	168.979	102.092	-11.465	1.00	39.80	N	ATOM	19130	P	G A 917	175.838	107.856	-19.627	1.00	39.60	P
ATOM	19081	N1	A A 914	170.180	100.337	-12.349	1.00	39.80	N	ATOM	19131	O1P	G A 917	176.433	107.950	-20.993	1.00	36.66	O
ATOM	19082	C2	A A 914	171.245	99.541	-12.304	1.00	39.80	C	ATOM	19132	O2P	G A 917	176.638	108.263	-18.448	1.00	36.66	O
ATOM	19083	N3	A A 914	172.239	99.517	-11.428	1.00	39.80	N	ATOM	19133	O5*	G A 917	174.535	108.780	-19.624	1.00	39.60	O
ATOM	19084	C4	A A 914	172.061	100.457	-10.484	1.00	39.80	C	ATOM	19134	C5*	G A 917	173.559	108.718	-20.691	1.00	39.60	C
ATOM	19085	P	A A 915	177.829	102.428	-10.878	1.00	39.91	P	ATOM	19135	C4*	G A 917	172.609	109.885	-20.586	1.00	39.60	C
ATOM	19086	O1P	A A 915	179.250	102.056	-11.112	1.00	52.38	O	ATOM	19136	O4*	G A 917	171.867	109.775	-19.349	1.00	39.60	O
ATOM	19087	O2P	A A 915	177.466	103.859	-10.671	1.00	52.38	O	ATOM	19137	C3*	G A 917	173.284	111.238	-20.498	1.00	39.60	C
ATOM	19088	O5*	A A 915	176.939	101.858	-12.073	1.00	39.91	O	ATOM	19138	O3*	G A 917	173.525	111.783	-21.770	1.00	39.60	O
ATOM	19089	C5*	A A 915	177.354	100.690	-12.794	1.00	39.91	C	ATOM	19139	C2*	G A 917	172.280	112.078	-19.738	1.00	39.60	C
ATOM	19090	C4*	A A 915	176.475	100.452	-13.998	1.00	39.91	C	ATOM	19140	O2*	G A 917	171.256	112.514	-20.596	1.00	39.60	O
ATOM	19091	O4*	A A 915	175.124	100.148	-13.568	1.00	39.91	O	ATOM	19141	C1*	G A 917	171.706	111.052	-18.769	1.00	39.60	C
ATOM	19092	C3*	A A 915	176.280	101.595	-14.971	1.00	39.91	C	ATOM	19142	N9	G A 917	172.400	111.040	-17.489	1.00	36.66	N
ATOM	19093	O3*	A A 915	177.343	101.783	-15.871	1.00	39.91	O	ATOM	19143	C8	G A 917	173.327	110.122	-17.075	1.00	36.66	C
ATOM	19094	C2*	A A 915	175.011	101.188	-15.692	1.00	39.91	C	ATOM	19144	N7	G A 917	173.758	110.342	-15.869	1.00	36.66	N
ATOM	19095	O2*	A A 915	175.266	100.212	-16.674	1.00	39.91	O	ATOM	19145	C5	G A 917	173.084	111.483	-15.465	1.00	36.66	C
ATOM	19096	C1*	A A 915	174.198	100.572	-14.556	1.00	39.91	C	ATOM	19146	C6	G A 917	173.140	112.190	-14.243	1.00	36.66	C
ATOM	19097	N9	A A 915	173.309	101.581	-13.979	1.00	52.38	N	ATOM	19147	O6	G A 917	173.833	111.942	-13.240	1.00	36.66	O
ATOM	19098	C8	A A 915	173.465	102.309	-12.826	1.00	52.38	C	ATOM	19148	N1	G A 917	172.282	113.287	-14.245	1.00	36.66	N
ATOM	19099	N7	A A 915	172.531	103.207	-12.638	1.00	52.38	N	ATOM	19149	C2	G A 917	171.482	113.654	-15.291	1.00	36.66	C
ATOM	19100	C5	A A 915	171.694	103.047	-13.733	1.00	52.38	C	ATOM	19150	N2	G A 917	170.742	114.741	-15.101	1.00	36.66	N
ATOM	19101	C6	A A 915	170.531	103.712	-14.135	1.00	52.38	C	ATOM	19151	N3	G A 917	171.419	113.002	-16.438	1.00	36.66	N
ATOM	19102	N6	A A 915	169.994	104.734	-13.469	1.00	52.38	N	ATOM	19152	C4	G A 917	172.244	111.931	-16.454	1.00	36.66	C
ATOM	19103	N1	A A 915	169.932	103.295	-15.266	1.00	52.38	N	ATOM	19153	P	A A 918	174.789	112.730	-21.969	1.00	36.55	P
ATOM	19104	C2	A A 915	170.479	102.286	-15.945	1.00	52.38	C	ATOM	19154	O1P	A A 918	174.946	113.050	-23.403	1.00	34.68	O
ATOM	19105	N3	A A 915	171.571	101.594	-15.680	1.00	52.38	N	ATOM	19155	O2P	A A 918	175.894	112.102	-21.218	1.00	34.68	O
ATOM	19106	C4	A A 915	172.143	102.031	-14.548	1.00	52.38	C	ATOM	19156	O5*	A A 918	174.390	114.068	-21.218	1.00	36.55	O
ATOM	19107	P	G A 916	177.880	103.277	-16.134	1.00	44.93	P	ATOM	19157	C5*	A A 918	173.379	114.926	-21.756	1.00	36.55	C
ATOM	19108	O1P	G A 916	178.847	103.204	-17.255	1.00	46.75	O	ATOM	19158	C4*	A A 918	173.065	116.018	-20.778	1.00	36.55	C
ATOM	19109	O2P	G A 916	178.295	103.875	-14.834	1.00	46.75	O	ATOM	19159	O4*	A A 918	172.601	115.422	-19.547	1.00	36.55	O
ATOM	19110	O5*	G A 916	176.594	104.087	-16.616	1.00	44.93	O	ATOM	19160	C3*	A A 918	174.227	116.896	-20.355	1.00	36.55	C
ATOM	19111	C5*	G A 916	175.800	103.610	-17.697	1.00	44.93	C	ATOM	19161	O3*	A A 918	174.396	117.947	-21.299	1.00	36.55	O
ATOM	19112	C4*	G A 916	174.601	104.500	-17.924	1.00	44.93	C	ATOM	19162	C2*	A A 918	173.743	117.425	-19.015	1.00	36.55	C
ATOM	19113	O4*	G A 916	173.647	104.385	-16.832	1.00	44.93	O	ATOM	19163	O2*	A A 918	172.776	118.430	-19.211	1.00	36.55	O
ATOM	19114	C3*	G A 916	174.807	105.997	-18.074	1.00	44.93	C	ATOM	19164	C1*	A A 918	172.994	116.222	-18.453	1.00	36.55	C
ATOM	19115	O3*	G A 916	175.281	106.361	-19.367	1.00	44.93	O	ATOM	19165	N9	A A 918	173.800	115.408	-17.545	1.00	34.68	N



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ATOM	19166	C8	A A 918	174.482	114.250	-17.817	1.00	34.68	C	ATOM	19216	C6	U A 920	179.640	120.303	-14.014	1.00	45.05	C
ATOM	19167	N7	A A 918	175.135	113.770	-16.786	1.00	34.68	N	ATOM	19217	P	U A 921	181.887	125.553	-13.541	1.00	40.10	P
ATOM	19168	C5	A A 918	174.854	114.664	-15.767	1.00	34.68	C	ATOM	19218	O1P	U A 921	181.954	127.029	-13.587	1.00	39.59	O
ATOM	19169	C6	A A 918	175.240	114.711	-14.425	1.00	34.68	C	ATOM	19219	O2P	U A 921	182.296	124.768	-14.738	1.00	39.59	O
ATOM	19170	N6	A A 918	176.034	113.808	-13.855	1.00	34.68	N	ATOM	19220	O5*	U A 921	182.700	125.000	-12.291	1.00	40.10	O
ATOM	19171	N1	A A 918	174.781	115.729	-13.674	1.00	34.68	N	ATOM	19221	C5*	U A 921	182.789	125.743	-11.079	1.00	40.10	C
ATOM	19172	C2	A A 918	173.991	116.633	-14.248	1.00	34.68	C	ATOM	19222	C4*	U A 921	183.671	125.011	-10.105	1.00	40.10	C
ATOM	19173	N3	A A 918	173.560	116.702	-15.501	1.00	34.68	N	ATOM	19223	C4*	U A 921	183.114	123.694	-9.871	1.00	40.10	C
ATOM	19174	C4	A A 918	174.032	115.675	-16.218	1.00	34.68	C	ATOM	19224	C3*	U A 921	185.076	124.719	-10.580	1.00	40.10	C
ATOM	19175	P	A A 919	175.793	118.743	-21.384	1.00	39.32	P	ATOM	19225	O3*	U A 921	185.959	125.786	-10.339	1.00	40.10	O
ATOM	19176	O1P	A A 919	175.625	119.758	-22.458	1.00	37.42	O	ATOM	19226	C2*	U A 921	185.470	123.508	-9.757	1.00	40.10	C
ATOM	19177	O2P	A A 919	176.890	117.750	-21.467	1.00	37.42	O	ATOM	19227	O2*	U A 921	185.910	123.869	-8.470	1.00	40.10	O
ATOM	19178	O5*	A A 919	175.926	119.479	-19.973	1.00	39.32	O	ATOM	19228	C1*	U A 921	184.150	122.755	-9.668	1.00	40.10	C
ATOM	19179	C5*	A A 919	175.347	120.781	-19.754	1.00	39.32	C	ATOM	19229	N1	U A 921	184.068	121.734	-10.722	1.00	39.59	N
ATOM	19180	C4*	A A 919	175.299	121.087	-18.281	1.00	39.32	C	ATOM	19230	C2	U A 921	184.494	120.456	-10.402	1.00	39.59	C
ATOM	19181	O4*	A A 919	174.809	119.907	-17.610	1.00	39.32	O	ATOM	19231	O2	U A 921	184.874	120.148	-9.281	1.00	39.59	O
ATOM	19182	C3*	A A 919	176.622	121.380	-17.598	1.00	39.32	C	ATOM	19232	N3	U A 921	184.459	119.559	-11.440	1.00	39.59	N
ATOM	19183	O3*	A A 919	176.972	122.752	-17.660	1.00	39.32	O	ATOM	19233	C4	U A 921	184.046	119.806	-12.731	1.00	39.59	C
ATOM	19184	C2*	A A 919	176.354	120.974	-16.161	1.00	39.32	C	ATOM	19234	O4	U A 921	184.194	118.934	-13.589	1.00	39.59	O
ATOM	19185	O2*	A A 919	175.656	121.975	-15.456	1.00	39.32	O	ATOM	19235	C5	U A 921	183.584	121.139	-12.969	1.00	39.59	C
ATOM	19186	C1*	A A 919	175.447	119.766	-16.357	1.00	39.32	C	ATOM	19236	C6	U A 921	183.609	122.034	-11.987	1.00	39.59	C
ATOM	19187	N9	A A 919	176.234	118.540	-16.397	1.00	37.42	N	ATOM	19237	P	G A 922	187.179	126.027	-11.349	1.00	44.67	P
ATOM	19188	C8	A A 919	176.575	117.801	-17.498	1.00	37.42	C	ATOM	19238	O1P	G A 922	187.894	127.242	-10.860	1.00	40.22	O
ATOM	19189	N7	A A 919	177.331	116.769	-17.221	1.00	37.42	N	ATOM	19239	O2P	G A 922	186.625	126.019	-12.737	1.00	40.22	O
ATOM	19190	C5	A A 919	177.486	116.829	-15.843	1.00	37.42	C	ATOM	19240	O5*	G A 922	188.095	124.725	-11.151	1.00	44.67	O
ATOM	19191	C6	A A 919	178.176	116.018	-14.938	1.00	37.42	C	ATOM	19241	C5*	G A 922	189.130	124.711	-10.153	1.00	44.67	C
ATOM	19192	N6	A A 919	178.860	114.936	-15.297	1.00	37.42	N	ATOM	19242	C4*	G A 922	189.503	123.298	-9.748	1.00	44.67	C
ATOM	19193	N1	A A 919	178.134	116.351	-13.636	1.00	37.42	N	ATOM	19243	O4*	G A 922	188.384	122.394	-9.907	1.00	44.67	O
ATOM	19194	C2	A A 919	177.441	117.420	-13.280	1.00	37.42	C	ATOM	19244	C3*	G A 922	190.634	122.608	-10.483	1.00	44.67	C
ATOM	19195	N3	A A 919	176.746	118.261	-14.036	1.00	37.42	N	ATOM	19245	O3*	G A 922	191.878	123.030	-9.968	1.00	44.67	O
ATOM	19196	C4	A A 919	176.812	117.906	-15.324	1.00	37.42	C	ATOM	19246	C2*	G A 922	190.389	121.146	-10.141	1.00	44.67	C
ATOM	19197	P	U A 920	178.486	123.190	-17.341	1.00	43.70	P	ATOM	19247	O2*	G A 922	190.856	120.844	-8.846	1.00	44.67	O
ATOM	19198	O1P	U A 920	178.626	124.633	-17.669	1.00	45.05	O	ATOM	19248	C1*	G A 922	188.863	121.078	-10.147	1.00	44.67	C
ATOM	19199	O2P	U A 920	179.361	122.193	-18.003	1.00	45.05	O	ATOM	19249	N9	G A 922	188.318	120.606	-11.423	1.00	40.22	N
ATOM	19200	O5*	U A 920	178.652	122.977	-15.768	1.00	43.70	O	ATOM	19250	C8	G A 922	187.647	121.345	-12.377	1.00	40.22	C
ATOM	19201	C5*	U A 920	177.963	123.823	-14.846	1.00	43.70	C	ATOM	19251	N7	G A 922	187.288	120.636	-13.411	1.00	40.22	N
ATOM	19202	C4*	U A 920	178.515	123.645	-13.457	1.00	43.70	C	ATOM	19252	C5	G A 922	187.747	119.357	-13.124	1.00	40.22	C
ATOM	19203	O4*	U A 920	178.236	122.312	-12.962	1.00	43.70	O	ATOM	19253	C6	G A 922	187.651	118.162	-13.872	1.00	40.22	C
ATOM	19204	C3*	U A 920	180.011	123.785	-13.324	1.00	43.70	C	ATOM	19254	O6	G A 922	187.120	117.983	-14.979	1.00	40.22	O
ATOM	19205	O2*	U A 920	180.380	125.135	-13.216	1.00	43.70	O	ATOM	19255	N1	G A 922	188.254	117.099	-13.213	1.00	40.22	N
ATOM	19206	C3*	U A 920	180.310	123.020	-12.044	1.00	43.70	C	ATOM	19256	C2	G A 922	188.864	117.180	-11.991	1.00	40.22	C
ATOM	19207	O2*	U A 920	180.055	123.808	-10.894	1.00	43.70	O	ATOM	19257	N2	G A 922	189.383	116.045	-11.515	1.00	40.22	N
ATOM	19208	C1*	U A 920	179.296	121.878	-12.128	1.00	43.70	C	ATOM	19258	N3	G A 922	188.958	118.287	-11.285	1.00	40.22	N
ATOM	19209	N1	U A 920	179.852	120.638	-12.697	1.00	45.05	N	ATOM	19259	C4	G A 922	188.383	119.326	-11.905	1.00	40.22	C
ATOM	19210	C2	U A 920	180.590	119.809	-11.863	1.00	45.05	C	ATOM	19260	P	A A 923	193.124	123.240	-10.957	1.00	47.13	P
ATOM	19211	O2	U A 920	180.857	120.086	-10.705	1.00	45.05	O	ATOM	19261	O1P	A A 923	194.142	123.935	-10.163	1.00	43.56	O
ATOM	19212	N3	U A 920	181.023	118.646	-12.442	1.00	45.05	N	ATOM	19262	O2P	A A 923	192.688	123.844	-12.232	1.00	43.56	O
ATOM	19213	C4	U A 920	180.829	118.243	-13.742	1.00	45.05	C	ATOM	19263	O5*	A A 923	193.622	121.749	-11.182	1.00	47.13	O
ATOM	19214	O4	U A 920	181.218	117.125	-14.093	1.00	45.05	O	ATOM	19264	C5*	A A 923	194.005	120.941	-10.062	1.00	47.13	C
ATOM	19215	C5	U A 920	180.097	119.170	-14.550	1.00	45.05	C	ATOM	19265	C4*	A A 923	194.155	119.502	-10.486	1.00	47.13	C



ATOM	19266	O4*	A	A	923	192.847	118.906	-10.665	1.00	47.13	O	ATOM	19316	N7	G	A	925	195.072	118.844	-20.007	1.00	54.42	N
ATOM	19267	C3*	A	A	923	194.877	119.257	-11.804	1.00	47.13	C	ATOM	19317	C5	G	A	925	194.278	118.878	-21.145	1.00	54.42	C
ATOM	19268	O3*	A	A	923	196.285	119.218	-11.659	1.00	47.13	O	ATOM	19318	C6	G	A	925	193.239	119.770	-21.511	1.00	54.42	C
ATOM	19269	C2*	A	A	923	194.310	117.914	-12.225	1.00	47.13	O	ATOM	19319	O6	G	A	925	192.797	120.739	-20.886	1.00	54.42	O
ATOM	19270	O2*	A	A	923	194.903	116.862	-11.483	1.00	47.13	C	ATOM	19320	N1	G	A	925	192.697	119.441	-22.744	1.00	54.42	N
ATOM	19271	C1*	A	A	923	192.849	118.076	-11.810	1.00	47.13	C	ATOM	19321	C2	G	A	925	193.092	118.387	-23.524	1.00	54.42	C
ATOM	19272	N9	A	A	923	192.099	118.785	-12.847	1.00	43.56	N	ATOM	19322	N2	G	A	925	192.427	118.231	-24.677	1.00	54.42	N
ATOM	19273	C8	A	A	923	191.917	120.144	-12.942	1.00	43.56	C	ATOM	19323	N3	G	A	925	194.060	117.548	-23.200	1.00	54.42	N
ATOM	19274	N7	A	A	923	191.207	120.512	-13.976	1.00	43.56	N	ATOM	19324	C4	G	A	925	194.606	117.850	-22.003	1.00	54.42	C
ATOM	19275	C5	A	A	923	190.901	119.316	-14.611	1.00	43.56	C	ATOM	19325	P	G	A	926	201.014	116.732	-22.877	1.00	69.92	P
ATOM	19276	C6	A	A	923	190.171	119.032	-15.764	1.00	43.56	C	ATOM	19326	O1P	G	A	926	202.041	116.458	-21.834	1.00	40.50	O
ATOM	19277	N6	A	A	923	189.591	119.961	-16.512	1.00	43.56	N	ATOM	19327	O2P	G	A	926	200.422	118.098	-23.014	1.00	40.50	O
ATOM	19278	N1	A	A	923	190.048	117.743	-16.125	1.00	43.56	N	ATOM	19328	O5*	G	A	926	201.621	116.364	-24.296	1.00	69.92	O
ATOM	19279	C2	A	A	923	190.627	116.801	-15.361	1.00	43.56	C	ATOM	19329	C5*	G	A	926	200.758	116.175	-25.410	1.00	69.92	C
ATOM	19280	N3	A	A	923	191.338	116.943	-14.250	1.00	43.56	N	ATOM	19330	C4*	G	A	926	201.331	115.146	-26.337	1.00	69.92	C
ATOM	19281	C4	A	A	923	191.441	118.243	-13.925	1.00	43.56	C	ATOM	19331	O4*	G	A	926	202.269	114.288	-25.640	1.00	69.92	O
ATOM	19282	P	C	A	924	197.212	119.762	-12.849	1.00	54.95	P	ATOM	19332	C3*	G	A	926	200.295	114.197	-26.896	1.00	69.92	C
ATOM	19283	O1P	C	A	924	198.599	119.694	-12.325	1.00	40.85	O	ATOM	19333	O3*	G	A	926	199.618	114.780	-27.989	1.00	69.92	O
ATOM	19284	O2P	C	A	924	196.675	121.056	-13.343	1.00	40.85	O	ATOM	19334	C2*	G	A	926	201.129	112.980	-27.269	1.00	69.92	C
ATOM	19285	O5*	C	A	924	197.017	118.667	-13.989	1.00	54.95	O	ATOM	19335	O2*	G	A	926	201.777	113.153	-28.515	1.00	69.92	O
ATOM	19286	C5*	C	A	924	197.438	117.311	-13.771	1.00	54.95	C	ATOM	19336	C1*	G	A	926	202.183	112.975	-26.161	1.00	69.92	C
ATOM	19287	C4*	C	A	924	196.944	116.415	-14.879	1.00	54.95	C	ATOM	19337	N9	G	A	926	201.899	112.059	-25.061	1.00	40.50	N
ATOM	19288	O4*	C	A	924	195.494	116.400	-14.881	1.00	54.95	O	ATOM	19338	C8	G	A	926	201.322	112.374	-23.858	1.00	40.50	C
ATOM	19289	C3*	C	A	924	197.323	116.785	-16.305	1.00	54.95	C	ATOM	19339	N7	G	A	926	201.247	111.353	-23.042	1.00	40.50	N
ATOM	19290	O3*	C	A	924	198.614	116.317	-16.650	1.00	54.95	O	ATOM	19340	C5	G	A	926	201.801	110.298	-23.753	1.00	40.50	C
ATOM	19291	C2*	C	A	924	196.250	116.069	-17.109	1.00	54.95	C	ATOM	19341	C6	G	A	926	202.013	108.943	-23.374	1.00	40.50	C
ATOM	19292	O2*	C	A	924	196.530	114.687	-17.271	1.00	54.95	O	ATOM	19342	O6	G	A	926	201.727	108.383	-22.304	1.00	40.50	O
ATOM	19293	C1*	C	A	924	195.026	116.246	-16.209	1.00	54.95	C	ATOM	19343	N1	G	A	926	202.613	108.214	-24.390	1.00	40.50	N
ATOM	19294	N1	C	A	924	194.294	117.463	-16.588	1.00	40.85	N	ATOM	19344	C2	G	A	926	202.947	108.713	-25.621	1.00	40.50	C
ATOM	19295	C2	C	A	924	193.322	117.383	-17.578	1.00	40.85	C	ATOM	19345	N2	G	A	926	203.500	107.829	-26.479	1.00	40.50	N
ATOM	19296	O2	C	A	924	193.049	116.273	-18.059	1.00	40.85	O	ATOM	19346	N3	G	A	926	202.753	109.977	-25.990	1.00	40.50	N
ATOM	19297	N3	C	A	924	192.699	118.513	-17.984	1.00	40.85	N	ATOM	19347	C4	G	A	926	202.188	110.708	-25.010	1.00	40.50	C
ATOM	19298	C4	C	A	924	193.012	119.678	-17.430	1.00	40.85	C	ATOM	19348	P	G	A	927	198.195	115.474	-27.746	1.00	55.17	P
ATOM	19299	N4	C	A	924	192.402	120.771	-17.874	1.00	40.85	N	ATOM	19349	O1P	G	A	927	197.514	114.685	-26.692	1.00	56.82	O
ATOM	19300	C5	C	A	924	193.974	119.780	-16.397	1.00	40.85	C	ATOM	19350	O2P	G	A	927	197.521	115.680	-29.053	1.00	56.82	O
ATOM	19301	C6	C	A	924	194.583	118.661	-16.006	1.00	40.85	C	ATOM	19351	O5*	G	A	927	198.594	116.909	-27.177	1.00	55.17	O
ATOM	19302	P	G	A	925	199.467	117.072	-17.788	1.00	54.76	P	ATOM	19352	C5*	G	A	927	197.657	117.694	-26.428	1.00	55.17	C
ATOM	19303	O1P	G	A	925	200.816	116.477	-17.645	1.00	54.42	O	ATOM	19353	C4*	G	A	927	196.769	118.489	-27.357	1.00	55.17	C
ATOM	19304	O2P	G	A	925	199.311	118.537	-17.746	1.00	54.42	O	ATOM	19354	O4*	G	A	927	195.450	118.537	-26.764	1.00	55.17	O
ATOM	19305	O5*	G	A	925	198.811	116.581	-19.152	1.00	54.76	O	ATOM	19355	C3*	G	A	927	197.135	119.946	-27.588	1.00	55.17	C
ATOM	19306	C5*	G	A	925	198.892	115.197	-19.575	1.00	54.76	C	ATOM	19356	O3*	G	A	927	198.074	120.165	-28.616	1.00	55.17	O
ATOM	19307	C4*	G	A	925	198.229	115.035	-20.920	1.00	54.76	C	ATOM	19357	C2*	G	A	927	195.792	120.579	-27.923	1.00	55.17	C
ATOM	19308	O4*	G	A	925	196.800	115.226	-20.768	1.00	54.76	O	ATOM	19358	O2*	G	A	927	195.381	120.422	-29.265	1.00	55.17	O
ATOM	19309	C3*	G	A	925	198.661	116.077	-21.938	1.00	54.76	C	ATOM	19359	C1*	G	A	927	194.857	119.801	-27.004	1.00	55.17	C
ATOM	19310	O3*	G	A	925	199.832	115.672	-22.636	1.00	54.76	O	ATOM	19360	N9	G	A	927	194.730	120.491	-25.726	1.00	56.82	N
ATOM	19311	C2*	G	A	925	197.444	116.214	-22.848	1.00	54.76	C	ATOM	19361	C8	G	A	927	195.337	120.168	-24.538	1.00	56.82	C
ATOM	19312	O2*	G	A	925	197.402	115.253	-23.886	1.00	54.76	O	ATOM	19362	N7	G	A	927	195.067	121.008	-23.583	1.00	56.82	N
ATOM	19313	C1*	G	A	925	196.291	115.957	-21.874	1.00	54.76	C	ATOM	19363	C5	G	A	927	194.224	121.936	-24.175	1.00	56.82	C
ATOM	19314	N9	G	A	925	195.620	117.159	-21.376	1.00	54.42	N	ATOM	19364	C6	G	A	927	193.611	123.100	-23.638	1.00	56.82	C
ATOM	19315	C8	G	A	925	195.854	117.814	-20.189	1.00	54.42	C	ATOM	19365	O6	G	A	927	193.693	123.559	-22.489	1.00	56.82	O



ATOM	19366	N1	G A 927	192.841	123.750	-24.592	1.00	56.82	N	ATOM	19416	C4	G A 929	196.677	130.310	-25.106	1.00	50.64	C
ATOM	19367	C2	G A 927	192.678	123.341	-25.893	1.00	56.82	C	ATOM	19417	P	C A 930	199.965	132.377	-29.660	1.00	63.86	P
ATOM	19368	N2	G A 927	191.885	124.099	-26.657	1.00	56.82	N	ATOM	19418	O1P	C A 930	200.339	133.205	-30.838	1.00	48.28	O
ATOM	19369	N3	G A 927	193.246	122.268	-26.403	1.00	56.82	N	ATOM	19419	O2P	C A 930	200.769	131.166	-29.306	1.00	48.28	O
ATOM	19370	C4	G A 927	193.999	121.619	-25.495	1.00	56.82	C	ATOM	19420	O5*	C A 930	199.891	133.272	-28.348	1.00	63.86	O
ATOM	19371	P	G A 928	198.919	121.533	-28.624	1.00	51.59	P	ATOM	19421	C5*	C A 930	199.041	134.409	-28.304	1.00	63.86	C
ATOM	19372	O1P	G A 928	199.755	121.523	-29.832	1.00	57.52	O	ATOM	19422	C4*	C A 930	198.983	134.969	-26.911	1.00	63.86	C
ATOM	19373	O2P	G A 928	199.561	121.696	-27.288	1.00	57.52	O	ATOM	19423	O4*	C A 930	198.272	134.075	-26.017	1.00	63.86	O
ATOM	19374	O5*	G A 928	197.839	122.681	-28.838	1.00	51.59	O	ATOM	19424	C3*	C A 930	200.305	135.177	-26.207	1.00	63.86	C
ATOM	19375	C5*	G A 928	197.213	122.867	-30.113	1.00	51.59	C	ATOM	19425	O3*	C A 930	200.966	136.345	-26.605	1.00	63.86	O
ATOM	19376	C4*	G A 928	196.360	124.115	-30.106	1.00	51.59	C	ATOM	19426	C2*	C A 930	199.880	135.280	-24.754	1.00	63.86	C
ATOM	19377	O4*	G A 928	195.284	123.963	-29.142	1.00	51.59	O	ATOM	19427	O2*	C A 930	199.381	136.557	-24.419	1.00	63.86	O
ATOM	19378	C3*	G A 928	197.045	125.402	-29.681	1.00	51.59	C	ATOM	19428	C1*	C A 930	198.744	134.271	-24.597	1.00	63.86	C
ATOM	19379	O3*	G A 928	197.774	126.027	-30.720	1.00	51.59	O	ATOM	19429	N1	C A 930	199.276	133.020	-24.166	1.00	48.28	N
ATOM	19380	C2*	G A 928	195.878	126.256	-29.215	1.00	51.59	C	ATOM	19430	C2	C A 930	199.476	132.932	-22.789	1.00	48.28	C
ATOM	19381	O2*	G A 928	195.175	126.832	-30.296	1.00	51.59	O	ATOM	19431	O2	C A 930	199.184	133.912	-22.079	1.00	48.28	O
ATOM	19382	C1*	G A 928	194.993	125.215	-28.538	1.00	51.59	C	ATOM	19432	N3	C A 930	199.985	131.797	-22.264	1.00	48.28	N
ATOM	19383	N9	G A 928	195.287	125.126	-27.109	1.00	57.52	N	ATOM	19433	C4	C A 930	200.301	130.784	-23.064	1.00	48.28	C
ATOM	19384	C8	G A 928	195.953	124.116	-26.459	1.00	57.52	C	ATOM	19434	N4	C A 930	200.812	129.706	-22.509	1.00	48.28	N
ATOM	19385	N7	G A 928	196.107	124.342	-25.186	1.00	57.52	N	ATOM	19435	C5	C A 930	200.105	130.843	-24.472	1.00	48.28	C
ATOM	19386	C5	G A 928	195.498	125.574	-24.977	1.00	57.52	C	ATOM	19436	C6	C A 930	199.591	131.968	-24.977	1.00	48.28	C
ATOM	19387	C6	G A 928	195.358	126.352	-23.784	1.00	57.52	C	ATOM	19437	P	C A 931	202.563	136.403	-26.506	1.00	66.46	P
ATOM	19388	O6	G A 928	195.764	126.100	-22.640	1.00	57.52	O	ATOM	19438	O1P	C A 931	202.903	137.812	-26.867	1.00	38.66	O
ATOM	19389	N1	G A 928	194.669	127.534	-24.026	1.00	57.52	N	ATOM	19439	O2P	C A 931	203.156	135.273	-27.279	1.00	38.66	O
ATOM	19390	C2	G A 928	194.176	127.922	-25.245	1.00	57.52	C	ATOM	19440	O5*	C A 931	202.897	136.116	-24.973	1.00	66.46	O
ATOM	19391	N2	G A 928	193.527	129.092	-25.270	1.00	57.52	N	ATOM	19441	C5*	C A 931	202.518	137.054	-23.976	1.00	66.46	C
ATOM	19392	N3	G A 928	194.307	127.216	-26.357	1.00	57.52	N	ATOM	19442	C4*	C A 931	202.979	136.618	-22.609	1.00	66.46	C
ATOM	19393	C4	G A 928	194.975	126.063	-26.151	1.00	57.52	C	ATOM	19443	O4*	C A 931	202.332	135.392	-22.194	1.00	66.46	O
ATOM	19394	P	G A 929	198.998	126.998	-30.339	1.00	54.88	P	ATOM	19444	C3*	C A 931	204.440	136.294	-22.369	1.00	66.46	C
ATOM	19395	O1P	G A 929	199.656	127.391	-31.605	1.00	50.64	O	ATOM	19445	O3*	C A 931	205.253	137.461	-22.315	1.00	66.46	O
ATOM	19396	O2P	G A 929	199.796	126.366	-29.254	1.00	50.64	O	ATOM	19446	C2*	C A 931	204.368	135.611	-21.005	1.00	66.46	C
ATOM	19397	O5*	G A 929	198.294	128.288	-29.748	1.00	54.88	O	ATOM	19447	O2*	C A 931	204.306	136.524	-19.932	1.00	66.46	O
ATOM	19398	C5*	G A 929	197.362	129.013	-30.539	1.00	54.88	C	ATOM	19448	C1*	C A 931	203.023	134.891	-21.074	1.00	66.46	C
ATOM	19399	C4*	G A 929	196.816	130.163	-29.750	1.00	54.88	C	ATOM	19449	N1	C A 931	203.223	133.445	-21.189	1.00	38.66	N
ATOM	19400	O4*	G A 929	196.024	129.673	-28.641	1.00	54.88	O	ATOM	19450	C2	C A 931	203.433	132.738	-20.012	1.00	38.66	C
ATOM	19401	C3*	G A 929	197.857	131.024	-29.071	1.00	54.88	C	ATOM	19451	O2	C A 931	203.350	133.341	-18.943	1.00	38.66	O
ATOM	19402	O3*	G A 929	198.449	131.956	-29.926	1.00	54.88	O	ATOM	19452	N3	C A 931	203.712	131.419	-20.063	1.00	38.66	N
ATOM	19403	C2*	G A 929	197.059	131.700	-27.977	1.00	54.88	C	ATOM	19453	C4	C A 931	203.752	130.800	-21.235	1.00	38.66	C
ATOM	19404	O2*	G A 929	196.306	132.787	-28.477	1.00	54.88	O	ATOM	19454	N4	C A 931	204.027	129.512	-21.225	1.00	38.66	N
ATOM	19405	C1*	G A 929	196.132	130.568	-27.551	1.00	54.88	C	ATOM	19455	C5	C A 931	203.508	131.484	-22.463	1.00	38.66	C
ATOM	19406	N9	G A 929	196.681	129.857	-26.404	1.00	50.64	N	ATOM	19456	C6	C A 931	203.247	132.798	-22.395	1.00	38.66	C
ATOM	19407	C8	G A 929	197.294	128.631	-26.387	1.00	50.64	C	ATOM	19457	P	C A 932	206.814	137.339	-21.915	1.00	48.55	P
ATOM	19408	N7	G A 929	197.668	128.265	-25.188	1.00	50.64	N	ATOM	19458	O1P	C A 932	207.490	138.561	-22.420	1.00	41.81	O
ATOM	19409	C5	G A 929	197.277	129.317	-24.369	1.00	50.64	C	ATOM	19459	O2P	C A 932	207.337	135.990	-22.295	1.00	41.81	O
ATOM	19410	C6	G A 929	197.408	129.496	-22.966	1.00	50.64	C	ATOM	19460	O5*	C A 932	206.779	137.448	-20.327	1.00	48.55	O
ATOM	19411	O6	G A 929	197.918	128.739	-22.133	1.00	50.64	O	ATOM	19461	C5*	C A 932	207.917	137.110	-19.561	1.00	48.55	C
ATOM	19412	N1	G A 929	196.872	130.708	-22.558	1.00	50.64	N	ATOM	19462	C4*	C A 932	207.511	136.687	-18.180	1.00	48.55	C
ATOM	19413	C2	G A 929	196.289	131.630	-23.381	1.00	50.64	C	ATOM	19463	O4*	C A 932	206.508	135.646	-18.234	1.00	48.55	O
ATOM	19414	N2	G A 929	195.815	132.728	-22.794	1.00	50.64	N	ATOM	19464	C3*	C A 932	208.689	136.068	-17.466	1.00	48.55	C
ATOM	19415	N3	G A 929	196.170	131.485	-24.682	1.00	50.64	N	ATOM	19465	O3*	C A 932	209.456	137.095	-16.874	1.00	48.55	O



ATOM	19466	C A 932	C2*	208.053	135.081	-16.500	1.00	48.55	C	ATOM	19516	C4	C A 934	223.097	133.353	-16.999	1.00	58.71	C
ATOM	19467	C A 932	O2*	207.699	135.657	-15.263	1.00	48.55	O	ATOM	19517	N4	C A 934	224.184	133.843	-17.597	1.00	58.71	N
ATOM	19468	C A 932	C1*	206.810	134.641	-17.284	1.00	48.55	C	ATOM	19518	C5	C A 934	222.805	133.703	-15.652	1.00	58.71	C
ATOM	19469	C A 932	N1	207.001	133.383	-18.017	1.00	41.81	N	ATOM	19519	C6	C A 934	221.697	133.190	-15.109	1.00	58.71	C
ATOM	19470	C A 932	C2	207.319	132.201	-17.304	1.00	41.81	C	ATOM	19520	P	C A 935	216.534	129.191	-13.456	1.00	57.28	P
ATOM	19471	C A 932	O2	207.439	132.252	-16.074	1.00	41.81	O	ATOM	19521	OlP	A A 935	215.455	130.199	-13.328	1.00	36.63	O
ATOM	19472	C A 932	N3	207.485	131.040	-17.987	1.00	41.81	N	ATOM	19522	O2P	A A 935	216.889	128.363	-12.283	1.00	36.63	O
ATOM	19473	C A 932	C4	207.341	131.026	-19.314	1.00	41.81	C	ATOM	19523	O5*	A A 935	216.168	128.238	-14.670	1.00	57.28	O
ATOM	19474	C A 932	N4	207.479	129.871	-19.940	1.00	41.81	N	ATOM	19524	C5*	A A 935	215.572	126.962	-14.459	1.00	57.28	C
ATOM	19475	C A 932	C5	207.037	132.206	-20.058	1.00	41.81	C	ATOM	19525	C4*	A A 935	215.095	126.411	-15.770	1.00	57.28	C
ATOM	19476	C A 932	C6	206.876	133.349	-19.377	1.00	41.81	C	ATOM	19526	O4*	A A 935	213.975	127.196	-16.249	1.00	57.28	O
ATOM	19477	G A 933	P	210.997	137.249	-17.274	1.00	51.40	P	ATOM	19527	C3*	A A 935	216.101	126.526	-16.896	1.00	57.28	C
ATOM	19478	G A 933	OlP	211.423	138.601	-16.860	1.00	34.76	O	ATOM	19528	O3*	A A 935	217.093	125.522	-16.863	1.00	57.28	O
ATOM	19479	G A 933	O2P	211.213	136.839	-18.688	1.00	34.76	O	ATOM	19529	C2*	A A 935	215.216	126.470	-18.126	1.00	57.28	C
ATOM	19480	G A 933	O5*	211.665	136.177	-16.307	1.00	51.40	O	ATOM	19530	O2*	A A 935	214.790	125.159	-18.421	1.00	57.28	O
ATOM	19481	G A 933	C5*	211.490	136.287	-14.900	1.00	51.40	C	ATOM	19531	C1*	A A 935	214.016	127.277	-17.660	1.00	57.28	C
ATOM	19482	G A 933	C4*	211.834	134.994	-14.221	1.00	51.40	C	ATOM	19532	N9	A A 935	214.150	128.678	-18.046	1.00	36.63	N
ATOM	19483	G A 933	O4*	210.912	133.973	-14.648	1.00	51.40	O	ATOM	19533	C8	A A 935	214.395	129.773	-17.261	1.00	36.63	C
ATOM	19484	G A 933	C3*	213.199	134.398	-14.513	1.00	51.40	C	ATOM	19534	N7	A A 935	214.427	130.906	-17.928	1.00	36.63	N
ATOM	19485	G A 933	O3*	214.226	135.004	-13.732	1.00	51.40	O	ATOM	19535	C5	A A 935	214.197	130.527	-19.242	1.00	36.63	C
ATOM	19486	G A 933	C2*	212.998	132.930	-14.154	1.00	51.40	C	ATOM	19536	C6	A A 935	214.094	131.263	-20.444	1.00	36.63	C
ATOM	19487	G A 933	O1*	213.177	132.668	-12.779	1.00	51.40	O	ATOM	19537	N6	A A 935	214.206	132.590	-20.525	1.00	36.63	N
ATOM	19488	G A 933	C1*	211.532	132.707	-14.531	1.00	51.40	C	ATOM	19538	N1	A A 935	213.861	130.574	-21.579	1.00	36.63	N
ATOM	19489	G A 933	N9	211.345	131.968	-15.777	1.00	34.76	N	ATOM	19539	C2	A A 935	213.732	129.240	-21.504	1.00	36.63	C
ATOM	19490	G A 933	C8	211.172	132.481	-17.046	1.00	34.76	C	ATOM	19540	N3	A A 935	213.799	128.442	-20.440	1.00	36.63	N
ATOM	19491	G A 933	N7	211.040	131.556	-17.958	1.00	34.76	N	ATOM	19541	C4	A A 935	214.035	129.156	-19.329	1.00	36.63	C
ATOM	19492	G A 933	C5	211.125	130.368	-17.249	1.00	34.76	C	ATOM	19542	P	C A 936	218.555	125.846	-17.453	1.00	47.70	P
ATOM	19493	G A 933	C6	211.040	129.033	-17.699	1.00	34.76	C	ATOM	19543	OlP	C A 936	219.391	124.701	-17.021	1.00	34.61	O
ATOM	19494	G A 933	O6	210.853	128.620	-18.851	1.00	34.76	O	ATOM	19544	O2P	C A 936	218.970	127.230	-17.100	1.00	34.61	O
ATOM	19495	G A 933	N1	211.192	128.131	-16.652	1.00	34.76	N	ATOM	19545	O5*	C A 936	218.323	125.808	-19.028	1.00	47.70	O
ATOM	19496	G A 933	C2	211.392	128.477	-15.339	1.00	34.76	C	ATOM	19546	C5*	C A 936	217.957	124.582	-19.663	1.00	47.70	C
ATOM	19497	G A 933	N2	211.528	127.455	-14.480	1.00	34.76	N	ATOM	19547	C4*	C A 936	217.534	124.831	-21.078	1.00	47.70	C
ATOM	19498	G A 933	N3	211.455	129.724	-14.902	1.00	34.76	N	ATOM	19548	O4*	C A 936	216.463	125.804	-21.094	1.00	47.70	O
ATOM	19499	G A 933	C4	211.316	130.608	-15.903	1.00	34.76	C	ATOM	19549	C3*	C A 936	218.578	125.433	-21.993	1.00	47.70	C
ATOM	19500	C A 934	P	215.511	135.642	-14.462	1.00	47.21	P	ATOM	19550	O3*	C A 936	219.481	124.466	-22.493	1.00	47.70	O
ATOM	19501	C A 934	OlP	216.280	136.373	-13.425	1.00	58.71	O	ATOM	19551	C2*	C A 936	217.723	126.066	-23.085	1.00	47.70	C
ATOM	19502	C A 934	O2P	215.075	136.361	-15.685	1.00	58.71	O	ATOM	19552	O2*	C A 936	217.239	125.157	-24.051	1.00	47.70	O
ATOM	19503	C A 934	O5*	216.365	134.365	-14.874	1.00	47.21	O	ATOM	19553	C1*	C A 936	216.536	126.575	-22.278	1.00	47.70	C
ATOM	19504	C A 934	C5*	216.935	133.506	-13.861	1.00	47.21	C	ATOM	19554	N1	C A 936	216.744	127.985	-21.930	1.00	34.61	N
ATOM	19505	C A 934	C4*	217.528	132.271	-14.494	1.00	47.21	C	ATOM	19555	C2	C A 936	216.648	128.939	-22.959	1.00	34.61	C
ATOM	19506	C A 934	O4*	218.586	132.647	-15.426	1.00	47.21	O	ATOM	19556	O2	C A 936	216.305	128.564	-24.093	1.00	34.61	O
ATOM	19507	C A 934	C3*	218.155	131.254	-13.535	1.00	47.21	C	ATOM	19557	N3	C A 936	216.914	130.235	-22.686	1.00	34.61	N
ATOM	19508	C A 934	O3*	217.837	129.947	-14.006	1.00	47.21	O	ATOM	19558	C4	C A 936	217.226	130.598	-21.441	1.00	34.61	C
ATOM	19509	C A 934	C2*	219.656	131.454	-13.748	1.00	47.21	C	ATOM	19559	N4	C A 936	217.495	131.873	-21.226	1.00	34.61	N
ATOM	19510	C A 934	O2*	220.416	130.290	-13.510	1.00	47.21	O	ATOM	19560	C5	C A 936	217.281	129.658	-20.364	1.00	34.61	C
ATOM	19511	C A 934	C1*	219.673	131.777	-15.235	1.00	47.21	C	ATOM	19561	C6	C A 936	217.045	128.373	-20.652	1.00	34.61	C
ATOM	19512	C A 934	N1	220.881	132.359	-15.821	1.00	58.71	N	ATOM	19562	P	A A 937	220.972	124.911	-22.861	1.00	47.09	P
ATOM	19513	C A 934	C2	221.186	132.030	-17.139	1.00	58.71	C	ATOM	19563	OlP	A A 937	221.615	123.728	-23.481	1.00	57.05	O
ATOM	19514	C A 934	O2	220.416	131.271	-17.763	1.00	58.71	O	ATOM	19564	O2P	A A 937	221.584	125.527	-21.653	1.00	57.05	O
ATOM	19515	C A 934	N3	222.305	132.543	-17.704	1.00	58.71	N	ATOM	19565	O5*	A A 937	220.786	126.047	-23.970	1.00	47.09	O



Table 2. Sheet 197/520

ATOM	19566	C5*	A A 937	220.499	125.708	-25.334	1.00	47.09	C	ATOM	19616	O2*	G A 939	230.409	134.232	-22.043	1.00	63.18	O
ATOM	19567	C4*	A A 937	220.244	126.953	-26.144	1.00	47.09	C	ATOM	19617	C1*	G A 939	228.471	132.953	-22.516	1.00	63.18	C
ATOM	19568	O4*	A A 937	219.246	127.746	-25.445	1.00	47.09	C	ATOM	19618	N9	G A 939	227.806	131.832	-21.858	1.00	54.17	N
ATOM	19569	C3*	A A 937	221.406	127.921	-26.324	1.00	47.09	O	ATOM	19619	C8	G A 939	227.330	130.672	-22.417	1.00	54.17	C
ATOM	19570	O3*	A A 937	222.307	127.563	-27.364	1.00	47.09	O	ATOM	19620	N7	G A 939	226.801	129.861	-21.540	1.00	54.17	N
ATOM	19571	C2*	A A 937	220.687	129.242	-26.582	1.00	47.09	C	ATOM	19621	C5	G A 939	226.932	130.532	-20.334	1.00	54.17	C
ATOM	19572	O2*	A A 937	220.160	129.355	-27.888	1.00	47.09	O	ATOM	19622	C6	G A 939	226.528	130.164	-19.030	1.00	54.17	C
ATOM	19573	C1*	A A 937	219.512	129.134	-25.615	1.00	47.09	C	ATOM	19623	O6	G A 939	225.923	129.155	-18.671	1.00	54.17	O
ATOM	19574	N9	A A 937	219.880	129.699	-24.314	1.00	57.05	N	ATOM	19624	N1	G A 939	226.878	131.127	-18.096	1.00	54.17	N
ATOM	19575	C8	A A 937	220.200	129.018	-23.162	1.00	57.05	C	ATOM	19625	C2	G A 939	227.511	132.305	-18.380	1.00	54.17	C
ATOM	19576	N7	A A 937	220.522	129.799	-22.161	1.00	57.05	N	ATOM	19626	N2	G A 939	227.787	133.101	-17.340	1.00	54.17	N
ATOM	19577	C5	A A 937	220.394	131.084	-22.682	1.00	57.05	C	ATOM	19627	N3	G A 939	227.858	132.677	-19.594	1.00	54.17	N
ATOM	19578	C6	A A 937	220.585	132.355	-22.119	1.00	57.05	C	ATOM	19628	C4	G A 939	227.549	131.746	-20.515	1.00	54.17	C
ATOM	19579	N6	A A 937	220.933	132.553	-20.854	1.00	57.05	N	ATOM	19629	P	C A 940	233.070	132.113	-23.592	1.00	48.08	P
ATOM	19580	N1	A A 937	220.396	133.429	-22.908	1.00	57.05	N	ATOM	19630	O1P	C A 940	234.208	132.777	-24.281	1.00	52.17	O
ATOM	19581	C2	A A 937	220.031	133.232	-24.175	1.00	57.05	C	ATOM	19631	O2P	C A 940	232.769	130.688	-23.870	1.00	52.17	O
ATOM	19582	N3	A A 937	219.804	132.089	-24.818	1.00	57.05	N	ATOM	19632	O5*	C A 940	233.271	132.217	-22.018	1.00	48.08	O
ATOM	19583	C4	A A 937	220.005	131.037	-24.005	1.00	57.05	C	ATOM	19633	C5*	C A 940	233.969	133.319	-21.445	1.00	48.08	C
ATOM	19584	P	A A 938	223.897	127.612	-27.082	1.00	48.96	P	ATOM	19634	C4*	C A 940	233.833	133.306	-19.943	1.00	48.08	C
ATOM	19585	O1P	A A 938	224.594	127.036	-28.268	1.00	50.23	O	ATOM	19635	O4*	C A 940	232.425	133.385	-19.582	1.00	48.08	O
ATOM	19586	O2P	A A 938	224.166	127.044	-25.725	1.00	50.23	O	ATOM	19636	C3*	C A 940	234.311	132.071	-19.204	1.00	48.08	C
ATOM	19587	O5*	A A 938	224.225	129.165	-27.005	1.00	48.96	O	ATOM	19637	O3*	C A 940	235.698	132.022	-18.990	1.00	48.08	O
ATOM	19588	C5*	A A 938	224.267	129.971	-28.184	1.00	48.96	C	ATOM	19638	C2*	C A 940	233.566	132.184	-17.885	1.00	48.08	C
ATOM	19589	C4*	A A 938	224.681	131.368	-27.821	1.00	48.96	C	ATOM	19639	O2*	C A 940	234.174	133.089	-16.987	1.00	48.08	O
ATOM	19590	O4*	A A 938	223.713	131.874	-26.874	1.00	48.96	O	ATOM	19640	C1*	C A 940	232.217	132.731	-18.345	1.00	48.08	C
ATOM	19591	C3*	A A 938	226.011	131.471	-27.093	1.00	48.96	C	ATOM	19641	N1	C A 940	231.294	131.605	-18.532	1.00	52.17	N
ATOM	19592	O3*	A A 938	227.112	131.574	-27.981	1.00	48.96	O	ATOM	19642	O2	C A 940	230.652	131.098	-17.407	1.00	52.17	O
ATOM	19593	C2*	A A 938	225.835	132.725	-26.253	1.00	48.96	C	ATOM	19643	C2	C A 940	230.783	131.693	-16.324	1.00	52.17	C
ATOM	19594	O2*	A A 938	226.029	133.893	-27.030	1.00	48.96	O	ATOM	19644	N3	C A 940	229.900	129.985	-17.519	1.00	52.17	N
ATOM	19595	C1*	A A 938	224.363	132.620	-25.864	1.00	48.96	C	ATOM	19645	C4	C A 940	229.047	128.277	-18.748	1.00	52.17	C
ATOM	19596	N9	A A 938	224.154	131.915	-24.605	1.00	50.23	N	ATOM	19646	N4	C A 940	230.344	129.935	-19.884	1.00	52.17	N
ATOM	19597	C8	A A 938	223.797	130.598	-24.447	1.00	50.23	C	ATOM	19647	C5	C A 940	231.099	131.030	-19.754	1.00	52.17	C
ATOM	19598	N7	A A 938	223.661	130.231	-23.197	1.00	50.23	N	ATOM	19648	C6	C A 940	236.404	130.593	-18.761	1.00	40.13	C
ATOM	19599	C5	A A 938	223.952	131.383	-22.481	1.00	50.23	C	ATOM	19649	P	G A 941	237.879	130.853	-18.652	1.00	54.41	P
ATOM	19600	C6	A A 938	223.982	131.654	-21.104	1.00	50.23	C	ATOM	19650	O1P	G A 941	235.894	129.628	-19.787	1.00	54.41	O
ATOM	19601	N6	A A 938	223.697	130.748	-20.173	1.00	50.23	N	ATOM	19651	O2P	G A 941	235.893	130.132	-17.323	1.00	40.13	O
ATOM	19602	N1	A A 938	224.317	132.901	-20.714	1.00	50.23	N	ATOM	19652	O5*	G A 941	236.508	130.665	-16.154	1.00	40.13	O
ATOM	19603	C2	A A 938	224.597	133.809	-21.655	1.00	50.23	C	ATOM	19653	C5*	G A 941	235.836	130.158	-14.918	1.00	40.13	C
ATOM	19604	N3	A A 938	224.596	133.679	-22.984	1.00	50.23	N	ATOM	19654	C4*	G A 941	234.417	130.400	-15.039	1.00	40.13	C
ATOM	19605	C4	A A 938	224.262	132.427	-23.336	1.00	50.23	C	ATOM	19655	O4*	G A 941	235.920	128.673	-14.643	1.00	40.13	O
ATOM	19606	P	G A 939	228.457	130.764	-27.658	1.00	63.18	P	ATOM	19656	C3*	G A 941	237.108	128.272	-14.008	1.00	40.13	C
ATOM	19607	O1P	G A 939	229.384	131.145	-28.737	1.00	54.17	O	ATOM	19657	O3*	G A 941	234.739	128.448	-13.720	1.00	40.13	O
ATOM	19608	O2P	G A 939	228.129	129.335	-27.451	1.00	54.17	O	ATOM	19658	C2*	G A 941	235.038	128.773	-12.374	1.00	40.13	O
ATOM	19609	O5*	G A 939	228.956	131.336	-26.248	1.00	63.18	O	ATOM	19659	O2*	G A 941	233.710	129.409	-14.309	1.00	40.13	O
ATOM	19610	C5*	G A 939	229.286	132.726	-26.100	1.00	63.18	C	ATOM	19660	C1*	G A 941	232.833	128.681	-15.216	1.00	54.41	N
ATOM	19611	C4*	G A 939	229.430	133.130	-24.635	1.00	63.18	C	ATOM	19661	N9	G A 941	232.906	128.611	-16.582	1.00	54.41	C
ATOM	19612	O4*	G A 939	228.186	132.958	-23.904	1.00	63.18	O	ATOM	19662	C8	G A 941	232.031	127.793	-17.097	1.00	54.41	N
ATOM	19613	C3*	G A 939	230.467	132.476	-23.727	1.00	63.18	C	ATOM	19663	N7	G A 941	231.331	127.307	-16.003	1.00	54.41	C
ATOM	19614	O3*	G A 939	231.775	133.010	-23.926	1.00	63.18	O	ATOM	19664	C5	G A 941	230.284	126.365	-15.930	1.00	54.41	C
ATOM	19615	C2*	G A 939	229.988	132.918	-22.346	1.00	63.18	C	ATOM	19665	C6	G A 941						



Table 2: Sheet 198/520

ATOM	19666	O6	G A 941	229.764	125.719	-16.845	1.00	54.41	O	ATOM	19716	O1P	G A 944	234.698	115.834	-7.127	1.00	49.84	O
ATOM	19667	N1	G A 941	229.845	126.190	-14.625	1.00	54.41	N	ATOM	19717	O2P	G A 944	235.858	116.867	-9.184	1.00	49.84	O
ATOM	19668	C2	G A 941	230.349	126.833	-13.534	1.00	54.41	C	ATOM	19718	O5*	G A 944	233.685	115.680	-9.437	1.00	47.47	O
ATOM	19669	N2	G A 941	229.757	126.571	-12.371	1.00	54.41	N	ATOM	19719	C5*	G A 944	232.592	114.895	-8.945	1.00	47.47	C
ATOM	19670	N3	G A 941	231.351	127.684	-13.581	1.00	54.41	N	ATOM	19720	C4*	G A 944	232.159	113.896	-9.987	1.00	47.47	C
ATOM	19671	C4	G A 941	231.790	127.873	-14.841	1.00	54.41	C	ATOM	19721	O4*	G A 944	231.570	114.577	-11.124	1.00	47.47	O
ATOM	19672	P	G A 942	237.656	126.783	-14.264	1.00	47.28	P	ATOM	19722	C3*	G A 944	233.281	113.067	-10.571	1.00	47.47	C
ATOM	19673	O1P	G A 942	238.961	126.634	-13.569	1.00	62.96	O	ATOM	19723	O3*	G A 944	233.539	111.960	-9.728	1.00	47.47	O
ATOM	19674	O2P	G A 942	237.577	126.576	-15.733	1.00	62.96	O	ATOM	19724	C2*	G A 944	232.706	112.664	-11.920	1.00	47.47	C
ATOM	19675	O5*	G A 942	236.579	125.824	-13.577	1.00	47.28	O	ATOM	19725	O2*	G A 944	231.783	111.605	-11.783	1.00	47.47	O
ATOM	19676	C5*	G A 942	236.300	125.951	-12.185	1.00	47.28	C	ATOM	19726	C1*	G A 944	231.937	113.924	-12.319	1.00	47.47	C
ATOM	19677	C4*	G A 942	235.038	125.204	-11.781	1.00	47.28	C	ATOM	19727	N9	G A 944	232.767	114.850	-13.081	1.00	49.84	N
ATOM	19678	O4*	G A 942	233.902	125.483	-12.648	1.00	47.28	O	ATOM	19728	C8	G A 944	233.527	115.869	-12.570	1.00	49.84	C
ATOM	19679	C3*	G A 942	235.000	123.690	-11.718	1.00	47.28	C	ATOM	19729	N7	G A 944	234.211	116.503	-13.476	1.00	49.84	N
ATOM	19680	O3*	G A 942	235.718	123.151	-10.606	1.00	47.28	O	ATOM	19730	C5	G A 944	233.875	115.873	-14.661	1.00	49.84	C
ATOM	19681	C2*	G A 942	233.507	123.462	-11.492	1.00	47.28	C	ATOM	19731	C6	G A 944	234.319	116.115	-15.971	1.00	49.84	C
ATOM	19682	O2*	G A 942	233.134	123.667	-10.147	1.00	47.28	O	ATOM	19732	O6	G A 944	235.139	116.949	-16.358	1.00	49.84	O
ATOM	19683	C1*	G A 942	232.863	124.584	-12.308	1.00	47.28	C	ATOM	19733	N1	G A 944	233.720	115.257	-16.882	1.00	49.84	N
ATOM	19684	N9	G A 942	232.233	124.015	-13.496	1.00	62.96	N	ATOM	19734	C2	G A 944	232.821	114.280	-16.570	1.00	49.84	C
ATOM	19685	C8	G A 942	232.507	124.248	-14.819	1.00	62.96	C	ATOM	19735	N2	G A 944	232.360	113.556	-17.596	1.00	49.84	N
ATOM	19686	N7	G A 942	231.825	123.476	-15.624	1.00	62.96	N	ATOM	19736	N3	G A 944	232.405	114.030	-15.341	1.00	49.84	N
ATOM	19687	C5	G A 942	231.041	122.704	-14.779	1.00	62.96	C	ATOM	19737	C4	G A 944	232.971	114.862	-14.440	1.00	49.84	C
ATOM	19688	O6	G A 942	230.119	121.660	-15.064	1.00	62.96	O	ATOM	19738	P	G A 945	234.928	111.877	-8.931	1.00	44.33	P
ATOM	19689	C6	G A 942	229.822	121.170	-16.154	1.00	62.96	C	ATOM	19739	O1P	G A 945	234.941	110.607	-8.138	1.00	56.85	O
ATOM	19690	N1	G A 942	229.529	121.167	-13.908	1.00	62.96	N	ATOM	19740	O2P	G A 945	235.130	113.177	-8.233	1.00	56.85	O
ATOM	19691	C2	G A 942	229.798	121.603	-12.639	1.00	62.96	C	ATOM	19741	O5*	G A 945	236.005	111.750	-10.094	1.00	44.33	O
ATOM	19692	N2	G A 942	229.119	121.009	-11.647	1.00	62.96	N	ATOM	19742	C5*	G A 945	235.995	110.633	-11.012	1.00	44.33	C
ATOM	19693	N3	G A 942	230.669	122.551	-12.359	1.00	62.96	N	ATOM	19743	C4*	G A 945	237.314	110.549	-11.745	1.00	44.33	C
ATOM	19694	C4	G A 942	231.251	123.052	-13.469	1.00	62.96	C	ATOM	19744	O4*	G A 945	237.405	111.587	-12.756	1.00	44.33	O
ATOM	19695	P	U A 943	236.036	121.568	-10.552	1.00	43.27	P	ATOM	19745	C3*	G A 945	238.503	110.774	-10.840	1.00	44.33	C
ATOM	19696	O1P	U A 943	236.866	121.248	-9.365	1.00	56.13	O	ATOM	19746	O3*	G A 945	238.890	109.580	-10.220	1.00	44.33	O
ATOM	19697	O2P	U A 943	236.508	121.161	-11.895	1.00	56.13	O	ATOM	19747	C2*	G A 945	239.558	111.318	-11.780	1.00	44.33	C
ATOM	19698	O5*	U A 943	234.609	120.906	-10.310	1.00	43.27	O	ATOM	19748	O2*	G A 945	240.214	110.277	-12.477	1.00	44.33	O
ATOM	19699	C5*	U A 943	233.960	120.986	-9.024	1.00	43.27	C	ATOM	19749	C1*	G A 945	238.710	112.145	-12.752	1.00	44.33	C
ATOM	19700	C4*	U A 943	232.837	119.984	-8.942	1.00	43.27	C	ATOM	19750	N9	G A 945	238.586	113.561	-12.400	1.00	56.85	N
ATOM	19701	O4*	U A 943	231.803	120.339	-9.895	1.00	43.27	O	ATOM	19751	C8	G A 945	237.438	114.306	-12.453	1.00	56.85	C
ATOM	19702	C3*	U A 943	233.210	118.555	-9.299	1.00	43.27	C	ATOM	19752	N7	G A 945	237.610	115.546	-12.091	1.00	56.85	N
ATOM	19703	O3*	U A 943	233.754	117.860	-8.199	1.00	43.27	O	ATOM	19753	C5	G A 945	238.958	115.631	-11.781	1.00	56.85	C
ATOM	19704	C2*	U A 943	231.878	117.971	-9.727	1.00	43.27	C	ATOM	19754	C6	G A 945	239.726	116.739	-11.338	1.00	56.85	C
ATOM	19705	O2*	U A 943	231.065	117.625	-8.630	1.00	43.27	O	ATOM	19755	O6	G A 945	239.353	117.898	-11.134	1.00	56.85	O
ATOM	19706	C1*	U A 943	231.243	119.160	-10.441	1.00	43.27	C	ATOM	19756	N1	G A 945	241.055	116.393	-11.134	1.00	56.85	N
ATOM	19707	N1	U A 943	231.568	119.095	-11.871	1.00	56.13	N	ATOM	19757	C2	G A 945	241.578	115.145	-11.327	1.00	56.85	C
ATOM	19708	C2	U A 943	230.917	118.134	-12.613	1.00	56.13	C	ATOM	19758	N2	G A 945	242.883	115.008	-11.052	1.00	56.85	N
ATOM	19709	O2	U A 943	230.085	117.385	-12.139	1.00	56.13	O	ATOM	19759	N3	G A 945	240.875	114.101	-11.750	1.00	56.85	N
ATOM	19710	N3	U A 943	231.275	118.076	-13.928	1.00	56.13	N	ATOM	19760	C4	G A 945	239.578	114.416	-11.957	1.00	56.85	C
ATOM	19711	O4	U A 943	232.189	118.863	-14.564	1.00	56.13	O	ATOM	19761	P	G A 946	239.323	109.621	-8.686	1.00	51.44	P
ATOM	19712	C4	U A 943	232.379	118.700	-15.763	1.00	56.13	C	ATOM	19762	O1P	A A 946	239.653	108.248	-8.202	1.00	47.02	O
ATOM	19713	C5	U A 943	232.818	119.845	-13.734	1.00	56.13	C	ATOM	19763	O2P	A A 946	238.290	110.431	-7.970	1.00	47.02	O
ATOM	19714	C6	U A 943	232.492	119.926	-12.450	1.00	56.13	C	ATOM	19764	O5*	A A 946	240.647	110.496	-8.732	1.00	51.44	O
ATOM	19715	P	G A 944	234.607	116.523	-8.450	1.00	47.47	P	ATOM	19765	C5*	A A 946	241.879	109.946	-9.190	1.00	51.44	C



ATOM	19766	C4*	A A 946	243.026	110.768	-8.665	1.00	51.44	C	ATOM	19816	O2*	C A 948	242.866	116.781	3.202	1.00	49.34	O
ATOM	19767	O4*	A A 946	242.957	112.112	-9.203	1.00	51.44	O	ATOM	19817	C1*	C A 948	242.769	115.739	1.066	1.00	49.34	C
ATOM	19768	C3*	A A 946	243.061	110.946	-7.159	1.00	51.44	C	ATOM	19818	N1	C A 948	241.690	115.305	0.174	1.00	61.01	N
ATOM	19769	O3*	A A 946	243.737	109.855	-6.560	1.00	51.44	O	ATOM	19819	C2	C A 948	240.658	116.199	-0.089	1.00	61.01	C
ATOM	19770	C2*	A A 946	243.849	112.235	-7.000	1.00	51.44	C	ATOM	19820	O2	C A 948	240.701	117.337	0.421	1.00	61.01	O
ATOM	19771	O2*	A A 946	245.239	111.995	-7.078	1.00	51.44	O	ATOM	19821	N3	C A 948	239.636	115.807	-0.878	1.00	61.01	N
ATOM	19772	C1*	A A 946	243.422	113.027	-8.238	1.00	51.44	C	ATOM	19822	C4	C A 948	239.619	114.577	-1.387	1.00	61.01	C
ATOM	19773	N9	A A 946	242.383	114.036	-8.026	1.00	47.02	N	ATOM	19823	N4	C A 948	238.580	114.234	-2.141	1.00	61.01	N
ATOM	19774	C8	A A 946	241.084	114.000	-8.455	1.00	47.02	C	ATOM	19824	C5	C A 948	240.664	113.648	-1.142	1.00	61.01	C
ATOM	19775	N7	A A 946	240.416	115.100	-8.208	1.00	47.02	N	ATOM	19825	C6	C A 948	241.674	114.050	-0.369	1.00	61.01	C
ATOM	19776	C5	A A 946	241.330	115.905	-7.549	1.00	47.02	C	ATOM	19826	P	A A 949	241.668	113.843	5.289	1.00	45.67	P
ATOM	19777	C6	A A 946	241.242	117.207	-7.036	1.00	47.02	C	ATOM	19827	O1P	A A 949	242.182	113.663	6.677	1.00	54.89	O
ATOM	19778	N6	A A 946	240.159	117.969	-7.144	1.00	47.02	N	ATOM	19828	O2P	A A 949	240.969	112.707	4.615	1.00	54.89	O
ATOM	19779	N1	A A 946	242.322	117.713	-6.409	1.00	47.02	N	ATOM	19829	O5*	A A 949	240.717	115.123	5.312	1.00	45.67	O
ATOM	19780	C2	A A 946	243.417	116.958	-6.324	1.00	47.02	C	ATOM	19830	C5*	A A 949	241.147	116.327	5.962	1.00	45.67	C
ATOM	19781	N3	A A 946	243.632	115.726	-6.787	1.00	47.02	N	ATOM	19831	C4*	A A 949	240.048	117.361	5.963	1.00	45.67	C
ATOM	19782	C4	A A 946	242.535	115.251	-7.399	1.00	47.02	C	ATOM	19832	O4*	A A 949	239.810	117.858	4.619	1.00	45.67	O
ATOM	19783	P	G A 947	243.254	109.301	-5.136	1.00	49.92	P	ATOM	19833	C3*	A A 949	238.689	116.904	6.461	1.00	45.67	C
ATOM	19784	O1P	G A 947	243.938	108.011	-4.885	1.00	50.64	O	ATOM	19834	O3*	A A 949	238.576	116.941	7.875	1.00	45.67	O
ATOM	19785	O2P	G A 947	241.764	109.350	-5.123	1.00	50.64	O	ATOM	19835	C2*	A A 949	237.759	117.909	5.809	1.00	45.67	C
ATOM	19786	O5*	G A 947	243.832	110.364	-4.973	1.00	49.92	O	ATOM	19836	O2*	A A 949	237.753	119.128	6.526	1.00	45.67	O
ATOM	19787	C5*	G A 947	245.244	110.403	-3.078	1.00	49.92	C	ATOM	19837	C1*	A A 949	238.426	118.101	4.447	1.00	45.67	C
ATOM	19788	C4*	G A 947	245.591	111.660	-3.011	1.00	49.92	C	ATOM	19838	N9	A A 949	237.920	117.124	3.480	1.00	54.89	N
ATOM	19789	O4*	G A 947	245.328	112.815	-3.838	1.00	49.92	O	ATOM	19839	C8	A A 949	238.512	115.938	3.107	1.00	54.89	C
ATOM	19790	C3*	G A 947	244.800	111.919	-1.740	1.00	49.92	C	ATOM	19840	N7	A A 949	237.838	115.269	2.211	1.00	54.89	N
ATOM	19791	O3*	G A 947	245.328	111.228	-0.617	1.00	49.92	O	ATOM	19841	C5	A A 949	236.725	116.060	1.972	1.00	54.89	C
ATOM	19792	C2*	G A 947	244.898	113.428	-1.580	1.00	49.92	C	ATOM	19842	C6	A A 949	235.638	115.907	1.110	1.00	54.89	C
ATOM	19793	O2*	G A 947	246.103	113.851	-0.978	1.00	49.92	O	ATOM	19843	N6	A A 949	235.493	114.860	0.300	1.00	54.89	N
ATOM	19794	C1*	G A 947	244.878	113.888	-3.032	1.00	49.92	C	ATOM	19844	N1	A A 949	234.694	116.872	1.106	1.00	54.89	N
ATOM	19795	N9	G A 947	243.540	114.251	-3.470	1.00	50.64	N	ATOM	19845	C2	A A 949	234.847	117.916	1.928	1.00	54.89	C
ATOM	19796	C8	G A 947	242.656	113.460	-4.156	1.00	50.64	C	ATOM	19846	N3	A A 949	235.831	118.178	2.784	1.00	54.89	N
ATOM	19797	N7	G A 947	241.541	114.067	-4.437	1.00	50.64	N	ATOM	19847	C4	A A 949	236.754	117.200	2.755	1.00	54.89	C
ATOM	19798	C5	G A 947	241.695	115.335	-3.898	1.00	50.64	C	ATOM	19848	P	U A 950	237.799	115.760	8.630	1.00	52.36	P
ATOM	19799	C6	G A 947	240.818	116.442	-3.904	1.00	50.64	C	ATOM	19849	O1P	U A 950	237.994	115.948	10.090	1.00	48.50	O
ATOM	19800	O6	G A 947	239.690	116.532	-4.412	1.00	50.64	O	ATOM	19850	O2P	U A 950	238.206	114.477	8.000	1.00	48.50	O
ATOM	19801	N1	G A 947	241.369	117.532	-3.245	1.00	50.64	N	ATOM	19851	O5*	U A 950	236.270	116.016	8.263	1.00	52.36	O
ATOM	19802	C2	G A 947	242.607	117.556	-2.662	1.00	50.64	C	ATOM	19852	C5*	U A 950	235.652	117.270	8.573	1.00	52.36	C
ATOM	19803	N2	G A 947	242.966	118.717	-2.091	1.00	50.64	N	ATOM	19853	C4*	U A 950	234.388	117.466	7.767	1.00	52.36	C
ATOM	19804	N3	G A 947	243.435	116.524	-2.647	1.00	50.64	N	ATOM	19854	O4*	U A 950	234.700	117.531	6.353	1.00	52.36	O
ATOM	19805	C4	G A 947	242.918	115.458	-3.285	1.00	50.64	C	ATOM	19855	C3*	U A 950	233.311	116.397	7.837	1.00	52.36	C
ATOM	19806	P	C A 948	244.317	110.663	0.498	1.00	49.34	P	ATOM	19856	O3*	U A 950	232.515	116.456	9.000	1.00	52.36	O
ATOM	19807	O1P	C A 948	245.117	109.917	1.508	1.00	61.01	O	ATOM	19857	C2*	U A 950	232.495	116.703	6.595	1.00	52.36	C
ATOM	19808	O2P	C A 948	243.214	109.957	-0.223	1.00	61.01	O	ATOM	19858	O2*	U A 950	231.679	117.846	6.777	1.00	52.36	O
ATOM	19809	O5*	C A 948	243.767	111.999	1.184	1.00	49.34	O	ATOM	19859	C1*	U A 950	233.598	117.045	5.598	1.00	52.36	C
ATOM	19810	C5*	C A 948	244.640	112.795	2.014	1.00	49.34	C	ATOM	19860	N1	U A 950	234.007	115.848	4.837	1.00	48.50	N
ATOM	19811	C4*	C A 948	244.083	114.191	2.230	1.00	49.34	C	ATOM	19861	C2	U A 950	233.215	115.475	3.765	1.00	48.50	C
ATOM	19812	O4*	C A 948	243.852	114.835	0.952	1.00	49.34	O	ATOM	19862	O2	U A 950	232.240	116.112	3.413	1.00	48.50	O
ATOM	19813	C3*	C A 948	242.762	114.337	2.965	1.00	49.34	C	ATOM	19863	N3	U A 950	233.604	114.334	3.119	1.00	48.50	N
ATOM	19814	O3*	C A 948	242.913	114.296	4.372	1.00	49.34	O	ATOM	19864	C4	U A 950	234.682	113.542	3.417	1.00	48.50	C
ATOM	19815	C2*	C A 948	242.282	115.706	2.509	1.00	49.34	C	ATOM	19865	O4	U A 950	234.878	112.509	2.766	1.00	48.50	O



ATOM	19866	C5	U A 950	235.466	114.000	4.522	1.00	48.50	C	ATOM	19916	C4*	G A 953	222.859	105.716	3.524	1.00	53.01	C
ATOM	19867	C6	U A 950	235.111	115.111	5.177	1.00	48.50	C	ATOM	19917	O4*	G A 953	224.047	106.179	2.824	1.00	53.01	O
ATOM	19868	P	G A 951	232.000	115.085	9.657	1.00	53.01	P	ATOM	19918	C3*	G A 953	223.228	104.315	3.983	1.00	53.01	C
ATOM	19869	O1P	G A 951	231.707	115.368	11.081	1.00	52.32	O	ATOM	19919	O3*	G A 953	222.100	103.495	4.187	1.00	53.01	O
ATOM	19870	O2P	G A 951	232.946	113.993	9.317	1.00	52.32	O	ATOM	19920	C2*	G A 953	224.100	103.801	2.853	1.00	53.01	C
ATOM	19871	O5*	G A 951	230.632	114.812	8.889	1.00	53.01	O	ATOM	19921	O2*	G A 953	223.342	103.313	1.766	1.00	53.01	O
ATOM	19872	C5*	G A 951	229.541	115.730	9.015	1.00	53.01	C	ATOM	19922	C1*	G A 953	224.842	105.070	2.441	1.00	53.01	C
ATOM	19873	C4*	G A 951	228.509	115.482	7.945	1.00	53.01	C	ATOM	19923	N9	G A 953	226.144	105.171	3.094	1.00	58.45	N
ATOM	19874	O4*	G A 951	229.070	115.769	6.639	1.00	53.01	O	ATOM	19924	C8	G A 953	226.483	105.959	4.166	1.00	58.45	C
ATOM	19875	C3*	G A 951	227.954	114.076	7.798	1.00	53.01	C	ATOM	19925	N7	G A 953	227.724	105.801	4.542	1.00	58.45	N
ATOM	19876	O3*	G A 951	226.943	113.772	8.734	1.00	53.01	O	ATOM	19926	C5	G A 953	228.237	104.859	3.661	1.00	58.45	C
ATOM	19877	C2*	G A 951	227.388	114.128	6.390	1.00	53.01	C	ATOM	19927	C6	G A 953	229.529	104.292	3.574	1.00	58.45	C
ATOM	19878	O1*	G A 951	226.178	114.857	6.346	1.00	53.01	O	ATOM	19928	O6	G A 953	230.516	104.521	4.272	1.00	58.45	O
ATOM	19879	C1*	G A 951	228.455	114.942	5.665	1.00	53.01	C	ATOM	19929	N1	G A 953	229.616	103.373	2.538	1.00	58.45	N
ATOM	19880	N9	G A 951	229.453	114.036	5.102	1.00	52.32	N	ATOM	19930	C2	G A 953	228.593	103.045	1.688	1.00	58.45	C
ATOM	19881	C8	G A 951	230.686	113.725	5.618	1.00	52.32	C	ATOM	19931	N2	G A 953	228.863	102.128	0.752	1.00	58.45	N
ATOM	19882	N7	G A 951	231.316	112.813	4.927	1.00	52.32	N	ATOM	19932	N3	G A 953	227.388	103.574	1.751	1.00	58.45	N
ATOM	19883	C5	G A 951	230.453	112.519	3.882	1.00	52.32	C	ATOM	19933	C4	G A 953	227.279	104.465	2.757	1.00	58.45	C
ATOM	19884	C6	G A 951	230.582	111.594	2.817	1.00	52.32	C	ATOM	19934	P	G A 954	222.138	102.379	5.342	1.00	64.62	P
ATOM	19885	O6	G A 951	231.513	110.826	2.576	1.00	52.32	O	ATOM	19935	O1P	G A 954	220.858	101.616	5.231	1.00	65.09	O
ATOM	19886	N1	G A 951	229.471	111.614	1.986	1.00	52.32	N	ATOM	19936	O2P	G A 954	222.503	103.027	6.637	1.00	65.09	O
ATOM	19887	C2	G A 951	228.380	112.418	2.158	1.00	52.32	C	ATOM	19937	O5*	G A 954	223.327	101.413	4.909	1.00	64.62	O
ATOM	19888	N2	G A 951	227.420	112.294	1.254	1.00	52.32	N	ATOM	19938	C5*	G A 954	223.186	100.561	3.769	1.00	64.62	C
ATOM	19889	N3	G A 951	228.244	113.281	3.143	1.00	52.32	N	ATOM	19939	C4*	G A 954	224.519	99.986	3.375	1.00	64.62	C
ATOM	19890	C4	G A 951	229.309	113.279	3.964	1.00	52.32	C	ATOM	19940	O4*	G A 954	225.469	101.071	3.239	1.00	64.62	O
ATOM	19891	P	U A 952	226.756	112.253	9.231	1.00	50.32	P	ATOM	19941	C3*	G A 954	225.184	99.040	4.360	1.00	64.62	C
ATOM	19892	O1P	U A 952	225.638	112.278	10.214	1.00	52.06	O	ATOM	19942	O3*	G A 954	224.707	97.711	4.230	1.00	64.62	O
ATOM	19893	O2P	U A 952	228.057	111.663	9.621	1.00	52.06	O	ATOM	19943	C2*	G A 954	226.650	99.143	3.965	1.00	64.62	C
ATOM	19894	O5*	U A 952	226.241	111.480	7.941	1.00	50.32	O	ATOM	19944	O2*	G A 954	226.951	98.366	2.826	1.00	64.62	O
ATOM	19895	C5*	U A 952	225.015	111.870	7.307	1.00	50.32	C	ATOM	19945	C1*	G A 954	226.762	100.616	3.583	1.00	64.62	C
ATOM	19896	C4*	U A 952	224.795	111.079	6.045	1.00	50.32	C	ATOM	19946	N9	G A 954	227.272	101.430	4.680	1.00	65.09	N
ATOM	19897	O4*	U A 952	225.820	111.386	5.059	1.00	50.32	O	ATOM	19947	C8	G A 954	226.574	102.307	5.474	1.00	65.09	C
ATOM	19898	C3*	U A 952	224.854	109.567	6.161	1.00	50.32	C	ATOM	19948	N7	G A 954	227.320	102.874	6.386	1.00	65.09	N
ATOM	19899	O3*	U A 952	223.667	108.993	6.667	1.00	50.32	O	ATOM	19949	C5	G A 954	228.583	102.342	6.176	1.00	65.09	C
ATOM	19900	C2*	U A 952	225.084	109.154	4.716	1.00	50.32	C	ATOM	19950	C6	G A 954	229.789	102.573	6.854	1.00	65.09	C
ATOM	19901	O2*	U A 952	223.884	109.186	3.962	1.00	50.32	O	ATOM	19951	O6	G A 954	229.995	103.316	7.811	1.00	65.09	O
ATOM	19902	C1*	U A 952	226.025	110.252	4.228	1.00	50.32	C	ATOM	19952	N1	G A 954	230.831	101.827	6.315	1.00	65.09	N
ATOM	19903	N1	U A 952	227.417	109.785	4.335	1.00	52.06	N	ATOM	19953	C2	G A 954	230.720	100.969	5.254	1.00	65.09	C
ATOM	19904	C2	U A 952	227.919	109.056	3.276	1.00	52.06	C	ATOM	19954	N2	G A 954	231.835	100.346	4.871	1.00	65.09	N
ATOM	19905	O2	U A 952	227.288	108.832	2.277	1.00	52.06	O	ATOM	19955	N3	G A 954	229.595	100.739	4.613	1.00	65.09	N
ATOM	19906	N3	U A 952	229.191	108.588	3.439	1.00	52.06	N	ATOM	19956	C4	G A 954	228.572	101.455	5.124	1.00	65.09	C
ATOM	19907	C4	U A 952	230.001	108.760	4.530	1.00	52.06	C	ATOM	19957	P	U A 955	224.688	96.751	5.519	1.00	59.24	P
ATOM	19908	O4	U A 952	231.096	108.202	4.555	1.00	52.06	O	ATOM	19958	O1P	U A 955	224.097	95.453	5.094	1.00	63.57	O
ATOM	19909	C5	U A 952	229.428	109.543	5.583	1.00	52.06	C	ATOM	19959	O2P	U A 955	224.074	97.500	6.647	1.00	63.57	O
ATOM	19910	C6	U A 952	228.188	110.022	5.451	1.00	52.06	C	ATOM	19960	O5*	U A 955	226.231	96.513	5.848	1.00	59.24	O
ATOM	19911	P	G A 953	223.623	107.414	6.965	1.00	53.01	P	ATOM	19961	C5*	U A 955	227.048	95.679	5.000	1.00	59.24	C
ATOM	19912	O1P	G A 953	222.283	107.104	7.529	1.00	58.45	O	ATOM	19962	C4*	U A 955	228.500	95.757	5.410	1.00	59.24	C
ATOM	19913	O2P	G A 953	224.847	106.998	7.704	1.00	58.45	O	ATOM	19963	O4*	U A 955	228.961	97.125	5.289	1.00	59.24	O
ATOM	19914	O5*	G A 953	223.706	106.747	5.523	1.00	53.01	O	ATOM	19964	C3*	U A 955	228.813	95.391	6.849	1.00	59.24	C
ATOM	19915	C5*	G A 953	222.564	106.672	4.651	1.00	53.01	C	ATOM	19965	O3*	U A 955	228.964	93.996	7.054	1.00	59.24	O



Table 2: Sheet 201/520

ATOM	19966	C2*	U A 955	230.119	96.125	7.090	1.00 59.24	C	ATOM	20016	C6	U A 957	229.926	96.094	15.122	1.00 69.82	C
ATOM	19967	O2*	U A 955	231.197	95.435	6.496	1.00 59.24	O	ATOM	20017	P	A A 958	232.549	93.098	19.022	1.00 71.07	P
ATOM	19968	C1*	U A 955	229.878	97.421	6.328	1.00 59.24	C	ATOM	20018	O1P	A A 958	233.642	92.317	19.669	1.00 78.51	O
ATOM	19969	N1	U A 955	229.287	98.456	7.194	1.00 63.57	N	ATOM	20019	O2P	A A 958	231.557	92.404	18.156	1.00 78.51	O
ATOM	19970	C2	U A 955	230.110	99.080	8.126	1.00 63.57	C	ATOM	20020	O5*	A A 958	231.771	93.895	20.164	1.00 71.07	O
ATOM	19971	O2	U A 955	231.287	98.804	8.264	1.00 63.57	O	ATOM	20021	C5*	A A 958	230.654	93.315	20.864	1.00 71.07	C
ATOM	19972	N3	U A 955	229.498	100.038	8.894	1.00 63.57	N	ATOM	20022	C4*	A A 958	230.079	94.324	21.832	1.00 71.07	C
ATOM	19973	C4	U A 955	228.184	100.432	8.831	1.00 63.57	C	ATOM	20023	O4*	A A 958	231.092	94.652	22.806	1.00 71.07	O
ATOM	19974	O4	U A 955	227.803	101.368	9.531	1.00 63.57	O	ATOM	20024	C3*	A A 958	229.669	95.642	21.195	1.00 71.07	C
ATOM	19975	C5	U A 955	227.397	99.739	7.857	1.00 63.57	C	ATOM	20025	O3*	A A 958	228.296	95.555	20.810	1.00 71.07	O
ATOM	19976	C6	U A 955	227.960	98.801	7.092	1.00 63.57	C	ATOM	20026	C2*	A A 958	229.899	96.666	22.306	1.00 71.07	C
ATOM	19977	P	U A 956	228.798	93.399	8.540	1.00 67.99	P	ATOM	20027	O2*	A A 958	228.785	96.853	23.153	1.00 71.07	O
ATOM	19978	O1P	U A 956	229.088	91.939	8.458	1.00 62.07	O	ATOM	20028	C1*	A A 958	231.045	96.029	23.101	1.00 71.07	C
ATOM	19979	O2P	U A 956	227.496	93.865	9.090	1.00 62.07	O	ATOM	20029	N9	A A 958	232.385	96.570	22.872	1.00 78.51	N
ATOM	19980	O5*	U A 956	229.960	94.103	9.374	1.00 67.99	O	ATOM	20030	C8	A A 958	233.312	96.142	21.955	1.00 78.51	C
ATOM	19981	C5*	U A 956	231.337	93.801	9.113	1.00 67.99	C	ATOM	20031	N7	A A 958	234.453	96.783	22.019	1.00 78.51	N
ATOM	19982	C4*	U A 956	232.231	94.588	10.035	1.00 67.99	C	ATOM	20032	C5	A A 958	234.261	97.704	23.039	1.00 78.51	C
ATOM	19983	O4*	U A 956	232.057	96.005	9.785	1.00 67.99	O	ATOM	20033	C6	A A 958	235.102	98.679	23.603	1.00 78.51	C
ATOM	19984	C3*	U A 956	231.954	94.456	11.522	1.00 67.99	C	ATOM	20034	N6	A A 958	236.350	98.909	23.195	1.00 78.51	N
ATOM	19985	O3*	U A 956	232.507	93.294	12.100	1.00 67.99	O	ATOM	20035	N1	A A 958	234.607	99.425	24.610	1.00 78.51	N
ATOM	19986	C2*	U A 956	232.583	95.719	12.081	1.00 67.99	C	ATOM	20036	N2	A A 958	233.349	99.204	25.013	1.00 78.51	N
ATOM	19987	O2*	U A 956	233.990	95.621	12.207	1.00 67.99	O	ATOM	20037	C3	A A 958	232.463	98.324	24.562	1.00 78.51	C
ATOM	19988	C1*	U A 956	232.234	96.728	10.993	1.00 67.99	C	ATOM	20038	C4	A A 958	232.988	97.593	23.565	1.00 78.51	C
ATOM	19989	N1	U A 956	230.977	97.407	11.335	1.00 62.07	N	ATOM	20039	P	A A 959	227.845	95.965	19.319	1.00 64.56	P
ATOM	19990	C2	U A 956	231.043	98.442	12.254	1.00 62.07	C	ATOM	20040	O1P	A A 959	226.513	95.360	19.030	1.00 69.55	O
ATOM	19991	O2	U A 956	232.084	98.817	12.755	1.00 62.07	O	ATOM	20041	O2P	A A 959	228.988	95.690	18.403	1.00 69.55	O
ATOM	19992	N3	U A 956	229.840	99.017	12.571	1.00 62.07	N	ATOM	20042	O5*	A A 959	227.636	97.539	19.427	1.00 64.56	O
ATOM	19993	C4	U A 956	228.602	98.671	12.077	1.00 62.07	C	ATOM	20043	C5*	A A 959	226.701	98.092	20.369	1.00 64.56	C
ATOM	19994	O4	U A 956	227.600	99.245	12.509	1.00 62.07	O	ATOM	20044	C4*	A A 959	227.088	99.506	20.712	1.00 64.56	C
ATOM	19995	C5	U A 956	228.617	97.604	11.120	1.00 62.07	C	ATOM	20045	O4*	A A 959	228.331	99.491	21.454	1.00 64.56	O
ATOM	19996	C6	U A 956	229.774	97.025	10.789	1.00 62.07	C	ATOM	20046	C3*	A A 959	227.352	100.419	19.523	1.00 64.56	C
ATOM	19997	P	U A 957	231.778	92.631	13.368	1.00 66.40	P	ATOM	20047	O3*	A A 959	226.136	100.994	19.024	1.00 64.56	O
ATOM	19998	O1P	U A 957	232.544	91.400	13.702	1.00 69.82	O	ATOM	20048	C2*	A A 959	228.296	101.470	20.111	1.00 64.56	C
ATOM	19999	O2P	U A 957	230.326	92.537	13.073	1.00 69.82	O	ATOM	20049	O2*	A A 959	227.633	102.539	20.749	1.00 64.56	O
ATOM	20000	O5*	U A 957	231.981	93.707	14.528	1.00 66.40	O	ATOM	20050	C1*	A A 959	229.068	100.665	21.163	1.00 64.56	C
ATOM	20001	C5*	U A 957	233.305	94.111	14.930	1.00 66.40	C	ATOM	20051	N9	A A 959	230.441	100.294	20.791	1.00 69.55	N
ATOM	20002	C4*	U A 957	233.242	95.244	15.928	1.00 66.40	C	ATOM	20052	C8	A A 959	230.868	99.483	19.767	1.00 69.55	C
ATOM	20003	O4*	U A 957	232.609	96.409	15.332	1.00 66.40	O	ATOM	20053	N7	A A 959	232.170	99.365	19.694	1.00 69.55	N
ATOM	20004	C3*	U A 957	232.445	94.977	17.193	1.00 66.40	C	ATOM	20054	C5	A A 959	232.636	100.146	20.741	1.00 69.55	C
ATOM	20005	O3*	U A 957	233.228	94.264	18.145	1.00 66.40	O	ATOM	20055	C6	A A 959	233.938	100.445	21.199	1.00 69.55	C
ATOM	20006	C2*	U A 957	232.068	96.384	17.651	1.00 66.40	C	ATOM	20056	N6	A A 959	235.055	99.981	20.633	1.00 69.55	N
ATOM	20007	O2*	U A 957	233.109	97.051	18.334	1.00 66.40	O	ATOM	20057	N1	A A 959	234.053	101.252	22.275	1.00 69.55	N
ATOM	20008	C1*	U A 957	231.855	97.099	16.316	1.00 66.40	C	ATOM	20058	C2	A A 959	232.936	101.724	22.844	1.00 69.55	C
ATOM	20009	N1	U A 957	230.443	97.103	15.905	1.00 69.82	N	ATOM	20059	N3	A A 959	231.665	101.527	22.502	1.00 69.55	N
ATOM	20010	C2	U A 957	229.640	98.154	16.332	1.00 69.82	C	ATOM	20060	C4	A A 959	231.583	100.719	21.429	1.00 69.55	C
ATOM	20011	O2	U A 957	230.049	99.068	17.028	1.00 69.82	O	ATOM	20061	P	U A 960	225.401	100.355	17.727	1.00 64.62	P
ATOM	20012	N3	U A 957	228.335	98.093	15.911	1.00 69.82	N	ATOM	20062	O1P	U A 960	224.014	100.897	17.744	1.00 65.65	O
ATOM	20013	C4	U A 957	227.759	97.118	15.121	1.00 69.82	C	ATOM	20063	O2P	U A 960	225.615	98.880	17.670	1.00 65.65	O
ATOM	20014	O4	U A 957	226.579	97.229	14.785	1.00 69.82	O	ATOM	20064	O5*	U A 960	226.147	100.990	16.473	1.00 64.62	O
ATOM	20015	C5	U A 957	228.649	96.067	14.727	1.00 69.82	C	ATOM	20065	C5*	U A 960	227.567	101.099	16.461	1.00 64.62	C



Table 2: Sheet 202/520

ATOM	20066	C4*	U A 960	227.969	102.453	16.966	1.00	64.62	C	ATOM	20116	N3	C A 962	221.305	112.465	15.772	1.00	56.70	N
ATOM	20067	O4*	U A 960	229.310	102.391	17.474	1.00	64.62	O	ATOM	20117	C4	C A 962	222.436	111.845	15.446	1.00	56.70	C
ATOM	20068	C3*	U A 960	227.925	103.591	15.970	1.00	64.62	C	ATOM	20118	N4	C A 962	223.271	112.483	14.634	1.00	56.70	N
ATOM	20069	O3*	U A 960	227.103	104.674	16.457	1.00	64.62	C	ATOM	20119	C5	C A 962	222.752	110.540	15.937	1.00	56.70	C
ATOM	20070	C2*	U A 960	229.378	103.763	15.512	1.00	64.62	O	ATOM	20120	C6	C A 962	221.851	109.940	16.731	1.00	56.70	C
ATOM	20071	O2*	U A 960	229.775	105.084	15.202	1.00	64.62	O	ATOM	20121	P	G A 963	217.314	107.314	14.482	1.00	58.55	P
ATOM	20072	C1*	U A 960	230.183	103.132	16.650	1.00	64.62	C	ATOM	20122	O1P	G A 963	216.168	106.380	14.330	1.00	57.32	O
ATOM	20073	N1	U A 960	231.260	102.208	16.237	1.00	65.65	N	ATOM	20123	O2P	G A 963	218.625	106.961	13.872	1.00	57.32	O
ATOM	20074	C2	U A 960	231.017	101.270	15.233	1.00	65.65	C	ATOM	20124	O5*	G A 963	216.890	108.751	13.939	1.00	58.55	O
ATOM	20075	O2	U A 960	229.962	101.185	14.631	1.00	65.65	O	ATOM	20125	C5*	G A 963	215.647	109.313	14.320	1.00	58.55	C
ATOM	20076	N3	U A 960	232.071	100.435	14.960	1.00	65.65	N	ATOM	20126	C4*	G A 963	215.681	110.810	14.196	1.00	58.55	C
ATOM	20077	C4	U A 960	233.314	100.439	15.556	1.00	65.65	C	ATOM	20127	O4*	G A 963	216.930	111.308	14.744	1.00	58.55	O
ATOM	20078	O4	U A 960	234.167	99.639	15.179	1.00	65.65	O	ATOM	20128	C3*	G A 963	215.638	111.406	12.804	1.00	58.55	C
ATOM	20079	C5	U A 960	233.491	101.429	16.562	1.00	65.65	C	ATOM	20129	O3*	G A 963	214.318	111.471	12.290	1.00	58.55	O
ATOM	20080	C6	U A 960	232.490	102.260	16.861	1.00	65.65	C	ATOM	20130	C2*	G A 963	216.213	112.794	13.051	1.00	58.55	C
ATOM	20081	P	U A 961	227.692	105.865	17.370	1.00	67.43	P	ATOM	20131	O2*	G A 963	215.277	113.663	13.657	1.00	58.55	O
ATOM	20082	O1P	U A 961	227.892	107.047	16.503	1.00	59.12	O	ATOM	20132	C1*	G A 963	217.314	112.491	14.065	1.00	58.55	C
ATOM	20083	O2P	U A 961	228.793	105.385	18.247	1.00	59.12	O	ATOM	20133	N9	G A 963	218.576	112.238	13.379	1.00	57.32	N
ATOM	20084	O5*	U A 961	226.452	106.160	18.320	1.00	67.43	O	ATOM	20134	C8	G A 963	219.295	111.068	13.369	1.00	57.32	C
ATOM	20085	C5*	U A 961	225.823	105.063	19.018	1.00	67.43	C	ATOM	20135	N7	G A 963	220.358	111.126	12.616	1.00	57.32	N
ATOM	20086	C4*	U A 961	224.514	105.488	19.620	1.00	67.43	C	ATOM	20136	C5	G A 963	220.344	112.416	12.106	1.00	57.32	C
ATOM	20087	O4*	U A 961	224.737	106.667	20.435	1.00	67.43	O	ATOM	20137	C6	G A 963	221.233	113.049	11.221	1.00	57.32	C
ATOM	20088	C3*	U A 961	223.415	105.912	18.663	1.00	67.43	C	ATOM	20138	O6	G A 963	222.233	112.573	10.676	1.00	57.32	O
ATOM	20089	O3*	U A 961	222.684	104.821	18.131	1.00	67.43	O	ATOM	20139	N1	G A 963	220.860	114.367	10.975	1.00	57.32	N
ATOM	20090	C2*	U A 961	222.536	106.783	19.550	1.00	67.43	C	ATOM	20140	C2	G A 963	219.758	114.984	11.507	1.00	57.32	C
ATOM	20091	O2*	U A 961	221.638	106.049	20.365	1.00	67.43	O	ATOM	20141	N2	G A 963	219.573	116.255	11.167	1.00	57.32	N
ATOM	20092	C1*	U A 961	223.576	107.476	20.427	1.00	67.43	C	ATOM	20142	N3	G A 963	218.905	114.394	12.320	1.00	57.32	N
ATOM	20093	N1	U A 961	223.898	108.799	19.877	1.00	59.12	N	ATOM	20143	C4	G A 963	219.260	113.120	12.580	1.00	57.32	C
ATOM	20094	C2	U A 961	222.959	109.789	20.060	1.00	59.12	C	ATOM	20144	P	A A 964	214.060	111.195	10.728	1.00	57.44	P
ATOM	20095	O2	U A 961	221.934	109.615	20.694	1.00	59.12	O	ATOM	20145	O1P	A A 964	212.610	111.346	10.456	1.00	49.45	O
ATOM	20096	N3	U A 961	223.255	110.987	19.471	1.00	59.12	N	ATOM	20146	O2P	A A 964	214.742	109.928	10.375	1.00	49.45	O
ATOM	20097	C4	U A 961	224.367	111.288	18.735	1.00	59.12	C	ATOM	20147	O5*	A A 964	214.803	112.392	9.994	1.00	57.44	O
ATOM	20098	O4	U A 961	224.415	112.363	18.142	1.00	59.12	O	ATOM	20148	C5*	A A 964	214.286	113.731	10.053	1.00	57.44	C
ATOM	20099	C5	U A 961	225.315	110.223	18.619	1.00	59.12	C	ATOM	20149	C4*	A A 964	215.107	114.631	9.164	1.00	57.44	C
ATOM	20100	C6	U A 961	225.055	109.045	19.183	1.00	59.12	C	ATOM	20150	O4*	A A 964	216.470	114.648	9.660	1.00	57.44	O
ATOM	20101	P	C A 962	221.912	104.991	16.724	1.00	62.22	P	ATOM	20151	C3*	A A 964	215.215	114.165	7.719	1.00	57.44	C
ATOM	20102	O1P	C A 962	221.040	103.789	16.575	1.00	56.70	O	ATOM	20152	O3*	A A 964	214.115	114.655	6.941	1.00	57.44	O
ATOM	20103	O2P	C A 962	222.909	105.307	15.661	1.00	56.70	O	ATOM	20153	C2*	A A 964	216.563	114.737	7.289	1.00	57.44	C
ATOM	20104	O5*	C A 962	221.001	106.288	16.913	1.00	62.22	O	ATOM	20154	O2*	A A 964	216.502	116.099	6.921	1.00	57.44	O
ATOM	20105	C5*	C A 962	219.911	106.267	17.827	1.00	62.22	C	ATOM	20155	C1*	A A 964	217.376	114.623	8.579	1.00	57.44	C
ATOM	20106	C4*	C A 962	219.199	107.590	17.848	1.00	62.22	C	ATOM	20156	N9	A A 964	218.133	113.377	8.676	1.00	49.45	N
ATOM	20107	O4*	C A 962	220.075	108.641	18.332	1.00	62.22	O	ATOM	20157	C8	A A 964	217.882	112.306	9.497	1.00	49.45	C
ATOM	20108	C3*	C A 962	218.682	108.155	16.540	1.00	62.22	C	ATOM	20158	N7	A A 964	218.738	111.324	9.364	1.00	49.45	N
ATOM	20109	O3*	C A 962	217.503	107.535	16.067	1.00	62.22	O	ATOM	20159	C5	A A 964	219.612	111.776	8.390	1.00	49.45	C
ATOM	20110	C2*	C A 962	218.430	109.605	16.921	1.00	62.22	C	ATOM	20160	C6	A A 964	220.742	111.198	7.802	1.00	49.45	C
ATOM	20111	O2*	C A 962	217.226	109.788	17.638	1.00	62.22	O	ATOM	20161	N6	A A 964	221.202	109.987	8.117	1.00	49.45	N
ATOM	20112	C1*	C A 962	219.617	109.892	17.839	1.00	62.22	C	ATOM	20162	N1	A A 964	221.394	111.914	6.862	1.00	49.45	N
ATOM	20113	N1	C A 962	220.671	110.556	17.045	1.00	56.70	N	ATOM	20163	C2	A A 964	220.923	113.129	6.539	1.00	49.45	C
ATOM	20114	C2	C A 962	220.407	111.854	16.574	1.00	56.70	C	ATOM	20164	N3	A A 964	219.869	113.778	7.020	1.00	49.45	N
ATOM	20115	O2	C A 962	219.344	112.410	16.911	1.00	56.70	O	ATOM	20165	C4	A A 964	219.251	113.039	7.955	1.00	49.45	C



ATOM	20166	P	A	A	965	213.155	113.619	6.153	1.00	52.79	P	ATOM	20216	C4*	A	A	967	215.896	118.951	-4.644	1.00	44.85	C
ATOM	20167	O1P	A	A	965	211.957	114.386	5.709	1.00	59.32	O	ATOM	20217	O4*	C	A	967	214.807	118.284	-5.321	1.00	44.85	O
ATOM	20168	O2P	A	A	965	212.994	112.379	6.955	1.00	59.32	O	ATOM	20218	C3*	C	A	967	215.309	120.216	-4.107	1.00	44.85	C
ATOM	20169	O5*	A	A	965	214.000	113.209	4.873	1.00	52.79	O	ATOM	20219	O3*	C	A	967	216.354	121.219	-4.021	1.00	44.85	O
ATOM	20170	C5*	A	A	965	213.962	113.977	3.651	1.00	52.79	C	ATOM	20220	C2*	C	A	967	214.265	120.600	-5.171	1.00	44.85	C
ATOM	20171	C4*	A	A	965	214.423	113.101	2.531	1.00	52.79	C	ATOM	20221	O2*	C	A	967	214.813	121.272	-6.280	1.00	44.85	O
ATOM	20172	O4*	A	A	965	215.746	112.658	2.885	1.00	52.79	O	ATOM	20222	C1*	C	A	967	213.795	119.219	-5.638	1.00	44.85	C
ATOM	20173	C3*	A	A	965	213.572	111.848	2.456	1.00	52.79	C	ATOM	20223	N1	C	A	967	212.548	118.756	-5.011	1.00	63.40	N
ATOM	20174	O3*	A	A	965	212.464	112.077	1.565	1.00	52.79	O	ATOM	20224	C2	C	A	967	211.340	119.092	-5.601	1.00	63.40	C
ATOM	20175	C2*	A	A	965	214.535	110.686	2.211	1.00	52.79	C	ATOM	20225	O2	C	A	967	211.350	119.776	-6.638	1.00	63.40	O
ATOM	20176	O2*	A	A	965	214.567	110.177	0.896	1.00	52.79	O	ATOM	20226	N3	C	A	967	210.190	118.667	-5.029	1.00	63.40	N
ATOM	20177	C1*	A	A	965	215.893	111.295	2.584	1.00	52.79	C	ATOM	20227	C4	C	A	967	210.229	117.937	-3.909	1.00	63.40	C
ATOM	20178	N9	A	A	965	216.687	110.686	3.645	1.00	59.32	N	ATOM	20228	N4	C	A	967	209.076	117.543	-3.375	1.00	63.40	N
ATOM	20179	C8	A	A	965	216.561	110.823	5.003	1.00	59.32	C	ATOM	20229	C5	C	A	967	211.452	117.582	-3.288	1.00	63.40	C
ATOM	20180	N7	A	A	965	217.492	110.200	5.686	1.00	59.32	N	ATOM	20230	C6	C	A	967	212.576	118.006	-3.865	1.00	63.40	C
ATOM	20181	C5	A	A	965	218.271	109.603	4.711	1.00	59.32	C	ATOM	20231	P	A	A	968	216.225	122.471	-3.014	1.00	54.16	P
ATOM	20182	C6	A	A	965	219.412	108.809	4.785	1.00	59.32	C	ATOM	20232	O1P	A	A	968	215.287	123.447	-3.628	1.00	59.89	O
ATOM	20183	N6	A	A	965	220.001	108.484	5.935	1.00	59.32	N	ATOM	20233	O2P	A	A	968	217.594	122.911	-2.643	1.00	59.89	O
ATOM	20184	N1	A	A	965	219.943	108.357	3.627	1.00	59.32	N	ATOM	20234	O5*	A	A	968	215.574	121.851	-1.702	1.00	54.16	O
ATOM	20185	C2	A	A	965	219.353	108.700	2.476	1.00	59.32	C	ATOM	20235	C5*	A	A	968	215.827	122.421	-0.400	1.00	54.16	C
ATOM	20186	N3	A	A	965	218.276	109.456	2.277	1.00	59.32	N	ATOM	20236	C4*	A	A	968	214.819	121.896	0.588	1.00	54.16	C
ATOM	20187	C4	A	A	965	217.777	109.880	3.450	1.00	59.32	C	ATOM	20237	O4*	A	A	968	213.507	122.225	0.079	1.00	54.16	O
ATOM	20188	P	G	A	966	212.661	112.115	-0.043	1.00	44.65	P	ATOM	20238	C3*	A	A	968	214.838	120.387	0.784	1.00	54.16	C
ATOM	20189	O1P	G	A	966	211.578	112.947	-0.599	1.00	52.45	O	ATOM	20239	O3*	A	A	968	214.402	120.097	2.099	1.00	54.16	O
ATOM	20190	O2P	G	A	966	212.810	110.722	-0.517	1.00	52.45	O	ATOM	20240	C2*	A	A	968	213.769	119.897	-0.183	1.00	54.16	C
ATOM	20191	O5*	G	A	966	213.978	112.962	-0.323	1.00	44.65	O	ATOM	20241	O2*	A	A	968	213.151	118.697	0.241	1.00	54.16	O
ATOM	20192	C5*	G	A	966	215.061	112.400	-1.086	1.00	44.65	C	ATOM	20242	C1*	A	A	968	212.769	121.047	-0.142	1.00	54.16	C
ATOM	20193	C4*	G	A	966	215.209	113.094	-2.420	1.00	44.65	C	ATOM	20243	N9	A	A	968	212.004	121.224	-1.374	1.00	59.89	N
ATOM	20194	O4*	G	A	966	214.219	112.644	-3.384	1.00	44.65	O	ATOM	20244	C8	A	A	968	212.410	121.780	-2.563	1.00	59.89	C
ATOM	20195	C3*	G	A	966	215.022	114.590	-2.431	1.00	44.65	C	ATOM	20245	N7	A	A	968	211.457	121.861	-3.457	1.00	59.89	N
ATOM	20196	O3*	G	A	966	216.122	115.292	-1.921	1.00	44.65	O	ATOM	20246	C5	A	A	968	210.355	121.307	-2.820	1.00	59.89	C
ATOM	20197	C2*	G	A	966	214.802	114.890	-3.912	1.00	44.65	C	ATOM	20247	C6	A	A	968	209.025	121.113	-3.227	1.00	59.89	C
ATOM	20198	O2*	G	A	966	215.999	115.015	-4.651	1.00	44.65	O	ATOM	20248	N6	A	A	968	208.551	121.479	-4.417	1.00	59.89	N
ATOM	20199	C1*	G	A	966	214.050	113.647	-4.383	1.00	44.65	C	ATOM	20249	N1	A	A	968	208.184	120.526	-2.352	1.00	59.89	N
ATOM	20200	N9	G	A	966	212.629	113.929	-4.575	1.00	52.45	N	ATOM	20250	C2	A	A	968	208.653	120.167	-1.151	1.00	59.89	C
ATOM	20201	C8	G	A	966	211.587	113.481	-3.806	1.00	52.45	C	ATOM	20251	N3	A	A	968	209.875	120.303	-0.650	1.00	59.89	N
ATOM	20202	N7	G	A	966	210.427	113.924	-4.211	1.00	52.45	N	ATOM	20252	C4	A	A	968	210.686	120.890	-1.545	1.00	59.89	C
ATOM	20203	C5	G	A	966	210.720	114.705	-5.318	1.00	52.45	C	ATOM	20253	P	A	A	969	215.470	119.935	3.275	1.00	51.96	P
ATOM	20204	C6	G	A	966	209.864	115.429	-6.161	1.00	52.45	C	ATOM	20254	O1P	A	A	969	214.825	119.179	4.378	1.00	50.33	O
ATOM	20205	O6	G	A	966	208.641	115.527	-6.092	1.00	52.45	O	ATOM	20255	O2P	A	A	969	216.009	121.301	3.531	1.00	50.33	O
ATOM	20206	N1	G	A	966	210.558	116.085	-7.172	1.00	52.45	N	ATOM	20256	O5*	A	A	969	216.601	118.997	2.656	1.00	51.96	O
ATOM	20207	C2	G	A	966	211.908	116.044	-7.347	1.00	52.45	C	ATOM	20257	C5*	A	A	969	216.392	117.586	2.493	1.00	51.96	C
ATOM	20208	N2	G	A	966	212.383	116.736	-8.398	1.00	52.45	N	ATOM	20258	C4*	A	A	969	217.219	116.821	3.497	1.00	51.96	C
ATOM	20209	N3	G	A	966	212.734	115.368	-6.552	1.00	52.45	N	ATOM	20259	O4*	A	A	969	216.936	115.407	3.347	1.00	51.96	O
ATOM	20210	C4	G	A	966	212.070	114.722	-5.564	1.00	52.45	C	ATOM	20260	C3*	A	A	969	218.729	116.908	3.340	1.00	51.96	C
ATOM	20211	P	C	A	967	215.899	116.783	-1.399	1.00	44.85	P	ATOM	20261	O3*	A	A	969	219.312	118.067	3.910	1.00	51.96	O
ATOM	20212	O1P	C	A	967	217.225	117.261	-0.936	1.00	63.40	O	ATOM	20262	C2*	A	A	969	219.209	115.620	3.997	1.00	51.96	C
ATOM	20213	O2P	C	A	967	214.751	116.759	-0.462	1.00	63.40	O	ATOM	20263	O2*	A	A	969	219.254	115.670	5.409	1.00	51.96	O
ATOM	20214	O5*	C	A	967	215.481	117.607	-2.696	1.00	44.85	O	ATOM	20264	C1*	A	A	969	218.117	114.649	3.569	1.00	51.96	C
ATOM	20215	C5*	C	A	967	216.478	118.008	-3.635	1.00	44.85	C	ATOM	20265	N9	A	A	969	218.489	113.995	2.314	1.00	50.33	N



Table 2: Sheet 204/520

ATOM	20266	C8	A A 969	218.027	114.252	1.044	1.00	50.33	C	ATOM	20316	N3	G A 971	232.375	121.072	7.297	1.00	71.84	N
ATOM	20267	N7	A A 969	218.587	113.513	0.120	1.00	50.33	N	ATOM	20317	C4	G A 971	232.397	120.972	5.955	1.00	71.84	C
ATOM	20268	C5	A A 969	219.473	112.710	0.828	1.00	50.33	C	ATOM	20318	P	C A 972	226.123	123.436	5.820	1.00	48.73	P
ATOM	20269	C6	A A 969	220.371	111.708	0.423	1.00	50.33	C	ATOM	20319	O1P	C A 972	225.744	123.273	4.388	1.00	49.67	O
ATOM	20270	N6	A A 969	220.529	111.332	-0.842	1.00	50.33	N	ATOM	20320	O2P	C A 972	226.402	124.797	6.317	1.00	49.67	O
ATOM	20271	N1	A A 969	221.107	111.098	1.374	1.00	50.33	N	ATOM	20321	O5*	C A 972	224.997	122.833	6.772	1.00	48.73	O
ATOM	20272	C2	A A 969	220.943	111.480	2.649	1.00	50.33	C	ATOM	20322	C5*	C A 972	224.654	121.430	6.748	1.00	48.73	C
ATOM	20273	N3	A A 969	220.131	112.410	3.155	1.00	50.33	N	ATOM	20323	C4*	C A 972	223.247	121.240	7.274	1.00	48.73	C
ATOM	20274	C4	A A 969	219.416	112.993	2.179	1.00	50.33	C	ATOM	20324	O4*	C A 972	222.638	120.063	6.685	1.00	48.73	O
ATOM	20275	P	C A 970	220.615	118.705	3.213	1.00	44.26	P	ATOM	20325	C3*	C A 972	223.072	121.056	8.773	1.00	48.73	C
ATOM	20276	O1P	C A 970	221.171	119.787	4.075	1.00	56.22	O	ATOM	20326	O3*	C A 972	223.115	122.284	9.496	1.00	48.73	O
ATOM	20277	O2P	C A 970	220.269	119.007	1.782	1.00	56.22	O	ATOM	20327	C2*	C A 972	221.704	120.388	8.835	1.00	48.73	C
ATOM	20278	O5*	C A 970	221.667	117.511	3.271	1.00	44.26	O	ATOM	20328	O2*	C A 972	220.657	121.317	8.633	1.00	48.73	O
ATOM	20279	C5*	C A 970	222.134	117.022	4.534	1.00	44.26	C	ATOM	20329	C1*	C A 972	221.764	119.464	7.620	1.00	48.73	C
ATOM	20280	C4*	C A 970	223.179	115.956	4.337	1.00	44.26	C	ATOM	20330	N1	C A 972	222.323	118.156	7.997	1.00	49.67	N
ATOM	20281	O4*	C A 970	222.596	114.816	3.661	1.00	44.26	O	ATOM	20331	C2	C A 972	221.503	117.247	8.664	1.00	49.67	C
ATOM	20282	C3*	C A 970	224.374	116.330	3.476	1.00	44.26	C	ATOM	20332	O2	C A 972	220.315	117.552	8.852	1.00	49.67	O
ATOM	20283	O3*	C A 970	225.363	117.052	4.201	1.00	44.26	O	ATOM	20333	N3	C A 972	222.022	116.061	9.076	1.00	49.67	N
ATOM	20284	C2*	C A 970	224.873	114.299	4.063	1.00	44.26	C	ATOM	20334	C4	C A 972	223.298	115.770	8.816	1.00	49.67	C
ATOM	20285	O2*	C A 970	225.560	114.299	4.063	1.00	44.26	O	ATOM	20335	N4	C A 972	223.777	114.603	9.241	1.00	49.67	N
ATOM	20286	C1*	C A 970	223.562	114.218	2.813	1.00	44.26	C	ATOM	20336	C5	C A 972	224.146	116.669	8.109	1.00	49.67	C
ATOM	20287	N1	C A 970	223.531	113.354	0.491	1.00	56.22	N	ATOM	20337	C6	C A 972	223.626	117.838	7.724	1.00	49.67	C
ATOM	20288	C2	C A 970	224.289	112.455	0.868	1.00	56.22	C	ATOM	20338	P	G A 973	223.729	122.308	10.987	1.00	54.82	P
ATOM	20290	N3	C A 970	223.110	113.429	-0.787	1.00	56.22	N	ATOM	20339	O1P	G A 973	223.973	123.734	11.312	1.00	44.67	O
ATOM	20291	C4	C A 970	222.294	114.410	-1.161	1.00	56.22	C	ATOM	20340	O2P	G A 973	224.843	121.339	11.102	1.00	44.67	O
ATOM	20292	N4	C A 970	221.894	114.434	-2.430	1.00	56.22	N	ATOM	20341	O5*	G A 973	222.545	121.753	11.892	1.00	54.82	O
ATOM	20293	C5	C A 970	221.847	115.408	-0.251	1.00	56.22	C	ATOM	20342	C5*	G A 973	221.308	122.482	12.021	1.00	54.82	C
ATOM	20294	C6	C A 970	222.272	115.325	1.013	1.00	56.22	C	ATOM	20343	C4*	G A 973	220.525	121.978	13.212	1.00	54.82	C
ATOM	20295	P	G A 971	225.880	118.472	3.636	1.00	49.87	P	ATOM	20344	O4*	G A 973	219.956	120.671	12.930	1.00	54.82	O
ATOM	20296	O1P	G A 971	224.928	119.529	4.080	1.00	71.84	O	ATOM	20345	C3*	G A 973	221.345	121.784	14.474	1.00	54.82	C
ATOM	20297	O2P	G A 971	226.165	118.312	2.182	1.00	71.84	O	ATOM	20346	O3*	G A 973	221.542	123.020	15.176	1.00	54.82	O
ATOM	20298	O5*	G A 971	227.280	118.667	4.377	1.00	49.87	O	ATOM	20347	C2*	G A 973	220.520	120.742	15.222	1.00	54.82	C
ATOM	20299	C5*	G A 971	227.351	118.794	5.802	1.00	49.87	C	ATOM	20348	O2*	G A 973	219.398	121.330	15.843	1.00	54.82	O
ATOM	20300	C4*	G A 971	227.977	120.118	6.175	1.00	49.87	C	ATOM	20349	C1*	G A 973	220.031	119.849	14.081	1.00	54.82	C
ATOM	20301	O4*	G A 971	229.429	120.022	6.134	1.00	49.87	O	ATOM	20350	N9	G A 973	220.974	118.773	13.785	1.00	44.67	N
ATOM	20302	C3*	G A 971	227.603	121.332	5.315	1.00	49.87	C	ATOM	20351	C8	G A 973	222.103	118.897	13.017	1.00	44.67	C
ATOM	20303	O3*	G A 971	227.369	122.471	6.131	1.00	49.87	O	ATOM	20352	N7	G A 973	222.783	117.785	12.914	1.00	44.67	N
ATOM	20304	C2*	G A 971	228.888	121.599	4.530	1.00	49.87	C	ATOM	20353	C5	G A 973	222.060	116.859	13.654	1.00	44.67	C
ATOM	20305	O2*	G A 971	229.054	122.944	4.127	1.00	49.87	O	ATOM	20354	C6	G A 973	222.309	115.466	13.896	1.00	44.67	C
ATOM	20306	C1*	G A 971	229.930	121.207	5.570	1.00	49.87	C	ATOM	20355	O6	G A 973	223.235	114.760	13.481	1.00	44.67	O
ATOM	20307	N9	G A 971	231.306	121.007	5.133	1.00	71.84	N	ATOM	20356	N1	G A 973	221.333	114.908	14.705	1.00	44.67	N
ATOM	20308	C8	G A 971	231.777	120.870	3.855	1.00	71.84	C	ATOM	20357	C2	G A 973	220.254	115.580	15.211	1.00	44.67	C
ATOM	20309	N7	G A 971	233.076	120.788	3.799	1.00	71.84	N	ATOM	20358	N2	G A 973	219.445	114.855	15.975	1.00	44.67	N
ATOM	20310	C5	G A 971	233.481	120.857	5.121	1.00	71.84	C	ATOM	20359	N3	G A 973	219.994	116.871	14.986	1.00	44.67	N
ATOM	20311	C6	G A 971	234.781	120.841	5.687	1.00	71.84	C	ATOM	20360	C4	G A 973	220.936	117.446	14.205	1.00	44.67	C
ATOM	20312	O6	G A 971	235.875	120.766	5.110	1.00	71.84	O	ATOM	20361	P	A A 974	222.335	123.034	16.583	1.00	61.98	P
ATOM	20313	N1	G A 971	234.734	120.941	7.072	1.00	71.84	N	ATOM	20362	O1P	A A 974	222.473	121.629	17.076	1.00	38.79	O
ATOM	20314	C2	G A 971	233.589	121.058	7.814	1.00	71.84	C	ATOM	20363	O2P	A A 974	221.628	124.031	17.406	1.00	38.79	O
ATOM	20315	N2	G A 971	233.747	121.172	9.135	1.00	71.84	N	ATOM	20364	O5*	A A 974	223.786	123.641	16.311	1.00	61.98	O
										ATOM	20365	C5*	A A 974	224.474	123.413	15.080	1.00	61.98	C







ATOM	20456	C6	A	A	978	242.934	117.707	26.025	1.00	62.38	C	ATOM	20516	C5*	U	A	981	228.071	117.503	29.091	1.00	67.49	C
ATOM	20467	N6	A	A	978	243.167	118.969	26.401	1.00	62.38	N	ATOM	20517	C4*	U	A	981	228.160	118.210	27.763	1.00	67.49	C
ATOM	20468	N1	A	A	978	243.877	116.775	26.288	1.00	62.38	N	ATOM	20518	O4*	U	A	981	229.535	117.583	27.295	1.00	67.49	O
ATOM	20469	C2	A	A	978	243.664	115.513	25.885	1.00	62.38	C	ATOM	20519	C3*	U	A	981	227.367	117.166	26.635	1.00	67.49	C
ATOM	20470	N3	A	A	978	242.627	114.999	25.233	1.00	62.38	N	ATOM	20520	O3*	U	A	981	225.997	117.960	26.635	1.00	67.49	O
ATOM	20471	C4	A	A	978	241.701	115.945	24.996	1.00	62.38	C	ATOM	20521	C2*	U	A	981	228.118	118.041	25.401	1.00	67.49	C
ATOM	20472	P	C	A	979	235.428	113.180	24.686	1.00	84.70	P	ATOM	20522	O2*	U	A	981	227.792	117.378	25.070	1.00	67.49	O
ATOM	20473	O1P	C	A	979	234.623	111.933	24.580	1.00	55.28	O	ATOM	20523	C1*	U	A	981	229.564	117.998	25.890	1.00	67.49	C
ATOM	20474	O2P	C	A	979	234.838	114.470	24.264	1.00	55.28	O	ATOM	20524	N1	U	A	981	230.208	116.703	25.604	1.00	62.17	N
ATOM	20475	O5*	C	A	979	235.950	113.351	26.178	1.00	84.70	O	ATOM	20525	C2	U	A	981	230.787	116.518	24.359	1.00	62.17	C
ATOM	20476	C5*	C	A	979	236.648	112.279	26.835	1.00	84.70	C	ATOM	20526	O2	U	A	981	230.792	117.378	23.499	1.00	62.17	O
ATOM	20477	C4*	C	A	979	236.731	112.540	28.318	1.00	84.70	C	ATOM	20527	N3	U	A	981	231.355	115.282	24.156	1.00	62.17	N
ATOM	20478	O4*	C	A	979	237.747	113.539	28.586	1.00	84.70	O	ATOM	20528	C4	U	A	981	231.402	114.227	25.052	1.00	62.17	C
ATOM	20479	C3*	C	A	979	235.469	113.102	28.951	1.00	84.70	C	ATOM	20529	O4	U	A	981	231.914	113.152	24.712	1.00	62.17	O
ATOM	20480	O3*	C	A	979	234.488	112.107	29.226	1.00	84.70	O	ATOM	20530	C5	U	A	981	230.792	114.498	26.313	1.00	62.17	C
ATOM	20481	C2*	C	A	979	236.012	113.806	30.190	1.00	84.70	C	ATOM	20531	C6	U	A	981	230.231	115.694	26.541	1.00	62.17	C
ATOM	20482	O2*	C	A	979	236.254	112.944	31.289	1.00	84.70	O	ATOM	20532	P	U	A	982	224.886	116.961	26.036	1.00	69.47	P
ATOM	20483	C1*	C	A	979	237.338	114.358	29.667	1.00	84.70	C	ATOM	20533	O1P	U	A	982	225.239	116.730	24.616	1.00	57.20	O
ATOM	20484	N1	C	A	979	237.169	115.728	29.164	1.00	55.28	N	ATOM	20534	O2P	U	A	982	223.537	117.478	26.387	1.00	57.20	O
ATOM	20485	C2	C	A	979	237.019	116.773	30.081	1.00	55.28	C	ATOM	20535	O5*	U	A	982	225.121	115.581	26.789	1.00	69.47	O
ATOM	20486	O2	C	A	979	237.080	116.519	31.302	1.00	55.28	O	ATOM	20536	C5*	U	A	982	224.156	114.530	26.685	1.00	69.47	C
ATOM	20487	N3	C	A	979	236.815	118.032	29.620	1.00	55.28	N	ATOM	20537	C4*	U	A	982	224.842	113.190	26.578	1.00	69.47	C
ATOM	20488	C4	C	A	979	236.770	118.259	28.308	1.00	55.28	C	ATOM	20538	O4*	U	A	982	225.428	113.023	25.261	1.00	69.47	O
ATOM	20489	N4	C	A	979	236.557	119.502	27.892	1.00	55.28	N	ATOM	20539	C3*	U	A	982	225.944	112.907	27.590	1.00	69.47	C
ATOM	20490	C5	C	A	979	236.941	117.218	27.359	1.00	55.28	C	ATOM	20540	O3*	U	A	982	225.868	111.541	27.962	1.00	69.47	O
ATOM	20491	C6	C	A	979	237.136	115.981	27.824	1.00	55.28	C	ATOM	20541	C2*	U	A	982	227.220	113.119	26.783	1.00	69.47	C
ATOM	20492	P	C	A	980	232.952	112.374	28.811	1.00	69.46	P	ATOM	20542	O2*	U	A	982	228.300	112.329	27.235	1.00	69.47	O
ATOM	20493	O1P	C	A	980	232.114	111.466	29.664	1.00	70.31	O	ATOM	20543	C1*	U	A	982	226.786	112.658	25.392	1.00	69.47	C
ATOM	20494	O2P	C	A	980	232.851	112.282	27.331	1.00	70.31	O	ATOM	20544	N1	U	A	982	227.554	113.270	24.295	1.00	57.20	N
ATOM	20495	O5*	C	A	980	232.707	113.905	29.206	1.00	69.46	O	ATOM	20545	C2	U	A	982	228.513	112.487	23.666	1.00	57.20	C
ATOM	20496	C5*	C	A	980	232.801	114.335	30.582	1.00	69.46	C	ATOM	20546	O2	U	A	982	228.738	111.328	23.977	1.00	57.20	O
ATOM	20497	C4*	C	A	980	232.446	115.799	30.723	1.00	69.46	C	ATOM	20547	N3	U	A	982	229.197	113.111	22.658	1.00	57.20	N
ATOM	20498	O4*	C	A	980	233.483	116.638	30.156	1.00	69.46	O	ATOM	20548	C4	U	A	982	229.024	114.405	22.215	1.00	57.20	C
ATOM	20499	C3*	C	A	980	231.168	116.252	30.044	1.00	69.46	C	ATOM	20549	O4	U	A	982	229.663	114.798	21.239	1.00	57.20	O
ATOM	20500	O3*	C	A	980	230.029	115.975	30.843	1.00	69.46	O	ATOM	20550	C5	U	A	982	228.021	115.150	22.917	1.00	57.20	C
ATOM	20501	C2*	C	A	980	231.394	117.750	29.884	1.00	69.46	C	ATOM	20551	C6	U	A	982	227.338	114.574	23.905	1.00	57.20	C
ATOM	20502	O2*	C	A	980	231.111	118.460	31.069	1.00	69.46	O	ATOM	20552	P	A	A	983	224.739	111.064	28.995	1.00	73.80	P
ATOM	20503	C1*	C	A	980	232.900	117.818	29.622	1.00	69.46	C	ATOM	20553	O1P	A	A	983	224.520	112.204	29.937	1.00	59.96	O
ATOM	20504	N1	C	A	980	233.217	117.910	28.182	1.00	70.31	N	ATOM	20554	O2P	A	A	983	225.131	109.719	29.520	1.00	59.96	O
ATOM	20505	C2	C	A	980	233.214	119.178	27.563	1.00	70.31	C	ATOM	20555	O5*	A	A	983	223.434	110.884	28.094	1.00	73.80	O
ATOM	20506	O2	C	A	980	232.958	120.188	28.242	1.00	70.31	O	ATOM	20556	C5*	A	A	983	223.220	109.669	27.339	1.00	73.80	C
ATOM	20507	N3	C	A	980	233.485	119.266	26.241	1.00	70.31	N	ATOM	20557	C4*	A	A	983	222.028	109.818	26.424	1.00	73.80	C
ATOM	20508	C4	C	A	980	233.744	118.161	25.537	1.00	70.31	C	ATOM	20558	O4*	A	A	983	222.112	111.089	25.749	1.00	73.80	O
ATOM	20509	N4	C	A	980	233.985	118.299	24.233	1.00	70.31	N	ATOM	20559	C3*	A	A	983	221.949	108.769	25.328	1.00	73.80	C
ATOM	20510	C5	C	A	980	233.761	116.867	26.138	1.00	70.31	C	ATOM	20560	O3*	A	A	983	221.122	107.690	25.741	1.00	73.80	O
ATOM	20511	C6	C	A	980	233.498	116.789	27.448	1.00	70.31	C	ATOM	20561	C2*	A	A	983	221.249	109.498	24.191	1.00	73.80	C
ATOM	20512	P	U	A	981	228.770	115.221	30.194	1.00	67.49	P	ATOM	20562	O2*	A	A	983	219.847	109.369	24.256	1.00	73.80	O
ATOM	20513	O1P	U	A	981	227.617	115.307	31.134	1.00	62.17	O	ATOM	20563	C1*	A	A	983	221.658	110.954	24.426	1.00	73.80	C
ATOM	20514	O2P	U	A	981	229.246	113.895	29.743	1.00	62.17	O	ATOM	20564	N9	A	A	983	222.698	111.467	23.539	1.00	59.96	N
ATOM	20515	O5*	U	A	981	228.408	116.117	28.932	1.00	67.49	O	ATOM	20565	C8	A	A	983	222.675	112.670	22.882	1.00	59.96	C



ATOM	20566	N7	A A 983	223.736	112.895	22.151	1.00	59.96	N	20616	O2P	A A 986	226.231	98.195	28.275	1.00	54.56	O
ATOM	20567	C5	A A 983	224.513	111.764	22.340	1.00	59.96	C	20617	O5*	A A 986	228.547	97.256	28.127	1.00	92.32	O
ATOM	20568	C6	A A 983	225.761	111.394	21.836	1.00	59.96	C	20618	C5*	A A 986	229.540	96.316	27.680	1.00	92.32	C
ATOM	20569	N6	A A 983	226.473	112.156	21.008	1.00	59.96	N	20619	C4*	A A 986	230.806	96.454	28.490	1.00	92.32	C
ATOM	20570	N1	A A 983	226.260	110.199	22.213	1.00	59.96	N	20620	O4*	A A 986	231.431	97.731	28.212	1.00	92.32	O
ATOM	20571	C2	A A 983	225.536	109.437	23.045	1.00	59.96	C	20621	C3*	A A 986	230.665	96.432	30.003	1.00	92.32	C
ATOM	20572	N3	A A 983	224.348	109.680	23.589	1.00	59.96	N	20622	O3*	A A 986	230.590	95.114	30.522	1.00	92.32	O
ATOM	20573	C4	A A 983	223.886	110.875	23.193	1.00	59.96	C	20623	C2*	A A 986	231.935	97.137	30.453	1.00	92.32	C
ATOM	20574	P	C A 984	221.774	106.377	26.383	1.00	71.45	P	20624	O2*	A A 986	233.060	96.282	30.395	1.00	92.32	O
ATOM	20575	O1P	C A 984	220.683	105.378	26.532	1.00	70.93	O	20625	C1*	A A 986	232.094	98.201	29.372	1.00	92.32	C
ATOM	20576	O2P	C A 984	222.559	106.804	27.573	1.00	70.93	O	20626	N9	A A 986	231.500	99.481	29.759	1.00	54.56	N
ATOM	20577	O5*	C A 984	222.791	105.838	25.279	1.00	71.45	O	20627	C8	A A 986	230.237	99.945	29.477	1.00	54.56	C
ATOM	20578	C5*	C A 984	222.318	105.256	24.050	1.00	71.45	C	20628	N7	A A 986	230.004	101.156	29.934	1.00	54.56	N
ATOM	20579	C4*	C A 984	223.441	104.533	23.343	1.00	71.45	C	20629	C5	A A 986	231.188	101.507	30.565	1.00	54.56	C
ATOM	20580	O4*	C A 984	224.451	105.476	22.906	1.00	71.45	O	20630	C6	A A 986	231.581	102.664	31.240	1.00	54.56	C
ATOM	20581	C3*	C A 984	224.204	103.544	24.197	1.00	71.45	C	20631	N6	A A 986	230.799	103.729	31.392	1.00	54.56	N
ATOM	20582	O3*	C A 984	223.553	102.295	24.264	1.00	71.45	O	20632	N1	A A 986	232.826	102.696	31.760	1.00	54.56	N
ATOM	20583	C2*	C A 984	225.548	103.451	23.493	1.00	71.45	C	20633	C2	A A 986	233.615	101.629	31.601	1.00	54.56	C
ATOM	20584	O2*	C A 984	225.525	102.579	22.384	1.00	71.45	O	20634	N3	A A 986	233.362	100.482	30.983	1.00	54.56	N
ATOM	20585	C1*	C A 984	225.733	104.883	23.002	1.00	71.45	C	20635	C4	A A 986	232.114	100.483	30.477	1.00	54.56	C
ATOM	20586	N1	C A 984	226.572	105.699	23.905	1.00	70.93	N	20636	P	G A 987	229.805	94.851	31.904	1.00	95.24	P
ATOM	20587	C2	C A 984	227.965	105.470	23.936	1.00	70.93	C	20637	O1P	G A 987	229.824	93.374	32.107	1.00	70.37	O
ATOM	20588	O2	C A 984	228.451	104.585	23.217	1.00	70.93	O	20638	O2P	G A 987	228.508	95.572	31.880	1.00	70.37	O
ATOM	20589	N3	C A 984	228.739	106.222	24.745	1.00	70.93	N	20639	O5*	G A 987	230.704	95.552	33.021	1.00	95.24	O
ATOM	20590	C4	C A 984	228.188	107.175	25.498	1.00	70.93	C	20640	C5*	G A 987	231.965	94.984	33.410	1.00	95.24	C
ATOM	20591	N4	C A 984	228.997	107.909	26.264	1.00	70.93	N	20641	C4*	G A 987	232.806	96.001	34.142	1.00	95.24	C
ATOM	20592	C5	C A 984	226.783	107.423	25.496	1.00	70.93	C	20642	O4*	G A 987	232.860	97.226	33.365	1.00	95.24	O
ATOM	20593	C6	C A 984	226.020	106.688	24.695	1.00	70.93	C	20643	C3*	G A 987	232.324	96.466	35.504	1.00	95.24	C
ATOM	20594	P	C A 985	223.848	101.331	25.506	1.00	66.74	P	20644	O3*	G A 987	232.662	95.557	36.539	1.00	95.24	O
ATOM	20595	O1P	C A 985	223.025	100.104	25.326	1.00	59.76	O	20645	C2*	G A 987	233.037	97.805	35.661	1.00	95.24	C
ATOM	20596	O2P	C A 985	223.715	102.148	26.748	1.00	59.76	O	20646	O2*	G A 987	234.392	97.686	36.049	1.00	95.24	O
ATOM	20597	O5*	C A 985	225.374	100.923	25.328	1.00	66.74	O	20647	C1*	G A 987	233.003	98.336	34.234	1.00	95.24	C
ATOM	20598	C5*	C A 985	225.763	100.034	24.283	1.00	66.74	C	20648	N9	G A 987	231.893	99.263	34.032	1.00	70.37	N
ATOM	20599	C4*	C A 985	227.201	99.641	24.450	1.00	66.74	C	20649	C8	G A 987	230.704	99.044	33.375	1.00	70.37	C
ATOM	20600	O4*	C A 985	228.048	100.799	24.246	1.00	66.74	O	20650	N7	G A 987	229.920	100.088	33.379	1.00	70.37	N
ATOM	20601	C3*	C A 985	227.574	99.149	25.832	1.00	66.74	C	20651	C5	G A 987	230.636	101.050	34.078	1.00	70.37	C
ATOM	20602	O3*	C A 985	227.255	97.784	26.022	1.00	66.74	O	20652	C6	G A 987	230.303	102.386	34.407	1.00	70.37	C
ATOM	20603	C2*	C A 985	229.069	99.420	25.885	1.00	66.74	C	20653	O6	G A 987	229.279	103.009	34.135	1.00	70.37	O
ATOM	20604	O2*	C A 985	229.818	98.432	25.203	1.00	66.74	O	20654	N1	G A 987	231.316	103.004	35.132	1.00	70.37	N
ATOM	20605	C1*	C A 985	229.159	100.735	25.120	1.00	66.74	C	20655	C2	G A 987	232.498	102.413	35.495	1.00	70.37	C
ATOM	20606	N1	C A 985	229.110	101.901	26.014	1.00	59.76	N	20656	N2	G A 987	233.347	103.170	36.202	1.00	70.37	N
ATOM	20607	C2	C A 985	230.245	102.226	26.769	1.00	59.76	C	20657	N3	G A 987	232.824	101.170	35.191	1.00	70.37	N
ATOM	20608	O2	C A 985	231.264	101.527	26.654	1.00	59.76	O	20658	C4	G A 987	231.853	100.553	34.487	1.00	70.37	C
ATOM	20609	N3	C A 985	230.204	103.294	27.594	1.00	59.76	N	20659	P	G A 988	231.722	95.457	37.842	1.00	97.09	P
ATOM	20610	C4	C A 985	229.094	104.028	27.675	1.00	59.76	C	20660	O1P	G A 988	232.256	94.322	38.644	1.00	81.39	O
ATOM	20611	N4	C A 985	229.093	105.071	28.499	1.00	59.76	N	20661	O2P	G A 988	230.304	95.431	37.400	1.00	81.39	O
ATOM	20612	C5	C A 985	227.932	103.725	26.914	1.00	59.76	C	20662	O5*	G A 988	231.988	96.821	38.635	1.00	97.09	O
ATOM	20613	C6	C A 985	227.980	102.662	26.110	1.00	59.76	C	20663	C5*	G A 988	233.149	96.960	39.483	1.00	97.09	C
ATOM	20614	P	A A 986	227.073	97.225	27.518	1.00	92.32	P	20664	C4*	G A 988	233.182	98.316	40.155	1.00	97.09	C
ATOM	20615	O1P	A A 986	226.638	95.810	27.385	1.00	54.56	O	20665	O4*	ATOM	233.261	99.356	39.149	1.00	97.09	O



ATOM	20666	C3*	G A 988	231.985	98.714	41.004	1.00	97.09	C	ATOM	20716	O2	C A 990	221.474	105.966	42.450	1.00	90.62	O
ATOM	20667	O3*	G A 988	232.025	98.198	42.319	1.00	97.09	O	ATOM	20717	N3	C A 990	221.807	103.986	41.382	1.00	90.62	N
ATOM	20668	C2*	G A 988	232.078	100.233	41.017	1.00	97.09	C	ATOM	20718	C4	C A 990	222.494	102.842	41.309	1.00	90.62	C
ATOM	20669	O2*	G A 988	232.978	100.738	41.986	1.00	97.09	O	ATOM	20719	N4	C A 990	222.170	101.975	40.348	1.00	90.62	N
ATOM	20670	C1*	G A 988	232.584	100.516	39.605	1.00	97.09	C	ATOM	20720	C5	C A 990	223.542	102.533	42.219	1.00	90.62	C
ATOM	20671	N9	G A 988	231.437	100.747	38.737	1.00	81.39	N	ATOM	20721	C6	C A 990	223.823	103.432	43.172	1.00	90.62	C
ATOM	20672	C8	G A 988	230.821	99.841	37.903	1.00	81.39	C	ATOM	20722	P	U A 991	222.484	103.319	48.609	1.00	100.62	P
ATOM	20673	N7	G A 988	229.769	100.331	37.306	1.00	81.39	N	ATOM	20723	O1P	U A 991	223.480	103.026	49.668	1.00	100.62	O
ATOM	20674	C5	G A 988	229.697	101.641	37.761	1.00	81.39	C	ATOM	20724	O2P	U A 991	222.118	102.254	47.639	1.00	100.62	O
ATOM	20675	C6	G A 988	228.762	102.656	37.475	1.00	81.39	C	ATOM	20725	O5*	U A 991	221.159	103.839	49.322	1.00	100.62	O
ATOM	20676	O6	G A 988	227.770	102.602	36.733	1.00	81.39	O	ATOM	20726	C5*	U A 991	219.848	103.502	48.824	1.00	100.62	C
ATOM	20677	N1	G A 988	229.061	103.831	38.158	1.00	81.39	N	ATOM	20727	C4*	U A 991	219.333	104.605	47.931	1.00	100.62	C
ATOM	20678	C2	G A 988	230.122	104.001	39.010	1.00	81.39	C	ATOM	20728	O4*	U A 991	220.026	104.544	46.663	1.00	100.62	O
ATOM	20679	N2	G A 988	230.240	105.200	39.586	1.00	81.39	N	ATOM	20729	C3*	U A 991	217.857	104.538	47.577	1.00	100.62	C
ATOM	20680	N3	G A 988	231.001	103.061	39.283	1.00	81.39	N	ATOM	20730	O3*	U A 991	217.135	105.233	48.595	1.00	100.62	O
ATOM	20681	C4	G A 988	230.729	101.915	38.632	1.00	81.39	C	ATOM	20731	C2*	U A 991	217.791	105.264	46.234	1.00	100.62	C
ATOM	20682	P	C A 989	230.648	97.919	43.092	1.00	98.88	P	ATOM	20732	O2*	U A 991	217.717	106.665	46.383	1.00	100.62	O
ATOM	20683	O1P	C A 989	231.027	97.548	44.478	1.00	90.08	O	ATOM	20733	C1*	U A 991	219.153	104.935	45.619	1.00	100.62	C
ATOM	20684	O2P	C A 989	229.835	96.979	42.272	1.00	90.08	O	ATOM	20734	N1	U A 991	219.183	103.912	44.556	1.00	100.62	N
ATOM	20685	O5*	C A 989	229.922	99.339	43.139	1.00	98.88	O	ATOM	20735	C2	U A 991	218.441	104.136	43.396	1.00	100.62	C
ATOM	20686	C5*	C A 989	230.451	100.387	43.962	1.00	98.88	C	ATOM	20736	O2	U A 991	217.725	105.114	43.230	1.00	100.62	O
ATOM	20687	C4*	C A 989	229.689	101.678	43.767	1.00	98.88	C	ATOM	20737	N3	U A 991	218.570	103.165	42.435	1.00	100.62	N
ATOM	20688	O4*	C A 989	229.663	102.029	42.358	1.00	98.88	O	ATOM	20738	C4	U A 991	219.334	102.018	42.507	1.00	100.62	C
ATOM	20689	C3*	C A 989	228.228	101.760	44.183	1.00	98.88	C	ATOM	20739	O4	U A 991	219.378	101.260	41.538	1.00	100.62	O
ATOM	20690	O3*	C A 989	228.051	101.945	45.588	1.00	98.88	O	ATOM	20740	C5	U A 991	220.043	101.848	43.734	1.00	100.62	C
ATOM	20691	C2*	C A 989	227.754	102.984	43.403	1.00	98.88	C	ATOM	20741	C6	U A 991	219.945	102.771	44.691	1.00	100.62	C
ATOM	20692	O2*	C A 989	228.124	104.210	44.007	1.00	98.88	O	ATOM	20742	P	U A 992	215.528	105.309	48.552	1.00	100.62	P
ATOM	20693	C1*	C A 989	228.530	102.841	42.097	1.00	98.88	C	ATOM	20743	O1P	U A 992	215.031	104.354	49.575	1.00	99.41	O
ATOM	20694	N1	C A 989	227.693	102.219	41.052	1.00	90.08	N	ATOM	20744	O2P	U A 992	215.061	105.186	47.148	1.00	99.41	O
ATOM	20695	C2	C A 989	226.815	103.041	40.329	1.00	90.08	C	ATOM	20745	O5*	U A 992	215.216	106.793	49.042	1.00	100.62	O
ATOM	20696	O2	C A 989	226.811	104.256	40.555	1.00	90.08	O	ATOM	20746	C5*	U A 992	216.096	107.865	48.675	1.00	100.62	C
ATOM	20697	N3	C A 989	225.997	102.489	39.406	1.00	90.08	N	ATOM	20747	C4*	U A 992	215.322	109.133	48.436	1.00	100.62	C
ATOM	20698	C4	C A 989	226.037	101.176	39.183	1.00	90.08	C	ATOM	20748	O4*	U A 992	214.166	108.844	47.619	1.00	100.62	O
ATOM	20699	N4	C A 989	225.199	100.675	38.275	1.00	90.08	N	ATOM	20749	C3*	U A 992	214.753	109.821	49.663	1.00	100.62	C
ATOM	20700	C5	C A 989	226.937	100.316	39.884	1.00	90.08	C	ATOM	20750	O3*	U A 992	215.767	110.583	50.359	1.00	100.62	O
ATOM	20701	C6	C A 989	227.741	100.875	40.800	1.00	90.08	C	ATOM	20751	C2*	U A 992	213.536	110.594	49.136	1.00	100.62	C
ATOM	20702	P	C A 990	226.630	101.589	46.273	1.00	100.62	P	ATOM	20752	O2*	U A 992	213.776	111.929	48.753	1.00	100.62	O
ATOM	20703	O1P	C A 990	226.841	101.634	47.742	1.00	90.62	O	ATOM	20753	C1*	U A 992	213.158	109.801	47.882	1.00	100.62	C
ATOM	20704	O2P	C A 990	226.073	100.358	45.648	1.00	90.62	O	ATOM	20754	N1	U A 992	211.829	109.164	47.810	1.00	99.41	N
ATOM	20705	O5*	C A 990	225.694	102.822	45.895	1.00	100.62	O	ATOM	20755	C2	U A 992	210.707	109.986	47.871	1.00	99.41	C
ATOM	20706	C5*	C A 990	225.933	104.122	46.469	1.00	100.62	C	ATOM	20756	O2	U A 992	210.768	111.186	48.080	1.00	99.41	O
ATOM	20707	C4*	C A 990	224.782	105.056	46.174	1.00	100.62	C	ATOM	20757	N3	U A 992	209.508	109.343	47.684	1.00	99.41	N
ATOM	20708	O4*	C A 990	224.764	105.395	44.763	1.00	100.62	O	ATOM	20758	C4	U A 992	209.311	107.993	47.467	1.00	99.41	C
ATOM	20709	C3*	C A 990	223.387	104.518	46.454	1.00	100.62	C	ATOM	20759	O4	U A 992	208.174	107.578	47.232	1.00	99.41	O
ATOM	20710	O3*	C A 990	223.019	104.621	47.826	1.00	100.62	O	ATOM	20760	C5	U A 992	210.506	107.206	47.471	1.00	99.41	C
ATOM	20711	C2*	C A 990	222.516	105.387	45.550	1.00	100.62	C	ATOM	20761	C6	U A 992	211.692	107.799	47.641	1.00	99.41	C
ATOM	20712	O2*	C A 990	222.200	106.648	46.112	1.00	100.62	O	ATOM	20762	P	G A 993	216.605	111.755	49.610	1.00	134.29	P
ATOM	20713	C1*	C A 990	223.423	105.579	44.335	1.00	100.62	C	ATOM	20763	O1P	G A 993	217.847	111.912	50.409	1.00	80.85	O
ATOM	20714	N1	C A 990	223.124	104.603	43.268	1.00	90.62	N	ATOM	20764	O2P	G A 993	215.760	112.947	49.360	1.00	80.85	O
ATOM	20715	C2	C A 990	222.095	104.890	42.350	1.00	90.62	C	ATOM	20765	O5*	G A 993	217.052	111.102	48.224	1.00	134.29	O



ATOM 20766	C5*	G A 993	217.298	111.897	47.040	1.00134.29	C	ATOM 20816	C2*	C A 995	215.703	119.768	41.874	1.00109.76	C
ATOM 20767	C4*	G A 993	218.057	111.076	46.016	1.00134.29	O	ATOM 20817	O2*	C A 995	215.484	120.885	41.035	1.00109.76	O
ATOM 20768	C4*	G A 993	217.445	109.769	45.908	1.00134.29	C	ATOM 20818	C1*	C A 995	216.674	118.786	41.220	1.00109.76	C
ATOM 20769	C3*	G A 993	218.099	111.615	44.591	1.00134.29	C	ATOM 20819	N1	C A 995	216.397	117.380	41.569	1.00 80.84	N
ATOM 20770	O3*	G A 993	219.106	112.630	44.420	1.00134.29	O	ATOM 20820	C2	C A 995	215.152	116.823	41.247	1.00 80.84	C
ATOM 20771	C2*	G A 993	218.239	110.364	43.720	1.00134.29	C	ATOM 20821	O2	C A 995	214.292	117.538	40.713	1.00 80.84	O
ATOM 20772	O2*	G A 993	219.569	109.953	43.478	1.00134.29	O	ATOM 20822	N3	C A 995	214.919	115.521	41.533	1.00 80.84	N
ATOM 20773	C1*	G A 993	217.553	109.298	44.580	1.00134.29	C	ATOM 20823	C4	C A 995	215.863	114.787	42.127	1.00 80.84	C
ATOM 20774	N9	G A 993	216.257	108.757	44.168	1.00 80.85	N	ATOM 20824	N4	C A 995	215.597	113.503	42.385	1.00 80.84	N
ATOM 20775	C8	G A 993	216.025	107.468	43.745	1.00 80.85	C	ATOM 20825	C5	C A 995	217.127	115.333	42.485	1.00 80.84	C
ATOM 20776	N7	G A 993	214.763	107.213	43.532	1.00 80.85	N	ATOM 20826	C6	C A 995	217.349	116.620	42.192	1.00 80.84	C
ATOM 20777	C5	G A 993	214.116	108.410	43.810	1.00 80.85	C	ATOM 20827	P	A A 996	215.436	121.372	45.159	1.00117.25	P
ATOM 20778	C6	G A 993	212.736	108.731	43.774	1.00 80.85	C	ATOM 20828	O1P	A A 996	215.889	122.613	45.829	1.00 70.84	O
ATOM 20779	O6	G A 993	211.786	107.994	43.493	1.00 80.85	O	ATOM 20829	O2P	A A 996	215.710	120.053	45.787	1.00 70.84	O
ATOM 20780	N1	G A 993	212.507	110.060	44.121	1.00 80.85	N	ATOM 20830	O5*	A A 996	213.881	121.464	44.849	1.00117.25	O
ATOM 20781	C2	G A 993	213.483	110.966	44.464	1.00 80.85	C	ATOM 20831	C5*	A A 996	213.361	122.531	44.043	1.00117.25	C
ATOM 20782	N2	G A 993	213.054	112.204	44.762	1.00 80.85	N	ATOM 20832	C4*	A A 996	211.867	122.417	43.949	1.00117.25	C
ATOM 20783	N3	G A 993	214.781	110.677	44.510	1.00 80.85	N	ATOM 20833	O4*	A A 996	211.514	121.294	43.107	1.00117.25	O
ATOM 20784	C4	G A 993	215.024	109.387	44.177	1.00 80.85	C	ATOM 20834	C3*	A A 996	211.191	122.123	45.273	1.00117.25	C
ATOM 20785	P	A A 994	220.672	112.322	44.718	1.00 91.65	P	ATOM 20835	O3*	A A 996	210.988	123.291	46.039	1.00117.25	O
ATOM 20786	O1P	A A 994	221.305	111.640	43.562	1.00 82.33	O	ATOM 20836	C2*	A A 996	209.901	121.439	44.855	1.00117.25	C
ATOM 20787	O2P	A A 994	220.819	111.730	46.065	1.00 82.33	O	ATOM 20837	C2*	A A 996	208.878	122.348	44.499	1.00117.25	C
ATOM 20788	O5*	A A 994	221.275	113.792	44.807	1.00 91.65	O	ATOM 20838	C1*	A A 996	210.364	120.653	43.630	1.00117.25	C
ATOM 20789	C5*	A A 994	222.602	114.095	44.344	1.00 91.65	C	ATOM 20839	N9	A A 996	210.731	119.284	43.979	1.00 70.84	N
ATOM 20790	C4*	A A 994	222.538	115.049	43.172	1.00 91.65	C	ATOM 20840	C8	A A 996	211.987	118.757	44.159	1.00 70.84	C
ATOM 20791	O4*	A A 994	222.417	114.307	41.934	1.00 91.65	O	ATOM 20841	N7	A A 996	211.986	117.480	44.461	1.00 70.84	N
ATOM 20792	C3*	A A 994	221.358	116.011	43.174	1.00 91.65	C	ATOM 20842	C5	A A 996	210.640	117.146	44.484	1.00 70.84	C
ATOM 20793	O3*	A A 994	221.602	117.166	43.969	1.00 91.65	O	ATOM 20843	C6	A A 996	209.971	115.937	44.739	1.00 70.84	C
ATOM 20794	C2*	A A 994	221.185	116.338	41.696	1.00 91.65	C	ATOM 20844	N6	A A 996	210.592	114.791	45.032	1.00 70.84	N
ATOM 20795	O2*	A A 994	222.060	117.364	41.273	1.00 91.65	O	ATOM 20845	N1	A A 996	208.621	115.946	44.684	1.00 70.84	N
ATOM 20796	C1*	A A 994	221.578	115.012	41.034	1.00 91.65	C	ATOM 20846	C2	A A 996	207.996	117.098	44.393	1.00 70.84	C
ATOM 20797	N9	A A 994	220.452	114.138	40.673	1.00 82.33	N	ATOM 20847	N3	A A 996	208.514	118.296	44.137	1.00 70.84	N
ATOM 20798	C8	A A 994	220.332	112.784	40.907	1.00 82.33	C	ATOM 20848	C4	A A 996	209.856	118.250	44.196	1.00 70.84	C
ATOM 20799	N7	A A 994	219.218	112.264	40.453	1.00 82.33	N	ATOM 20849	P	U A 997	211.043	123.196	47.639	1.00140.92	P
ATOM 20800	C5	A A 994	218.555	113.342	39.883	1.00 82.33	C	ATOM 20850	O1P	U A 997	211.254	124.585	48.118	1.00 85.77	O
ATOM 20801	C6	A A 994	217.323	113.447	39.225	1.00 82.33	C	ATOM 20851	O2P	U A 997	212.010	122.133	48.030	1.00 85.77	O
ATOM 20802	N6	A A 994	216.505	112.415	39.020	1.00 82.33	N	ATOM 20852	O5*	U A 997	209.576	122.708	48.026	1.00140.92	O
ATOM 20803	N1	A A 994	216.954	114.661	38.775	1.00 82.33	N	ATOM 20853	C5*	U A 997	208.424	123.486	47.653	1.00140.92	C
ATOM 20804	C2	A A 994	217.780	115.696	38.971	1.00 82.33	C	ATOM 20854	C4*	U A 997	207.162	122.679	47.826	1.00140.92	C
ATOM 20805	N3	A A 994	218.964	115.727	39.572	1.00 82.33	N	ATOM 20855	O4*	U A 997	207.150	121.583	46.875	1.00140.92	O
ATOM 20806	C4	A A 994	219.300	114.503	40.013	1.00 82.33	C	ATOM 20856	C3*	U A 997	206.984	122.000	49.175	1.00140.92	C
ATOM 20807	P	C A 995	220.372	117.890	44.712	1.00109.76	P	ATOM 20857	O3*	U A 997	206.465	122.851	50.182	1.00140.92	O
ATOM 20808	O1P	C A 995	220.915	118.904	45.662	1.00 80.84	O	ATOM 20858	C2*	U A 997	206.032	120.861	48.848	1.00140.92	C
ATOM 20809	O2P	C A 995	219.449	116.829	45.213	1.00 80.84	O	ATOM 20859	O2*	U A 997	204.675	121.260	48.819	1.00140.92	O
ATOM 20810	O5*	C A 995	219.646	118.683	43.539	1.00109.76	O	ATOM 20860	C1*	U A 997	206.511	120.457	47.454	1.00140.92	C
ATOM 20811	C5*	C A 995	218.865	119.849	43.823	1.00109.76	C	ATOM 20861	N1	U A 997	207.489	119.365	47.563	1.00 85.77	N
ATOM 20812	C4*	C A 995	217.903	120.130	42.697	1.00109.76	C	ATOM 20862	C2	U A 997	207.000	118.066	47.634	1.00 85.77	C
ATOM 20813	O4*	C A 995	217.977	119.095	41.687	1.00109.76	O	ATOM 20863	O2	U A 997	205.811	117.788	47.551	1.00 85.77	O
ATOM 20814	C3*	C A 995	216.458	120.121	43.141	1.00109.76	C	ATOM 20864	N3	U A 997	207.958	117.099	47.805	1.00 85.77	N
ATOM 20815	O3*	C A 995	216.097	121.356	43.706	1.00109.76	O	ATOM 20865	C4	U A 997	209.322	117.284	47.903	1.00 85.77	C



Table 2: Sheet 210/520

ATOM	20866	O4	U A 997	210.045	116.312	48.142	1.00	85.77	O	ATOM	20916	C5*	U A1000	202.657	112.219	60.648	1.00195.56
ATOM	20867	C5	U A 997	209.752	118.651	47.789	1.00	85.77	C	ATOM	20917	C4*	U A1000	203.165	110.801	60.809	1.00195.56
ATOM	20868	C6	U A 997	208.845	119.617	47.626	1.00	85.77	C	ATOM	20918	O4*	U A1000	203.679	110.313	59.542	1.00195.56
ATOM	20869	P	G A 998	206.804	122.540	51.721	1.00140.15	P	ATOM	20919	C3*	U A1000	204.313	110.599	61.787	1.00195.56	
ATOM	20870	O1P	G A 998	206.141	123.603	52.513	1.00100.49	O	ATOM	20920	O3*	U A1000	203.880	110.491	63.134	1.00195.56	
ATOM	20871	O2P	G A 998	208.269	122.330	51.857	1.00100.49	O	ATOM	20921	C2*	U A1000	204.955	109.310	61.289	1.00195.56	
ATOM	20872	O5*	G A 998	206.076	121.151	52.010	1.00140.15	O	ATOM	20922	O2*	U A1000	204.304	108.145	61.759	1.00195.56	
ATOM	20873	C5*	G A 998	204.643	121.076	52.045	1.00140.15	C	ATOM	20923	C1*	U A1000	204.773	109.438	59.776	1.00195.56	
ATOM	20874	C4*	G A 998	204.181	119.669	52.349	1.00140.15	C	ATOM	20924	N1	U A1000	205.973	109.995	59.130	1.00161.37	
ATOM	20875	O4*	G A 998	204.576	118.774	51.277	1.00140.15	O	ATOM	20925	C2	U A1000	206.939	109.106	58.683	1.00161.37	
ATOM	20876	C3*	G A 998	204.708	118.987	53.605	1.00140.15	C	ATOM	20926	O2	U A1000	206.824	107.891	58.782	1.00161.37	
ATOM	20877	O3*	G A 998	204.033	119.371	54.798	1.00140.15	O	ATOM	20927	N3	U A1000	208.047	109.693	58.117	1.00161.37	
ATOM	20878	C2*	G A 998	204.470	117.513	53.297	1.00140.15	C	ATOM	20928	C4	U A1000	208.284	111.046	57.951	1.00161.37	
ATOM	20879	O2*	G A 998	203.153	117.085	53.581	1.00140.15	O	ATOM	20929	O4	U A1000	209.344	111.421	57.445	1.00161.37	
ATOM	20880	C1*	G A 998	204.724	117.460	51.791	1.00140.15	C	ATOM	20930	C5	U A1000	207.237	111.896	58.426	1.00161.37	
ATOM	20881	N9	G A 998	206.077	116.980	51.534	1.00100.49	N	ATOM	20931	C6	U A1000	206.145	111.358	58.983	1.00161.37	
ATOM	20882	C8	G A 998	207.209	117.723	51.292	1.00100.49	C	ATOM	20932	P	U A1001	204.839	111.007	64.316	1.00200.58	
ATOM	20883	N7	G A 998	208.283	116.990	51.166	1.00100.49	N	ATOM	20933	O1P	A A1001	204.129	110.745	65.592	1.00200.56	
ATOM	20884	C5	G A 998	207.831	115.683	51.318	1.00100.49	C	ATOM	20934	O2P	A A1001	205.286	112.390	63.996	1.00200.56	
ATOM	20885	C6	G A 998	208.540	114.444	51.285	1.00100.49	C	ATOM	20935	O5*	A A1001	206.112	110.046	64.233	1.00200.58	
ATOM	20886	O6	G A 998	209.750	114.248	51.108	1.00100.49	O	ATOM	20936	C5*	A A1001	206.000	108.628	64.497	1.00200.58	
ATOM	20887	N1	G A 998	207.687	113.361	51.485	1.00100.49	N	ATOM	20937	C4*	A A1001	207.301	107.921	64.170	1.00200.58	
ATOM	20888	C2	G A 998	206.332	113.451	51.690	1.00100.49	C	ATOM	20938	O4*	A A1001	207.602	108.111	62.761	1.00200.58	
ATOM	20889	N2	G A 998	205.683	112.294	51.860	1.00100.49	N	ATOM	20939	C3*	A A1001	208.545	108.409	64.906	1.00200.58	
ATOM	20890	N3	G A 998	205.663	114.591	51.725	1.00100.49	N	ATOM	20940	O3*	A A1001	208.698	107.767	66.177	1.00200.58	
ATOM	20891	C4	G A 998	206.470	115.660	51.533	1.00100.49	C	ATOM	20941	C2*	A A1001	209.674	108.045	63.945	1.00200.58	
ATOM	20892	P	C A 999	204.641	118.944	56.229	1.00180.78	P	ATOM	20942	O2*	A A1001	210.093	106.701	64.079	1.00200.58	
ATOM	20893	O1P	C A 999	203.932	119.752	57.256	1.00119.41	O	ATOM	20943	C1*	A A1001	209.004	108.232	62.580	1.00200.58	
ATOM	20894	O2P	C A 999	206.126	118.995	56.157	1.00119.41	O	ATOM	20944	N9	A A1001	209.285	109.528	61.951	1.00200.56	
ATOM	20895	O5*	C A 999	204.212	117.416	56.396	1.00180.78	O	ATOM	20945	C8	A A1001	208.411	110.567	61.730	1.00200.56	
ATOM	20896	C5*	C A 999	202.824	117.053	56.494	1.00180.78	C	ATOM	20946	N7	A A1001	208.955	111.602	61.136	1.00200.56	
ATOM	20897	C4*	C A 999	202.662	115.557	56.656	1.00180.78	C	ATOM	20947	C5	A A1001	210.278	111.224	60.952	1.00200.56	
ATOM	20898	O4*	C A 999	203.151	114.865	55.476	1.00180.78	O	ATOM	20948	C6	A A1001	211.378	111.883	60.374	1.00200.56	
ATOM	20899	C3*	C A 999	203.393	114.878	57.805	1.00180.78	C	ATOM	20949	N6	A A1001	211.316	113.108	59.851	1.00200.56	
ATOM	20900	O3*	C A 999	202.723	115.010	59.052	1.00180.78	O	ATOM	20950	N1	A A1001	212.559	111.230	60.349	1.00200.56	
ATOM	20901	C2*	C A 999	203.429	113.422	57.354	1.00180.78	C	ATOM	20951	C2	A A1001	212.621	109.999	60.872	1.00200.56	
ATOM	20902	O2*	C A 999	202.235	112.720	57.640	1.00180.78	O	ATOM	20952	N3	A A1001	211.660	109.274	61.442	1.00200.56	
ATOM	20903	C1*	C A 999	203.587	113.564	55.840	1.00180.78	C	ATOM	20953	C4	A A1001	210.497	109.951	61.451	1.00200.56	
ATOM	20904	N1	C A 999	204.992	113.371	55.435	1.00119.41	N	ATOM	20954	P	G A1002	209.757	108.343	67.250	1.00200.57	
ATOM	20905	C2	C A 999	205.432	112.065	55.148	1.00119.41	C	ATOM	20955	O1P	G A1002	209.118	108.229	68.586	1.00200.58	
ATOM	20906	O2	C A 999	204.617	111.126	55.201	1.00119.41	O	ATOM	20956	O2P	G A1002	210.267	109.663	66.795	1.00200.58	
ATOM	20907	N3	C A 999	206.729	111.859	54.824	1.00119.41	N	ATOM	20957	O5*	G A1002	210.967	107.306	67.192	1.00200.57	
ATOM	20908	C4	C A 999	207.576	112.890	54.771	1.00119.41	C	ATOM	20958	C5*	G A1002	210.852	105.998	67.791	1.00200.57	
ATOM	20909	N4	C A 999	208.851	112.632	54.460	1.00119.41	N	ATOM	20959	C4*	G A1002	212.087	105.172	67.504	1.00200.57	
ATOM	20910	C5	C A 999	207.155	114.230	55.038	1.00119.41	C	ATOM	20960	O4*	G A1002	212.191	104.941	66.075	1.00200.57	
ATOM	20911	C6	C A 999	205.866	114.423	55.360	1.00119.41	C	ATOM	20961	C3*	G A1002	213.419	105.800	67.889	1.00200.57	
ATOM	20912	P	U A1000	203.523	114.707	60.416	1.00195.56	P	ATOM	20962	O3*	G A1002	213.746	105.580	69.255	1.00200.57	
ATOM	20913	O1P	U A1000	202.609	115.038	61.538	1.00161.37	O	ATOM	20963	C2*	G A1002	214.400	105.100	66.955	1.00200.57	
ATOM	20914	O2P	U A1000	204.854	115.363	60.340	1.00161.37	O	ATOM	20964	O2*	G A1002	214.814	103.834	67.430	1.00200.57	
ATOM	20915	O5*	U A1000	203.749	113.128	60.394	1.00195.56	O	ATOM	20965	C1*	G A1002	213.557	104.928	65.690	1.00200.57	



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ATOM	20966	N9	G A1002	213.781	106.017	64.743	1.00200.58	N	ATOM	21016	C6	G A1003A	217.050	113.656	63.851	1.00180.65	C
ATOM	20967	C8	G A1002	212.963	107.097	64.506	1.00200.58	C	ATOM	21017	O6	G A1003A	215.846	113.927	63.833	1.00180.65	O
ATOM	20968	N7	G A1002	213.451	107.928	63.626	1.00200.58	N	ATOM	21018	N1	G A1003A	217.771	113.631	62.665	1.00180.65	N
ATOM	20969	C5	G A1002	214.663	107.362	63.254	1.00200.58	C	ATOM	21019	C2	G A1003A	219.110	113.354	62.561	1.00180.65	C
ATOM	20970	C6	G A1002	215.650	107.819	62.337	1.00200.58	C	ATOM	21020	N2	G A1003A	219.628	113.400	61.329	1.00180.65	N
ATOM	20971	O6	G A1002	215.652	108.854	61.654	1.00200.58	O	ATOM	21021	N3	G A1003A	219.884	113.059	63.590	1.00180.65	N
ATOM	20972	N1	G A1002	216.722	106.935	62.258	1.00200.58	N	ATOM	21022	C4	G A1003A	219.203	113.076	64.753	1.00180.65	C
ATOM	20973	C2	G A1002	216.837	105.767	62.972	1.00200.58	C	ATOM	21023	P	A A1004	222.866	115.922	68.983	1.00200.58	P
ATOM	20974	N2	G A1002	217.949	105.048	62.754	1.00200.58	N	ATOM	21024	O1P	A A1004	224.252	116.402	68.734	1.00190.19	O
ATOM	20975	N3	G A1002	215.931	105.335	63.835	1.00200.58	N	ATOM	21025	O2P	A A1004	222.168	116.319	70.233	1.00190.19	O
ATOM	20976	C4	G A1002	214.877	106.176	63.925	1.00200.58	C	ATOM	21026	O5*	A A1004	221.947	116.356	67.753	1.00200.58	O
ATOM	20977	P	G A1003	214.117	106.832	70.197	1.00200.58	P	ATOM	21027	C5*	A A1004	222.486	117.043	66.603	1.00200.58	C
ATOM	20978	O1P	G A1003	214.721	106.285	71.440	1.00200.58	O	ATOM	21028	C4*	A A1004	221.858	116.514	65.333	1.00200.58	C
ATOM	20979	O2P	G A1003	212.918	107.708	70.285	1.00200.58	O	ATOM	21029	O4*	A A1004	220.433	116.317	65.521	1.00200.58	O
ATOM	20980	O5*	G A1003	215.244	107.628	69.395	1.00200.58	O	ATOM	21030	C3*	A A1004	221.965	117.425	64.122	1.00200.58	C
ATOM	20981	C5*	G A1003	216.578	107.096	69.237	1.00200.58	C	ATOM	21031	O3*	A A1004	223.212	117.287	63.456	1.00200.58	O
ATOM	20982	C4*	G A1003	217.345	107.913	68.222	1.00200.58	C	ATOM	21032	C2*	A A1004	220.792	116.974	63.258	1.00200.58	C
ATOM	20983	O4*	G A1003	216.596	107.902	66.977	1.00200.58	O	ATOM	21033	O2*	A A1004	221.085	115.842	62.465	1.00200.58	O
ATOM	20984	C3*	G A1003	217.512	109.391	68.554	1.00200.58	C	ATOM	21034	C1*	A A1004	219.747	116.604	64.315	1.00200.58	C
ATOM	20985	O3*	G A1003	218.654	109.657	69.366	1.00200.58	O	ATOM	21035	N9	A A1004	218.795	117.684	64.578	1.00190.19	N
ATOM	20986	C2*	G A1003	217.631	110.034	67.179	1.00200.58	C	ATOM	21036	C8	A A1004	219.050	119.034	64.595	1.00190.19	C
ATOM	20987	O2*	G A1003	218.935	109.956	66.638	1.00200.58	O	ATOM	21037	N7	A A1004	217.999	119.767	64.853	1.00190.19	N
ATOM	20988	C1*	G A1003	216.680	109.171	66.351	1.00200.58	C	ATOM	21038	C5	A A1004	216.979	118.844	65.021	1.00190.19	C
ATOM	20989	N9	G A1003	215.336	109.740	66.285	1.00200.58	N	ATOM	21039	C6	A A1004	215.611	118.990	65.316	1.00190.19	C
ATOM	20990	C8	G A1003	214.367	109.695	67.263	1.00200.58	C	ATOM	21040	N6	A A1004	215.013	120.173	65.496	1.00190.19	N
ATOM	20991	N7	G A1003	213.263	110.301	66.920	1.00200.58	N	ATOM	21041	N1	A A1004	214.869	117.866	65.420	1.00190.19	N
ATOM	20992	C5	G A1003	213.513	110.773	65.638	1.00200.58	C	ATOM	21042	C2	A A1004	215.470	116.683	65.235	1.00190.19	C
ATOM	20993	C6	G A1003	212.684	111.509	64.752	1.00200.58	C	ATOM	21043	N3	A A1004	216.745	116.417	64.952	1.00190.19	N
ATOM	20994	O6	G A1003	211.524	111.905	64.930	1.00200.58	O	ATOM	21044	C4	A A1004	217.455	117.554	64.856	1.00190.19	C
ATOM	20995	N1	G A1003	213.334	111.781	63.551	1.00200.58	N	ATOM	21045	P	A A1005	224.284	118.485	63.516	1.00200.58	P
ATOM	20996	C2	G A1003	214.615	111.397	63.241	1.00200.58	C	ATOM	21046	O1P	A A1005	225.081	118.438	62.263	1.00200.58	O
ATOM	20997	N2	G A1003	215.063	111.756	62.031	1.00200.58	N	ATOM	21047	O2P	A A1005	224.975	118.409	64.828	1.00200.58	O
ATOM	20998	N3	G A1003	215.400	110.712	64.038	1.00200.58	N	ATOM	21048	O5*	A A1005	223.411	119.820	63.502	1.00200.58	O
ATOM	20999	C4	G A1003	214.789	110.435	65.231	1.00200.58	C	ATOM	21049	C5*	A A1005	222.485	120.109	62.433	1.00200.58	C
ATOM	21000	P	G A1003A	218.653	110.933	70.351	1.00200.58	P	ATOM	21050	C4*	A A1005	222.597	121.562	62.033	1.00200.58	C
ATOM	21001	O1P	G A1003A	219.166	110.464	71.665	1.00180.65	O	ATOM	21051	O4*	A A1005	222.576	122.362	63.244	1.00200.58	O
ATOM	21002	O2P	G A1003A	217.323	111.598	70.278	1.00180.65	O	ATOM	21052	C3*	A A1005	223.894	121.944	61.326	1.00200.58	C
ATOM	21003	O5*	G A1003A	219.731	111.928	69.723	1.00200.58	O	ATOM	21053	O3*	A A1005	223.761	121.789	59.908	1.00200.58	O
ATOM	21004	C5*	G A1003A	221.142	111.631	69.778	1.00200.58	C	ATOM	21054	C2*	A A1005	224.073	123.411	61.710	1.00200.58	C
ATOM	21005	C4*	G A1003A	221.828	112.115	68.521	1.00200.58	C	ATOM	21055	O2*	A A1005	223.353	124.298	60.876	1.00200.58	O
ATOM	21006	O4*	G A1003A	221.127	111.553	67.378	1.00200.58	O	ATOM	21056	C1*	A A1005	223.477	123.448	63.120	1.00200.58	C
ATOM	21007	C3*	G A1003A	221.811	113.619	68.271	1.00200.58	C	ATOM	21057	N9	A A1005	224.471	123.343	64.190	1.00200.58	N
ATOM	21008	O3*	G A1003A	222.889	114.311	68.903	1.00200.58	O	ATOM	21058	C8	A A1005	225.128	122.216	64.624	1.00200.58	C
ATOM	21009	C2*	G A1003A	221.916	113.709	66.754	1.00200.58	C	ATOM	21059	N7	A A1005	225.960	122.436	65.613	1.00200.58	N
ATOM	21010	O2*	G A1003A	223.247	113.620	66.293	1.00200.58	O	ATOM	21060	C5	A A1005	225.847	123.799	65.845	1.00200.58	C
ATOM	21011	C1*	G A1003A	221.114	112.486	66.310	1.00200.58	C	ATOM	21061	C6	A A1005	226.471	124.652	66.767	1.00200.58	C
ATOM	21012	N9	G A1003A	219.726	112.822	66.000	1.00180.65	N	ATOM	21062	N6	A A1005	227.370	124.242	67.663	1.00200.58	N
ATOM	21013	C8	G A1003A	218.686	112.958	66.888	1.00180.65	C	ATOM	21063	N1	A A1005	226.136	125.960	66.738	1.00200.58	N
ATOM	21014	N7	G A1003A	217.557	113.271	66.313	1.00180.65	N	ATOM	21064	C2	A A1005	225.237	126.371	65.837	1.00200.58	C
ATOM	21015	C5	G A1003A	217.869	113.349	64.964	1.00180.65	C	ATOM	21065	N3	A A1005	224.583	125.666	64.918	1.00200.58	N



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ATOM	21066	C4	A	Al005	224.936	124.371	64.976	1.00200.58	C	ATOM	21116	C2*	C	Al008	239.741	118.831	58.778	1.00177.02	C
ATOM	21067	P	C	Al006	224.925	121.067	59.054	1.00200.44	P	ATOM	21117	O2*	C	Al008	241.039	118.899	59.334	1.00177.02	O
ATOM	21068	O1P	C	Al006	224.605	121.272	57.618	1.00200.58	O	ATOM	21118	C1*	C	Al008	238.723	119.100	59.890	1.00177.02	C
ATOM	21069	O2P	C	Al006	225.109	119.687	59.572	1.00200.58	O	ATOM	21119	N1	C	Al008	237.610	118.136	59.990	1.00192.55	N
ATOM	21070	O5*	C	Al006	226.244	121.899	59.378	1.00200.44	O	ATOM	21120	C2	C	Al008	237.525	117.317	61.133	1.00192.55	C
ATOM	21071	C5*	C	Al006	226.267	123.337	59.280	1.00200.44	C	ATOM	21121	O2	C	Al008	238.390	117.415	62.017	1.00192.55	O
ATOM	21072	C4*	C	Al006	227.432	123.885	60.069	1.00200.44	C	ATOM	21122	N3	C	Al008	236.504	116.442	61.243	1.00192.55	N
ATOM	21073	O4*	C	Al006	227.314	123.428	61.442	1.00200.44	O	ATOM	21123	C4	C	Al008	235.592	116.359	60.276	1.00192.55	C
ATOM	21074	C3*	C	Al006	228.797	123.395	59.611	1.00200.44	C	ATOM	21124	N4	C	Al008	234.594	115.491	60.437	1.00192.55	N
ATOM	21075	O3*	C	Al006	229.322	124.222	58.577	1.00200.44	O	ATOM	21125	C5	C	Al008	235.659	117.166	59.101	1.00192.55	C
ATOM	21076	C2*	C	Al006	229.633	123.455	60.885	1.00200.44	C	ATOM	21126	C6	C	Al008	236.674	118.033	59.000	1.00192.55	C
ATOM	21077	O2*	C	Al006	230.165	124.739	61.143	1.00200.44	O	ATOM	21127	P	G	Al009	241.270	119.382	55.991	1.00148.13	P
ATOM	21078	C1*	C	Al006	228.595	123.106	61.954	1.00200.44	C	ATOM	21128	O1P	G	Al009	242.400	120.106	55.349	1.00158.13	O
ATOM	21079	N1	C	Al006	228.598	121.678	62.337	1.00200.58	N	ATOM	21129	O2P	G	Al009	240.166	118.843	55.150	1.00158.13	O
ATOM	21080	C2	C	Al006	229.135	121.308	63.580	1.00200.58	C	ATOM	21130	O5*	G	Al009	241.872	118.198	56.868	1.00148.13	O
ATOM	21081	O2	C	Al006	229.584	122.188	64.334	1.00200.58	O	ATOM	21131	C5*	G	Al009	242.055	116.881	56.329	1.00148.13	C
ATOM	21082	N3	C	Al006	229.149	119.999	63.929	1.00200.58	N	ATOM	21132	C4*	G	Al009	242.275	115.897	57.450	1.00148.13	C
ATOM	21083	C4	C	Al006	228.653	119.080	63.096	1.00200.58	C	ATOM	21133	O4*	G	Al009	241.112	115.873	58.316	1.00148.13	O
ATOM	21084	N4	C	Al006	228.693	117.801	63.480	1.00200.58	N	ATOM	21134	C3*	G	Al009	242.469	114.458	57.018	1.00148.13	C
ATOM	21085	C5	C	Al006	228.096	119.429	61.832	1.00200.58	C	ATOM	21135	O3*	G	Al009	243.835	114.230	56.697	1.00148.13	O
ATOM	21086	C6	C	Al006	228.089	120.725	61.496	1.00200.58	C	ATOM	21136	C2*	G	Al009	242.021	113.665	58.243	1.00148.13	C
ATOM	21087	P	C	Al007	230.399	123.623	57.547	1.00196.89	P	ATOM	21137	O2*	G	Al009	243.042	113.491	59.204	1.00148.13	O
ATOM	21088	O1P	C	Al007	230.761	124.710	56.601	1.00158.23	O	ATOM	21138	C1*	G	Al009	240.919	114.562	58.820	1.00148.13	C
ATOM	21089	O2P	C	Al007	229.886	122.332	57.020	1.00158.23	O	ATOM	21139	N9	G	Al009	239.566	114.122	58.484	1.00158.13	N
ATOM	21090	O5*	C	Al007	231.668	123.312	58.456	1.00196.89	O	ATOM	21140	C8	G	Al009	238.599	114.836	57.816	1.00158.13	C
ATOM	21091	C5*	C	Al007	232.499	124.374	58.958	1.00196.89	C	ATOM	21141	N7	G	Al009	237.495	114.163	57.637	1.00158.13	N
ATOM	21092	C4*	C	Al007	233.725	123.799	59.622	1.00196.89	C	ATOM	21142	C5	G	Al009	237.742	112.929	58.227	1.00158.13	C
ATOM	21093	O4*	C	Al007	233.322	123.050	60.798	1.00196.89	O	ATOM	21143	C6	G	Al009	236.915	111.773	58.336	1.00158.13	C
ATOM	21094	C3*	C	Al007	234.501	122.803	58.776	1.00196.89	C	ATOM	21144	O6	G	Al009	235.762	111.600	57.908	1.00158.13	O
ATOM	21095	O3*	C	Al007	235.420	123.446	57.901	1.00196.89	O	ATOM	21145	N1	G	Al009	237.561	110.748	59.022	1.00158.13	N
ATOM	21096	C2*	C	Al007	235.184	121.930	59.821	1.00196.89	C	ATOM	21146	C2	G	Al009	238.836	110.817	59.532	1.00158.13	C
ATOM	21097	O2*	C	Al007	236.372	122.499	60.331	1.00196.89	O	ATOM	21147	N2	G	Al009	239.280	109.722	60.168	1.00158.13	N
ATOM	21098	C1*	C	Al007	234.129	121.891	60.929	1.00196.89	C	ATOM	21148	N3	G	Al009	239.618	111.880	59.426	1.00158.13	N
ATOM	21099	N1	C	Al007	233.259	120.699	60.850	1.00158.23	N	ATOM	21149	C4	G	Al009	239.012	112.892	58.767	1.00158.13	C
ATOM	21100	O2	C	Al007	233.793	119.442	61.180	1.00158.23	O	ATOM	21150	P	G	Al010	244.215	113.243	55.491	1.00135.00	P
ATOM	21101	O2	C	Al007	234.981	118.362	61.538	1.00158.23	O	ATOM	21151	O1P	G	Al010	245.688	113.329	55.303	1.00139.25	O
ATOM	21102	N3	C	Al007	233.001	118.349	61.101	1.00158.23	N	ATOM	21152	O2P	G	Al010	243.312	113.556	54.354	1.00139.25	O
ATOM	21103	C4	C	Al007	231.729	118.471	60.715	1.00158.23	C	ATOM	21153	O5*	G	Al010	243.858	111.795	56.063	1.00135.00	O
ATOM	21104	N4	C	Al007	230.984	117.364	60.653	1.00158.23	N	ATOM	21154	C5*	G	Al010	244.617	111.233	57.153	1.00135.00	C
ATOM	21105	C5	C	Al007	231.162	119.733	60.376	1.00158.23	C	ATOM	21155	C4*	G	Al010	244.003	109.935	57.638	1.00135.00	C
ATOM	21106	C6	C	Al007	231.953	120.809	60.457	1.00158.23	C	ATOM	21156	O4*	G	Al010	242.677	110.183	58.174	1.00135.00	O
ATOM	21107	P	C	Al008	236.023	122.638	56.648	1.00177.02	P	ATOM	21157	C3*	G	Al010	243.798	108.818	56.624	1.00135.00	C
ATOM	21108	O1P	C	Al008	236.756	123.618	55.803	1.00192.55	O	ATOM	21158	O3*	G	Al010	244.978	108.057	56.379	1.00135.00	O
ATOM	21109	O2P	C	Al008	234.942	121.816	56.046	1.00192.55	O	ATOM	21159	C2*	G	Al010	242.718	107.970	57.288	1.00135.00	C
ATOM	21110	O5*	C	Al008	237.088	121.658	57.312	1.00177.02	O	ATOM	21160	O2*	G	Al010	243.241	107.076	58.253	1.00135.00	O
ATOM	21111	C5*	C	Al008	238.189	122.193	58.060	1.00177.02	C	ATOM	21161	C1*	G	Al010	241.864	109.033	57.984	1.00135.00	C
ATOM	21112	C4*	C	Al008	238.989	121.088	58.703	1.00177.02	C	ATOM	21162	N9	G	Al010	240.680	109.405	57.207	1.00139.25	N
ATOM	21113	O4*	C	Al008	238.205	120.405	59.711	1.00177.02	O	ATOM	21163	C8	G	Al010	240.418	110.616	56.608	1.00139.25	C
ATOM	21114	C3*	C	Al008	239.462	119.969	57.795	1.00177.02	C	ATOM	21164	N7	G	Al010	239.280	110.637	55.966	1.00139.25	N
ATOM	21115	O3*	C	Al008	240.632	120.365	57.089	1.00177.02	O	ATOM	21165	C5	G	Al010	238.754	109.365	56.152	1.00139.25	C



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ATOM	21166	C6	G A1010	237.540	108.793	55.683	1.00139.25	C	ATOM	21216	P	G A1013	243.029	100.191	47.640	1.00130.36	P
ATOM	21167	O6	G A1010	236.658	109.315	54.987	1.00139.25	O	ATOM	21217	O1P	G A1013	243.564	98.905	47.120	1.00 88.35	O
ATOM	21168	N1	G A1010	237.402	107.474	56.104	1.00139.25	N	ATOM	21218	O2P	G A1013	243.967	101.244	48.103	1.00 88.35	O
ATOM	21169	C2	G A1010	238.310	106.791	56.875	1.00139.25	C	ATOM	21219	O5*	G A1013	242.082	100.858	46.544	1.00130.36	O
ATOM	21170	N2	G A1010	237.995	105.524	57.178	1.00139.25	N	ATOM	21220	C5*	G A1013	241.119	100.071	45.823	1.00130.36	C
ATOM	21171	N3	G A1010	239.443	107.310	57.317	1.00139.25	N	ATOM	21221	C4*	G A1013	240.199	100.960	45.017	1.00130.36	C
ATOM	21172	C4	G A1010	239.601	108.592	56.992	1.00139.25	C	ATOM	21222	O4*	G A1013	239.344	101.736	45.904	1.00130.36	O
ATOM	21173	P	G A1011	245.119	107.231	55.002	1.00130.49	P	ATOM	21223	C3*	G A1013	240.852	102.014	44.141	1.00130.36	C
ATOM	21174	O1P	G A1011	246.429	106.529	55.001	1.00115.60	O	ATOM	21224	O3*	G A1013	241.376	101.521	42.922	1.00130.36	O
ATOM	21175	O2P	G A1011	244.774	108.138	53.878	1.00115.60	O	ATOM	21225	C2*	G A1013	239.713	103.000	43.932	1.00130.36	C
ATOM	21176	O5*	G A1011	243.991	106.114	55.107	1.00130.49	O	ATOM	21226	O2*	G A1013	238.794	102.569	42.950	1.00130.36	O
ATOM	21177	C5*	G A1011	244.106	105.051	56.064	1.00130.49	C	ATOM	21227	C1*	G A1013	239.053	102.993	45.310	1.00130.36	C
ATOM	21178	C4*	G A1011	242.976	104.088	55.894	1.00130.49	C	ATOM	21228	N9	G A1013	239.684	104.043	46.101	1.00 88.35	N
ATOM	21179	O4*	G A1011	241.720	104.710	56.227	1.00130.49	O	ATOM	21229	C8	G A1013	240.814	103.928	46.870	1.00 88.35	C
ATOM	21180	C3*	G A1011	242.766	103.546	54.484	1.00130.49	C	ATOM	21230	N7	G A1013	241.230	105.069	47.343	1.00 88.35	N
ATOM	21181	O3*	G A1011	243.640	102.478	54.161	1.00130.49	O	ATOM	21231	C5	G A1013	240.302	105.992	46.884	1.00 88.35	C
ATOM	21182	C2*	G A1011	241.301	103.133	54.494	1.00130.49	C	ATOM	21232	C6	G A1013	240.248	107.399	47.052	1.00 88.35	C
ATOM	21183	O2*	G A1011	241.083	101.853	55.057	1.00130.49	O	ATOM	21233	O6	G A1013	241.042	108.134	47.649	1.00 88.35	O
ATOM	21184	C1*	G A1011	240.691	104.205	55.395	1.00130.49	C	ATOM	21234	N1	G A1013	239.135	107.946	46.428	1.00 88.35	N
ATOM	21185	N9	G A1011	240.130	105.311	54.624	1.00115.60	N	ATOM	21235	C2	G A1013	238.194	107.235	45.728	1.00 88.35	C
ATOM	21186	C8	G A1011	240.648	106.575	54.461	1.00115.60	C	ATOM	21236	N2	G A1013	237.182	107.956	45.208	1.00 88.35	N
ATOM	21187	N7	G A1011	239.903	107.341	53.709	1.00115.60	N	ATOM	21237	N3	G A1013	238.239	105.921	45.552	1.00 88.35	N
ATOM	21188	C5	G A1011	238.832	106.533	53.353	1.00115.60	C	ATOM	21238	C4	G A1013	239.316	105.370	46.150	1.00 88.35	C
ATOM	21189	C6	G A1011	237.698	106.810	52.544	1.00115.60	C	ATOM	21239	P	A A1014	242.635	102.268	42.255	1.00 89.98	P
ATOM	21190	O6	G A1011	237.403	107.863	51.959	1.00115.60	O	ATOM	21240	O1P	A A1014	243.065	101.447	41.092	1.00 97.44	O
ATOM	21191	N1	G A1011	236.864	105.699	52.444	1.00115.60	N	ATOM	21241	O2P	A A1014	243.613	102.585	43.324	1.00 97.44	O
ATOM	21192	C2	G A1011	237.092	104.480	53.045	1.00115.60	C	ATOM	21242	O5*	A A1014	242.032	103.656	41.743	1.00 89.98	O
ATOM	21193	N2	G A1011	236.177	103.526	52.842	1.00115.60	N	ATOM	21243	C5*	A A1014	242.849	104.601	41.008	1.00 89.98	C
ATOM	21194	N3	G A1011	238.141	104.214	53.795	1.00115.60	N	ATOM	21244	O4*	A A1014	242.024	105.307	39.950	1.00 89.98	O
ATOM	21195	C4	G A1011	238.962	105.276	53.908	1.00115.60	C	ATOM	21245	C4*	A A1014	241.531	104.341	38.988	1.00 89.98	C
ATOM	21196	P	U A1012	244.201	102.352	52.661	1.00172.22	P	ATOM	21246	C3*	A A1014	240.791	106.035	40.458	1.00 89.98	C
ATOM	21197	O1P	U A1012	245.158	101.211	52.620	1.00 80.86	O	ATOM	21247	O3*	A A1014	241.147	107.366	40.822	1.00 89.98	O
ATOM	21198	O2P	U A1012	244.648	103.708	52.229	1.00 80.86	O	ATOM	21248	C2*	A A1014	239.853	106.018	39.251	1.00 89.98	C
ATOM	21199	O5*	U A1012	242.914	101.946	51.815	1.00172.22	O	ATOM	21249	O2*	A A1014	240.082	107.085	38.354	1.00 89.98	O
ATOM	21200	C5*	U A1012	242.317	100.641	51.968	1.00172.22	C	ATOM	21250	C1*	A A1014	240.227	104.699	38.568	1.00 89.98	C
ATOM	21201	C4*	U A1012	241.147	100.485	51.027	1.00172.22	C	ATOM	21251	N9	A A1014	239.335	103.575	38.860	1.00 97.44	N
ATOM	21202	O4*	U A1012	240.075	101.369	51.439	1.00172.22	O	ATOM	21252	C8	A A1014	239.353	102.771	39.971	1.00 97.44	C
ATOM	21203	C3*	U A1012	241.416	100.865	49.580	1.00172.22	C	ATOM	21253	N7	A A1014	238.451	101.824	39.956	1.00 97.44	N
ATOM	21204	O3*	U A1012	242.026	99.821	48.839	1.00172.22	O	ATOM	21254	C5	A A1014	237.787	102.016	38.755	1.00 97.44	C
ATOM	21205	C2*	U A1012	240.030	101.219	49.064	1.00172.22	C	ATOM	21255	C6	A A1014	236.720	101.333	38.151	1.00 97.44	C
ATOM	21206	O2*	U A1012	239.266	100.088	48.699	1.00172.22	O	ATOM	21256	N6	A A1014	236.117	100.276	38.696	1.00 97.44	N
ATOM	21207	C1*	U A1012	239.411	101.876	50.295	1.00172.22	C	ATOM	21257	N1	A A1014	236.289	101.777	36.952	1.00 97.44	N
ATOM	21208	N1	U A1012	239.575	103.337	50.268	1.00 80.86	N	ATOM	21258	C2	A A1014	236.899	102.839	36.406	1.00 97.44	C
ATOM	21209	O2	U A1012	238.556	104.080	49.698	1.00 80.86	O	ATOM	21259	N3	A A1014	237.914	103.564	36.876	1.00 97.44	N
ATOM	21210	C2	U A1012	237.556	103.564	49.210	1.00 80.86	C	ATOM	21260	C4	A A1014	238.317	103.095	38.070	1.00 97.44	C
ATOM	21211	N3	U A1012	238.751	105.442	49.713	1.00 80.86	N	ATOM	21261	P	A A1015	240.970	107.865	42.342	1.00 86.09	P
ATOM	21212	C4	U A1012	239.843	106.122	50.220	1.00 80.86	C	ATOM	21262	O1P	A A1015	242.037	108.868	42.584	1.00 86.66	O
ATOM	21213	O4	U A1012	239.845	107.357	50.210	1.00 80.86	O	ATOM	21263	O2P	A A1015	240.857	106.678	43.232	1.00 86.66	O
ATOM	21214	C5	U A1012	240.863	105.284	50.776	1.00 80.86	C	ATOM	21264	O5*	A A1015	239.589	108.653	42.326	1.00 86.09	O
ATOM	21215	C6	U A1012	240.699	103.956	50.784	1.00 80.86	C	ATOM	21265	C5*	A A1015	239.406	109.776	41.448	1.00 86.09	C



Table 2: Sheet 214/520

ATOM	21266	C4*	A A1015	238.088	109.661	40.730	1.00	86.09	C	ATOM	21316	Cl*	G A1017	231.100	105.793	46.029	1.00	95.43	C
ATOM	21267	O4*	A A1015	238.040	108.391	40.035	1.00	86.09	O	ATOM	21317	N9	G A1017	232.309	106.390	46.588	1.00	80.87	N
ATOM	21268	C3*	A A1015	236.864	109.657	41.627	1.00	86.09	C	ATOM	21318	N8	G A1017	232.628	107.728	46.693	1.00	80.87	C
ATOM	21269	O3*	A A1015	236.440	110.989	41.869	1.00	86.09	O	ATOM	21319	N7	G A1017	233.804	107.932	47.224	1.00	80.87	N
ATOM	21270	C2*	A A1015	235.842	108.880	40.809	1.00	86.09	C	ATOM	21320	C5	G A1017	234.283	106.655	47.488	1.00	80.87	C
ATOM	21271	O2*	A A1015	235.206	109.701	39.849	1.00	86.09	O	ATOM	21321	C6	G A1017	235.509	106.234	48.047	1.00	80.87	C
ATOM	21272	Cl*	A A1015	236.727	107.864	40.087	1.00	86.09	C	ATOM	21322	O6	G A1017	236.460	106.927	48.435	1.00	80.87	O
ATOM	21273	N9	A A1015	236.799	106.546	40.715	1.00	86.66	N	ATOM	21323	N1	G A1017	235.577	104.847	48.138	1.00	80.87	N
ATOM	21274	C8	A A1015	237.751	106.096	41.591	1.00	86.66	C	ATOM	21324	C2	G A1017	234.594	103.977	47.742	1.00	80.87	C
ATOM	21275	N7	A A1015	237.608	104.840	41.930	1.00	86.66	N	ATOM	21325	N2	G A1017	234.846	102.672	47.919	1.00	80.87	N
ATOM	21276	C5	A A1015	236.473	104.438	41.246	1.00	86.66	C	ATOM	21326	N3	G A1017	233.451	104.356	47.215	1.00	80.87	N
ATOM	21277	C6	A A1015	235.801	103.206	41.175	1.00	86.66	C	ATOM	21327	C4	G A1017	233.365	105.698	47.114	1.00	80.87	C
ATOM	21278	N6	A A1015	236.208	102.101	41.804	1.00	86.66	N	ATOM	21328	P	C A1018	227.758	106.489	49.367	1.00	100129.40	P
ATOM	21279	N1	A A1015	234.687	103.144	40.417	1.00	86.66	N	ATOM	21329	O1P	C A1018	226.328	106.167	49.588	1.00	68.01	O
ATOM	21280	C2	A A1015	234.290	104.249	39.770	1.00	86.66	C	ATOM	21330	O2P	C A1018	228.299	107.807	49.810	1.00	68.01	O
ATOM	21281	N3	A A1015	234.845	105.460	39.749	1.00	86.66	N	ATOM	21331	O5*	C A1018	228.656	105.340	50.013	1.00	100129.40	O
ATOM	21282	C4	A A1015	235.948	105.487	40.514	1.00	86.66	C	ATOM	21332	C5*	C A1018	228.320	103.947	49.836	1.00	100129.40	C
ATOM	21283	P	A A1016	235.752	111.360	43.268	1.00	87.28	P	ATOM	21333	C4*	C A1018	229.390	103.064	50.439	1.00	100129.40	C
ATOM	21284	O1P	A A1016	235.624	112.841	43.296	1.00	84.55	O	ATOM	21334	O4*	C A1018	230.639	103.285	49.735	1.00	100129.40	O
ATOM	21285	O2P	A A1016	236.496	110.564	44.354	1.00	84.55	O	ATOM	21335	C3*	C A1018	229.732	103.324	51.899	1.00	100129.40	C
ATOM	21286	O5*	A A1016	234.301	110.701	43.179	1.00	87.28	O	ATOM	21336	O3*	C A1018	228.860	102.672	52.807	1.00	100129.40	O
ATOM	21287	C5*	A A1016	233.261	111.279	42.362	1.00	87.28	C	ATOM	21337	C2*	C A1018	231.157	102.803	52.001	1.00	100129.40	C
ATOM	21288	C4*	A A1016	232.155	110.272	42.141	1.00	87.28	C	ATOM	21338	O2*	C A1018	231.224	101.396	52.124	1.00	100129.40	O
ATOM	21289	O4*	A A1016	232.731	109.100	41.514	1.00	87.28	O	ATOM	21339	C1*	C A1018	231.721	103.219	50.647	1.00	100129.40	C
ATOM	21290	C3*	A A1016	231.480	109.741	43.397	1.00	87.28	C	ATOM	21340	N1	C A1018	232.348	104.553	50.731	1.00	68.01	N
ATOM	21291	O3*	A A1016	230.399	110.570	43.807	1.00	87.28	O	ATOM	21341	C2	C A1018	233.725	104.632	50.964	1.00	68.01	C
ATOM	21292	C2*	A A1016	231.004	108.361	42.962	1.00	87.28	O	ATOM	21342	O2	C A1018	234.374	103.577	51.071	1.00	68.01	O
ATOM	21293	O2*	A A1016	229.791	108.391	42.239	1.00	87.28	O	ATOM	21343	N3	C A1018	234.314	105.853	51.062	1.00	68.01	N
ATOM	21294	Cl*	A A1016	232.130	107.929	42.027	1.00	87.28	C	ATOM	21344	C4	C A1018	233.580	106.962	50.922	1.00	68.01	C
ATOM	21295	N9	A A1016	233.164	107.177	42.729	1.00	84.55	N	ATOM	21345	N4	C A1018	234.201	108.143	51.011	1.00	68.01	N
ATOM	21296	C8	A A1016	234.324	107.670	43.282	1.00	84.55	C	ATOM	21346	C5	C A1018	232.174	106.910	50.680	1.00	68.01	C
ATOM	21297	N7	A A1016	235.067	106.758	43.852	1.00	84.55	N	ATOM	21347	C6	C A1018	231.605	105.698	50.594	1.00	68.01	C
ATOM	21298	C5	A A1016	234.351	105.585	43.669	1.00	84.55	C	ATOM	21348	P	C A1019	228.652	103.284	54.279	1.00	100162.02	P
ATOM	21299	C6	A A1016	234.606	104.265	44.049	1.00	84.55	C	ATOM	21349	O1P	C A1019	227.531	102.522	54.880	1.00	100104.23	O
ATOM	21300	N6	A A1016	235.697	103.894	44.723	1.00	84.55	N	ATOM	21350	O2P	C A1019	228.570	104.767	54.191	1.00	100104.23	O
ATOM	21301	N1	A A1016	233.694	103.324	43.710	1.00	84.55	N	ATOM	21351	O5*	C A1019	229.997	102.914	55.051	1.00	100162.02	O
ATOM	21302	C2	A A1016	232.600	103.709	43.037	1.00	84.55	C	ATOM	21352	C5*	C A1019	230.243	101.567	55.504	1.00	100162.02	C
ATOM	21303	N3	A A1016	232.247	104.925	42.627	1.00	84.55	N	ATOM	21353	C4*	C A1019	231.578	101.477	56.209	1.00	100162.02	C
ATOM	21304	C4	A A1016	233.177	105.828	42.978	1.00	84.55	C	ATOM	21354	O4*	C A1019	232.635	101.844	55.282	1.00	100162.02	O
ATOM	21305	P	G A1017	230.122	110.806	45.373	1.00	95.43	P	ATOM	21355	C3*	C A1019	231.796	102.402	57.399	1.00	100162.02	C
ATOM	21306	O1P	G A1017	228.816	111.511	45.462	1.00	80.87	O	ATOM	21356	O3*	C A1019	231.252	101.917	58.617	1.00	100162.02	O
ATOM	21307	O2P	G A1017	231.329	111.420	45.989	1.00	80.87	O	ATOM	21357	C2*	C A1019	233.313	102.491	57.468	1.00	100162.02	C
ATOM	21308	O5*	G A1017	229.944	109.337	45.968	1.00	95.43	O	ATOM	21358	O2*	C A1019	233.892	101.381	58.124	1.00	100162.02	O
ATOM	21309	C5*	G A1017	228.847	108.519	45.541	1.00	95.43	C	ATOM	21359	Cl*	C A1019	233.686	102.486	55.986	1.00	100162.02	C
ATOM	21310	C4*	G A1017	229.149	107.062	45.776	1.00	95.43	C	ATOM	21360	N1	C A1019	233.821	103.874	55.501	1.00	100104.23	N
ATOM	21311	O4*	G A1017	230.454	106.761	45.224	1.00	95.43	O	ATOM	21361	C2	C A1019	235.077	104.494	55.586	1.00	100104.23	C
ATOM	21312	C3*	G A1017	229.246	106.613	47.224	1.00	95.43	C	ATOM	21362	O2	C A1019	236.053	103.833	55.987	1.00	100104.23	O
ATOM	21313	O3*	G A1017	227.978	106.322	47.785	1.00	95.43	O	ATOM	21363	N3	C A1019	235.197	105.797	55.229	1.00	100104.23	N
ATOM	21314	C2*	G A1017	230.128	105.376	47.128	1.00	95.43	C	ATOM	21364	C4	C A1019	234.130	106.471	54.793	1.00	100104.23	C
ATOM	21315	O2*	G A1017	229.436	104.204	46.733	1.00	95.43	O	ATOM	21365	N4	C A1019	234.289	107.764	54.489	1.00	100104.23	N



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ATOM	21366	C5	C A1019	232.849	105.853	54.658	1.00104.23	C	ATOM	21416	C4*	G A1022	237.569	112.602	66.881	1.00171.94	C
ATOM	21367	C6	C A1019	232.742	104.565	55.015	1.00104.23	C	ATOM	21417	O4*	G A1022	236.939	112.215	65.631	1.00171.94	O
ATOM	21368	P	U A1020	230.859	102.962	59.778	1.00184.77	P	ATOM	21418	C3*	G A1022	236.671	113.699	67.430	1.00171.94	C
ATOM	21369	O1P	U A1020	230.387	102.158	60.934	1.00141.56	O	ATOM	21419	O3*	G A1022	237.362	114.576	68.308	1.00171.94	O
ATOM	21370	O2P	U A1020	229.979	104.019	59.211	1.00141.56	O	ATOM	21420	C2*	G A1022	236.194	114.409	66.169	1.00171.94	C
ATOM	21371	O5*	U A1020	232.239	103.653	60.174	1.00184.77	O	ATOM	21421	O2*	G A1022	237.129	115.345	65.667	1.00171.94	O
ATOM	21372	C5*	U A1020	233.287	102.895	60.797	1.00184.77	C	ATOM	21422	C1*	G A1022	236.061	113.240	65.192	1.00171.94	C
ATOM	21373	C4*	U A1020	234.473	103.780	61.093	1.00184.77	C	ATOM	21423	N9	G A1022	234.699	112.704	65.157	1.00200.58	N
ATOM	21374	O4*	U A1020	234.961	104.356	59.853	1.00184.77	O	ATOM	21424	C8	G A1022	234.257	111.514	65.691	1.00200.58	C
ATOM	21375	C3*	U A1020	234.227	104.979	61.998	1.00184.77	C	ATOM	21425	N7	G A1022	232.976	111.322	65.529	1.00200.58	N
ATOM	21376	O3*	U A1020	234.274	104.629	63.383	1.00184.77	O	ATOM	21426	C5	G A1022	232.542	112.448	64.842	1.00200.58	C
ATOM	21377	C2*	U A1020	235.356	105.926	61.602	1.00184.77	C	ATOM	21427	O6	G A1022	231.242	112.809	64.392	1.00200.58	O
ATOM	21378	O2*	U A1020	236.582	105.617	62.236	1.00184.77	O	ATOM	21428	C6	G A1022	230.178	112.187	64.524	1.00200.58	O
ATOM	21379	C1*	U A1020	235.491	105.648	60.103	1.00184.77	C	ATOM	21429	N1	G A1022	231.252	114.035	63.734	1.00200.58	N
ATOM	21380	N1	U A1020	234.790	106.637	59.263	1.00141.56	N	ATOM	21430	C2	G A1022	232.364	114.817	63.535	1.00200.58	C
ATOM	21381	C2	U A1020	235.420	107.861	59.049	1.00141.56	C	ATOM	21431	N2	G A1022	232.168	115.962	62.871	1.00200.58	N
ATOM	21382	O2	U A1020	236.518	108.136	59.508	1.00141.56	O	ATOM	21432	N3	G A1022	233.578	114.498	63.954	1.00200.58	N
ATOM	21383	N3	U A1020	234.714	108.749	58.276	1.00141.56	N	ATOM	21433	C4	G A1022	233.594	113.308	64.595	1.00200.58	C
ATOM	21384	C4	U A1020	233.476	108.554	57.702	1.00141.56	C	ATOM	21434	P	G A1023	236.574	115.248	69.538	1.00182.91	P
ATOM	21385	O4	U A1020	232.966	109.465	57.048	1.00141.56	O	ATOM	21435	O1P	G A1023	236.980	114.524	70.769	1.00200.27	O
ATOM	21386	C5	U A1020	232.892	107.270	57.957	1.00141.56	C	ATOM	21436	O2P	G A1023	235.129	115.342	69.188	1.00200.27	O
ATOM	21387	C6	U A1020	233.550	106.377	58.709	1.00141.56	C	ATOM	21437	O5*	G A1023	237.173	116.723	69.607	1.00182.91	O
ATOM	21388	P	G A1021	233.740	105.670	64.495	1.00200.58	P	ATOM	21438	C5*	G A1023	236.315	117.850	69.837	1.00182.91	C
ATOM	21389	O1P	G A1021	233.541	104.904	65.753	1.00167.89	O	ATOM	21439	C4*	G A1023	236.795	119.047	69.056	1.00182.91	C
ATOM	21390	O2P	G A1021	232.611	106.458	63.933	1.00167.89	O	ATOM	21440	O4*	G A1023	237.069	118.658	67.683	1.00182.91	O
ATOM	21391	O5*	G A1021	234.970	106.662	64.716	1.00200.58	O	ATOM	21441	C3*	G A1023	235.754	120.147	68.944	1.00182.91	C
ATOM	21392	C5*	G A1021	236.239	106.170	65.197	1.00200.58	C	ATOM	21442	O3*	G A1023	235.717	120.992	70.086	1.00182.91	O
ATOM	21393	C4*	G A1021	237.288	107.261	65.150	1.00200.58	C	ATOM	21443	C2*	G A1023	236.141	120.844	67.647	1.00182.91	C
ATOM	21394	O4*	G A1021	237.510	107.672	63.775	1.00200.58	O	ATOM	21444	O2*	G A1023	237.202	121.769	67.797	1.00182.91	O
ATOM	21395	C3*	G A1021	236.955	108.550	65.886	1.00200.58	C	ATOM	21445	C1*	G A1023	236.585	119.653	66.791	1.00182.91	C
ATOM	21396	O3*	G A1021	237.258	108.466	67.276	1.00200.58	O	ATOM	21446	N8	G A1023	235.463	119.071	66.052	1.00200.27	N
ATOM	21397	C2*	G A1021	237.822	109.578	65.167	1.00200.58	C	ATOM	21447	C8	G A1023	235.125	117.738	65.980	1.00200.27	C
ATOM	21398	O2*	G A1021	239.155	109.620	65.639	1.00200.58	O	ATOM	21448	N7	G A1023	234.035	117.519	65.296	1.00200.27	N
ATOM	21399	C1*	G A1021	237.798	109.061	63.728	1.00200.58	C	ATOM	21449	C5	G A1023	233.630	118.780	64.878	1.00200.27	C
ATOM	21400	N9	G A1021	236.776	109.721	62.918	1.00167.89	N	ATOM	21450	C6	G A1023	232.503	119.174	64.114	1.00200.27	C
ATOM	21401	C8	G A1021	235.611	109.165	62.442	1.00167.89	C	ATOM	21451	O6	G A1023	231.601	118.468	63.654	1.00200.27	O
ATOM	21402	N7	G A1021	234.882	110.006	61.760	1.00167.89	N	ATOM	21452	N1	G A1023	232.480	120.549	63.908	1.00200.27	N
ATOM	21403	C5	G A1021	235.608	111.189	61.782	1.00167.89	C	ATOM	21453	C2	G A1023	233.415	121.435	64.383	1.00200.27	C
ATOM	21404	C6	G A1021	235.316	112.454	61.212	1.00167.89	C	ATOM	21454	N2	G A1023	233.222	122.724	64.069	1.00200.27	N
ATOM	21405	O6	G A1021	234.327	112.788	60.549	1.00167.89	O	ATOM	21455	N3	G A1023	234.464	121.083	65.109	1.00200.27	N
ATOM	21406	N1	G A1021	236.321	113.380	61.476	1.00167.89	N	ATOM	21456	C4	G A1023	234.509	119.748	65.317	1.00200.27	C
ATOM	21407	C2	G A1021	237.461	113.125	62.195	1.00167.89	C	ATOM	21457	P	G A1024	234.449	120.921	71.078	1.00200.58	P
ATOM	21408	N2	G A1021	238.308	114.155	62.340	1.00167.89	N	ATOM	21458	O1P	G A1024	234.378	122.216	71.808	1.00200.58	O
ATOM	21409	N3	G A1021	237.748	111.948	62.732	1.00167.89	N	ATOM	21459	O2P	G A1024	234.531	119.649	71.847	1.00200.58	O
ATOM	21410	C4	G A1021	236.782	111.032	62.488	1.00167.89	C	ATOM	21460	C5*	G A1024	233.187	120.823	70.103	1.00200.58	O
ATOM	21411	P	G A1022	236.313	109.213	68.345	1.00171.94	P	ATOM	21461	O5*	G A1024	232.737	121.970	69.347	1.00200.58	C
ATOM	21412	O1P	G A1022	236.934	109.028	69.680	1.00200.58	O	ATOM	21462	C4*	G A1024	231.391	121.695	68.703	1.00200.58	C
ATOM	21413	O2P	G A1022	234.909	108.775	68.121	1.00200.58	O	ATOM	21463	O4*	G A1024	231.532	120.764	67.600	1.00200.58	O
ATOM	21414	O5*	G A1022	236.426	110.755	67.957	1.00171.94	O	ATOM	21464	C3*	G A1024	230.320	121.082	69.591	1.00200.58	C
ATOM	21415	C5*	G A1022	237.711	111.380	67.759	1.00171.94	C	ATOM	21465	O3*	G A1024	229.659	122.072	70.372	1.00200.58	O



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ATOM	21466	C2*	G A1024	229.380	120.419	68.585	1.00200.58	C	ATOM	21516	C6	G A1026	220.475	124.655	67.185	1.00200.58	C
ATOM	21467	O2*	G A1024	228.420	121.308	68.048	1.00200.58	O	ATOM	21517	O6	G A1026	219.671	123.746	66.952	1.00200.58	O
ATOM	21468	C1*	G A1024	230.348	119.993	67.477	1.00200.58	C	ATOM	21518	N1	G A1026	220.956	125.440	66.143	1.00200.58	N
ATOM	21469	N9	G A1024	230.694	118.572	67.502	1.00200.58	N	ATOM	21519	C2	G A1026	221.847	126.476	66.280	1.00200.58	C
ATOM	21470	C8	G A1024	231.893	118.008	67.874	1.00200.58	C	ATOM	21520	N2	G A1026	222.186	127.120	65.153	1.00200.58	N
ATOM	21471	N7	G A1024	231.899	116.706	67.777	1.00200.58	N	ATOM	21521	N3	G A1026	222.366	126.855	67.435	1.00200.58	N
ATOM	21472	C5	G A1024	230.628	116.389	67.315	1.00200.58	C	ATOM	21522	C4	G A1026	221.911	126.106	68.462	1.00200.58	C
ATOM	21473	C6	G A1024	230.045	115.127	67.017	1.00200.58	C	ATOM	21523	P	C A1027	220.612	129.884	73.572	1.00200.58	P
ATOM	21474	O6	G A1024	230.553	114.003	67.103	1.00200.58	O	ATOM	21524	O1P	C A1027	220.636	131.340	73.868	1.00200.58	O
ATOM	21475	N1	G A1024	228.732	115.263	66.579	1.00200.58	N	ATOM	21525	O2P	C A1027	220.293	128.918	74.659	1.00200.58	O
ATOM	21476	C2	G A1024	228.062	116.454	66.444	1.00200.58	C	ATOM	21526	O5*	C A1027	219.603	129.631	72.360	1.00200.58	O
ATOM	21477	N2	G A1024	226.796	116.375	66.010	1.00200.58	N	ATOM	21527	C5*	C A1027	219.648	130.445	71.165	1.00200.58	C
ATOM	21478	N3	G A1024	228.594	117.635	66.717	1.00200.58	N	ATOM	21528	C4*	C A1027	218.494	130.101	70.245	1.00200.58	C
ATOM	21479	C4	G A1024	229.871	117.528	67.144	1.00200.58	C	ATOM	21529	O4*	C A1027	218.673	128.767	69.708	1.00200.58	O
ATOM	21480	P	U A1025	229.034	121.677	71.800	1.00200.58	P	ATOM	21530	C3*	C A1027	217.115	130.093	70.888	1.00200.58	C
ATOM	21481	O1P	U A1025	228.676	122.956	72.474	1.00190.16	O	ATOM	21531	O3*	C A1027	216.555	131.407	70.872	1.00200.58	O
ATOM	21482	O2P	U A1025	229.954	120.722	72.477	1.00190.16	O	ATOM	21532	C2*	C A1027	216.323	129.133	70.000	1.00200.58	C
ATOM	21483	O5*	U A1025	227.694	120.897	71.424	1.00200.58	O	ATOM	21533	O2*	C A1027	215.751	129.766	68.873	1.00200.58	O
ATOM	21484	C5*	U A1025	226.407	121.417	71.806	1.00200.58	C	ATOM	21534	C1*	C A1027	217.407	128.158	69.524	1.00200.58	C
ATOM	21485	C4*	U A1025	225.945	122.440	70.797	1.00200.58	C	ATOM	21535	N1	C A1027	217.413	126.820	70.158	1.00200.58	N
ATOM	21486	O4*	U A1025	225.729	121.795	69.514	1.00200.58	O	ATOM	21536	C2	C A1027	216.371	125.921	69.863	1.00200.58	C
ATOM	21487	C3*	U A1025	224.623	123.120	71.112	1.00200.58	C	ATOM	21537	O2	C A1027	215.442	126.291	69.127	1.00200.58	O
ATOM	21488	O3*	U A1025	224.799	124.218	72.004	1.00200.58	O	ATOM	21538	N3	C A1027	216.402	124.676	70.394	1.00200.58	N
ATOM	21489	C2*	U A1025	224.138	123.555	69.731	1.00200.58	C	ATOM	21539	C4	C A1027	217.405	124.317	71.198	1.00200.58	C
ATOM	21490	O2*	U A1025	224.712	124.769	69.288	1.00200.58	O	ATOM	21540	N4	C A1027	217.404	123.072	71.685	1.00200.58	N
ATOM	21491	C1*	U A1025	224.636	122.409	68.848	1.00200.58	C	ATOM	21541	C5	C A1027	218.458	125.216	71.538	1.00200.58	C
ATOM	21492	N1	U A1025	223.592	121.397	68.618	1.00190.16	N	ATOM	21542	C6	C A1027	218.423	126.444	71.001	1.00200.58	C
ATOM	21493	C2	U A1025	222.816	121.514	67.475	1.00190.16	C	ATOM	21543	P	C A1028	216.331	132.207	72.252	1.00200.58	P
ATOM	21494	O2	U A1025	222.980	122.390	66.641	1.00190.16	O	ATOM	21544	O1P	C A1028	216.449	133.656	71.936	1.00189.74	O
ATOM	21495	N3	U A1025	221.836	120.563	67.345	1.00190.16	N	ATOM	21545	O2P	C A1028	217.194	131.616	73.306	1.00189.74	O
ATOM	21496	C4	U A1025	221.557	119.532	68.218	1.00190.16	C	ATOM	21546	O5*	C A1028	214.816	131.903	72.638	1.00200.58	O
ATOM	21497	O4	U A1025	220.604	118.790	67.989	1.00190.16	O	ATOM	21547	C5*	C A1028	213.734	132.651	72.049	1.00200.58	C
ATOM	21498	C5	U A1025	222.412	119.466	69.360	1.00190.16	C	ATOM	21548	C4*	C A1028	212.437	131.887	72.185	1.00200.58	C
ATOM	21499	C6	U A1025	223.375	120.374	69.518	1.00190.16	C	ATOM	21549	O4*	C A1028	212.530	130.654	71.425	1.00200.58	O
ATOM	21500	P	G A1026	224.169	124.152	73.484	1.00200.58	P	ATOM	21550	C3*	C A1028	212.085	131.447	73.597	1.00200.58	C
ATOM	21501	O1P	G A1026	225.083	123.322	74.309	1.00200.58	O	ATOM	21551	O3*	C A1028	211.412	132.471	74.322	1.00200.58	O
ATOM	21502	O2P	G A1026	222.734	123.772	73.376	1.00200.58	O	ATOM	21552	C2*	C A1028	211.210	130.220	73.362	1.00200.58	C
ATOM	21503	O5*	G A1026	224.260	125.655	74.008	1.00200.58	O	ATOM	21553	O2*	C A1028	209.858	130.544	73.097	1.00200.58	O
ATOM	21504	C5*	G A1026	223.156	126.563	73.843	1.00200.58	C	ATOM	21554	C1*	C A1028	211.849	129.615	72.110	1.00200.58	C
ATOM	21505	C4*	G A1026	223.408	127.483	72.674	1.00200.58	C	ATOM	21555	N1	C A1028	212.814	128.535	72.408	1.00189.74	N
ATOM	21506	O4*	G A1026	223.763	126.689	71.513	1.00200.58	O	ATOM	21556	C2	C A1028	212.343	127.219	72.540	1.00189.74	C
ATOM	21507	C3*	G A1026	222.198	128.290	72.234	1.00200.58	C	ATOM	21557	O2	C A1028	211.129	126.991	72.399	1.00189.74	O
ATOM	21508	O3*	G A1026	222.052	129.495	72.972	1.00200.58	O	ATOM	21558	N3	C A1028	213.222	126.229	72.817	1.00189.74	N
ATOM	21509	C2*	G A1026	222.472	128.542	70.757	1.00200.58	C	ATOM	21559	C4	C A1028	214.519	126.508	72.960	1.00189.74	C
ATOM	21510	O1*	G A1026	223.328	129.648	70.537	1.00200.58	O	ATOM	21560	N4	C A1028	215.346	125.499	73.238	1.00189.74	N
ATOM	21511	C1*	G A1026	223.173	127.244	70.348	1.00200.58	C	ATOM	21561	C5	C A1028	215.026	127.832	72.829	1.00189.74	C
ATOM	21512	N9	G A1026	222.254	126.253	69.787	1.00200.58	N	ATOM	21562	C6	C A1028	214.148	128.805	72.556	1.00189.74	C
ATOM	21513	C8	G A1026	221.558	125.285	70.475	1.00200.58	C	ATOM	21563	P	C A1029	211.497	132.493	75.928	1.00200.43	P
ATOM	21514	N7	G A1026	220.809	124.545	69.704	1.00200.58	N	ATOM	21564	O1P	C A1029	210.682	133.641	76.405	1.00190.73	O
ATOM	21515	C5	G A1026	221.020	125.052	68.430	1.00200.58	C	ATOM	21565	O2P	C A1029	212.927	132.398	76.321	1.00190.73	O



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ATOM	21566	O5*	C A1029	210.769	131.144	76.363	1.00200.43	O	ATOM	21616	C8	G A1030A	212.246	125.489	83.906	1.00200.45	C
ATOM	21567	C5*	C A1029	209.379	130.923	76.055	1.00200.43	C	ATOM	21617	N7	G A1030A	213.081	126.092	83.104	1.00200.45	N
ATOM	21568	C4*	C A1029	208.995	129.489	76.341	1.00200.43	C	ATOM	21618	C5	G A1030A	214.262	125.374	83.234	1.00200.45	C
ATOM	21569	O4*	C A1029	209.674	128.597	75.418	1.00200.43	O	ATOM	21619	C6	G A1030A	215.522	125.561	82.612	1.00200.45	C
ATOM	21570	C3*	C A1029	209.372	128.968	77.718	1.00200.43	C	ATOM	21620	O6	G A1030A	215.856	126.425	81.791	1.00200.45	O
ATOM	21571	O3*	C A1029	208.431	129.339	78.716	1.00200.43	O	ATOM	21621	N1	G A1030A	216.445	124.611	83.034	1.00200.45	N
ATOM	21572	C2*	C A1029	209.442	127.461	77.502	1.00200.43	C	ATOM	21622	C2	G A1030A	216.191	123.608	83.938	1.00200.45	C
ATOM	21573	O2*	C A1029	208.180	126.825	77.576	1.00200.43	O	ATOM	21623	N2	G A1030A	217.217	122.793	84.223	1.00200.45	N
ATOM	21574	C1*	C A1029	209.990	127.379	76.076	1.00200.43	C	ATOM	21624	N3	G A1030A	215.020	123.419	84.521	1.00200.45	N
ATOM	21575	N1	C A1029	211.456	127.190	76.055	1.00190.73	N	ATOM	21625	C4	G A1030A	214.108	124.334	84.128	1.00200.45	C
ATOM	21576	C2	C A1029	211.976	125.893	76.210	1.00190.73	C	ATOM	21626	P	C A1030B	212.336	125.834	89.786	1.00200.58	P
ATOM	21577	O2	C A1029	211.192	124.936	76.339	1.00190.73	O	ATOM	21627	O1P	C A1030B	211.744	125.820	91.149	1.00190.13	O
ATOM	21578	N3	C A1029	213.318	125.717	76.217	1.00190.73	N	ATOM	21628	O2P	C A1030B	212.400	127.116	89.024	1.00190.13	O
ATOM	21579	C4	C A1029	214.131	126.768	76.077	1.00190.73	C	ATOM	21629	O5*	C A1030B	213.811	125.231	89.891	1.00200.58	O
ATOM	21580	N4	C A1029	215.448	126.547	76.097	1.00190.73	N	ATOM	21630	C5*	C A1030B	214.908	126.038	90.374	1.00200.58	C
ATOM	21581	C5	C A1029	213.630	128.092	75.910	1.00190.73	C	ATOM	21631	C4*	C A1030B	216.067	125.165	90.813	1.00200.58	C
ATOM	21582	C6	C A1029	212.301	128.256	75.902	1.00190.73	C	ATOM	21632	O4*	C A1030B	215.682	124.363	91.958	1.00200.58	O
ATOM	21583	P	C A1030	208.896	129.410	80.253	1.00200.07	P	ATOM	21633	C3*	C A1030B	216.605	124.165	89.797	1.00200.58	C
ATOM	21584	O1P	C A1030	207.913	130.260	80.972	1.00200.29	O	ATOM	21634	O3*	C A1030B	217.560	124.784	88.934	1.00200.58	O
ATOM	21585	O2P	C A1030	210.340	129.759	80.304	1.00200.29	O	ATOM	21635	C2*	C A1030B	217.268	123.107	90.679	1.00200.58	C
ATOM	21586	O5*	C A1030	208.735	127.909	80.761	1.00200.07	O	ATOM	21636	O2*	C A1030B	218.600	123.429	91.029	1.00200.58	O
ATOM	21587	C5*	C A1030	207.434	127.362	81.047	1.00200.07	C	ATOM	21637	C1*	C A1030B	216.402	123.142	91.942	1.00200.58	C
ATOM	21588	C4*	C A1030	207.570	126.073	81.819	1.00200.07	C	ATOM	21638	N1	C A1030B	215.462	122.010	92.086	1.00190.13	N
ATOM	21589	O4*	C A1030	208.132	125.052	80.956	1.00200.07	O	ATOM	21639	C2	C A1030B	215.948	120.785	92.586	1.00190.13	C
ATOM	21590	C3*	C A1030	208.504	126.126	83.019	1.00200.07	C	ATOM	21640	O2	C A1030B	217.152	120.683	92.878	1.00190.13	O
ATOM	21591	O3*	C A1030	207.856	126.630	84.184	1.00200.07	O	ATOM	21641	N3	C A1030B	215.093	119.748	92.736	1.00190.13	N
ATOM	21592	C2*	C A1030	208.939	124.672	83.168	1.00200.07	C	ATOM	21642	C4	C A1030B	213.807	119.890	92.410	1.00190.13	C
ATOM	21593	O2*	C A1030	208.005	123.886	83.882	1.00200.07	O	ATOM	21643	N4	C A1030B	213.003	118.840	92.582	1.00190.13	N
ATOM	21594	C1*	C A1030	208.987	124.208	81.709	1.00200.07	C	ATOM	21644	C5	C A1030B	213.288	121.115	91.895	1.00190.13	C
ATOM	21595	N1	C A1030	210.344	124.258	81.122	1.00200.29	N	ATOM	21645	C6	C A1030B	214.141	122.138	91.750	1.00190.13	C
ATOM	21596	C2	C A1030	211.196	123.149	81.280	1.00200.29	C	ATOM	21646	P	G A1030C	217.488	124.539	87.345	1.00200.58	P
ATOM	21597	O2	C A1030	210.789	122.152	81.904	1.00200.29	O	ATOM	21647	O1P	G A1030C	218.425	125.505	86.715	1.00200.58	O
ATOM	21598	N3	C A1030	212.441	123.193	80.748	1.00200.29	N	ATOM	21648	O2P	G A1030C	216.060	124.536	86.940	1.00200.58	O
ATOM	21599	C4	C A1030	212.845	124.277	80.079	1.00200.29	C	ATOM	21649	O5*	G A1030C	218.067	123.067	87.136	1.00200.58	O
ATOM	21600	N4	C A1030	214.079	124.271	79.567	1.00200.29	N	ATOM	21650	C5*	G A1030C	219.391	122.709	87.589	1.00200.58	C
ATOM	21601	C5	C A1030	212.003	125.414	79.905	1.00200.29	C	ATOM	21651	C4*	G A1030C	219.437	121.241	87.949	1.00200.58	C
ATOM	21602	C6	C A1030	210.774	125.363	80.437	1.00200.29	C	ATOM	21652	O4*	G A1030C	218.350	120.979	88.874	1.00200.58	O
ATOM	21603	P	G A1030A	208.696	127.495	85.253	1.00200.58	P	ATOM	21653	C3*	G A1030C	219.215	120.265	86.799	1.00200.58	C
ATOM	21604	O1P	G A1030A	207.747	127.919	86.314	1.00200.45	O	ATOM	21654	O3*	G A1030C	220.438	119.935	86.139	1.00200.58	O
ATOM	21605	O2P	G A1030A	209.487	128.524	84.523	1.00200.45	O	ATOM	21655	C2*	G A1030C	218.595	119.056	87.491	1.00200.58	C
ATOM	21606	O5*	G A1030A	209.713	126.444	85.890	1.00200.58	O	ATOM	21656	O2*	G A1030C	219.553	118.187	88.065	1.00200.58	O
ATOM	21607	C5*	G A1030A	209.232	125.309	86.645	1.00200.58	C	ATOM	21657	C1*	G A1030C	217.772	119.717	88.597	1.00200.58	C
ATOM	21608	C4*	G A1030A	210.332	124.284	86.826	1.00200.58	C	ATOM	21658	N9	G A1030C	216.378	119.934	88.221	1.00200.58	N
ATOM	21609	O4*	G A1030A	210.762	123.802	85.525	1.00200.58	O	ATOM	21659	C8	G A1030C	215.895	120.855	87.321	1.00200.58	C
ATOM	21610	C3*	G A1030A	211.610	124.773	87.494	1.00200.58	C	ATOM	21660	N7	G A1030C	214.599	120.812	87.190	1.00200.58	N
ATOM	21611	O3*	G A1030A	211.519	124.751	88.916	1.00200.58	O	ATOM	21661	C5	G A1030C	214.199	119.805	88.058	1.00200.58	C
ATOM	21612	C2*	G A1030A	212.655	123.795	86.968	1.00200.58	C	ATOM	21662	C6	G A1030C	212.905	119.303	88.349	1.00200.58	C
ATOM	21613	O2*	G A1030A	212.672	122.574	87.683	1.00200.58	O	ATOM	21663	O6	G A1030C	211.816	119.665	87.885	1.00200.58	O
ATOM	21614	C1*	G A1030A	212.157	123.544	85.543	1.00200.58	C	ATOM	21664	N1	G A1030C	212.955	118.274	89.286	1.00200.58	N
ATOM	21615	N9	G A1030A	212.804	124.417	84.564	1.00200.45	N	ATOM	21665	C2	G A1030C	214.102	117.790	89.870	1.00200.58	C



Table 2: Sheet 218/520

ATOM	21666	N2	G A1030C	213.945	116.788	90.749	1.00200.58	N	ATOM	21716	O2P	G A1032	215.934	114.132	77.962	1.00197.35	O
ATOM	21667	N3	G A1030C	215.313	118.253	89.610	1.00200.58	N	ATOM	21717	O5*	G A1032	213.602	114.012	78.840	1.00200.58	O
ATOM	21668	C4	G A1030C	220.407	119.252	88.701	1.00200.58	C	ATOM	21718	C5*	G A1032	212.416	113.343	79.317	1.00200.58	C
ATOM	21669	P	A A1030D	220.407	119.089	84.768	1.00200.39	P	ATOM	21719	C4*	G A1032	211.228	114.269	79.229	1.00200.58	C
ATOM	21670	O1P	A A1030D	221.799	119.037	84.250	1.00200.58	O	ATOM	21720	O4*	G A1032	211.411	115.374	80.150	1.00200.58	O
ATOM	21671	O2P	A A1030D	219.324	119.620	83.901	1.00200.58	O	ATOM	21721	C3*	G A1032	211.024	114.923	77.870	1.00200.58	C
ATOM	21672	O5*	A A1030D	219.990	117.620	85.224	1.00200.39	O	ATOM	21722	O3*	G A1032	210.285	114.078	76.991	1.00200.58	O
ATOM	21673	C5*	A A1030D	220.977	116.673	85.678	1.00200.39	C	ATOM	21723	O2*	G A1032	210.284	116.210	78.219	1.00200.58	C
ATOM	21674	C4*	A A1030D	220.373	115.290	85.782	1.00200.39	C	ATOM	21724	O2*	G A1032	208.888	116.032	78.358	1.00200.58	C
ATOM	21675	O4*	A A1030D	219.396	115.297	86.858	1.00200.39	O	ATOM	21725	C1*	G A1032	210.892	116.563	79.580	1.00200.58	C
ATOM	21676	C3*	A A1030D	219.615	114.797	84.558	1.00200.39	C	ATOM	21726	N9	G A1032	211.970	117.545	79.494	1.00197.35	N
ATOM	21677	O3*	A A1030D	220.483	114.233	83.576	1.00200.39	O	ATOM	21727	C8	G A1032	213.311	117.335	79.713	1.00197.35	C
ATOM	21678	C2*	A A1030D	218.662	113.759	85.149	1.00200.39	C	ATOM	21728	N7	G A1032	214.032	118.411	79.553	1.00197.35	N
ATOM	21679	O2*	A A1030D	219.253	112.483	85.307	1.00200.39	O	ATOM	21729	C5	G A1032	213.112	119.393	79.209	1.00197.35	C
ATOM	21680	C1*	A A1030D	218.348	114.359	86.524	1.00200.39	C	ATOM	21730	C6	G A1032	213.301	120.770	78.910	1.00197.35	C
ATOM	21681	N9	A A1030D	217.070	115.080	86.564	1.00200.58	N	ATOM	21731	O6	G A1032	214.355	121.421	78.894	1.00197.35	O
ATOM	21682	C8	A A1030D	216.857	116.438	86.492	1.00200.58	C	ATOM	21732	N1	G A1032	212.097	121.397	78.607	1.00197.35	N
ATOM	21683	N7	A A1030D	215.591	116.780	86.540	1.00200.58	N	ATOM	21733	C2	G A1032	210.868	120.784	78.595	1.00197.35	C
ATOM	21684	C5	A A1030D	214.922	115.569	86.653	1.00200.58	C	ATOM	21734	N2	G A1032	209.822	121.561	78.275	1.00197.35	N
ATOM	21685	C6	A A1030D	213.553	115.248	86.745	1.00200.58	C	ATOM	21735	N3	G A1032	210.677	119.506	78.875	1.00197.35	N
ATOM	21686	N6	A A1030D	212.576	116.158	86.732	1.00200.58	N	ATOM	21736	C4	G A1032	211.834	118.875	79.170	1.00197.35	C
ATOM	21687	N1	A A1030D	213.219	113.942	86.850	1.00200.58	N	ATOM	21737	P	G A1033	210.697	113.987	75.438	1.00200.58	P
ATOM	21688	C2	A A1030D	214.199	113.029	86.856	1.00200.58	C	ATOM	21738	O1P	G A1033	209.977	112.820	74.859	1.00200.58	O
ATOM	21689	N3	A A1030D	215.518	113.204	86.773	1.00200.58	N	ATOM	21739	O2P	G A1033	212.180	114.060	75.333	1.00200.58	O
ATOM	21690	C4	A A1030D	215.819	114.513	86.673	1.00200.58	C	ATOM	21740	O5*	G A1033	210.091	115.316	74.801	1.00200.58	O
ATOM	21691	P	G A1031	220.406	114.744	82.049	1.00200.58	P	ATOM	21741	C5*	G A1033	208.668	115.468	74.620	1.00200.58	C
ATOM	21692	O1P	G A1031	221.261	113.843	81.233	1.00169.89	O	ATOM	21742	C4*	G A1033	208.341	116.867	74.149	1.00200.58	C
ATOM	21693	O2P	G A1031	220.665	116.208	82.040	1.00169.89	O	ATOM	21743	O4*	G A1033	208.703	117.822	75.180	1.00200.58	O
ATOM	21694	O5*	G A1031	218.889	114.512	81.613	1.00200.58	O	ATOM	21744	C3*	G A1033	209.075	117.351	72.906	1.00200.58	C
ATOM	21695	C5*	G A1031	218.189	113.298	81.957	1.00200.58	C	ATOM	21745	O3*	G A1033	208.447	116.923	71.703	1.00200.58	O
ATOM	21696	C4*	G A1031	216.718	113.583	82.153	1.00200.58	C	ATOM	21746	C2*	G A1033	209.037	118.867	73.062	1.00200.58	C
ATOM	21697	O4*	G A1031	216.585	114.682	83.093	1.00200.58	O	ATOM	21747	O2*	G A1033	207.827	119.439	72.602	1.00200.58	O
ATOM	21698	C3*	G A1031	215.965	114.052	80.916	1.00200.58	C	ATOM	21748	C1*	G A1033	209.144	119.030	74.580	1.00200.58	C
ATOM	21699	O3*	G A1031	215.488	112.959	80.139	1.00200.58	O	ATOM	21749	N9	G A1033	210.511	119.303	75.017	1.00200.58	N
ATOM	21700	C2*	G A1031	214.827	114.881	81.501	1.00200.58	C	ATOM	21750	C8	G A1033	211.382	118.437	75.637	1.00200.58	C
ATOM	21701	O2*	G A1031	213.721	114.106	81.922	1.00200.58	O	ATOM	21751	N7	G A1033	212.544	118.975	75.893	1.00200.58	N
ATOM	21702	C1*	G A1031	215.500	115.512	82.718	1.00200.58	C	ATOM	21752	C5	G A1033	212.435	120.275	75.416	1.00200.58	C
ATOM	21703	N9	G A1031	216.022	116.842	82.420	1.00169.89	N	ATOM	21753	C6	G A1033	213.378	121.339	75.413	1.00200.58	C
ATOM	21704	C8	G A1031	217.178	117.150	81.741	1.00169.89	C	ATOM	21754	O6	G A1033	214.535	121.346	75.849	1.00200.58	O
ATOM	21705	N7	G A1031	217.366	118.433	81.605	1.00169.89	N	ATOM	21755	N1	G A1033	212.853	122.486	74.828	1.00200.58	N
ATOM	21706	C5	G A1031	216.270	119.009	82.235	1.00169.89	C	ATOM	21756	C2	G A1033	211.587	122.601	74.312	1.00200.58	C
ATOM	21707	C6	G A1031	215.919	120.373	82.402	1.00169.89	C	ATOM	21757	N2	G A1033	211.269	123.791	73.785	1.00200.58	N
ATOM	21708	O6	G A1031	216.520	121.377	82.002	1.00169.89	O	ATOM	21758	N3	G A1033	210.698	121.622	74.312	1.00200.58	N
ATOM	21709	N1	G A1031	214.728	120.512	83.111	1.00169.89	N	ATOM	21759	C4	G A1033	211.187	120.495	74.875	1.00200.58	C
ATOM	21710	C2	G A1031	213.967	119.473	83.591	1.00169.89	C	ATOM	21760	P	G A1034	209.286	116.902	70.328	1.00200.58	P
ATOM	21711	N2	G A1031	212.851	119.811	84.256	1.00169.89	N	ATOM	21761	O1P	G A1034	208.667	115.866	69.457	1.00186.55	O
ATOM	21712	N3	G A1031	214.278	118.197	83.432	1.00169.89	N	ATOM	21762	O2P	G A1034	210.738	116.814	70.651	1.00186.55	O
ATOM	21713	C4	G A1031	215.436	118.040	82.750	1.00169.89	C	ATOM	21763	O5*	G A1034	209.012	118.335	69.682	1.00200.58	O
ATOM	21714	P	G A1032	214.970	113.219	78.639	1.00200.58	P	ATOM	21764	C5*	G A1034	207.676	118.750	69.321	1.00200.58	C
ATOM	21715	O1P	G A1032	214.659	111.894	78.034	1.00197.35	O	ATOM	21765	C4*	G A1034	207.636	120.244	69.085	1.00200.58	C



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ATOM	21766	O4*	G A1034	208.113	120.912	70.282	1.00200.58	O	ATOM	21816	C1*	G A1036	215.603	125.950	61.325	1.00200.23	C
ATOM	21767	C3*	G A1034	208.527	120.772	67.967	1.00200.58	C	ATOM	21817	N9	G A1036	215.784	124.949	62.375	1.00200.33	N
ATOM	21768	O3*	G A1034	207.880	120.727	66.695	1.00200.58	O	ATOM	21818	C8	G A1036	214.795	124.308	63.085	1.00200.33	C
ATOM	21769	C2*	G A1034	208.812	122.206	68.403	1.00200.58	C	ATOM	21819	N7	G A1036	215.259	123.478	63.978	1.00200.33	N
ATOM	21770	O2*	G A1034	207.801	123.121	68.024	1.00200.58	O	ATOM	21820	C5	G A1036	216.637	123.573	63.852	1.00200.33	C
ATOM	21771	C1*	G A1034	208.850	122.070	69.927	1.00200.58	C	ATOM	21821	C6	G A1036	217.666	122.917	64.566	1.00200.33	C
ATOM	21772	N9	G A1034	210.209	121.941	70.450	1.00186.55	N	ATOM	21822	O6	G A1036	217.560	122.114	65.496	1.00200.33	O
ATOM	21773	C8	G A1034	210.779	120.836	71.042	1.00186.55	C	ATOM	21823	N1	G A1036	218.926	123.290	64.108	1.00200.33	N
ATOM	21774	N7	G A1034	212.022	121.026	71.393	1.00186.55	N	ATOM	21824	C2	G A1036	219.165	124.192	63.100	1.00200.33	C
ATOM	21775	C5	G A1034	212.290	122.334	71.014	1.00186.55	C	ATOM	21825	N2	G A1036	220.452	124.416	62.799	1.00200.33	N
ATOM	21776	C6	G A1034	213.477	123.100	71.133	1.00186.55	C	ATOM	21826	N3	G A1036	218.212	124.825	62.435	1.00200.33	N
ATOM	21777	O6	G A1034	214.564	122.765	71.617	1.00186.55	O	ATOM	21827	C4	G A1036	216.980	124.468	62.860	1.00200.33	C
ATOM	21778	N1	G A1034	213.313	124.381	70.615	1.00186.55	N	ATOM	21828	P	ATOM	215.072	123.765	56.996	1.00200.58	P
ATOM	21779	C2	G A1034	212.156	124.865	70.054	1.00186.55	C	ATOM	21829	O1P	C A1037	215.131	124.198	55.577	1.00200.52	O
ATOM	21780	N2	G A1034	212.195	126.129	69.607	1.00186.55	N	ATOM	21830	O2P	C A1037	214.095	122.719	57.404	1.00200.52	O
ATOM	21781	N3	G A1034	211.043	124.163	69.939	1.00186.55	N	ATOM	21831	O5*	C A1037	216.525	123.270	57.419	1.00200.58	O
ATOM	21782	C4	G A1034	211.181	122.914	70.435	1.00186.55	C	ATOM	21832	C5*	C A1037	217.700	124.064	57.150	1.00200.58	C
ATOM	21783	P	A A1035	208.754	120.864	65.349	1.00200.58	P	ATOM	21833	C4*	C A1037	218.876	123.516	57.924	1.00200.58	C
ATOM	21784	O1P	A A1035	207.816	120.778	64.197	1.00200.58	O	ATOM	21834	O4*	C A1037	218.584	123.625	59.341	1.00200.58	O
ATOM	21785	O2P	A A1035	209.899	119.920	65.430	1.00200.58	O	ATOM	21835	C3*	C A1037	219.153	122.036	57.691	1.00200.58	C
ATOM	21786	O5*	A A1035	209.341	122.346	65.410	1.00200.58	O	ATOM	21836	O3*	C A1037	220.018	121.828	56.574	1.00200.58	O
ATOM	21787	C5*	A A1035	208.595	123.467	64.893	1.00200.58	C	ATOM	21837	C2*	C A1037	219.783	121.591	59.006	1.00200.58	C
ATOM	21788	C4*	A A1035	209.531	124.599	64.537	1.00200.58	C	ATOM	21838	O2*	C A1037	221.169	121.859	59.073	1.00200.58	O
ATOM	21789	O4*	A A1035	210.192	125.064	65.744	1.00200.58	O	ATOM	21839	C1*	C A1037	219.044	122.468	60.019	1.00200.58	C
ATOM	21790	C3*	A A1035	210.671	124.239	63.593	1.00200.58	C	ATOM	21840	N1	C A1037	217.880	121.801	60.641	1.00200.52	N
ATOM	21791	O3*	A A1035	210.296	124.270	62.219	1.00200.58	O	ATOM	21841	C2	C A1037	218.084	120.969	61.753	1.00200.52	C
ATOM	21792	C2*	A A1035	211.731	125.276	63.943	1.00200.58	C	ATOM	21842	O2	C A1037	219.238	120.803	62.183	1.00200.52	O
ATOM	21793	O2*	A A1035	211.524	126.527	63.314	1.00200.58	O	ATOM	21843	N3	C A1037	217.016	120.365	62.328	1.00200.52	N
ATOM	21794	C1*	A A1035	211.537	125.411	65.453	1.00200.58	C	ATOM	21844	C4	C A1037	215.790	120.564	61.837	1.00200.52	C
ATOM	21795	N9	A A1035	212.412	124.485	66.177	1.00200.58	N	ATOM	21845	N4	C A1037	214.766	119.954	62.441	1.00200.52	N
ATOM	21796	C8	A A1035	212.073	123.287	66.760	1.00200.58	C	ATOM	21846	C5	C A1037	215.556	121.397	60.707	1.00200.52	C
ATOM	21797	N7	A A1035	213.086	122.659	67.305	1.00200.58	N	ATOM	21847	C6	C A1037	216.618	121.989	60.146	1.00200.52	C
ATOM	21798	C5	A A1035	214.163	123.502	67.076	1.00200.58	C	ATOM	21848	P	C A1038	219.869	120.494	55.684	1.00200.58	P
ATOM	21799	C6	A A1035	215.524	123.404	67.406	1.00200.58	C	ATOM	21849	O1P	C A1038	220.957	120.510	54.672	1.00200.58	O
ATOM	21800	N6	A A1035	216.052	122.371	68.066	1.00200.58	N	ATOM	21850	O2P	C A1038	218.454	120.379	55.238	1.00200.58	O
ATOM	21801	N1	A A1035	216.335	124.417	67.030	1.00200.58	N	ATOM	21851	O5*	C A1038	220.159	119.306	56.708	1.00200.58	O
ATOM	21802	C2	A A1035	215.804	125.452	66.367	1.00200.58	C	ATOM	21852	C5*	C A1038	221.483	119.076	57.234	1.00200.58	C
ATOM	21803	N3	A A1035	214.542	125.658	65.999	1.00200.58	N	ATOM	21853	C4*	C A1038	221.469	117.897	58.178	1.00200.58	C
ATOM	21804	C4	A A1035	213.762	124.634	66.388	1.00200.58	C	ATOM	21854	O4*	C A1038	220.635	118.214	59.323	1.00200.58	O
ATOM	21805	P	G A1036	211.045	123.303	61.169	1.00200.23	P	ATOM	21855	C3*	C A1038	220.866	116.623	57.605	1.00200.58	C
ATOM	21806	O1P	G A1036	210.193	123.229	59.953	1.00200.33	O	ATOM	21856	O3*	C A1038	221.818	115.863	56.870	1.00200.58	O
ATOM	21807	O2P	G A1036	211.434	122.046	61.865	1.00200.33	O	ATOM	21857	C2*	C A1038	220.365	115.894	58.846	1.00200.58	C
ATOM	21808	O5*	G A1036	212.384	124.092	60.802	1.00200.23	O	ATOM	21858	O2*	C A1038	221.372	115.143	59.493	1.00200.58	O
ATOM	21809	C5*	G A1036	212.346	125.316	60.029	1.00200.23	C	ATOM	21859	C1*	C A1038	219.925	117.057	59.737	1.00200.58	C
ATOM	21810	C4*	G A1036	213.736	125.907	59.907	1.00200.23	C	ATOM	21860	N1	C A1038	218.476	117.333	59.648	1.00200.58	N
ATOM	21811	O4*	G A1036	214.220	126.240	61.232	1.00200.23	O	ATOM	21861	C2	C A1038	217.611	116.727	60.574	1.00200.58	C
ATOM	21812	C3*	G A1036	214.796	124.987	59.312	1.00200.23	C	ATOM	21862	O2	C A1038	218.085	115.989	61.450	1.00200.58	O
ATOM	21813	O3*	G A1036	214.826	125.084	57.887	1.00200.23	O	ATOM	21863	N3	C A1038	216.281	116.965	60.488	1.00200.58	N
ATOM	21814	C2*	G A1036	216.087	125.496	59.945	1.00200.23	C	ATOM	21864	C4	C A1038	215.805	117.770	59.534	1.00200.58	C
ATOM	21815	O2*	G A1036	216.653	126.598	59.262	1.00200.23	O	ATOM	21865	N4	C A1038	214.486	117.976	59.488	1.00200.58	N



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ATOM	21866	C5	C A1038	216.660	118.401	58.585	1.00200.58	C	ATOM	21916	O3*	A A1041	213.042	101.092	55.398	1.00194.10	O
ATOM	21867	C6	C A1038	217.975	118.158	58.678	1.00200.58	C	ATOM	21917	C2*	A A1041	212.304	102.807	56.978	1.00194.10	C
ATOM	21868	P	C A1039	221.367	115.119	55.516	1.00162.49	P	ATOM	21918	O1*	A A1041	211.707	101.749	57.700	1.00194.10	O
ATOM	21869	O1P	C A1039	222.505	115.237	54.570	1.00177.57	O	ATOM	21919	C1*	A A1041	213.116	103.680	57.936	1.00194.10	C
ATOM	21870	O2P	C A1039	220.027	115.617	55.112	1.00177.57	O	ATOM	21920	N9	A A1041	213.042	105.104	57.616	1.00200.35	N
ATOM	21871	O5*	C A1039	221.217	113.589	55.942	1.00162.49	O	ATOM	21921	C8	A A1041	213.829	105.822	56.750	1.00200.35	C
ATOM	21872	C5*	C A1039	222.378	112.785	56.233	1.00162.49	C	ATOM	21922	N7	A A1041	213.519	107.093	56.684	1.00200.35	N
ATOM	21873	C4*	C A1039	221.997	111.583	57.069	1.00162.49	C	ATOM	21923	C5	A A1041	212.454	107.223	57.565	1.00200.35	C
ATOM	21874	O4*	C A1039	221.402	112.034	58.312	1.00162.49	O	ATOM	21924	C6	A A1041	211.675	108.326	57.951	1.00200.35	C
ATOM	21875	C3*	C A1039	220.974	110.630	56.469	1.00162.49	C	ATOM	21925	N6	A A1041	211.864	109.564	57.489	1.00200.35	N
ATOM	21876	O3*	C A1039	221.605	109.664	55.630	1.00162.49	O	ATOM	21926	N1	A A1041	210.685	108.113	58.843	1.00200.35	N
ATOM	21877	C2*	C A1039	220.347	109.978	57.700	1.00162.49	C	ATOM	21927	C2	A A1041	210.503	106.874	59.314	1.00200.35	C
ATOM	21878	O2*	C A1039	221.094	108.880	58.185	1.00162.49	O	ATOM	21928	N3	A A1041	211.172	105.759	59.034	1.00200.35	N
ATOM	21879	C1*	C A1039	220.409	111.110	58.728	1.00162.49	C	ATOM	21929	C4	A A1041	212.147	106.004	58.141	1.00200.35	C
ATOM	21880	N1	C A1039	219.134	111.828	58.939	1.00177.57	N	ATOM	21930	P	G A1042	212.560	101.061	53.865	1.00200.58	P
ATOM	21881	C2	C A1039	218.141	111.230	59.739	1.00177.57	C	ATOM	21931	O1P	G A1042	212.480	99.629	53.462	1.00156.76	O
ATOM	21882	O2	C A1039	218.341	110.097	60.212	1.00177.57	O	ATOM	21932	O2P	G A1042	213.424	101.994	53.092	1.00156.76	O
ATOM	21883	N3	C A1039	216.989	111.900	59.969	1.00177.57	N	ATOM	21933	O5*	G A1042	211.085	101.668	53.910	1.00200.58	O
ATOM	21884	C4	C A1039	216.800	113.110	59.436	1.00177.57	C	ATOM	21934	C5*	G A1042	209.973	100.871	54.365	1.00200.58	C
ATOM	21885	N4	C A1039	215.652	113.739	59.704	1.00177.57	N	ATOM	21935	C4*	G A1042	208.748	101.732	54.576	1.00200.58	C
ATOM	21886	C5	C A1039	217.780	113.730	58.606	1.00177.57	C	ATOM	21936	O4*	G A1042	209.007	102.701	55.624	1.00200.58	O
ATOM	21887	C6	C A1039	218.918	113.061	58.385	1.00177.57	C	ATOM	21937	C3*	G A1042	208.283	102.572	53.397	1.00200.58	C
ATOM	21888	P	U A1040	220.714	108.749	54.652	1.00178.61	P	ATOM	21938	O3*	G A1042	207.472	101.840	52.490	1.00200.58	O
ATOM	21889	O1P	U A1040	221.652	107.850	53.930	1.00182.74	O	ATOM	21939	C2*	G A1042	207.492	103.686	54.071	1.00200.58	C
ATOM	21890	O2P	U A1040	219.797	109.627	53.879	1.00182.74	O	ATOM	21940	O2*	G A1042	206.164	103.317	54.384	1.00200.58	O
ATOM	21891	O5*	U A1040	219.827	107.861	55.635	1.00178.61	O	ATOM	21941	C1*	G A1042	208.280	103.889	55.363	1.00200.58	C
ATOM	21892	C5*	U A1040	220.406	106.763	56.363	1.00178.61	C	ATOM	21942	N9	G A1042	209.215	105.003	55.248	1.00156.76	N
ATOM	21893	C4*	U A1040	219.348	106.049	57.173	1.00178.61	C	ATOM	21943	C8	G A1042	210.580	104.947	55.107	1.00156.76	C
ATOM	21894	O4*	U A1040	218.834	106.926	58.209	1.00178.61	O	ATOM	21944	N7	G A1042	211.133	106.126	55.016	1.00156.76	N
ATOM	21895	C3*	U A1040	218.112	105.595	56.415	1.00178.61	C	ATOM	21945	C5	G A1042	210.069	107.013	55.104	1.00156.76	C
ATOM	21896	O3*	U A1040	218.315	104.357	55.747	1.00178.61	O	ATOM	21946	C6	G A1042	210.046	108.435	55.066	1.00156.76	C
ATOM	21897	C2*	U A1040	217.061	105.485	57.515	1.00178.61	C	ATOM	21947	O6	G A1042	210.993	109.220	54.940	1.00156.76	O
ATOM	21898	O2*	U A1040	217.103	104.253	58.206	1.00178.61	O	ATOM	21948	N1	G A1042	208.751	108.927	55.189	1.00156.76	N
ATOM	21899	C1*	U A1040	217.471	106.617	58.458	1.00178.61	C	ATOM	21949	C2	G A1042	207.622	108.156	55.327	1.00156.76	C
ATOM	21900	N1	U A1040	216.653	107.829	58.283	1.00182.74	N	ATOM	21950	N2	G A1042	206.459	108.818	55.428	1.00156.76	N
ATOM	21901	C2	U A1040	215.411	107.856	58.899	1.00182.74	C	ATOM	21951	N3	G A1042	207.630	106.835	55.363	1.00156.76	N
ATOM	21902	O2	U A1040	214.978	106.930	59.567	1.00182.74	O	ATOM	21952	C4	G A1042	208.879	106.335	55.249	1.00156.76	C
ATOM	21903	N3	U A1040	214.688	109.004	58.700	1.00182.74	N	ATOM	21953	P	C A1043	207.249	102.401	51.001	1.00167.74	P
ATOM	21904	C4	U A1040	215.060	110.102	57.961	1.00182.74	C	ATOM	21954	O1P	C A1043	206.465	101.378	50.260	1.00172.29	O
ATOM	21905	O4	U A1040	214.288	111.057	57.869	1.00182.74	O	ATOM	21955	O2P	C A1043	208.568	102.836	50.473	1.00172.29	O
ATOM	21906	C5	U A1040	216.351	110.002	57.354	1.00182.74	C	ATOM	21956	O5*	C A1043	206.331	103.692	51.202	1.00167.74	O
ATOM	21907	C6	U A1040	217.087	108.898	57.532	1.00182.74	C	ATOM	21957	C5*	C A1043	204.969	103.559	51.653	1.00167.74	C
ATOM	21908	P	A A1041	217.298	103.907	54.586	1.00194.10	P	ATOM	21958	C4*	C A1043	204.276	104.905	51.702	1.00167.74	C
ATOM	21909	O1P	A A1041	217.857	102.681	53.959	1.00200.35	O	ATOM	21959	O4*	C A1043	204.906	105.765	52.689	1.00167.74	O
ATOM	21910	O2P	A A1041	216.994	105.091	53.740	1.00200.35	O	ATOM	21960	C3*	C A1043	204.262	105.747	50.435	1.00167.74	C
ATOM	21911	O5*	A A1041	215.975	103.506	55.377	1.00194.10	O	ATOM	21961	O3*	C A1043	203.263	105.342	49.505	1.00167.74	O
ATOM	21912	C5*	A A1041	215.933	102.316	56.185	1.00194.10	C	ATOM	21962	C2*	C A1043	203.988	107.148	50.975	1.00167.74	C
ATOM	21913	C4*	A A1041	214.603	102.205	56.890	1.00194.10	C	ATOM	21963	O2*	C A1043	202.615	107.409	51.192	1.00167.74	O
ATOM	21914	O4*	A A1041	214.471	103.274	57.858	1.00194.10	O	ATOM	21964	C1*	C A1043	204.721	107.122	52.317	1.00167.74	C
ATOM	21915	C3*	A A1041	213.376	102.333	56.004	1.00194.10	C	ATOM	21965	N1	C A1043	206.026	107.806	52.240	1.00172.29	N



Table 2: Sheet 221/520

ATOM	21966	C2	C A1043	206.055	109.202	52.392	1.00172.29	C	ATOM	22016	O1P	A A1046	204.900	115.562	40.655	1.00	67.17	O
ATOM	21967	O2	C A1043	204.995	109.803	52.633	1.00172.29	C	ATOM	22017	O2P	A A1046	205.464	113.077	40.208	1.00	67.17	O
ATOM	21968	N3	C A1043	207.232	109.858	52.276	1.00172.29	N	ATOM	22018	O5*	A A1046	207.031	114.576	41.468	1.00	102.79	O
ATOM	21969	C4	C A1043	208.352	109.178	52.027	1.00172.29	C	ATOM	22019	C9*	A A1046	208.051	114.565	40.470	1.00	102.79	C
ATOM	21970	N4	C A1043	209.487	109.873	51.905	1.00172.29	N	ATOM	22020	C4*	A A1046	209.399	114.707	41.117	1.00	102.79	C
ATOM	21971	C5	C A1043	208.358	107.757	51.889	1.00172.29	C	ATOM	22021	O4*	A A1046	209.642	113.563	41.967	1.00	102.79	O
ATOM	21972	C6	C A1043	207.184	107.117	52.004	1.00172.29	C	ATOM	22022	C3*	A A1046	209.550	114.692	40.138	1.00	102.79	C
ATOM	21973	P	A A1044	203.385	105.796	47.963	1.00143.86	P	ATOM	22023	O3*	A A1046	210.755	115.969	39.574	1.00	102.79	O
ATOM	21974	O1P	A A1044	202.268	105.150	47.218	1.00104.61	O	ATOM	22024	C2*	A A1046	211.705	114.191	40.983	1.00	102.79	C
ATOM	21975	O2P	A A1044	204.789	105.579	47.512	1.00104.61	O	ATOM	22025	O2*	A A1046	212.247	115.206	41.796	1.00	102.79	O
ATOM	21976	O5*	A A1044	203.104	107.366	47.997	1.00143.86	O	ATOM	22026	C1*	A A1046	210.997	113.167	41.863	1.00	102.79	C
ATOM	21977	C5*	A A1044	201.787	107.853	48.287	1.00143.86	C	ATOM	22027	N9	A A1046	211.022	111.833	41.269	1.00	67.17	N
ATOM	21978	C4*	A A1044	201.694	109.344	48.063	1.00143.86	C	ATOM	22028	C8	A A1046	209.962	111.088	40.814	1.00	67.17	C
ATOM	21979	O4*	A A1044	202.427	110.067	49.087	1.00143.86	O	ATOM	22029	N7	A A1046	210.303	109.910	40.350	1.00	67.17	N
ATOM	21980	C3*	A A1044	202.231	109.922	46.765	1.00143.86	C	ATOM	22030	C5	A A1046	211.678	109.878	40.508	1.00	67.17	C
ATOM	21981	O3*	A A1044	201.380	109.745	45.641	1.00143.86	O	ATOM	22031	C6	A A1046	212.635	108.896	40.222	1.00	67.17	C
ATOM	21982	C2*	A A1044	202.364	111.396	47.121	1.00143.86	C	ATOM	22032	N6	A A1046	212.339	107.697	39.704	1.00	67.17	N
ATOM	21983	O2*	A A1044	201.141	112.100	47.030	1.00143.86	O	ATOM	22033	N1	A A1046	213.927	109.184	40.493	1.00	67.17	N
ATOM	21984	C1*	A A1044	202.833	111.327	48.573	1.00143.86	C	ATOM	22034	C2	A A1046	214.220	110.381	41.019	1.00	67.17	C
ATOM	21985	N9	A A1044	204.293	111.425	48.606	1.00104.61	N	ATOM	22035	N3	A A1046	213.406	111.381	41.341	1.00	67.17	N
ATOM	21986	C8	A A1044	205.232	110.427	48.721	1.00104.61	C	ATOM	22036	C4	A A1046	212.136	111.060	41.060	1.00	67.17	C
ATOM	21987	N7	A A1044	206.471	110.854	48.637	1.00104.61	N	ATOM	22037	P	G A1047	210.695	116.122	37.981	1.00	87.09	P
ATOM	21988	C5	A A1044	206.340	112.227	48.473	1.00104.61	C	ATOM	22038	O1P	G A1047	211.085	117.518	37.651	1.00	72.31	O
ATOM	21989	C6	A A1044	207.288	113.260	48.312	1.00104.61	C	ATOM	22039	O2P	G A1047	209.386	115.593	37.519	1.00	72.31	O
ATOM	21990	N6	A A1044	208.608	113.060	48.291	1.00104.61	N	ATOM	22040	O5*	G A1047	211.805	115.098	37.477	1.00	87.09	O
ATOM	21991	N1	A A1044	206.823	114.522	48.170	1.00104.61	N	ATOM	22041	C5*	G A1047	213.177	115.243	37.864	1.00	87.09	C
ATOM	21992	C2	A A1044	205.498	114.724	48.189	1.00104.61	C	ATOM	22042	C4*	G A1047	213.968	114.033	37.436	1.00	87.09	C
ATOM	21993	N3	A A1044	204.511	113.839	48.332	1.00104.61	N	ATOM	22043	O4*	G A1047	213.559	112.877	38.217	1.00	87.09	O
ATOM	21994	C4	A A1044	205.005	112.595	48.469	1.00104.61	C	ATOM	22044	C3*	G A1047	213.755	113.593	35.999	1.00	87.09	C
ATOM	21995	P	C A1045	202.029	109.459	44.189	1.00123.15	P	ATOM	22045	O3*	G A1047	214.468	114.354	35.041	1.00	87.09	O
ATOM	21996	O1P	C A1045	201.036	109.907	43.173	1.00	90.61	ATOM	22046	C2*	G A1047	214.147	112.124	36.044	1.00	87.09	C
ATOM	21997	O2P	C A1045	202.538	108.057	44.158	1.00	90.61	ATOM	22047	O2*	G A1047	215.543	111.909	35.996	1.00	87.09	O
ATOM	21998	O5*	C A1045	203.286	110.437	44.087	1.00123.15	O	ATOM	22048	C1*	G A1047	213.587	111.709	37.404	1.00	87.09	C
ATOM	21999	C5*	C A1045	203.135	111.852	44.298	1.00123.15	C	ATOM	22049	N9	G A1047	212.214	111.246	37.221	1.00	72.31	N
ATOM	22000	C4*	C A1045	204.482	112.522	44.454	1.00123.15	C	ATOM	22050	C8	G A1047	211.060	111.947	37.483	1.00	72.31	C
ATOM	22001	O4*	C A1045	205.361	111.714	45.282	1.00123.15	O	ATOM	22051	N7	G A1047	209.981	111.309	37.123	1.00	72.31	N
ATOM	22002	C3*	C A1045	205.284	112.739	43.187	1.00123.15	C	ATOM	22052	C5	G A1047	210.447	110.106	36.610	1.00	72.31	C
ATOM	22003	O3*	C A1045	204.856	113.910	42.512	1.00123.15	O	ATOM	22053	C6	G A1047	209.738	109.019	36.045	1.00	72.31	C
ATOM	22004	C2*	C A1045	206.704	112.889	43.717	1.00123.15	C	ATOM	22054	O6	G A1047	208.517	108.907	35.864	1.00	72.31	O
ATOM	22005	O2*	C A1045	206.939	114.176	44.240	1.00123.15	O	ATOM	22055	N1	G A1047	210.596	107.992	35.665	1.00	72.31	N
ATOM	22006	C1*	C A1045	206.707	111.903	44.877	1.00123.15	C	ATOM	22056	C2	G A1047	211.962	108.013	35.808	1.00	72.31	C
ATOM	22007	N1	C A1045	207.294	110.602	44.510	1.00	90.61	ATOM	22057	N2	G A1047	212.613	106.909	35.413	1.00	72.31	N
ATOM	22008	C2	C A1045	208.701	110.472	44.473	1.00	90.61	ATOM	22058	N3	G A1047	212.637	109.034	36.310	1.00	72.31	N
ATOM	22009	O2	C A1045	209.416	111.466	44.706	1.00	90.61	ATOM	22059	C4	G A1047	211.820	110.038	36.689	1.00	72.31	C
ATOM	22010	N3	C A1045	209.241	109.267	44.175	1.00	90.61	ATOM	22060	P	G A1048	213.792	114.627	33.607	1.00	73.42	P
ATOM	22011	C4	C A1045	208.447	108.225	43.909	1.00	90.61	ATOM	22061	O1P	G A1048	214.724	115.477	32.825	1.00	71.31	O
ATOM	22012	N4	C A1045	209.024	107.053	43.636	1.00	90.61	ATOM	22062	O2P	G A1048	212.402	115.103	33.836	1.00	71.31	O
ATOM	22013	C5	C A1045	207.024	108.337	43.914	1.00	90.61	ATOM	22063	O5*	G A1048	213.742	113.172	32.946	1.00	73.42	O
ATOM	22014	C6	C A1045	206.496	109.530	44.217	1.00	90.61	ATOM	22064	C5*	G A1048	214.964	112.433	32.738	1.00	73.42	C
ATOM	22015	P	A A1046	205.512	114.283	41.097	1.00102.79	P	ATOM	22065	C4*	G A1048	214.727	111.170	31.927	1.00	73.42	C



Table 2: Sheet 222/520

ATOM	22066	O4*	G A1048	214.068	110.152	32.737	1.00	73.42	O	ATOM	22116	C8	G A1050	211.245	107.961	27.882	1.00	71.01	C
ATOM	22067	C3*	G A1048	213.881	111.247	30.664	1.00	73.42	C	ATOM	22117	N7	G A1050	210.181	108.643	28.217	1.00	71.01	N
ATOM	22068	O3*	G A1048	214.523	111.848	29.536	1.00	73.42	O	ATOM	22118	C5	G A1050	209.122	107.895	27.712	1.00	71.01	C
ATOM	22069	C2*	G A1048	213.504	109.782	30.454	1.00	73.42	C	ATOM	22119	C6	G A1050	207.717	108.128	27.747	1.00	71.01	C
ATOM	22070	O2*	G A1048	214.522	109.011	29.836	1.00	73.42	O	ATOM	22120	O6	G A1050	207.104	109.078	28.243	1.00	71.01	O
ATOM	22071	C1*	G A1048	213.289	109.309	31.899	1.00	73.42	C	ATOM	22121	N1	G A1050	207.015	107.109	27.112	1.00	71.01	N
ATOM	22072	N9	G A1048	211.878	109.478	32.239	1.00	71.31	N	ATOM	22122	C2	G A1050	207.586	106.008	26.518	1.00	71.01	C
ATOM	22073	C8	G A1048	211.289	110.578	32.817	1.00	71.31	C	ATOM	22123	N2	G A1050	206.752	105.126	25.956	1.00	71.01	N
ATOM	22074	N7	G A1048	209.987	110.501	32.851	1.00	71.31	N	ATOM	22124	N3	G A1050	208.881	105.785	26.476	1.00	71.01	N
ATOM	22075	C5	G A1048	209.701	109.265	32.294	1.00	71.31	C	ATOM	22125	C4	G A1050	209.583	106.760	27.085	1.00	71.01	C
ATOM	22076	C6	G A1048	208.453	108.640	32.037	1.00	71.31	C	ATOM	22126	P	C A1051	212.688	107.293	22.261	1.00	72.23	P
ATOM	22077	O6	G A1048	207.312	109.081	32.233	1.00	71.31	O	ATOM	22127	O1P	C A1051	213.424	107.056	20.986	1.00	76.16	O
ATOM	22078	N1	G A1048	208.619	107.378	31.480	1.00	71.31	N	ATOM	22128	O2P	C A1051	212.416	108.692	22.704	1.00	76.16	O
ATOM	22079	C2	G A1048	209.826	106.795	31.195	1.00	71.31	C	ATOM	22129	O5*	C A1051	211.279	106.553	22.169	1.00	72.23	O
ATOM	22080	N2	G A1048	209.777	105.561	30.669	1.00	71.31	N	ATOM	22130	C5*	C A1051	211.135	105.291	21.486	1.00	72.23	C
ATOM	22081	N3	G A1048	210.996	107.376	31.410	1.00	71.31	N	ATOM	22131	C4*	C A1051	209.672	105.016	21.203	1.00	72.23	C
ATOM	22082	C4	G A1048	210.858	108.602	31.954	1.00	71.31	C	ATOM	22132	O4*	C A1051	208.942	105.040	22.459	1.00	72.23	O
ATOM	22083	P	U A1049	213.883	113.189	28.891	1.00	80.35	P	ATOM	22133	C3*	C A1051	208.948	106.039	20.335	1.00	72.23	C
ATOM	22084	O1P	U A1049	214.674	114.362	29.352	1.00	63.24	O	ATOM	22134	O3*	C A1051	209.086	105.808	18.937	1.00	72.23	O
ATOM	22085	O2P	U A1049	212.418	113.164	29.125	1.00	63.24	O	ATOM	22135	C2*	C A1051	207.498	105.878	20.763	1.00	72.23	C
ATOM	22086	O5*	U A1049	214.128	113.088	27.320	1.00	80.35	O	ATOM	22136	O2*	C A1051	206.863	104.801	20.100	1.00	72.23	O
ATOM	22087	C3*	U A1049	214.029	111.840	26.612	1.00	80.35	C	ATOM	22137	C1*	C A1051	207.645	105.573	22.253	1.00	72.23	C
ATOM	22088	C4*	U A1049	215.340	111.542	25.934	1.00	80.35	C	ATOM	22138	N1	C A1051	207.477	106.789	23.074	1.00	76.16	N
ATOM	22089	O4*	U A1049	215.682	112.639	25.072	1.00	80.35	O	ATOM	22139	C2	C A1051	206.201	107.356	23.166	1.00	76.16	C
ATOM	22090	C3*	U A1049	216.507	111.417	26.898	1.00	80.35	C	ATOM	22140	O2	C A1051	205.254	106.796	22.596	1.00	76.16	O
ATOM	22091	O3*	U A1049	216.630	110.046	27.290	1.00	80.35	O	ATOM	22141	N3	C A1051	206.029	108.494	23.872	1.00	76.16	N
ATOM	22092	C2*	U A1049	217.720	111.984	26.160	1.00	80.35	C	ATOM	22142	C4	C A1051	207.065	109.060	24.482	1.00	76.16	C
ATOM	22093	O2*	U A1049	218.625	111.026	25.674	1.00	80.35	O	ATOM	22143	N4	C A1051	206.846	110.190	25.152	1.00	76.16	N
ATOM	22094	C1*	U A1049	217.085	112.770	25.013	1.00	80.35	C	ATOM	22144	C5	C A1051	208.373	108.495	24.428	1.00	76.16	C
ATOM	22095	N1	U A1049	217.419	114.197	24.894	1.00	63.24	N	ATOM	22145	C6	C A1051	208.533	107.369	23.720	1.00	76.16	C
ATOM	22096	C2	U A1049	218.657	114.543	24.366	1.00	63.24	C	ATOM	22146	P	U A1052	208.777	107.006	17.907	1.00	72.60	P
ATOM	22097	O2	U A1049	219.522	113.724	24.088	1.00	63.24	O	ATOM	22147	O1P	U A1052	209.023	106.500	16.527	1.00	70.41	O
ATOM	22098	N3	U A1049	218.844	115.890	24.183	1.00	63.24	N	ATOM	22148	O2P	U A1052	209.470	108.232	18.377	1.00	70.41	O
ATOM	22099	C4	U A1049	217.950	116.898	24.484	1.00	63.24	C	ATOM	22149	O5*	U A1052	207.221	107.292	18.075	1.00	72.60	O
ATOM	22100	O4	U A1049	218.220	118.056	24.182	1.00	63.24	O	ATOM	22150	C5*	U A1052	206.242	106.367	17.591	1.00	72.60	C
ATOM	22101	C5	U A1049	216.730	116.459	25.069	1.00	63.24	C	ATOM	22151	C4*	U A1052	204.865	106.940	17.778	1.00	72.60	C
ATOM	22102	C6	U A1049	216.512	115.162	25.254	1.00	63.24	C	ATOM	22152	O4*	U A1052	204.616	107.140	19.195	1.00	72.60	O
ATOM	22103	P	G A1050	216.757	108.883	26.173	1.00	85.40	P	ATOM	22153	C3*	U A1052	204.639	108.303	17.147	1.00	72.60	C
ATOM	22104	O1P	G A1050	217.844	107.970	26.594	1.00	71.01	O	ATOM	22154	O3*	U A1052	204.261	108.167	15.779	1.00	72.60	O
ATOM	22105	O2P	G A1050	216.791	109.470	24.814	1.00	71.01	O	ATOM	22155	C2*	U A1052	203.497	108.857	17.992	1.00	72.60	C
ATOM	22106	O5*	G A1050	215.389	108.074	26.298	1.00	85.40	O	ATOM	22156	O2*	U A1052	202.250	108.329	17.592	1.00	72.60	O
ATOM	22107	C5*	G A1050	215.405	106.656	26.149	1.00	85.40	C	ATOM	22157	C1*	U A1052	203.823	108.299	19.381	1.00	72.60	C
ATOM	22108	C4*	G A1050	214.035	106.104	25.827	1.00	85.40	C	ATOM	22158	N1	U A1052	204.558	109.253	20.231	1.00	70.41	N
ATOM	22109	O3*	G A1050	213.188	106.061	27.003	1.00	85.40	O	ATOM	22159	C2	U A1052	203.841	110.249	20.884	1.00	70.41	C
ATOM	22110	C4*	G A1050	213.122	106.737	24.788	1.00	85.40	C	ATOM	22160	O2	U A1052	202.628	110.337	20.849	1.00	70.41	O
ATOM	22111	O3*	G A1050	213.482	106.512	23.432	1.00	85.40	O	ATOM	22161	N3	U A1052	204.604	111.143	21.587	1.00	70.41	N
ATOM	22112	C2*	G A1050	211.828	105.982	25.062	1.00	85.40	C	ATOM	22162	C4	U A1052	205.971	111.147	21.716	1.00	70.41	C
ATOM	22113	O2*	G A1050	211.853	104.689	24.483	1.00	85.40	O	ATOM	22163	O4	U A1052	206.523	112.107	22.251	1.00	70.41	O
ATOM	22114	C1*	G A1050	211.854	105.836	26.584	1.00	85.40	C	ATOM	22164	C5	U A1052	206.630	110.068	21.061	1.00	70.41	C
ATOM	22115	N9	G A1050	210.950	106.816	27.178	1.00	71.01	N	ATOM	22165	C6	U A1052	205.923	109.182	20.359	1.00	70.41	C



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ATOM	22166	P	G A1053	205.056	108.977	14.629	1.00	61.91	P	ATOM	22216	C3*	A A1055	197.291	113.375	16.852	1.00	66.26	C
ATOM	22167	O1P	G A1053	204.337	108.775	13.348	1.00	59.14	O	ATOM	22217	C3*	A A1055	196.750	113.872	15.645	1.00	66.26	O
ATOM	22168	O2P	G A1053	206.501	108.644	14.716	1.00	59.14	O	ATOM	22218	O2*	A A1055	196.650	113.979	18.089	1.00	66.26	C
ATOM	22169	O5*	G A1053	204.876	110.511	15.000	1.00	61.91	O	ATOM	22219	O2*	A A1055	195.247	114.059	17.975	1.00	66.26	C
ATOM	22170	C5*	G A1053	205.477	111.493	14.170	1.00	61.91	C	ATOM	22220	C1*	A A1055	196.996	112.937	19.149	1.00	66.26	C
ATOM	22171	C4*	G A1053	204.634	112.724	14.118	1.00	61.91	C	ATOM	22221	N9	A A1055	198.284	113.235	19.783	1.00	63.93	N
ATOM	22172	O4*	G A1053	205.020	113.592	15.216	1.00	61.91	O	ATOM	22222	C8	A A1055	199.445	112.517	19.697	1.00	63.93	C
ATOM	22173	C3*	G A1053	204.845	113.528	12.838	1.00	61.91	C	ATOM	22223	N7	A A1055	200.457	113.073	20.316	1.00	63.93	N
ATOM	22174	O3*	G A1053	203.632	114.187	12.477	1.00	61.91	O	ATOM	22224	C5	A A1055	199.924	114.233	20.861	1.00	63.93	C
ATOM	22175	C2*	G A1053	205.846	114.589	13.264	1.00	61.91	C	ATOM	22225	C6	A A1055	200.494	115.282	21.628	1.00	63.93	C
ATOM	22176	O2*	G A1053	205.757	115.766	12.483	1.00	61.91	O	ATOM	22226	N6	A A1055	201.788	115.352	21.950	1.00	63.93	N
ATOM	22177	C1*	G A1053	205.393	114.849	14.697	1.00	61.91	C	ATOM	22227	N1	A A1055	199.677	116.277	22.038	1.00	63.93	N
ATOM	22178	N9	G A1053	206.411	115.463	15.541	1.00	59.14	N	ATOM	22228	C2	A A1055	198.393	116.232	21.678	1.00	63.93	C
ATOM	22179	C8	G A1053	207.661	114.985	15.857	1.00	59.14	C	ATOM	22229	N3	A A1055	197.749	115.322	20.942	1.00	63.93	N
ATOM	22180	N7	G A1053	208.350	115.817	16.591	1.00	59.14	N	ATOM	22230	C4	A A1055	198.581	114.335	20.562	1.00	63.93	C
ATOM	22181	C5	G A1053	207.496	116.897	16.776	1.00	59.14	C	ATOM	22231	P	U A1056	197.370	115.210	15.003	1.00	51.52	P
ATOM	22182	C6	G A1053	207.693	118.111	17.465	1.00	59.14	C	ATOM	22232	O1P	U A1056	196.425	115.765	13.986	1.00	51.52	O
ATOM	22183	O6	G A1053	208.695	118.496	18.070	1.00	59.14	O	ATOM	22233	O2P	U A1056	198.795	114.932	14.627	1.00	63.59	O
ATOM	22184	N1	G A1053	206.569	118.923	17.401	1.00	59.14	N	ATOM	22234	O5*	U A1056	197.390	116.241	16.213	1.00	51.52	O
ATOM	22185	C2	G A1053	205.406	118.610	16.756	1.00	59.14	C	ATOM	22235	C5*	U A1056	198.116	117.467	16.101	1.00	51.52	C
ATOM	22186	N2	G A1053	204.428	119.524	16.811	1.00	59.14	N	ATOM	22236	C4*	U A1056	198.115	118.201	17.411	1.00	51.52	C
ATOM	22187	N3	G A1053	205.213	117.483	16.102	1.00	59.14	N	ATOM	22237	O4*	U A1056	198.752	117.410	18.448	1.00	51.52	O
ATOM	22188	C4	G A1053	206.294	116.681	16.151	1.00	59.14	C	ATOM	22238	C3*	U A1056	198.911	119.485	17.375	1.00	51.52	C
ATOM	22189	P	C A1054	203.122	114.160	10.961	1.00	71.31	P	ATOM	22239	O3*	U A1056	198.116	120.530	16.867	1.00	51.52	O
ATOM	22190	O1P	C A1054	204.261	113.833	10.078	1.00	120.19	O	ATOM	22240	C2*	U A1056	199.281	119.702	18.830	1.00	51.52	C
ATOM	22191	O2P	C A1054	202.325	115.382	10.711	1.00	120.19	O	ATOM	22241	O2*	U A1056	198.238	120.339	19.531	1.00	51.52	O
ATOM	22192	O5*	C A1054	202.131	112.932	10.971	1.00	71.31	O	ATOM	22242	C1*	U A1056	199.459	118.264	19.327	1.00	51.52	C
ATOM	22193	C5*	C A1054	202.211	111.976	12.023	1.00	71.31	C	ATOM	22243	N1	U A1056	200.861	117.824	19.373	1.00	63.59	N
ATOM	22194	C4*	C A1054	200.847	111.477	12.378	1.00	71.31	C	ATOM	22244	C2	U A1056	201.766	118.590	20.094	1.00	63.59	C
ATOM	22195	O4*	C A1054	200.344	110.626	11.317	1.00	71.31	O	ATOM	22245	O2	U A1056	201.448	119.589	20.717	1.00	63.59	O
ATOM	22196	C3*	C A1054	200.829	110.601	13.611	1.00	71.31	C	ATOM	22246	N3	U A1056	203.061	118.140	20.059	1.00	63.59	N
ATOM	22197	O3*	C A1054	200.711	111.446	14.755	1.00	71.31	O	ATOM	22247	C4	U A1056	203.537	117.025	19.404	1.00	63.59	C
ATOM	22198	C2*	C A1054	199.578	109.760	13.396	1.00	71.31	C	ATOM	22248	O4	U A1056	204.751	116.804	19.388	1.00	63.59	O
ATOM	22199	O2*	C A1054	198.416	110.462	13.793	1.00	71.31	O	ATOM	22249	C5	U A1056	202.539	116.272	18.710	1.00	63.59	C
ATOM	22200	C1*	C A1054	199.536	109.618	11.872	1.00	71.31	C	ATOM	22250	C6	U A1056	201.270	116.688	18.715	1.00	63.59	C
ATOM	22201	N1	C A1054	199.939	108.310	11.334	1.00	120.19	N	ATOM	22251	P	G A1057	198.818	121.760	16.124	1.00	52.19	P
ATOM	22202	C2	C A1054	199.401	107.898	10.108	1.00	120.19	C	ATOM	22252	O1P	G A1057	197.756	122.540	15.421	1.00	75.16	O
ATOM	22203	O2	C A1054	198.657	108.668	9.488	1.00	120.19	O	ATOM	22253	O2P	G A1057	199.974	121.225	15.354	1.00	75.16	O
ATOM	22204	N3	C A1054	199.710	106.673	9.630	1.00	120.19	N	ATOM	22254	O5*	G A1057	199.385	122.645	17.319	1.00	52.19	O
ATOM	22205	C4	C A1054	200.526	105.872	10.321	1.00	120.19	C	ATOM	22255	C5*	G A1057	198.499	123.275	18.253	1.00	52.19	C
ATOM	22206	N4	C A1054	200.783	104.658	9.824	1.00	120.19	N	ATOM	22256	C4*	G A1057	199.287	124.070	19.266	1.00	52.19	C
ATOM	22207	C5	C A1054	201.112	106.278	11.558	1.00	120.19	C	ATOM	22257	O4*	G A1057	200.126	123.182	20.045	1.00	52.19	O
ATOM	22208	C6	C A1054	200.798	107.494	12.020	1.00	120.19	C	ATOM	22258	C3*	G A1057	200.240	125.107	18.707	1.00	52.19	C
ATOM	22209	P	A A1055	200.702	110.811	16.232	1.00	66.26	P	ATOM	22259	O3*	G A1057	199.561	126.319	18.495	1.00	52.19	O
ATOM	22210	O1P	A A1055	201.841	111.397	16.965	1.00	63.93	O	ATOM	22260	C2*	G A1057	201.254	125.266	19.827	1.00	52.19	C
ATOM	22211	O2P	A A1055	200.557	109.334	16.155	1.00	63.93	O	ATOM	22261	O2*	G A1057	200.799	126.143	20.836	1.00	52.19	O
ATOM	22212	O5*	A A1055	199.379	111.397	16.885	1.00	66.26	O	ATOM	22262	C1*	G A1057	201.318	123.852	20.402	1.00	52.19	C
ATOM	22213	C5*	A A1055	198.077	111.035	16.391	1.00	66.26	C	ATOM	22263	N9	G A1057	202.447	123.089	19.888	1.00	75.16	N
ATOM	22214	C4*	A A1055	197.033	111.897	17.039	1.00	66.26	C	ATOM	22264	C8	G A1057	202.422	122.143	18.895	1.00	75.16	C
ATOM	22215	O4*	A A1055	197.106	111.695	18.477	1.00	66.26	O	ATOM	22265	N7	G A1057	203.596	121.630	18.651	1.00	75.16	N



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ATOM	22266	C5	G A1057	204.444	122.275	19.537	1.00	75.16	C	ATOM	22316	C6	C A1059	206.450	127.068	14.666	1.00	66.10	C
ATOM	22267	C6	G A1057	205.826	122.124	19.743	1.00	75.16	C	ATOM	22317	P	C A1060	208.556	131.018	11.919	1.00	57.79	P
ATOM	22268	O6	G A1057	206.612	121.379	19.157	1.00	75.16	O	ATOM	22318	O1P	C A1060	209.199	132.311	11.552	1.00	65.86	O
ATOM	22269	N1	G A1057	206.285	122.958	20.748	1.00	75.16	N	ATOM	22319	O2P	C A1060	207.083	130.874	11.786	1.00	65.86	O
ATOM	22270	C2	G A1057	205.513	123.833	21.459	1.00	75.16	N	ATOM	22320	O5*	C A1060	209.274	129.837	11.116	1.00	57.79	O
ATOM	22271	N2	G A1057	206.149	124.545	22.392	1.00	75.16	N	ATOM	22321	C5*	C A1060	210.701	129.614	11.262	1.00	57.79	C
ATOM	22272	N3	G A1057	204.219	123.993	21.273	1.00	75.16	N	ATOM	22322	C4*	C A1060	211.148	128.341	10.560	1.00	57.79	C
ATOM	22273	C4	G A1057	203.752	123.182	20.305	1.00	75.16	C	ATOM	22323	O4*	C A1060	210.594	127.165	11.204	1.00	57.79	O
ATOM	22274	P	G A1058	200.067	127.317	17.352	1.00	58.29	P	ATOM	22324	C3*	C A1060	210.795	128.172	9.092	1.00	57.79	C
ATOM	22275	O1P	G A1058	199.971	126.588	16.068	1.00	57.01	O	ATOM	22325	O3*	C A1060	211.696	128.878	8.261	1.00	57.79	O
ATOM	22276	O2P	G A1058	201.609	127.518	17.688	1.00	58.29	O	ATOM	22326	C2*	C A1060	210.916	126.665	8.899	1.00	57.79	C
ATOM	22277	O5*	G A1058	201.609	127.518	17.688	1.00	58.29	O	ATOM	22327	O2*	C A1060	212.251	126.244	8.723	1.00	57.79	O
ATOM	22278	C5*	G A1058	202.025	128.264	18.842	1.00	58.29	C	ATOM	22328	C1*	C A1060	210.416	126.133	10.242	1.00	57.79	C
ATOM	22279	C4*	G A1058	203.521	128.156	19.018	1.00	58.29	C	ATOM	22329	N1	C A1060	208.984	125.774	10.181	1.00	65.86	N
ATOM	22280	O4*	G A1058	203.898	126.799	19.368	1.00	58.29	O	ATOM	22330	C2	C A1060	208.608	124.513	9.670	1.00	65.86	C
ATOM	22281	C3*	G A1058	204.335	128.464	17.781	1.00	58.29	C	ATOM	22331	O2	C A1060	209.481	123.704	9.325	1.00	65.86	O
ATOM	22282	O3*	G A1058	204.505	129.852	17.615	1.00	58.29	O	ATOM	22332	N3	C A1060	207.299	124.213	9.570	1.00	65.86	N
ATOM	22283	C2*	G A1058	205.644	127.747	18.059	1.00	58.29	C	ATOM	22333	C4	C A1060	206.380	125.095	9.960	1.00	65.86	C
ATOM	22284	O2*	G A1058	206.521	128.487	18.879	1.00	58.29	O	ATOM	22334	N4	C A1060	205.102	124.762	9.822	1.00	65.86	N
ATOM	22285	C1*	G A1058	205.165	126.506	18.813	1.00	58.29	C	ATOM	22335	C5	C A1060	206.731	126.360	10.503	1.00	65.86	C
ATOM	22286	N9	G A1058	205.033	125.369	17.909	1.00	57.01	N	ATOM	22336	C6	C A1060	208.028	126.658	10.593	1.00	65.86	C
ATOM	22287	C8	G A1058	203.897	124.945	17.269	1.00	57.01	C	ATOM	22337	P	G A1061	211.279	129.231	6.753	1.00	41.73	P
ATOM	22288	N7	G A1058	204.102	123.912	16.499	1.00	57.01	N	ATOM	22338	O1P	G A1061	212.358	130.096	6.205	1.00	69.10	O
ATOM	22289	C5	G A1058	205.455	123.637	16.643	1.00	57.01	C	ATOM	22339	O2P	G A1061	209.880	129.712	6.714	1.00	69.10	O
ATOM	22290	C6	G A1058	206.256	122.629	16.046	1.00	57.01	C	ATOM	22340	O5*	G A1061	211.372	127.827	6.005	1.00	41.73	O
ATOM	22291	O6	G A1058	205.919	121.756	15.228	1.00	57.01	O	ATOM	22341	C5*	G A1061	212.631	127.140	5.907	1.00	41.73	C
ATOM	22292	N1	G A1058	207.575	122.703	16.485	1.00	57.01	N	ATOM	22342	C4*	G A1061	212.475	125.844	5.162	1.00	41.73	C
ATOM	22293	C2	G A1058	208.059	123.626	17.373	1.00	57.01	C	ATOM	22343	O4*	G A1061	211.633	124.948	5.917	1.00	41.73	O
ATOM	22294	N2	G A1058	209.351	123.510	17.698	1.00	57.01	N	ATOM	22344	C3*	G A1061	211.817	125.951	3.802	1.00	41.73	C
ATOM	22295	N3	G A1058	207.331	124.583	17.912	1.00	57.01	N	ATOM	22345	O3*	G A1061	212.778	126.237	2.809	1.00	41.73	O
ATOM	22296	C4	G A1058	206.043	124.524	17.512	1.00	57.01	C	ATOM	22346	C2*	G A1061	211.243	124.562	3.604	1.00	41.73	C
ATOM	22297	P	C A1059	204.483	130.477	16.139	1.00	52.02	P	ATOM	22347	O2*	G A1061	212.247	123.675	3.161	1.00	41.73	O
ATOM	22298	O1P	C A1059	204.444	131.961	16.262	1.00	66.10	O	ATOM	22348	C1*	G A1061	210.825	124.191	5.030	1.00	41.73	C
ATOM	22299	O2P	C A1059	203.425	129.783	15.358	1.00	66.10	O	ATOM	22349	N9	G A1061	209.423	124.504	5.308	1.00	69.10	N
ATOM	22300	O5*	C A1059	205.897	130.034	15.553	1.00	52.02	O	ATOM	22350	C8	G A1061	208.952	125.554	6.060	1.00	69.10	C
ATOM	22301	C5*	C A1059	207.122	130.542	16.120	1.00	52.02	C	ATOM	22351	N7	G A1061	207.651	125.608	6.109	1.00	69.10	N
ATOM	22302	C4*	C A1059	208.315	129.771	15.602	1.00	52.02	C	ATOM	22352	C5	G A1061	207.232	124.527	5.349	1.00	69.10	C
ATOM	22303	O4*	C A1059	208.297	128.417	16.125	1.00	52.02	O	ATOM	22353	C6	G A1061	205.925	124.086	5.035	1.00	69.10	C
ATOM	22304	C3*	C A1059	208.408	129.591	14.098	1.00	52.02	C	ATOM	22354	O6	G A1061	204.839	124.583	5.380	1.00	69.10	O
ATOM	22305	O3*	C A1059	208.958	130.715	13.447	1.00	52.02	O	ATOM	22355	N1	G A1061	205.952	122.946	4.241	1.00	69.10	N
ATOM	22306	C2*	C A1059	209.299	128.370	13.979	1.00	52.02	C	ATOM	22356	C2	G A1061	207.089	122.310	3.812	1.00	69.10	C
ATOM	22307	O2*	C A1059	210.652	128.711	14.157	1.00	52.02	O	ATOM	22357	N2	G A1061	206.907	121.209	3.078	1.00	69.10	N
ATOM	22308	C1*	C A1059	208.825	127.528	15.161	1.00	52.02	C	ATOM	22358	N3	G A1061	208.314	122.717	4.088	1.00	69.10	N
ATOM	22309	N1	C A1059	207.746	126.632	14.723	1.00	66.10	N	ATOM	22359	C4	G A1061	208.312	123.825	4.856	1.00	69.10	C
ATOM	22310	C2	C A1059	208.071	125.337	14.325	1.00	66.10	C	ATOM	22360	P	U A1062	212.364	127.125	1.544	1.00	49.79	P
ATOM	22311	O2	C A1059	209.252	124.951	14.425	1.00	66.10	O	ATOM	22361	O1P	U A1062	213.581	127.202	0.688	1.00	68.87	O
ATOM	22312	N3	C A1059	207.095	124.536	13.838	1.00	66.10	N	ATOM	22362	O2P	U A1062	211.723	128.375	2.010	1.00	68.87	O
ATOM	22313	C4	C A1059	205.843	124.987	13.746	1.00	66.10	C	ATOM	22363	O5*	U A1062	211.252	126.235	0.834	1.00	49.79	O
ATOM	22314	N4	C A1059	204.924	124.177	13.216	1.00	66.10	N	ATOM	22364	C5*	U A1062	211.533	124.885	0.397	1.00	49.79	C
ATOM	22315	C5	C A1059	205.481	126.290	14.183	1.00	66.10	C	ATOM	22365	C4*	U A1062	210.303	124.278	-0.240	1.00	49.79	C



Table 2: Sheet 225/520

ATOM	22366	O4*	U A1062	209.361	123.857	0.783	1.00	49.79	O	ATOM	22416	C6	G A1064	203.116	130.403	-2.358	1.00	62.77	C
ATOM	22367	C3*	U A1062	209.531	125.246	-1.122	1.00	49.79	C	ATOM	22417	O6	G A1064	202.031	129.822	-2.371	1.00	62.77	O
ATOM	22368	O3*	U A1062	210.038	125.277	-2.441	1.00	49.79	O	ATOM	22418	N1	G A1064	203.525	131.082	-1.219	1.00	62.77	N
ATOM	22369	C2*	U A1062	208.117	124.698	-1.078	1.00	49.79	C	ATOM	22419	C2	G A1064	204.723	131.718	-1.071	1.00	62.77	C
ATOM	22370	O2*	U A1062	207.943	123.677	-2.038	1.00	49.79	O	ATOM	22420	N2	G A1064	204.941	132.308	0.095	1.00	62.77	N
ATOM	22371	C1*	U A1062	208.039	124.140	0.350	1.00	49.79	C	ATOM	22421	N3	G A1064	205.644	131.767	-2.000	1.00	62.77	N
ATOM	22372	N1	U A1062	207.442	125.101	1.293	1.00	68.87	N	ATOM	22422	C4	G A1064	205.265	131.123	-3.120	1.00	62.77	C
ATOM	22373	C2	U A1062	206.091	125.002	1.568	1.00	68.87	C	ATOM	22423	P	U A1065	211.375	132.669	-4.821	1.00	57.19	P
ATOM	22374	O2	U A1062	205.372	124.159	1.085	1.00	68.87	O	ATOM	22424	O1P	U A1065	211.605	132.370	-6.256	1.00	75.77	O
ATOM	22375	N3	U A1062	205.611	125.938	2.438	1.00	68.87	N	ATOM	22425	O2P	U A1065	212.529	132.728	-3.891	1.00	75.77	O
ATOM	22376	C4	U A1062	206.320	126.938	3.055	1.00	68.87	C	ATOM	22426	O5*	U A1065	210.589	134.050	-4.736	1.00	57.19	O
ATOM	22377	O4	U A1062	205.743	127.695	3.833	1.00	68.87	O	ATOM	22427	C5*	U A1065	209.258	134.130	-5.253	1.00	57.19	C
ATOM	22378	C5	U A1062	207.704	126.973	2.728	1.00	68.87	C	ATOM	22428	C4*	U A1065	208.706	135.520	-5.143	1.00	57.19	C
ATOM	22379	C6	U A1062	208.205	126.077	1.880	1.00	68.87	C	ATOM	22429	O4*	U A1065	208.271	135.839	-3.814	1.00	57.19	O
ATOM	22380	P	C A1063	210.363	126.692	-3.133	1.00	38.32	P	ATOM	22430	C3*	U A1065	209.629	136.668	-5.485	1.00	57.19	C
ATOM	22381	O1P	C A1063	211.700	126.558	-3.773	1.00	80.89	O	ATOM	22431	O3*	U A1065	209.784	136.833	-6.900	1.00	57.19	O
ATOM	22382	O2P	C A1063	210.113	127.794	-2.163	1.00	80.89	O	ATOM	22432	C2*	U A1065	209.122	137.848	-4.632	1.00	57.19	C
ATOM	22383	O5*	C A1063	209.289	126.809	-4.294	1.00	38.32	O	ATOM	22433	O2*	U A1065	208.670	138.995	-5.320	1.00	57.19	O
ATOM	22384	C5*	C A1063	208.980	125.664	-5.096	1.00	38.32	C	ATOM	22434	C1*	U A1065	207.989	137.211	-3.827	1.00	57.19	C
ATOM	22385	C4*	C A1063	207.520	125.654	-5.451	1.00	38.32	C	ATOM	22435	N1	U A1065	207.821	137.704	-2.455	1.00	75.77	N
ATOM	22386	O4*	C A1063	206.726	125.304	-4.301	1.00	38.32	O	ATOM	22436	C2	U A1065	206.836	138.650	-2.258	1.00	75.77	C
ATOM	22387	C3*	C A1063	206.947	126.959	-5.975	1.00	38.32	C	ATOM	22437	O2	U A1065	206.126	139.072	-3.165	1.00	75.77	O
ATOM	22388	O3*	C A1063	207.187	126.988	-7.367	1.00	38.32	O	ATOM	22438	N3	U A1065	206.711	139.093	-0.968	1.00	75.77	N
ATOM	22389	C2*	C A1063	205.464	126.805	-5.672	1.00	38.32	C	ATOM	22439	C4	U A1065	207.459	138.705	0.120	1.00	75.77	C
ATOM	22390	O2*	C A1063	204.796	126.060	-6.669	1.00	38.32	O	ATOM	22440	O4	U A1065	207.249	139.232	1.213	1.00	75.77	O
ATOM	22391	C1*	C A1063	205.483	125.966	-4.385	1.00	38.32	C	ATOM	22441	C5	U A1065	208.459	137.720	-0.162	1.00	75.77	C
ATOM	22392	N1	C A1063	205.284	126.728	-3.143	1.00	80.89	N	ATOM	22442	C6	U A1065	208.600	137.262	-1.410	1.00	75.77	C
ATOM	22393	C2	C A1063	204.101	126.556	-2.433	1.00	80.89	C	ATOM	22443	P	C A1066	208.515	137.127	-7.845	1.00	46.49	P
ATOM	22394	O2	C A1063	203.249	125.777	-2.870	1.00	80.89	O	ATOM	22444	O1P	C A1066	209.065	137.513	-9.180	1.00	67.47	O
ATOM	22395	N3	C A1063	203.914	127.241	-1.288	1.00	80.89	N	ATOM	22445	O2P	C A1066	207.533	138.019	-7.178	1.00	67.47	O
ATOM	22396	C4	C A1063	204.861	128.066	-0.842	1.00	80.89	C	ATOM	22446	O5*	C A1066	207.835	135.697	-7.989	1.00	46.49	O
ATOM	22397	N4	C A1063	204.644	128.712	0.303	1.00	80.89	N	ATOM	22447	C5*	C A1066	207.720	135.062	-9.270	1.00	46.49	C
ATOM	22398	C5	C A1063	206.075	128.265	-1.549	1.00	80.89	C	ATOM	22448	C4*	C A1066	206.391	134.358	-9.384	1.00	46.49	C
ATOM	22399	C6	C A1063	206.243	127.587	-2.685	1.00	80.89	C	ATOM	22449	O4*	C A1066	206.192	133.536	-8.210	1.00	46.49	O
ATOM	22400	P	G A1064	207.461	128.376	-8.129	1.00	50.09	P	ATOM	22450	C3*	C A1066	205.139	135.216	-9.493	1.00	46.49	C
ATOM	22401	O1P	G A1064	206.160	129.024	-8.440	1.00	62.77	O	ATOM	22451	O3*	C A1066	204.937	135.473	-10.883	1.00	46.49	O
ATOM	22402	O2P	G A1064	208.391	128.051	-9.241	1.00	62.77	O	ATOM	22452	C2*	C A1066	204.047	134.287	-8.963	1.00	46.49	C
ATOM	22403	O5*	G A1064	208.242	129.285	-7.079	1.00	50.09	O	ATOM	22453	O2*	C A1066	203.521	133.453	-9.982	1.00	46.49	O
ATOM	22404	C5*	G A1064	208.714	130.612	-7.447	1.00	50.09	C	ATOM	22454	C1*	C A1066	204.811	133.402	-7.968	1.00	46.49	C
ATOM	22405	O4*	G A1064	208.883	131.466	-6.214	1.00	50.09	O	ATOM	22455	N1	C A1066	204.559	133.614	-6.533	1.00	67.47	N
ATOM	22406	C4*	G A1064	207.577	131.861	-5.722	1.00	50.09	C	ATOM	22456	C2	C A1066	203.365	133.144	-5.988	1.00	67.47	C
ATOM	22407	C3*	G A1064	209.582	130.736	-5.074	1.00	50.09	C	ATOM	22457	O2	C A1066	202.547	132.580	-6.729	1.00	67.47	O
ATOM	22408	O3*	G A1064	210.310	131.627	-4.218	1.00	50.09	O	ATOM	22458	N3	C A1066	203.131	133.316	-4.669	1.00	67.47	N
ATOM	22409	C2*	G A1064	208.399	130.215	-4.272	1.00	50.09	C	ATOM	22459	C4	C A1066	204.036	133.925	-3.905	1.00	67.47	C
ATOM	22410	O2*	G A1064	208.693	129.900	-2.930	1.00	50.09	O	ATOM	22460	N4	C A1066	203.767	134.058	-2.607	1.00	67.47	N
ATOM	22411	C1*	G A1064	207.409	131.374	-4.412	1.00	50.09	C	ATOM	22461	C5	C A1066	205.258	134.421	-4.436	1.00	67.47	C
ATOM	22412	N9	G A1064	206.025	130.956	-4.245	1.00	62.77	N	ATOM	22462	C6	C A1066	205.477	134.246	-5.742	1.00	67.47	C
ATOM	22413	C8	G A1064	205.245	130.276	-5.143	1.00	62.77	C	ATOM	22463	P	A A1067	203.930	136.632	-11.374	1.00	57.07	P
ATOM	22414	N7	G A1064	204.079	129.955	-4.662	1.00	62.77	N	ATOM	22464	O1P	A A1067	203.683	136.465	-12.831	1.00	62.34	O
ATOM	22415	C5	G A1064	204.087	130.470	-3.375	1.00	62.77	C	ATOM	22465	O2P	A A1067	204.484	137.921	-10.885	1.00	62.34	O



ATOM	22466	O5*	A A1067	202.574	136.315	-10.598	1.00	57.07	O	ATOM	22516	O3*	C A1069	191.304	130.576	-3.730	1.00	52.32	O
ATOM	22467	C5*	A A1067	201.711	135.229	-10.996	1.00	57.07	C	ATOM	22517	C2*	C A1069	191.791	132.706	-2.660	1.00	52.32	C
ATOM	22468	C4*	A A1067	200.264	135.598	-10.744	1.00	57.07	C	ATOM	22518	O2*	C A1069	191.908	131.952	-1.468	1.00	52.32	O
ATOM	22469	O4*	A A1067	200.006	135.650	-9.312	1.00	57.07	O	ATOM	22519	C1*	C A1069	192.994	133.634	-2.810	1.00	52.32	C
ATOM	22470	C3*	A A1067	199.875	136.958	-11.296	1.00	57.07	C	ATOM	22520	N1	C A1069	192.650	134.938	-3.407	1.00	53.28	N
ATOM	22471	O3*	A A1067	198.687	136.919	-12.133	1.00	57.07	O	ATOM	22521	C2	C A1069	192.109	135.930	-2.585	1.00	53.28	C
ATOM	22472	C2*	A A1067	200.028	137.902	-10.096	1.00	57.07	C	ATOM	22522	O2	C A1069	191.921	135.674	-1.381	1.00	53.28	O
ATOM	22473	O2*	A A1067	199.217	139.050	-10.083	1.00	57.07	O	ATOM	22523	N3	C A1069	191.802	137.139	-3.122	1.00	53.28	N
ATOM	22474	C1*	A A1067	199.827	136.988	-8.884	1.00	57.07	C	ATOM	22524	C4	C A1069	192.012	137.366	-4.423	1.00	53.28	C
ATOM	22475	N9	A A1067	200.815	137.225	-7.822	1.00	62.34	N	ATOM	22525	N4	C A1069	191.696	138.568	-4.912	1.00	53.28	N
ATOM	22476	C8	A A1067	202.140	137.560	-7.971	1.00	62.34	C	ATOM	22526	C5	C A1069	192.554	136.372	-5.280	1.00	53.28	C
ATOM	22477	N7	A A1067	202.800	137.638	-6.844	1.00	62.34	N	ATOM	22527	C6	C A1069	192.856	135.185	-4.737	1.00	53.28	C
ATOM	22478	C5	A A1067	201.848	137.351	-5.879	1.00	62.34	C	ATOM	22528	P	U A1070	189.726	130.442	-3.933	1.00	61.76	P
ATOM	22479	C6	A A1067	201.920	137.250	-4.469	1.00	62.34	C	ATOM	22529	O1P	U A1070	189.399	128.987	-3.831	1.00	44.55	O
ATOM	22480	N6	A A1067	203.036	137.423	-3.762	1.00	62.34	N	ATOM	22530	O2P	U A1070	189.351	131.215	-5.155	1.00	44.55	O
ATOM	22481	N1	A A1067	200.789	136.948	-3.804	1.00	62.34	N	ATOM	22531	O5*	U A1070	189.148	131.187	-2.655	1.00	61.76	O
ATOM	22482	C2	A A1067	199.669	136.749	-4.507	1.00	62.34	C	ATOM	22532	C5*	U A1070	187.977	132.002	-2.735	1.00	61.76	C
ATOM	22483	N3	A A1067	199.475	136.804	-5.829	1.00	62.34	N	ATOM	22533	C4*	U A1070	187.926	132.918	-1.547	1.00	61.76	C
ATOM	22484	C4	A A1067	200.616	137.113	-6.466	1.00	62.34	C	ATOM	22534	O4*	U A1070	188.905	133.973	-1.702	1.00	61.76	O
ATOM	22485	P	G A1068	197.225	136.691	-11.506	1.00	42.90	P	ATOM	22535	C3*	U A1070	186.627	133.662	-1.353	1.00	61.76	C
ATOM	22486	O1P	G A1068	196.215	136.976	-12.555	1.00	44.78	O	ATOM	22536	O3*	U A1070	185.693	132.862	-0.672	1.00	61.76	O
ATOM	22487	O2P	G A1068	197.156	137.406	-10.243	1.00	44.78	O	ATOM	22537	C2*	U A1070	187.055	134.858	-0.527	1.00	61.76	C
ATOM	22488	O5*	G A1068	197.162	135.149	-11.139	1.00	42.90	O	ATOM	22538	O2*	U A1070	187.254	134.484	0.825	1.00	61.76	O
ATOM	22489	C5*	G A1068	196.094	134.651	-10.317	1.00	42.90	C	ATOM	22539	C1*	U A1070	188.401	135.182	-1.164	1.00	61.76	C
ATOM	22490	C4*	G A1068	196.627	134.142	-8.998	1.00	42.90	C	ATOM	22540	N1	U A1070	188.291	136.156	-2.261	1.00	44.55	N
ATOM	22491	O4*	G A1068	197.406	135.175	-8.336	1.00	42.90	O	ATOM	22541	C2	U A1070	187.952	137.464	-1.951	1.00	44.55	C
ATOM	22492	C3*	G A1068	195.535	133.795	-8.001	1.00	42.90	C	ATOM	22542	O2	U A1070	187.684	137.833	-0.816	1.00	44.55	O
ATOM	22493	O3*	G A1068	195.066	132.475	-8.198	1.00	42.90	O	ATOM	22543	N3	U A1070	187.928	138.325	-3.022	1.00	44.55	N
ATOM	22494	C2*	G A1068	196.218	133.982	-6.650	1.00	42.90	C	ATOM	22544	C4	U A1070	188.185	138.017	-4.339	1.00	44.55	C
ATOM	22495	O2*	G A1068	196.974	132.845	-6.291	1.00	42.90	O	ATOM	22545	O4	U A1070	188.129	138.900	-5.188	1.00	44.55	O
ATOM	22496	C1*	G A1068	197.127	135.178	-6.940	1.00	42.90	C	ATOM	22546	C5	U A1070	188.496	136.650	-4.580	1.00	44.55	C
ATOM	22497	N9	G A1068	196.512	136.468	-6.633	1.00	44.78	N	ATOM	22547	C6	U A1070	188.534	135.787	-3.561	1.00	44.55	C
ATOM	22498	C8	G A1068	196.296	137.491	-7.524	1.00	44.78	C	ATOM	22548	P	C A1071	184.138	133.036	-1.001	1.00	51.27	P
ATOM	22499	N7	G A1068	195.759	138.543	-6.982	1.00	44.78	N	ATOM	22549	O1P	C A1071	183.521	131.781	-0.469	1.00	46.79	O
ATOM	22500	C5	G A1068	195.602	138.198	-5.649	1.00	44.78	C	ATOM	22550	O2P	C A1071	183.988	133.387	-2.447	1.00	46.79	O
ATOM	22501	C6	G A1068	195.078	138.945	-4.574	1.00	44.78	C	ATOM	22551	O5*	C A1071	183.726	134.317	-0.141	1.00	51.27	O
ATOM	22502	O6	G A1068	194.643	140.103	-4.584	1.00	44.78	O	ATOM	22552	C5*	C A1071	184.101	134.419	1.253	1.00	51.27	C
ATOM	22503	N1	G A1068	195.092	138.218	-3.393	1.00	44.78	N	ATOM	22553	C4*	C A1071	183.898	135.828	1.757	1.00	51.27	C
ATOM	22504	C2	G A1068	195.558	136.942	-3.264	1.00	44.78	C	ATOM	22554	O4*	C A1071	184.799	136.722	1.074	1.00	51.27	O
ATOM	22505	N2	G A1068	195.484	136.422	-2.042	1.00	44.78	N	ATOM	22555	C3*	C A1071	182.521	136.415	1.513	1.00	51.27	C
ATOM	22506	N3	G A1068	196.058	136.229	-4.259	1.00	44.78	N	ATOM	22556	O3*	C A1071	181.628	136.036	2.542	1.00	51.27	O
ATOM	22507	C4	G A1068	196.051	136.916	-5.417	1.00	44.78	C	ATOM	22557	C2*	C A1071	182.783	137.912	1.501	1.00	51.27	C
ATOM	22508	P	C A1069	193.514	132.153	-7.993	1.00	52.32	P	ATOM	22558	O2*	C A1071	182.839	138.466	2.795	1.00	51.27	O
ATOM	22509	O1P	C A1069	193.364	130.717	-8.299	1.00	53.28	O	ATOM	22559	C1*	C A1071	184.177	137.976	0.885	1.00	51.27	C
ATOM	22510	O2P	C A1069	192.726	133.162	-8.757	1.00	53.28	O	ATOM	22560	N1	C A1071	184.188	138.291	-0.550	1.00	46.79	N
ATOM	22511	O5*	C A1069	193.311	132.339	-6.426	1.00	52.32	O	ATOM	22561	C2	C A1071	183.827	139.577	-0.967	1.00	46.79	C
ATOM	22512	C5*	C A1069	193.883	131.397	-5.490	1.00	52.32	C	ATOM	22562	O2	C A1071	183.461	140.401	-0.124	1.00	46.79	O
ATOM	22513	C4*	C A1069	193.419	131.705	-4.080	1.00	52.32	C	ATOM	22563	N3	C A1071	183.883	139.888	-2.276	1.00	46.79	N
ATOM	22514	O4*	C A1069	193.943	132.986	-3.640	1.00	52.32	O	ATOM	22564	C4	C A1071	184.271	138.973	-3.158	1.00	46.79	C
ATOM	22515	C3*	C A1069	191.917	131.838	-3.903	1.00	52.32	C	ATOM	22565	N4	C A1071	184.320	139.324	-4.437	1.00	46.79	N



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ATOM	22566	C5	C A1071	184.624	137.654	-2.768	1.00	46.79	C	ATOM	22616	C4*	G A1074	171.104	142.774	-4.481	1.00	42.95	C
ATOM	22567	C6	C A1071	184.563	137.355	-1.467	1.00	46.79	C	ATOM	22617	O4*	G A1074	172.545	142.907	-4.532	1.00	42.95	O
ATOM	22568	P	G A1072	180.072	135.846	2.211	1.00	57.44	P	ATOM	22618	C3*	G A1074	170.768	141.863	-5.648	1.00	42.95	C
ATOM	22569	O1P	G A1072	179.548	135.069	3.378	1.00	40.52	O	ATOM	22619	O3*	G A1074	169.440	142.039	-6.100	1.00	42.95	O
ATOM	22570	O2P	G A1072	179.861	135.318	0.845	1.00	40.52	O	ATOM	22620	C2*	G A1074	171.785	142.293	-6.699	1.00	42.95	C
ATOM	22571	O5*	G A1072	179.532	137.346	2.183	1.00	57.44	O	ATOM	22621	O2*	G A1074	171.410	143.479	-7.373	1.00	42.95	O
ATOM	22572	C5*	G A1072	179.497	138.149	3.373	1.00	57.44	C	ATOM	22622	C1*	G A1074	173.009	142.580	-5.836	1.00	42.95	C
ATOM	22573	C4*	G A1072	179.004	139.538	3.050	1.00	57.44	C	ATOM	22623	N9	G A1074	173.873	141.406	-5.737	1.00	48.38	N
ATOM	22574	O4*	G A1072	179.998	140.242	2.264	1.00	57.44	O	ATOM	22624	C8	G A1074	174.071	140.607	-4.637	1.00	48.38	C
ATOM	22575	C3*	G A1072	177.748	139.604	2.204	1.00	57.44	C	ATOM	22625	N7	G A1074	174.902	139.629	-4.858	1.00	48.38	N
ATOM	22576	O3*	G A1072	176.564	139.449	2.964	1.00	57.44	O	ATOM	22626	C5	G A1074	175.277	139.791	-6.186	1.00	48.38	C
ATOM	22577	C2*	G A1072	177.844	140.971	1.543	1.00	57.44	C	ATOM	22627	O6	G A1074	176.154	139.023	-6.996	1.00	48.38	O
ATOM	22578	O2*	G A1072	177.340	142.015	2.338	1.00	57.44	O	ATOM	22628	C6	G A1074	176.805	138.005	-6.686	1.00	48.38	O
ATOM	22579	C1*	G A1072	179.354	141.131	1.366	1.00	57.44	C	ATOM	22629	N1	G A1074	176.235	139.536	-8.285	1.00	48.38	N
ATOM	22580	N9	G A1072	179.789	140.830	0.004	1.00	40.52	N	ATOM	22630	C2	G A1074	175.561	140.640	-8.739	1.00	48.38	C
ATOM	22581	C8	G A1072	180.232	139.622	-0.486	1.00	40.52	C	ATOM	22631	N2	G A1074	175.763	140.975	-10.016	1.00	48.38	N
ATOM	22582	N7	G A1072	180.545	139.668	-1.752	1.00	40.52	N	ATOM	22632	N3	G A1074	174.747	141.362	-7.998	1.00	48.38	N
ATOM	22583	C5	G A1072	180.298	140.983	-2.120	1.00	40.52	C	ATOM	22633	C4	G A1074	174.651	140.883	-6.741	1.00	48.38	C
ATOM	22584	C6	G A1072	180.448	141.628	-3.374	1.00	40.52	C	ATOM	22634	P	C A1075	168.605	140.767	-6.603	1.00	49.61	P
ATOM	22585	O6	G A1072	180.849	141.154	-4.440	1.00	40.52	O	ATOM	22635	O1P	C A1075	167.209	141.204	-6.901	1.00	51.55	O
ATOM	22586	N1	G A1072	180.073	142.967	-3.308	1.00	40.52	N	ATOM	22636	O2P	C A1075	168.851	139.653	-5.644	1.00	51.55	O
ATOM	22587	C2	G A1072	179.609	143.599	-2.185	1.00	40.52	C	ATOM	22637	O5*	C A1075	169.273	140.411	-7.989	1.00	49.61	O
ATOM	22588	N2	G A1072	179.303	144.890	-2.326	1.00	40.52	N	ATOM	22638	C5*	C A1075	169.088	141.279	-9.093	1.00	49.61	C
ATOM	22589	N3	G A1072	179.459	143.007	-1.010	1.00	40.52	N	ATOM	22639	C4*	C A1075	169.950	140.840	-10.230	1.00	49.61	C
ATOM	22590	C4	G A1072	179.824	141.711	-1.050	1.00	40.52	C	ATOM	22640	O4*	C A1075	171.337	140.937	-9.835	1.00	49.61	O
ATOM	22591	P	U A1073	175.331	138.626	2.336	1.00	41.51	P	ATOM	22641	C3*	C A1075	169.790	139.396	-10.657	1.00	49.61	C
ATOM	22592	O1P	U A1073	174.399	138.260	3.450	1.00	45.70	O	ATOM	22642	O3*	C A1075	168.700	139.224	-11.529	1.00	49.61	O
ATOM	22593	O2P	U A1073	175.904	137.547	1.491	1.00	45.70	O	ATOM	22643	C2*	C A1075	171.108	139.134	-11.354	1.00	49.61	C
ATOM	22594	O5*	U A1073	174.654	139.681	1.345	1.00	41.51	O	ATOM	22644	O2*	C A1075	171.111	139.705	-12.650	1.00	49.61	O
ATOM	22595	C5*	U A1073	174.010	140.855	1.851	1.00	41.51	C	ATOM	22645	C1*	C A1075	172.074	139.306	-10.456	1.00	49.61	C
ATOM	22596	C4*	U A1073	173.850	141.883	0.760	1.00	41.51	C	ATOM	22646	N1	C A1075	172.623	139.023	-9.416	1.00	51.55	N
ATOM	22597	O4*	U A1073	175.158	142.344	0.324	1.00	41.51	O	ATOM	22647	C2	C A1075	173.610	138.108	-9.782	1.00	51.55	C
ATOM	22598	C3*	U A1073	173.177	141.422	-0.520	1.00	41.51	C	ATOM	22648	O2	C A1075	174.031	138.123	-10.951	1.00	51.55	O
ATOM	22599	O3*	U A1073	171.766	141.370	-0.428	1.00	41.51	O	ATOM	22649	N3	C A1075	174.079	137.236	-8.864	1.00	51.55	N
ATOM	22600	C2*	U A1073	173.674	142.449	-1.530	1.00	41.51	C	ATOM	22650	C4	C A1075	173.606	137.264	-7.624	1.00	51.55	C
ATOM	22601	O2*	U A1073	172.984	143.671	-1.496	1.00	41.51	O	ATOM	22651	N4	C A1075	174.075	136.370	-6.763	1.00	51.55	N
ATOM	22602	C1*	U A1073	175.105	142.688	-1.054	1.00	41.51	C	ATOM	22652	C5	C A1075	172.624	138.212	-7.210	1.00	51.55	C
ATOM	22603	N1	U A1073	176.026	141.823	-1.810	1.00	45.70	N	ATOM	22653	C6	C A1075	172.167	139.068	-8.129	1.00	51.55	C
ATOM	22604	C2	U A1073	176.446	142.262	-3.060	1.00	45.70	C	ATOM	22654	P	C A1076	167.940	137.817	-11.563	1.00	51.07	P
ATOM	22605	O2	U A1073	176.167	143.359	-3.513	1.00	45.70	O	ATOM	22655	O1P	C A1076	166.759	138.038	-12.447	1.00	36.87	O
ATOM	22606	N3	U A1073	177.208	141.366	-3.758	1.00	45.70	N	ATOM	22656	O2P	C A1076	167.757	137.323	-10.179	1.00	36.87	O
ATOM	22607	C4	U A1073	177.603	140.114	-3.343	1.00	45.70	C	ATOM	22657	O3*	C A1076	168.972	136.835	-12.280	1.00	51.07	O
ATOM	22608	O4	U A1073	178.233	139.394	-4.119	1.00	45.70	O	ATOM	22658	C5*	C A1076	169.289	136.995	-13.680	1.00	51.07	C
ATOM	22609	C5	U A1073	177.175	139.753	-2.023	1.00	45.70	C	ATOM	22659	C4*	C A1076	170.122	135.839	-14.169	1.00	51.07	C
ATOM	22610	C6	U A1073	176.425	140.596	-1.320	1.00	45.70	C	ATOM	22660	O4*	C A1076	171.433	135.889	-13.562	1.00	51.07	O
ATOM	22611	P	G A1074	170.941	140.366	-1.389	1.00	42.95	P	ATOM	22661	C3*	C A1076	169.600	134.464	-13.819	1.00	51.07	C
ATOM	22612	O1P	G A1074	169.494	140.527	-1.066	1.00	48.38	O	ATOM	22662	O3*	C A1076	168.628	134.020	-14.738	1.00	51.07	O
ATOM	22613	O2P	G A1074	171.548	139.008	-1.297	1.00	48.38	O	ATOM	22663	C2*	C A1076	170.854	133.611	-13.864	1.00	51.07	C
ATOM	22614	O5*	G A1074	171.150	140.998	-2.838	1.00	42.95	O	ATOM	22664	O2*	C A1076	171.187	133.236	-15.181	1.00	51.07	O
ATOM	22615	C5*	G A1074	170.676	142.317	-3.112	1.00	42.95	C	ATOM	22665	C1*	C A1076	171.903	134.578	-13.327	1.00	51.07	C



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ATOM	22666	N1	C A1076	172.082	134.424	-11.884	1.00	36.87	N	ATOM	22716	C6	U A1078	167.076	124.007	-12.311	1.00	49.36	C
ATOM	22667	C2	C A1076	172.838	133.356	-11.397	1.00	36.87	C	ATOM	22717	P	G A1079	168.051	127.405	-7.790	1.00	41.26	P
ATOM	22668	O2	C A1076	173.363	132.573	-12.191	1.00	36.87	O	ATOM	22718	O1P	G A1079	168.017	127.959	-6.404	1.00	34.05	O
ATOM	22669	N3	C A1076	172.976	133.200	-10.072	1.00	36.87	N	ATOM	22719	O2P	G A1079	168.441	128.294	-8.914	1.00	34.05	O
ATOM	22670	C4	C A1076	172.396	134.057	-9.243	1.00	36.87	C	ATOM	22720	O5*	G A1079	168.956	126.101	-7.683	1.00	41.26	O
ATOM	22671	N4	C A1076	172.529	133.845	-7.938	1.00	36.87	N	ATOM	22721	C5*	G A1079	168.700	125.144	-6.645	1.00	41.26	C
ATOM	22672	C5	C A1076	171.644	135.166	-9.712	1.00	36.87	C	ATOM	22722	C4*	G A1079	169.671	124.001	-6.733	1.00	41.26	C
ATOM	22673	C6	C A1076	171.509	135.308	-11.024	1.00	36.87	C	ATOM	22723	O4*	G A1079	169.465	123.289	-7.975	1.00	41.26	O
ATOM	22674	P	G A1077	167.413	133.120	-14.211	1.00	39.45	P	ATOM	22724	C3*	G A1079	171.136	124.382	-6.740	1.00	41.26	C
ATOM	22675	O1P	G A1077	166.451	132.986	-15.341	1.00	46.67	O	ATOM	22725	O3*	G A1079	171.607	124.509	-5.412	1.00	41.26	O
ATOM	22676	O2P	G A1077	166.963	133.658	-12.908	1.00	46.67	O	ATOM	22726	C2*	G A1079	171.778	123.201	-7.458	1.00	41.26	C
ATOM	22677	O5*	G A1077	168.089	131.724	-13.870	1.00	39.45	O	ATOM	22727	O2*	G A1079	171.928	122.092	-6.598	1.00	41.26	O
ATOM	22678	C5*	G A1077	168.703	130.934	-14.900	1.00	39.45	C	ATOM	22728	C1*	G A1079	170.705	122.839	-8.482	1.00	41.26	C
ATOM	22679	C4*	G A1077	169.373	129.729	-14.296	1.00	39.45	C	ATOM	22729	N9	G A1079	170.879	123.423	-9.809	1.00	34.05	N
ATOM	22680	O4*	G A1077	170.522	130.142	-13.518	1.00	39.45	O	ATOM	22730	C8	G A1079	170.599	124.712	-10.192	1.00	34.05	C
ATOM	22681	C3*	G A1077	168.558	128.916	-13.309	1.00	39.45	C	ATOM	22731	N7	G A1079	170.748	124.909	-11.472	1.00	34.05	N
ATOM	22682	O3*	G A1077	167.673	128.028	-13.960	1.00	39.45	O	ATOM	22732	C5	G A1079	171.174	123.684	-11.960	1.00	34.05	C
ATOM	22683	C2*	G A1077	169.633	128.156	-12.550	1.00	39.45	C	ATOM	22733	C6	G A1079	171.458	123.274	-13.282	1.00	34.05	C
ATOM	22684	O2*	G A1077	170.028	126.986	-13.231	1.00	39.45	O	ATOM	22734	O6	G A1079	171.374	123.924	-14.318	1.00	34.05	O
ATOM	22685	C1*	G A1077	170.789	129.161	-12.536	1.00	39.45	C	ATOM	22735	N1	G A1079	171.865	121.951	-13.333	1.00	34.05	N
ATOM	22686	N9	G A1077	170.908	129.799	-11.232	1.00	46.67	N	ATOM	22736	C2	G A1079	171.977	121.119	-12.250	1.00	34.05	C
ATOM	22687	C8	G A1077	170.395	131.004	-10.833	1.00	46.67	C	ATOM	22737	N2	G A1079	172.393	119.872	-12.496	1.00	34.05	N
ATOM	22688	N7	G A1077	170.553	131.226	-9.556	1.00	46.67	N	ATOM	22738	N3	G A1079	171.699	121.483	-11.012	1.00	34.05	N
ATOM	22689	C5	G A1077	171.231	130.110	-9.097	1.00	46.67	C	ATOM	22739	C4	G A1079	171.299	122.768	-10.942	1.00	34.05	C
ATOM	22690	C6	G A1077	171.646	129.765	-7.799	1.00	46.67	C	ATOM	22740	P	A A1080	172.909	125.392	-5.117	1.00	36.36	P
ATOM	22691	O6	G A1077	171.446	130.368	-6.736	1.00	46.67	O	ATOM	22741	O1P	A A1080	173.068	125.524	-3.646	1.00	40.87	O
ATOM	22692	N1	G A1077	172.353	128.572	-7.790	1.00	46.67	N	ATOM	22742	O2P	A A1080	172.830	126.591	-5.966	1.00	40.87	O
ATOM	22693	C2	G A1077	172.607	127.801	-8.983	1.00	46.67	C	ATOM	22743	O5*	A A1080	174.121	124.490	-5.608	1.00	36.36	O
ATOM	22694	N2	G A1077	173.350	126.712	-8.668	1.00	46.67	N	ATOM	22744	C5*	A A1080	174.507	123.339	-4.843	1.00	36.36	C
ATOM	22695	N3	G A1077	172.178	128.084	-10.095	1.00	46.67	N	ATOM	22745	C4*	A A1080	175.537	122.528	-5.583	1.00	36.36	C
ATOM	22696	C4	G A1077	171.504	129.248	-10.128	1.00	46.67	C	ATOM	22746	O4*	A A1080	174.982	122.023	-6.825	1.00	36.36	O
ATOM	22697	P	U A1078	166.141	127.933	-13.473	1.00	36.46	P	ATOM	22747	C3*	A A1080	176.813	123.245	-5.990	1.00	36.36	C
ATOM	22698	O1P	U A1078	165.427	126.979	-14.357	1.00	49.36	O	ATOM	22748	O3*	A A1080	177.723	123.268	-4.895	1.00	36.36	O
ATOM	22699	O2P	U A1078	165.639	129.328	-13.348	1.00	49.36	O	ATOM	22749	C2*	A A1080	177.313	122.364	-7.126	1.00	36.36	C
ATOM	22700	O5*	U A1078	166.231	127.242	-12.041	1.00	36.46	O	ATOM	22750	O2*	A A1080	177.885	121.179	-6.613	1.00	36.36	O
ATOM	22701	C5*	U A1078	165.182	127.385	-11.100	1.00	36.46	C	ATOM	22751	C1*	A A1080	176.006	121.942	-7.796	1.00	36.36	C
ATOM	22702	C4*	U A1078	165.220	126.253	-10.126	1.00	36.46	C	ATOM	22752	N9	A A1080	175.615	122.761	-8.940	1.00	40.87	N
ATOM	22703	O4*	U A1078	165.000	125.032	-10.858	1.00	36.46	O	ATOM	22753	C8	A A1080	175.187	124.067	-8.956	1.00	40.87	C
ATOM	22704	C3*	U A1078	166.541	126.032	-9.414	1.00	36.46	C	ATOM	22754	N7	A A1080	174.866	124.501	-10.153	1.00	40.87	N
ATOM	22705	O3*	U A1078	166.633	126.806	-8.232	1.00	36.46	O	ATOM	22755	C5	A A1080	175.108	123.411	-10.976	1.00	40.87	C
ATOM	22706	C2*	U A1078	166.494	124.553	-9.070	1.00	36.46	C	ATOM	22756	C6	A A1080	174.955	123.218	-12.348	1.00	40.87	C
ATOM	22707	O2*	U A1078	165.766	124.316	-7.889	1.00	36.46	O	ATOM	22757	N6	A A1080	174.499	124.150	-13.177	1.00	40.87	N
ATOM	22708	C1*	U A1078	165.710	123.976	-10.245	1.00	36.46	C	ATOM	22758	N1	A A1080	175.284	122.016	-12.852	1.00	40.87	N
ATOM	22709	N1	U A1078	166.563	123.325	-11.246	1.00	49.36	N	ATOM	22759	C2	A A1080	175.736	121.080	-12.025	1.00	40.87	C
ATOM	22710	C2	U A1078	166.838	121.986	-11.065	1.00	49.36	C	ATOM	22760	N3	A A1080	175.925	121.136	-10.718	1.00	40.87	N
ATOM	22711	O2	U A1078	166.377	121.339	-10.139	1.00	49.36	O	ATOM	22761	C4	A A1080	175.583	122.341	-10.245	1.00	40.87	C
ATOM	22712	N3	U A1078	167.665	121.426	-12.009	1.00	49.36	N	ATOM	22762	P	G A1081	178.546	124.611	-4.563	1.00	35.54	P
ATOM	22713	C4	U A1078	168.212	122.052	-13.096	1.00	49.36	C	ATOM	22763	O1P	G A1081	179.317	124.365	-3.314	1.00	39.64	O
ATOM	22714	O4	U A1078	168.909	121.413	-13.872	1.00	49.36	O	ATOM	22764	O2P	G A1081	177.632	125.784	-4.631	1.00	39.64	O
ATOM	22715	C5	U A1078	167.867	123.432	-13.218	1.00	49.36	C	ATOM	22765	O5*	G A1081	179.535	124.720	-5.800	1.00	35.54	O



Table 2: Sheet 229/520

ATOM	22766	C5*	G A1081	179.836	125.983	-6.394	1.00	35.54	C	ATOM	22816	O3*	U A1083	181.590	137.855	-14.378	1.00	53.17	O
ATOM	22767	C4*	G A1081	179.336	126.008	-7.806	1.00	35.54	C	ATOM	22817	C2*	U A1083	179.834	137.874	-12.715	1.00	53.17	C
ATOM	22768	O4*	G A1081	177.886	125.921	-7.785	1.00	35.54	O	ATOM	22818	O2*	U A1083	179.104	138.597	-13.693	1.00	53.17	O
ATOM	22769	C3*	G A1081	179.607	127.293	-8.557	1.00	35.54	C	ATOM	22819	C1*	U A1083	178.941	136.742	-12.214	1.00	53.17	C
ATOM	22770	O3*	G A1081	180.926	127.372	-9.060	1.00	35.54	O	ATOM	22820	N1	U A1083	179.093	136.450	-10.785	1.00	59.24	N
ATOM	22771	C2*	G A1081	178.519	127.282	-9.621	1.00	35.54	C	ATOM	22821	O2	U A1083	178.399	137.237	-9.890	1.00	59.24	C
ATOM	22772	O2*	G A1081	178.803	126.406	-10.694	1.00	35.54	O	ATOM	22822	O2	U A1083	177.674	138.156	-10.236	1.00	59.24	O
ATOM	22773	C1*	G A1081	177.339	126.721	-8.829	1.00	35.54	C	ATOM	22823	N3	U A1083	178.583	136.907	-8.574	1.00	59.24	N
ATOM	22774	N9	G A1081	176.541	127.792	-8.229	1.00	39.64	N	ATOM	22824	C4	U A1083	179.369	135.894	-8.081	1.00	59.24	C
ATOM	22775	C8	G A1081	176.311	128.005	-6.891	1.00	39.64	C	ATOM	22825	O4	U A1083	179.425	135.707	-6.871	1.00	59.24	O
ATOM	22776	N7	G A1081	175.598	129.071	-6.658	1.00	39.64	N	ATOM	22826	C5	U A1083	180.048	135.130	-9.070	1.00	59.24	C
ATOM	22777	C5	G A1081	175.331	129.586	-7.916	1.00	39.64	C	ATOM	22827	C6	U A1083	179.893	135.428	-10.354	1.00	59.24	C
ATOM	22778	C6	G A1081	174.610	130.737	-8.291	1.00	39.64	C	ATOM	22828	P	G A1084	183.167	138.171	-14.372	1.00	55.49	P
ATOM	22779	O6	G A1081	174.031	131.552	-7.568	1.00	39.64	O	ATOM	22829	O1P	G A1084	183.343	138.930	-15.639	1.00	54.88	O
ATOM	22780	N1	G A1081	174.589	130.899	-9.666	1.00	39.64	N	ATOM	22830	O2P	G A1084	183.952	136.929	-14.131	1.00	54.88	O
ATOM	22781	C2	G A1081	175.176	130.059	-10.559	1.00	39.64	C	ATOM	22831	O5*	G A1084	183.388	139.153	-13.138	1.00	55.49	O
ATOM	22782	N2	G A1081	175.025	130.387	-11.837	1.00	39.64	N	ATOM	22832	C5*	G A1084	182.852	140.486	-13.162	1.00	55.49	C
ATOM	22783	N3	G A1081	175.856	128.979	-10.225	1.00	39.64	N	ATOM	22833	C4*	G A1084	182.797	141.051	-11.767	1.00	55.49	C
ATOM	22784	C4	G A1081	175.894	128.806	-8.896	1.00	39.64	C	ATOM	22834	O4*	G A1084	181.961	140.213	-10.935	1.00	55.49	O
ATOM	22785	P	G A1082	181.700	128.787	-9.011	1.00	44.55	P	ATOM	22835	C3*	G A1084	184.117	141.122	-11.030	1.00	55.49	C
ATOM	22786	O1P	G A1082	183.113	128.565	-9.424	1.00	49.06	O	ATOM	22836	O3*	G A1084	184.809	142.309	-11.386	1.00	55.49	O
ATOM	22787	O2P	G A1082	181.422	129.420	-7.697	1.00	49.06	O	ATOM	22837	C2*	G A1084	183.683	141.114	-9.566	1.00	55.49	C
ATOM	22788	O5*	G A1082	180.982	129.650	-10.146	1.00	44.55	O	ATOM	22838	O2*	G A1084	183.312	142.390	-9.069	1.00	55.49	O
ATOM	22789	C5*	G A1082	180.849	129.134	-11.474	1.00	44.55	C	ATOM	22839	C1*	G A1084	182.448	140.217	-9.611	1.00	55.49	C
ATOM	22790	C4*	G A1082	180.017	130.054	-12.330	1.00	44.55	C	ATOM	22840	N9	G A1084	182.741	138.844	-9.230	1.00	54.88	N
ATOM	22791	O4*	G A1082	178.646	130.069	-11.868	1.00	44.55	O	ATOM	22841	C8	G A1084	183.319	137.879	-10.015	1.00	54.88	C
ATOM	22792	C3*	G A1082	180.422	131.510	-12.336	1.00	44.55	C	ATOM	22842	N7	G A1084	183.491	136.748	-9.388	1.00	54.88	N
ATOM	22793	O3*	G A1082	181.483	131.757	-13.228	1.00	44.55	O	ATOM	22843	C5	G A1084	182.996	136.979	-8.116	1.00	54.88	C
ATOM	22794	C2*	G A1082	179.140	132.025	-12.767	1.00	44.55	C	ATOM	22844	C6	G A1084	182.940	136.130	-6.999	1.00	54.88	C
ATOM	22795	O2*	G A1082	178.938	132.124	-14.153	1.00	44.55	O	ATOM	22845	O6	G A1084	183.366	134.972	-6.888	1.00	54.88	O
ATOM	22796	C1*	G A1082	178.083	131.356	-12.075	1.00	44.55	C	ATOM	22846	N1	G A1084	182.335	136.751	-5.917	1.00	54.88	N
ATOM	22797	N9	G A1082	177.723	131.924	-10.778	1.00	49.06	N	ATOM	22847	C2	G A1084	181.864	138.035	-5.907	1.00	54.88	C
ATOM	22798	C8	G A1082	178.034	131.425	-9.534	1.00	49.06	C	ATOM	22848	N2	G A1084	181.302	138.444	-4.764	1.00	54.88	N
ATOM	22799	N7	G A1082	177.589	132.167	-8.560	1.00	49.06	N	ATOM	22849	N3	G A1084	181.935	138.851	-6.938	1.00	54.88	N
ATOM	22800	C5	G A1082	176.949	133.220	-9.199	1.00	49.06	C	ATOM	22850	C4	G A1084	182.510	138.260	-8.005	1.00	54.88	C
ATOM	22801	C6	G A1082	176.284	134.343	-8.663	1.00	49.06	C	ATOM	22851	P	U A1085	186.368	142.461	-11.037	1.00	64.46	P
ATOM	22802	O6	G A1082	176.141	134.654	-7.475	1.00	49.06	O	ATOM	22852	O1P	U A1085	186.616	141.978	-9.651	1.00	62.84	O
ATOM	22803	N1	G A1082	175.762	135.153	-9.662	1.00	49.06	N	ATOM	22853	O2P	U A1085	186.738	143.851	-11.410	1.00	62.84	O
ATOM	22804	C2	G A1082	175.875	134.915	-11.001	1.00	49.06	C	ATOM	22854	O5*	U A1085	187.073	141.466	-12.058	1.00	64.46	O
ATOM	22805	N2	G A1082	175.301	135.800	-11.806	1.00	49.06	N	ATOM	22855	C5*	U A1085	188.498	141.276	-12.064	1.00	64.46	C
ATOM	22806	N3	G A1082	176.505	133.880	-11.516	1.00	49.06	N	ATOM	22856	C4*	U A1085	188.805	139.814	-11.945	1.00	64.46	C
ATOM	22807	C4	G A1082	177.014	133.078	-10.564	1.00	49.06	C	ATOM	22857	O4*	U A1085	188.650	139.417	-10.574	1.00	64.46	O
ATOM	22808	P	U A1083	182.590	132.855	-12.847	1.00	53.17	P	ATOM	22858	C3*	U A1085	187.838	138.938	-12.724	1.00	64.46	C
ATOM	22809	O1P	U A1083	183.589	132.911	-13.961	1.00	59.24	O	ATOM	22859	O3*	U A1085	188.186	138.796	-14.117	1.00	64.46	O
ATOM	22810	O2P	U A1083	183.061	132.595	-11.451	1.00	59.24	O	ATOM	22860	C2*	U A1085	187.679	137.658	-11.901	1.00	64.46	C
ATOM	22811	O5*	U A1083	181.773	134.219	-12.897	1.00	53.17	O	ATOM	22861	O2*	U A1085	188.337	136.513	-12.407	1.00	64.46	O
ATOM	22812	C5*	U A1083	181.165	134.645	-14.116	1.00	53.17	C	ATOM	22862	C1*	U A1085	188.231	138.071	-10.530	1.00	64.46	C
ATOM	22813	C4*	U A1083	180.322	135.874	-13.885	1.00	53.17	C	ATOM	22863	N1	U A1085	187.381	137.865	-9.346	1.00	62.84	N
ATOM	22814	O4*	U A1083	179.270	135.578	-12.941	1.00	53.17	O	ATOM	22864	C2	U A1085	187.165	136.565	-8.928	1.00	62.84	C
ATOM	22815	C3*	U A1083	181.007	137.106	-13.320	1.00	53.17	C	ATOM	22865	O2	U A1085	187.540	135.590	-9.554	1.00	62.84	O



Table 2: Sheet 230/520

ATOM	22866	N3	U A1085	186.481	136.443	-7.750	1.00	62.84	N	ATOM	22916	O2P	G A1088	191.674	139.525	-23.575	1.00	55.83	O
ATOM	22867	C4	U A1085	185.981	137.454	-6.976	1.00	62.84	C	ATOM	22917	O5*	G A1088	190.801	141.349	-25.058	1.00	72.22	O
ATOM	22868	O4	U A1085	185.505	137.181	-5.802	1.00	62.84	O	ATOM	22918	C5*	G A1088	190.517	141.864	-26.364	1.00	72.22	C
ATOM	22869	C5	U A1085	186.180	138.765	-7.579	1.00	62.84	C	ATOM	22919	C4*	G A1088	190.761	143.348	-26.392	1.00	72.22	C
ATOM	22870	C6	U A1085	186.854	138.923	-8.642	1.00	62.84	C	ATOM	22920	O4*	G A1088	199.824	143.982	-25.486	1.00	72.22	O
ATOM	22871	P	U A1086	189.690	138.389	-14.580	1.00	66.78	P	ATOM	22921	C3*	G A1088	192.127	143.803	-25.894	1.00	72.22	C
ATOM	22872	O1P	U A1086	190.306	137.393	-13.668	1.00	98.06	O	ATOM	22922	O3*	G A1088	193.151	143.745	-26.878	1.00	72.22	O
ATOM	22873	O2P	U A1086	190.420	139.645	-14.889	1.00	98.06	O	ATOM	22923	O2*	G A1088	191.845	145.219	-25.433	1.00	72.22	C
ATOM	22874	O5*	U A1086	189.426	137.663	-15.967	1.00	66.78	O	ATOM	22924	C2*	G A1088	191.795	146.129	-26.507	1.00	72.22	C
ATOM	22875	C5*	U A1086	188.946	136.306	-16.015	1.00	66.78	C	ATOM	22925	C1*	G A1088	190.457	145.059	-24.820	1.00	72.22	O
ATOM	22876	C4*	U A1086	187.837	136.179	-17.031	1.00	66.78	C	ATOM	22926	N9	G A1088	190.596	144.707	-23.410	1.00	55.83	N
ATOM	22877	O4*	U A1086	186.631	136.761	-16.493	1.00	66.78	O	ATOM	22927	C8	G A1088	190.429	143.471	-22.825	1.00	55.83	C
ATOM	22878	C3*	U A1086	188.061	136.928	-18.331	1.00	66.78	C	ATOM	22928	N7	G A1088	190.695	143.469	-21.547	1.00	55.83	N
ATOM	22879	O3*	U A1086	188.854	136.232	-19.264	1.00	66.78	O	ATOM	22929	C5	G A1088	191.042	144.783	-21.272	1.00	55.83	C
ATOM	22880	C2*	U A1086	186.649	137.156	-18.832	1.00	66.78	C	ATOM	22930	C6	G A1088	191.444	145.384	-20.059	1.00	55.83	C
ATOM	22881	O2*	U A1086	186.117	136.002	-19.449	1.00	66.78	O	ATOM	22931	O6	G A1088	191.585	144.847	-18.943	1.00	55.83	O
ATOM	22882	C1*	U A1086	185.913	137.428	-17.523	1.00	66.78	C	ATOM	22932	N1	G A1088	191.706	146.747	-20.227	1.00	55.83	N
ATOM	22883	N1	U A1086	185.815	138.860	-17.171	1.00	98.06	N	ATOM	22933	C2	G A1088	191.601	147.428	-21.424	1.00	55.83	C
ATOM	22884	C2	U A1086	185.257	139.753	-18.096	1.00	98.06	C	ATOM	22934	N2	G A1088	191.909	148.728	-21.410	1.00	55.83	N
ATOM	22885	O2	U A1086	184.887	139.424	-19.220	1.00	98.06	O	ATOM	22935	N3	G A1088	191.226	146.871	-22.557	1.00	55.83	N
ATOM	22886	N3	U A1086	185.155	141.051	-17.652	1.00	98.06	N	ATOM	22936	C4	G A1088	190.968	145.559	-22.410	1.00	55.83	C
ATOM	22887	C4	U A1086	185.545	141.547	-16.418	1.00	98.06	C	ATOM	22937	P	G A1089	194.677	143.464	-26.423	1.00	74.78	P
ATOM	22888	O4	U A1086	185.290	142.717	-16.125	1.00	98.06	O	ATOM	22938	O1P	G A1089	195.419	143.272	-27.692	1.00	47.84	O
ATOM	22889	C5	U A1086	186.134	140.582	-15.547	1.00	98.06	C	ATOM	22939	O2P	G A1089	194.721	142.390	-25.386	1.00	47.84	O
ATOM	22890	C6	U A1086	186.247	139.310	-15.940	1.00	98.06	C	ATOM	22940	O5*	G A1089	195.137	144.844	-25.765	1.00	74.78	O
ATOM	22891	P	G A1087	189.957	137.042	-20.099	1.00	67.96	P	ATOM	22941	C5*	G A1089	195.169	146.041	-26.563	1.00	74.78	C
ATOM	22892	O1P	G A1087	190.581	136.066	-21.032	1.00	54.96	O	ATOM	22942	C4*	G A1089	195.576	147.237	-25.738	1.00	74.78	C
ATOM	22893	O2P	G A1087	190.811	137.805	-19.146	1.00	54.96	O	ATOM	22943	O4*	G A1089	194.528	147.566	-24.794	1.00	74.78	O
ATOM	22894	O5*	G A1087	189.105	138.071	-20.956	1.00	67.96	O	ATOM	22944	C3*	G A1089	196.820	147.096	-24.877	1.00	74.78	C
ATOM	22895	C5*	G A1087	188.258	137.607	-22.004	1.00	67.96	C	ATOM	22945	O3*	G A1089	198.042	147.268	-25.580	1.00	74.78	O
ATOM	22896	C4*	G A1087	187.707	138.777	-22.762	1.00	67.96	C	ATOM	22946	C2*	G A1089	196.613	148.187	-23.838	1.00	74.78	C
ATOM	22897	O4*	G A1087	186.844	139.540	-21.886	1.00	67.96	O	ATOM	22947	O2*	G A1089	196.996	149.461	-24.307	1.00	74.78	O
ATOM	22898	C3*	G A1087	188.747	139.777	-23.235	1.00	67.96	C	ATOM	22948	C1*	G A1089	195.103	148.119	-23.621	1.00	74.78	C
ATOM	22899	O3*	G A1087	189.323	139.391	-24.476	1.00	67.96	O	ATOM	22949	N9	G A1089	194.857	147.215	-22.504	1.00	47.84	N
ATOM	22900	C2*	G A1087	187.950	141.072	-23.337	1.00	67.96	C	ATOM	22950	C8	G A1089	194.480	145.892	-22.550	1.00	47.84	C
ATOM	22901	O2*	G A1087	187.231	141.187	-24.553	1.00	67.96	O	ATOM	22951	N7	G A1089	194.460	145.327	-21.371	1.00	47.84	N
ATOM	22902	C1*	G A1087	186.977	140.921	-22.169	1.00	67.96	C	ATOM	22952	C5	G A1089	194.818	146.347	-20.497	1.00	47.84	C
ATOM	22903	N9	G A1087	187.437	141.588	-20.958	1.00	54.96	N	ATOM	22953	C6	G A1089	194.995	146.338	-19.087	1.00	47.84	C
ATOM	22904	C8	G A1087	187.779	141.007	-19.760	1.00	54.96	C	ATOM	22954	O6	G A1089	194.869	145.396	-18.293	1.00	47.84	O
ATOM	22905	N7	G A1087	188.141	141.875	-18.855	1.00	54.96	N	ATOM	22955	N1	G A1089	195.369	147.587	-18.615	1.00	47.84	N
ATOM	22906	C5	G A1087	188.033	143.098	-19.494	1.00	54.96	C	ATOM	22956	C2	G A1089	195.558	148.695	-19.389	1.00	47.84	C
ATOM	22907	C6	G A1087	188.290	144.397	-19.019	1.00	54.96	C	ATOM	22957	N2	G A1089	195.933	149.800	-18.749	1.00	47.84	N
ATOM	22908	O6	G A1087	188.657	144.743	-17.889	1.00	54.96	O	ATOM	22958	N3	G A1089	195.398	148.722	-20.696	1.00	47.84	N
ATOM	22909	N1	G A1087	188.077	145.356	-20.021	1.00	54.96	N	ATOM	22959	C4	G A1089	195.036	147.522	-21.180	1.00	47.84	C
ATOM	22910	C2	G A1087	187.658	145.086	-21.291	1.00	54.96	C	ATOM	22960	P	U A1090	199.333	146.418	-25.132	1.00	62.66	P
ATOM	22911	N2	G A1087	187.533	146.130	-22.107	1.00	54.96	N	ATOM	22961	O1P	U A1090	200.421	146.777	-26.068	1.00	68.13	O
ATOM	22912	N3	G A1087	187.391	143.877	-21.737	1.00	54.96	N	ATOM	22962	O2P	U A1090	198.934	144.990	-24.970	1.00	68.13	O
ATOM	22913	C4	G A1087	187.605	142.937	-20.794	1.00	54.96	C	ATOM	22963	O5*	U A1090	199.710	146.981	-23.687	1.00	62.66	O
ATOM	22914	P	G A1088	190.850	139.779	-24.792	1.00	72.22	P	ATOM	22964	C5*	U A1090	199.935	148.387	-23.466	1.00	62.66	C
ATOM	22915	O1P	G A1088	191.187	139.092	-26.059	1.00	55.83	O	ATOM	22965	C4*	U A1090	200.022	148.682	-21.984	1.00	62.66	C



Table 2: Sheet 231/520

ATOM	22966	O4*	U A1090	198.761	148.347	-21.337	1.00	62.66	O	ATOM	23016	C6	A A1092	206.137	147.357	-9.348	1.00	60.52	C
ATOM	22967	O3*	U A1090	201.049	147.885	-21.200	1.00	62.66	C	ATOM	23017	N6	A A1092	205.946	148.658	-9.187	1.00	60.52	N
ATOM	22968	C3*	U A1090	202.360	148.402	-21.284	1.00	62.66	O	ATOM	23018	N1	A A1092	205.995	146.550	-8.283	1.00	60.52	C
ATOM	22969	C2*	U A1090	200.515	147.947	-19.776	1.00	62.66	C	ATOM	23019	C2	A A1092	206.201	145.242	-8.440	1.00	60.52	N
ATOM	22970	O2*	U A1090	200.860	149.132	-19.094	1.00	62.66	O	ATOM	23020	N3	A A1092	206.541	144.573	-9.529	1.00	60.52	N
ATOM	22971	C1*	U A1090	199.008	147.904	-20.009	1.00	62.66	C	ATOM	23021	C4	A A1092	206.670	145.407	-10.566	1.00	60.52	C
ATOM	22972	N1	U A1090	198.495	146.536	-19.837	1.00	68.13	N	ATOM	23022	P	A A1093	203.971	141.663	-15.094	1.00	60.51	P
ATOM	22973	C2	U A1090	198.398	146.056	-18.582	1.00	68.13	C	ATOM	23023	O1P	A A1093	203.740	140.374	-15.791	1.00	49.46	O
ATOM	22974	O2	U A1090	198.710	146.714	-17.567	1.00	68.13	O	ATOM	23024	O2P	A A1093	203.805	142.931	-15.841	1.00	49.46	O
ATOM	22975	N3	U A1090	197.931	144.776	-18.426	1.00	68.13	N	ATOM	23025	O5*	A A1093	203.027	141.684	-13.818	1.00	60.51	O
ATOM	22976	C4	U A1090	197.559	143.939	-19.446	1.00	68.13	C	ATOM	23026	C5*	A A1093	202.973	140.543	-12.951	1.00	60.51	C
ATOM	22977	O4	U A1090	197.132	142.807	-19.177	1.00	68.13	O	ATOM	23027	C4*	A A1093	202.261	140.888	-11.673	1.00	60.51	C
ATOM	22978	C5	U A1090	197.688	144.506	-20.758	1.00	68.13	C	ATOM	23028	O4*	A A1093	203.051	141.825	-10.908	1.00	60.51	O
ATOM	22979	C6	U A1090	198.137	145.753	-20.902	1.00	68.13	C	ATOM	23029	C3*	A A1093	200.896	141.535	-11.831	1.00	60.51	C
ATOM	22980	P	U A1091	203.604	147.433	-20.970	1.00	62.63	P	ATOM	23030	O3*	A A1093	199.932	140.491	-11.940	1.00	60.51	O
ATOM	22981	O1P	U A1091	204.834	148.163	-21.371	1.00	55.70	O	ATOM	23031	C2*	A A1093	200.749	142.302	-10.515	1.00	60.51	C
ATOM	22982	O2P	U A1091	203.326	146.088	-21.537	1.00	55.70	O	ATOM	23032	O2*	A A1093	200.318	141.479	-9.443	1.00	60.51	C
ATOM	22983	O5*	U A1091	203.583	147.270	-19.386	1.00	62.63	O	ATOM	23033	C1*	A A1093	202.197	142.711	-10.220	1.00	60.51	C
ATOM	22984	C5*	U A1091	203.793	148.400	-18.525	1.00	62.63	C	ATOM	23034	N9	A A1093	202.524	144.068	-10.645	1.00	49.46	N
ATOM	22985	C4*	U A1091	203.701	147.985	-17.077	1.00	62.63	C	ATOM	23035	C8	A A1093	202.771	144.502	-11.918	1.00	49.46	C
ATOM	22986	C4*	U A1091	202.346	147.577	-16.758	1.00	62.63	C	ATOM	23036	N7	A A1093	202.989	145.790	-12.005	1.00	49.46	N
ATOM	22987	O3*	U A1091	204.554	146.803	-16.664	1.00	62.63	O	ATOM	23037	C5	A A1093	202.892	146.232	-10.694	1.00	49.46	C
ATOM	22988	O3*	U A1091	205.887	147.183	-16.390	1.00	62.63	O	ATOM	23038	C6	A A1093	203.004	147.499	-10.121	1.00	49.46	C
ATOM	22989	C2*	U A1091	203.841	146.294	-15.417	1.00	62.63	C	ATOM	23039	N6	A A1093	203.238	148.605	-10.826	1.00	49.46	N
ATOM	22990	O2*	U A1091	204.200	146.984	-14.237	1.00	62.63	O	ATOM	23040	N1	A A1093	202.861	147.601	-8.783	1.00	49.46	N
ATOM	22991	C1*	U A1091	202.377	146.574	-15.759	1.00	62.63	C	ATOM	23041	C2	A A1093	202.614	146.492	-8.080	1.00	49.46	C
ATOM	22992	N1	U A1091	201.703	145.373	-16.270	1.00	55.70	N	ATOM	23042	N3	A A1093	202.474	145.243	-8.506	1.00	49.46	N
ATOM	22993	C2	U A1091	201.316	144.424	-15.350	1.00	55.70	C	ATOM	23043	C4	A A1093	202.625	145.179	-9.842	1.00	49.46	C
ATOM	22994	O2	U A1091	201.444	144.571	-14.161	1.00	55.70	O	ATOM	23044	P	G A1094	198.874	140.474	-13.145	1.00	58.23	P
ATOM	22995	N3	U A1091	200.762	143.295	-15.879	1.00	55.70	N	ATOM	23045	O1P	G A1094	199.014	139.159	-13.821	1.00	56.42	O
ATOM	22996	C4	U A1091	200.534	143.034	-17.207	1.00	55.70	C	ATOM	23046	O2P	G A1094	199.033	141.721	-13.947	1.00	56.42	O
ATOM	22997	O4	U A1091	200.021	141.964	-17.527	1.00	55.70	O	ATOM	23047	O5*	G A1094	197.476	140.443	-12.365	1.00	58.23	C
ATOM	22998	C5	U A1091	200.927	144.077	-18.099	1.00	55.70	C	ATOM	23048	C5*	G A1094	196.464	141.465	-12.577	1.00	58.23	C
ATOM	22999	C6	U A1091	201.485	145.184	-17.611	1.00	55.70	C	ATOM	23049	C4*	G A1094	195.706	141.785	-11.288	1.00	58.23	C
ATOM	23000	P	A A1092	207.074	146.133	-16.645	1.00	58.80	P	ATOM	23050	O4*	G A1094	194.489	141.002	-11.097	1.00	58.23	O
ATOM	23001	O1P	A A1092	208.337	146.649	-16.034	1.00	60.52	O	ATOM	23051	C3*	G A1094	196.442	141.787	-9.946	1.00	58.23	C
ATOM	23002	O2P	A A1092	207.025	145.801	-18.094	1.00	60.52	O	ATOM	23052	O3*	G A1094	196.258	143.054	-9.313	1.00	58.23	O
ATOM	23003	O5*	A A1092	206.645	144.840	-15.832	1.00	58.80	O	ATOM	23053	C2*	G A1094	195.682	140.722	-9.149	1.00	58.23	C
ATOM	23004	C5*	A A1092	207.453	143.674	-15.855	1.00	58.80	C	ATOM	23054	O2*	G A1094	195.662	140.934	-7.755	1.00	58.23	O
ATOM	23005	C4*	A A1092	207.410	143.010	-14.512	1.00	58.80	C	ATOM	23055	C1*	G A1094	194.274	140.883	-9.714	1.00	58.23	C
ATOM	23006	O4*	A A1092	208.074	143.856	-13.548	1.00	58.80	O	ATOM	23056	N9	G A1094	193.377	139.771	-9.421	1.00	56.42	N
ATOM	23007	C3*	A A1092	206.021	142.796	-13.941	1.00	58.80	C	ATOM	23057	C8	G A1094	193.639	138.437	-9.587	1.00	56.42	C
ATOM	23008	O3*	A A1092	205.439	141.608	-14.450	1.00	58.80	O	ATOM	23058	N7	G A1094	192.692	137.667	-9.122	1.00	56.42	N
ATOM	23009	C2*	A A1092	206.277	142.752	-12.438	1.00	58.80	C	ATOM	23059	C5	G A1094	191.734	138.545	-8.639	1.00	56.42	C
ATOM	23010	O2*	A A1092	206.718	141.492	-11.970	1.00	58.80	O	ATOM	23060	C6	G A1094	190.492	138.288	-7.991	1.00	56.42	C
ATOM	23011	C1*	A A1092	207.429	143.744	-12.224	1.00	58.80	C	ATOM	23061	O6	G A1094	189.989	137.199	-7.682	1.00	56.42	O
ATOM	23012	N9	A A1092	207.041	145.083	-11.844	1.00	60.52	N	ATOM	23062	N1	G A1094	189.825	139.463	-7.686	1.00	56.42	N
ATOM	23013	C8	A A1092	207.007	146.259	-12.552	1.00	60.52	C	ATOM	23063	C2	G A1094	190.285	140.720	-7.953	1.00	56.42	C
ATOM	23014	N7	A A1092	206.687	147.303	-11.826	1.00	60.52	N	ATOM	23064	N2	G A1094	189.481	141.715	-7.581	1.00	56.42	N
ATOM	23015	C5	A A1092	206.483	146.772	-10.562	1.00	60.52	C	ATOM	23065	N3	G A1094	191.447	140.980	-8.541	1.00	56.42	N



ATOM	23066	C4	G A1094	192.119	139.850	-8.851	1.00	56.42	C	ATOM	23116	C2*	C A1097	192.112	152.947	-18.269	1.00	67.16	C
ATOM	23067	P	U A1095	197.369	143.621	-8.293	1.00	58.58	P	ATOM	23117	O2*	C A1097	192.430	153.856	-19.297	1.00	67.16	O
ATOM	23068	O1P	U A1095	198.394	142.572	-8.090	1.00	61.58	O	ATOM	23118	C1*	C A1097	193.349	152.124	-17.924	1.00	67.16	C
ATOM	23069	O2P	U A1095	196.663	144.172	-7.111	1.00	61.58	O	ATOM	23119	N1	C A1097	192.995	150.755	-17.518	1.00	64.00	N
ATOM	23070	O5P	U A1095	198.017	144.830	-9.105	1.00	58.58	O	ATOM	23120	C2	C A1097	192.613	149.854	-18.505	1.00	64.00	C
ATOM	23071	C5*	U A1095	198.987	145.691	-8.490	1.00	58.58	C	ATOM	23121	O2	C A1097	192.567	150.246	-19.680	1.00	64.00	O
ATOM	23072	C4*	U A1095	199.322	146.858	-9.392	1.00	58.58	C	ATOM	23122	N3	C A1097	192.306	148.584	-18.160	1.00	64.00	N
ATOM	23073	O4*	U A1095	200.018	146.393	-10.572	1.00	58.58	C	ATOM	23123	C4	C A1097	192.374	148.209	-16.885	1.00	64.00	C
ATOM	23074	C3*	U A1095	198.158	147.665	-9.944	1.00	58.58	C	ATOM	23124	N4	C A1097	192.079	146.943	-16.590	1.00	64.00	N
ATOM	23075	O3*	U A1095	197.686	148.633	-9.025	1.00	58.58	O	ATOM	23125	C5	C A1097	192.749	149.114	-15.854	1.00	64.00	C
ATOM	23076	C2*	U A1095	198.766	148.320	-11.176	1.00	58.58	C	ATOM	23126	C6	C A1097	193.044	150.365	-16.209	1.00	64.00	C
ATOM	23077	O2*	U A1095	199.530	149.467	-10.851	1.00	58.58	O	ATOM	23127	P	C A1098	189.534	154.853	-16.972	1.00	74.75	P
ATOM	23078	C1*	U A1095	199.694	147.218	-11.679	1.00	58.58	C	ATOM	23128	O1P	C A1098	189.119	156.271	-17.192	1.00	56.83	O
ATOM	23079	N1	U A1095	199.071	146.386	-12.723	1.00	61.58	N	ATOM	23129	O2P	C A1098	189.200	154.173	-15.689	1.00	56.83	O
ATOM	23080	C2	U A1095	199.104	146.855	-14.025	1.00	61.58	C	ATOM	23130	O5*	C A1098	189.006	153.956	-18.181	1.00	74.75	O
ATOM	23081	O2	U A1095	199.579	147.939	-14.325	1.00	61.58	O	ATOM	23131	C5*	C A1098	189.061	154.457	-19.522	1.00	74.75	C
ATOM	23082	N3	U A1095	198.550	146.015	-14.959	1.00	61.58	N	ATOM	23132	C4*	C A1098	188.590	153.419	-20.505	1.00	74.75	C
ATOM	23083	C4	U A1095	197.963	144.790	-14.730	1.00	61.58	C	ATOM	23133	O4*	C A1098	189.500	152.292	-20.503	1.00	74.75	O
ATOM	23084	O4	U A1095	197.520	144.142	-15.680	1.00	61.58	O	ATOM	23134	C3*	C A1098	187.233	152.788	-20.261	1.00	74.75	C
ATOM	23085	C5	U A1095	197.943	144.386	-13.360	1.00	61.58	C	ATOM	23135	O3*	C A1098	186.156	153.593	-20.699	1.00	74.75	O
ATOM	23086	C6	U A1095	198.483	145.175	-12.427	1.00	61.58	C	ATOM	23136	C2*	C A1098	187.332	151.494	-21.057	1.00	74.75	C
ATOM	23087	P	C A1096	196.114	148.945	-8.950	1.00	54.74	P	ATOM	23137	O2*	C A1098	187.122	151.675	-22.443	1.00	74.75	O
ATOM	23088	O1P	C A1096	195.959	149.848	-7.773	1.00	58.21	O	ATOM	23138	C1*	C A1098	188.789	151.108	-20.827	1.00	74.75	C
ATOM	23089	O2P	C A1096	195.380	147.643	-8.979	1.00	58.21	O	ATOM	23139	N1	C A1098	188.901	150.153	-19.715	1.00	56.83	N
ATOM	23090	O5*	C A1096	195.830	149.795	-10.269	1.00	54.74	O	ATOM	23140	C2	C A1098	188.644	148.805	-19.969	1.00	56.83	C
ATOM	23091	C5*	C A1096	196.276	151.159	-10.336	1.00	54.74	C	ATOM	23141	O2	C A1098	188.348	148.461	-21.122	1.00	56.83	O
ATOM	23092	C4*	C A1096	196.404	151.623	-11.764	1.00	54.74	C	ATOM	23142	N3	C A1098	188.709	147.916	-18.959	1.00	56.83	N
ATOM	23093	O4*	C A1096	197.222	150.680	-12.508	1.00	54.74	O	ATOM	23143	C4	C A1098	188.996	148.333	-17.728	1.00	56.83	C
ATOM	23094	C3*	C A1096	195.124	151.720	-12.571	1.00	54.74	C	ATOM	23144	N4	C A1098	188.994	147.434	-16.751	1.00	56.83	N
ATOM	23095	O3*	C A1096	194.399	152.922	-12.334	1.00	54.74	O	ATOM	23145	C5	C A1098	189.282	149.698	-17.442	1.00	56.83	C
ATOM	23096	C2*	C A1096	195.639	151.630	-14.003	1.00	54.74	C	ATOM	23146	C6	C A1098	189.227	150.565	-18.456	1.00	56.83	C
ATOM	23097	O2*	C A1096	196.127	152.860	-14.497	1.00	54.74	O	ATOM	23147	P	G A1099	184.708	153.404	-20.021	1.00	72.36	P
ATOM	23098	C1*	C A1096	196.792	150.636	-13.855	1.00	54.74	C	ATOM	23148	O1P	G A1099	183.800	154.387	-20.687	1.00	50.23	O
ATOM	23099	N1	C A1096	196.332	149.273	-14.176	1.00	58.21	N	ATOM	23149	O2P	G A1099	184.845	153.412	-18.536	1.00	50.23	O
ATOM	23100	C2	C A1096	196.149	148.936	-15.518	1.00	58.21	C	ATOM	23150	O5*	G A1099	184.273	151.929	-20.442	1.00	72.36	O
ATOM	23101	O2	C A1096	196.468	149.758	-16.385	1.00	58.21	O	ATOM	23151	C5*	G A1099	183.988	151.618	-21.812	1.00	72.36	C
ATOM	23102	N3	C A1096	195.640	147.726	-15.836	1.00	58.21	N	ATOM	23152	C4*	G A1099	183.844	150.128	-21.999	1.00	72.36	C
ATOM	23103	C4	C A1096	195.347	146.854	-14.874	1.00	58.21	C	ATOM	23153	O4*	G A1099	185.034	149.457	-21.516	1.00	72.36	O
ATOM	23104	N4	C A1096	194.837	145.678	-15.235	1.00	58.21	N	ATOM	23154	C3*	G A1099	182.726	149.432	-21.249	1.00	72.36	C
ATOM	23105	C5	C A1096	195.565	147.151	-13.497	1.00	58.21	C	ATOM	23155	O3*	G A1099	181.472	149.570	-21.886	1.00	72.36	O
ATOM	23106	C6	C A1096	196.056	148.362	-13.195	1.00	58.21	C	ATOM	23156	C2*	G A1099	183.198	147.987	-21.236	1.00	72.36	C
ATOM	23107	P	C A1097	192.819	152.973	-12.666	1.00	67.16	P	ATOM	23157	O2*	G A1099	182.994	147.323	-22.463	1.00	72.36	O
ATOM	23108	O1P	C A1097	192.301	154.253	-12.129	1.00	64.00	O	ATOM	23158	C1*	G A1099	184.694	148.165	-21.056	1.00	72.36	C
ATOM	23109	O2P	C A1097	192.183	151.692	-12.263	1.00	64.00	O	ATOM	23159	N9	G A1099	185.077	148.025	-19.657	1.00	50.23	N
ATOM	23110	C5*	C A1097	192.741	153.051	-14.251	1.00	67.16	C	ATOM	23160	C8	G A1099	185.534	148.989	-18.784	1.00	50.23	C
ATOM	23111	O5*	C A1097	193.356	154.131	-14.949	1.00	67.16	O	ATOM	23161	N7	G A1099	185.840	148.507	-17.606	1.00	50.23	N
ATOM	23112	C4*	C A1097	193.243	153.925	-16.437	1.00	67.16	C	ATOM	23162	C5	G A1099	185.556	147.153	-17.711	1.00	50.23	C
ATOM	23113	O4*	C A1097	194.005	152.762	-16.846	1.00	67.16	O	ATOM	23163	C6	G A1099	185.706	146.110	-16.773	1.00	50.23	C
ATOM	23114	C3*	C A1097	191.846	153.659	-16.956	1.00	67.16	C	ATOM	23164	O6	G A1099	186.161	146.161	-15.625	1.00	50.23	O
ATOM	23115	O3*	C A1097	191.128	154.855	-17.152	1.00	67.16	O	ATOM	23165	N1	G A1099	185.284	144.894	-17.293	1.00	50.23	N



Table 2: Sheet 233/520

ATOM	23166	C2	G A1099	184.801	144.700	-18.561	1.00	50.23	C	ATOM	23216	C5*	A A1102	179.472	144.050	-14.014	1.00	49.67	C
ATOM	23167	N2	G A1099	184.457	143.447	-18.880	1.00	50.23	N	ATOM	23217	C4*	A A1102	178.610	144.760	-13.008	1.00	49.67	C
ATOM	23168	N3	G A1099	184.670	145.660	-19.451	1.00	50.23	N	ATOM	23218	O4*	A A1102	177.777	143.794	-12.321	1.00	49.67	O
ATOM	23169	C4	G A1099	185.065	146.850	-18.963	1.00	50.23	C	ATOM	23219	C3*	A A1102	179.342	145.508	-11.913	1.00	49.67	C
ATOM	23170	P	C A1100	180.148	149.696	-20.982	1.00	64.69	P	ATOM	23220	O3*	A A1102	179.648	146.815	-12.387	1.00	49.67	O
ATOM	23171	O1P	C A1100	179.007	149.896	-21.921	1.00	55.82	O	ATOM	23221	C2*	A A1102	178.314	145.527	-10.785	1.00	49.67	C
ATOM	23172	O2P	C A1100	180.413	150.702	-19.906	1.00	55.82	O	ATOM	23222	O1*	A A1102	177.345	146.536	-10.968	1.00	49.67	O
ATOM	23173	O5*	C A1100	179.994	148.260	-20.303	1.00	64.69	O	ATOM	23223	C2*	A A1102	177.604	144.188	-10.978	1.00	49.67	O
ATOM	23174	C5*	C A1100	179.549	147.125	-21.068	1.00	64.69	C	ATOM	23224	N9	A A1102	178.110	143.120	-10.127	1.00	40.77	N
ATOM	23175	C4*	C A1100	179.612	145.876	-20.226	1.00	64.69	C	ATOM	23225	C8	A A1102	178.864	142.048	-10.510	1.00	40.77	C
ATOM	23176	O4*	C A1100	180.951	145.749	-19.706	1.00	64.69	O	ATOM	23226	N7	A A1102	179.149	141.226	-9.534	1.00	40.77	N
ATOM	23177	C3*	C A1100	178.725	145.850	-18.990	1.00	64.69	C	ATOM	23227	C5	A A1102	178.547	141.799	-8.428	1.00	40.77	C
ATOM	23178	O3*	C A1100	177.429	145.370	-19.303	1.00	64.69	O	ATOM	23228	C6	A A1102	178.472	141.400	-7.089	1.00	40.77	C
ATOM	23179	C2*	C A1100	179.453	144.893	-18.059	1.00	64.69	C	ATOM	23229	N6	A A1102	179.047	140.293	-6.623	1.00	40.77	N
ATOM	23180	O2*	C A1100	179.160	143.530	-18.280	1.00	64.69	O	ATOM	23230	N1	A A1102	177.784	142.184	-6.234	1.00	40.77	N
ATOM	23181	C1*	C A1100	180.906	145.162	-18.425	1.00	55.82	C	ATOM	23231	C2	A A1102	177.220	143.305	-6.707	1.00	40.77	C
ATOM	23182	N1	C A1100	181.542	146.066	-17.470	1.00	55.82	N	ATOM	23232	N3	A A1102	177.221	143.791	-7.951	1.00	40.77	N
ATOM	23183	C2	C A1100	182.099	145.511	-16.324	1.00	55.82	C	ATOM	23233	C4	A A1102	177.908	142.974	-8.775	1.00	40.77	C
ATOM	23184	O2	C A1100	182.052	144.272	-16.173	1.00	55.82	O	ATOM	23234	P	C A1103	180.798	147.683	-11.668	1.00	56.35	P
ATOM	23185	N3	C A1100	182.679	146.321	-15.412	1.00	55.82	N	ATOM	23235	O1P	C A1103	180.866	148.954	-12.443	1.00	43.05	O
ATOM	23186	C4	C A1100	183.303	148.379	-14.695	1.00	55.82	C	ATOM	23236	O2P	C A1103	182.026	146.871	-11.479	1.00	43.05	O
ATOM	23187	N4	C A1100	182.165	148.229	-16.789	1.00	55.82	C	ATOM	23237	O5*	C A1103	180.223	147.983	-10.215	1.00	56.35	O
ATOM	23188	C5	C A1100	181.591	147.416	-17.681	1.00	55.82	C	ATOM	23238	C3*	C A1103	179.273	149.034	-10.002	1.00	56.35	C
ATOM	23189	C6	C A1100	176.144	146.039	-18.612	1.00	59.51	P	ATOM	23239	C4*	C A1103	179.062	149.230	-8.530	1.00	56.35	C
ATOM	23190	P	A A1101	176.992	145.594	-19.449	1.00	47.26	O	ATOM	23240	O4*	C A1103	178.410	148.063	-7.979	1.00	56.35	O
ATOM	23191	O1P	A A1101	174.901	147.493	-18.420	1.00	47.26	O	ATOM	23241	C3*	C A1103	180.366	149.355	-7.720	1.00	56.35	C
ATOM	23192	O2P	A A1101	176.401	147.493	-18.420	1.00	47.26	O	ATOM	23242	O3*	C A1103	180.867	150.666	-7.760	1.00	56.35	O
ATOM	23193	O5*	A A1101	176.055	145.331	-17.185	1.00	59.51	O	ATOM	23243	C2*	C A1103	179.895	148.911	-6.333	1.00	56.35	C
ATOM	23194	C5*	A A1101	175.904	143.909	-17.090	1.00	59.51	C	ATOM	23244	O2*	C A1103	179.234	149.919	-5.597	1.00	56.35	O
ATOM	23195	O4*	A A1101	176.182	143.442	-15.688	1.00	59.51	C	ATOM	23245	C1*	C A1103	178.896	147.814	-6.678	1.00	56.35	C
ATOM	23196	C4*	A A1101	175.216	144.004	-14.797	1.00	59.51	O	ATOM	23246	N1	C A1103	179.512	146.487	-6.666	1.00	43.05	N
ATOM	23197	C3*	A A1101	176.068	141.941	-15.505	1.00	59.51	C	ATOM	23247	C2	C A1103	179.650	145.831	-5.449	1.00	43.05	C
ATOM	23198	O3*	A A1101	177.323	141.300	-15.799	1.00	59.51	O	ATOM	23248	O2	C A1103	179.268	146.401	-4.424	1.00	43.05	O
ATOM	23199	C2*	A A1101	175.530	141.722	-14.095	1.00	59.51	C	ATOM	23249	N3	C A1103	180.199	144.594	-5.416	1.00	43.05	N
ATOM	23200	O2*	A A1101	176.479	141.252	-13.161	1.00	59.51	O	ATOM	23250	C4	C A1103	180.605	144.020	-6.545	1.00	43.05	C
ATOM	23201	C1*	A A1101	174.978	143.105	-13.734	1.00	59.51	C	ATOM	23251	N4	C A1103	181.128	142.807	-6.470	1.00	43.05	N
ATOM	23202	N9	A A1101	173.568	143.209	-13.354	1.00	47.26	N	ATOM	23252	C5	C A1103	180.489	144.672	-7.804	1.00	43.05	C
ATOM	23203	C8	A A1101	172.452	143.241	-14.149	1.00	47.26	C	ATOM	23253	C6	C A1103	179.940	145.896	-7.819	1.00	43.05	C
ATOM	23204	N7	A A1101	171.345	143.462	-13.491	1.00	47.26	N	ATOM	23254	P	G A1104	182.403	150.899	-7.367	1.00	57.67	P
ATOM	23205	C5	A A1101	171.758	143.562	-12.169	1.00	47.26	C	ATOM	23255	O1P	G A1104	182.720	152.330	-7.618	1.00	49.18	O
ATOM	23206	C6	A A1101	171.062	143.821	-10.969	1.00	47.26	C	ATOM	23256	O2P	G A1104	183.226	149.834	-7.993	1.00	49.18	O
ATOM	23207	N6	A A1101	169.753	144.056	-10.899	1.00	47.26	N	ATOM	23257	O5*	G A1104	182.406	150.667	-5.801	1.00	57.67	O
ATOM	23208	N1	A A1101	171.772	143.836	-9.827	1.00	47.26	N	ATOM	23258	C5*	G A1104	183.539	150.138	-5.144	1.00	57.67	C
ATOM	23209	C2	A A1101	173.092	143.615	-9.892	1.00	47.26	C	ATOM	23259	C4*	G A1104	183.104	149.495	-3.869	1.00	57.67	C
ATOM	23210	N3	A A1101	173.857	143.381	-10.952	1.00	47.26	N	ATOM	23260	O4*	G A1104	182.223	148.397	-4.186	1.00	57.67	O
ATOM	23211	C4	A A1101	173.119	143.372	-12.071	1.00	47.26	C	ATOM	23261	C3*	G A1104	184.221	148.866	-3.069	1.00	57.67	C
ATOM	23212	P	A A1102	178.720	141.797	-15.122	1.00	49.67	P	ATOM	23262	O3*	G A1104	184.875	149.817	-2.254	1.00	57.67	O
ATOM	23213	O1P	A A1102	179.635	141.589	-16.262	1.00	40.77	O	ATOM	23263	C2*	G A1104	183.503	147.794	-2.269	1.00	57.67	C
ATOM	23214	O2P	A A1102	179.045	141.203	-13.789	1.00	40.77	O	ATOM	23264	O2*	G A1104	182.912	148.292	-1.090	1.00	57.67	O
ATOM	23215	O5*	A A1102	178.636	143.371	-14.954	1.00	49.67	O	ATOM	23265	C1*	G A1104	182.429	147.346	-3.261	1.00	57.67	C



ATOM	23266	N9	G A1104	182.846	146.150	-3.988	1.00	49.18	N	ATOM	23316	O6	G A1106	190.660	140.619	-2.958	1.00	53.03	O
ATOM	23267	C8	G A1104	183.134	146.031	-5.327	1.00	49.18	C	ATOM	23317	N1	G A1106	190.724	139.134	-1.226	1.00	53.03	N
ATOM	23268	N7	G A1104	183.518	144.829	-5.560	1.00	49.18	N	ATOM	23318	C2	G A1106	190.594	138.785	0.099	1.00	53.03	C
ATOM	23269	C5	G A1104	183.474	144.113	-4.473	1.00	49.18	C	ATOM	23319	N2	G A1106	190.830	137.503	0.418	1.00	53.03	N
ATOM	23270	C6	G A1104	183.791	142.763	-4.205	1.00	49.18	C	ATOM	23320	N3	G A1106	190.253	139.628	1.044	1.00	53.03	N
ATOM	23271	O6	G A1104	184.207	141.901	-4.990	1.00	49.18	O	ATOM	23321	C4	G A1106	190.032	140.866	0.561	1.00	53.03	C
ATOM	23272	N1	G A1104	183.589	142.445	-2.861	1.00	49.18	N	ATOM	23322	P	C A1107	193.362	143.683	4.765	1.00	54.17	P
ATOM	23273	C2	G A1104	183.147	143.318	-0.681	1.00	49.18	C	ATOM	23323	O1P	C A1107	194.007	144.019	6.062	1.00	40.97	O
ATOM	23274	N2	G A1104	182.994	142.826	-0.681	1.00	49.18	N	ATOM	23324	O2P	C A1107	193.418	144.654	3.636	1.00	40.97	O
ATOM	23275	N3	G A1104	182.868	144.582	-2.139	1.00	49.18	N	ATOM	23325	O5*	C A1107	193.957	142.283	4.300	1.00	54.17	O
ATOM	23276	C4	G A1104	183.049	144.909	-3.437	1.00	49.18	C	ATOM	23326	C5*	C A1107	194.075	141.206	5.240	1.00	54.17	C
ATOM	23277	P	A A1105	186.433	149.625	-1.921	1.00	71.17	P	ATOM	23327	C4*	C A1107	194.570	139.951	4.561	1.00	54.17	C
ATOM	23278	O1P	A A1105	186.869	150.868	-1.226	1.00	60.52	O	ATOM	23328	O4*	C A1107	193.604	139.482	3.585	1.00	54.17	O
ATOM	23279	O2P	A A1105	187.135	149.192	-3.166	1.00	60.52	O	ATOM	23329	C3*	C A1107	195.861	140.045	3.771	1.00	54.17	C
ATOM	23280	O5*	A A1105	186.437	148.419	-0.881	1.00	71.17	O	ATOM	23330	O3*	C A1107	196.997	139.969	4.598	1.00	54.17	O
ATOM	23281	C5*	A A1105	185.696	148.515	0.332	1.00	71.17	C	ATOM	23331	C2*	C A1107	195.766	138.828	2.866	1.00	54.17	C
ATOM	23282	C4*	A A1105	185.763	147.219	1.082	1.00	71.17	C	ATOM	23332	O2*	C A1107	196.090	137.650	3.571	1.00	54.17	O
ATOM	23283	O4*	A A1105	185.044	146.194	0.357	1.00	71.17	O	ATOM	23333	C1*	C A1107	194.278	138.820	2.529	1.00	54.17	C
ATOM	23284	C3*	A A1105	187.150	146.642	1.266	1.00	71.17	C	ATOM	23334	N1	C A1107	194.036	139.556	1.279	1.00	40.97	N
ATOM	23285	O3*	A A1105	187.828	147.233	2.352	1.00	71.17	O	ATOM	23335	C2	C A1107	194.237	138.895	0.056	1.00	40.97	C
ATOM	23286	C2*	A A1105	186.866	145.163	1.485	1.00	71.17	C	ATOM	23336	O2	C A1107	194.503	137.675	0.067	1.00	40.97	O
ATOM	23287	O2*	A A1105	186.479	144.879	2.815	1.00	71.17	O	ATOM	23337	N3	C A1107	194.118	139.593	-1.099	1.00	40.97	N
ATOM	23288	C1*	A A1105	185.681	144.938	0.546	1.00	71.17	C	ATOM	23338	C4	C A1107	193.774	140.879	-1.063	1.00	40.97	C
ATOM	23289	N9	A A1105	186.096	144.431	-0.765	1.00	60.52	N	ATOM	23339	N4	C A1107	193.691	141.536	-2.213	1.00	40.97	N
ATOM	23290	C8	A A1105	186.246	145.143	-1.931	1.00	60.52	C	ATOM	23340	C5	C A1107	193.506	141.557	0.162	1.00	40.97	C
ATOM	23291	N7	A A1105	186.641	144.417	-2.946	1.00	60.52	N	ATOM	23341	C6	C A1107	193.652	140.868	1.297	1.00	40.97	C
ATOM	23292	C5	A A1105	186.760	143.139	-2.418	1.00	60.52	C	ATOM	23342	P	G A1108	198.222	140.964	4.334	1.00	61.88	P
ATOM	23293	C6	A A1105	187.140	141.909	-2.992	1.00	60.52	C	ATOM	23343	O1P	G A1108	199.241	140.479	5.290	1.00	52.97	O
ATOM	23294	N6	A A1105	187.486	141.762	-4.274	1.00	60.52	N	ATOM	23344	O2P	G A1108	197.765	142.364	4.390	1.00	52.97	O
ATOM	23295	N1	A A1105	187.150	140.821	-2.192	1.00	60.52	N	ATOM	23345	O5*	G A1108	198.664	140.686	2.826	1.00	61.88	O
ATOM	23296	C2	A A1105	186.799	140.968	-0.904	1.00	60.52	C	ATOM	23346	C5*	G A1108	199.204	139.410	2.459	1.00	61.88	C
ATOM	23297	N3	A A1105	186.423	142.070	-0.250	1.00	60.52	N	ATOM	23347	C4*	G A1108	199.277	139.232	0.952	1.00	61.88	C
ATOM	23298	C4	A A1105	186.425	143.132	-1.075	1.00	60.52	C	ATOM	23348	O4*	G A1108	197.969	139.351	0.318	1.00	61.88	O
ATOM	23299	P	G A1106	189.432	147.196	2.389	1.00	61.13	P	ATOM	23349	C3*	G A1108	200.125	140.138	0.074	1.00	61.88	C
ATOM	23300	O1P	G A1106	189.881	148.039	3.540	1.00	53.03	O	ATOM	23350	O3*	G A1108	201.534	139.946	0.161	1.00	61.88	O
ATOM	23301	O2P	G A1106	189.942	147.482	1.008	1.00	53.03	O	ATOM	23351	C2*	G A1108	199.655	139.681	-1.303	1.00	61.88	C
ATOM	23302	O5*	G A1106	189.749	145.694	2.794	1.00	61.13	O	ATOM	23352	O2*	G A1108	200.214	138.425	-1.652	1.00	61.88	O
ATOM	23303	C5*	G A1106	189.376	145.233	4.085	1.00	61.13	C	ATOM	23353	C1*	G A1108	198.159	139.484	-1.080	1.00	61.88	C
ATOM	23304	C4*	G A1106	189.564	143.759	4.177	1.00	61.13	C	ATOM	23354	N9	G A1108	197.462	140.657	-1.598	1.00	52.97	N
ATOM	23305	O4*	G A1106	188.779	143.123	3.146	1.00	61.13	O	ATOM	23355	C8	G A1108	196.753	141.612	-0.919	1.00	52.97	C
ATOM	23306	C3*	G A1106	190.963	143.254	3.907	1.00	61.13	C	ATOM	23356	N7	G A1108	196.309	142.569	-1.698	1.00	52.97	N
ATOM	23307	O3*	G A1106	191.816	143.367	5.018	1.00	61.13	O	ATOM	23357	C5	G A1108	196.743	142.211	-2.969	1.00	52.97	C
ATOM	23308	C2*	G A1106	190.717	141.807	3.525	1.00	61.13	C	ATOM	23358	C6	G A1108	196.575	142.860	-4.232	1.00	52.97	C
ATOM	23309	O2*	G A1106	190.522	140.975	4.647	1.00	61.13	O	ATOM	23359	O6	G A1108	195.984	143.910	-4.494	1.00	52.97	O
ATOM	23310	C1*	G A1106	189.413	141.925	2.746	1.00	61.13	C	ATOM	23360	N1	G A1108	197.185	142.151	-5.255	1.00	52.97	N
ATOM	23311	N8	G A1106	189.646	141.950	1.305	1.00	53.03	N	ATOM	23361	C2	G A1108	197.862	140.973	-5.101	1.00	52.97	C
ATOM	23312	C9	G A1106	189.531	143.005	0.428	1.00	53.03	C	ATOM	23362	N2	G A1108	198.379	140.445	-6.218	1.00	52.97	N
ATOM	23313	N7	G A1106	189.803	142.671	-0.807	1.00	53.03	N	ATOM	23363	N3	G A1108	198.021	140.357	-3.944	1.00	52.97	N
ATOM	23314	C5	G A1106	190.124	141.321	-0.733	1.00	53.03	C	ATOM	23364	C4	G A1108	197.442	141.030	-2.927	1.00	52.97	C
ATOM	23315	C6	G A1106	190.507	140.409	-1.745	1.00	53.03	C	ATOM	23365	P	C A1109	202.527	141.106	-0.376	1.00	50.15	P



Table 2: Sheet 235/520

ATOM	23366	O1P	C A1109	203.869	140.481	-0.496	1.00	71.17	O	ATOM	23416	C2*	A A1111	204.758	152.860	0.500	1.00	77.36	C
ATOM	23367	O2P	C A1109	202.368	142.338	0.437	1.00	71.17	O	ATOM	23417	O2*	A A1111	204.340	154.209	0.540	1.00	77.36	O
ATOM	23368	O5*	C A1109	201.981	141.488	-1.828	1.00	50.15	O	ATOM	23418	C1*	A A1111	203.747	152.005	-0.262	1.00	77.36	C
ATOM	23369	O5*	C A1109	202.472	140.824	-3.012	1.00	50.15	C	ATOM	23419	N9	A A1111	203.714	150.654	0.299	1.00	63.70	N
ATOM	23370	C4*	C A1109	202.448	141.762	-4.199	1.00	50.15	C	ATOM	23420	C8	A A1111	204.474	149.573	-0.066	1.00	63.70	C
ATOM	23371	O4*	C A1109	201.082	142.132	-4.518	1.00	50.15	O	ATOM	23421	N7	A A1111	204.268	148.507	0.670	1.00	63.70	N
ATOM	23372	C3*	C A1109	203.151	143.095	-4.017	1.00	50.15	C	ATOM	23422	C5	A A1111	203.295	148.909	1.572	1.00	63.70	C
ATOM	23373	O3*	C A1109	204.549	143.008	-4.195	1.00	50.15	O	ATOM	23423	C6	A A1111	202.642	148.237	2.620	1.00	63.70	C
ATOM	23374	C2*	C A1109	202.478	143.980	-5.060	1.00	50.15	C	ATOM	23424	N6	A A1111	202.882	146.973	2.958	1.00	63.70	N
ATOM	23375	O2*	C A1109	202.995	143.804	-6.363	1.00	50.15	O	ATOM	23425	N1	A A1111	201.719	148.919	3.319	1.00	63.70	N
ATOM	23376	C1*	C A1109	201.041	143.468	-5.005	1.00	50.15	C	ATOM	23426	C2	A A1111	201.473	150.191	2.983	1.00	63.70	C
ATOM	23377	N1	C A1109	200.211	144.275	-4.090	1.00	71.17	N	ATOM	23427	N3	A A1111	202.018	150.932	2.022	1.00	63.70	N
ATOM	23378	C2	C A1109	199.832	145.575	-4.477	1.00	71.17	C	ATOM	23428	C4	A A1111	202.934	150.223	1.345	1.00	63.70	C
ATOM	23379	O2	C A1109	200.193	146.011	-5.584	1.00	71.17	O	ATOM	23429	P	C A1112	208.139	153.469	0.956	1.00	81.28	P
ATOM	23380	N3	C A1109	199.086	146.320	-3.633	1.00	71.17	N	ATOM	23430	O1P	C A1112	209.034	154.634	0.774	1.00	71.31	O
ATOM	23381	C4	C A1109	198.719	145.822	-2.448	1.00	71.17	C	ATOM	23431	O2P	C A1112	208.697	152.094	0.854	1.00	71.31	O
ATOM	23382	N4	C A1109	197.994	146.600	-1.644	1.00	71.17	N	ATOM	23432	O5*	C A1112	207.393	153.584	2.364	1.00	81.28	O
ATOM	23383	C5	C A1109	199.080	144.507	-2.035	1.00	71.17	C	ATOM	23433	C5*	C A1112	206.824	154.836	2.815	1.00	81.28	C
ATOM	23384	C6	C A1109	199.818	143.776	-2.877	1.00	71.17	C	ATOM	23434	C4*	C A1112	206.177	154.666	4.169	1.00	81.28	C
ATOM	23385	P	A A1110	205.507	143.895	-3.273	1.00	55.28	P	ATOM	23435	O4*	C A1112	205.089	153.719	4.059	1.00	81.28	O
ATOM	23386	O1P	A A1110	206.894	143.662	-3.737	1.00	62.35	O	ATOM	23436	C3*	C A1112	207.078	154.102	5.256	1.00	81.28	C
ATOM	23387	O2P	A A1110	205.155	143.608	-1.856	1.00	62.35	O	ATOM	23437	O3*	C A1112	207.787	155.142	5.916	1.00	81.28	O
ATOM	23388	O5*	A A1110	205.091	145.394	-3.635	1.00	55.28	O	ATOM	23438	C2*	C A1112	206.092	153.426	6.201	1.00	81.28	C
ATOM	23389	C5*	A A1110	205.345	145.946	-4.953	1.00	55.28	C	ATOM	23439	O2*	C A1112	205.511	154.310	7.139	1.00	81.28	O
ATOM	23390	C4*	A A1110	204.765	147.346	-5.068	1.00	55.28	C	ATOM	23440	C1*	C A1112	205.017	152.932	5.233	1.00	81.28	C
ATOM	23391	O4*	A A1110	203.319	147.259	-4.977	1.00	55.28	O	ATOM	23441	N1	C A1112	205.215	151.524	4.861	1.00	71.31	N
ATOM	23392	C3*	A A1110	205.162	148.339	-3.978	1.00	55.28	C	ATOM	23442	C2	C A1112	204.697	150.522	5.690	1.00	71.31	C
ATOM	23393	O3*	A A1110	206.395	149.021	-4.225	1.00	55.28	O	ATOM	23443	O2	C A1112	204.053	150.838	6.699	1.00	71.31	O
ATOM	23394	C2*	A A1110	203.969	149.281	-3.940	1.00	55.28	C	ATOM	23444	N3	C A1112	204.907	149.231	5.369	1.00	71.31	N
ATOM	23395	O2*	A A1110	203.989	150.210	-5.002	1.00	55.28	O	ATOM	23445	C4	C A1112	205.588	148.919	4.271	1.00	71.31	C
ATOM	23396	C1*	A A1110	202.818	148.304	-4.159	1.00	55.28	C	ATOM	23446	N4	C A1112	205.768	147.626	4.002	1.00	71.31	N
ATOM	23397	N9	A A1110	202.379	147.709	-2.891	1.00	62.35	N	ATOM	23447	C5	C A1112	206.112	149.914	3.401	1.00	71.31	C
ATOM	23398	C8	A A1110	202.788	146.510	-2.357	1.00	62.35	C	ATOM	23448	C6	C A1112	205.906	151.191	3.731	1.00	71.31	C
ATOM	23399	N7	A A1110	202.236	146.225	-1.204	1.00	62.35	N	ATOM	23449	P	C A1113	209.373	155.295	5.698	1.00	60.61	P
ATOM	23400	C5	A A1110	201.403	147.305	-0.960	1.00	62.35	C	ATOM	23450	O1P	C A1113	209.776	156.531	6.409	1.00	65.49	O
ATOM	23401	C6	A A1110	200.546	147.605	0.104	1.00	62.35	C	ATOM	23451	O2P	C A1113	209.638	155.179	4.234	1.00	65.49	O
ATOM	23402	N6	A A1110	200.350	146.792	1.143	1.00	62.35	N	ATOM	23452	O5*	C A1113	210.008	154.043	6.456	1.00	60.61	O
ATOM	23403	N1	A A1110	199.882	148.777	0.063	1.00	62.35	N	ATOM	23453	C5*	C A1113	209.972	153.955	7.884	1.00	60.61	C
ATOM	23404	C2	A A1110	200.060	149.577	-0.992	1.00	62.35	C	ATOM	23454	C4*	C A1113	210.702	152.721	8.352	1.00	60.61	C
ATOM	23405	N3	A A1110	200.825	149.401	-2.063	1.00	62.35	N	ATOM	23455	O4*	C A1113	210.034	151.543	7.839	1.00	60.61	O
ATOM	23406	C4	A A1110	201.484	148.232	-1.985	1.00	62.35	C	ATOM	23456	C3*	C A1113	212.135	152.575	7.874	1.00	60.61	C
ATOM	23407	P	A A1111	207.382	149.350	-2.987	1.00	77.36	P	ATOM	23457	O3*	C A1113	213.050	153.301	8.680	1.00	60.61	O
ATOM	23408	O1P	A A1111	208.604	149.936	-3.578	1.00	63.70	O	ATOM	23458	C2*	C A1113	212.363	151.071	7.938	1.00	60.61	C
ATOM	23409	O2P	A A1111	207.495	148.164	-2.083	1.00	63.70	O	ATOM	23459	O2*	C A1113	212.692	150.608	9.229	1.00	60.61	C
ATOM	23410	O5*	A A1111	206.620	150.474	-2.154	1.00	77.36	O	ATOM	23460	C1*	C A1113	210.989	150.537	7.538	1.00	60.61	C
ATOM	23411	C5*	A A1111	206.329	151.772	-2.715	1.00	77.36	C	ATOM	23461	N1	C A1113	210.921	150.234	6.095	1.00	65.49	N
ATOM	23412	C4*	A A1111	205.478	152.572	-1.750	1.00	77.36	C	ATOM	23462	C2	C A1113	211.541	149.065	5.616	1.00	65.49	C
ATOM	23413	O4*	A A1111	204.188	151.920	-1.610	1.00	77.36	O	ATOM	23463	O2	C A1113	212.069	148.279	6.427	1.00	65.49	O
ATOM	23414	C3*	A A1111	206.015	152.646	-0.326	1.00	77.36	C	ATOM	23464	N3	C A1113	211.543	148.822	4.286	1.00	65.49	N
ATOM	23415	O3*	A A1111	206.972	153.674	-0.130	1.00	77.36	O	ATOM	23465	C4	C A1113	210.949	149.675	3.449	1.00	65.49	C



ATOM	23466	N4	C A1113	211.002	149.407	2.147	1.00	65.49	N	ATOM	23516	C3*	C A1116	225.616	153.448	0.165	1.00	72.35	C
ATOM	23467	C5	C A1113	210.281	150.845	3.912	1.00	65.49	C	ATOM	23517	O3*	C A1116	226.926	153.980	0.047	1.00	72.35	O
ATOM	23468	C6	C A1113	210.291	151.084	5.227	1.00	65.49	C	ATOM	23518	C2*	C A1116	225.033	153.033	-1.179	1.00	72.35	C
ATOM	23469	P	C A1114	214.327	153.993	7.991	1.00	67.44	P	ATOM	23519	O2*	C A1116	225.960	152.423	-2.058	1.00	72.35	O
ATOM	23470	O1P	C A1114	214.881	154.961	8.969	1.00	60.41	O	ATOM	23520	C1*	C A1116	223.967	152.028	-0.753	1.00	72.35	C
ATOM	23471	O2P	C A1114	213.943	154.460	6.627	1.00	60.41	O	ATOM	23521	N1	C A1116	222.654	152.688	-0.717	1.00	56.98	N
ATOM	23472	O5*	C A1114	215.358	152.796	7.846	1.00	67.44	O	ATOM	23522	C2	C A1116	221.987	152.877	-1.926	1.00	56.98	C
ATOM	23473	C5*	C A1114	215.747	152.040	8.989	1.00	67.44	C	ATOM	23523	O2	C A1116	222.480	152.398	-2.957	1.00	56.98	O
ATOM	23474	C4*	C A1114	216.651	150.923	8.570	1.00	67.44	C	ATOM	23524	N3	C A1116	220.826	153.567	-1.945	1.00	56.98	N
ATOM	23475	O4*	C A1114	215.897	149.955	7.796	1.00	67.44	O	ATOM	23525	C4	C A1116	220.321	154.046	-0.812	1.00	56.98	C
ATOM	23476	C3*	C A1114	217.786	151.332	7.647	1.00	67.44	C	ATOM	23526	N4	C A1116	219.204	154.760	-0.888	1.00	56.98	N
ATOM	23477	O3*	C A1114	218.890	151.864	8.350	1.00	67.44	O	ATOM	23527	C5	C A1116	220.950	153.823	0.445	1.00	56.98	C
ATOM	23478	C2*	C A1114	218.112	150.026	6.939	1.00	67.44	C	ATOM	23528	C6	C A1116	222.106	153.144	0.448	1.00	56.98	C
ATOM	23479	O2*	C A1114	218.885	149.154	7.743	1.00	67.44	O	ATOM	23529	P	G A1117	227.143	155.577	0.074	1.00	71.73	P
ATOM	23480	C1*	C A1114	216.718	149.428	6.762	1.00	67.44	C	ATOM	23530	O1P	G A1117	228.498	155.789	0.641	1.00	66.78	O
ATOM	23481	N1	C A1114	216.136	149.797	5.457	1.00	60.41	N	ATOM	23531	O2P	G A1117	225.967	156.206	0.724	1.00	66.78	O
ATOM	23482	C2	C A1114	216.575	149.126	4.311	1.00	60.41	C	ATOM	23532	O5*	G A1117	227.129	155.999	-1.462	1.00	71.73	O
ATOM	23483	O2	C A1114	217.436	148.250	4.428	1.00	60.41	O	ATOM	23533	C5*	G A1117	226.027	155.616	-2.273	1.00	71.73	C
ATOM	23484	N3	C A1114	216.054	149.450	3.108	1.00	60.41	N	ATOM	23534	C4*	G A1117	226.098	156.229	-3.641	1.00	71.73	C
ATOM	23485	C4	C A1114	215.125	150.404	3.022	1.00	60.41	C	ATOM	23535	O4*	G A1117	224.946	155.690	-4.328	1.00	71.73	O
ATOM	23486	N4	C A1114	214.621	150.685	1.815	1.00	60.41	N	ATOM	23536	C3*	G A1117	225.956	157.747	-3.673	1.00	71.73	C
ATOM	23487	C5	C A1114	214.662	151.113	4.174	1.00	60.41	C	ATOM	23537	O3*	G A1117	227.229	158.365	-3.874	1.00	71.73	O
ATOM	23488	C6	C A1114	215.190	150.778	5.358	1.00	60.41	C	ATOM	23538	C2*	G A1117	225.023	157.991	-4.857	1.00	71.73	C
ATOM	23489	P	C A1115	219.817	152.965	7.640	1.00	91.08	P	ATOM	23539	O2*	G A1117	225.677	158.073	-6.105	1.00	71.73	O
ATOM	23490	O1P	C A1115	220.750	153.446	8.695	1.00	58.13	O	ATOM	23540	C1*	G A1117	224.147	156.735	-4.825	1.00	71.73	C
ATOM	23491	O2P	C A1115	218.979	153.940	6.895	1.00	58.13	O	ATOM	23541	N9	G A1117	222.976	156.847	-3.957	1.00	66.78	N
ATOM	23492	O5*	C A1115	220.636	152.128	6.566	1.00	91.08	O	ATOM	23542	C8	G A1117	222.949	156.767	-2.586	1.00	66.78	C
ATOM	23493	C5*	C A1115	221.531	151.089	6.982	1.00	91.08	C	ATOM	23543	N7	G A1117	221.762	156.969	-2.086	1.00	66.78	N
ATOM	23494	C4*	C A1115	222.194	150.469	5.784	1.00	91.08	C	ATOM	23544	C5	G A1117	220.957	157.182	-3.193	1.00	66.78	C
ATOM	23495	O4*	C A1115	221.237	149.678	5.035	1.00	91.08	O	ATOM	23545	C6	G A1117	219.583	157.465	-3.275	1.00	66.78	C
ATOM	23496	C3*	C A1115	222.722	151.443	4.753	1.00	91.08	C	ATOM	23546	O6	G A1117	218.778	157.610	-2.357	1.00	66.78	O
ATOM	23497	O3*	C A1115	223.959	152.003	5.089	1.00	91.08	O	ATOM	23547	N1	G A1117	219.160	157.586	-4.593	1.00	66.78	N
ATOM	23498	C2*	C A1115	222.806	150.584	3.504	1.00	91.08	C	ATOM	23548	C2	G A1117	219.966	157.451	-5.697	1.00	66.78	C
ATOM	23499	O2*	C A1115	223.948	149.751	3.483	1.00	91.08	O	ATOM	23549	N2	G A1117	219.369	157.576	-6.900	1.00	66.78	N
ATOM	23500	C1*	C A1115	221.555	149.730	3.652	1.00	91.08	C	ATOM	23550	N3	G A1117	221.262	157.205	-5.630	1.00	66.78	N
ATOM	23501	N1	C A1115	220.443	150.356	2.916	1.00	58.13	N	ATOM	23551	C4	G A1117	221.687	157.085	-4.355	1.00	66.78	C
ATOM	23502	C2	C A1115	220.468	150.311	1.521	1.00	58.13	C	ATOM	23552	P	C A1118	227.669	159.635	-2.983	1.00	66.51	P
ATOM	23503	O2	C A1115	221.387	149.699	0.963	1.00	58.13	O	ATOM	23553	O1P	C A1118	229.072	159.937	-3.338	1.00	78.74	O
ATOM	23504	N3	C A1115	219.491	150.921	0.816	1.00	58.13	N	ATOM	23554	O2P	C A1118	227.325	159.351	-1.569	1.00	78.74	O
ATOM	23505	C4	C A1115	218.496	151.530	1.456	1.00	58.13	C	ATOM	23555	O5*	C A1118	226.763	160.828	-3.524	1.00	66.51	O
ATOM	23506	N4	C A1115	217.545	152.105	0.720	1.00	58.13	N	ATOM	23556	C5*	C A1118	227.070	161.471	-4.773	1.00	66.51	C
ATOM	23507	C5	C A1115	218.430	151.573	2.879	1.00	58.13	C	ATOM	23557	C4*	C A1118	226.210	162.704	-4.967	1.00	66.51	C
ATOM	23508	C6	C A1115	219.416	150.981	3.564	1.00	58.13	C	ATOM	23558	O4*	C A1118	224.818	162.314	-5.092	1.00	66.51	O
ATOM	23509	P	C A1116	224.360	153.420	4.462	1.00	72.35	P	ATOM	23559	C3*	C A1118	226.220	163.725	-3.838	1.00	66.51	C
ATOM	23510	O1P	C A1116	225.663	153.745	5.100	1.00	56.98	O	ATOM	23560	O3*	C A1118	227.347	164.604	-3.895	1.00	66.51	O
ATOM	23511	O2P	C A1116	223.215	154.368	4.569	1.00	56.98	O	ATOM	23561	C2*	C A1118	224.878	164.435	-4.010	1.00	66.51	C
ATOM	23512	O5*	C A1116	224.559	153.132	2.908	1.00	72.35	O	ATOM	23562	O2*	C A1118	224.861	165.453	-4.992	1.00	66.51	O
ATOM	23513	C5*	C A1116	225.599	152.265	2.452	1.00	72.35	C	ATOM	23563	C1*	C A1118	223.988	163.294	-4.495	1.00	66.51	C
ATOM	23514	C4*	C A1116	225.564	152.152	0.952	1.00	72.35	C	ATOM	23564	N1	C A1118	223.224	162.670	-3.400	1.00	78.74	N
ATOM	23515	O4*	C A1116	224.309	151.557	0.539	1.00	72.35	O	ATOM	23565	C2	C A1118	222.179	163.388	-2.814	1.00	78.74	C



Table 2: Sheet 237/520

ATOM	23566	O2	C A1118	221.923	164.528	-3.231	1.00	78.74	O	ATOM	23616	O1P	U A1121	225.778	175.140	4.989	1.00112.57	O
ATOM	23567	N3	C A1118	221.474	162.827	-1.810	1.00	78.74	N	ATOM	23617	O2P	U A1121	226.350	172.645	5.049	1.00112.57	O
ATOM	23568	C4	C A1118	221.776	161.602	-1.390	1.00	78.74	C	ATOM	23618	O5*	U A1121	224.384	173.518	6.284	1.00108.40	O
ATOM	23569	N4	C A1118	221.048	161.087	-0.405	1.00	78.74	N	ATOM	23619	C5*	U A1121	223.283	174.413	6.524	1.00108.40	C
ATOM	23570	C5	C A1118	222.834	160.850	-1.965	1.00	78.74	C	ATOM	23620	C4*	U A1121	222.465	173.936	7.698	1.00108.40	C
ATOM	23571	C6	C A1118	223.526	161.414	-2.958	1.00	78.74	C	ATOM	23621	O4*	U A1121	221.864	172.658	7.374	1.00108.40	O
ATOM	23572	P	C A1119	228.002	165.139	-2.525	1.00	84.47	P	ATOM	23622	C3*	U A1121	223.232	173.686	8.986	1.00108.40	C
ATOM	23573	O1P	C A1119	229.300	165.754	-2.881	1.00	79.99	O	ATOM	23623	O3*	U A1121	223.391	174.870	9.755	1.00108.40	O
ATOM	23574	O2P	C A1119	227.965	164.058	-1.509	1.00	79.99	O	ATOM	23624	C2*	U A1121	222.352	172.674	9.705	1.00108.40	C
ATOM	23575	O5*	C A1119	226.987	166.277	-2.063	1.00	84.47	O	ATOM	23625	O2*	U A1121	221.282	173.287	10.398	1.00108.40	O
ATOM	23576	C5*	C A1119	226.631	167.343	-2.963	1.00	84.47	C	ATOM	23626	C1*	U A1121	221.809	171.848	8.537	1.00108.40	C
ATOM	23577	C4*	C A1119	225.396	168.068	-2.475	1.00	84.47	C	ATOM	23627	N1	U A1121	222.593	170.624	8.297	1.00112.57	N
ATOM	23578	O3*	C A1119	224.237	167.192	-2.538	1.00	84.47	O	ATOM	23628	C2	U A1121	222.341	169.517	9.102	1.00112.57	C
ATOM	23579	C3*	C A1119	225.413	168.562	-1.036	1.00	84.47	C	ATOM	23629	O2	U A1121	221.503	169.508	9.989	1.00112.57	O
ATOM	23580	O3*	C A1119	226.113	169.787	-0.878	1.00	84.47	O	ATOM	23630	N3	U A1121	223.111	168.420	8.828	1.00112.57	N
ATOM	23581	C2*	C A1119	223.930	168.701	-0.719	1.00	84.47	C	ATOM	23631	C4	U A1121	224.082	168.308	7.863	1.00112.57	C
ATOM	23582	O2*	C A1119	223.380	169.906	-1.218	1.00	84.47	O	ATOM	23632	O4	U A1121	224.717	167.260	7.769	1.00112.57	O
ATOM	23583	C1*	C A1119	223.339	167.516	-1.485	1.00	84.47	C	ATOM	23633	C5	U A1121	224.282	169.483	7.073	1.00112.57	C
ATOM	23584	N1	C A1119	223.163	166.337	-0.609	1.00	79.99	N	ATOM	23634	C6	U A1121	223.551	170.572	7.310	1.00112.57	C
ATOM	23585	C2	C A1119	222.027	166.271	0.207	1.00	79.99	C	ATOM	23635	P	U A1122	224.577	174.962	10.838	1.00109.96	P
ATOM	23586	O2	C A1119	221.189	167.183	0.140	1.00	79.99	O	ATOM	23636	O1P	U A1122	224.373	176.234	11.575	1.00107.25	O
ATOM	23587	N3	C A1119	221.868	165.218	1.043	1.00	79.99	N	ATOM	23637	O2P	U A1122	225.876	174.701	10.162	1.00107.25	O
ATOM	23588	C4	C A1119	222.782	164.253	1.076	1.00	79.99	C	ATOM	23638	O5*	U A1122	224.288	173.763	11.846	1.00109.96	O
ATOM	23589	N4	C A1119	222.593	163.243	1.923	1.00	79.99	N	ATOM	23639	C5*	U A1122	223.259	173.873	12.844	1.00109.96	C
ATOM	23590	C5	C A1119	223.937	164.282	0.245	1.00	79.99	C	ATOM	23640	C4*	U A1122	223.315	172.698	13.785	1.00109.96	C
ATOM	23591	C6	C A1119	224.089	165.333	-0.574	1.00	79.99	C	ATOM	23641	C3*	U A1122	222.934	171.488	13.080	1.00109.96	C
ATOM	23592	P	C A1120	226.781	170.136	0.544	1.00	113.48	P	ATOM	23642	C3*	U A1122	224.684	172.381	14.361	1.00109.96	C
ATOM	23593	O1P	G A1120	227.733	171.248	0.303	1.00	90.03	O	ATOM	23643	O3*	U A1122	225.013	173.184	15.482	1.00109.96	O
ATOM	23594	O2P	G A1120	227.270	168.883	1.191	1.00	90.03	O	ATOM	23644	C2*	U A1122	224.566	170.905	14.718	1.00109.96	C
ATOM	23595	O5*	G A1120	225.554	170.686	1.403	1.00	113.48	O	ATOM	23645	O2*	U A1122	223.943	170.687	15.971	1.00109.96	O
ATOM	23596	C5*	G A1120	224.805	171.847	0.975	1.00	113.48	C	ATOM	23646	C1*	U A1122	223.676	170.385	13.586	1.00109.96	C
ATOM	23597	C4*	G A1120	223.631	172.095	1.898	1.00	113.48	C	ATOM	23647	N1	U A1122	224.463	169.792	12.489	1.00107.25	N
ATOM	23598	O4*	G A1120	222.700	170.986	1.801	1.00	113.48	O	ATOM	23648	C2	U A1122	224.839	168.458	12.605	1.00107.25	C
ATOM	23599	C3*	G A1120	223.959	172.199	3.381	1.00	113.48	C	ATOM	23649	O2	U A1122	224.531	167.755	13.555	1.00107.25	O
ATOM	23600	O3*	G A1120	224.361	173.514	3.756	1.00	113.48	C	ATOM	23650	N3	U A1122	225.595	167.978	11.566	1.00107.25	N
ATOM	23601	C2*	G A1120	222.648	171.790	4.040	1.00	113.48	C	ATOM	23651	C4	U A1122	226.006	168.667	10.449	1.00107.25	C
ATOM	23602	O2*	G A1120	221.725	172.857	4.105	1.00	113.48	O	ATOM	23652	O4	U A1122	226.705	168.098	9.614	1.00107.25	O
ATOM	23603	C1*	G A1120	222.133	170.722	3.072	1.00	113.48	C	ATOM	23653	C5	U A1122	225.571	170.028	10.392	1.00107.25	C
ATOM	23604	N9	G A1120	222.531	169.375	3.481	1.00	90.03	N	ATOM	23654	C6	U A1122	224.833	170.531	11.385	1.00107.25	C
ATOM	23605	C8	G A1120	223.503	168.587	2.909	1.00	90.03	C	ATOM	23655	P	A A1123	226.550	173.564	15.752	1.00124.67	P
ATOM	23606	N7	G A1120	223.658	167.442	3.516	1.00	90.03	N	ATOM	23656	O1P	A A1123	226.590	174.389	16.988	1.00 98.16	O
ATOM	23607	C5	G A1120	222.727	167.469	4.547	1.00	90.03	C	ATOM	23657	O2P	A A1123	227.107	174.111	14.487	1.00 98.16	O
ATOM	23608	C6	G A1120	222.433	166.504	5.547	1.00	90.03	C	ATOM	23658	O5*	A A1123	227.245	172.161	16.061	1.00124.67	O
ATOM	23609	O6	G A1120	222.951	165.394	5.725	1.00	90.03	O	ATOM	23659	C5*	A A1123	226.940	171.445	17.275	1.00124.67	C
ATOM	23610	N1	G A1120	221.421	166.938	6.396	1.00	90.03	N	ATOM	23660	C4*	A A1123	227.727	170.155	17.356	1.00124.67	C
ATOM	23611	C2	G A1120	220.772	168.141	6.297	1.00	90.03	C	ATOM	23661	O4*	A A1123	227.248	169.210	16.368	1.00124.67	O
ATOM	23612	N2	G A1120	219.823	168.376	7.212	1.00	90.03	N	ATOM	23662	C3*	A A1123	229.224	170.237	17.106	1.00124.67	C
ATOM	23613	N3	G A1120	221.033	169.048	5.370	1.00	90.03	N	ATOM	23663	O3*	A A1123	229.928	170.651	18.265	1.00124.67	O
ATOM	23614	C4	G A1120	222.017	168.650	4.535	1.00	90.03	C	ATOM	23664	C2*	A A1123	229.575	168.807	16.712	1.00124.67	C
ATOM	23615	P	U A1121	225.335	173.724	5.023	1.00	108.40	P	ATOM	23665	O2*	A A1123	229.787	167.956	17.821	1.00124.67	O



Table 2: Sheet 238/520

ATOM	23666	C1*	A	Al123	228.313	168.366	15.969	1.00124.67	C	ATOM	23716	C4	U	Al125	238.580	164.905	23.836	1.00	73.08	
ATOM	23667	N9	A	Al123	228.473	168.447	14.519	1.00	98.16	N	ATOM	23717	O4	U	Al125	238.115	164.813	24.981	1.00	73.08
ATOM	23668	N8	A	Al123	228.426	169.554	13.707	1.00	98.16	C	ATOM	23718	C5	U	Al125	237.983	165.626	22.739	1.00	73.08
ATOM	23669	C7	A	Al123	228.657	169.292	12.444	1.00	98.16	N	ATOM	23719	C6	U	Al125	238.619	165.690	21.560	1.00	73.08
ATOM	23670	C5	A	Al123	228.863	167.919	12.421	1.00	98.16	C	ATOM	23720	P	U	Al126	239.651	161.943	16.952	1.00	133.73
ATOM	23671	C6	A	Al123	229.166	167.023	11.382	1.00	98.16	C	ATOM	23721	O1P	U	Al126	238.310	161.460	16.535	1.00	199.96
ATOM	23672	N6	A	Al123	229.342	167.391	10.111	1.00	98.16	N	ATOM	23722	O2P	U	Al126	240.258	161.411	18.194	1.00	199.96
ATOM	23673	N1	A	Al123	229.292	165.717	11.698	1.00	98.16	N	ATOM	23723	O5*	U	Al126	240.675	161.642	15.759	1.00	133.73
ATOM	23674	C2	A	Al123	229.132	165.346	12.974	1.00	98.16	C	ATOM	23724	C5*	U	Al126	240.743	160.333	15.141	1.00	133.73
ATOM	23675	N3	A	Al123	228.859	166.092	14.038	1.00	98.16	N	ATOM	23725	C4*	U	Al126	240.094	160.365	13.773	1.00	133.73
ATOM	23676	C4	A	Al123	228.736	167.385	13.690	1.00	98.16	C	ATOM	23726	O4*	U	Al126	238.781	160.961	13.910	1.00	133.73
ATOM	23677	P	G	Al124	230.839	171.970	18.206	1.00	123.64	P	ATOM	23727	C3*	U	Al126	240.794	161.203	12.712	1.00	133.73
ATOM	23678	O1P	G	Al124	231.106	172.370	19.605	1.00	126.98	O	ATOM	23728	O3*	U	Al126	241.728	160.413	11.986	1.00	133.73
ATOM	23679	O2P	G	Al124	230.195	172.933	17.275	1.00	126.98	O	ATOM	23729	C2*	U	Al126	239.654	161.635	11.799	1.00	133.73
ATOM	23680	O5*	G	Al124	232.203	171.493	17.541	1.00	123.64	O	ATOM	23730	O2*	U	Al126	239.329	160.657	10.836	1.00	133.73
ATOM	23681	C5*	G	Al124	233.292	170.969	18.331	1.00	123.64	C	ATOM	23731	C1*	U	Al126	238.491	161.761	12.780	1.00	133.73
ATOM	23682	C4*	G	Al124	233.630	169.578	17.864	1.00	123.64	C	ATOM	23732	N1	U	Al126	238.229	163.136	13.235	1.00	199.96
ATOM	23683	O4*	G	Al124	233.025	169.376	16.574	1.00	123.64	O	ATOM	23733	C2	U	Al126	237.087	163.769	12.769	1.00	199.96
ATOM	23684	C3*	G	Al124	235.108	169.248	17.696	1.00	123.64	C	ATOM	23734	O2	U	Al126	236.318	163.260	11.969	1.00	199.96
ATOM	23685	O3*	G	Al124	235.586	168.717	18.943	1.00	123.64	O	ATOM	23735	N3	U	Al126	236.880	165.029	13.271	1.00	199.96
ATOM	23686	C2*	G	Al124	235.114	168.193	16.578	1.00	123.64	C	ATOM	23736	C4	U	Al126	237.681	165.709	14.160	1.00	199.96
ATOM	23687	O2*	G	Al124	235.048	166.856	17.050	1.00	123.64	O	ATOM	23737	O4	U	Al126	237.331	166.815	14.561	1.00	199.96
ATOM	23688	C1*	G	Al124	233.819	168.502	15.813	1.00	123.64	C	ATOM	23738	C5	U	Al126	238.851	165.004	14.571	1.00	199.96
ATOM	23689	N9	G	Al124	233.847	168.991	14.437	1.00	126.98	N	ATOM	23739	C6	U	Al126	239.080	163.775	14.108	1.00	199.96
ATOM	23690	C8	G	Al124	233.963	170.294	14.011	1.00	126.98	C	ATOM	23740	P	G	Al127	242.845	161.124	11.072	1.00	67.03
ATOM	23691	N7	G	Al124	233.833	170.424	12.717	1.00	126.98	N	ATOM	23741	O1P	G	Al127	243.274	160.143	10.040	1.00	190.55
ATOM	23692	C5	G	Al124	233.646	169.126	12.257	1.00	126.98	C	ATOM	23742	O2P	G	Al127	243.858	161.727	11.972	1.00	190.55
ATOM	23693	C6	G	Al124	233.433	168.635	10.939	1.00	126.98	C	ATOM	23743	O5*	G	Al127	242.082	162.314	10.344	1.00	67.03
ATOM	23694	O6	G	Al124	233.340	169.275	9.880	1.00	126.98	O	ATOM	23744	C5*	G	Al127	241.574	162.147	9.028	1.00	67.03
ATOM	23695	N1	G	Al124	233.314	167.248	10.925	1.00	126.98	N	ATOM	23745	C4*	G	Al127	241.081	163.460	8.491	1.00	67.03
ATOM	23696	C2	G	Al124	233.379	166.437	12.033	1.00	126.98	C	ATOM	23746	O4*	G	Al127	240.159	164.033	9.450	1.00	67.03
ATOM	23697	N2	G	Al124	233.255	165.122	11.818	1.00	126.98	N	ATOM	23747	C3*	G	Al127	242.115	164.553	8.276	1.00	67.03
ATOM	23698	N3	G	Al124	233.557	166.881	13.264	1.00	126.98	N	ATOM	23748	O3*	G	Al127	242.793	164.414	7.041	1.00	67.03
ATOM	23699	C4	G	Al124	233.683	168.227	13.303	1.00	126.98	C	ATOM	23749	C2*	G	Al127	241.264	165.817	8.329	1.00	67.03
ATOM	23700	P	U	Al125	237.160	168.502	19.193	1.00	200.56	P	ATOM	23750	O2*	G	Al127	240.590	166.100	7.113	1.00	67.03
ATOM	23701	O1P	U	Al125	237.327	168.598	20.646	1.00	73.08	O	ATOM	23751	C1*	G	Al127	240.246	165.446	9.406	1.00	67.03
ATOM	23702	O2P	U	Al125	237.877	169.458	18.322	1.00	73.08	O	ATOM	23752	N9	G	Al127	240.645	165.916	10.727	1.00	190.55
ATOM	23703	O5*	U	Al125	237.445	166.972	18.798	1.00	200.56	O	ATOM	23753	C8	G	Al127	241.754	165.548	11.452	1.00	190.55
ATOM	23704	C5*	U	Al125	238.248	166.612	17.636	1.00	200.56	C	ATOM	23754	N7	G	Al127	241.839	166.162	12.599	1.00	190.55
ATOM	23705	C4*	U	Al125	239.458	165.775	18.042	1.00	200.56	C	ATOM	23755	C5	G	Al127	240.720	166.979	12.630	1.00	190.55
ATOM	23706	O4*	U	Al125	239.941	166.266	19.316	1.00	200.56	O	ATOM	23756	C6	G	Al127	240.272	167.879	13.619	1.00	190.55
ATOM	23707	C3*	U	Al125	239.310	164.260	18.229	1.00	200.56	C	ATOM	23757	O6	G	Al127	240.793	168.151	14.705	1.00	190.55
ATOM	23708	O3*	U	Al125	239.546	163.564	16.989	1.00	200.56	O	ATOM	23758	N1	G	Al127	239.083	168.496	13.243	1.00	190.55
ATOM	23709	C2*	U	Al125	240.424	163.925	19.221	1.00	200.56	C	ATOM	23759	C2	G	Al127	238.413	168.273	12.065	1.00	190.55
ATOM	23710	O2*	U	Al125	241.678	163.662	18.624	1.00	200.56	O	ATOM	23760	N2	G	Al127	237.275	168.957	11.882	1.00	190.55
ATOM	23711	C1*	U	Al125	240.523	165.205	20.047	1.00	200.56	C	ATOM	23761	N3	G	Al127	238.824	167.439	11.136	1.00	190.55
ATOM	23712	N1	U	Al125	239.841	165.090	21.340	1.00	73.08	N	ATOM	23762	C4	G	Al127	239.974	166.831	11.482	1.00	190.55
ATOM	23713	C2	U	Al125	240.473	164.360	22.334	1.00	73.08	C	ATOM	23763	P	C	Al128	244.385	164.215	7.032	1.00	108.09
ATOM	23714	O2	U	Al125	241.538	163.795	22.161	1.00	73.08	O	ATOM	23764	O1P	C	Al128	244.685	163.078	6.129	1.00	108.27
ATOM	23715	N3	U	Al125	239.804	164.311	23.535	1.00	73.08	N	ATOM	23765	O2P	C	Al128	244.870	164.183	8.439	1.00	108.27



ATOM	23766	O5*	C A1128	244.917	165.538	6.326	1.00108.09	O	ATOM	23816	C8	A A1130	244.154	172.767	4.596	1.00	79.75	C
ATOM	23767	C5*	C A1128	244.093	166.243	5.382	1.00108.09	C	ATOM	23817	N7	A A1130	244.026	172.848	5.899	1.00	79.75	N
ATOM	23768	C4*	C A1128	243.869	167.655	5.852	1.00108.09	C	ATOM	23818	C5	A A1130	242.925	173.671	6.076	1.00	79.75	C
ATOM	23769	O4*	C A1128	243.486	167.602	7.244	1.00108.09	O	ATOM	23819	C6	A A1130	242.254	174.119	7.230	1.00	79.75	C
ATOM	23770	C3*	C A1128	245.095	168.559	5.818	1.00108.09	C	ATOM	23820	N6	A A1130	242.576	173.741	8.472	1.00	79.75	N
ATOM	23771	O3*	C A1128	245.119	169.229	4.549	1.00108.09	O	ATOM	23821	N1	A A1130	242.214	174.963	7.061	1.00	79.75	N
ATOM	23772	C2*	C A1128	244.830	169.560	6.948	1.00108.09	C	ATOM	23822	C2	A A1130	240.863	175.304	5.810	1.00	79.75	C
ATOM	23773	O2*	C A1128	244.075	170.666	6.529	1.00108.09	O	ATOM	23823	N3	A A1130	241.394	174.924	4.648	1.00	79.75	N
ATOM	23774	C1*	C A1128	243.913	168.778	7.889	1.00108.09	C	ATOM	23824	C4	A A1130	242.433	174.096	4.854	1.00	79.75	C
ATOM	23775	N1	C A1128	244.396	168.474	9.251	1.00108.27	N	ATOM	23825	P	G A1131	246.177	176.639	0.597	1.00200.51	P	
ATOM	23776	C2	C A1128	244.342	169.490	10.221	1.00108.27	C	ATOM	23826	O1P	G A1131	245.863	177.504	-0.575	1.00158.48	O	
ATOM	23777	O2	C A1128	243.940	170.623	9.890	1.00108.27	O	ATOM	23827	O2P	G A1131	247.594	176.383	0.950	1.00158.48	O	
ATOM	23778	N3	C A1128	244.731	169.216	11.491	1.00108.27	N	ATOM	23828	O5*	G A1131	245.457	177.266	1.875	1.00200.51	O	
ATOM	23779	C4	C A1128	245.170	167.996	11.806	1.00108.27	C	ATOM	23829	C5*	G A1131	245.250	178.687	1.970	1.00200.51	C	
ATOM	23780	N4	C A1128	245.533	167.770	13.072	1.00108.27	N	ATOM	23830	C4*	G A1131	245.781	179.216	3.280	1.00200.51	C	
ATOM	23781	C5	C A1128	245.256	166.952	10.838	1.00108.27	C	ATOM	23831	O4*	G A1131	244.976	178.707	4.374	1.00200.51	O	
ATOM	23782	P	C A1128	244.865	167.232	9.584	1.00108.27	C	ATOM	23832	C3*	G A1131	247.205	178.838	3.663	1.00200.51	C	
ATOM	23783	C6	C A1129	246.455	169.250	3.664	1.00200.58	P	ATOM	23833	O3*	G A1131	248.202	179.643	3.050	1.00200.51	O	
ATOM	23784	O1P	C A1129	246.010	169.057	2.267	1.00132.20	O	ATOM	23834	C2*	G A1131	247.196	179.025	5.173	1.00200.51	C	
ATOM	23785	O2P	C A1129	247.466	168.333	4.246	1.00132.20	O	ATOM	23835	O2*	G A1131	247.388	180.370	5.560	1.00200.51	O	
ATOM	23786	O5*	C A1129	246.976	170.752	3.771	1.00200.58	O	ATOM	23836	C1*	G A1131	245.781	178.578	5.534	1.00200.51	C	
ATOM	23787	C5*	C A1129	247.778	171.212	4.888	1.00200.58	C	ATOM	23837	N9	G A1131	245.778	177.184	5.963	1.00158.48	N	
ATOM	23788	C4*	C A1129	248.368	172.571	4.565	1.00200.58	C	ATOM	23838	C8	G A1131	246.125	176.085	5.215	1.00158.48	C	
ATOM	23789	O4*	C A1129	248.941	173.188	5.749	1.00200.58	O	ATOM	23839	N7	G A1131	246.083	174.972	5.892	1.00158.48	N	
ATOM	23790	C3*	C A1129	249.500	172.593	3.547	1.00200.58	C	ATOM	23840	C5	G A1131	245.669	175.356	7.159	1.00158.48	C	
ATOM	23791	O3*	C A1129	249.025	172.395	2.199	1.00200.58	O	ATOM	23841	C6	G A1131	245.446	174.581	8.324	1.00158.48	C	
ATOM	23792	C2*	C A1129	250.246	173.898	3.858	1.00200.58	C	ATOM	23842	O6	G A1131	245.577	173.358	8.475	1.00158.48	O	
ATOM	23793	O2*	C A1129	249.798	175.050	3.173	1.00200.58	O	ATOM	23843	N1	G A1131	245.029	175.372	9.390	1.00158.48	N	
ATOM	23794	C1*	C A1129	249.981	174.076	5.359	1.00200.58	C	ATOM	23844	C2	G A1131	244.849	176.733	9.342	1.00158.48	C	
ATOM	23795	N1	C A1129	251.154	173.908	6.249	1.00132.20	N	ATOM	23845	N2	G A1131	244.436	177.316	10.477	1.00158.48	N	
ATOM	23796	C2	C A1129	251.968	175.033	6.516	1.00132.20	C	ATOM	23846	N3	G A1131	245.056	177.466	8.262	1.00158.48	N	
ATOM	23797	O2	C A1129	251.681	176.130	5.999	1.00132.20	O	ATOM	23847	C4	G A1131	245.463	176.717	7.215	1.00158.48	C	
ATOM	23798	N3	C A1129	253.044	174.892	7.327	1.00132.20	N	ATOM	23848	P	C A1132	249.755	179.272	3.259	1.00154.58	P	
ATOM	23799	C4	C A1129	253.326	173.702	7.864	1.00132.20	C	ATOM	23849	O1P	C A1132	250.531	180.029	2.246	1.00151.88	O	
ATOM	23800	N4	C A1129	254.398	173.613	8.653	1.00132.20	N	ATOM	23850	O2P	C A1132	249.894	177.796	3.329	1.00151.88	O	
ATOM	23801	C5	C A1129	252.522	172.549	7.614	1.00132.20	C	ATOM	23851	O5*	C A1132	250.092	179.853	4.706	1.00154.58	O	
ATOM	23802	C6	C A1129	251.457	172.695	6.808	1.00132.20	C	ATOM	23852	C5*	C A1132	250.126	181.275	4.943	1.00154.58	C	
ATOM	23803	P	A A1130	248.256	173.573	1.408	1.00139.31	P	ATOM	23853	C4*	C A1132	250.372	181.570	6.409	1.00154.58	C	
ATOM	23804	O1P	A A1130	249.206	174.201	0.451	1.00	79.75	O	ATOM	23854	O4*	C A1132	249.245	181.109	7.201	1.00154.58	O
ATOM	23805	O2P	A A1130	247.526	174.421	2.390	1.00	79.75	O	ATOM	23855	C3*	C A1132	251.582	180.910	7.054	1.00154.58	C
ATOM	23806	O5*	A A1130	247.161	172.795	0.552	1.00139.31	O	ATOM	23856	O3*	C A1132	252.795	181.614	6.805	1.00154.58	O	
ATOM	23807	C5*	A A1130	246.045	172.162	1.205	1.00139.31	C	ATOM	23857	C2*	C A1132	251.213	180.913	8.535	1.00154.58	C	
ATOM	23808	C4*	A A1130	244.804	172.996	1.024	1.00139.31	C	ATOM	23858	O2*	C A1132	251.499	182.139	9.181	1.00154.58	O	
ATOM	23809	O4*	A A1130	243.772	172.472	1.890	1.00139.31	O	ATOM	23859	C1*	C A1132	249.699	180.700	8.483	1.00154.58	C	
ATOM	23810	C3*	A A1130	244.957	174.455	1.434	1.00139.31	C	ATOM	23860	N1	C A1132	249.319	179.288	8.708	1.00151.88	N	
ATOM	23811	O3*	A A1130	245.428	175.233	0.336	1.00139.31	O	ATOM	23861	C2	C A1132	249.096	178.846	10.028	1.00151.88	C	
ATOM	23812	C2*	A A1130	243.547	174.845	1.851	1.00139.31	C	ATOM	23862	O2	C A1132	249.199	179.655	10.967	1.00151.88	O	
ATOM	23813	O2*	A A1130	242.724	175.211	0.762	1.00139.31	O	ATOM	23863	N3	C A1132	248.776	177.551	10.244	1.00151.88	N	
ATOM	23814	C1*	A A1130	243.036	173.540	2.455	1.00139.31	C	ATOM	23864	C4	C A1132	248.675	176.707	9.215	1.00151.88	C	
ATOM	23815	N9	A A1130	243.209	173.478	3.902	1.00	79.75	N	ATOM	23865	N4	C A1132	248.371	175.436	9.480	1.00151.88	N



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ATOM	23866	C5	C A1132	248.884	177.129	7.868	1.00151.88	C	ATOM	23916	O2P	U A1135	261.411	176.203	11.810	1.00188.74	O
ATOM	23867	C6	C A1132	249.200	178.414	7.662	1.00151.88	C	ATOM	23917	O5*	U A1135	261.211	174.279	13.380	1.00168.97	O
ATOM	23868	P	G A1133	254.204	180.846	6.953	1.00140.12	P	ATOM	23918	C5*	U A1135	261.188	173.652	14.677	1.00168.97	C
ATOM	23869	O1P	G A1133	255.259	181.751	6.431	1.00200.48	O	ATOM	23919	O4*	U A1135	260.693	172.231	14.560	1.00168.97	C
ATOM	23870	O2P	G A1133	254.066	179.480	6.385	1.00200.48	O	ATOM	23920	O4*	U A1135	259.359	172.242	13.992	1.00168.97	O
ATOM	23871	O5*	G A1133	254.401	180.703	8.529	1.00140.12	O	ATOM	23921	C3*	U A1135	261.505	171.329	13.640	1.00168.97	C
ATOM	23872	C5*	G A1133	254.682	181.857	9.352	1.00140.12	C	ATOM	23922	O3*	U A1135	262.591	170.736	14.347	1.00168.97	O
ATOM	23873	O4*	G A1133	254.810	181.455	10.805	1.00140.12	C	ATOM	23923	C2*	U A1135	260.480	170.298	13.176	1.00168.97	C
ATOM	23874	C4*	G A1133	253.522	181.010	11.307	1.00140.12	O	ATOM	23924	O2*	U A1135	260.316	169.231	14.091	1.00168.97	O
ATOM	23875	C3*	G A1133	255.754	180.296	11.082	1.00140.12	C	ATOM	23925	C1*	U A1135	259.195	171.130	13.129	1.00168.97	C
ATOM	23876	O3*	G A1133	257.108	180.711	11.183	1.00140.12	O	ATOM	23926	N1	U A1135	258.844	171.636	11.792	1.00188.74	N
ATOM	23877	C2*	G A1133	255.214	179.729	12.387	1.00140.12	C	ATOM	23927	O2	U A1135	257.673	171.176	11.213	1.00188.74	C
ATOM	23878	O2*	G A1133	255.676	180.428	13.525	1.00140.12	O	ATOM	23928	O2	U A1135	256.941	170.360	11.749	1.00188.74	O
ATOM	23879	C1*	G A1133	253.707	179.933	12.212	1.00140.12	C	ATOM	23929	N3	U A1135	257.391	171.707	9.979	1.00188.74	N
ATOM	23880	N9	G A1133	253.076	178.746	11.640	1.00200.48	N	ATOM	23930	C4	U A1135	258.141	172.626	9.277	1.00188.74	C
ATOM	23881	C8	G A1133	252.657	178.576	10.342	1.00200.48	C	ATOM	23931	O4	U A1135	257.733	173.038	8.189	1.00188.74	O
ATOM	23882	N7	G A1133	252.182	177.384	10.108	1.00200.48	N	ATOM	23932	C5	U A1135	259.342	173.041	9.933	1.00188.74	C
ATOM	23883	C5	G A1133	252.283	176.729	11.326	1.00200.48	C	ATOM	23933	C6	U A1135	259.645	172.546	11.136	1.00188.74	C
ATOM	23884	C6	G A1133	251.938	175.405	11.683	1.00200.48	C	ATOM	23934	P	U A1136	263.759	169.976	13.540	1.00172.10	P
ATOM	23885	O6	G A1133	251.462	174.516	10.970	1.00200.48	O	ATOM	23935	O1P	U A1136	265.050	170.337	14.180	1.00157.47	O
ATOM	23886	N1	G A1133	252.203	175.152	13.026	1.00200.48	N	ATOM	23936	O2P	U A1136	263.564	170.233	12.086	1.00157.47	O
ATOM	23887	C2	G A1133	252.733	176.057	13.910	1.00200.48	C	ATOM	23937	O5*	U A1136	264.511	167.440	13.728	1.00172.10	O
ATOM	23888	N2	G A1133	252.907	175.625	15.166	1.00200.48	N	ATOM	23938	C5*	U A1136	264.268	166.336	14.733	1.00172.10	C
ATOM	23889	N3	G A1133	253.067	177.294	13.587	1.00200.48	N	ATOM	23939	C4*	U A1136	264.268	166.336	14.733	1.00172.10	C
ATOM	23890	C4	G A1133	252.818	177.560	12.287	1.00200.48	C	ATOM	23940	O4*	U A1136	264.326	166.905	16.061	1.00172.10	O
ATOM	23891	P	G A1134	258.281	179.699	10.753	1.00126.43	P	ATOM	23941	C3*	U A1136	262.903	165.668	14.634	1.00172.10	C
ATOM	23892	O1P	G A1134	259.541	180.482	10.685	1.00200.02	O	ATOM	23942	O3*	U A1136	262.967	164.530	13.774	1.00172.10	O
ATOM	23893	O2P	G A1134	257.830	178.938	9.560	1.00200.02	O	ATOM	23943	C2*	U A1136	262.622	165.228	16.070	1.00172.10	C
ATOM	23894	O5*	G A1134	258.381	178.692	11.983	1.00126.43	O	ATOM	23944	O2*	U A1136	263.165	163.961	16.383	1.00172.10	O
ATOM	23895	C5*	G A1134	258.892	179.139	13.252	1.00126.43	C	ATOM	23945	C1*	U A1136	263.352	166.298	16.887	1.00172.10	C
ATOM	23896	C4*	G A1134	258.773	178.047	14.288	1.00126.43	C	ATOM	23946	N1	U A1136	262.502	167.358	17.453	1.00157.47	N
ATOM	23897	O4*	G A1134	257.372	177.764	14.536	1.00126.43	O	ATOM	23947	C2	U A1136	261.995	167.170	18.731	1.00157.47	C
ATOM	23898	C3*	G A1134	259.378	176.700	13.927	1.00126.43	C	ATOM	23948	O2	U A1136	262.193	166.159	19.389	1.00157.47	C
ATOM	23899	O3*	G A1134	260.775	176.637	14.178	1.00126.43	O	ATOM	23949	N3	U A1136	261.244	168.213	19.211	1.00157.47	N
ATOM	23900	C2*	G A1134	258.600	175.744	14.821	1.00126.43	C	ATOM	23950	C4	U A1136	260.949	169.394	18.562	1.00157.47	C
ATOM	23901	O2*	G A1134	259.103	175.689	16.141	1.00126.43	O	ATOM	23951	O4	U A1136	260.281	170.250	19.141	1.00157.47	O
ATOM	23902	C1*	G A1134	257.209	176.383	14.819	1.00126.43	C	ATOM	23952	C5	U A1136	261.493	169.505	17.244	1.00157.47	C
ATOM	23903	N9	G A1134	256.362	175.792	13.783	1.00200.02	N	ATOM	23953	C6	U A1136	262.229	168.510	16.746	1.00157.47	C
ATOM	23904	C8	G A1134	255.899	176.393	12.636	1.00200.02	C	ATOM	23954	P	C A1137	262.861	164.713	12.180	1.00200.58	P
ATOM	23905	N7	G A1134	255.199	175.590	11.883	1.00200.02	N	ATOM	23955	O1P	C A1137	262.526	163.391	11.591	1.00174.34	O
ATOM	23906	C5	G A1134	255.190	174.387	12.576	1.00200.02	C	ATOM	23956	O2P	C A1137	264.075	165.431	11.717	1.00174.34	O
ATOM	23907	C6	G A1134	254.594	173.142	12.250	1.00200.02	C	ATOM	23957	O5*	C A1137	261.615	165.680	11.972	1.00200.58	O
ATOM	23908	O6	G A1134	253.932	172.843	11.250	1.00200.02	O	ATOM	23958	C5*	C A1137	260.281	165.257	12.301	1.00200.58	C
ATOM	23909	N1	G A1134	254.834	172.188	13.234	1.00200.02	N	ATOM	23959	C4*	C A1137	259.331	165.664	11.204	1.00200.58	C
ATOM	23910	C2	G A1134	255.551	172.401	14.386	1.00200.02	C	ATOM	23960	O4*	C A1137	259.499	167.081	10.958	1.00200.58	O
ATOM	23911	N2	G A1134	255.668	171.353	15.217	1.00200.02	N	ATOM	23961	C3*	C A1137	259.542	164.987	9.855	1.00200.58	C
ATOM	23912	N3	G A1134	256.112	173.555	14.701	1.00200.02	N	ATOM	23962	O3*	C A1137	258.774	163.780	9.821	1.00200.58	O
ATOM	23913	C4	G A1134	255.894	174.498	13.757	1.00200.02	C	ATOM	23963	C2*	C A1137	259.029	166.032	8.864	1.00200.58	C
ATOM	23914	P	U A1135	261.719	175.778	13.200	1.00168.97	P	ATOM	23964	O2*	C A1137	257.631	165.980	8.668	1.00200.58	O
ATOM	23915	O1P	U A1135	263.115	175.856	13.699	1.00188.74	O	ATOM	23965	C1*	C A1137	259.375	167.344	9.575	1.00200.58	C



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ATOM	23966	C A1137	260.622	167.981	9.115	1.00174.34	N	ATOM	24016	C2	G A1139	248.533	170.350	12.581	1.00121.26	C
ATOM	23967	C A1137	260.542	169.077	8.246	1.00174.34	C	ATOM	24017	N2	G A1139	248.784	170.991	13.727	1.00121.26	N
ATOM	23968	O2	259.425	169.480	7.881	1.00174.34	C	ATOM	24018	N3	G A1139	248.919	169.095	12.431	1.00121.26	N
ATOM	23969	N3	261.683	169.670	7.827	1.00174.34	N	ATOM	24019	C4	G A1139	248.567	168.602	11.226	1.00121.26	C
ATOM	23970	C4	262.866	169.209	8.239	1.00174.34	C	ATOM	24020	P	C A1140	249.037	162.966	14.334	1.00142.92	P
ATOM	23971	N4	263.967	169.825	7.797	1.00174.34	N	ATOM	24021	O1P	C A1140	248.740	161.547	14.650	1.00142.39	O
ATOM	23972	C5	262.976	168.095	9.121	1.00174.34	C	ATOM	24022	O2P	C A1140	247.974	163.990	14.515	1.00142.39	O
ATOM	23973	C6	261.841	167.517	9.529	1.00174.34	C	ATOM	24023	O5*	C A1140	250.305	163.373	15.215	1.00142.92	O
ATOM	23974	P	258.980	162.706	8.634	1.00165.04	P	ATOM	24024	C5*	C A1140	251.602	163.576	14.605	1.00142.92	C
ATOM	23975	O1P	260.099	161.804	9.007	1.00183.88	O	ATOM	24025	C4*	C A1140	252.569	164.216	15.584	1.00142.92	C
ATOM	23976	O2P	259.025	163.432	7.335	1.00183.88	O	ATOM	24026	O4*	C A1140	253.759	164.599	14.842	1.00142.92	O
ATOM	23977	O5*	257.629	161.858	8.677	1.00165.04	O	ATOM	24027	C3*	C A1140	252.085	165.507	16.238	1.00142.92	C
ATOM	23978	C5*	256.352	162.520	8.831	1.00165.04	C	ATOM	24028	O3*	C A1140	251.392	165.242	17.455	1.00142.92	O
ATOM	23979	C4*	255.479	161.785	9.828	1.00165.04	C	ATOM	24029	C2*	C A1140	253.376	166.277	16.488	1.00142.92	C
ATOM	23980	O4*	256.250	161.457	11.011	1.00165.04	O	ATOM	24030	O2*	C A1140	254.027	165.887	17.681	1.00142.92	O
ATOM	23981	C3*	254.301	162.596	10.345	1.00165.04	C	ATOM	24031	C1*	C A1140	254.221	165.865	15.282	1.00142.92	C
ATOM	23982	O3*	253.172	162.510	9.486	1.00165.04	C	ATOM	24032	N1	C A1140	254.129	166.814	14.148	1.00142.39	N
ATOM	23983	C2*	254.030	161.991	11.717	1.00165.04	C	ATOM	24033	C2	C A1140	254.846	168.019	14.204	1.00142.39	C
ATOM	23984	O2*	253.185	160.860	11.665	1.00165.04	O	ATOM	24034	O2	C A1140	255.531	168.272	15.209	1.00142.39	O
ATOM	23985	C1*	255.436	161.578	12.163	1.00165.04	C	ATOM	24035	N3	C A1140	254.768	168.881	13.163	1.00142.39	N
ATOM	23986	N9	256.086	162.508	13.083	1.00183.88	N	ATOM	24036	C4	C A1140	254.014	168.583	12.103	1.00142.39	C
ATOM	23987	C8	256.603	162.205	14.319	1.00183.88	C	ATOM	24037	N4	C A1140	253.969	169.461	11.098	1.00142.39	N
ATOM	23988	N7	257.151	163.231	14.912	1.00183.88	N	ATOM	24038	C5	C A1140	253.273	167.373	12.023	1.00142.39	C
ATOM	23989	C5	256.982	164.279	14.016	1.00183.88	C	ATOM	24039	C6	C A1140	253.358	166.525	13.056	1.00142.39	C
ATOM	23990	C6	257.376	165.637	14.109	1.00183.88	C	ATOM	24040	P	C A1141	250.393	166.344	18.063	1.00137.69	P
ATOM	23991	O6	257.981	166.203	15.026	1.00183.88	O	ATOM	24041	O1P	C A1141	250.008	165.870	19.418	1.00156.02	O
ATOM	23992	N1	257.000	166.357	12.980	1.00183.88	N	ATOM	24042	O2P	C A1141	249.335	166.629	17.061	1.00156.02	O
ATOM	23993	C2	256.335	165.839	11.899	1.00183.88	C	ATOM	24043	O5*	C A1141	251.301	167.648	18.209	1.00137.69	O
ATOM	23994	N2	256.065	166.698	10.906	1.00183.88	N	ATOM	24044	C5*	C A1141	252.121	167.866	19.380	1.00137.69	C
ATOM	23995	N3	255.965	164.573	11.797	1.00183.88	N	ATOM	24045	C4*	C A1141	252.474	169.334	19.512	1.00137.69	C
ATOM	23996	C4	256.319	163.854	12.885	1.00183.88	C	ATOM	24046	O4*	C A1141	253.368	169.723	18.436	1.00137.69	C
ATOM	23997	P	252.700	163.811	8.667	1.00134.21	P	ATOM	24047	C3*	C A1141	251.304	170.303	19.418	1.00137.69	C
ATOM	23998	O1P	253.176	163.637	7.268	1.00121.26	O	ATOM	24048	O3*	C A1141	250.660	170.481	20.675	1.00137.69	O
ATOM	23999	O2P	253.085	165.033	9.425	1.00121.26	O	ATOM	24049	C2*	C A1141	251.955	171.589	18.921	1.00137.69	C
ATOM	24000	O5*	251.107	163.730	8.653	1.00134.21	O	ATOM	24050	O2*	C A1141	252.504	172.374	19.958	1.00137.69	O
ATOM	24001	C5*	250.364	163.198	9.772	1.00134.21	C	ATOM	24051	C1*	C A1141	253.077	171.051	18.028	1.00137.69	C
ATOM	24002	C4*	250.365	164.177	10.923	1.00134.21	C	ATOM	24052	N1	C A1141	252.721	171.041	16.596	1.00156.02	N
ATOM	24003	O4*	250.289	165.528	10.434	1.00134.21	O	ATOM	24053	C2	C A1141	252.648	172.263	15.905	1.00156.02	C
ATOM	24004	C3*	249.218	164.037	11.910	1.00134.21	C	ATOM	24054	O2	C A1141	252.886	173.319	16.514	1.00156.02	O
ATOM	24005	O3*	249.599	162.999	12.824	1.00134.21	O	ATOM	24055	N3	C A1141	252.318	172.259	14.594	1.00156.02	N
ATOM	24006	C2*	249.080	165.445	12.506	1.00134.21	C	ATOM	24056	C4	C A1141	252.068	171.105	13.972	1.00156.02	C
ATOM	24007	O2*	249.846	165.636	13.671	1.00134.21	O	ATOM	24057	N4	C A1141	251.752	171.150	12.676	1.00156.02	N
ATOM	24008	C1*	249.679	166.336	11.413	1.00134.21	C	ATOM	24058	C5	C A1141	252.133	169.852	14.648	1.00156.02	C
ATOM	24009	N9	248.855	167.343	10.751	1.00121.26	N	ATOM	24059	C6	C A1141	252.461	169.866	15.944	1.00156.02	C
ATOM	24010	C8	248.282	167.261	9.504	1.00121.26	C	ATOM	24060	P	G A1142	249.173	171.089	20.726	1.00115.26	P
ATOM	24011	N7	247.708	168.373	9.129	1.00121.26	N	ATOM	24061	O1P	G A1142	248.766	171.149	22.155	1.00158.53	O
ATOM	24012	C5	247.890	169.232	10.202	1.00121.26	C	ATOM	24062	O2P	G A1142	248.328	170.351	19.753	1.00158.53	O
ATOM	24013	C6	247.502	170.585	10.369	1.00121.26	C	ATOM	24063	O5*	G A1142	249.353	172.581	20.196	1.00115.26	O
ATOM	24014	O6	246.921	171.325	9.565	1.00121.26	O	ATOM	24064	C5*	G A1142	249.959	173.593	21.024	1.00115.26	C
ATOM	24015	N1	247.869	171.069	11.619	1.00121.26	N	ATOM	24065	C4*	G A1142	249.820	174.952	20.381	1.00115.26	C



ATOM	24066	O4*	G A1142	250.640	175.026	19.188	1.00115.26	O	ATOM	24116	O2*	G A1144	239.541	176.655	11.133	1.00129.49	O
ATOM	24067	C3*	G A1142	248.424	175.327	19.910	1.00115.26	C	ATOM	24117	C1*	G A1144	241.392	175.862	12.454	1.00129.49	C
ATOM	24068	O3*	G A1142	247.642	175.858	20.974	1.00115.26	O	ATOM	24118	N9	G A1144	241.738	174.664	13.215	1.00151.50	N
ATOM	24069	C2*	G A1142	248.697	176.369	18.830	1.00115.26	C	ATOM	24119	C8	G A1144	242.215	174.604	14.503	1.00151.50	C
ATOM	24070	O2*	G A1142	248.829	177.685	19.327	1.00115.26	O	ATOM	24120	N7	G A1144	242.413	173.384	14.921	1.00151.50	N
ATOM	24071	C1*	G A1142	250.031	175.894	18.248	1.00115.26	C	ATOM	24121	C5	G A1144	242.050	172.589	13.844	1.00151.50	C
ATOM	24072	N9	G A1142	249.865	175.189	16.982	1.00158.53	N	ATOM	24122	C6	G A1144	242.050	171.180	13.705	1.00151.50	C
ATOM	24073	C8	G A1142	249.786	173.831	16.785	1.00158.53	C	ATOM	24123	O6	G A1144	242.383	170.325	14.533	1.00151.50	O
ATOM	24074	N7	G A1142	249.589	173.507	15.537	1.00158.53	N	ATOM	24124	N1	G A1144	241.604	170.792	12.445	1.00151.50	N
ATOM	24075	C5	G A1142	249.541	174.722	14.868	1.00158.53	C	ATOM	24125	C2	G A1144	241.212	171.649	11.446	1.00151.50	C
ATOM	24076	C6	G A1142	249.335	175.008	13.495	1.00158.53	C	ATOM	24126	N2	G A1144	240.817	171.083	10.297	1.00151.50	N
ATOM	24077	O6	G A1142	249.134	174.220	12.566	1.00158.53	O	ATOM	24127	N3	G A1144	241.206	172.965	11.563	1.00151.50	N
ATOM	24078	N1	G A1142	249.376	176.374	13.244	1.00158.53	N	ATOM	24128	C4	G A1144	241.635	173.363	12.781	1.00151.50	C
ATOM	24079	C2	G A1142	249.581	177.343	14.190	1.00158.53	C	ATOM	24129	P	C A1145	237.146	177.366	14.316	1.00146.43	P
ATOM	24080	N2	G A1142	249.599	178.606	13.743	1.00158.53	N	ATOM	24130	O1P	C A1145	237.135	178.333	15.443	1.00117.57	O
ATOM	24081	N3	G A1142	249.759	177.093	15.476	1.00158.53	N	ATOM	24131	O2P	C A1145	237.148	175.907	14.612	1.00117.57	O
ATOM	24082	C4	G A1142	249.728	175.769	15.742	1.00158.53	C	ATOM	24132	O5*	C A1145	235.907	177.712	13.377	1.00146.43	O
ATOM	24083	P	G A1143	246.060	175.576	21.019	1.00104.63	P	ATOM	24133	C5*	C A1145	234.975	176.694	12.973	1.00146.43	C
ATOM	24084	O1P	G A1143	245.488	176.397	22.120	1.00166.68	O	ATOM	24134	C4*	C A1145	235.518	175.931	11.786	1.00146.43	C
ATOM	24085	O2P	G A1143	245.859	174.103	21.024	1.00166.68	O	ATOM	24135	O4*	C A1145	236.761	175.284	12.147	1.00146.43	O
ATOM	24086	O5*	G A1143	245.519	176.165	19.636	1.00104.63	O	ATOM	24136	C3*	C A1145	234.624	174.814	11.286	1.00146.43	C
ATOM	24087	C5*	G A1143	245.638	177.569	19.326	1.00104.63	C	ATOM	24137	O3*	C A1145	233.710	175.367	10.352	1.00146.43	O
ATOM	24088	C4*	G A1143	245.523	177.792	17.834	1.00104.63	C	ATOM	24138	C2*	C A1145	235.603	173.827	10.652	1.00146.43	C
ATOM	24089	O4*	G A1143	246.553	177.022	17.162	1.00104.63	O	ATOM	24139	O2*	C A1145	235.942	174.161	9.329	1.00146.43	O
ATOM	24090	C3*	G A1143	244.224	177.344	17.182	1.00104.63	C	ATOM	24140	C1*	C A1145	236.849	174.026	11.508	1.00146.43	C
ATOM	24091	O3*	G A1143	243.217	178.342	17.269	1.00104.63	O	ATOM	24141	N1	C A1145	237.085	172.997	12.528	1.00117.57	N
ATOM	24092	C2*	G A1143	244.645	177.082	15.742	1.00104.63	C	ATOM	24142	O2	C A1145	237.940	171.945	12.222	1.00117.57	O
ATOM	24093	O2*	G A1143	244.702	178.259	14.960	1.00104.63	O	ATOM	24143	C2	C A1145	238.382	171.850	11.067	1.00117.57	C
ATOM	24094	C1*	G A1143	246.056	176.520	15.931	1.00104.63	C	ATOM	24144	N3	C A1145	238.254	171.050	13.183	1.00117.57	N
ATOM	24095	N9	G A1143	246.078	175.058	15.991	1.00166.68	N	ATOM	24145	C4	C A1145	237.718	171.159	14.399	1.00117.57	C
ATOM	24096	C8	G A1143	246.313	174.278	17.102	1.00166.68	C	ATOM	24146	N4	C A1145	238.078	170.269	15.325	1.00117.57	N
ATOM	24097	N7	G A1143	246.239	172.997	16.857	1.00166.68	N	ATOM	24147	C5	C A1145	236.795	172.192	14.723	1.00117.57	C
ATOM	24098	C5	G A1143	245.945	172.921	15.502	1.00166.68	C	ATOM	24148	C6	C A1145	236.509	173.082	13.767	1.00117.57	C
ATOM	24099	C6	G A1143	245.742	171.791	14.671	1.00166.68	C	ATOM	24149	P	A A1146	232.923	174.406	9.346	1.00142.63	P
ATOM	24100	O6	G A1143	245.778	170.591	14.978	1.00166.68	O	ATOM	24150	O1P	A A1146	231.703	175.139	8.919	1.00 71.84	O
ATOM	24101	N1	G A1143	245.470	172.165	13.360	1.00166.68	N	ATOM	24151	O2P	A A1146	232.792	173.083	10.024	1.00 71.84	O
ATOM	24102	C2	G A1143	245.400	173.459	12.904	1.00166.68	C	ATOM	24152	O5*	A A1146	233.909	174.285	8.095	1.00142.63	O
ATOM	24103	N2	G A1143	245.129	173.614	11.602	1.00166.68	N	ATOM	24153	C5*	A A1146	234.094	175.402	7.198	1.00142.63	C
ATOM	24104	N3	G A1143	245.583	174.523	13.669	1.00166.68	N	ATOM	24154	C4*	A A1146	235.026	175.046	6.053	1.00142.63	C
ATOM	24105	C4	G A1143	245.850	174.183	14.948	1.00166.68	C	ATOM	24155	O4*	A A1146	236.417	175.155	6.444	1.00142.63	O
ATOM	24106	P	G A1144	241.672	177.908	17.397	1.00129.49	P	ATOM	24156	C3*	A A1146	234.936	173.663	5.436	1.00142.63	C
ATOM	24107	O1P	G A1144	240.891	179.118	17.766	1.00151.50	O	ATOM	24157	O3*	A A1146	233.848	173.508	4.548	1.00142.63	O
ATOM	24108	O2P	G A1144	241.589	176.694	18.254	1.00151.50	O	ATOM	24158	C2*	A A1146	236.259	173.552	4.689	1.00142.63	C
ATOM	24109	O5*	G A1144	241.268	177.510	15.908	1.00129.49	O	ATOM	24159	O2*	A A1146	236.223	174.170	3.417	1.00142.63	O
ATOM	24110	C5*	G A1144	241.215	178.505	14.869	1.00129.49	C	ATOM	24160	C1*	A A1146	237.206	174.326	5.604	1.00142.63	C
ATOM	24111	C4*	G A1144	240.857	177.868	13.547	1.00129.49	C	ATOM	24161	N9	A A1146	238.030	173.435	6.423	1.00 71.84	N
ATOM	24112	O4*	G A1144	241.932	176.989	13.122	1.00129.49	O	ATOM	24162	C8	A A1146	238.009	173.224	7.780	1.00 71.84	C
ATOM	24113	C3*	G A1144	239.622	176.981	13.551	1.00129.49	C	ATOM	24163	N7	A A1146	238.884	172.336	8.195	1.00 71.84	N
ATOM	24114	O3*	G A1144	238.419	177.717	13.394	1.00129.49	O	ATOM	24164	C5	A A1146	239.523	171.932	7.031	1.00 71.84	C
ATOM	24115	C2*	G A1144	239.878	176.056	12.370	1.00129.49	C	ATOM	24165	C6	A A1146	240.545	170.996	6.786	1.00 71.84	C



Table 2: Sheet 243/520

ATOM	24166	N6	A A1146	241.116	170.251	7.737	1.00	71.84	N	ATOM	24216	C4*	C A1149	234.858	159.796	6.149	1.00	63.96	C
ATOM	24167	N1	A A1146	240.960	170.842	5.508	1.00	71.84	N	ATOM	24217	O4*	C A1149	235.362	161.086	6.594	1.00	63.96	O
ATOM	24168	C2	A A1146	240.374	171.573	4.549	1.00	71.84	C	ATOM	24218	C3*	C A1149	233.679	159.507	7.075	1.00	63.96	C
ATOM	24169	N3	A A1146	239.401	172.471	4.651	1.00	71.84	N	ATOM	24219	O3*	C A1149	233.429	158.113	7.236	1.00	63.96	O
ATOM	24170	C4	A A1146	239.014	172.608	5.933	1.00	71.84	C	ATOM	24220	C2*	C A1149	234.101	160.149	8.395	1.00	63.96	C
ATOM	24171	P	C A1147	233.123	172.079	4.442	1.00	102.10	P	ATOM	24221	O2*	C A1149	234.919	159.319	9.199	1.00	63.96	O
ATOM	24172	O1P	C A1147	232.021	172.233	3.447	1.00	72.05	O	ATOM	24222	C1*	C A1149	234.895	161.362	7.908	1.00	63.96	C
ATOM	24173	O2P	C A1147	232.812	171.622	5.838	1.00	72.05	O	ATOM	24223	N1	C A1149	234.104	162.611	7.875	1.00	74.90	N
ATOM	24174	O5*	C A1147	234.248	171.104	3.861	1.00	102.10	O	ATOM	24224	C2	C A1149	233.923	163.337	9.066	1.00	74.90	C
ATOM	24175	C5*	C A1147	234.710	171.228	2.498	1.00	102.10	C	ATOM	24225	O2	C A1149	234.385	162.885	10.127	1.00	74.90	O
ATOM	24176	C4*	C A1147	235.795	170.212	2.208	1.00	102.10	C	ATOM	24226	N3	C A1149	233.242	164.505	9.026	1.00	74.90	N
ATOM	24177	O4*	C A1147	236.970	170.503	3.007	1.00	102.10	O	ATOM	24227	C4	C A1149	232.739	164.949	7.870	1.00	74.90	C
ATOM	24178	C3*	C A1147	235.469	168.763	2.529	1.00	102.10	C	ATOM	24228	N4	C A1149	232.096	166.120	7.873	1.00	74.90	N
ATOM	24179	O3*	C A1147	234.739	168.131	1.484	1.00	102.10	O	ATOM	24229	C5	C A1149	232.878	164.216	6.657	1.00	74.90	C
ATOM	24180	C2*	C A1147	236.848	168.144	2.720	1.00	102.10	C	ATOM	24230	C6	C A1149	233.563	163.066	6.703	1.00	74.90	C
ATOM	24181	O2*	C A1147	237.479	167.795	1.505	1.00	102.10	O	ATOM	24231	P	U A1150	231.946	157.614	7.598	1.00	79.56	P
ATOM	24182	C1*	C A1147	237.619	169.294	3.364	1.00	102.10	C	ATOM	24232	O1P	U A1150	231.912	156.133	7.490	1.00	71.64	O
ATOM	24183	N1	C A1147	237.677	169.194	4.839	1.00	72.05	N	ATOM	24233	O2P	U A1150	230.993	158.437	6.809	1.00	71.64	O
ATOM	24184	C2	C A1147	238.688	168.405	5.434	1.00	72.05	C	ATOM	24234	O5*	U A1150	231.757	157.996	9.129	1.00	79.56	O
ATOM	24185	O2	C A1147	239.485	167.793	4.708	1.00	72.05	O	ATOM	24235	C5*	U A1150	232.552	157.381	10.150	1.00	79.56	C
ATOM	24186	N3	C A1147	238.762	168.329	6.783	1.00	72.05	N	ATOM	24236	C4*	U A1150	232.289	158.059	11.466	1.00	79.56	C
ATOM	24187	C4	C A1147	237.883	168.989	7.535	1.00	72.05	C	ATOM	24237	O4*	U A1150	232.682	159.449	11.345	1.00	79.56	O
ATOM	24188	N4	C A1147	238.011	168.904	8.854	1.00	72.05	N	ATOM	24238	C3*	U A1150	230.823	158.105	11.868	1.00	79.56	C
ATOM	24189	C5	C A1147	236.836	169.774	6.965	1.00	72.05	C	ATOM	24239	O3*	U A1150	230.432	156.925	12.565	1.00	79.56	O
ATOM	24190	C6	C A1147	236.771	169.851	5.626	1.00	72.05	C	ATOM	24240	C2*	U A1150	230.741	159.360	12.730	1.00	79.56	C
ATOM	24191	P	U A1148	233.800	166.866	1.820	1.00	85.02	P	ATOM	24241	O2*	U A1150	231.134	159.151	14.076	1.00	79.56	O
ATOM	24192	O1P	U A1148	233.262	166.383	0.522	1.00	90.83	O	ATOM	24242	C1*	U A1150	231.766	160.268	12.048	1.00	79.56	C
ATOM	24193	O2P	U A1148	232.864	167.223	2.912	1.00	90.83	O	ATOM	24243	N1	U A1150	231.180	161.234	11.107	1.00	71.64	N
ATOM	24194	O5*	U A1148	234.807	165.785	2.408	1.00	85.02	O	ATOM	24244	C2	U A1150	230.556	162.341	11.638	1.00	71.64	C
ATOM	24195	C5*	U A1148	235.668	165.058	1.533	1.00	85.02	C	ATOM	24245	O2	U A1150	230.445	162.521	12.832	1.00	71.64	O
ATOM	24196	C4*	U A1148	236.345	163.937	2.273	1.00	85.02	C	ATOM	24246	N3	U A1150	230.062	163.230	10.719	1.00	71.64	N
ATOM	24197	O4*	U A1148	237.321	164.475	3.196	1.00	85.02	O	ATOM	24247	C4	U A1150	230.122	163.124	9.349	1.00	71.64	C
ATOM	24198	C3*	U A1148	235.475	163.045	3.141	1.00	85.02	C	ATOM	24248	O4	U A1150	229.679	164.040	8.647	1.00	71.64	O
ATOM	24199	O3*	U A1148	234.807	162.037	2.409	1.00	85.02	O	ATOM	24249	C5	U A1150	230.766	161.938	8.875	1.00	71.64	C
ATOM	24200	C2*	U A1148	236.493	162.432	4.089	1.00	85.02	C	ATOM	24250	C6	U A1150	231.259	161.056	9.749	1.00	71.64	C
ATOM	24201	O2*	U A1148	237.190	161.349	3.509	1.00	85.02	O	ATOM	24251	P	A A1151	229.022	156.229	12.220	1.00	71.84	P
ATOM	24202	C1*	U A1148	237.453	163.600	4.304	1.00	85.02	C	ATOM	24252	O1P	A A1151	228.933	154.978	13.037	1.00	70.42	O
ATOM	24203	N1	U A1148	237.135	164.326	5.543	1.00	90.83	N	ATOM	24253	O2P	A A1151	228.872	156.165	10.744	1.00	70.42	O
ATOM	24204	C2	U A1148	237.685	163.842	6.718	1.00	90.83	C	ATOM	24254	O5*	A A1151	227.937	157.273	12.733	1.00	71.84	O
ATOM	24205	O2	U A1148	238.426	162.873	6.751	1.00	90.83	C	ATOM	24255	C5*	A A1151	227.889	157.639	14.112	1.00	71.84	C
ATOM	24206	N3	U A1148	237.336	164.534	7.850	1.00	90.83	N	ATOM	24256	C4*	A A1151	226.762	158.598	14.358	1.00	71.84	C
ATOM	24207	C4	U A1148	236.517	165.637	7.926	1.00	90.83	C	ATOM	24257	O4*	A A1151	227.047	159.880	13.736	1.00	71.84	O
ATOM	24208	O4	U A1148	236.283	166.137	9.024	1.00	90.83	O	ATOM	24258	C3*	A A1151	225.396	158.169	13.851	1.00	71.84	C
ATOM	24209	C5	U A1148	235.996	166.085	6.671	1.00	90.83	C	ATOM	24259	O3*	A A1151	224.440	158.484	14.848	1.00	71.84	O
ATOM	24210	C6	U A1148	236.314	165.431	5.549	1.00	90.83	C	ATOM	24260	O2*	A A1151	225.180	159.060	12.630	1.00	71.84	C
ATOM	24211	P	C A1149	233.381	161.505	2.918	1.00	63.96	P	ATOM	24261	O2*	A A1151	223.820	159.340	12.398	1.00	71.84	O
ATOM	24212	O1P	C A1149	233.056	160.353	2.038	1.00	74.90	O	ATOM	24262	C1*	A A1151	225.900	160.330	13.060	1.00	71.84	C
ATOM	24213	O2P	C A1149	232.444	162.662	2.982	1.00	74.90	O	ATOM	24263	N9	A A1151	226.297	161.247	11.991	1.00	70.42	N
ATOM	24214	O5*	C A1149	233.641	160.976	4.405	1.00	63.96	O	ATOM	24264	C8	A A1151	226.954	160.987	10.816	1.00	70.42	C
ATOM	24215	C5*	C A1149	234.548	159.883	4.666	1.00	63.96	C	ATOM	24265	N7	A A1151	227.136	162.048	10.065	1.00	70.42	N



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ATOM	24266	C5	A	A1151	226.566	163.076	10.797	1.00	70.42	C	ATOM	24316	O1P	G	A1154	212.050	164.460	10.362	1.00105.19	O	
ATOM	24267	C6	A	A1151	226.418	164.453	10.543	1.00	70.42	C	ATOM	24317	O2P	G	A1154	213.695	162.609	9.657	1.00105.19	O	
ATOM	24268	N6	A	A1151	226.850	165.054	9.434	1.00	70.42	N	ATOM	24318	O5*	G	A1154	213.911	164.932	8.730	1.00101.11	O	
ATOM	24269	N1	A	A1151	225.796	165.201	11.480	1.00	70.42	N	ATOM	24319	C5*	G	A1154	213.596	166.335	8.672	1.00101.11	C	
ATOM	24270	C2	A	A1151	225.358	164.600	12.590	1.00	70.42	C	ATOM	24320	C4*	G	A1154	214.367	167.036	7.569	1.00101.11	C	
ATOM	24271	N3	A	A1151	225.432	163.316	12.942	1.00	70.42	N	ATOM	24321	O4*	G	A1154	215.793	166.841	7.746	1.00101.11	O	
ATOM	24272	C4	A	A1151	226.053	162.599	11.989	1.00	70.42	C	ATOM	24322	C3*	G	A1154	214.122	166.648	6.118	1.00101.11	C	
ATOM	24273	P	A	A1152	223.035	157.721	14.871	1.00	75.58	P	ATOM	24323	O3*	G	A1154	212.952	167.266	5.588	1.00101.11	O	
ATOM	24274	O1P	A	A1152	222.820	157.318	16.281	1.00	85.11	O	ATOM	24324	C2*	G	A1154	215.370	167.189	5.426	1.00101.11	C	
ATOM	24275	O2P	A	A1152	223.043	156.682	13.816	1.00	85.11	O	ATOM	24325	O2*	G	A1154	215.295	168.568	5.129	1.00101.11	O	
ATOM	24276	O5*	A	A1152	221.993	158.860	14.459	1.00	75.58	O	ATOM	24326	C1*	G	A1154	216.442	166.990	6.496	1.00101.11	C	
ATOM	24277	C5*	A	A1152	221.230	159.533	15.466	1.00	75.58	C	ATOM	24327	N9	G	A1154	217.266	165.817	6.224	1.00105.19	N	
ATOM	24278	O4*	A	A1152	220.689	160.862	14.969	1.00	75.58	C	ATOM	24328	C8	G	A1154	217.279	164.614	6.889	1.00105.19	C	
ATOM	24279	O4*	A	A1152	221.768	161.746	14.572	1.00	75.58	O	ATOM	24329	N7	G	A1154	218.111	163.752	6.369	1.00105.19	N	
ATOM	24280	C3*	A	A1152	219.738	160.925	13.781	1.00	75.58	C	ATOM	24330	C5	G	A1154	218.685	164.428	5.299	1.00105.19	C	
ATOM	24281	O3*	A	A1152	218.399	160.577	14.129	1.00	75.58	O	ATOM	24331	C6	G	A1154	219.653	164.002	4.345	1.00105.19	C	
ATOM	24282	C2*	A	A1152	219.793	162.407	13.424	1.00	75.58	C	ATOM	24332	O6	G	A1154	220.202	162.895	4.241	1.00105.19	O	
ATOM	24283	O2*	A	A1152	218.960	163.180	14.262	1.00	75.58	C	ATOM	24333	N1	G	A1154	219.960	165.016	3.442	1.00105.19	N	
ATOM	24284	C1*	A	A1152	221.242	162.767	13.745	1.00	75.58	C	ATOM	24334	C2	G	A1154	219.402	166.272	3.444	1.00105.19	C	
ATOM	24285	N9	A	A1152	222.044	162.882	12.533	1.00	85.11	N	ATOM	24335	N2	G	A1154	219.826	167.114	2.498	1.00105.19	N	
ATOM	24286	C8	A	A1152	222.776	161.926	11.882	1.00	85.11	C	ATOM	24336	N3	G	A1154	218.493	166.673	4.313	1.00105.19	N	
ATOM	24287	N7	A	A1152	223.348	162.356	10.784	1.00	85.11	N	ATOM	24337	C4	G	A1154	218.184	165.707	5.206	1.00105.19	C	
ATOM	24288	C5	A	A1152	222.973	163.690	10.716	1.00	85.11	C	ATOM	24338	P	G	A1155	212.234	166.641	4.285	1.00	86.41	P
ATOM	24289	C6	A	A1152	223.249	164.704	9.784	1.00	85.11	C	ATOM	24339	O1P	G	A1155	210.878	167.250	4.192	1.00	84.73	O
ATOM	24290	N6	A	A1152	223.992	164.523	8.695	1.00	85.11	N	ATOM	24340	O2P	G	A1155	212.371	165.155	4.347	1.00	84.73	O
ATOM	24291	N1	A	A1152	222.723	165.927	10.012	1.00	85.11	N	ATOM	24341	O5*	G	A1155	213.085	167.195	3.058	1.00	86.41	O
ATOM	24292	C2	A	A1152	221.969	166.104	11.103	1.00	85.11	C	ATOM	24342	C5*	G	A1155	213.148	168.604	2.803	1.00	86.41	C
ATOM	24293	N3	A	A1152	221.635	165.228	12.047	1.00	85.11	N	ATOM	24343	C4*	G	A1155	214.144	168.900	1.712	1.00	86.41	C
ATOM	24294	C4	A	A1152	222.177	164.027	11.791	1.00	85.11	C	ATOM	24344	O4*	G	A1155	215.464	168.486	2.126	1.00	86.41	O
ATOM	24295	P	C	A1153	217.307	160.334	12.968	1.00	68.30	P	ATOM	24345	C3*	G	A1155	213.907	168.185	0.401	1.00	86.41	C
ATOM	24296	O1P	C	A1153	216.072	159.860	13.647	1.00101.82	O	ATOM	24346	O3*	G	A1155	213.016	168.936	-0.395	1.00	86.41	O	
ATOM	24297	O2P	C	A1153	217.917	159.503	11.898	1.00101.82	O	ATOM	24347	C2*	G	A1155	215.292	168.140	-0.226	1.00	86.41	C	
ATOM	24298	O5*	C	A1153	217.033	161.785	12.359	1.00	68.30	O	ATOM	24348	O2*	G	A1155	215.606	169.321	-0.931	1.00	86.41	O
ATOM	24299	C5*	C	A1153	216.326	162.774	13.122	1.00	68.30	C	ATOM	24349	C1*	G	A1155	216.193	168.033	1.003	1.00	86.41	C
ATOM	24300	C4*	C	A1153	216.402	164.125	12.454	1.00	68.30	C	ATOM	24350	N9	G	A1155	216.672	166.683	1.276	1.00	84.73	N
ATOM	24301	O4*	C	A1153	217.786	164.501	12.233	1.00	68.30	O	ATOM	24351	C8	G	A1155	216.336	165.875	2.337	1.00	84.73	C
ATOM	24302	C3*	C	A1153	215.766	164.248	11.084	1.00	68.30	C	ATOM	24352	N7	G	A1155	216.956	164.727	2.320	1.00	84.73	N
ATOM	24303	O3*	C	A1153	214.373	164.476	11.179	1.00	68.30	O	ATOM	24353	C5	G	A1155	217.742	164.777	1.175	1.00	84.73	C
ATOM	24304	C2*	C	A1153	216.474	165.458	10.482	1.00	68.30	C	ATOM	24354	O6	G	A1155	218.640	163.824	0.634	1.00	84.73	C
ATOM	24305	O2*	C	A1153	215.888	166.690	10.855	1.00	68.30	C	ATOM	24355	C6	G	A1155	218.942	162.711	1.077	1.00	84.73	O
ATOM	24306	C1*	C	A1153	217.872	165.343	11.093	1.00	68.30	C	ATOM	24356	N1	G	A1155	219.216	164.281	-0.544	1.00	84.73	N
ATOM	24307	N1	C	A1153	218.862	164.796	10.148	1.00101.82	N	ATOM	24357	C2	G	A1155	218.969	165.498	-1.123	1.00	84.73	C	
ATOM	24308	C2	C	A1153	219.428	165.658	9.195	1.00101.82	C	ATOM	24358	N2	G	A1155	219.622	165.754	-2.259	1.00	84.73	N	
ATOM	24309	O2	C	A1153	219.091	166.852	9.186	1.00101.82	O	ATOM	24359	N3	G	A1155	218.145	166.398	-0.627	1.00	84.73	N	
ATOM	24310	N3	C	A1153	220.324	165.168	8.312	1.00101.82	N	ATOM	24360	C4	G	A1155	217.569	165.974	0.516	1.00	84.73	C	
ATOM	24311	C4	C	A1153	220.666	163.881	8.355	1.00101.82	C	ATOM	24361	P	G	A1156	212.036	168.177	-1.403	1.00	95.44	P	
ATOM	24312	N4	C	A1153	221.557	163.442	7.466	1.00101.82	N	ATOM	24362	O1P	G	A1156	211.381	169.205	-2.252	1.00	85.57	O	
ATOM	24313	C5	C	A1153	220.112	162.985	9.314	1.00101.82	C	ATOM	24363	O2P	G	A1156	211.198	167.248	-0.593	1.00	85.57	O	
ATOM	24314	C6	C	A1153	219.223	163.479	10.184	1.00101.82	C	ATOM	24364	O5*	G	A1156	213.032	167.333	-2.320	1.00	95.44	O	
ATOM	24315	P	G	A1154	213.420	164.042	9.965	1.00101.11	P	ATOM	24365	C5*	G	A1156	213.891	167.995	-3.266	1.00	95.44	C	



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ATOM	24366	C4*	G A1156	214.720	166.991	-4.034	1.00	95.44	C	ATOM	24416	O2*	C A1158	204.794	162.134	-10.478	1.00	92.62	O
ATOM	24367	O4*	G A1156	215.774	166.443	-3.203	1.00	95.44	O	ATOM	24417	C1*	C A1158	206.728	163.019	-9.374	1.00	92.62	C
ATOM	24368	C3*	G A1156	213.991	165.784	-4.591	1.00	95.44	C	ATOM	24418	N1	C A1158	207.915	163.726	-9.885	1.00	113.17	N
ATOM	24369	O3*	G A1156	213.370	166.109	-5.827	1.00	95.44	O	ATOM	24419	C2	C A1158	209.024	162.997	-10.317	1.00	113.17	C
ATOM	24370	C2*	G A1156	215.121	164.779	-4.779	1.00	95.44	C	ATOM	24420	O2	C A1158	209.007	161.764	-10.225	1.00	113.17	O
ATOM	24371	O2*	G A1156	215.806	164.984	-5.999	1.00	95.44	O	ATOM	24421	N3	C A1158	210.091	163.657	-10.817	1.00	113.17	N
ATOM	24372	C1*	G A1156	216.056	165.120	-3.613	1.00	95.44	C	ATOM	24422	C4	C A1158	210.081	164.988	-10.881	1.00	113.17	C
ATOM	24373	N9	G A1156	215.883	164.242	-2.463	1.00	85.57	N	ATOM	24423	N4	C A1158	211.146	165.597	-11.401	1.00	113.17	N
ATOM	24374	C8	G A1156	214.974	164.390	-1.450	1.00	85.57	C	ATOM	24424	C5	C A1158	208.977	165.754	-10.421	1.00	113.17	C
ATOM	24375	N7	G A1156	215.038	163.439	-0.561	1.00	85.57	N	ATOM	24425	C6	C A1158	207.924	165.090	-9.940	1.00	113.17	C
ATOM	24376	C5	G A1156	216.053	162.613	-1.014	1.00	85.57	C	ATOM	24426	P	U A1159	205.453	158.492	-10.541	1.00	95.64	P
ATOM	24377	C6	G A1156	216.574	161.418	-0.461	1.00	85.57	C	ATOM	24427	O1P	U A1159	204.396	157.509	-10.202	1.00	123.74	O
ATOM	24378	O6	G A1156	216.225	160.829	0.573	1.00	85.57	O	ATOM	24428	O2P	U A1159	206.871	158.047	-10.601	1.00	123.74	O
ATOM	24379	N1	G A1156	217.606	160.906	-1.237	1.00	85.57	N	ATOM	24429	O5*	U A1159	205.049	159.169	-11.926	1.00	95.64	O
ATOM	24380	C2	G A1156	218.071	161.468	-2.398	1.00	85.57	C	ATOM	24430	C5*	U A1159	205.810	158.916	-13.115	1.00	95.64	C
ATOM	24381	N2	G A1156	219.071	160.821	-3.007	1.00	85.57	N	ATOM	24431	C4*	U A1159	206.034	160.200	-13.876	1.00	95.64	C
ATOM	24382	N3	G A1156	217.591	162.582	-2.925	1.00	85.57	N	ATOM	24432	O4*	U A1159	207.168	160.021	-14.762	1.00	95.64	O
ATOM	24383	C4	G A1156	216.591	163.097	-2.184	1.00	85.57	C	ATOM	24433	C3*	U A1159	204.870	160.698	-14.730	1.00	95.64	C
ATOM	24384	P	A A1157	211.791	165.876	-6.013	1.00	113.09	P	ATOM	24434	O3*	U A1159	204.850	162.130	-14.713	1.00	95.64	O
ATOM	24385	O1P	A A1157	211.369	166.681	-7.189	1.00	98.06	O	ATOM	24435	C2*	U A1159	205.261	160.227	-16.133	1.00	95.64	C
ATOM	24386	O2P	A A1157	211.104	166.063	-4.711	1.00	98.06	O	ATOM	24436	O2*	U A1159	204.759	161.056	-17.162	1.00	95.64	O
ATOM	24387	O5*	A A1157	211.563	164.341	-6.402	1.00	113.09	O	ATOM	24437	C1*	U A1159	206.788	160.321	-16.084	1.00	95.64	C
ATOM	24388	C5*	A A1157	210.388	163.770	-6.750	1.00	113.09	C	ATOM	24438	N1	U A1159	207.510	159.410	-16.986	1.00	123.74	N
ATOM	24389	C4*	A A1157	210.590	162.411	-7.365	1.00	113.09	C	ATOM	24439	C2	U A1159	208.178	159.971	-18.060	1.00	123.74	C
ATOM	24390	O4*	A A1157	211.278	162.572	-8.629	1.00	113.09	O	ATOM	24440	O2	U A1159	208.163	161.169	-18.299	1.00	123.74	O
ATOM	24391	C3*	A A1157	211.438	161.465	-6.521	1.00	113.09	C	ATOM	24441	N3	U A1159	208.865	159.080	-18.847	1.00	123.74	N
ATOM	24392	O3*	A A1157	210.970	160.128	-6.587	1.00	113.09	O	ATOM	24442	C4	U A1159	208.949	157.714	-18.679	1.00	123.74	C
ATOM	24393	C2*	A A1157	212.832	161.619	-7.133	1.00	113.09	C	ATOM	24443	O4	U A1159	209.629	157.047	-19.464	1.00	123.74	O
ATOM	24394	O2*	A A1157	213.648	160.475	-6.964	1.00	113.09	O	ATOM	24444	C5	U A1159	208.221	157.208	-17.556	1.00	123.74	C
ATOM	24395	C1*	A A1157	212.501	161.867	-8.606	1.00	113.09	C	ATOM	24445	C6	U A1159	207.542	158.050	-16.769	1.00	123.74	C
ATOM	24396	N9	A A1157	213.488	162.659	-9.344	1.00	98.06	N	ATOM	24446	P	G A1160	203.802	162.928	-13.777	1.00	103.65	P
ATOM	24397	C8	A A1157	213.496	164.017	-9.534	1.00	98.06	C	ATOM	24447	O1P	G A1160	203.491	162.092	-12.590	1.00	95.24	O
ATOM	24398	N7	A A1157	214.488	164.443	-10.273	1.00	98.06	N	ATOM	24448	O2P	G A1160	202.691	163.448	-14.622	1.00	95.24	O
ATOM	24399	C5	A A1157	215.189	163.290	-10.583	1.00	98.06	C	ATOM	24449	O5*	G A1160	204.661	164.175	-13.286	1.00	103.65	O
ATOM	24400	C6	A A1157	216.343	163.071	-11.341	1.00	98.06	C	ATOM	24450	C5*	G A1160	204.045	165.336	-12.710	1.00	103.65	C
ATOM	24401	N6	A A1157	217.022	164.045	-11.946	1.00	98.06	N	ATOM	24451	C4*	G A1160	204.973	166.525	-12.826	1.00	103.65	C
ATOM	24402	N1	A A1157	216.785	161.803	-11.459	1.00	98.06	N	ATOM	24452	O4*	G A1160	206.258	166.181	-12.236	1.00	103.65	O
ATOM	24403	C2	A A1157	216.102	160.830	-10.850	1.00	98.06	C	ATOM	24453	C3*	G A1160	205.314	166.969	-14.242	1.00	103.65	C
ATOM	24404	N3	A A1157	215.001	160.911	-10.110	1.00	98.06	N	ATOM	24454	O3*	G A1160	204.357	167.882	-14.765	1.00	103.65	O
ATOM	24405	C4	A A1157	214.590	162.184	-10.013	1.00	98.06	C	ATOM	24455	C2*	G A1160	206.667	167.646	-14.074	1.00	103.65	C
ATOM	24406	P	C A1158	209.522	159.711	-6.124	1.00	92.62	P	ATOM	24456	O2*	G A1160	206.548	168.994	-13.669	1.00	103.65	O
ATOM	24407	O1P	C A1158	209.350	160.384	-4.808	1.00	113.17	O	ATOM	24457	C1*	G A1160	207.303	166.816	-12.957	1.00	103.65	C
ATOM	24408	O2P	C A1158	209.374	158.234	-6.217	1.00	92.62	O	ATOM	24458	N9	G A1160	208.226	165.799	-13.464	1.00	95.24	N
ATOM	24409	O5*	C A1158	208.513	160.370	-7.166	1.00	92.62	O	ATOM	24459	C8	G A1160	208.082	164.433	-13.414	1.00	95.24	C
ATOM	24410	C5*	C A1158	207.114	160.450	-6.871	1.00	92.62	C	ATOM	24460	N7	G A1160	209.071	163.792	-13.976	1.00	95.24	N
ATOM	24411	C4*	C A1158	206.390	161.227	-7.941	1.00	92.62	C	ATOM	24461	C5	G A1160	209.921	164.793	-14.422	1.00	95.24	C
ATOM	24412	O4*	C A1158	207.011	162.521	-8.087	1.00	92.62	O	ATOM	24462	C6	G A1160	211.156	164.711	-15.116	1.00	95.24	C
ATOM	24413	C3*	C A1158	206.400	160.650	-9.350	1.00	92.62	C	ATOM	24463	O6	G A1160	211.768	163.702	-15.490	1.00	95.24	O
ATOM	24414	O3*	C A1158	205.339	159.698	-9.479	1.00	92.62	O	ATOM	24464	N1	G A1160	211.681	165.971	-15.371	1.00	95.24	N
ATOM	24415	C2*	C A1158	206.159	161.880	-10.231	1.00	92.62	C	ATOM	24465	C2	G A1160	211.100	167.156	-15.008	1.00	95.24	C



ATOM	24466	N2	G A1160	211.766	168.264	-15.343	1.00	95.24	N	ATOM	24516	C3*	C A1163	207.025	166.671	-29.488	1.00114.03	C
ATOM	24467	N3	G A1160	209.952	167.249	-14.364	1.00	95.24	N	ATOM	24517	O3*	C A1163	206.281	167.059	-30.627	1.00114.03	O
ATOM	24468	C4	G A1160	209.420	166.037	-14.106	1.00	95.24	C	ATOM	24518	O2*	C A1163	207.656	165.294	-29.631	1.00114.03	C
ATOM	24469	P	C A1161	204.295	168.145	-16.350	1.00115.11	P	ATOM	24519	O2*	C A1163	208.161	165.045	-30.927	1.00114.03	O	
ATOM	24470	O1P	C A1161	203.429	169.332	-16.569	1.00115.69	O	ATOM	24520	C1*	C A1163	208.807	165.378	-28.628	1.00114.03	C	
ATOM	24471	O2P	C A1161	203.961	166.862	-17.019	1.00115.69	O	ATOM	24521	N1	C A1163	208.431	164.806	-27.322	1.00110.86	N	
ATOM	24472	O5*	C A1161	205.794	168.522	-16.744	1.00115.11	O	ATOM	24522	C2	C A1163	208.526	163.421	-27.141	1.00110.86	C	
ATOM	24473	C5*	C A1161	206.322	169.843	-16.505	1.00115.11	C	ATOM	24523	O2	C A1163	208.960	162.720	-28.069	1.00110.86	O	
ATOM	24474	C4*	C A1161	207.568	170.069	-17.332	1.00115.11	C	ATOM	24524	N3	C A1163	208.145	162.883	-25.961	1.00110.86	N	
ATOM	24475	O4*	C A1161	208.649	169.231	-16.850	1.00115.11	O	ATOM	24525	C4	C A1163	207.694	163.670	-24.983	1.00110.86	C	
ATOM	24476	C3*	C A1161	207.450	169.724	-18.806	1.00115.11	C	ATOM	24526	N4	C A1163	207.317	163.093	-23.842	1.00110.86	N	
ATOM	24477	O3*	C A1161	206.869	170.781	-19.550	1.00115.11	O	ATOM	24527	C5	C A1163	207.604	165.083	-25.133	1.00110.86	C	
ATOM	24478	C2*	C A1161	208.892	169.454	-19.217	1.00115.11	C	ATOM	24528	C6	C A1163	207.980	165.604	-26.305	1.00110.86	C	
ATOM	24479	O2*	C A1161	209.612	170.622	-19.549	1.00115.11	O	ATOM	24529	P	G A1164	204.722	166.681	-30.712	1.00110.57	P	
ATOM	24480	C1*	C A1161	209.471	168.840	-17.941	1.00115.11	C	ATOM	24530	O1P	G A1164	204.143	167.453	-31.841	1.00101.17	O	
ATOM	24481	N1	C A1161	209.547	167.364	-17.997	1.00115.69	N	ATOM	24531	O2P	G A1164	204.132	166.812	-29.347	1.00101.17	O	
ATOM	24482	C2	C A1161	210.704	166.767	-18.529	1.00115.69	C	ATOM	24532	O5*	G A1164	204.733	165.144	-31.124	1.00110.57	O	
ATOM	24483	O2	C A1161	211.630	167.491	-18.926	1.00115.69	O	ATOM	24533	C5*	G A1164	205.394	164.722	-32.325	1.00110.57	C	
ATOM	24484	N3	C A1161	210.781	165.421	-18.597	1.00115.69	N	ATOM	24534	C4*	G A1164	205.567	163.225	-32.333	1.00110.57	C	
ATOM	24485	C4	C A1161	209.769	164.672	-18.161	1.00115.69	C	ATOM	24535	O4*	G A1164	206.516	162.822	-31.309	1.00110.57	O	
ATOM	24486	N4	C A1161	209.892	163.349	-18.251	1.00115.69	N	ATOM	24536	C3*	G A1164	204.322	162.422	-32.016	1.00110.57	C	
ATOM	24487	C5	C A1161	208.585	165.247	-17.612	1.00115.69	C	ATOM	24537	O3*	G A1164	203.441	162.294	-33.116	1.00110.57	O	
ATOM	24488	C6	C A1161	208.516	166.583	-17.549	1.00115.69	C	ATOM	24538	C2*	G A1164	204.900	161.095	-31.543	1.00110.57	C	
ATOM	24489	P	C A1162	205.870	170.438	-20.758	1.00114.23	P	ATOM	24539	O2*	G A1164	205.277	160.241	-32.608	1.00110.57	O	
ATOM	24490	O1P	C A1162	205.094	171.675	-21.040	1.00118.95	O	ATOM	24540	C1*	G A1164	206.136	161.562	-30.773	1.00110.57	C	
ATOM	24491	O2P	C A1162	205.150	169.185	-20.412	1.00118.95	O	ATOM	24541	N9	G A1164	205.817	161.733	-29.357	1.00101.17	N	
ATOM	24492	O5*	C A1162	206.836	170.149	-21.994	1.00114.23	O	ATOM	24542	C8	G A1164	205.634	162.914	-28.677	1.00101.17	C	
ATOM	24493	C5*	C A1162	207.580	171.217	-22.615	1.00114.23	C	ATOM	24543	N7	G A1164	205.293	162.741	-27.428	1.00101.17	N	
ATOM	24494	C4*	C A1162	208.533	170.669	-23.655	1.00114.23	C	ATOM	24544	C5	G A1164	205.260	161.363	-27.269	1.00101.17	C	
ATOM	24495	O4*	C A1162	209.553	169.856	-23.017	1.00114.23	O	ATOM	24545	C6	G A1164	204.937	160.573	-26.131	1.00101.17	C	
ATOM	24496	C3*	C A1162	207.931	169.763	-24.718	1.00114.23	C	ATOM	24546	O6	G A1164	204.596	160.949	-25.001	1.00101.17	O	
ATOM	24497	O3*	C A1162	207.350	170.501	-25.786	1.00114.23	O	ATOM	24547	N1	G A1164	205.035	159.212	-26.409	1.00101.17	N	
ATOM	24498	C2*	C A1162	209.129	168.938	-25.182	1.00114.23	C	ATOM	24548	C2	G A1164	205.393	158.678	-27.622	1.00101.17	C	
ATOM	24499	O2*	C A1162	209.909	169.585	-26.167	1.00114.23	O	ATOM	24549	N2	G A1164	205.442	157.345	-27.691	1.00101.17	N	
ATOM	24500	C1*	C A1162	209.941	168.805	-23.891	1.00114.23	C	ATOM	24550	N3	G A1164	205.684	159.401	-28.690	1.00101.17	N	
ATOM	24501	N1	C A1162	209.739	167.507	-23.214	1.00118.95	N	ATOM	24551	C4	G A1164	205.599	160.725	-28.444	1.00101.17	C	
ATOM	24502	C2	C A1162	210.430	166.375	-23.692	1.00118.95	C	ATOM	24552	P	C A1165	201.866	162.141	-32.839	1.00122.39	P	
ATOM	24503	O2	C A1162	211.202	166.497	-24.659	1.00118.95	O	ATOM	24553	O1P	C A1165	201.159	162.362	-34.127	1.00	82.97	O
ATOM	24504	N3	C A1162	210.237	165.181	-23.085	1.00118.95	N	ATOM	24554	O2P	C A1165	201.508	162.970	-31.658	1.00	82.97	O
ATOM	24505	C4	C A1162	209.406	165.086	-22.042	1.00118.95	C	ATOM	24555	O5*	C A1165	201.717	160.614	-32.419	1.00122.39	O	
ATOM	24506	N4	C A1162	209.250	163.889	-21.474	1.00118.95	N	ATOM	24556	C5*	C A1165	202.106	159.569	-33.324	1.00122.39	C	
ATOM	24507	C5	C A1162	208.699	166.216	-21.535	1.00118.95	C	ATOM	24557	C4*	C A1165	201.877	158.217	-32.697	1.00122.39	C	
ATOM	24508	C6	C A1162	208.893	167.393	-22.143	1.00118.95	C	ATOM	24558	O4*	C A1165	202.835	158.002	-31.627	1.00122.39	O	
ATOM	24509	P	C A1163	206.256	165.798	-26.729	1.00114.03	P	ATOM	24559	C3*	C A1165	200.527	158.015	-32.029	1.00122.39	C	
ATOM	24510	O1P	C A1163	205.879	170.768	-27.787	1.00110.86	O	ATOM	24560	O3*	C A1165	199.466	157.715	-32.920	1.00122.39	O	
ATOM	24511	O2P	C A1163	205.203	169.213	-25.860	1.00110.86	O	ATOM	24561	C2*	C A1165	200.814	156.891	-31.047	1.00122.39	C	
ATOM	24512	O5*	C A1163	207.056	168.604	-27.411	1.00114.03	O	ATOM	24562	O2*	C A1165	200.798	155.615	-31.655	1.00122.39	O	
ATOM	24513	C5*	C A1163	207.927	168.851	-28.520	1.00114.03	C	ATOM	24563	C1*	C A1165	202.227	157.247	-30.590	1.00122.39	C	
ATOM	24514	C4*	C A1163	208.225	167.564	-29.242	1.00114.03	C	ATOM	24564	N1	C A1165	202.171	158.074	-29.371	1.00	82.97	N
ATOM	24515	O4*	C A1163	209.126	166.748	-28.452	1.00114.03	O	ATOM	24565	C2	C A1165	202.044	157.435	-28.129	1.00	82.97	C



Table 2: Sheet 247/520

ATOM	24566	O2	C A1165	202.017	156.192	-28.089	1.00	82.97	O	ATOM	24616	C4	A A1167	191.399	154.245	-25.301	1.00	95.29	C
ATOM	24567	N3	C A1165	201.951	158.182	-27.009	1.00	82.97	N	ATOM	24617	P	A A1168	193.979	160.018	-24.577	1.00	92.04	P
ATOM	24568	C4	C A1165	201.980	159.511	-27.092	1.00	82.97	C	ATOM	24618	O1P	A A1168	194.010	161.465	-24.243	1.00	73.72	O
ATOM	24569	N4	C A1165	201.874	160.206	-25.961	1.00	82.97	N	ATOM	24619	O2P	A A1168	195.006	159.455	-25.489	1.00	73.72	O
ATOM	24570	C5	C A1165	202.119	160.188	-28.339	1.00	82.97	C	ATOM	24620	O5*	A A1168	194.002	159.199	-23.208	1.00	92.04	O
ATOM	24571	C6	C A1165	202.216	159.440	-29.440	1.00	82.97	C	ATOM	24621	C5*	A A1168	193.139	159.565	-22.110	1.00	92.04	C
ATOM	24572	P	G A1166	197.985	158.236	-32.568	1.00	102.78	P	ATOM	24622	C4*	A A1168	193.014	158.419	-21.132	1.00	92.04	C
ATOM	24573	O1P	G A1166	197.038	157.618	-33.531	1.00	103.65	O	ATOM	24623	O4*	A A1168	192.445	157.274	-21.813	1.00	92.04	O
ATOM	24574	O2P	G A1166	198.013	159.718	-32.410	1.00	103.65	O	ATOM	24624	C3*	A A1168	194.317	157.920	-20.530	1.00	92.04	C
ATOM	24575	O5*	G A1166	197.700	157.603	-31.137	1.00	102.78	O	ATOM	24625	O3*	A A1168	194.630	158.659	-19.353	1.00	92.04	O
ATOM	24576	C5*	G A1166	197.676	156.180	-30.964	1.00	102.78	C	ATOM	24626	C2*	A A1168	194.007	156.464	-20.206	1.00	92.04	C
ATOM	24577	C4*	G A1166	197.242	155.831	-29.566	1.00	102.78	C	ATOM	24627	O2*	A A1168	193.355	156.314	-18.962	1.00	92.04	O
ATOM	24578	O4*	G A1166	198.275	156.198	-28.615	1.00	102.78	O	ATOM	24628	C1*	A A1168	193.039	156.085	-21.330	1.00	92.04	C
ATOM	24579	C3*	G A1166	196.013	156.559	-29.063	1.00	102.78	C	ATOM	24629	N9	A A1168	193.680	155.409	-22.459	1.00	73.72	N
ATOM	24580	O3*	G A1166	194.802	156.006	-29.533	1.00	102.78	O	ATOM	24630	C8	A A1168	194.094	155.972	-23.639	1.00	73.72	C
ATOM	24581	C2*	G A1166	196.165	156.446	-27.557	1.00	102.78	C	ATOM	24631	N7	A A1168	194.625	155.118	-24.473	1.00	73.72	N
ATOM	24582	O2*	G A1166	195.766	155.176	-27.086	1.00	102.78	O	ATOM	24632	C5	A A1168	194.561	153.908	-23.799	1.00	73.72	C
ATOM	24583	C1*	G A1166	197.676	156.599	-27.394	1.00	102.78	C	ATOM	24633	C6	A A1168	194.962	152.610	-24.151	1.00	73.72	C
ATOM	24584	N9	G A1166	198.021	157.993	-27.135	1.00	103.65	N	ATOM	24634	N6	A A1168	195.526	152.299	-25.319	1.00	73.72	N
ATOM	24585	C8	G A1166	198.364	158.955	-28.056	1.00	103.65	C	ATOM	24635	N1	A A1168	194.759	151.627	-23.252	1.00	73.72	N
ATOM	24586	N7	G A1166	198.564	160.128	-27.520	1.00	103.65	N	ATOM	24636	C2	A A1168	194.195	151.938	-22.083	1.00	73.72	C
ATOM	24587	C5	G A1166	198.353	159.925	-26.163	1.00	103.65	C	ATOM	24637	N3	A A1168	193.775	153.118	-21.637	1.00	73.72	N
ATOM	24588	C6	G A1166	198.416	160.836	-25.073	1.00	103.65	C	ATOM	24638	C4	A A1168	193.986	154.073	-22.555	1.00	73.72	C
ATOM	24589	O6	G A1166	198.685	162.047	-25.090	1.00	103.65	O	ATOM	24639	P	A A1169	196.164	158.890	-18.932	1.00	72.96	P
ATOM	24590	N1	G A1166	198.125	160.209	-23.867	1.00	103.65	N	ATOM	24640	O1P	A A1169	196.179	159.795	-17.753	1.00	75.83	O
ATOM	24591	C2	G A1166	197.815	158.880	-23.726	1.00	103.65	C	ATOM	24641	O2P	A A1169	196.926	159.266	-20.147	1.00	75.83	O
ATOM	24592	N2	G A1166	197.565	158.465	-22.483	1.00	103.65	N	ATOM	24642	O5*	A A1169	196.661	157.459	-18.435	1.00	72.96	O
ATOM	24593	N3	G A1166	197.753	158.023	-24.729	1.00	103.65	N	ATOM	24643	C5*	A A1169	196.366	157.001	-17.101	1.00	72.96	C
ATOM	24594	C4	G A1166	198.029	158.610	-25.910	1.00	103.65	C	ATOM	24644	C4*	A A1169	196.566	155.512	-17.004	1.00	72.96	C
ATOM	24595	P	A A1167	193.579	156.990	-29.866	1.00	98.00	P	ATOM	24645	O4*	A A1169	195.844	154.909	-18.106	1.00	72.96	O
ATOM	24596	O1P	A A1167	192.377	156.144	-30.051	1.00	95.29	O	ATOM	24646	C3*	A A1169	197.992	155.007	-17.170	1.00	72.96	C
ATOM	24597	O2P	A A1167	194.000	157.916	-30.947	1.00	95.29	O	ATOM	24647	O3*	A A1169	198.733	155.008	-15.954	1.00	72.96	O
ATOM	24598	O5*	A A1167	193.404	157.841	-28.529	1.00	98.00	O	ATOM	24648	C2*	A A1169	197.776	153.596	-17.696	1.00	72.96	C
ATOM	24599	C5*	A A1167	192.350	158.814	-28.394	1.00	98.00	C	ATOM	24649	O2*	A A1169	197.444	152.667	-16.682	1.00	72.96	O
ATOM	24600	C4*	A A1167	191.541	158.538	-27.145	1.00	98.00	C	ATOM	24650	C1*	A A1169	196.565	153.796	-18.601	1.00	72.96	C
ATOM	24601	O4*	A A1167	190.869	157.263	-27.299	1.00	98.00	O	ATOM	24651	N9	A A1169	196.957	154.081	-19.982	1.00	75.83	N
ATOM	24602	C3*	A A1167	192.342	158.410	-25.855	1.00	98.00	C	ATOM	24652	C8	A A1169	197.091	155.305	-20.593	1.00	75.83	C
ATOM	24603	O3*	A A1167	192.548	159.675	-25.228	1.00	98.00	O	ATOM	24653	N7	A A1169	197.447	155.232	-21.853	1.00	75.83	N
ATOM	24604	C2*	A A1167	191.480	157.490	-24.999	1.00	98.00	C	ATOM	24654	C5	A A1169	197.560	153.870	-22.086	1.00	75.83	C
ATOM	24605	O2*	A A1167	190.487	158.190	-24.279	1.00	98.00	O	ATOM	24655	C6	A A1169	197.898	153.137	-23.228	1.00	75.83	C
ATOM	24606	C1*	A A1167	190.826	156.593	-26.053	1.00	98.00	C	ATOM	24656	N6	A A1169	198.198	153.691	-24.405	1.00	75.83	N
ATOM	24607	N9	A A1167	191.438	155.272	-26.214	1.00	95.29	N	ATOM	24657	N1	A A1169	197.916	151.792	-23.124	1.00	75.83	N
ATOM	24608	C8	A A1167	192.132	154.783	-27.295	1.00	95.29	C	ATOM	24658	C2	A A1169	197.614	151.234	-21.946	1.00	75.83	C
ATOM	24609	N7	A A1167	192.510	153.535	-27.161	1.00	95.29	N	ATOM	24659	N3	A A1169	197.280	151.816	-20.804	1.00	75.83	N
ATOM	24610	C5	A A1167	192.044	153.179	-25.902	1.00	95.29	C	ATOM	24660	C4	A A1169	197.268	153.150	-20.942	1.00	75.83	C
ATOM	24611	C6	A A1167	192.108	151.978	-25.171	1.00	95.29	C	ATOM	24661	P	G A1171	200.207	155.662	-15.919	1.00	85.60	P
ATOM	24612	N6	A A1167	192.687	150.863	-25.620	1.00	95.29	N	ATOM	24662	O1P	G A1171	200.790	155.323	-14.592	1.00	75.97	O
ATOM	24613	N1	A A1167	191.548	151.961	-23.946	1.00	95.29	N	ATOM	24663	O2P	G A1171	200.101	157.084	-16.335	1.00	75.97	O
ATOM	24614	C2	A A1167	190.963	153.075	-23.492	1.00	95.29	C	ATOM	24664	O5*	G A1171	201.026	154.913	-17.067	1.00	85.60	O
ATOM	24615	N3	A A1167	190.834	154.259	-24.081	1.00	95.29	N	ATOM	24665	C5*	G A1171	201.252	153.497	-17.009	1.00	85.60	C



Table 2: Sheet 248/520

ATOM	24666	C4*	G A1171	201.380	152.921	-18.403	1.00	85.60	C	ATOM	24716	N9	G A1173	208.888	156.140	-26.300	1.00	99.44	N
ATOM	24667	O4*	G A1171	200.365	153.525	-19.250	1.00	85.60	O	ATOM	24717	C8	G A1173	208.394	155.930	-25.034	1.00	99.44	C
ATOM	24668	C3*	G A1171	202.673	153.170	-19.163	1.00	85.60	C	ATOM	24718	N7	G A1173	207.938	157.018	-24.476	1.00	99.44	N
ATOM	24669	O3*	G A1171	203.714	152.258	-18.822	1.00	85.60	O	ATOM	24719	C5	G A1173	208.134	158.002	-25.435	1.00	99.44	C
ATOM	24670	C2*	G A1171	202.236	153.006	-20.614	1.00	85.60	C	ATOM	24720	C6	G A1173	207.849	159.386	-25.399	1.00	99.44	C
ATOM	24671	O2*	G A1171	202.123	151.653	-21.016	1.00	85.60	O	ATOM	24721	O6	G A1173	207.362	160.048	-24.479	1.00	99.44	O
ATOM	24672	C1*	G A1171	200.841	153.620	-20.581	1.00	85.60	C	ATOM	24722	N1	G A1173	208.199	160.011	-26.589	1.00	99.44	N
ATOM	24673	N9	G A1171	200.855	155.024	-20.982	1.00	75.97	N	ATOM	24723	C2	G A1173	208.761	159.386	-27.674	1.00	99.44	C
ATOM	24674	C8	G A1171	200.674	156.133	-20.187	1.00	75.97	C	ATOM	24724	N2	G A1173	209.021	160.161	-28.735	1.00	99.44	N
ATOM	24675	N7	G A1171	200.730	157.255	-20.852	1.00	75.97	N	ATOM	24725	N3	G A1173	209.045	158.098	-27.716	1.00	99.44	N
ATOM	24676	C5	G A1171	200.966	156.865	-22.163	1.00	75.97	C	ATOM	24726	C4	G A1173	208.706	157.472	-26.571	1.00	99.44	C
ATOM	24677	C6	G A1171	201.117	157.643	-23.346	1.00	75.97	C	ATOM	24727	P	G A1174	213.834	154.251	-25.339	1.00108.51	P	
ATOM	24678	O6	G A1171	201.059	158.875	-23.471	1.00	75.97	O	ATOM	24728	O1P	G A1174	215.063	153.483	-25.655	1.00108.48	O	
ATOM	24679	N1	G A1171	201.352	156.840	-24.462	1.00	75.97	N	ATOM	24729	O2P	G A1174	213.379	154.354	-23.928	1.00108.48	O	
ATOM	24680	C2	G A1171	201.429	155.465	-24.446	1.00	75.97	C	ATOM	24730	O5*	G A1174	213.969	155.727	-25.932	1.00108.51	O	
ATOM	24681	N2	G A1171	201.669	154.864	-25.626	1.00	75.97	N	ATOM	24731	C5*	G A1174	214.358	155.930	-27.306	1.00108.51	C	
ATOM	24682	N3	G A1171	201.281	154.730	-23.352	1.00	75.97	N	ATOM	24732	C4*	G A1174	214.290	157.395	-27.679	1.00108.51	C	
ATOM	24683	C4	G A1171	201.054	155.491	-22.257	1.00	75.97	C	ATOM	24733	O4*	G A1174	212.911	157.854	-27.649	1.00108.51	O	
ATOM	24684	P	C A1172	205.234	152.618	-19.212	1.00	91.79	P	ATOM	24734	C3*	G A1174	215.023	158.379	-26.781	1.00108.51	C	
ATOM	24685	O1P	C A1172	206.121	151.542	-18.715	1.00	76.75	O	ATOM	24735	O3*	G A1174	216.418	158.464	-27.015	1.00108.51	O	
ATOM	24686	O2P	C A1172	205.498	154.025	-18.816	1.00	76.75	O	ATOM	24736	C2*	G A1174	214.320	159.696	-27.089	1.00108.51	C	
ATOM	24687	O5*	C A1172	205.231	152.556	-20.801	1.00	91.79	O	ATOM	24737	O2*	G A1174	214.811	160.366	-28.235	1.00108.51	O	
ATOM	24688	C5*	C A1172	205.120	151.299	-21.489	1.00	91.79	C	ATOM	24738	C1*	G A1174	212.879	159.234	-27.305	1.00108.51	C	
ATOM	24689	C4*	C A1172	205.514	151.467	-22.932	1.00	91.79	C	ATOM	24739	N9	G A1174	212.125	159.410	-26.067	1.00108.48	N	
ATOM	24690	O4*	C A1172	204.521	152.274	-23.611	1.00	91.79	O	ATOM	24740	C8	G A1174	211.789	158.451	-25.139	1.00108.48	C	
ATOM	24691	C3*	C A1172	206.812	152.227	-23.147	1.00	91.79	C	ATOM	24741	N7	G A1174	211.170	158.941	-24.100	1.00108.48	N	
ATOM	24692	O3*	C A1172	207.966	151.426	-23.021	1.00	91.79	O	ATOM	24742	C5	G A1174	211.076	160.302	-24.363	1.00108.48	C	
ATOM	24693	C2*	C A1172	206.649	152.797	-24.544	1.00	91.79	C	ATOM	24743	C6	G A1174	210.510	161.353	-23.594	1.00108.48	C	
ATOM	24694	O2*	C A1172	206.970	151.870	-25.561	1.00	91.79	O	ATOM	24744	O6	G A1174	209.967	161.290	-22.484	1.00108.48	O	
ATOM	24695	C1*	C A1172	205.157	153.110	-24.565	1.00	91.79	C	ATOM	24745	N1	G A1174	210.628	162.580	-24.239	1.00108.48	N	
ATOM	24696	N1	C A1172	204.911	154.517	-24.206	1.00	76.75	N	ATOM	24746	C2	G A1174	211.217	162.776	-25.463	1.00108.48	C	
ATOM	24697	C2	C A1172	204.894	155.476	-25.234	1.00	76.75	C	ATOM	24747	N2	G A1174	211.224	164.037	-25.921	1.00108.48	N	
ATOM	24698	O2	C A1172	205.067	155.103	-26.414	1.00	76.75	O	ATOM	24748	N3	G A1174	211.754	161.808	-26.186	1.00108.48	N	
ATOM	24699	N3	C A1172	204.688	156.778	-24.916	1.00	76.75	N	ATOM	24749	C4	G A1174	211.648	160.605	-25.579	1.00108.48	C	
ATOM	24700	C4	C A1172	204.503	157.135	-23.640	1.00	76.75	C	ATOM	24750	P	G A1175	217.378	159.008	-25.844	1.00108.44	P	
ATOM	24701	N4	C A1172	204.306	158.429	-23.378	1.00	76.75	N	ATOM	24751	O1P	G A1175	218.772	158.917	-26.340	1.00111.88	O	
ATOM	24702	C5	C A1172	204.510	156.179	-22.578	1.00	76.75	C	ATOM	24752	O2P	G A1175	217.006	158.314	-24.585	1.00111.88	O	
ATOM	24703	C6	C A1172	204.714	154.895	-22.902	1.00	76.75	C	ATOM	24753	O5*	G A1175	216.989	160.551	-25.699	1.00108.44	O	
ATOM	24704	P	G A1173	209.368	152.135	-22.715	1.00	94.41	P	ATOM	24754	C5*	G A1175	217.272	161.483	-26.761	1.00108.44	C	
ATOM	24705	O1P	G A1173	210.368	151.056	-22.520	1.00	99.44	O	ATOM	24755	C4*	G A1175	216.856	162.892	-26.380	1.00108.44	C	
ATOM	24706	O2P	G A1173	209.172	153.162	-21.649	1.00	99.44	O	ATOM	24756	O4*	G A1175	215.411	162.968	-26.237	1.00108.44	O	
ATOM	24707	O5*	G A1173	209.690	152.891	-24.079	1.00	94.41	O	ATOM	24757	C3*	G A1175	217.389	163.474	-25.077	1.00108.44	C	
ATOM	24708	C5*	G A1173	209.932	152.150	-25.291	1.00	94.41	C	ATOM	24758	O3*	G A1175	218.723	163.967	-25.168	1.00108.44	O	
ATOM	24709	C4*	G A1173	210.280	153.088	-26.419	1.00	94.41	C	ATOM	24759	C2*	G A1175	216.384	164.585	-24.781	1.00108.44	C	
ATOM	24710	O4*	G A1173	209.115	153.867	-26.787	1.00	94.41	O	ATOM	24760	O2*	G A1175	216.627	165.791	-25.483	1.00108.44	O	
ATOM	24711	C3*	G A1173	211.342	154.124	-26.100	1.00	94.41	C	ATOM	24761	C1*	G A1175	215.077	163.960	-25.272	1.00108.44	C	
ATOM	24712	O3*	G A1173	212.658	153.607	-26.218	1.00	94.41	O	ATOM	24762	N9	G A1175	214.364	163.331	-24.160	1.00111.88	N	
ATOM	24713	C2*	G A1173	211.042	155.237	-27.097	1.00	94.41	C	ATOM	24763	C8	G A1175	214.193	161.985	-23.924	1.00111.88	C	
ATOM	24714	O2*	G A1173	211.613	155.032	-28.374	1.00	94.41	O	ATOM	24764	N7	G A1175	213.560	161.736	-22.809	1.00111.88	N	
ATOM	24715	C1*	G A1173	209.517	155.166	-27.185	1.00	94.41	C	ATOM	24765	C5	G A1175	213.284	162.991	-22.281	1.00111.88	C	



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ATOM	24766	G A1175	212.627	163.357	-21.078	1.00111.88	C	ATOM	24816	N3	G A1177	216.406	166.753	-15.219	1.00	95.74	N
ATOM	24767	G A1175	212.143	162.624	-20.211	1.00111.88	O	ATOM	24817	C4	G A1177	217.336	166.534	-16.167	1.00	95.74	C
ATOM	24768	G A1175	212.565	164.739	-20.929	1.00111.88	N	ATOM	24818	P	G A1178	222.353	170.131	-14.965	1.00	113.70	P
ATOM	24769	C1	213.068	165.652	-21.822	1.00111.88	C	ATOM	24819	O1P	G A1178	222.904	171.226	-14.135	1.00	98.39	O
ATOM	24770	N2	212.907	166.941	-21.502	1.00111.88	N	ATOM	24820	O2P	G A1178	223.190	169.514	-16.027	1.00	98.39	O
ATOM	24771	N3	213.683	165.325	-22.946	1.00111.88	N	ATOM	24821	O5*	G A1178	221.843	168.992	-13.976	1.00	113.70	O
ATOM	24772	C4	213.758	163.986	-23.109	1.00111.88	C	ATOM	24822	C5*	G A1178	221.214	169.330	-12.728	1.00	113.70	C
ATOM	24773	P	219.604	164.127	-23.828	1.00103.13	P	ATOM	24823	C4*	G A1178	220.830	168.078	-11.973	1.00	113.70	C
ATOM	24774	O1P	220.982	164.484	-24.242	1.00109.86	O	ATOM	24824	O4*	G A1178	219.830	167.341	-12.727	1.00	113.70	O
ATOM	24775	O2P	219.384	162.946	-22.957	1.00109.86	O	ATOM	24825	C3*	G A1178	221.934	167.059	-11.734	1.00	113.70	C
ATOM	24776	O5*	218.966	165.390	-23.098	1.00103.13	O	ATOM	24826	O3*	G A1178	222.750	167.362	-10.616	1.00	113.70	O
ATOM	24777	C5*	218.901	166.666	-23.759	1.00103.13	C	ATOM	24827	C2*	G A1178	221.152	165.771	-11.523	1.00	113.70	C
ATOM	24778	C4*	218.305	167.705	-22.839	1.00103.13	C	ATOM	24828	O2*	G A1178	220.654	165.654	-10.204	1.00	113.70	O
ATOM	24779	O4*	216.919	167.382	-22.559	1.00103.13	O	ATOM	24829	C1*	G A1178	219.997	165.948	-12.510	1.00	113.70	C
ATOM	24780	C3*	218.962	167.821	-21.474	1.00103.13	C	ATOM	24830	N9	G A1178	220.311	165.307	-13.784	1.00	98.39	N
ATOM	24781	O3*	220.095	168.675	-21.523	1.00103.13	O	ATOM	24831	C8	G A1178	220.998	165.854	-14.839	1.00	98.39	C
ATOM	24782	C2*	217.850	168.396	-20.605	1.00103.13	C	ATOM	24832	N7	G A1178	221.191	165.011	-15.815	1.00	98.39	N
ATOM	24783	O2*	217.770	169.805	-20.697	1.00103.13	O	ATOM	24833	C5	G A1178	220.581	163.841	-15.387	1.00	98.39	C
ATOM	24784	C1*	216.600	167.760	-21.228	1.00103.13	C	ATOM	24834	C6	G A1178	220.474	162.579	-16.020	1.00	98.39	C
ATOM	24785	N9	216.104	166.580	-20.507	1.00109.86	N	ATOM	24835	O6	G A1178	220.927	162.225	-17.113	1.00	98.39	O
ATOM	24786	C8	216.253	165.254	-20.842	1.00109.86	C	ATOM	24836	N1	G A1178	219.756	161.677	-15.243	1.00	98.39	N
ATOM	24787	N7	215.691	164.427	-19.994	1.00109.86	N	ATOM	24837	C2	G A1178	219.218	161.948	-14.013	1.00	98.39	C
ATOM	24788	C5	215.134	165.261	-19.035	1.00109.86	C	ATOM	24838	N2	G A1178	218.550	160.945	-13.427	1.00	98.39	N
ATOM	24789	C6	214.400	164.998	-17.864	1.00109.86	C	ATOM	24839	N3	G A1178	219.324	163.117	-13.404	1.00	98.39	N
ATOM	24790	N6	214.087	163.770	-17.444	1.00109.86	N	ATOM	24840	C4	G A1178	220.014	164.012	-14.145	1.00	98.39	C
ATOM	24791	N1	213.993	166.055	-17.128	1.00109.86	N	ATOM	24841	P	A A1179	224.324	167.047	-10.686	1.00	84.58	P
ATOM	24792	C2	214.307	167.286	-17.527	1.00109.86	C	ATOM	24842	O1P	A A1179	224.979	167.639	-9.486	1.00	85.14	O
ATOM	24793	N3	214.988	167.661	-18.627	1.00109.86	N	ATOM	24843	O2P	A A1179	224.796	167.419	-12.052	1.00	85.14	O
ATOM	24794	C4	215.379	166.589	-19.338	1.00109.86	C	ATOM	24844	O5*	A A1179	224.431	165.466	-10.540	1.00	84.58	O
ATOM	24795	P	221.318	168.426	-20.516	1.00	89.88	ATOM	24845	C5*	A A1179	225.703	164.801	-10.673	1.00	84.58	C
ATOM	24796	O1P	222.413	169.353	-20.901	1.00	95.74	ATOM	24846	C4*	A A1179	225.604	163.374	-10.186	1.00	84.58	C
ATOM	24797	O2P	221.583	166.965	-20.476	1.00	95.74	ATOM	24847	O4*	A A1179	225.409	163.351	-8.749	1.00	84.58	O
ATOM	24798	O5*	220.746	168.886	-19.099	1.00	89.88	ATOM	24848	C3*	A A1179	224.438	162.581	-10.742	1.00	84.58	C
ATOM	24799	C5*	220.386	170.262	-18.850	1.00	89.88	ATOM	24849	O3*	A A1179	224.747	162.037	-12.007	1.00	84.58	O
ATOM	24800	C4*	219.552	170.361	-17.595	1.00	89.88	ATOM	24850	C2*	A A1179	224.226	161.512	-9.680	1.00	84.58	C
ATOM	24801	O4*	218.335	169.599	-17.789	1.00	89.88	ATOM	24851	O2*	A A1179	225.130	160.433	-9.805	1.00	84.58	O
ATOM	24802	C3*	220.188	169.756	-16.353	1.00	89.88	ATOM	24852	C1*	A A1179	224.552	162.279	-8.399	1.00	84.58	C
ATOM	24803	O3*	221.019	170.667	-15.666	1.00	89.88	ATOM	24853	N9	A A1179	223.356	162.838	-7.773	1.00	85.14	N
ATOM	24804	C2*	218.991	169.347	-15.509	1.00	89.88	ATOM	24854	C8	A A1179	222.915	164.134	-7.825	1.00	85.14	C
ATOM	24805	O2*	218.480	170.391	-14.707	1.00	89.88	ATOM	24855	N7	A A1179	221.798	164.338	-7.174	1.00	85.14	N
ATOM	24806	C1*	217.986	168.934	-16.586	1.00	89.88	ATOM	24856	C5	A A1179	221.482	163.094	-6.655	1.00	85.14	C
ATOM	24807	N9	218.053	167.498	-16.824	1.00	95.74	ATOM	24857	C6	A A1179	220.419	162.650	-5.862	1.00	85.14	C
ATOM	24808	C8	218.866	166.838	-17.713	1.00	95.74	ATOM	24858	N6	A A1179	219.431	163.439	-5.441	1.00	85.14	N
ATOM	24809	N7	218.748	165.541	-17.650	1.00	95.74	ATOM	24859	N1	A A1179	220.404	161.349	-5.508	1.00	85.14	N
ATOM	24810	C5	217.789	165.333	-16.670	1.00	95.74	ATOM	24860	C2	A A1179	221.397	160.559	-5.930	1.00	85.14	C
ATOM	24811	C6	217.253	164.130	-16.152	1.00	95.74	ATOM	24861	N3	A A1179	222.449	160.859	-6.682	1.00	85.14	N
ATOM	24812	O6	217.533	162.968	-16.457	1.00	95.74	ATOM	24862	C4	A A1179	222.434	162.160	-7.014	1.00	85.14	C
ATOM	24813	N1	216.299	164.379	-15.176	1.00	95.74	ATOM	24863	P	A A1180	223.579	161.852	-13.088	1.00	85.01	P
ATOM	24814	C2	215.909	165.625	-14.750	1.00	95.74	ATOM	24864	O1P	A A1180	224.164	161.197	-14.286	1.00	93.03	O
ATOM	24815	N2	214.966	165.660	-13.801	1.00	95.74	ATOM	24865	O2P	A A1180	222.861	163.142	-13.235	1.00	93.03	O



Table 2: Sheet 250/520

ATOM	24866	O5*	A A1180	222.591	160.815	-12.399	1.00	85.01	O	ATOM	24916	O3*	G A1182	210.072	152.254	-15.021	1.00	97.98	O
ATOM	24867	C5*	A A1180	223.042	159.502	-12.028	1.00	85.01	C	ATOM	24917	C2*	G A1182	209.691	154.762	-15.307	1.00	97.98	C
ATOM	24868	O4*	A A1180	221.985	158.809	-11.212	1.00	85.01	C	ATOM	24918	O2*	G A1182	208.533	154.702	-14.504	1.00	97.98	O
ATOM	24869	C4*	A A1180	221.763	159.560	-9.994	1.00	85.01	C	ATOM	24919	C1*	G A1182	210.573	155.926	-14.842	1.00	97.98	C
ATOM	24870	C3*	A A1180	220.627	158.735	-11.888	1.00	85.01	O	ATOM	24920	N9	G A1182	211.149	156.759	-15.892	1.00	96.31	N
ATOM	24871	O3*	A A1180	220.545	157.571	-12.697	1.00	85.01	O	ATOM	24921	C8	G A1182	211.844	156.338	-16.999	1.00	96.31	C
ATOM	24872	C2*	A A1180	219.658	158.693	-10.711	1.00	85.01	C	ATOM	24922	N7	G A1182	212.300	157.323	-17.724	1.00	96.31	N
ATOM	24873	O2*	A A1180	219.469	157.387	-10.211	1.00	85.01	O	ATOM	24923	C5	G A1182	211.871	158.465	-17.061	1.00	96.31	C
ATOM	24874	C1*	A A1180	220.386	159.555	-9.676	1.00	85.01	C	ATOM	24924	C6	G A1182	212.076	159.837	-17.367	1.00	96.31	C
ATOM	24875	N9	A A1180	219.929	160.941	-9.654	1.00	93.03	N	ATOM	24925	O6	G A1182	212.708	160.328	-18.311	1.00	96.31	O
ATOM	24876	C8	A A1180	220.386	161.991	-10.409	1.00	93.03	C	ATOM	24926	N1	G A1182	211.457	160.668	-16.437	1.00	96.31	N
ATOM	24877	N7	A A1180	219.777	163.121	-10.164	1.00	93.03	N	ATOM	24927	C2	G A1182	210.733	160.237	-15.352	1.00	96.31	C
ATOM	24878	C5	A A1180	218.857	162.795	-9.180	1.00	93.03	C	ATOM	24928	N2	G A1182	210.199	161.195	-14.583	1.00	96.31	N
ATOM	24879	C6	A A1180	217.903	163.553	-8.498	1.00	93.03	C	ATOM	24929	N3	G A1182	210.544	158.961	-15.048	1.00	96.31	N
ATOM	24880	N6	A A1180	217.707	164.855	-8.706	1.00	93.03	N	ATOM	24930	C4	G A1182	211.139	158.135	-15.940	1.00	96.31	C
ATOM	24881	N1	A A1180	217.141	162.925	-7.583	1.00	93.03	N	ATOM	24931	P	A A1183	209.097	151.903	-13.771	1.00	105.74	P
ATOM	24882	C2	A A1180	217.338	161.622	-7.375	1.00	93.03	C	ATOM	24932	O1P	A A1183	209.057	150.418	-13.704	1.00	87.33	O
ATOM	24883	N3	A A1180	218.203	160.801	-7.953	1.00	93.03	N	ATOM	24933	O2P	A A1183	207.820	152.668	-13.809	1.00	87.33	O
ATOM	24884	C4	A A1180	218.941	161.457	-8.858	1.00	93.03	C	ATOM	24934	O5*	A A1183	209.922	152.355	-12.496	1.00	105.74	O
ATOM	24885	P	G A1181	219.808	157.642	-14.118	1.00	76.40	P	ATOM	24935	C5*	A A1183	209.261	152.785	-11.310	1.00	105.74	C
ATOM	24886	O1P	G A1181	219.918	156.294	-14.718	1.00	86.29	O	ATOM	24936	C4*	A A1183	209.931	152.183	-10.105	1.00	105.74	C
ATOM	24887	O2P	G A1181	220.299	158.819	-14.868	1.00	86.29	O	ATOM	24937	O4*	A A1183	209.307	150.926	-9.764	1.00	105.74	O
ATOM	24888	O5*	G A1181	218.289	157.894	-13.734	1.00	76.40	O	ATOM	24938	C3*	A A1183	211.407	151.852	-10.258	1.00	105.74	C
ATOM	24889	C5*	G A1181	217.602	156.980	-12.869	1.00	76.40	C	ATOM	24939	O3*	A A1183	212.173	153.080	-10.238	1.00	105.74	O
ATOM	24890	C4*	G A1181	216.179	156.819	-13.324	1.00	76.40	C	ATOM	24940	C2*	A A1183	211.631	150.761	-9.196	1.00	105.74	C
ATOM	24891	O4*	G A1181	215.447	158.040	-13.050	1.00	76.40	O	ATOM	24941	O2*	A A1183	211.974	151.204	-7.897	1.00	105.74	O
ATOM	24892	C3*	G A1181	216.012	156.542	-14.816	1.00	76.40	C	ATOM	24942	C1*	A A1183	210.248	150.102	-9.110	1.00	105.74	C
ATOM	24893	O3*	G A1181	214.864	155.711	-14.957	1.00	76.40	O	ATOM	24943	N9	A A1183	210.133	148.740	-9.629	1.00	87.33	N
ATOM	24894	C2*	G A1181	215.680	157.922	-15.379	1.00	76.40	C	ATOM	24944	C8	A A1183	210.336	148.280	-10.907	1.00	87.33	C
ATOM	24895	O2*	G A1181	214.909	157.875	-16.559	1.00	76.40	O	ATOM	24945	N7	A A1183	210.192	146.981	-11.029	1.00	87.33	N
ATOM	24896	C1*	G A1181	214.842	158.489	-14.240	1.00	76.40	C	ATOM	24946	C5	A A1183	209.865	146.561	-9.748	1.00	87.33	C
ATOM	24897	N9	G A1181	214.637	159.930	-14.154	1.00	86.29	N	ATOM	24947	C6	A A1183	209.604	145.293	-9.209	1.00	87.33	C
ATOM	24898	C8	G A1181	215.338	160.944	-14.758	1.00	86.29	C	ATOM	24948	N6	A A1183	209.647	144.165	-9.921	1.00	87.33	N
ATOM	24899	N7	G A1181	214.882	162.129	-14.453	1.00	86.29	N	ATOM	24949	N1	A A1183	209.299	145.218	-7.895	1.00	87.33	N
ATOM	24900	C5	G A1181	213.822	161.877	-13.595	1.00	86.29	C	ATOM	24950	C2	A A1183	209.266	146.349	-7.181	1.00	87.33	C
ATOM	24901	C6	G A1181	212.946	162.766	-12.923	1.00	86.29	C	ATOM	24951	N3	A A1183	209.503	147.599	-7.571	1.00	87.33	N
ATOM	24902	O6	G A1181	212.942	163.998	-12.931	1.00	86.29	O	ATOM	24952	C4	A A1183	209.804	147.635	-8.881	1.00	87.33	C
ATOM	24903	N1	G A1181	212.003	162.078	-12.169	1.00	86.29	N	ATOM	24953	P	G A1184	213.382	153.299	-9.196	1.00	89.22	P
ATOM	24904	C2	G A1181	211.922	160.709	-12.061	1.00	86.29	C	ATOM	24954	O1P	G A1184	214.053	152.008	-8.880	1.00	70.63	O
ATOM	24905	N2	G A1181	210.940	160.224	-11.296	1.00	86.29	N	ATOM	24955	O2P	G A1184	212.829	154.130	-8.089	1.00	70.63	O
ATOM	24906	N3	G A1181	212.741	159.877	-12.664	1.00	86.29	N	ATOM	24956	O5*	G A1184	214.448	154.168	-10.003	1.00	89.22	O
ATOM	24907	C4	G A1181	213.657	160.524	-13.411	1.00	86.29	C	ATOM	24957	C5*	G A1184	215.105	153.646	-11.179	1.00	89.22	C
ATOM	24908	P	G A1182	214.979	154.286	-15.679	1.00	97.98	P	ATOM	24958	C4*	G A1184	216.567	153.345	-10.893	1.00	89.22	C
ATOM	24909	O1P	G A1182	215.952	153.464	-14.914	1.00	96.31	O	ATOM	24959	O4*	G A1184	217.156	154.458	-10.169	1.00	89.22	O
ATOM	24910	O2P	G A1182	215.188	154.519	-17.129	1.00	96.31	O	ATOM	24960	C3*	G A1184	216.886	152.136	-10.025	1.00	89.22	C
ATOM	24911	O5*	G A1182	213.525	153.670	-15.478	1.00	97.98	O	ATOM	24961	O3*	G A1184	216.920	150.930	-10.773	1.00	89.22	O
ATOM	24912	C5*	G A1182	212.994	153.424	-14.158	1.00	97.98	C	ATOM	24962	C2*	G A1184	218.269	152.470	-9.476	1.00	89.22	C
ATOM	24913	C4*	G A1182	211.587	153.965	-14.054	1.00	97.98	C	ATOM	24963	O2*	G A1184	219.318	152.165	-10.376	1.00	89.22	O
ATOM	24914	O4*	G A1182	211.647	155.409	-14.080	1.00	97.98	O	ATOM	24964	C1*	G A1184	218.176	153.986	-9.300	1.00	89.22	C
ATOM	24915	C3*	G A1182	210.645	153.575	-15.186	1.00	97.98	C	ATOM	24965	N9	G A1184	217.855	154.372	-7.925	1.00	70.63	N



Table 2: Sheet 251/520

ATOM	24966	C8	G A1184	216.713	154.990	-7.476	1.00	70.63	C	ATOM	25016	O6	G A1186	216.122	149.340	-0.761	1.00	58.28	O
ATOM	24967	N7	G A1184	216.705	155.172	-6.184	1.00	70.63	N	ATOM	25017	N1	G A1186	217.523	148.345	0.726	1.00	58.28	N
ATOM	24968	C5	G A1184	217.916	154.649	-5.752	1.00	70.63	C	ATOM	25018	C2	G A1186	218.575	147.529	1.061	1.00	58.28	C
ATOM	24969	C6	G A1184	218.465	154.554	-4.446	1.00	70.63	C	ATOM	25019	N2	G A1186	218.857	147.435	2.364	1.00	58.28	N
ATOM	24970	O6	G A1184	217.968	154.913	-3.371	1.00	70.63	O	ATOM	25020	N3	G A1186	219.302	146.857	0.179	1.00	58.28	N
ATOM	24971	N1	G A1184	219.721	153.965	-4.461	1.00	70.63	N	ATOM	25021	C4	G A1186	218.893	147.084	-1.090	1.00	58.28	C
ATOM	24972	C2	G A1184	220.362	153.518	-5.582	1.00	70.63	C	ATOM	25022	P	G A1187	218.631	141.395	-2.709	1.00	57.75	P
ATOM	24973	N2	G A1184	221.565	152.974	-5.393	1.00	70.63	N	ATOM	25023	O1P	G A1187	218.789	139.938	-2.995	1.00	52.56	O
ATOM	24974	N3	G A1184	219.862	153.593	-6.801	1.00	70.63	N	ATOM	25024	O2P	G A1187	217.348	142.081	-3.031	1.00	52.56	O
ATOM	24975	C4	G A1184	218.644	154.165	-6.813	1.00	70.63	C	ATOM	25025	O5*	G A1187	218.936	141.610	-1.166	1.00	57.75	O
ATOM	24976	P	G A1185	216.695	149.521	-10.025	1.00	68.05	P	ATOM	25026	C5*	G A1187	217.955	141.315	-0.185	1.00	57.75	C
ATOM	24977	O1P	G A1185	216.645	148.492	-11.090	1.00	68.29	O	ATOM	25027	C4*	G A1187	218.290	142.012	1.102	1.00	57.75	C
ATOM	24978	O2P	G A1185	215.578	149.636	-9.058	1.00	68.29	O	ATOM	25028	O4*	G A1187	218.387	143.443	0.881	1.00	57.75	O
ATOM	24979	O5*	G A1185	218.028	149.271	-9.192	1.00	68.05	O	ATOM	25029	C3*	G A1187	217.212	141.848	2.146	1.00	57.75	C
ATOM	24980	C5*	G A1185	219.213	148.796	-9.843	1.00	68.05	C	ATOM	25030	O3*	G A1187	217.410	140.626	2.826	1.00	57.75	O
ATOM	24981	C4*	G A1185	220.253	148.413	-8.827	1.00	68.05	C	ATOM	25031	C2*	G A1187	217.381	143.059	3.005	1.00	57.75	C
ATOM	24982	O4*	G A1185	220.703	149.596	-8.121	1.00	68.05	O	ATOM	25032	O2*	G A1187	218.440	142.946	3.924	1.00	57.75	O
ATOM	24983	C3*	G A1185	219.791	147.480	-7.726	1.00	68.05	C	ATOM	25033	C1*	G A1187	217.777	144.135	1.958	1.00	57.75	C
ATOM	24984	O3*	G A1185	219.789	146.126	-8.112	1.00	68.05	O	ATOM	25034	N9	G A1187	216.653	144.904	1.418	1.00	52.56	N
ATOM	24985	C2*	G A1185	220.802	147.752	-6.625	1.00	68.05	C	ATOM	25035	C8	G A1187	216.351	145.101	0.091	1.00	52.56	C
ATOM	24986	O2*	G A1185	222.026	147.070	-6.811	1.00	68.05	O	ATOM	25036	N7	G A1187	215.292	145.841	-0.091	1.00	52.56	N
ATOM	24987	C1*	G A1185	221.008	149.259	-6.777	1.00	68.05	C	ATOM	25037	C5	G A1187	214.861	146.148	1.191	1.00	52.56	C
ATOM	24988	N9	G A1185	220.078	149.960	-5.896	1.00	68.29	N	ATOM	25038	C6	G A1187	212.881	147.488	0.952	1.00	52.56	C
ATOM	24989	C8	G A1185	218.946	150.650	-6.252	1.00	68.29	C	ATOM	25039	O6	G A1187	213.748	146.922	1.631	1.00	52.56	O
ATOM	24990	N7	G A1185	218.282	151.105	-5.224	1.00	68.29	N	ATOM	25040	N1	G A1187	213.697	146.996	3.017	1.00	52.56	N
ATOM	24991	C5	G A1185	219.029	150.700	-4.127	1.00	68.29	C	ATOM	25041	C2	G A1187	214.591	146.397	3.871	1.00	52.56	C
ATOM	24992	C6	G A1185	218.801	150.890	-2.743	1.00	68.29	C	ATOM	25042	N2	G A1187	214.394	146.605	5.176	1.00	52.56	N
ATOM	24993	O6	G A1185	217.854	151.460	-2.189	1.00	68.29	O	ATOM	25043	N3	G A1187	215.611	145.656	3.477	1.00	52.56	N
ATOM	24994	N1	G A1185	219.816	150.326	-1.978	1.00	68.29	N	ATOM	25044	C4	G A1187	215.691	145.579	2.134	1.00	52.56	C
ATOM	24995	C2	G A1185	220.906	149.661	-2.481	1.00	68.29	C	ATOM	25045	P	G A1188	216.192	139.587	2.942	1.00	62.04	P
ATOM	24996	N2	G A1185	221.782	149.191	-1.591	1.00	68.29	N	ATOM	25046	O1P	A A1188	216.701	138.285	3.446	1.00	51.74	O
ATOM	24997	N3	G A1185	221.122	149.471	-3.767	1.00	68.29	N	ATOM	25047	O2P	A A1188	215.412	139.634	1.680	1.00	51.74	O
ATOM	24998	C4	G A1186	220.150	150.012	-4.526	1.00	68.29	C	ATOM	25048	O5*	A A1188	215.288	140.220	4.087	1.00	62.04	O
ATOM	24999	P	G A1186	218.784	145.110	-7.391	1.00	62.69	P	ATOM	25049	C5*	A A1188	215.815	140.433	5.409	1.00	62.04	C
ATOM	25000	O1P	G A1186	218.906	143.799	-8.071	1.00	58.28	O	ATOM	25050	C4*	A A1188	214.904	141.348	6.180	1.00	62.04	C
ATOM	25001	O2P	G A1186	217.473	145.789	-7.338	1.00	58.28	O	ATOM	25051	O4*	A A1188	214.909	142.657	5.572	1.00	62.04	O
ATOM	25002	O5*	G A1186	219.349	144.975	-5.910	1.00	62.69	O	ATOM	25052	C3*	A A1188	213.449	140.928	6.187	1.00	62.04	C
ATOM	25003	C5*	G A1186	220.630	144.375	-5.677	1.00	62.69	C	ATOM	25053	O3*	A A1188	213.197	140.035	7.248	1.00	62.04	O
ATOM	25004	C4*	G A1186	220.998	144.257	-4.198	1.00	62.69	C	ATOM	25054	C2*	A A1188	212.716	142.235	6.406	1.00	62.04	C
ATOM	25005	O4*	G A1186	221.060	145.577	-3.615	1.00	62.69	O	ATOM	25055	O2*	A A1188	212.640	142.533	7.780	1.00	62.04	O
ATOM	25006	C3*	G A1186	219.799	143.623	-3.370	1.00	62.69	C	ATOM	25056	C1*	A A1188	213.629	143.233	5.689	1.00	62.04	C
ATOM	25007	O3*	G A1186	219.817	142.210	-3.419	1.00	62.69	O	ATOM	25057	N9	A A1188	213.168	143.567	4.350	1.00	51.74	N
ATOM	25008	C2*	G A1186	220.081	144.169	-1.975	1.00	62.69	C	ATOM	25058	C8	A A1188	213.702	143.173	3.152	1.00	51.74	C
ATOM	25009	O2*	G A1186	221.115	143.469	-1.314	1.00	62.69	O	ATOM	25059	N7	A A1188	213.054	143.632	2.110	1.00	51.74	N
ATOM	25010	C1*	G A1186	220.548	145.586	-2.291	1.00	62.69	C	ATOM	25060	C5	A A1188	212.022	144.376	2.662	1.00	51.74	C
ATOM	25011	N9	G A1186	219.443	146.540	-2.230	1.00	58.28	N	ATOM	25061	C6	A A1188	210.984	145.113	2.086	1.00	51.74	C
ATOM	25012	C8	G A1186	218.733	147.058	-3.287	1.00	58.28	C	ATOM	25062	N6	A A1188	210.795	145.208	0.768	1.00	51.74	N
ATOM	25013	N7	G A1186	217.778	147.866	-2.916	1.00	58.28	N	ATOM	25063	N1	A A1188	210.129	145.752	2.914	1.00	51.74	N
ATOM	25014	C5	G A1186	217.863	147.887	-1.529	1.00	58.28	C	ATOM	25064	C2	A A1188	210.316	145.639	4.234	1.00	51.74	C
ATOM	25015	C6	G A1186	217.084	148.589	-0.569	1.00	58.28	C	ATOM	25065	N3	A A1188	211.254	144.968	4.897	1.00	51.74	N



Table 2: Sheet 252/520

ATOM	25066	C4	A All88	212.085	144.351	4.040	1.00	51.74	C	ATOM	25116	O4*	A All91	199.426	136.364	1.244	1.00	50.25	O
ATOM	25067	P	C All89	212.313	138.739	6.975	1.00	59.84	P	ATOM	25117	C3*	A All91	198.404	134.769	2.702	1.00	50.25	C
ATOM	25068	O1P	C All89	212.041	138.045	8.258	1.00	65.66	O	ATOM	25118	O3*	A All91	197.600	134.907	3.881	1.00	50.25	O
ATOM	25069	O2P	C All89	212.979	138.004	5.881	1.00	65.66	O	ATOM	25119	C2*	A All91	197.516	134.945	1.470	1.00	50.25	C
ATOM	25070	O5*	C All89	210.948	139.349	6.421	1.00	59.84	O	ATOM	25120	O2*	A All91	196.372	135.736	1.728	1.00	50.25	O
ATOM	25071	C5*	C All89	210.129	140.184	7.253	1.00	59.84	C	ATOM	25121	C1*	A All91	198.431	135.701	0.495	1.00	50.25	C
ATOM	25072	C4*	C All89	208.983	140.757	6.461	1.00	59.84	C	ATOM	25122	N9	A All91	199.113	134.871	-0.501	1.00	74.31	N
ATOM	25073	O4*	C All89	209.482	141.705	5.491	1.00	59.84	O	ATOM	25123	C8	A All91	200.444	134.827	-0.516	1.00	74.31	C
ATOM	25074	C3*	C All89	208.151	139.777	5.650	1.00	59.84	O	ATOM	25124	N7	A All91	200.796	133.821	-1.559	1.00	74.31	N
ATOM	25075	O3*	C All89	207.154	139.157	6.451	1.00	59.84	O	ATOM	25125	C5	A All91	199.620	133.679	-2.277	1.00	74.31	C
ATOM	25076	C2*	C All89	207.529	140.683	4.596	1.00	59.84	C	ATOM	25126	C6	A All91	199.332	133.047	-3.491	1.00	74.31	C
ATOM	25077	O2*	C All89	206.405	141.387	5.100	1.00	59.84	O	ATOM	25127	N6	A All91	200.245	132.417	-4.237	1.00	74.31	N
ATOM	25078	C1*	C All89	208.661	141.680	4.339	1.00	59.84	C	ATOM	25128	N1	A All91	198.055	133.086	-3.927	1.00	74.31	N
ATOM	25079	N1	C All89	209.489	141.302	3.183	1.00	65.66	N	ATOM	25129	C2	A All91	197.141	133.716	-3.184	1.00	74.31	C
ATOM	25080	C2	C All89	209.222	141.883	1.934	1.00	65.66	C	ATOM	25130	N3	A All91	197.290	134.350	-2.030	1.00	74.31	N
ATOM	25081	O2	C All89	208.293	142.712	1.827	1.00	65.66	O	ATOM	25131	C4	A All91	198.570	134.301	-1.627	1.00	74.31	C
ATOM	25082	N3	C All89	209.975	141.524	0.870	1.00	65.66	N	ATOM	25132	P	C All92	197.368	133.664	4.872	1.00	52.79	P
ATOM	25083	C4	C All89	210.947	140.623	1.013	1.00	65.66	C	ATOM	25133	O1P	C All92	196.891	134.233	6.157	1.00	68.07	O
ATOM	25084	N4	C All89	211.644	140.288	-0.069	1.00	65.66	N	ATOM	25134	O2P	C All92	198.564	132.777	4.867	1.00	68.07	O
ATOM	25085	C5	C All89	211.244	140.023	2.269	1.00	65.66	C	ATOM	25135	O5*	C All92	196.144	132.888	4.213	1.00	52.79	O
ATOM	25086	C6	C All89	210.501	140.390	3.316	1.00	65.66	C	ATOM	25136	C5*	C All92	194.826	133.471	4.184	1.00	52.79	C
ATOM	25087	P	G All90	207.073	137.559	6.530	1.00	67.00	P	ATOM	25137	C4*	C All92	193.915	132.655	3.299	1.00	52.79	C
ATOM	25088	O1P	G All90	206.030	137.240	7.531	1.00	81.57	O	ATOM	25138	O4*	C All92	194.265	132.865	1.907	1.00	52.79	O
ATOM	25089	O2P	G All90	208.434	136.992	6.678	1.00	81.57	O	ATOM	25139	C3*	C All92	193.995	131.153	3.516	1.00	52.79	C
ATOM	25090	O5*	G All90	206.492	137.166	5.113	1.00	67.00	O	ATOM	25140	O3*	C All92	193.101	130.743	4.531	1.00	52.79	O
ATOM	25091	C5*	G All90	205.149	137.507	4.767	1.00	67.00	C	ATOM	25141	C2*	C All92	193.581	130.588	2.165	1.00	52.79	C
ATOM	25092	C4*	G All90	204.739	136.746	3.546	1.00	67.00	C	ATOM	25142	O2*	C All92	192.178	130.483	2.032	1.00	52.79	O
ATOM	25093	O4*	G All90	205.743	137.031	2.554	1.00	67.00	O	ATOM	25143	C1*	C All92	194.125	131.644	1.195	1.00	52.79	C
ATOM	25094	C3*	G All90	204.695	135.221	3.677	1.00	67.00	C	ATOM	25144	N1	C All92	195.434	131.290	0.601	1.00	68.07	N
ATOM	25095	O3*	G All90	203.391	134.843	4.201	1.00	67.00	O	ATOM	25145	C2	C All92	195.477	130.758	-0.695	1.00	68.07	C
ATOM	25096	C2*	G All90	205.071	134.756	2.275	1.00	67.00	C	ATOM	25146	O2	C All92	194.415	130.593	-1.325	1.00	68.07	O
ATOM	25097	O2*	G All90	203.962	134.782	1.390	1.00	67.00	O	ATOM	25147	N3	C All92	196.677	130.438	-1.232	1.00	68.07	N
ATOM	25098	C1*	G All90	206.038	135.860	1.827	1.00	67.00	C	ATOM	25148	C4	C All92	197.796	130.628	-0.535	1.00	68.07	C
ATOM	25099	N9	G All90	207.467	135.596	1.968	1.00	81.57	N	ATOM	25149	N4	C All92	198.950	130.298	-1.106	1.00	68.07	N
ATOM	25100	C8	G All90	208.320	136.148	2.892	1.00	81.57	C	ATOM	25150	C5	C All92	197.779	131.163	0.777	1.00	68.07	C
ATOM	25101	N7	G All90	209.515	134.899	1.660	1.00	81.57	N	ATOM	25151	C6	C All92	196.592	131.476	1.303	1.00	68.07	C
ATOM	25102	C5	G All90	209.556	135.768	2.739	1.00	81.57	C	ATOM	25152	P	G All93	193.266	129.294	5.197	1.00	49.44	P
ATOM	25103	C6	G All90	210.550	134.170	1.035	1.00	81.57	C	ATOM	25153	O1P	G All93	192.002	128.943	5.892	1.00	65.53	O
ATOM	25104	O6	G All90	211.756	134.141	1.320	1.00	81.57	O	ATOM	25154	O2P	G All93	194.552	129.276	5.948	1.00	65.53	O
ATOM	25105	N1	G All90	210.069	133.412	-0.026	1.00	81.57	N	ATOM	25155	O5*	G All93	193.395	128.312	3.956	1.00	49.44	O
ATOM	25106	C2	G All90	208.762	133.365	-0.436	1.00	81.57	C	ATOM	25156	C5*	G All93	194.232	127.152	4.026	1.00	49.44	C
ATOM	25107	N2	G All90	208.498	132.589	-1.497	1.00	81.57	N	ATOM	25157	C4*	G All93	194.532	126.664	2.639	1.00	49.44	C
ATOM	25108	N3	G All90	207.787	134.034	0.145	1.00	81.57	N	ATOM	25158	O4*	G All93	195.137	127.734	1.870	1.00	49.44	O
ATOM	25109	C4	G All90	208.232	134.776	1.191	1.00	81.57	C	ATOM	25159	C3*	G All93	195.510	125.513	2.541	1.00	49.44	C
ATOM	25110	P	A All91	202.414	133.786	3.440	1.00	50.25	P	ATOM	25160	O3*	G All93	194.848	124.279	2.713	1.00	49.44	O
ATOM	25111	O1P	A All91	201.587	133.192	4.527	1.00	74.31	O	ATOM	25161	C2*	G All93	196.040	125.675	1.128	1.00	49.44	C
ATOM	25112	O2P	A All91	203.167	132.881	2.541	1.00	74.31	O	ATOM	25162	O2*	G All93	195.133	125.169	0.174	1.00	49.44	O
ATOM	25113	O5*	A All91	201.419	134.700	2.592	1.00	50.25	O	ATOM	25163	C1*	G All93	196.106	127.199	0.991	1.00	49.44	C
ATOM	25114	C5*	A All91	200.717	135.794	3.228	1.00	50.25	C	ATOM	25164	N9	G All93	197.421	127.687	1.404	1.00	65.53	N
ATOM	25115	C4*	A All91	199.329	135.977	2.637	1.00	50.25	C	ATOM	25165	C8	G All93	197.735	128.360	2.558	1.00	65.53	C



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ATOM	25166	N7	G A1193	199.011	128.580	2.690	1.00	65.53	N	ATOM	25216	O1P	U A1196	203.063	114.047	2.593	1.00	116.20	O
ATOM	25167	C5	G A1193	199.573	128.036	1.545	1.00	65.53	C	ATOM	25217	O2P	U A1196	201.744	112.444	1.118	1.00	116.20	O
ATOM	25168	C6	G A1193	200.923	127.950	1.142	1.00	65.53	C	ATOM	25218	O5*	U A1196	200.709	113.440	3.131	1.00	74.53	O
ATOM	25169	O6	G A1193	201.930	128.354	1.734	1.00	65.53	O	ATOM	25219	C5*	U A1196	200.046	114.558	3.736	1.00	74.53	C
ATOM	25170	N1	G A1193	201.047	127.313	-0.089	1.00	65.53	N	ATOM	25220	C4*	U A1196	199.928	114.377	5.232	1.00	74.53	C
ATOM	25171	C2	G A1193	200.005	126.830	-0.838	1.00	65.53	C	ATOM	25221	O4*	U A1196	198.809	113.521	5.588	1.00	74.53	O
ATOM	25172	N2	G A1193	200.318	126.269	-2.010	1.00	65.53	N	ATOM	25222	C3*	U A1196	201.141	113.861	6.005	1.00	74.53	C
ATOM	25173	N3	G A1193	198.746	126.898	-0.466	1.00	65.53	N	ATOM	25223	O3*	U A1196	201.415	114.737	7.093	1.00	74.53	O
ATOM	25174	C4	G A1193	198.603	127.507	0.729	1.00	65.53	C	ATOM	25224	C2*	U A1196	200.661	112.510	6.545	1.00	74.53	C
ATOM	25175	P	U A1194	195.680	122.991	3.170	1.00	55.72	P	ATOM	25225	O2*	U A1196	201.234	112.141	7.783	1.00	74.53	O
ATOM	25176	O1P	U A1194	194.770	121.820	3.234	1.00	70.81	O	ATOM	25226	C1*	U A1196	199.168	112.776	6.727	1.00	74.53	C
ATOM	25177	O2P	U A1194	196.482	123.352	4.361	1.00	70.81	O	ATOM	25227	N1	U A1196	198.285	111.604	6.857	1.00	116.20	N
ATOM	25178	O5*	U A1194	196.667	122.766	1.945	1.00	55.72	O	ATOM	25228	C2	U A1196	197.063	111.792	7.491	1.00	116.20	C
ATOM	25179	C5*	U A1194	196.168	122.526	0.610	1.00	55.72	C	ATOM	25229	O2	U A1196	196.673	112.879	7.884	1.00	116.20	O
ATOM	25180	C4*	U A1194	197.308	122.124	-0.299	1.00	55.72	C	ATOM	25230	N3	U A1196	196.311	110.657	7.645	1.00	116.20	N
ATOM	25181	O4*	U A1194	198.203	123.244	-0.515	1.00	55.72	O	ATOM	25231	C4	U A1196	196.636	109.383	7.236	1.00	116.20	C
ATOM	25182	C3*	U A1194	198.182	121.020	0.268	1.00	55.72	C	ATOM	25232	O4	U A1196	195.890	108.446	7.527	1.00	116.20	O
ATOM	25183	O3*	U A1194	197.632	119.773	-0.098	1.00	55.72	O	ATOM	25233	C5	U A1196	197.894	109.275	6.562	1.00	116.20	C
ATOM	25184	C2*	U A1194	199.529	121.257	-0.398	1.00	55.72	C	ATOM	25234	C6	U A1196	198.654	110.360	6.398	1.00	116.20	C
ATOM	25185	O2*	U A1194	199.613	120.650	-1.666	1.00	55.72	O	ATOM	25235	P	G A1197	202.932	115.160	7.407	1.00	48.44	P
ATOM	25186	C1*	U A1194	199.538	122.777	-0.573	1.00	55.72	C	ATOM	25236	O1P	G A1197	203.724	113.919	7.613	1.00	66.79	O
ATOM	25187	N1	U A1194	200.327	123.491	0.439	1.00	70.81	N	ATOM	25237	O2P	G A1197	202.919	116.207	8.456	1.00	66.79	O
ATOM	25188	C2	U A1194	201.644	123.778	0.144	1.00	70.81	C	ATOM	25238	O5*	G A1197	203.411	115.867	6.066	1.00	48.44	O
ATOM	25189	O2	U A1194	202.179	123.444	-0.902	1.00	70.81	O	ATOM	25239	C5*	G A1197	204.105	115.126	5.042	1.00	48.44	C
ATOM	25190	N3	U A1194	202.314	124.474	1.120	1.00	70.81	N	ATOM	25240	C4*	G A1197	205.449	115.753	4.764	1.00	48.44	C
ATOM	25191	C4	U A1194	201.810	124.898	2.331	1.00	70.81	C	ATOM	25241	O4*	G A1197	205.246	117.115	4.320	1.00	48.44	O
ATOM	25192	O4	U A1194	202.517	125.563	3.081	1.00	70.81	O	ATOM	25242	C3*	G A1197	206.366	115.860	5.970	1.00	48.44	C
ATOM	25193	C5	U A1194	200.451	124.547	2.566	1.00	70.81	C	ATOM	25243	O3*	G A1197	207.125	114.663	6.124	1.00	48.44	O
ATOM	25194	C6	U A1194	199.772	123.872	1.638	1.00	70.81	C	ATOM	25244	C2*	G A1197	207.232	117.065	5.632	1.00	48.44	C
ATOM	25195	P	C A1195	197.518	118.608	0.988	1.00	59.02	P	ATOM	25245	O1*	G A1197	208.288	116.716	4.766	1.00	48.44	O
ATOM	25196	O1P	C A1195	196.693	117.516	0.405	1.00	68.05	O	ATOM	25246	C1*	G A1197	206.259	117.946	4.846	1.00	48.44	C
ATOM	25197	O2P	C A1195	197.155	119.195	2.310	1.00	68.05	O	ATOM	25247	N9	G A1197	205.610	119.010	5.604	1.00	66.79	N
ATOM	25198	O5*	C A1195	198.986	118.040	1.075	1.00	59.02	O	ATOM	25248	C8	G A1197	204.256	119.206	5.743	1.00	66.79	C
ATOM	25199	C5*	C A1195	199.524	117.302	-0.005	1.00	59.02	C	ATOM	25249	N7	G A1197	203.960	120.266	6.443	1.00	66.79	N
ATOM	25200	C4*	C A1195	200.962	117.052	0.260	1.00	59.02	C	ATOM	25250	C5	G A1197	205.193	120.798	6.802	1.00	66.79	C
ATOM	25201	O4*	C A1195	201.548	118.338	0.504	1.00	59.02	O	ATOM	25251	C6	G A1197	205.507	121.947	7.564	1.00	66.79	C
ATOM	25202	C3*	C A1195	201.241	116.223	1.503	1.00	59.02	C	ATOM	25252	O6	G A1197	204.734	122.765	8.078	1.00	66.79	O
ATOM	25203	O3*	C A1195	201.235	114.854	1.046	1.00	59.02	O	ATOM	25253	N1	G A1197	206.880	122.112	7.697	1.00	66.79	N
ATOM	25204	C2*	C A1195	202.589	116.763	1.971	1.00	59.02	C	ATOM	25254	C2	G A1197	207.829	121.285	7.163	1.00	66.79	C
ATOM	25205	O1*	C A1195	203.641	116.161	1.244	1.00	59.02	O	ATOM	25255	N2	G A1197	209.097	121.616	7.413	1.00	66.79	N
ATOM	25206	C1*	C A1195	202.550	118.214	1.477	1.00	59.02	C	ATOM	25256	N3	G A1197	207.554	120.214	6.441	1.00	66.79	N
ATOM	25207	N1	C A1195	202.484	119.382	2.382	1.00	68.05	N	ATOM	25257	C4	G A1197	206.223	120.030	6.301	1.00	66.79	C
ATOM	25208	C2	C A1195	203.685	120.011	2.767	1.00	68.05	C	ATOM	25258	P	G A1198	207.462	114.126	7.600	1.00	52.83	P
ATOM	25209	O2	C A1195	204.771	119.498	2.449	1.00	68.05	O	ATOM	25259	O1P	G A1198	208.332	112.920	7.537	1.00	61.49	O
ATOM	25210	N3	C A1195	203.630	121.159	3.479	1.00	68.05	N	ATOM	25260	O2P	G A1198	206.174	114.057	8.336	1.00	61.49	O
ATOM	25211	C4	C A1195	202.453	121.673	3.825	1.00	68.05	C	ATOM	25261	O5*	G A1198	208.339	115.311	8.200	1.00	52.83	O
ATOM	25212	N4	C A1195	202.452	122.824	4.488	1.00	68.05	N	ATOM	25262	C5*	G A1198	209.662	115.547	7.701	1.00	52.83	C
ATOM	25213	C5	C A1195	201.224	121.030	3.498	1.00	68.05	C	ATOM	25263	C4*	G A1198	210.417	116.487	8.603	1.00	52.83	C
ATOM	25214	C6	C A1195	201.284	119.891	2.790	1.00	68.05	C	ATOM	25264	O4*	G A1198	210.045	117.863	8.350	1.00	52.83	O
ATOM	25215	P	U A1196	201.786	113.651	1.971	1.00	74.53	P	ATOM	25265	C3*	G A1198	210.232	116.309	10.095	1.00	52.83	C



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ATOM	25266	O3*	G A1198	211.009	115.244	10.598	1.00	52.83	O	ATOM	25316	N3	C A1200	204.272	114.015	20.534	1.00	71.86	N
ATOM	25267	C2*	G A1198	210.691	117.651	10.628	1.00	52.83	C	ATOM	25317	C4	C A1200	204.346	113.309	19.409	1.00	71.86	C
ATOM	25268	O2*	G A1198	212.098	117.729	10.660	1.00	52.83	O	ATOM	25318	N4	C A1200	203.227	112.753	18.954	1.00	71.86	N
ATOM	25269	C1*	G A1198	210.192	118.608	9.544	1.00	52.83	C	ATOM	25319	C5	C A1200	205.568	113.145	18.701	1.00	71.86	C
ATOM	25270	N9	G A1198	208.911	119.223	9.886	1.00	61.49	N	ATOM	25320	C6	C A1200	206.653	113.747	19.197	1.00	71.86	C
ATOM	25271	C8	G A1198	207.659	118.799	9.523	1.00	61.49	C	ATOM	25321	P	A A1201	211.969	113.969	23.196	1.00	66.64	P
ATOM	25272	N7	G A1198	206.706	119.556	9.991	1.00	61.49	N	ATOM	25322	O1P	A A1201	211.845	112.568	22.699	1.00	61.37	O
ATOM	25273	C5	G A1198	207.370	120.541	10.705	1.00	61.49	C	ATOM	25323	O2P	A A1201	212.236	114.204	24.638	1.00	61.37	O
ATOM	25274	C6	G A1198	206.863	121.649	11.433	1.00	61.49	C	ATOM	25324	OS*	A A1201	213.118	114.712	22.375	1.00	66.64	O
ATOM	25275	O6	G A1198	205.686	121.994	11.603	1.00	61.49	O	ATOM	25325	CS*	A A1201	213.395	116.130	22.550	1.00	66.64	C
ATOM	25276	N1	G A1198	207.886	122.395	11.997	1.00	61.49	N	ATOM	25326	C4*	A A1201	214.636	116.511	21.766	1.00	66.64	C
ATOM	25277	C2	G A1198	209.221	122.117	11.884	1.00	61.49	C	ATOM	25327	O4*	A A1201	215.697	115.652	22.224	1.00	66.64	O
ATOM	25278	N2	G A1198	210.049	122.969	12.505	1.00	61.49	N	ATOM	25328	C3*	A A1201	214.526	116.247	20.272	1.00	66.64	C
ATOM	25279	N3	G A1198	209.708	121.088	11.214	1.00	61.49	N	ATOM	25329	O3*	A A1201	213.964	117.359	19.540	1.00	66.64	O
ATOM	25280	C4	G A1198	208.731	120.349	10.651	1.00	61.49	C	ATOM	25330	C2*	A A1201	215.891	115.732	19.832	1.00	66.64	C
ATOM	25281	P	U A1199	210.499	114.440	11.894	1.00	53.09	P	ATOM	25331	O2*	A A1201	216.684	116.674	19.160	1.00	66.64	O
ATOM	25282	O1P	U A1199	211.313	113.212	12.086	1.00	48.21	O	ATOM	25332	C1*	A A1201	216.541	115.319	21.154	1.00	66.64	C
ATOM	25283	O2P	U A1199	209.016	114.333	11.822	1.00	48.21	O	ATOM	25333	N9	A A1201	216.964	113.932	21.318	1.00	61.37	N
ATOM	25284	O5*	U A1199	210.864	115.411	13.099	1.00	53.09	O	ATOM	25334	C8	A A1201	216.270	112.903	21.898	1.00	61.37	C
ATOM	25285	C5*	U A1199	212.233	115.741	13.396	1.00	53.09	C	ATOM	25335	N7	A A1201	216.940	111.774	21.955	1.00	61.37	N
ATOM	25286	C4*	U A1199	212.291	116.924	14.330	1.00	53.09	C	ATOM	25336	C5	A A1201	218.152	112.077	21.355	1.00	61.37	C
ATOM	25287	O4*	U A1199	211.630	118.054	13.720	1.00	53.09	O	ATOM	25337	N6	A A1201	219.288	111.304	21.095	1.00	61.37	N
ATOM	25288	C3*	U A1199	211.575	116.730	15.647	1.00	53.09	C	ATOM	25338	N6	A A1201	219.387	110.017	21.425	1.00	61.37	N
ATOM	25289	O3*	U A1199	212.469	116.132	16.550	1.00	53.09	O	ATOM	25339	N1	A A1201	220.330	111.902	20.473	1.00	61.37	N
ATOM	25290	C2*	U A1199	211.220	118.152	16.055	1.00	53.09	C	ATOM	25340	C2	A A1201	220.219	113.191	20.138	1.00	61.37	C
ATOM	25291	O2*	U A1199	212.294	118.833	16.678	1.00	53.09	O	ATOM	25341	N3	A A1201	219.196	114.027	20.326	1.00	61.37	N
ATOM	25292	C1*	U A1199	210.951	118.801	14.700	1.00	53.09	C	ATOM	25342	P	A A1201	218.180	113.400	20.948	1.00	61.37	C
ATOM	25293	N1	U A1199	209.532	118.836	14.334	1.00	48.21	N	ATOM	25343	P	G A1202	214.693	118.810	19.496	1.00	57.22	P
ATOM	25294	C2	U A1199	208.869	120.032	14.476	1.00	48.21	C	ATOM	25344	O1P	G A1202	213.609	119.746	19.126	1.00	60.29	O
ATOM	25295	O2	U A1199	209.409	121.036	14.902	1.00	48.21	O	ATOM	25345	O2P	G A1202	215.938	118.818	18.697	1.00	60.29	O
ATOM	25296	N3	U A1199	207.542	120.009	14.101	1.00	48.21	N	ATOM	25346	OS*	G A1202	215.042	119.158	21.011	1.00	57.22	O
ATOM	25297	C4	U A1199	206.833	118.931	13.607	1.00	48.21	C	ATOM	25347	C5*	G A1202	216.355	119.633	21.395	1.00	57.22	C
ATOM	25298	O4	U A1199	205.669	119.087	13.241	1.00	48.21	O	ATOM	25348	C4*	G A1202	216.254	120.893	22.236	1.00	57.22	C
ATOM	25299	C5	U A1199	207.590	117.726	13.501	1.00	48.21	C	ATOM	25349	O4*	G A1202	216.098	122.052	21.386	1.00	57.22	O
ATOM	25300	C6	U A1199	208.880	117.717	13.857	1.00	48.21	C	ATOM	25350	C3*	G A1202	215.095	120.986	23.215	1.00	57.22	C
ATOM	25301	P	C A1200	212.102	114.731	17.195	1.00	90.48	P	ATOM	25351	O3*	G A1202	215.309	120.290	24.438	1.00	57.22	O
ATOM	25302	O1P	C A1200	213.335	114.213	17.818	1.00	71.86	O	ATOM	25352	C2*	G A1202	214.961	122.484	23.432	1.00	57.22	C
ATOM	25303	O2P	C A1200	211.428	113.939	16.156	1.00	71.86	O	ATOM	25353	O2*	G A1202	215.870	122.961	24.398	1.00	57.22	O
ATOM	25304	OS*	C A1200	211.046	115.130	18.314	1.00	90.48	O	ATOM	25354	C1*	G A1202	215.329	123.037	22.057	1.00	57.22	C
ATOM	25305	C5*	C A1200	211.000	114.424	19.565	1.00	90.48	C	ATOM	25355	N9	G A1202	214.149	123.338	21.252	1.00	60.29	N
ATOM	25306	C4*	C A1200	210.049	115.106	20.514	1.00	90.48	C	ATOM	25356	C8	G A1202	213.636	122.591	20.220	1.00	60.29	C
ATOM	25307	O4*	C A1200	208.771	115.271	19.867	1.00	90.48	O	ATOM	25357	N7	G A1202	212.560	123.114	19.693	1.00	60.29	N
ATOM	25308	C3*	C A1200	209.763	114.330	21.792	1.00	90.48	C	ATOM	25358	C5	G A1202	212.348	124.275	20.424	1.00	60.29	C
ATOM	25309	O3*	C A1200	210.644	114.791	22.818	1.00	90.48	O	ATOM	25359	C6	G A1202	211.327	125.252	20.317	1.00	60.29	C
ATOM	25310	C2*	C A1200	208.363	114.800	22.182	1.00	90.48	C	ATOM	25360	O6	G A1202	210.365	125.286	19.541	1.00	60.29	O
ATOM	25311	O2*	C A1200	208.413	115.940	23.021	1.00	90.48	O	ATOM	25361	N1	G A1202	211.497	126.268	21.248	1.00	60.29	N
ATOM	25312	C1*	C A1200	207.759	115.234	20.844	1.00	90.48	C	ATOM	25362	C2	G A1202	212.505	126.333	22.170	1.00	60.29	C
ATOM	25313	N1	C A1200	206.584	114.499	20.336	1.00	71.86	N	ATOM	25363	N2	G A1202	212.486	127.398	22.980	1.00	60.29	N
ATOM	25314	C2	C A1200	205.374	114.616	21.028	1.00	71.86	C	ATOM	25364	N3	G A1202	213.458	125.425	22.289	1.00	60.29	N
ATOM	25315	O2	C A1200	205.340	115.272	22.086	1.00	71.86	O	ATOM	25365	C4	G A1202	213.321	124.431	21.387	1.00	60.29	C



Table 2: Sheet 255/520

ATOM	25366	P	C A1203	214.043	119.676	25.215	1.00	61.13	P	ATOM	25416	O3*	U A1205	200.171	118.447	28.494	1.00	73.02	O
ATOM	25367	O1P	C A1203	214.451	119.220	26.567	1.00	68.76	O	ATOM	25417	C2*	U A1205	201.068	118.383	26.221	1.00	73.02	C
ATOM	25368	O2P	C A1203	213.361	118.720	24.312	1.00	68.76	O	ATOM	25418	O2*	U A1205	199.742	118.553	25.762	1.00	73.02	O
ATOM	25369	O5P	C A1203	213.114	120.953	25.397	1.00	61.13	O	ATOM	25419	C1*	U A1205	201.995	119.344	25.475	1.00	73.02	C
ATOM	25370	C5*	C A1203	213.571	122.063	26.172	1.00	61.13	C	ATOM	25420	N1	U A1205	203.327	118.748	25.278	1.00	71.32	N
ATOM	25371	C4*	C A1203	212.528	123.142	26.196	1.00	61.13	C	ATOM	25421	C2	U A1205	203.495	117.863	24.217	1.00	71.32	C
ATOM	25372	O4*	C A1203	212.381	123.709	24.871	1.00	61.13	O	ATOM	25422	O2	U A1205	202.613	117.603	23.405	1.00	71.32	O
ATOM	25373	C3*	C A1203	211.132	122.682	26.558	1.00	61.13	C	ATOM	25423	N3	U A1205	204.738	117.294	24.138	1.00	71.32	N
ATOM	25374	O3*	C A1203	210.952	122.530	27.948	1.00	61.13	O	ATOM	25424	C4	U A1205	205.803	117.517	24.974	1.00	71.32	C
ATOM	25375	C2*	C A1203	210.259	123.758	25.937	1.00	61.13	C	ATOM	25425	O4	U A1205	206.841	116.886	24.802	1.00	71.32	O
ATOM	25376	O2*	C A1203	210.193	124.925	26.728	1.00	61.13	O	ATOM	25426	C5	U A1205	205.562	118.462	26.017	1.00	71.32	C
ATOM	25377	C1*	C A1203	211.025	124.059	24.649	1.00	61.13	C	ATOM	25427	C6	U A1205	204.367	119.031	26.129	1.00	71.32	C
ATOM	25378	N1	C A1203	210.521	123.264	23.515	1.00	68.76	N	ATOM	25428	P	G A1206	200.113	116.959	29.118	1.00	78.98	P
ATOM	25379	C2	C A1203	209.440	123.759	22.767	1.00	68.76	C	ATOM	25429	O1P	G A1206	199.467	117.091	30.445	1.00	75.97	O
ATOM	25380	O2	C A1203	208.937	124.855	23.082	1.00	68.76	O	ATOM	25430	O2P	G A1206	201.443	116.302	29.010	1.00	75.97	O
ATOM	25381	N3	C A1203	208.966	123.028	21.731	1.00	68.76	N	ATOM	25431	O5*	G A1206	199.105	116.172	28.166	1.00	78.98	O
ATOM	25382	C4	C A1203	209.516	121.847	21.441	1.00	68.76	C	ATOM	25432	C5*	G A1206	197.711	116.546	28.078	1.00	78.98	C
ATOM	25383	N4	C A1203	209.002	121.149	20.431	1.00	68.76	N	ATOM	25433	C4*	G A1206	196.979	115.602	27.158	1.00	78.98	C
ATOM	25384	C5	C A1203	210.616	121.324	22.181	1.00	68.76	C	ATOM	25434	O4*	G A1206	197.443	115.803	25.801	1.00	78.98	O
ATOM	25385	C6	C A1203	211.084	122.058	23.196	1.00	68.76	C	ATOM	25435	C3*	G A1206	197.241	114.132	27.447	1.00	78.98	C
ATOM	25386	P	A A1204	210.040	121.323	28.488	1.00	73.22	P	ATOM	25436	O3*	G A1206	196.362	113.628	28.434	1.00	78.98	O
ATOM	25387	O1P	A A1204	210.133	121.320	29.964	1.00	70.74	O	ATOM	25437	C2*	G A1206	197.031	113.474	26.092	1.00	78.98	C
ATOM	25388	O2P	A A1204	210.363	120.073	27.744	1.00	70.74	O	ATOM	25438	O2*	G A1206	195.670	113.221	25.807	1.00	78.98	O
ATOM	25389	O5*	A A1204	208.579	121.796	28.067	1.00	73.22	O	ATOM	25439	C1*	G A1206	197.572	114.548	25.144	1.00	78.98	C
ATOM	25390	C5*	A A1204	208.124	123.123	28.373	1.00	73.22	C	ATOM	25440	N9	G A1206	198.987	114.336	24.841	1.00	75.97	N
ATOM	25391	C4*	A A1204	206.819	123.404	27.675	1.00	73.22	C	ATOM	25441	C8	G A1206	200.041	115.102	25.274	1.00	75.97	C
ATOM	25392	O4*	A A1204	207.038	123.523	26.247	1.00	73.22	O	ATOM	25442	N7	G A1206	201.199	114.647	24.884	1.00	75.97	N
ATOM	25393	C3*	A A1204	205.762	122.322	27.806	1.00	73.22	C	ATOM	25443	C5	G A1206	200.893	113.516	24.140	1.00	75.97	C
ATOM	25394	O3*	A A1204	205.047	122.407	29.025	1.00	73.22	O	ATOM	25444	C6	G A1206	201.749	112.598	23.467	1.00	75.97	C
ATOM	25395	C2*	A A1204	204.884	122.570	26.586	1.00	73.22	C	ATOM	25445	O6	G A1206	202.985	112.603	23.399	1.00	75.97	O
ATOM	25396	O2*	A A1204	203.945	123.606	26.790	1.00	73.22	C	ATOM	25446	N1	G A1206	201.025	111.594	22.836	1.00	75.97	N
ATOM	25397	C1*	A A1204	205.913	123.015	25.545	1.00	73.22	C	ATOM	25447	C2	G A1206	199.660	111.487	22.847	1.00	75.97	C
ATOM	25398	N9	A A1204	206.347	121.903	24.690	1.00	70.74	N	ATOM	25448	N2	G A1206	199.151	110.447	22.177	1.00	75.97	N
ATOM	25399	C8	A A1204	207.546	121.229	24.703	1.00	70.74	C	ATOM	25449	N3	G A1206	198.853	112.334	23.467	1.00	75.97	N
ATOM	25400	N7	A A1204	207.613	120.254	23.827	1.00	70.74	N	ATOM	25450	C4	G A1206	199.533	113.316	24.091	1.00	75.97	C
ATOM	25401	C5	A A1204	206.380	120.291	23.187	1.00	70.74	C	ATOM	25451	P	G A1207	196.903	112.563	29.502	1.00	64.88	P
ATOM	25402	C6	A A1204	205.817	119.509	22.158	1.00	70.74	C	ATOM	25452	O1P	G A1207	195.795	112.328	30.452	1.00	77.20	O
ATOM	25403	N6	A A1204	206.446	118.494	21.565	1.00	70.74	N	ATOM	25453	O2P	G A1207	198.222	113.016	30.009	1.00	77.20	O
ATOM	25404	N1	A A1204	204.566	119.807	21.758	1.00	70.74	N	ATOM	25454	O5*	G A1207	197.139	111.239	28.655	1.00	64.88	O
ATOM	25405	C2	A A1204	203.929	120.814	22.354	1.00	70.74	C	ATOM	25455	C5*	G A1207	196.052	110.601	27.980	1.00	64.88	C
ATOM	25406	N3	A A1204	204.344	121.620	23.326	1.00	70.74	N	ATOM	25456	C4*	G A1207	196.566	109.556	27.021	1.00	64.88	C
ATOM	25407	C4	A A1204	205.593	121.304	23.704	1.00	70.74	C	ATOM	25457	O4*	G A1207	197.356	110.190	25.979	1.00	64.88	O
ATOM	25408	P	U A1205	204.585	121.059	29.767	1.00	73.02	P	ATOM	25458	C3*	G A1207	197.493	108.494	27.591	1.00	64.88	C
ATOM	25409	O1P	U A1205	203.879	121.494	30.997	1.00	71.32	O	ATOM	25459	O2*	G A1207	196.800	107.445	28.242	1.00	64.88	O
ATOM	25410	O2P	U A1205	205.729	120.115	29.873	1.00	71.32	O	ATOM	25460	C3*	G A1207	198.238	108.006	26.352	1.00	64.88	C
ATOM	25411	O5*	U A1205	203.507	120.422	28.781	1.00	73.02	O	ATOM	25461	O2*	G A1207	197.519	107.054	25.591	1.00	64.88	O
ATOM	25412	C5*	U A1205	202.208	121.031	28.616	1.00	73.02	C	ATOM	25462	C1*	G A1207	198.374	109.297	25.546	1.00	64.88	C
ATOM	25413	C4*	U A1205	201.429	120.335	27.525	1.00	73.02	C	ATOM	25463	N9	G A1207	199.681	109.919	25.749	1.00	77.20	N
ATOM	25414	O4*	U A1205	202.131	120.514	26.268	1.00	73.02	O	ATOM	25464	C8	G A1207	199.976	111.045	26.479	1.00	77.20	C
ATOM	25415	C3*	U A1205	201.266	118.825	27.664	1.00	73.02	C	ATOM	25465	N7	G A1207	201.249	111.338	26.474	1.00	77.20	N



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ATOM	25466	C5	G A1207	201.827	110.347	25.691	1.00	77.20	C	ATOM	25516	O2P	C A1210	204.796	100.651	32.926	1.00	55.18	O
ATOM	25467	C6	G A1207	203.178	110.141	25.316	1.00	77.20	C	ATOM	25517	O5*	C A1210	207.205	100.399	32.440	1.00	89.46	O
ATOM	25468	O6	G A1207	204.167	110.817	25.605	1.00	77.20	O	ATOM	25518	C5*	C A1210	208.378	99.763	31.925	1.00	89.46	C
ATOM	25469	N1	G A1207	203.323	109.012	24.517	1.00	77.20	N	ATOM	25519	C4*	C A1210	209.602	100.393	32.529	1.00	89.46	C
ATOM	25470	C2	G A1207	202.301	108.185	24.127	1.00	77.20	C	ATOM	25520	O4*	C A1210	209.673	101.777	32.118	1.00	89.46	O
ATOM	25471	N2	G A1207	202.641	107.133	23.374	1.00	77.20	N	ATOM	25521	C3*	C A1210	209.618	100.456	34.043	1.00	89.46	C
ATOM	25472	N3	G A1207	201.038	108.373	24.459	1.00	77.20	N	ATOM	25522	O3*	C A1210	210.083	99.239	34.605	1.00	89.46	O
ATOM	25473	C4	G A1207	200.874	109.464	25.238	1.00	77.20	C	ATOM	25523	O2*	C A1210	210.547	101.629	34.327	1.00	89.46	C
ATOM	25474	P	G A1208	197.500	106.683	29.472	1.00	82.43	P	ATOM	25524	C2*	C A1210	211.912	101.278	34.260	1.00	89.46	O
ATOM	25475	O1P	C A1208	196.437	105.876	30.128	1.00	79.63	O	ATOM	25525	C1*	C A1210	210.243	102.553	33.154	1.00	89.46	C
ATOM	25476	O2P	C A1208	198.269	107.678	30.266	1.00	79.63	O	ATOM	25526	N1	C A1210	209.339	103.671	33.466	1.00	55.18	N
ATOM	25477	O5*	C A1208	198.540	105.687	28.790	1.00	82.43	O	ATOM	25527	C2	C A1210	209.849	104.785	34.178	1.00	55.18	C
ATOM	25478	C5*	C A1208	199.091	104.684	27.865	1.00	82.43	C	ATOM	25528	O2	C A1210	211.038	104.772	34.570	1.00	55.18	O
ATOM	25479	C4*	C A1208	199.263	104.071	27.141	1.00	82.43	C	ATOM	25529	N3	C A1210	209.033	105.839	34.418	1.00	55.18	N
ATOM	25480	O4*	C A1208	199.908	105.074	26.314	1.00	82.43	O	ATOM	25530	C4	C A1210	207.766	105.815	33.985	1.00	55.18	C
ATOM	25481	C3*	C A1208	200.381	103.542	28.023	1.00	82.43	C	ATOM	25531	N4	C A1210	207.008	106.889	34.220	1.00	55.18	N
ATOM	25482	O3*	C A1208	200.122	102.242	28.533	1.00	82.43	O	ATOM	25532	C5	C A1210	207.223	104.693	33.288	1.00	55.18	C
ATOM	25483	C2*	C A1208	201.577	103.565	27.084	1.00	82.43	C	ATOM	25533	C6	C A1210	208.033	103.655	33.056	1.00	55.18	C
ATOM	25484	O2*	C A1208	201.603	102.447	26.222	1.00	82.43	O	ATOM	25534	P	U A1211	209.743	98.896	36.137	1.00	93.67	P
ATOM	25485	C1*	C A1208	201.306	104.834	26.275	1.00	82.43	C	ATOM	25535	O1P	U A1211	209.918	97.428	36.285	1.00	78.56	O
ATOM	25486	N1	C A1208	202.013	105.997	26.847	1.00	79.63	N	ATOM	25536	O2P	U A1211	208.437	99.521	36.481	1.00	78.56	O
ATOM	25487	C2	C A1208	203.406	106.078	26.697	1.00	79.63	C	ATOM	25537	O5*	U A1211	210.893	99.649	36.944	1.00	93.67	O
ATOM	25488	O2	C A1208	203.993	105.200	26.050	1.00	79.63	O	ATOM	25538	C5*	U A1211	210.705	100.037	38.309	1.00	93.67	C
ATOM	25489	N3	C A1208	204.073	107.111	27.257	1.00	79.63	N	ATOM	25539	C4*	U A1211	211.081	101.484	38.491	1.00	93.67	C
ATOM	25490	C4	C A1208	203.407	108.045	27.933	1.00	79.63	C	ATOM	25540	O4*	U A1211	210.269	102.317	37.635	1.00	93.67	O
ATOM	25491	N4	C A1208	204.108	109.037	28.480	1.00	79.63	N	ATOM	25541	C3*	U A1211	210.817	102.041	39.882	1.00	93.67	C
ATOM	25492	C5	C A1208	201.990	108.002	28.080	1.00	79.63	C	ATOM	25542	O3*	U A1211	211.956	101.836	40.721	1.00	93.67	O
ATOM	25493	C6	C A1208	201.339	106.971	27.526	1.00	79.63	C	ATOM	25543	C2*	U A1211	210.629	103.545	39.646	1.00	93.67	C
ATOM	25494	P	C A1209	200.637	101.859	30.009	1.00	95.53	P	ATOM	25544	O2*	U A1211	211.779	104.321	39.913	1.00	93.67	O
ATOM	25495	O1P	C A1209	200.137	100.490	30.318	1.00	76.55	O	ATOM	25545	C1*	U A1211	210.293	103.627	38.153	1.00	93.67	C
ATOM	25496	O2P	C A1209	200.290	102.996	30.906	1.00	76.55	O	ATOM	25546	N1	U A1211	209.054	104.351	37.821	1.00	78.56	N
ATOM	25497	O5*	C A1209	202.226	101.796	29.865	1.00	95.53	O	ATOM	25547	C2	U A1211	209.014	105.710	38.144	1.00	78.56	C
ATOM	25498	C5*	C A1209	202.844	100.819	29.000	1.00	95.53	C	ATOM	25548	O2	U A1211	209.945	106.299	38.678	1.00	78.56	O
ATOM	25499	C4*	C A1209	204.326	101.095	28.841	1.00	95.53	C	ATOM	25549	N3	U A1211	207.846	106.355	37.820	1.00	78.56	N
ATOM	25500	O4*	C A1209	204.529	102.387	28.213	1.00	95.53	O	ATOM	25550	C4	U A1211	206.735	105.806	37.223	1.00	78.56	C
ATOM	25501	C3*	C A1209	205.146	101.182	30.114	1.00	95.53	C	ATOM	25551	O4	U A1211	205.751	106.524	37.015	1.00	78.56	O
ATOM	25502	O3*	C A1209	205.524	99.925	30.627	1.00	95.53	O	ATOM	25552	C5	U A1211	206.848	104.403	36.914	1.00	78.56	C
ATOM	25503	C2*	C A1209	206.358	101.986	29.680	1.00	95.53	C	ATOM	25553	C6	U A1211	207.976	103.740	37.217	1.00	78.56	C
ATOM	25504	O2*	C A1209	207.341	101.200	29.036	1.00	95.53	O	ATOM	25554	P	U A1212	212.051	100.532	41.653	1.00	116.80	P
ATOM	25505	C1*	C A1209	205.730	102.966	28.694	1.00	95.53	C	ATOM	25555	O1P	U A1212	210.669	100.145	42.038	1.00	116.80	O
ATOM	25506	N1	C A1209	205.410	104.227	29.372	1.00	76.55	N	ATOM	25556	O2P	U A1212	213.053	100.824	42.711	1.00	116.80	O
ATOM	25507	C2	C A1209	206.461	105.091	29.711	1.00	76.55	C	ATOM	25557	O5*	U A1212	212.630	99.412	40.681	1.00	116.80	O
ATOM	25508	O2	C A1209	207.625	104.777	29.402	1.00	76.55	O	ATOM	25558	C5*	U A1212	213.533	98.403	41.159	1.00	116.80	C
ATOM	25509	N3	C A1209	206.187	106.241	30.365	1.00	76.55	N	ATOM	25559	C4*	U A1212	214.957	98.843	40.928	1.00	116.80	C
ATOM	25510	C4	C A1209	204.929	106.546	30.672	1.00	76.55	C	ATOM	25560	O4*	U A1212	215.371	99.745	41.988	1.00	116.80	O
ATOM	25511	N4	C A1209	204.708	107.690	31.320	1.00	76.55	N	ATOM	25561	C3*	U A1212	216.010	97.748	40.926	1.00	116.80	C
ATOM	25512	C5	C A1209	203.841	105.693	30.328	1.00	76.55	C	ATOM	25562	O3*	U A1212	216.015	97.140	39.625	1.00	116.80	O
ATOM	25513	C6	C A1209	204.123	104.556	29.685	1.00	76.55	C	ATOM	25563	C2*	U A1212	217.292	98.504	41.290	1.00	116.80	C
ATOM	25514	P	C A1210	205.761	99.773	32.206	1.00	89.46	P	ATOM	25564	O2*	U A1212	217.925	99.123	40.192	1.00	116.80	O
ATOM	25515	O1P	C A1210	205.786	98.318	32.487	1.00	55.18	O	ATOM	25565	C1*	U A1212	216.765	99.617	42.199	1.00	116.80	C



ATOM	25566	N1	U A1212	217.039	99.483	43.641	1.00161.60	N	ATOM	25616	P	G A1215	217.215	105.268	32.069	1.00	87.41	P	
ATOM	25567	C2	U A1212	216.958	100.635	44.416	1.00161.60	C	ATOM	25617	O1P	G A1215	216.876	105.692	30.679	1.00	75.04	O	
ATOM	25568	O2	U A1212	216.639	101.723	43.965	1.00161.60	O	ATOM	25618	O2P	G A1215	218.426	104.435	32.307	1.00	75.04	O	
ATOM	25569	N3	U A1212	217.263	100.466	45.742	1.00161.60	N	ATOM	25619	O5*	G A1215	217.354	106.607	32.927	1.00	87.41	O	
ATOM	25570	C4	U A1212	217.625	99.294	46.368	1.00161.60	C	ATOM	25620	C5*	G A1215	216.275	107.574	32.964	1.00	87.41	C	
ATOM	25571	O4	U A1212	217.879	99.310	47.573	1.00161.60	O	ATOM	25621	C4*	G A1215	216.037	108.067	34.381	1.00	87.41	C	
ATOM	25572	C5	U A1212	217.672	98.146	45.510	1.00161.60	C	ATOM	25622	O4*	G A1215	215.608	106.972	35.235	1.00	87.41	O	
ATOM	25573	C6	U A1212	217.383	98.274	44.211	1.00161.60	C	ATOM	25623	C3*	G A1215	217.246	108.648	35.089	1.00	87.41	C	
ATOM	25574	P	A A1213	217.331	96.393	39.072	1.00156.69	P	ATOM	25624	O3*	G A1215	217.454	110.000	34.721	1.00	87.41	O	
ATOM	25575	O1P	A A1213	216.882	95.407	38.049	1.00	91.62	O	ATOM	25625	C2*	G A1215	216.894	108.465	36.560	1.00	87.41	C
ATOM	25576	O2P	A A1213	218.137	95.925	40.238	1.00	91.62	O	ATOM	25626	O2*	G A1215	216.004	109.458	37.031	1.00	87.41	O
ATOM	25577	O5*	A A1213	218.139	97.564	38.346	1.00156.69	O	ATOM	25627	C1*	G A1215	216.165	107.122	36.532	1.00	87.41	C	
ATOM	25578	C5*	A A1213	217.933	97.894	36.947	1.00156.69	C	ATOM	25628	N9	G A1215	217.037	105.973	36.775	1.00	75.04	N	
ATOM	25579	C4*	A A1213	216.695	98.751	36.773	1.00156.69	C	ATOM	25629	C8	G A1215	217.102	104.828	36.019	1.00	75.04	C	
ATOM	25580	O4*	A A1213	216.575	99.707	37.841	1.00156.69	O	ATOM	25630	N7	G A1215	217.974	103.966	36.461	1.00	75.04	N	
ATOM	25581	C3*	A A1213	216.643	99.609	35.516	1.00156.69	C	ATOM	25631	C5	G A1215	218.526	104.575	37.578	1.00	75.04	C	
ATOM	25582	O3*	A A1213	216.114	98.837	34.440	1.00156.69	O	ATOM	25632	C6	G A1215	219.529	104.112	38.474	1.00	75.04	C	
ATOM	25583	C2*	A A1213	215.682	100.748	35.887	1.00156.69	C	ATOM	25633	O6	G A1215	220.162	103.041	38.441	1.00	75.04	O	
ATOM	25584	O2*	A A1213	214.357	100.500	35.472	1.00156.69	O	ATOM	25634	N1	G A1215	219.774	105.035	39.486	1.00	75.04	N	
ATOM	25585	C1*	A A1213	215.701	100.723	37.417	1.00156.69	C	ATOM	25635	C2	G A1215	219.141	106.249	39.617	1.00	75.04	C	
ATOM	25586	N9	A A1213	215.958	101.953	38.168	1.00	91.62	N	ATOM	25636	N2	G A1215	219.503	106.996	40.676	1.00	75.04	N
ATOM	25587	C8	A A1213	216.946	102.202	39.091	1.00	91.62	C	ATOM	25637	N3	G A1215	218.217	106.698	38.777	1.00	75.04	N
ATOM	25588	N7	A A1213	216.830	103.364	39.691	1.00	91.62	N	ATOM	25638	C4	G A1215	217.957	105.814	37.792	1.00	75.04	C
ATOM	25589	C5	A A1213	215.709	103.930	39.106	1.00	91.62	C	ATOM	25639	P	G A1216	218.901	110.453	34.198	1.00	84.28	P
ATOM	25590	C6	A A1213	215.051	105.152	39.318	1.00	91.62	C	ATOM	25640	O1P	G A1216	218.822	111.884	33.806	1.00	77.84	O
ATOM	25591	N6	A A1213	215.424	106.047	40.233	1.00	91.62	N	ATOM	25641	O2P	G A1216	219.355	109.441	33.214	1.00	77.84	O
ATOM	25592	N1	A A1213	213.973	105.423	38.553	1.00	91.62	N	ATOM	25642	O5*	G A1216	219.815	110.335	35.493	1.00	84.28	O
ATOM	25593	C2	A A1213	213.582	104.511	37.649	1.00	91.62	C	ATOM	25643	C5*	G A1216	219.541	111.153	36.633	1.00	84.28	C
ATOM	25594	N3	A A1213	214.106	103.320	37.371	1.00	91.62	N	ATOM	25644	C4*	G A1216	220.523	110.871	37.735	1.00	84.28	C
ATOM	25595	C4	A A1213	215.180	103.087	38.143	1.00	91.62	C	ATOM	25645	O4*	G A1216	220.246	109.592	38.354	1.00	84.28	O
ATOM	25596	P	C A1214	216.624	99.091	32.938	1.00	95.63	P	ATOM	25646	C3*	G A1216	221.980	110.774	37.334	1.00	84.28	C
ATOM	25597	O1P	C A1214	215.805	98.210	32.072	1.00	83.71	O	ATOM	25647	O3*	G A1216	222.584	112.044	37.153	1.00	84.28	O
ATOM	25598	O2P	C A1214	218.104	98.955	32.925	1.00	83.71	O	ATOM	25648	C2*	G A1216	222.583	110.002	38.500	1.00	84.28	C
ATOM	25599	O5*	C A1214	216.215	100.607	32.633	1.00	95.63	O	ATOM	25649	O2*	G A1216	222.846	110.809	39.627	1.00	84.28	O
ATOM	25600	C5*	C A1214	217.105	101.513	31.928	1.00	95.63	C	ATOM	25650	C1*	G A1216	221.448	109.050	38.860	1.00	84.28	C
ATOM	25601	C4*	C A1214	216.306	102.583	31.220	1.00	95.63	C	ATOM	25651	N9	G A1216	221.669	107.736	38.277	1.00	77.84	N
ATOM	25602	O4*	C A1214	215.456	101.935	30.253	1.00	95.63	O	ATOM	25652	C8	G A1216	221.014	107.155	37.219	1.00	77.84	C
ATOM	25603	C3*	C A1214	215.347	103.356	32.118	1.00	95.63	C	ATOM	25653	N7	G A1216	221.450	105.953	36.946	1.00	77.84	N
ATOM	25604	O3*	C A1214	215.904	104.550	32.704	1.00	95.63	O	ATOM	25654	C5	G A1216	222.453	105.734	37.879	1.00	77.84	C
ATOM	25605	C2*	C A1214	214.199	103.754	31.185	1.00	95.63	C	ATOM	25655	C6	G A1216	223.278	104.609	38.085	1.00	77.84	C
ATOM	25606	O2*	C A1214	214.314	105.049	30.621	1.00	95.63	O	ATOM	25656	O6	G A1216	223.290	103.544	37.457	1.00	77.84	O
ATOM	25607	C1*	C A1214	214.289	102.707	30.072	1.00	95.63	C	ATOM	25657	N1	G A1216	224.159	104.806	39.149	1.00	77.84	N
ATOM	25608	N1	C A1214	213.125	101.821	29.857	1.00	83.71	N	ATOM	25658	C2	G A1216	224.232	105.948	39.912	1.00	77.84	C
ATOM	25609	O2	C A1214	211.874	102.404	29.570	1.00	83.71	C	ATOM	25659	N2	G A1216	225.139	105.955	40.896	1.00	77.84	N
ATOM	25610	C2	C A1214	211.758	103.644	29.597	1.00	83.71	O	ATOM	25660	N3	G A1216	223.466	107.007	39.724	1.00	77.84	N
ATOM	25611	N3	C A1214	210.822	101.601	29.281	1.00	83.71	N	ATOM	25661	C4	G A1216	222.603	106.829	38.702	1.00	77.84	C
ATOM	25612	C4	C A1214	210.971	100.275	29.300	1.00	83.71	C	ATOM	25662	P	C A1217	223.933	112.152	36.288	1.00	74.73	P
ATOM	25613	N4	C A1214	209.906	99.528	29.004	1.00	83.71	N	ATOM	25663	O1P	C A1217	224.185	113.604	36.088	1.00	74.07	O
ATOM	25614	C5	C A1214	212.218	99.658	29.623	1.00	83.71	C	ATOM	25664	O2P	C A1217	223.826	111.248	35.110	1.00	74.07	O
ATOM	25615	C6	C A1214	213.255	100.460	29.896	1.00	83.71	C	ATOM	25665	O5*	C A1217	225.048	111.540	37.246	1.00	74.73	O



Table 2: Sheet 258/520

ATOM	25666	C5*	C A1217	225.329	112.151	38.511	1.00	74.73	C	ATOM	25716	O2	U A1219	234.701	103.873	33.754	1.00	73.90	O
ATOM	25667	C4*	C A1217	226.424	111.407	39.230	1.00	74.73	C	ATOM	25717	N3	U A1219	233.069	105.267	33.048	1.00	73.90	N
ATOM	25668	O4*	C A1217	225.979	110.080	39.593	1.00	74.73	O	ATOM	25718	C4	U A1219	232.442	106.494	32.932	1.00	73.90	C
ATOM	25669	C3*	C A1217	227.710	111.158	38.472	1.00	74.73	C	ATOM	25719	O4	U A1219	231.414	106.590	32.254	1.00	73.90	O
ATOM	25670	O3*	C A1217	228.541	112.303	38.465	1.00	74.73	C	ATOM	25720	C5	U A1219	233.107	107.571	33.610	1.00	73.90	C
ATOM	25671	C2*	C A1217	228.328	110.004	39.249	1.00	74.73	C	ATOM	25721	C6	U A1219	234.244	107.339	34.273	1.00	73.90	C
ATOM	25672	O2*	C A1217	228.990	110.428	40.426	1.00	74.73	O	ATOM	25722	P	G A1220	239.010	108.904	32.715	1.00	78.62	P
ATOM	25673	C1*	C A1217	227.092	109.211	39.659	1.00	74.73	C	ATOM	25723	O1P	G A1220	240.424	109.336	32.656	1.00	48.83	O
ATOM	25674	N1	C A1217	226.850	108.054	38.788	1.00	74.73	N	ATOM	25724	O2P	G A1220	237.926	109.932	32.572	1.00	48.83	O
ATOM	25675	C2	C A1217	227.541	106.863	39.046	1.00	74.07	N	ATOM	25725	O5*	G A1220	238.814	107.727	31.660	1.00	78.62	O
ATOM	25676	O2	C A1217	228.316	106.812	40.013	1.00	74.07	O	ATOM	25726	C5*	G A1220	239.767	106.659	31.623	1.00	78.62	C
ATOM	25677	N3	C A1217	227.344	105.799	38.240	1.00	74.07	N	ATOM	25727	C4*	G A1220	239.253	105.484	30.833	1.00	78.62	C
ATOM	25678	C4	C A1217	226.495	105.886	37.217	1.00	74.07	C	ATOM	25728	O4*	G A1220	238.066	104.932	31.460	1.00	78.62	O
ATOM	25679	N4	C A1217	226.334	104.811	36.445	1.00	74.07	N	ATOM	25729	C3*	G A1220	238.828	105.697	29.389	1.00	78.62	C
ATOM	25680	C5	C A1217	225.771	107.081	36.937	1.00	74.07	C	ATOM	25730	O3*	G A1220	239.904	105.791	28.473	1.00	78.62	O
ATOM	25681	C6	C A1217	225.977	108.131	37.740	1.00	74.07	C	ATOM	25731	C2*	G A1220	237.979	104.458	29.131	1.00	78.62	C
ATOM	25682	P	C A1218	229.518	112.555	37.215	1.00	79.32	P	ATOM	25732	O2*	G A1220	238.741	103.300	28.843	1.00	78.62	O
ATOM	25683	O1P	C A1218	230.173	113.885	37.427	1.00	65.05	O	ATOM	25733	Cl*	G A1220	237.269	104.289	30.475	1.00	78.62	C
ATOM	25684	O2P	C A1218	228.754	112.291	35.958	1.00	65.05	O	ATOM	25734	N9	G A1220	235.964	104.941	30.394	1.00	48.83	N
ATOM	25685	O5*	C A1218	230.614	111.408	37.346	1.00	79.32	O	ATOM	25735	C8	G A1220	235.601	106.189	30.854	1.00	48.83	C
ATOM	25686	C5*	C A1218	231.441	111.333	38.502	1.00	79.32	C	ATOM	25736	N7	G A1220	234.375	106.511	30.542	1.00	48.83	N
ATOM	25687	C4*	C A1218	232.239	110.063	38.484	1.00	79.32	C	ATOM	25737	C5	G A1220	233.896	105.402	29.858	1.00	48.83	C
ATOM	25688	O3*	C A1218	231.352	108.922	38.524	1.00	79.32	O	ATOM	25738	C6	G A1220	232.636	105.166	29.272	1.00	48.83	C
ATOM	25689	C4	C A1218	233.098	109.832	37.256	1.00	79.32	C	ATOM	25739	O6	G A1220	231.651	105.911	29.255	1.00	48.83	O
ATOM	25690	O3*	C A1218	234.326	110.541	37.385	1.00	79.32	O	ATOM	25740	N1	G A1220	232.581	103.915	28.657	1.00	48.83	N
ATOM	25691	C2*	C A1218	233.287	108.318	37.264	1.00	79.32	C	ATOM	25741	C2	G A1220	233.611	103.010	28.619	1.00	48.83	C
ATOM	25692	O2*	C A1218	234.331	107.898	38.113	1.00	79.32	O	ATOM	25742	N2	G A1220	233.386	101.873	27.959	1.00	48.83	N
ATOM	25693	C1*	C A1218	231.964	107.834	37.862	1.00	79.32	C	ATOM	25743	N3	G A1220	234.785	103.211	29.182	1.00	48.83	N
ATOM	25694	N1	C A1218	231.027	107.280	36.873	1.00	65.05	N	ATOM	25744	C4	G A1220	234.859	104.422	29.773	1.00	48.83	C
ATOM	25695	C2	C A1218	231.191	105.946	36.469	1.00	65.05	C	ATOM	25745	P	G A1221	239.701	106.607	27.101	1.00	80.80	P
ATOM	25696	O2	C A1218	232.116	105.278	36.960	1.00	65.05	O	ATOM	25746	O1P	G A1221	241.040	106.629	26.467	1.00	58.66	O
ATOM	25697	N3	C A1218	230.344	105.425	35.555	1.00	65.05	N	ATOM	25747	O2P	G A1221	238.990	107.897	27.356	1.00	58.66	O
ATOM	25698	C4	C A1218	229.369	106.179	35.044	1.00	65.05	C	ATOM	25748	O5*	G A1221	238.761	105.654	26.234	1.00	80.80	O
ATOM	25699	N4	C A1218	228.567	105.627	34.133	1.00	65.05	N	ATOM	25749	C5*	G A1221	239.267	104.402	25.734	1.00	80.80	C
ATOM	25700	C5	C A1218	229.175	107.534	35.440	1.00	65.05	C	ATOM	25750	C4*	G A1221	238.162	103.582	25.114	1.00	80.80	C
ATOM	25701	C6	C A1218	230.016	108.039	36.349	1.00	65.05	C	ATOM	25751	O4*	G A1221	237.132	103.333	26.109	1.00	80.80	O
ATOM	25702	P	U A1219	235.120	111.011	36.068	1.00	79.51	P	ATOM	25752	C3*	G A1221	237.409	104.194	23.941	1.00	80.80	C
ATOM	25703	O1P	U A1219	236.113	112.030	36.496	1.00	73.90	O	ATOM	25753	O3*	G A1221	238.102	104.063	22.700	1.00	80.80	O
ATOM	25704	O2P	U A1219	234.132	111.355	35.015	1.00	73.90	O	ATOM	25754	C2*	G A1221	236.096	103.418	23.978	1.00	80.80	C
ATOM	25705	O5*	U A1219	235.889	109.692	35.623	1.00	79.51	O	ATOM	25755	O2*	G A1221	236.170	102.123	23.418	1.00	80.80	O
ATOM	25706	C5*	U A1219	236.862	109.082	36.487	1.00	79.51	C	ATOM	25756	Cl*	G A1221	235.861	103.288	25.481	1.00	80.80	C
ATOM	25707	C4*	U A1219	237.251	107.727	35.957	1.00	79.51	C	ATOM	25757	N9	G A1221	235.082	104.437	25.930	1.00	58.66	N
ATOM	25708	O4*	U A1219	236.162	106.784	36.142	1.00	79.51	O	ATOM	25758	C8	G A1221	235.527	105.514	26.657	1.00	58.66	C
ATOM	25709	C3*	U A1219	237.526	107.680	34.468	1.00	79.51	C	ATOM	25759	N7	G A1221	234.609	106.426	26.833	1.00	58.66	N
ATOM	25710	O3*	U A1219	238.815	108.143	34.116	1.00	79.51	O	ATOM	25760	C5	G A1221	233.487	105.913	26.199	1.00	58.66	C
ATOM	25711	C2*	U A1219	237.294	106.217	34.137	1.00	79.51	C	ATOM	25761	C6	G A1221	232.191	106.460	26.047	1.00	58.66	C
ATOM	25712	O2*	U A1219	238.405	105.420	34.489	1.00	79.51	O	ATOM	25762	O6	G A1221	231.757	107.546	26.467	1.00	58.66	O
ATOM	25713	Cl*	U A1219	236.108	105.888	35.043	1.00	79.51	C	ATOM	25763	N1	G A1221	231.363	105.611	25.320	1.00	58.66	N
ATOM	25714	N1	U A1219	234.830	106.091	34.337	1.00	73.90	N	ATOM	25764	C2	G A1221	231.736	104.396	24.808	1.00	58.66	C
ATOM	25715	C2	U A1219	234.235	104.995	33.717	1.00	73.90	C	ATOM	25765	N2	G A1221	230.811	103.738	24.106	1.00	58.66	N



ATOM	25766	N3	G	A1221	232.933	103.867	24.962	1.00	58.66	N	ATOM	25816	C4*	G	A1224	235.166	108.746	13.622	1.00	55.81	O
ATOM	25767	C4	G	A1221	233.756	104.678	25.655	1.00	58.66	C	ATOM	25817	O4*	G	A1224	235.610	109.847	14.433	1.00	55.81	O
ATOM	25768	P	G	A1222	237.882	105.159	21.530	1.00	70.58	P	ATOM	25818	C3*	G	A1224	236.101	107.592	13.963	1.00	55.81	O
ATOM	25769	O1P	G	A1222	238.753	104.723	20.413	1.00	74.89	O	ATOM	25819	C3*	G	A1224	236.154	106.605	12.896	1.00	55.81	O
ATOM	25770	O2P	G	A1222	238.021	106.529	22.066	1.00	74.89	O	ATOM	25820	C2*	G	A1224	237.396	108.235	14.496	1.00	55.81	O
ATOM	25771	O5*	G	A1222	236.361	104.980	21.091	1.00	70.58	O	ATOM	25821	O2*	G	A1224	238.546	108.181	13.668	1.00	55.81	O
ATOM	25772	C5*	G	A1222	235.882	103.721	20.576	1.00	70.58	C	ATOM	25822	C1*	G	A1224	236.979	109.693	14.712	1.00	55.81	C
ATOM	25773	O4*	G	A1222	234.413	103.808	20.250	1.00	70.58	C	ATOM	25823	N9	G	A1224	237.258	110.345	15.986	1.00	68.93	N
ATOM	25774	C4*	G	A1222	233.649	103.965	21.475	1.00	70.58	O	ATOM	25824	C8	G	A1224	236.851	109.986	17.247	1.00	68.93	C
ATOM	25775	C3*	G	A1222	233.995	105.004	19.417	1.00	70.58	C	ATOM	25825	N7	G	A1224	237.203	110.851	18.162	1.00	68.93	N
ATOM	25776	O3*	G	A1222	234.235	104.856	18.034	1.00	70.58	O	ATOM	25826	C5	G	A1224	237.903	111.824	17.462	1.00	68.93	C
ATOM	25777	O2*	G	A1222	232.517	105.141	19.755	1.00	70.58	C	ATOM	25827	C6	G	A1224	238.531	113.022	17.909	1.00	68.93	C
ATOM	25778	C2*	G	A1222	231.697	104.238	19.052	1.00	70.58	O	ATOM	25828	O6	G	A1224	238.602	113.476	19.052	1.00	68.93	O
ATOM	25779	C1*	G	A1222	232.515	104.788	21.233	1.00	70.58	C	ATOM	25829	N1	G	A1224	239.123	113.713	16.857	1.00	68.93	N
ATOM	25780	N9	G	A1222	232.651	106.007	22.029	1.00	74.89	N	ATOM	25830	C2	G	A1224	239.124	113.306	15.547	1.00	68.93	C
ATOM	25781	C8	G	A1222	233.757	106.429	22.725	1.00	74.89	C	ATOM	25831	N2	G	A1224	239.747	114.101	14.679	1.00	68.93	N
ATOM	25782	N7	G	A1222	233.596	107.597	22.285	1.00	74.89	N	ATOM	25832	N3	G	A1224	238.554	112.197	15.120	1.00	68.93	N
ATOM	25783	C5	G	A1222	232.300	107.962	22.951	1.00	74.89	C	ATOM	25833	C4	G	A1224	237.962	111.512	16.123	1.00	68.93	C
ATOM	25784	C6	G	A1222	231.568	109.130	23.274	1.00	74.89	C	ATOM	25834	P	A	A1225	236.921	106.895	11.495	1.00	84.40	P
ATOM	25785	O6	G	A1222	231.934	110.106	23.940	1.00	74.89	O	ATOM	25835	O1P	A	A1225	237.411	108.281	11.436	1.00	64.44	O
ATOM	25786	N1	G	A1222	230.287	109.098	22.735	1.00	74.89	N	ATOM	25836	O2P	A	A1225	236.081	106.406	10.395	1.00	64.44	O
ATOM	25787	C2	G	A1222	229.774	108.073	21.975	1.00	74.89	C	ATOM	25837	O5*	A	A1225	238.163	105.908	11.598	1.00	84.40	O
ATOM	25788	N2	G	A1222	228.515	108.234	21.537	1.00	74.89	N	ATOM	25838	C5*	A	A1225	238.070	104.547	11.116	1.00	84.40	O
ATOM	25789	N3	G	A1222	230.448	106.972	21.668	1.00	74.89	N	ATOM	25839	C4*	A	A1225	237.707	103.593	12.235	1.00	84.40	C
ATOM	25790	C4	G	A1222	231.697	106.986	22.186	1.00	74.89	C	ATOM	25840	O4*	A	A1225	236.396	103.922	12.733	1.00	84.40	O
ATOM	25791	P	C	A1223	234.563	106.163	17.161	1.00	60.20	P	ATOM	25841	C3*	A	A1225	237.596	102.143	11.781	1.00	84.40	C
ATOM	25792	O1P	C	A1223	234.757	105.696	15.773	1.00	70.61	O	ATOM	25842	O3*	A	A1225	238.850	101.488	12.004	1.00	84.40	O
ATOM	25793	O2P	C	A1223	235.637	106.939	17.841	1.00	70.61	O	ATOM	25843	C2*	A	A1225	236.555	101.532	12.727	1.00	84.40	C
ATOM	25794	O5*	C	A1223	233.209	106.997	17.211	1.00	60.20	O	ATOM	25844	O2*	A	A1225	237.104	100.828	12.993	1.00	84.40	O
ATOM	25795	C5*	C	A1223	231.985	106.398	16.764	1.00	60.20	C	ATOM	25845	C1*	A	A1225	235.791	102.756	13.240	1.00	84.40	C
ATOM	25796	C4*	C	A1223	230.865	107.402	16.771	1.00	60.20	C	ATOM	25846	N9	A	A1225	234.349	102.809	12.939	1.00	64.44	N
ATOM	25797	O4*	C	A1223	230.539	107.770	18.129	1.00	60.20	O	ATOM	25847	C8	A	A1225	233.459	103.592	13.680	1.00	64.44	C
ATOM	25798	C3*	C	A1223	231.114	108.723	16.065	1.00	60.20	C	ATOM	25848	N7	A	A1225	232.218	103.451	13.290	1.00	64.44	N
ATOM	25799	O3*	C	A1223	230.885	108.611	14.665	1.00	60.20	C	ATOM	25849	C5	A	A1225	232.294	102.513	12.275	1.00	64.44	C
ATOM	25800	C2*	C	A1223	230.095	109.650	16.722	1.00	60.20	C	ATOM	25850	N6	A	A1225	231.316	101.938	11.460	1.00	64.44	N
ATOM	25801	O2*	C	A1223	228.823	109.601	16.106	1.00	60.20	O	ATOM	25851	C6	A	A1225	230.022	102.242	11.545	1.00	64.44	C
ATOM	25802	C1*	C	A1223	230.018	109.086	18.144	1.00	60.20	C	ATOM	25852	N1	A	A1225	231.714	101.033	10.543	1.00	64.44	N
ATOM	25803	N1	C	A1223	230.765	109.886	19.129	1.00	70.61	N	ATOM	25853	C2	A	A1225	233.015	100.741	10.459	1.00	64.44	C
ATOM	25804	O2	C	A1223	230.089	110.903	19.824	1.00	70.61	C	ATOM	25854	N3	A	A1225	234.036	101.220	11.173	1.00	64.44	N
ATOM	25805	C2	C	A1223	228.880	111.083	19.611	1.00	70.61	C	ATOM	25855	C4	A	A1225	233.601	102.111	12.077	1.00	64.44	C
ATOM	25806	N3	C	A1223	230.772	111.663	20.709	1.00	70.61	N	ATOM	25856	P	C	A1226	239.988	101.498	10.873	1.00	78.34	P
ATOM	25807	C4	C	A1223	232.072	111.444	20.912	1.00	70.61	C	ATOM	25857	O1P	C	A1226	241.116	100.682	11.364	1.00	52.76	O
ATOM	25808	N4	C	A1223	232.706	112.234	21.779	1.00	70.61	N	ATOM	25858	O2P	C	A1226	240.236	102.882	10.438	1.00	52.76	O
ATOM	25809	C5	C	A1223	232.781	110.409	20.232	1.00	70.61	C	ATOM	25859	O5*	C	A1226	239.344	100.691	9.674	1.00	78.34	O
ATOM	25810	C6	C	A1223	232.095	109.660	19.359	1.00	70.61	C	ATOM	25860	C5*	C	A1226	239.791	100.927	8.346	1.00	78.34	C
ATOM	25811	P	G	A1224	231.378	109.778	13.681	1.00	55.81	P	ATOM	25861	C4*	C	A1226	238.920	100.194	7.382	1.00	78.34	C
ATOM	25812	O1P	G	A1224	230.899	111.079	14.206	1.00	68.93	O	ATOM	25862	O4*	C	A1226	237.578	100.179	7.895	1.00	78.34	O
ATOM	25813	O2P	G	A1224	231.008	109.374	12.311	1.00	68.93	O	ATOM	25863	C3*	C	A1226	238.848	100.826	6.002	1.00	78.34	C
ATOM	25814	O5*	G	A1224	232.962	109.744	13.837	1.00	55.81	O	ATOM	25864	O3*	C	A1226	239.922	100.372	5.157	1.00	78.34	O
ATOM	25815	C5*	G	A1224	233.692	108.498	13.893	1.00	55.81	C	ATOM	25865	C2*	C	A1226	237.448	100.481	5.523	1.00	78.34	C



ATOM	25866	O2*	C A1226	237.384	99.213	4.902	1.00	78.34	O	ATOM	25916	C5	C A1228	234.576	102.378	2.178	1.00	59.74	C
ATOM	25867	C1*	C A1226	236.672	100.405	6.840	1.00	78.34	C	ATOM	25917	C6	C A1228	234.667	101.461	1.206	1.00	59.74	C
ATOM	25868	N1	C A1226	235.787	101.526	7.214	1.00	52.76	N	ATOM	25918	P	A A1229	234.220	102.631	-4.345	1.00	58.53	P
ATOM	25869	C2	C A1226	234.449	101.481	6.812	1.00	52.76	C	ATOM	25919	O1P	A A1229	234.612	102.526	-5.771	1.00	50.76	O
ATOM	25870	O2	C A1226	234.090	100.598	6.022	1.00	52.76	O	ATOM	25920	O2P	A A1229	235.051	103.443	-3.409	1.00	50.76	O
ATOM	25871	N3	C A1226	233.583	102.403	7.288	1.00	52.76	N	ATOM	25921	O5*	A A1229	232.712	103.145	-4.262	1.00	58.53	O
ATOM	25872	C4	C A1226	234.015	103.358	8.112	1.00	52.76	C	ATOM	25922	C5*	A A1229	231.680	102.544	-5.066	1.00	58.53	C
ATOM	25873	N4	C A1226	233.107	104.207	8.618	1.00	52.76	N	ATOM	25923	C4*	A A1229	230.337	103.176	-4.766	1.00	58.53	C
ATOM	25874	C5	C A1226	235.394	103.478	8.469	1.00	52.76	C	ATOM	25924	O4*	A A1229	229.877	102.776	-3.445	1.00	58.53	O
ATOM	25875	C6	C A1226	236.237	102.555	7.995	1.00	52.76	C	ATOM	25925	C3*	A A1229	230.333	104.690	-4.731	1.00	58.53	C
ATOM	25876	P	A A1227	240.236	98.787	4.977	1.00	60.89	P	ATOM	25926	O3*	A A1229	230.218	105.268	-6.020	1.00	58.53	O
ATOM	25877	O1P	A A1227	239.771	98.107	6.146	1.00	77.99	O	ATOM	25927	C2*	A A1229	229.154	105.004	-3.816	1.00	58.53	C
ATOM	25878	O2P	A A1227	241.661	98.705	4.579	1.00	77.99	O	ATOM	25928	O2*	A A1229	227.902	104.947	-4.464	1.00	58.53	O
ATOM	25879	O5*	A A1227	239.357	98.298	3.739	1.00	60.89	O	ATOM	25929	C1*	A A1229	229.246	103.869	-2.797	1.00	58.53	C
ATOM	25880	C5*	A A1227	239.728	97.097	3.032	1.00	60.89	C	ATOM	25930	N9	A A1229	230.075	104.253	-1.651	1.00	50.76	N
ATOM	25881	C4*	A A1227	238.859	96.869	1.809	1.00	60.89	C	ATOM	25931	C8	A A1229	231.350	103.825	-1.381	1.00	50.76	C
ATOM	25882	O4*	A A1227	237.654	96.131	2.147	1.00	60.89	O	ATOM	25932	N7	A A1229	231.880	104.378	-0.319	1.00	50.76	N
ATOM	25883	C3*	A A1227	238.361	98.052	0.991	1.00	60.89	C	ATOM	25933	C5	A A1229	230.887	105.222	0.149	1.00	50.76	C
ATOM	25884	O3*	A A1227	239.332	98.641	0.124	1.00	60.89	O	ATOM	25934	C6	A A1229	230.842	106.101	1.232	1.00	50.76	C
ATOM	25885	C2*	A A1227	237.235	97.411	0.187	1.00	60.89	C	ATOM	25935	N6	A A1229	231.876	106.312	2.050	1.00	50.76	N
ATOM	25886	O2*	A A1227	237.719	96.718	-0.946	1.00	60.89	O	ATOM	25936	N1	A A1229	229.695	106.778	1.443	1.00	50.76	N
ATOM	25887	C1*	A A1227	236.652	96.412	1.190	1.00	60.89	C	ATOM	25937	C2	A A1229	228.680	106.593	0.598	1.00	50.76	C
ATOM	25888	N9	A A1227	235.481	96.971	1.867	1.00	77.99	N	ATOM	25938	N3	A A1229	228.609	105.813	-0.473	1.00	50.76	N
ATOM	25889	C8	A A1227	235.309	98.237	2.395	1.00	77.99	C	ATOM	25939	C4	A A1229	229.759	105.142	-0.646	1.00	50.76	C
ATOM	25890	N7	A A1227	234.105	98.457	2.865	1.00	77.99	N	ATOM	25940	P	C A1230	230.828	106.732	-6.277	1.00	48.69	P
ATOM	25891	C5	A A1227	233.447	97.257	2.651	1.00	77.99	C	ATOM	25941	O1P	C A1230	230.861	106.965	-7.738	1.00	53.96	O
ATOM	25892	C6	A A1227	232.136	96.847	2.921	1.00	77.99	C	ATOM	25942	O2P	C A1230	232.087	106.866	-5.484	1.00	53.96	O
ATOM	25893	N6	A A1227	231.206	97.641	3.462	1.00	77.99	N	ATOM	25943	O5*	C A1230	229.737	107.710	-5.647	1.00	48.69	O
ATOM	25894	N1	A A1227	231.801	95.575	2.602	1.00	77.99	N	ATOM	25944	C5*	C A1230	228.386	107.743	-6.158	1.00	48.69	C
ATOM	25895	C2	A A1227	232.734	94.786	2.035	1.00	77.99	C	ATOM	25945	C4*	C A1230	227.515	108.629	-5.300	1.00	48.69	C
ATOM	25896	N3	A A1227	233.995	95.065	1.720	1.00	77.99	N	ATOM	25946	O4*	C A1230	227.450	108.079	-3.966	1.00	48.69	O
ATOM	25897	C4	A A1227	234.290	96.328	2.057	1.00	77.99	C	ATOM	25947	C3*	C A1230	228.011	110.045	-5.093	1.00	48.69	C
ATOM	25898	P	C A1228	238.988	100.037	-0.606	1.00	64.73	P	ATOM	25948	O3*	C A1230	227.612	110.898	-6.136	1.00	48.69	O
ATOM	25899	O1P	C A1228	240.086	100.393	-1.536	1.00	59.74	O	ATOM	25949	C2*	C A1230	227.361	110.446	-3.783	1.00	48.69	C
ATOM	25900	O2P	C A1228	238.582	100.999	0.455	1.00	59.74	O	ATOM	25950	O2*	C A1230	226.023	110.870	-3.934	1.00	48.69	O
ATOM	25901	O5*	C A1228	237.716	99.667	-1.483	1.00	64.73	O	ATOM	25951	C1*	C A1230	227.396	109.128	-3.016	1.00	48.69	C
ATOM	25902	C5*	C A1228	236.767	100.660	-1.878	1.00	64.73	C	ATOM	25952	N1	C A1230	228.581	109.038	-2.143	1.00	53.96	N
ATOM	25903	C4*	C A1228	235.395	100.045	-1.945	1.00	64.73	C	ATOM	25953	C2	C A1230	228.631	109.847	-1.009	1.00	53.96	C
ATOM	25904	O4*	C A1228	235.033	99.566	-0.622	1.00	64.73	O	ATOM	25954	O2	C A1230	227.674	110.598	-0.769	1.00	53.96	O
ATOM	25905	C3*	C A1228	234.285	101.008	-2.317	1.00	64.73	C	ATOM	25955	N3	C A1230	229.712	109.791	-0.202	1.00	53.96	N
ATOM	25906	O3*	C A1228	234.169	101.159	-3.718	1.00	64.73	O	ATOM	25956	C4	C A1230	230.709	108.952	-0.485	1.00	53.96	C
ATOM	25907	C2*	C A1228	233.061	100.378	-1.670	1.00	64.73	C	ATOM	25957	N4	C A1230	231.749	108.899	0.363	1.00	53.96	N
ATOM	25908	O2*	C A1228	232.522	99.315	-2.435	1.00	64.73	O	ATOM	25958	C5	C A1230	230.684	108.118	-1.641	1.00	53.96	C
ATOM	25909	C1*	C A1228	233.658	99.830	-0.371	1.00	64.73	C	ATOM	25959	C6	C A1230	229.614	108.193	-2.433	1.00	53.96	C
ATOM	25910	N1	C A1228	233.558	100.805	0.745	1.00	59.74	N	ATOM	25960	P	G A1231	228.371	112.287	-6.332	1.00	50.97	P
ATOM	25911	C2	C A1228	232.299	101.067	1.317	1.00	59.74	C	ATOM	25961	O1P	G A1231	227.990	112.839	-7.660	1.00	49.63	O
ATOM	25912	O2	C A1228	231.309	100.428	0.923	1.00	59.74	O	ATOM	25962	O2P	G A1231	229.803	112.076	-5.991	1.00	49.63	O
ATOM	25913	N3	C A1228	232.197	102.005	2.293	1.00	59.74	N	ATOM	25963	O5*	G A1231	227.765	113.213	-5.199	1.00	50.97	O
ATOM	25914	C4	C A1228	233.284	102.649	2.715	1.00	59.74	C	ATOM	25964	C5*	G A1231	226.378	113.513	-5.181	1.00	50.97	C
ATOM	25915	N4	C A1228	233.134	103.572	3.668	1.00	59.74	N	ATOM	25965	C4*	G A1231	226.045	114.351	-3.976	1.00	50.97	C



Table 2: Sheet 261/520

ATOM	25966	O4*	G A1231	226.265	113.590	-2.763	1.00	50.97	O	ATOM	26016	C8	G A1233	233.735	119.664	-2.375	1.00	56.39	C
ATOM	25967	C3*	G A1231	226.881	115.597	-3.775	1.00	50.97	C	ATOM	26017	N7	G A1233	234.402	118.633	-2.818	1.00	56.39	N
ATOM	25968	O3*	G A1231	226.469	116.664	-4.584	1.00	50.97	C	ATOM	26018	C5	G A1233	235.476	118.519	-1.947	1.00	56.39	C
ATOM	25969	C2*	G A1231	226.678	115.878	-2.301	1.00	50.97	O	ATOM	26019	C6	G A1233	236.531	117.575	-1.914	1.00	56.39	C
ATOM	25970	O2*	G A1231	225.415	116.450	-2.047	1.00	50.97	O	ATOM	26020	O6	G A1233	236.718	116.606	-2.647	1.00	56.39	O
ATOM	25971	C1*	G A1231	226.687	114.465	-1.732	1.00	50.97	C	ATOM	26021	N1	G A1233	237.421	117.838	-0.888	1.00	56.39	N
ATOM	25972	N9	G A1231	228.031	114.079	-1.319	1.00	49.63	N	ATOM	26022	C2	G A1233	237.314	118.868	0.001	1.00	56.39	C
ATOM	25973	C8	G A1231	228.833	113.121	-1.878	1.00	49.63	N	ATOM	26023	N2	G A1233	238.304	118.961	0.901	1.00	56.39	N
ATOM	25974	N7	G A1231	229.979	112.999	-1.273	1.00	49.63	N	ATOM	26024	N3	G A1233	236.316	119.747	0.005	1.00	56.39	N
ATOM	25975	C5	G A1231	229.933	113.938	-0.258	1.00	49.63	C	ATOM	26025	C4	G A1233	235.439	119.512	-0.994	1.00	56.39	C
ATOM	25976	C6	G A1231	230.886	114.264	0.730	1.00	49.63	C	ATOM	26026	P	C A1234	235.618	125.447	-2.416	1.00	54.58	P
ATOM	25977	O6	G A1231	232.004	113.770	0.917	1.00	49.63	O	ATOM	26027	O1P	C A1234	235.504	126.937	-2.320	1.00	49.10	O
ATOM	25978	N1	G A1231	230.427	115.276	1.558	1.00	49.63	N	ATOM	26028	O2P	C A1234	235.476	124.794	-3.749	1.00	49.10	O
ATOM	25979	C2	G A1231	229.206	115.896	1.450	1.00	49.63	N	ATOM	26029	O5*	C A1234	237.002	124.989	-1.770	1.00	54.58	O
ATOM	25980	N2	G A1231	228.940	116.861	2.338	1.00	49.63	N	ATOM	26030	C5*	C A1234	237.342	125.416	-0.448	1.00	54.58	C
ATOM	25981	N3	G A1231	228.312	115.596	0.539	1.00	49.63	N	ATOM	26031	C4*	C A1234	238.540	124.667	0.063	1.00	54.58	C
ATOM	25982	C4	G A1231	228.738	114.615	-0.277	1.00	49.63	C	ATOM	26032	O4*	C A1234	238.242	123.258	0.148	1.00	54.58	C
ATOM	25983	P	U A1232	227.575	117.677	-5.146	1.00	38.24	P	ATOM	26033	C3*	C A1234	239.783	124.741	-0.789	1.00	54.58	C
ATOM	25984	O1P	U A1232	226.973	118.593	-6.170	1.00	55.53	O	ATOM	26034	O3*	C A1234	240.481	125.937	-0.527	1.00	54.58	O
ATOM	25985	O2P	U A1232	228.762	116.867	-5.499	1.00	55.53	O	ATOM	26035	C2*	C A1234	240.542	123.491	-0.366	1.00	54.58	C
ATOM	25986	O5*	U A1232	227.934	118.533	-3.862	1.00	38.24	O	ATOM	26036	O2*	C A1234	241.224	123.639	0.861	1.00	54.58	O
ATOM	25987	C5*	U A1232	226.939	119.349	-3.239	1.00	38.24	C	ATOM	26037	C1*	C A1234	239.399	122.504	-0.143	1.00	54.58	C
ATOM	25988	C4*	U A1232	227.508	119.975	-2.006	1.00	38.24	C	ATOM	26038	N1	C A1234	239.113	121.659	-1.317	1.00	49.10	N
ATOM	25989	O4*	U A1232	227.964	118.922	-1.123	1.00	38.24	O	ATOM	26039	C2	C A1234	240.001	120.625	-1.633	1.00	49.10	C
ATOM	25990	C3*	U A1232	228.738	120.811	-2.273	1.00	38.24	C	ATOM	26040	O2	C A1234	241.045	120.504	-0.966	1.00	49.10	O
ATOM	25991	O3*	U A1232	228.371	122.131	-2.631	1.00	38.24	O	ATOM	26041	N3	C A1234	239.710	119.791	-2.661	1.00	49.10	N
ATOM	25992	C2*	U A1232	229.506	120.731	-0.964	1.00	38.24	C	ATOM	26042	C4	C A1234	238.596	119.969	-3.366	1.00	49.10	C
ATOM	25993	O2*	U A1232	229.093	121.690	-0.013	1.00	38.24	O	ATOM	26043	N4	C A1234	238.328	119.092	-4.326	1.00	49.10	N
ATOM	25994	C1*	U A1232	229.154	119.322	-0.480	1.00	38.24	C	ATOM	26044	C5	C A1234	237.701	121.047	-3.104	1.00	49.10	C
ATOM	25995	N1	U A1232	230.180	118.313	-0.765	1.00	55.53	N	ATOM	26045	C6	C A1234	237.993	121.860	-2.080	1.00	49.10	C
ATOM	25996	C2	U A1232	231.331	118.316	0.009	1.00	55.53	C	ATOM	26046	P	U A1235	241.230	126.683	-1.728	1.00	45.97	P
ATOM	25997	O2	U A1232	231.529	119.118	0.906	1.00	55.53	O	ATOM	26047	O1P	U A1235	241.838	127.918	-1.149	1.00	58.10	O
ATOM	25998	N3	U A1232	232.243	117.343	-0.311	1.00	55.53	N	ATOM	26048	O2P	U A1235	240.296	126.809	-2.872	1.00	58.10	O
ATOM	25999	C4	U A1232	232.124	116.397	-1.299	1.00	55.53	C	ATOM	26049	O5*	U A1235	242.396	125.649	-2.081	1.00	45.97	O
ATOM	26000	O4	U A1232	233.029	115.589	-1.468	1.00	55.53	O	ATOM	26050	C5*	U A1235	243.450	125.382	-1.132	1.00	45.97	C
ATOM	26001	C5	U A1232	230.911	116.461	-2.048	1.00	55.53	C	ATOM	26051	C4*	U A1235	244.394	124.326	-1.657	1.00	45.97	C
ATOM	26002	C6	U A1232	230.005	117.392	-1.764	1.00	55.53	C	ATOM	26052	O4*	U A1235	243.748	123.025	-1.662	1.00	45.97	O
ATOM	26003	P	G A1233	229.419	123.048	-3.420	1.00	44.89	P	ATOM	26053	C3*	U A1235	244.888	124.492	-3.081	1.00	45.97	C
ATOM	26004	O1P	G A1233	228.747	124.311	-3.828	1.00	56.39	O	ATOM	26054	O3*	U A1235	245.960	125.393	-3.226	1.00	45.97	O
ATOM	26005	O2P	G A1233	230.065	122.187	-4.454	1.00	56.39	O	ATOM	26055	C2*	U A1235	245.315	123.081	-3.451	1.00	45.97	C
ATOM	26006	O5*	G A1233	230.496	123.377	-2.293	1.00	44.89	O	ATOM	26056	O2*	U A1235	246.598	122.764	-2.957	1.00	45.97	O
ATOM	26007	C5*	G A1233	231.874	123.533	-2.607	1.00	44.89	C	ATOM	26057	C1*	U A1235	244.267	122.238	-2.731	1.00	45.97	C
ATOM	26008	C4*	G A1233	232.696	123.226	-1.402	1.00	44.89	C	ATOM	26058	N1	U A1235	243.177	121.823	-3.642	1.00	58.10	N
ATOM	26009	O4*	G A1233	232.576	121.819	-1.088	1.00	44.89	O	ATOM	26059	C2	U A1235	243.427	120.755	-4.512	1.00	58.10	C
ATOM	26010	C3*	G A1233	234.187	123.437	-1.539	1.00	44.89	C	ATOM	26060	O2	U A1235	244.488	120.151	-4.550	1.00	58.10	O
ATOM	26011	O3*	G A1233	234.541	124.803	-1.398	1.00	44.89	O	ATOM	26061	N3	U A1235	242.387	120.426	-5.341	1.00	58.10	N
ATOM	26012	C5*	G A1233	234.742	122.545	-0.436	1.00	44.89	C	ATOM	26062	C4	U A1235	241.155	121.028	-5.408	1.00	58.10	C
ATOM	26013	O2*	G A1233	234.644	123.135	0.843	1.00	44.89	O	ATOM	26063	O4	U A1235	240.380	120.696	-6.302	1.00	58.10	O
ATOM	26014	C1*	G A1233	233.780	121.360	-0.491	1.00	44.89	C	ATOM	26064	C5	U A1235	240.960	122.104	-4.483	1.00	58.10	C
ATOM	26015	N9	G A1233	234.297	120.233	-1.261	1.00	56.39	N	ATOM	26065	C6	U A1235	241.949	122.458	-3.656	1.00	58.10	C



Table 2: Sheet 262/520

ATOM	26066	P	A A1236	246.124	126.191	-4.610	1.00	53.74	P	ATOM	26116	O3*	A A1238	250.279	126.737	-16.756	1.00	50.15	O
ATOM	26067	O1P	A A1236	247.388	126.950	-4.448	1.00	48.68	O	ATOM	26117	C2*	A A1238	251.273	126.611	-14.576	1.00	50.15	C
ATOM	26068	O2P	A A1236	244.874	126.933	-4.911	1.00	48.68	O	ATOM	26118	O*	A A1238	250.202	127.431	-14.158	1.00	50.15	O
ATOM	26069	O5*	A A1236	246.281	125.050	-5.726	1.00	53.74	C	ATOM	26119	C1*	A A1238	251.393	125.471	-13.570	1.00	50.15	C
ATOM	26070	C5*	A A1236	247.466	124.248	-5.761	1.00	53.74	O	ATOM	26120	N9	A A1238	252.806	125.141	-13.376	1.00	62.24	N
ATOM	26071	C4*	A A1236	247.362	123.067	-6.726	1.00	53.74	C	ATOM	26121	C8	A A1238	253.499	124.001	-13.693	1.00	62.24	C
ATOM	26072	O4*	A A1236	246.217	122.212	-6.466	1.00	53.74	O	ATOM	26122	N7	A A1238	254.786	124.084	-13.456	1.00	62.24	N
ATOM	26073	C3*	A A1236	247.336	123.226	-8.239	1.00	53.74	C	ATOM	26123	C5	A A1238	254.948	125.357	-12.931	1.00	62.24	C
ATOM	26074	O3*	A A1236	248.618	123.560	-8.768	1.00	53.74	O	ATOM	26124	C6	A A1238	256.075	126.062	-12.495	1.00	62.24	C
ATOM	26075	C2*	A A1236	247.014	121.792	-8.661	1.00	53.74	C	ATOM	26125	N6	A A1238	257.307	125.576	-12.540	1.00	62.24	N
ATOM	26076	O2*	A A1236	248.147	120.962	-8.548	1.00	53.74	O	ATOM	26126	N1	A A1238	255.893	127.308	-12.013	1.00	62.24	N
ATOM	26077	C1*	A A1236	246.058	121.326	-7.563	1.00	53.74	C	ATOM	26127	C2	A A1238	254.655	127.808	-11.988	1.00	62.24	C
ATOM	26078	N9	A A1236	244.667	121.317	-8.032	1.00	48.68	N	ATOM	26128	N3	A A1238	253.517	127.250	-12.384	1.00	62.24	N
ATOM	26079	C8	A A1236	243.739	122.326	-8.023	1.00	48.68	C	ATOM	26129	C4	A A1238	253.735	126.009	-12.852	1.00	62.24	C
ATOM	26080	N7	A A1236	242.599	122.003	-8.586	1.00	48.68	N	ATOM	26130	P	A A1239	251.097	127.439	-17.941	1.00	52.64	P
ATOM	26081	C5	A A1236	242.782	120.687	-8.978	1.00	48.68	C	ATOM	26131	O1P	A A1239	250.182	128.273	-18.755	1.00	53.90	O
ATOM	26082	C6	A A1236	241.941	119.771	-9.636	1.00	48.68	C	ATOM	26132	O2P	A A1239	252.094	128.419	-17.187	1.00	52.64	O
ATOM	26083	N6	A A1236	240.707	120.068	-10.052	1.00	48.68	N	ATOM	26133	O5*	A A1239	252.094	128.419	-17.187	1.00	52.64	O
ATOM	26084	N1	A A1236	242.421	118.529	-9.866	1.00	48.68	N	ATOM	26134	C5*	A A1239	251.632	129.673	-16.679	1.00	52.64	C
ATOM	26085	C2	A A1236	243.667	118.244	-9.476	1.00	48.68	C	ATOM	26135	C4*	A A1239	252.662	130.745	-16.919	1.00	52.64	C
ATOM	26086	N3	A A1236	244.558	119.022	-8.864	1.00	48.68	N	ATOM	26136	O4*	A A1239	253.865	130.369	-16.203	1.00	52.64	O
ATOM	26087	C4	A A1236	244.045	120.245	-8.635	1.00	48.68	C	ATOM	26137	C3*	A A1239	253.073	131.016	-18.368	1.00	52.64	C
ATOM	26088	P	A A1237	248.737	124.290	-10.204	1.00	61.64	P	ATOM	26138	O3*	A A1239	253.245	132.422	-18.565	1.00	52.64	O
ATOM	26089	O1P	C A1237	250.000	125.059	-10.186	1.00	49.82	O	ATOM	26139	C2*	A A1239	254.428	130.308	-18.477	1.00	52.64	C
ATOM	26090	O2P	C A1237	247.473	124.991	-10.513	1.00	49.82	O	ATOM	26140	O2*	A A1239	255.323	130.902	-19.396	1.00	52.64	O
ATOM	26091	O5*	C A1237	248.894	123.098	-11.250	1.00	61.64	O	ATOM	26141	C1*	A A1239	254.975	130.468	-17.063	1.00	52.64	C
ATOM	26092	C5*	C A1237	249.960	122.146	-11.125	1.00	61.64	C	ATOM	26142	N9	A A1239	255.965	129.472	-16.665	1.00	53.90	N
ATOM	26093	C4*	C A1237	249.627	120.878	-11.875	1.00	61.64	C	ATOM	26143	C8	A A1239	255.778	128.159	-16.314	1.00	53.90	C
ATOM	26094	O4*	C A1237	248.499	120.211	-11.260	1.00	61.64	O	ATOM	26144	N7	A A1239	256.888	127.526	-16.023	1.00	53.90	N
ATOM	26095	C3*	C A1237	249.246	121.053	-13.333	1.00	61.64	C	ATOM	26145	C5	A A1239	257.872	128.490	-16.190	1.00	53.90	C
ATOM	26096	O3*	C A1237	250.437	121.056	-14.101	1.00	61.64	O	ATOM	26146	C6	A A1239	259.277	128.452	-16.044	1.00	53.90	C
ATOM	26097	C2*	C A1237	248.394	119.819	-13.605	1.00	61.64	C	ATOM	26147	N6	A A1239	259.958	127.357	-15.690	1.00	53.90	N
ATOM	26098	O2*	C A1237	249.189	118.697	-13.923	1.00	61.64	O	ATOM	26148	N1	A A1239	259.962	129.593	-16.280	1.00	53.90	N
ATOM	26099	C1*	C A1237	247.695	119.606	-12.257	1.00	61.64	C	ATOM	26149	C2	A A1239	259.277	130.688	-16.642	1.00	53.90	C
ATOM	26100	N1	C A1237	246.341	120.211	-12.207	1.00	49.82	N	ATOM	26150	N3	A A1239	257.965	130.846	-16.818	1.00	53.90	N
ATOM	26101	C2	C A1237	245.229	119.441	-12.574	1.00	49.82	C	ATOM	26151	C4	A A1239	257.314	129.696	-16.575	1.00	53.90	C
ATOM	26102	O2	C A1237	245.382	118.244	-12.849	1.00	49.82	O	ATOM	26152	P	U A1240	252.273	133.226	-19.569	1.00	58.47	P
ATOM	26103	N3	C A1237	244.010	120.020	-12.609	1.00	49.82	N	ATOM	26153	O1P	U A1240	251.570	132.235	-20.410	1.00	60.96	O
ATOM	26104	C4	C A1237	243.869	121.301	-12.270	1.00	49.82	C	ATOM	26154	O2P	U A1240	253.015	134.327	-20.222	1.00	60.96	O
ATOM	26105	N4	C A1237	242.655	121.832	-12.343	1.00	49.82	N	ATOM	26155	O5*	U A1240	251.186	133.870	-18.596	1.00	58.47	O
ATOM	26106	C5	C A1237	244.968	122.093	-11.847	1.00	49.82	C	ATOM	26156	C5*	U A1240	251.519	134.949	-17.690	1.00	58.47	C
ATOM	26107	C6	C A1237	246.175	121.516	-11.832	1.00	49.82	C	ATOM	26157	C4*	U A1240	250.277	135.423	-16.961	1.00	58.47	C
ATOM	26108	P	A A1238	250.374	121.076	-15.703	1.00	50.15	P	ATOM	26158	O4*	U A1240	249.312	135.926	-17.928	1.00	58.47	O
ATOM	26109	O1P	A A1238	249.002	120.783	-16.174	1.00	62.24	O	ATOM	26159	C3*	U A1240	249.554	134.347	-16.156	1.00	58.47	C
ATOM	26110	O2P	A A1238	251.496	120.207	-16.152	1.00	62.24	O	ATOM	26160	O3*	U A1240	248.932	134.944	-15.025	1.00	58.47	O
ATOM	26111	O5*	A A1238	250.764	122.579	-16.063	1.00	50.15	O	ATOM	26161	C2*	U A1240	248.437	133.921	-17.104	1.00	58.47	C
ATOM	26112	C5*	A A1238	249.765	123.569	-16.234	1.00	50.15	C	ATOM	26162	O2*	U A1240	247.299	133.376	-16.473	1.00	58.47	O
ATOM	26113	C4*	A A1238	250.045	124.764	-15.356	1.00	50.15	C	ATOM	26163	CI*	U A1240	248.089	135.252	-17.760	1.00	58.47	C
ATOM	26114	O4*	A A1238	250.697	124.359	-14.118	1.00	50.15	O	ATOM	26164	N1	U A1240	247.416	135.146	-19.059	1.00	60.96	N
ATOM	26115	C3*	A A1238	250.952	125.866	-15.866	1.00	50.15	C	ATOM	26165	C2	U A1240	246.300	135.936	-19.261	1.00	60.96	C



Table 2. Sheet 263/520

ATOM	26166	O2	U	A1240	245.874	136.716	-18.425	1.00	60.96	O	ATOM	26216	O1P	C	A1243	253.706	130.348	-3.259	1.00	62.22	O
ATOM	26167	N3	U	A1240	245.697	135.784	-20.481	1.00	60.96	N	ATOM	26217	O2P	C	A1243	253.574	132.041	-5.185	1.00	62.22	O
ATOM	26168	O4	U	A1240	246.087	134.943	-21.495	1.00	60.96	C	ATOM	26218	O5*	C	A1243	255.758	131.093	-4.436	1.00	59.55	O
ATOM	26169	O4	U	A1240	245.428	134.901	-22.525	1.00	60.96	C	ATOM	26219	C5*	C	A1243	256.636	130.006	-4.080	1.00	59.55	C
ATOM	26170	C5	U	A1240	247.251	134.167	-21.215	1.00	60.96	C	ATOM	26220	C4*	C	A1243	258.083	130.427	-4.191	1.00	59.55	C
ATOM	26171	C6	U	A1240	247.863	134.293	-20.035	1.00	60.96	C	ATOM	26221	O4*	C	A1243	258.432	130.693	-5.572	1.00	59.55	O
ATOM	26172	P	G	A1241	249.732	135.100	-13.641	1.00	55.03	P	ATOM	26222	C3*	C	A1243	258.459	131.693	-3.446	1.00	59.55	C
ATOM	26173	O1P	G	A1241	248.713	135.356	-12.579	1.00	57.77	O	ATOM	26223	C3*	C	A1243	258.688	131.409	-2.066	1.00	59.55	O
ATOM	26174	O2P	G	A1241	250.810	136.092	-13.877	1.00	57.77	O	ATOM	26224	C2*	C	A1243	259.705	132.162	-4.194	1.00	59.55	C
ATOM	26175	O5*	G	A1241	250.406	133.683	-13.368	1.00	55.03	O	ATOM	26225	O2*	C	A1243	260.891	131.506	-3.785	1.00	59.55	O
ATOM	26176	C5*	G	A1241	249.614	132.511	-13.236	1.00	55.03	C	ATOM	26226	C1*	C	A1243	259.392	131.727	-5.625	1.00	59.55	C
ATOM	26177	C4*	G	A1241	250.477	131.345	-12.848	1.00	55.03	C	ATOM	26227	N1	C	A1243	258.868	132.813	-6.461	1.00	62.22	N
ATOM	26178	O4*	G	A1241	251.426	131.069	-13.907	1.00	55.03	O	ATOM	26228	C2	C	A1243	259.775	133.662	-7.095	1.00	62.22	C
ATOM	26179	C3*	G	A1241	251.321	131.531	-11.599	1.00	55.03	C	ATOM	26229	O2	C	A1243	260.989	133.475	-6.922	1.00	62.22	O
ATOM	26180	O3*	G	A1241	250.573	131.212	-10.432	1.00	55.03	O	ATOM	26230	N3	C	A1243	259.311	134.663	-7.878	1.00	62.22	N
ATOM	26181	C2*	G	A1241	252.458	130.540	-11.830	1.00	55.03	C	ATOM	26231	C4	C	A1243	257.997	134.827	-8.034	1.00	62.22	C
ATOM	26182	O2*	G	A1241	252.064	129.219	-11.507	1.00	55.03	O	ATOM	26232	N4	C	A1243	257.577	135.813	-8.828	1.00	62.22	N
ATOM	26183	C1*	G	A1241	252.657	130.643	-13.346	1.00	55.03	C	ATOM	26233	C5	C	A1243	257.052	133.982	-7.389	1.00	62.22	C
ATOM	26184	N9	G	A1241	253.701	131.590	-13.750	1.00	57.77	N	ATOM	26234	C6	C	A1243	257.525	132.996	-6.621	1.00	62.22	C
ATOM	26185	C8	G	A1241	253.519	132.810	-14.361	1.00	57.77	C	ATOM	26235	P	C	A1244	258.354	132.526	-0.960	1.00	100.12	P
ATOM	26186	N7	G	A1241	254.639	133.422	-14.633	1.00	57.77	N	ATOM	26236	O1P	C	A1244	258.375	131.839	0.357	1.00	73.55	O
ATOM	26187	C5	G	A1241	255.624	132.564	-14.166	1.00	57.77	C	ATOM	26237	O2P	C	A1244	257.153	133.289	-1.371	1.00	73.55	O
ATOM	26188	C6	G	A1241	257.034	132.694	-14.182	1.00	57.77	C	ATOM	26238	O5*	C	A1244	259.589	133.525	-1.063	1.00	100.12	O
ATOM	26189	O6	G	A1241	257.714	133.632	-14.614	1.00	57.77	O	ATOM	26239	C5*	C	A1244	260.902	133.104	-0.658	1.00	100.12	C
ATOM	26190	N1	G	A1241	257.656	131.589	-13.614	1.00	57.77	N	ATOM	26240	C4*	C	A1244	261.911	134.184	-0.948	1.00	100.12	C
ATOM	26191	C2	G	A1241	257.007	130.507	-13.086	1.00	57.77	C	ATOM	26241	O4*	C	A1244	262.136	134.279	-2.374	1.00	100.12	O
ATOM	26192	N2	G	A1241	257.780	129.550	-12.579	1.00	57.77	N	ATOM	26242	C3*	C	A1244	261.521	135.592	-0.538	1.00	100.12	C
ATOM	26193	N3	G	A1241	255.693	130.373	-13.054	1.00	57.77	N	ATOM	26243	O3*	C	A1244	261.747	135.848	0.836	1.00	100.12	O
ATOM	26194	C4	G	A1241	255.066	131.431	-13.611	1.00	57.77	C	ATOM	26244	C2*	C	A1244	262.399	136.447	-1.436	1.00	100.12	C
ATOM	26195	P	C	A1242	251.041	131.770	-8.997	1.00	48.77	P	ATOM	26245	O2*	C	A1244	263.716	136.579	-0.942	1.00	100.12	O
ATOM	26196	O1P	C	A1242	250.007	131.362	-8.017	1.00	57.15	O	ATOM	26246	C1*	C	A1244	262.419	135.621	-2.719	1.00	100.12	C
ATOM	26197	O2P	C	A1242	251.398	133.203	-9.122	1.00	57.15	O	ATOM	26247	N1	C	A1244	261.388	136.092	-3.646	1.00	73.55	N
ATOM	26198	O5*	C	A1242	252.347	130.936	-8.671	1.00	48.77	O	ATOM	26248	C2	C	A1244	261.723	137.091	-4.570	1.00	73.55	C
ATOM	26199	C5*	C	A1242	252.241	129.573	-8.280	1.00	48.77	C	ATOM	26249	O2	C	A1244	262.891	137.512	-4.603	1.00	73.55	O
ATOM	26200	C4*	C	A1242	253.598	129.029	-7.946	1.00	48.77	C	ATOM	26250	N3	C	A1244	260.769	137.569	-5.402	1.00	73.55	N
ATOM	26201	O4*	C	A1242	254.391	128.992	-9.156	1.00	48.77	O	ATOM	26251	C4	C	A1244	259.528	137.080	-5.343	1.00	73.55	C
ATOM	26202	C3*	C	A1242	254.426	129.866	-6.983	1.00	48.77	C	ATOM	26252	N4	C	A1244	258.621	137.585	-6.174	1.00	73.55	N
ATOM	26203	O3*	C	A1242	254.092	129.636	-5.620	1.00	48.77	O	ATOM	26253	C5	C	A1244	259.164	136.048	-4.424	1.00	73.55	C
ATOM	26204	C2*	C	A1242	255.841	129.438	-7.335	1.00	48.77	C	ATOM	26254	C6	C	A1244	260.116	135.597	-3.604	1.00	73.55	C
ATOM	26205	O2*	C	A1242	256.175	128.169	-6.793	1.00	48.77	O	ATOM	26255	P	A	A1245	260.981	137.071	1.542	1.00	87.00	P
ATOM	26206	C1*	C	A1242	255.737	129.312	-8.852	1.00	48.77	C	ATOM	26256	O1P	A	A1245	261.351	137.025	2.983	1.00	96.32	O
ATOM	26207	N1	C	A1242	256.076	130.578	-9.526	1.00	57.15	N	ATOM	26257	O2P	A	A1245	259.548	137.023	1.150	1.00	96.32	O
ATOM	26208	C2	C	A1242	257.418	130.940	-9.628	1.00	57.15	C	ATOM	26258	O5*	A	A1245	261.638	138.355	0.869	1.00	87.00	O
ATOM	26209	O2	C	A1242	258.281	130.176	-9.160	1.00	57.15	O	ATOM	26259	C5*	A	A1245	263.038	138.601	1.019	1.00	87.00	C
ATOM	26210	N3	C	A1242	257.742	132.108	-10.230	1.00	57.15	N	ATOM	26260	C4*	A	A1245	263.457	139.783	0.195	1.00	87.00	C
ATOM	26211	C4	C	A1242	256.784	132.897	-10.718	1.00	57.15	C	ATOM	26261	O4*	A	A1245	263.250	139.502	-1.210	1.00	87.00	O
ATOM	26212	N4	C	A1242	257.151	134.038	-11.301	1.00	57.15	N	ATOM	26262	C3*	A	A1245	262.694	141.070	0.431	1.00	87.00	C
ATOM	26213	C5	C	A1242	255.408	132.551	-10.631	1.00	57.15	C	ATOM	26263	O3*	A	A1245	263.160	141.764	1.576	1.00	87.00	O
ATOM	26214	C6	C	A1242	255.101	131.394	-10.036	1.00	57.15	C	ATOM	26264	C2*	A	A1245	262.928	141.838	-0.866	1.00	87.00	C
ATOM	26215	P	C	A1243	254.194	130.846	-4.569	1.00	59.55	P	ATOM	26265	O2*	A	A1245	264.156	142.538	-0.897	1.00	87.00	O



Table 2: Sheet 264/520

ATOM	26266	C1*	A A1245	262.955	140.706	-1.896	1.00	87.00	C	ATOM	26316	C6	U A1247	257.294	146.843	-0.508	1.00	86.13	C
ATOM	26267	N9	A A1245	261.674	140.556	-2.582	1.00	96.32	N	ATOM	26317	P	A A1248	255.423	151.398	1.517	1.00	96.02	P
ATOM	26268	C8	A A1245	260.686	139.627	-2.368	1.00	96.32	C	ATOM	26318	O1P	A A1248	255.379	152.749	2.114	1.00	84.95	O
ATOM	26269	N7	A A1245	259.643	139.782	-3.145	1.00	96.32	N	ATOM	26319	O2P	A A1248	255.507	150.208	2.402	1.00	84.95	O
ATOM	26270	C5	A A1245	259.967	140.884	-3.923	1.00	96.32	C	ATOM	26320	O5*	A A1248	254.150	151.254	0.575	1.00	96.02	O
ATOM	26271	C6	A A1245	259.273	141.564	-4.935	1.00	96.32	C	ATOM	26321	C5*	A A1248	253.972	152.190	-0.495	1.00	96.02	C
ATOM	26272	N6	A A1245	258.054	141.221	-5.355	1.00	96.32	N	ATOM	26322	C4*	A A1248	252.617	152.042	-1.142	1.00	96.02	C
ATOM	26273	N1	A A1245	259.878	142.627	-5.508	1.00	96.32	N	ATOM	26323	O4*	A A1248	252.570	150.901	-2.030	1.00	96.02	O
ATOM	26274	C2	A A1245	261.095	142.973	-5.083	1.00	96.32	C	ATOM	26324	C3*	A A1248	251.380	151.895	-0.278	1.00	96.02	C
ATOM	26275	N3	A A1245	261.847	142.416	-4.139	1.00	96.32	N	ATOM	26325	O3*	A A1248	250.982	153.148	0.269	1.00	96.02	O
ATOM	26276	C4	A A1245	261.216	141.365	-3.592	1.00	96.32	C	ATOM	26326	C2*	A A1248	250.363	151.394	-1.299	1.00	96.02	C
ATOM	26277	P	C A1246	262.122	142.616	2.458	1.00	82.59	P	ATOM	26327	O2*	A A1248	249.855	152.465	-2.068	1.00	96.02	O
ATOM	26278	O1P	C A1246	262.833	142.973	3.711	1.00	100.26	O	ATOM	26328	C1*	A A1248	251.221	150.523	-2.216	1.00	96.02	C
ATOM	26279	O2P	C A1246	260.832	141.872	2.537	1.00	100.26	O	ATOM	26329	N9	A A1248	251.081	149.089	-1.963	1.00	84.95	N
ATOM	26280	O5*	C A1246	261.890	143.938	1.592	1.00	82.59	O	ATOM	26330	C8	A A1248	251.812	148.281	-1.127	1.00	84.95	C
ATOM	26281	C5*	C A1246	262.976	144.846	1.344	1.00	82.59	C	ATOM	26331	N7	A A1248	251.424	147.028	-1.130	1.00	84.95	N
ATOM	26282	C4*	C A1246	262.603	145.850	0.280	1.00	82.59	C	ATOM	26332	C5	A A1248	250.367	147.010	-2.028	1.00	84.95	C
ATOM	26283	O4*	C A1246	262.409	145.170	-0.985	1.00	82.59	O	ATOM	26333	C6	A A1248	249.524	145.976	-2.479	1.00	84.95	C
ATOM	26284	C3*	C A1246	261.310	146.618	0.491	1.00	82.59	C	ATOM	26334	N6	A A1248	249.625	144.703	-2.069	1.00	84.95	N
ATOM	26285	O3*	C A1246	261.446	147.722	1.367	1.00	82.59	O	ATOM	26335	N1	A A1248	248.564	146.296	-3.376	1.00	84.95	N
ATOM	26286	C2*	C A1246	260.941	147.047	-0.922	1.00	82.59	C	ATOM	26336	C2	A A1248	248.470	147.567	-3.788	1.00	84.95	C
ATOM	26287	O2*	C A1246	261.615	148.215	-1.346	1.00	82.59	O	ATOM	26337	N3	A A1248	249.202	148.622	-3.442	1.00	84.95	N
ATOM	26288	C1*	C A1246	261.397	145.833	-1.732	1.00	82.59	C	ATOM	26338	C4	A A1248	250.144	148.272	-2.548	1.00	84.95	C
ATOM	26289	N1	C A1246	260.279	144.892	-1.953	1.00	100.26	N	ATOM	26339	P	C A1249	249.654	153.241	1.173	1.00	88.54	P
ATOM	26290	C2	C A1246	259.341	145.175	-2.962	1.00	100.26	C	ATOM	26340	O1P	C A1249	249.460	154.651	1.608	1.00	56.66	O
ATOM	26291	O2	C A1246	259.490	146.188	-3.660	1.00	100.26	O	ATOM	26341	O2P	C A1249	249.651	152.156	2.192	1.00	56.66	O
ATOM	26292	N3	C A1246	258.297	144.338	-3.144	1.00	100.26	N	ATOM	26342	O5*	C A1249	248.494	152.976	0.124	1.00	88.54	O
ATOM	26293	C4	C A1246	258.164	143.257	-2.370	1.00	100.26	C	ATOM	26343	C5*	C A1249	247.164	152.768	0.564	1.00	88.54	C
ATOM	26294	N4	C A1246	257.104	142.472	-2.572	1.00	100.26	N	ATOM	26344	C4*	C A1249	246.231	152.721	-0.610	1.00	88.54	C
ATOM	26295	C5	C A1246	259.109	142.936	-1.351	1.00	100.26	C	ATOM	26345	O4*	C A1249	246.797	151.908	-1.668	1.00	88.54	O
ATOM	26296	C6	C A1246	260.141	143.770	-1.180	1.00	100.26	C	ATOM	26346	C3*	C A1249	244.924	152.059	-0.241	1.00	88.54	C
ATOM	26297	P	U A1247	260.187	148.176	2.257	1.00	87.07	P	ATOM	26347	O3*	C A1249	244.041	153.014	0.286	1.00	88.54	O
ATOM	26298	O1P	U A1247	260.623	149.321	3.096	1.00	86.13	O	ATOM	26348	C2*	C A1249	244.501	151.395	-1.537	1.00	88.54	C
ATOM	26299	O2P	U A1247	259.602	146.972	2.911	1.00	86.13	O	ATOM	26349	O2*	C A1249	243.918	152.318	-2.433	1.00	88.54	O
ATOM	26300	O5*	U A1247	259.161	148.729	1.174	1.00	87.07	O	ATOM	26350	C1*	C A1249	245.859	150.925	-2.066	1.00	88.54	C
ATOM	26301	C5*	U A1247	259.518	149.833	0.335	1.00	87.07	C	ATOM	26351	N1	C A1249	246.287	149.648	-1.453	1.00	56.66	N
ATOM	26302	C4*	U A1247	258.432	150.097	-0.676	1.00	87.07	C	ATOM	26352	C2	C A1249	245.644	148.452	-1.824	1.00	56.66	C
ATOM	26303	O4*	U A1247	258.398	149.020	-1.653	1.00	87.07	O	ATOM	26353	O2	C A1249	244.732	148.487	-2.687	1.00	56.66	O
ATOM	26304	C3*	U A1247	257.011	150.150	-0.142	1.00	87.07	C	ATOM	26354	N3	C A1249	246.037	147.290	-1.239	1.00	56.66	N
ATOM	26305	O3*	U A1247	256.652	151.376	0.477	1.00	87.07	O	ATOM	26355	C4	C A1249	247.022	147.293	-0.338	1.00	56.66	C
ATOM	26306	O2*	U A1247	256.195	149.851	-1.390	1.00	87.07	O	ATOM	26356	N4	C A1249	247.378	146.133	0.204	1.00	56.66	N
ATOM	26307	C2*	U A1247	256.082	150.972	-2.248	1.00	87.07	C	ATOM	26357	C5	C A1249	247.688	148.486	0.047	1.00	56.66	C
ATOM	26308	C1*	U A1247	257.056	148.778	-2.053	1.00	87.07	O	ATOM	26358	C6	C A1249	247.295	149.626	-0.526	1.00	56.66	C
ATOM	26309	N1	U A1247	256.655	147.443	-1.572	1.00	86.13	N	ATOM	26359	P	A A1250	243.810	153.062	1.871	1.00	79.15	P
ATOM	26310	C2	U A1247	255.600	146.811	-2.205	1.00	86.13	C	ATOM	26360	O1P	A A1250	243.330	154.446	2.132	1.00	47.89	O
ATOM	26311	O2	U A1247	255.010	147.296	-3.155	1.00	86.13	O	ATOM	26361	O2P	A A1250	245.029	152.554	2.561	1.00	47.89	O
ATOM	26312	N3	U A1247	255.257	145.590	-1.681	1.00	86.13	N	ATOM	26362	O5*	A A1250	242.653	151.992	2.134	1.00	79.15	O
ATOM	26313	C4	U A1247	255.846	144.947	-0.613	1.00	86.13	C	ATOM	26363	C5*	A A1250	241.786	151.612	1.064	1.00	79.15	C
ATOM	26314	O4	U A1247	255.408	143.859	-0.241	1.00	86.13	O	ATOM	26364	C4*	A A1250	240.755	150.589	1.491	1.00	79.15	C
ATOM	26315	C5	U A1247	256.933	145.654	-0.021	1.00	86.13	C	ATOM	26365	O4*	A A1250	241.257	149.234	1.471	1.00	79.15	O



ATOM 26366	C3*	A A1250	240.041	150.652	2.828	1.00	79.15	C	ATOM 26416	C8	A A1252	235.438	147.156	8.785	1.00	70.23	C
ATOM 26367	O3*	A A1250	239.093	151.704	2.906	1.00	79.15	O	ATOM 26417	N7	A A1252	236.654	147.297	9.247	1.00	70.23	N
ATOM 26368	C2*	A A1250	239.306	149.311	2.820	1.00	79.15	C	ATOM 26418	C5	A A1252	237.017	146.014	9.636	1.00	70.23	C
ATOM 26369	O2*	A A1250	238.128	149.362	2.045	1.00	79.15	O	ATOM 26419	C6	A A1252	238.195	145.492	10.197	1.00	70.23	C
ATOM 26370	C1*	A A1250	240.276	148.409	2.060	1.00	79.15	C	ATOM 26420	N6	A A1252	239.271	146.224	10.471	1.00	70.23	N
ATOM 26371	N9	A A1250	240.890	147.402	2.917	1.00	47.89	N	ATOM 26421	N1	A A1252	238.232	144.171	10.469	1.00	70.23	N
ATOM 26372	C8	A A1250	241.947	147.483	3.779	1.00	47.89	C	ATOM 26422	C2	A A1252	237.154	143.432	10.190	1.00	70.23	C
ATOM 26373	N7	A A1250	242.190	146.362	4.419	1.00	47.89	N	ATOM 26423	N3	A A1252	235.991	143.805	9.659	1.00	70.23	N
ATOM 26374	C5	A A1250	241.234	145.486	3.934	1.00	47.89	C	ATOM 26424	C4	A A1252	235.990	145.125	9.400	1.00	70.23	C
ATOM 26375	C6	A A1250	240.951	144.138	4.213	1.00	47.89	C	ATOM 26425	P	A A1253	230.271	146.712	11.370	1.00	64.04	P
ATOM 26376	N6	A A1250	241.620	143.398	5.095	1.00	47.89	N	ATOM 26426	O1P	G A1253	229.051	145.969	11.825	1.00	61.02	O
ATOM 26377	N1	A A1250	239.932	143.566	3.553	1.00	47.89	N	ATOM 26427	O2P	G A1253	230.328	148.197	11.516	1.00	61.02	O
ATOM 26378	C2	A A1250	239.241	144.302	2.676	1.00	47.89	C	ATOM 26428	O5*	G A1253	231.552	146.084	12.076	1.00	64.04	O
ATOM 26379	N3	A A1250	239.405	145.572	2.330	1.00	47.89	N	ATOM 26429	C5*	G A1253	231.490	145.538	13.390	1.00	64.04	C
ATOM 26380	C4	A A1250	240.432	146.112	3.005	1.00	47.89	C	ATOM 26430	C4*	G A1253	232.182	144.211	13.405	1.00	64.04	C
ATOM 26381	P	A A1251	238.490	152.130	4.340	1.00	74.61	P	ATOM 26431	O4*	G A1253	233.268	144.247	12.455	1.00	64.04	O
ATOM 26382	O1P	A A1251	237.843	153.455	4.142	1.00	62.64	O	ATOM 26432	C3*	G A1253	232.824	143.839	14.726	1.00	64.04	C
ATOM 26383	O2P	A A1251	239.516	151.959	5.396	1.00	62.64	O	ATOM 26433	O3*	G A1253	231.911	143.227	15.613	1.00	64.04	O
ATOM 26384	O5*	A A1251	237.357	151.053	4.646	1.00	74.61	O	ATOM 26434	C2*	G A1253	233.962	142.920	14.310	1.00	64.04	C
ATOM 26385	C5*	A A1251	236.160	150.997	3.854	1.00	74.61	C	ATOM 26435	O2*	G A1253	233.560	141.579	14.117	1.00	64.04	O
ATOM 26386	C4*	A A1251	235.437	149.698	4.094	1.00	74.61	C	ATOM 26436	C1*	G A1253	234.387	143.549	12.979	1.00	64.04	C
ATOM 26387	O4*	A A1251	236.324	148.593	3.803	1.00	74.61	O	ATOM 26437	N9	G A1253	235.474	144.514	13.133	1.00	61.02	N
ATOM 26388	C3*	A A1251	234.969	149.457	5.517	1.00	74.61	C	ATOM 26438	C8	G A1253	235.452	145.839	12.770	1.00	61.02	C
ATOM 26389	O3*	A A1251	233.686	150.048	5.703	1.00	74.61	O	ATOM 26439	N7	G A1253	236.558	146.463	13.052	1.00	61.02	N
ATOM 26390	C2*	A A1251	234.889	147.939	5.582	1.00	74.61	C	ATOM 26440	C5	G A1253	237.364	145.493	13.631	1.00	61.02	C
ATOM 26391	O2*	A A1251	233.680	147.496	5.001	1.00	74.61	O	ATOM 26441	C6	G A1253	238.673	145.585	14.131	1.00	61.02	C
ATOM 26392	C1*	A A1251	236.052	147.519	4.679	1.00	74.61	C	ATOM 26442	O6	G A1253	239.407	146.575	14.165	1.00	61.02	O
ATOM 26393	N9	A A1251	237.284	147.179	5.393	1.00	62.64	N	ATOM 26443	N1	G A1253	239.124	144.366	14.628	1.00	61.02	N
ATOM 26394	C8	A A1251	238.277	148.030	5.795	1.00	62.64	C	ATOM 26444	C2	G A1253	238.402	143.206	14.636	1.00	61.02	C
ATOM 26395	N7	A A1251	239.263	147.435	6.424	1.00	62.64	N	ATOM 26445	N2	G A1253	239.013	142.137	15.162	1.00	61.02	N
ATOM 26396	C5	A A1251	238.896	146.101	6.439	1.00	62.64	C	ATOM 26446	N3	G A1253	237.170	143.104	14.165	1.00	61.02	N
ATOM 26397	C6	A A1251	239.520	144.952	6.969	1.00	62.64	C	ATOM 26447	C4	G A1253	236.716	144.283	13.682	1.00	61.02	C
ATOM 26398	N6	A A1251	240.686	144.970	7.619	1.00	62.64	N	ATOM 26448	P	C A1254	231.839	143.738	17.121	1.00	68.65	P
ATOM 26399	N1	A A1251	238.894	143.768	6.807	1.00	62.64	N	ATOM 26449	O1P	C A1254	230.609	143.179	17.743	1.00	66.37	O
ATOM 26400	C2	A A1251	237.719	143.751	6.163	1.00	62.64	C	ATOM 26450	O2P	C A1254	232.034	145.213	17.058	1.00	66.37	O
ATOM 26401	N3	A A1251	237.029	144.763	5.627	1.00	62.64	N	ATOM 26451	O5*	C A1254	233.103	143.056	17.798	1.00	68.65	O
ATOM 26402	C4	A A1252	237.681	145.924	5.801	1.00	62.64	C	ATOM 26452	C5*	C A1254	233.156	141.636	17.935	1.00	68.65	C
ATOM 26403	P	A A1252	231.883	151.115	7.014	1.00	67.19	P	ATOM 26453	O4*	C A1254	234.539	141.199	18.337	1.00	68.65	C
ATOM 26404	O1P	A A1252	231.883	151.115	7.014	1.00	70.23	O	ATOM 26454	C4*	C A1254	235.485	141.616	17.319	1.00	68.65	C
ATOM 26405	O2P	A A1252	234.262	150.943	7.988	1.00	70.23	O	ATOM 26455	C3*	C A1254	235.093	141.804	19.615	1.00	68.65	C
ATOM 26406	O5*	A A1252	232.836	148.928	7.812	1.00	67.19	O	ATOM 26456	O3*	C A1254	234.607	141.167	20.791	1.00	68.65	O
ATOM 26407	C5*	A A1252	231.731	148.143	7.343	1.00	67.19	C	ATOM 26457	C2*	C A1254	236.596	141.664	19.414	1.00	68.65	C
ATOM 26408	C4*	A A1252	231.879	146.713	7.801	1.00	67.19	C	ATOM 26458	O2*	C A1254	237.069	140.352	19.648	1.00	68.65	O
ATOM 26409	O4*	A A1252	233.182	146.226	7.389	1.00	67.19	O	ATOM 26459	C1*	C A1254	236.720	141.955	17.925	1.00	68.65	C
ATOM 26410	C3*	A A1252	231.857	146.490	9.301	1.00	67.19	C	ATOM 26460	N1	C A1254	236.982	143.377	17.677	1.00	66.37	N
ATOM 26411	O3*	A A1252	230.536	146.376	9.818	1.00	67.19	O	ATOM 26461	C2	C A1254	238.281	143.865	17.868	1.00	66.37	C
ATOM 26412	C2*	A A1252	232.653	145.201	9.469	1.00	67.19	C	ATOM 26462	O2	C A1254	239.168	143.078	18.255	1.00	66.37	O
ATOM 26413	O2*	A A1252	231.887	144.038	9.233	1.00	67.19	O	ATOM 26463	N3	C A1254	238.536	145.176	17.625	1.00	66.37	N
ATOM 26414	C1*	A A1252	233.696	145.338	8.363	1.00	67.19	C	ATOM 26464	C4	C A1254	237.551	145.979	17.207	1.00	66.37	C
ATOM 26415	N9	A A1252	234.978	145.863	8.832	1.00	70.23	N	ATOM 26465	N4	C A1254	237.840	147.261	16.967	1.00	66.37	N



ATOM	26466	C5	C A1254	236.223	145.505	17.014	1.00	66.37	C	ATOM	26516	O5*	U A1257	239.062	137.110	32.319	1.00190.17	O	
ATOM	26467	C6	C A1254	235.985	144.214	17.261	1.00	66.37	C	ATOM	26517	C5*	U A1257	239.822	137.351	31.116	1.00190.17	C	
ATOM	26468	P	G A1255	234.244	142.068	22.074	1.00	79.47	P	ATOM	26518	C4*	U A1257	241.304	137.317	31.408	1.00190.17	C	
ATOM	26469	O1P	G A1255	233.356	141.279	22.961	1.00	64.07	O	ATOM	26519	O4*	U A1257	241.576	138.096	32.603	1.00190.17	O	
ATOM	26470	O2P	G A1255	233.803	143.414	21.594	1.00	64.07	O	ATOM	26520	C3*	U A1257	241.881	135.943	31.704	1.00190.17	C	
ATOM	26471	O5*	G A1255	235.638	142.218	22.823	1.00	79.47	O	ATOM	26521	O3*	U A1257	242.131	135.184	30.511	1.00190.17	O	
ATOM	26472	C5*	G A1255	236.360	141.055	23.257	1.00	79.47	C	ATOM	26522	C2*	U A1257	243.072	136.232	32.619	1.00190.17	C	
ATOM	26473	C4*	G A1255	237.792	141.415	23.564	1.00	79.47	C	ATOM	26523	O2*	U A1257	244.300	136.525	31.993	1.00190.17	O	
ATOM	26474	O4*	G A1255	238.384	142.023	22.391	1.00	79.47	O	ATOM	26524	C1*	U A1257	242.592	137.472	33.373	1.00190.17	C	
ATOM	26475	C3*	G A1255	238.003	142.440	24.667	1.00	79.47	C	ATOM	26525	N1	U A1257	242.052	137.167	34.708	1.00200.22	N	
ATOM	26476	O3*	G A1255	238.034	141.809	25.946	1.00	79.47	O	ATOM	26526	C2	U A1257	242.824	137.502	35.813	1.00200.22	C	
ATOM	26477	O2*	G A1255	239.358	143.036	24.309	1.00	79.47	C	ATOM	26527	N3	U A1257	243.920	138.038	35.728	1.00200.22	O	
ATOM	26478	C2*	G A1255	240.415	142.214	24.754	1.00	79.47	O	ATOM	26528	O2	U A1257	242.262	137.185	37.026	1.00200.22	N	
ATOM	26479	C1*	G A1255	239.331	142.992	22.782	1.00	79.47	C	ATOM	26529	C4	U A1257	241.038	136.582	37.247	1.00200.22	C	
ATOM	26480	N9	G A1255	238.999	144.260	22.140	1.00	64.07	N	ATOM	26530	O4	U A1257	240.670	136.359	38.402	1.00200.22	O	
ATOM	26481	C8	G A1255	237.809	144.625	21.552	1.00	64.07	C	ATOM	26531	C5	U A1257	240.304	136.269	36.059	1.00200.22	C	
ATOM	26482	N7	G A1255	237.833	145.831	21.049	1.00	64.07	N	ATOM	26532	C6	U A1257	240.820	136.565	34.863	1.00200.22	C	
ATOM	26483	C5	G A1255	239.112	146.289	21.322	1.00	64.07	C	ATOM	26533	P	G A1258	243.066	135.770	29.326	1.00122.46	P	
ATOM	26484	C6	G A1255	239.723	147.533	21.031	1.00	64.07	C	ATOM	26534	O1P	G A1258	242.980	134.728	28.263	1.00	99.49	O
ATOM	26485	O6	G A1255	239.241	148.510	20.442	1.00	64.07	O	ATOM	26535	O2P	G A1258	244.410	136.200	29.810	1.00	99.49	O
ATOM	26486	N1	G A1255	241.031	147.583	21.506	1.00	64.07	N	ATOM	26536	O5*	G A1258	242.285	137.060	28.793	1.00122.46	O	
ATOM	26487	C2	G A1255	241.667	146.565	22.181	1.00	64.07	C	ATOM	26537	C5*	G A1258	241.057	136.922	28.048	1.00122.46	C	
ATOM	26488	N2	G A1255	242.926	146.805	22.577	1.00	64.07	N	ATOM	26538	C4*	G A1258	240.929	138.012	27.002	1.00122.46	C	
ATOM	26489	N3	G A1255	241.110	145.400	22.452	1.00	64.07	N	ATOM	26539	O4*	G A1258	240.663	139.286	27.635	1.00122.46	O	
ATOM	26490	C4	G A1255	239.842	145.332	21.999	1.00	64.07	C	ATOM	26540	C3*	G A1258	242.130	138.276	26.109	1.00122.46	C	
ATOM	26491	P	A A1256	236.897	142.149	27.025	1.00131.53	P	ATOM	26541	O3*	G A1258	242.211	137.370	25.019	1.00122.46	O		
ATOM	26492	O1P	A A1256	235.689	141.398	26.605	1.00119.87	O	ATOM	26542	C2*	G A1258	241.880	139.700	25.634	1.00122.46	C		
ATOM	26493	O2P	A A1256	236.833	143.624	27.165	1.00119.87	O	ATOM	26543	O2*	G A1258	240.970	139.754	24.558	1.00122.46	O		
ATOM	26494	O5*	A A1256	237.435	141.525	28.396	1.00131.53	O	ATOM	26544	C1*	G A1258	241.233	140.330	26.866	1.00122.46	C		
ATOM	26495	C5*	A A1256	237.974	140.179	28.456	1.00131.53	C	ATOM	26545	N9	G A1258	242.207	141.035	27.694	1.00	99.49	N	
ATOM	26496	C4*	A A1256	238.707	139.953	29.770	1.00131.53	C	ATOM	26546	C8	G A1258	242.874	140.544	28.793	1.00	99.49	C	
ATOM	26497	O4*	A A1256	239.650	141.033	29.971	1.00131.53	O	ATOM	26547	N7	G A1258	243.702	141.407	29.315	1.00	99.49	N	
ATOM	26498	C3*	A A1256	237.859	139.909	31.035	1.00131.53	C	ATOM	26548	C5	G A1258	243.568	142.537	28.520	1.00	99.49	C	
ATOM	26499	O3*	A A1256	237.322	138.572	31.164	1.00131.53	O	ATOM	26549	C6	G A1258	244.209	143.794	28.603	1.00	99.49	C	
ATOM	26500	C2*	A A1256	238.800	140.435	32.128	1.00131.53	C	ATOM	26550	O6	G A1258	245.045	144.180	29.429	1.00	99.49	O	
ATOM	26501	O2*	A A1256	239.614	139.499	32.791	1.00131.53	O	ATOM	26551	N1	G A1258	243.785	144.649	27.593	1.00	99.49	N	
ATOM	26502	C1*	A A1256	239.725	141.365	31.343	1.00131.53	C	ATOM	26552	C2	G A1258	242.860	144.338	26.631	1.00	99.49	C	
ATOM	26503	N9	A A1256	239.459	142.794	31.479	1.00119.87	N	ATOM	26553	N2	G A1258	242.582	145.300	25.739	1.00	99.49	N	
ATOM	26504	C8	A A1256	238.776	143.447	32.473	1.00119.87	C	ATOM	26554	N3	G A1258	242.250	143.171	26.548	1.00	99.49	N	
ATOM	26505	N7	A A1256	238.733	144.747	32.316	1.00119.87	N	ATOM	26555	C4	G A1258	242.650	142.324	27.516	1.00	99.49	C	
ATOM	26506	C5	A A1256	239.435	144.963	31.136	1.00119.87	C	ATOM	26556	P	C A1259	243.610	137.182	24.252	1.00	80.62	P	
ATOM	26507	C6	A A1256	239.757	146.134	30.429	1.00119.87	C	ATOM	26557	O1P	C A1259	243.468	136.024	23.331	1.00101.68	O		
ATOM	26508	N6	A A1256	239.405	147.353	30.829	1.00119.87	N	ATOM	26558	O2P	C A1259	244.690	137.172	25.273	1.00101.68	O		
ATOM	26509	N1	A A1256	240.465	146.005	29.286	1.00119.87	N	ATOM	26559	O5*	C A1259	243.740	138.508	23.379	1.00	80.62	C	
ATOM	26510	C2	A A1256	240.817	144.781	28.893	1.00119.87	C	ATOM	26560	C5*	C A1259	242.787	138.781	22.349	1.00	80.62	C	
ATOM	26511	N3	A A1256	240.581	143.608	29.472	1.00119.87	N	ATOM	26561	C4*	C A1259	243.078	140.099	21.686	1.00	80.62	C	
ATOM	26512	C4	A A1256	239.878	143.770	30.606	1.00119.87	C	ATOM	26562	O4*	C A1259	242.829	141.191	22.606	1.00	80.62	O	
ATOM	26513	P	U A1257	237.579	137.679	32.490	1.00190.17	P	ATOM	26563	C3*	C A1259	244.501	140.316	21.209	1.00	80.62	C	
ATOM	26514	O1P	U A1257	236.666	136.514	32.379	1.00200.22	O	ATOM	26564	O3*	C A1259	244.749	139.689	19.960	1.00	80.62	O	
ATOM	26515	O2P	U A1257	237.522	138.532	33.705	1.00200.22	O	ATOM	26565	C2*	C A1259	244.602	141.839	21.146	1.00	80.62	C	



Table 2: Sheet 267/520

ATOM	26566	O2*	C A1259	244.107	142.422	19.952	1.00	80.62	O	ATOM	26616	N3	A A1261	254.758	148.801	22.815	1.00	95.13	N
ATOM	26567	C1*	C A1259	243.723	142.259	22.328	1.00	80.62	C	ATOM	26617	C4	A A1261	254.216	147.581	22.972	1.00	95.13	C
ATOM	26568	N1	C A1259	244.527	142.532	23.534	1.00	101.68	N	ATOM	26618	P	C A1262	255.802	146.178	17.192	1.00	117.59	P
ATOM	26569	C2	C A1259	245.060	143.817	23.717	1.00	101.68	C	ATOM	26619	O1P	C A1262	256.125	146.834	15.898	1.00	91.81	O
ATOM	26570	O2	C A1259	244.824	144.698	22.875	1.00	101.68	O	ATOM	26620	O2P	C A1262	255.714	144.699	17.267	1.00	91.81	O
ATOM	26571	N3	C A1259	245.818	144.064	24.803	1.00	101.68	N	ATOM	26621	O5*	C A1262	256.847	146.648	18.299	1.00	117.59	O
ATOM	26572	C4	C A1259	246.049	143.095	25.689	1.00	101.68	C	ATOM	26622	C5*	C A1262	257.259	148.025	18.402	1.00	117.59	C
ATOM	26573	N4	C A1259	246.807	143.385	26.744	1.00	101.68	N	ATOM	26623	O4*	C A1262	258.114	148.227	19.634	1.00	117.59	C
ATOM	26574	C5	C A1259	245.514	141.786	25.533	1.00	101.68	C	ATOM	26624	C4*	C A1262	257.302	148.077	19.829	1.00	117.59	C
ATOM	26575	C6	C A1259	244.765	141.550	24.456	1.00	101.68	C	ATOM	26625	C3*	C A1262	259.246	147.227	19.819	1.00	117.59	C
ATOM	26576	P	C A1260	246.215	139.135	19.640	1.00	104.04	P	ATOM	26626	O3*	C A1262	260.409	147.561	19.082	1.00	117.59	O
ATOM	26577	O1P	C A1260	246.228	138.664	18.239	1.00	95.87	O	ATOM	26627	C2*	C A1262	259.489	147.252	21.323	1.00	117.59	C
ATOM	26578	O2P	C A1260	246.607	138.208	20.735	1.00	95.87	O	ATOM	26628	O2*	C A1262	260.348	148.290	21.753	1.00	117.59	O
ATOM	26579	O5*	C A1260	247.103	140.451	19.701	1.00	104.04	O	ATOM	26629	C1*	C A1262	258.076	147.483	21.860	1.00	117.59	C
ATOM	26580	C5*	C A1260	248.484	140.412	20.083	1.00	104.04	C	ATOM	26630	N1	C A1262	257.441	146.219	22.274	1.00	91.81	N
ATOM	26581	C4*	C A1260	248.858	141.723	20.720	1.00	104.04	C	ATOM	26631	C2	C A1262	257.872	145.613	23.469	1.00	91.81	C
ATOM	26582	O3*	C A1260	248.095	141.883	21.942	1.00	104.04	O	ATOM	26632	O2	C A1262	258.777	146.153	24.132	1.00	91.81	O
ATOM	26583	C4*	C A1260	250.307	141.887	21.140	1.00	104.04	C	ATOM	26633	N3	C A1262	257.298	144.454	23.863	1.00	91.81	N
ATOM	26584	O3*	C A1260	251.090	142.342	20.046	1.00	104.04	O	ATOM	26634	C4	C A1262	256.344	143.893	23.117	1.00	91.81	C
ATOM	26585	C2*	C A1260	250.205	142.930	22.247	1.00	104.04	C	ATOM	26635	N4	C A1262	255.813	142.752	23.548	1.00	91.81	N
ATOM	26586	O2*	C A1260	250.086	144.245	21.734	1.00	104.04	O	ATOM	26636	C5	C A1262	255.895	144.481	21.896	1.00	91.81	C
ATOM	26587	C1*	C A1260	248.886	142.537	22.916	1.00	104.04	C	ATOM	26637	C6	C A1262	256.461	145.634	21.519	1.00	91.81	C
ATOM	26588	N1	C A1260	249.069	141.614	24.054	1.00	95.87	N	ATOM	26638	P	C A1263	261.490	146.420	18.767	1.00	96.52	P
ATOM	26589	C2	C A1260	249.354	142.145	25.316	1.00	95.87	C	ATOM	26639	O1P	C A1263	262.581	147.059	17.986	1.00	104.95	O
ATOM	26590	O2	C A1260	249.448	143.375	25.443	1.00	95.87	O	ATOM	26640	O2P	C A1263	260.782	145.237	18.211	1.00	104.95	O
ATOM	26591	N3	C A1260	249.522	141.306	26.365	1.00	95.87	N	ATOM	26641	O5*	C A1263	262.043	146.007	20.204	1.00	96.52	O
ATOM	26592	C4	C A1260	249.419	139.989	26.190	1.00	95.87	C	ATOM	26642	C5*	C A1263	262.927	146.879	20.940	1.00	96.52	C
ATOM	26593	N4	C A1260	249.591	139.202	27.255	1.00	95.87	N	ATOM	26643	C4*	C A1263	263.457	146.176	22.170	1.00	96.52	C
ATOM	26594	C5	C A1260	249.133	139.419	24.917	1.00	95.87	C	ATOM	26644	O4*	C A1263	262.376	145.940	23.103	1.00	96.52	O
ATOM	26595	C6	C A1260	248.967	140.259	23.887	1.00	95.87	C	ATOM	26645	C3*	C A1263	264.071	144.808	21.931	1.00	96.52	C
ATOM	26596	P	A A1261	252.693	142.358	20.159	1.00	86.31	P	ATOM	26646	O3*	C A1263	265.433	144.919	21.554	1.00	96.52	O
ATOM	26597	O1P	A A1261	253.247	141.504	19.080	1.00	95.13	O	ATOM	26647	C2*	C A1263	263.900	144.108	23.273	1.00	96.52	C
ATOM	26598	O2P	A A1261	253.066	142.079	21.567	1.00	95.13	O	ATOM	26648	O2*	C A1263	264.942	144.375	24.187	1.00	96.52	C
ATOM	26599	O5*	A A1261	253.053	143.870	19.816	1.00	86.31	O	ATOM	26649	C1*	C A1263	262.589	144.714	23.778	1.00	96.52	C
ATOM	26600	C5*	A A1261	252.304	144.593	18.821	1.00	86.31	C	ATOM	26650	N1	C A1263	261.426	143.845	23.546	1.00	104.95	N
ATOM	26601	C4*	A A1261	252.498	146.079	18.999	1.00	86.31	C	ATOM	26651	C2	C A1263	261.138	142.848	24.483	1.00	104.95	C
ATOM	26602	O4*	A A1261	251.974	146.473	20.290	1.00	86.31	O	ATOM	26652	O2	C A1263	261.873	142.723	25.472	1.00	104.95	N
ATOM	26603	C3*	A A1261	253.945	146.547	19.001	1.00	86.31	C	ATOM	26653	N3	C A1263	260.072	142.045	24.286	1.00	104.95	N
ATOM	26604	O3*	A A1261	254.406	146.804	17.681	1.00	86.31	O	ATOM	26654	C4	C A1263	259.310	142.202	23.203	1.00	104.95	C
ATOM	26605	O2*	A A1261	253.890	147.816	19.840	1.00	86.31	C	ATOM	26655	N4	C A1263	258.269	141.386	23.053	1.00	104.95	N
ATOM	26606	C2*	A A1261	253.475	148.947	19.101	1.00	86.31	O	ATOM	26656	C5	C A1263	259.583	143.206	22.228	1.00	104.95	C
ATOM	26607	C1*	A A1261	252.810	147.465	20.863	1.00	86.31	C	ATOM	26657	C6	C A1263	260.638	143.998	22.438	1.00	104.95	C
ATOM	26608	N9	A A1261	253.346	146.940	22.122	1.00	95.13	N	ATOM	26658	P	C A1264	266.099	143.773	20.651	1.00	78.26	P
ATOM	26609	C8	A A1261	253.081	145.725	22.709	1.00	95.13	C	ATOM	26659	O1P	C A1264	267.446	144.252	20.246	1.00	119.48	O
ATOM	26610	N7	A A1261	253.693	145.544	23.852	1.00	95.13	N	ATOM	26660	O2P	C A1264	265.118	143.390	19.605	1.00	119.48	O
ATOM	26611	C5	A A1261	254.414	146.715	24.033	1.00	95.13	C	ATOM	26661	O5*	C A1264	266.273	142.554	21.662	1.00	78.26	O
ATOM	26612	C6	A A1261	255.264	147.150	25.062	1.00	95.13	C	ATOM	26662	C5*	C A1264	267.146	142.666	22.793	1.00	78.26	C
ATOM	26613	N6	A A1261	255.541	146.427	26.150	1.00	95.13	N	ATOM	26663	C4*	C A1264	266.984	141.479	23.708	1.00	78.26	C
ATOM	26614	N1	A A1261	255.825	148.371	24.936	1.00	95.13	N	ATOM	26664	O4*	C A1264	265.666	141.500	24.307	1.00	78.26	O
ATOM	26615	C2	A A1261	255.542	149.099	23.847	1.00	95.13	C	ATOM	26665	C3*	C A1264	267.094	140.114	23.056	1.00	78.26	C



ATOM	26666	O3*	C A1264	268.448	139.707	22.952	1.00	78.26	O	ATOM	26716	C5	G A1266	263.116	133.874	18.713	1.00	94.48	C
ATOM	26667	O2*	C A1264	266.302	139.219	24.004	1.00	78.26	C	ATOM	26717	C6	G A1266	261.926	134.441	18.160	1.00	94.48	O
ATOM	26668	O2*	C A1264	267.057	138.762	25.104	1.00	78.26	O	ATOM	26718	O6	G A1266	261.723	135.603	17.779	1.00	94.48	O
ATOM	26669	C1*	C A1264	265.209	140.170	24.498	1.00	78.26	C	ATOM	26719	N1	G A1266	260.905	133.499	18.075	1.00	94.48	N
ATOM	26670	N1	C A1264	263.930	139.997	23.782	1.00	119.48	N	ATOM	26720	C2	G A1266	261.002	132.184	18.475	1.00	94.48	C
ATOM	26671	C2	C A1264	263.099	138.925	24.135	1.00	119.48	C	ATOM	26721	N2	G A1266	259.907	131.419	18.314	1.00	94.48	N
ATOM	26672	O2	C A1264	263.444	138.171	25.059	1.00	119.48	O	ATOM	26722	N3	G A1266	262.092	131.653	18.993	1.00	94.48	N
ATOM	26673	N3	C A1264	261.941	138.740	23.461	1.00	119.48	N	ATOM	26723	C4	G A1266	263.103	132.545	19.079	1.00	94.48	C
ATOM	26674	C4	C A1264	261.598	139.577	22.478	1.00	119.48	C	ATOM	26724	P	C A1267	268.198	129.723	16.710	1.00	89.25	P
ATOM	26675	N4	C A1264	260.453	139.348	21.830	1.00	119.48	N	ATOM	26725	O1P	C A1267	268.745	128.451	16.166	1.00	73.70	O
ATOM	26676	C5	C A1264	262.415	140.684	22.112	1.00	119.48	C	ATOM	26726	O2P	C A1267	269.104	130.873	16.958	1.00	73.70	O
ATOM	26677	C6	C A1264	263.560	140.855	22.782	1.00	119.48	C	ATOM	26727	O5*	C A1267	267.040	130.235	15.740	1.00	89.25	O
ATOM	26678	P	G A1265	268.869	138.621	21.847	1.00	90.67	P	ATOM	26728	C5*	C A1267	267.349	131.090	14.622	1.00	89.25	C
ATOM	26679	O1P	G A1265	270.352	138.476	21.891	1.00	96.96	O	ATOM	26729	C4*	C A1267	266.445	130.789	13.448	1.00	89.25	C
ATOM	26680	O2P	G A1265	268.207	138.997	20.570	1.00	96.96	O	ATOM	26730	O4*	C A1267	266.650	129.425	12.998	1.00	89.25	O
ATOM	26681	O5*	G A1265	268.236	137.265	22.388	1.00	90.67	O	ATOM	26731	C3*	C A1267	264.952	130.881	13.703	1.00	89.25	C
ATOM	26682	C5*	G A1265	268.792	136.621	23.538	1.00	90.67	C	ATOM	26732	O3*	C A1267	264.496	132.219	13.616	1.00	89.25	O
ATOM	26683	C4*	G A1265	268.106	135.306	23.786	1.00	90.67	C	ATOM	26733	C2*	C A1267	264.367	129.992	12.612	1.00	89.25	C
ATOM	26684	O4*	G A1265	266.762	135.536	24.283	1.00	90.67	O	ATOM	26734	O2*	C A1267	264.261	130.662	11.372	1.00	89.25	O
ATOM	26685	C3*	G A1265	267.908	134.430	22.565	1.00	90.67	C	ATOM	26735	C1*	C A1267	265.433	128.901	12.498	1.00	89.25	C
ATOM	26686	O2*	G A1265	269.071	133.705	22.207	1.00	90.67	O	ATOM	26736	N1	C A1267	265.113	127.667	13.239	1.00	73.70	N
ATOM	26687	C3*	G A1265	266.740	133.547	22.982	1.00	90.67	C	ATOM	26737	C2	C A1267	264.473	126.623	12.562	1.00	73.70	C
ATOM	26688	O2*	G A1265	267.130	132.474	23.819	1.00	90.67	O	ATOM	26738	O2	C A1267	264.150	126.784	11.377	1.00	73.70	O
ATOM	26689	C1*	G A1265	265.889	134.533	23.783	1.00	90.67	C	ATOM	26739	N3	C A1267	264.220	125.468	13.213	1.00	73.70	N
ATOM	26690	N9	G A1265	264.872	135.177	22.952	1.00	96.96	N	ATOM	26740	C4	C A1267	264.575	125.333	14.491	1.00	73.70	C
ATOM	26691	C8	G A1265	264.977	136.377	22.284	1.00	96.96	C	ATOM	26741	N4	C A1267	264.340	124.159	15.083	1.00	73.70	N
ATOM	26692	N7	G A1265	263.904	136.685	21.607	1.00	96.96	N	ATOM	26742	C5	C A1267	265.196	126.391	15.217	1.00	73.70	C
ATOM	26693	C5	G A1265	263.035	135.628	21.843	1.00	96.96	C	ATOM	26743	C6	C A1267	265.444	127.529	14.558	1.00	73.70	C
ATOM	26694	C6	G A1265	261.716	135.399	21.371	1.00	96.96	C	ATOM	26744	P	A A1268	263.650	132.836	14.831	1.00	89.35	P
ATOM	26695	O6	G A1265	261.029	136.108	20.619	1.00	96.96	O	ATOM	26745	O1P	A A1268	263.447	134.278	14.540	1.00	72.49	O
ATOM	26696	N1	G A1265	261.204	134.201	21.857	1.00	96.96	N	ATOM	26746	O2P	A A1268	264.302	132.421	16.105	1.00	72.49	O
ATOM	26697	C2	G A1265	261.876	133.331	22.685	1.00	96.96	C	ATOM	26747	O5*	A A1268	262.251	132.077	14.747	1.00	89.35	O
ATOM	26698	N2	G A1265	261.220	132.221	23.045	1.00	96.96	N	ATOM	26748	C5*	A A1268	261.416	132.183	13.572	1.00	89.35	C
ATOM	26699	N3	G A1265	263.101	133.532	23.128	1.00	96.96	N	ATOM	26749	C4*	A A1268	260.396	131.065	13.541	1.00	89.35	C
ATOM	26700	C4	G A1265	263.618	134.690	22.673	1.00	96.96	C	ATOM	26750	O4*	A A1268	261.086	129.792	13.576	1.00	89.35	O
ATOM	26701	P	G A1266	269.442	133.547	20.652	1.00	120.15	P	ATOM	26751	C3*	A A1268	259.407	131.015	14.696	1.00	89.35	C
ATOM	26702	O1P	G A1266	270.791	132.932	20.561	1.00	94.48	O	ATOM	26752	O3*	A A1268	258.285	131.841	14.396	1.00	89.35	O
ATOM	26703	O2P	G A1266	269.166	134.844	19.969	1.00	94.48	O	ATOM	26753	C2*	A A1268	259.030	129.536	14.758	1.00	89.35	C
ATOM	26704	O5*	G A1266	268.392	132.477	20.117	1.00	120.15	O	ATOM	26754	O2*	A A1268	258.004	129.186	13.845	1.00	89.35	O
ATOM	26705	C5*	G A1266	268.369	131.144	20.656	1.00	120.15	C	ATOM	26755	C1*	A A1268	260.332	128.859	14.319	1.00	89.35	C
ATOM	26706	C4*	G A1266	267.095	130.437	20.266	1.00	120.15	C	ATOM	26756	N9	A A1268	261.175	128.393	15.413	1.00	72.49	N
ATOM	26707	O4*	G A1266	265.955	131.124	20.841	1.00	120.15	O	ATOM	26757	C8	A A1268	261.976	129.150	16.225	1.00	72.49	C
ATOM	26708	C3*	G A1266	266.770	130.386	18.783	1.00	120.15	C	ATOM	26758	N7	A A1268	262.645	128.450	17.105	1.00	72.49	N
ATOM	26709	O3*	G A1266	267.462	129.367	18.092	1.00	120.15	O	ATOM	26759	C5	A A1268	262.251	127.146	16.862	1.00	72.49	C
ATOM	26710	C2*	G A1266	265.272	130.136	18.790	1.00	120.15	C	ATOM	26760	C6	A A1268	262.603	125.928	17.463	1.00	72.49	C
ATOM	26711	O2*	G A1266	264.957	128.775	19.012	1.00	120.15	O	ATOM	26761	N6	A A1268	263.471	125.826	18.472	1.00	72.49	N
ATOM	26712	C1*	G A1266	264.833	130.969	19.991	1.00	120.15	C	ATOM	26762	N1	A A1268	262.028	124.801	16.985	1.00	72.49	N
ATOM	26713	N9	G A1266	264.364	132.280	19.548	1.00	94.48	N	ATOM	26763	C2	A A1268	261.161	124.911	15.970	1.00	72.49	C
ATOM	26714	C8	G A1266	265.064	133.461	19.470	1.00	94.48	C	ATOM	26764	N3	A A1268	260.753	126.001	15.323	1.00	72.49	N
ATOM	26715	N7	G A1266	264.360	134.442	18.966	1.00	94.48	N	ATOM	26765	C4	A A1268	261.342	127.097	15.825	1.00	72.49	C



Table 2: Sheet 269/520

ATOM	26766	P	A A1269	257.422	132.494	15.586	1.00	67.96	P	ATOM	26816	O3*	G A1271	255.894	131.466	28.786	1.00	93.90	O
ATOM	26767	O1P	A A1269	256.616	133.589	14.967	1.00	72.26	O	ATOM	26817	O2*	G A1271	258.621	132.175	27.235	1.00	93.90	C
ATOM	26768	O2P	A A1269	258.311	132.805	16.725	1.00	72.26	O	ATOM	26818	O2*	G A1271	259.494	131.316	27.943	1.00	93.90	O
ATOM	26769	O5*	A A1269	256.463	131.313	16.069	1.00	67.96	O	ATOM	26819	C1*	G A1271	258.791	131.918	25.742	1.00	93.90	C
ATOM	26770	C5*	A A1269	255.336	130.893	15.272	1.00	67.96	C	ATOM	26820	N9	G A1271	258.575	133.134	24.965	1.00	83.76	N
ATOM	26771	C4*	A A1269	254.788	129.583	15.788	1.00	67.96	C	ATOM	26821	C8	G A1271	257.485	133.450	24.189	1.00	83.76	C
ATOM	26772	O4*	A A1269	255.840	128.591	15.748	1.00	67.96	O	ATOM	26822	N7	G A1271	257.594	134.610	23.598	1.00	83.76	N
ATOM	26773	C3*	A A1269	254.303	129.595	17.229	1.00	67.96	C	ATOM	26823	C5	G A1271	258.829	135.091	24.010	1.00	83.76	C
ATOM	26774	O3*	A A1269	252.929	129.942	17.280	1.00	67.96	O	ATOM	26824	C6	G A1271	259.501	136.295	23.682	1.00	83.76	C
ATOM	26775	C2*	A A1269	254.491	128.146	17.664	1.00	67.96	C	ATOM	26825	O6	G A1271	259.133	137.200	22.930	1.00	83.76	O
ATOM	26776	O2*	A A1269	253.413	127.305	17.308	1.00	67.96	O	ATOM	26826	N1	G A1271	260.728	136.390	24.330	1.00	83.76	N
ATOM	26777	C1*	A A1269	255.728	127.732	16.865	1.00	67.96	C	ATOM	26827	C2	G A1271	261.246	135.449	25.184	1.00	83.76	C
ATOM	26778	N9	A A1269	256.966	127.818	17.639	1.00	72.26	N	ATOM	26828	N2	G A1271	262.435	135.739	25.734	1.00	83.76	N
ATOM	26779	C8	A A1269	257.651	128.946	18.020	1.00	72.26	C	ATOM	26829	N3	G A1271	260.640	134.310	25.483	1.00	83.76	N
ATOM	26780	N7	A A1269	258.733	128.695	18.713	1.00	72.26	N	ATOM	26830	C4	G A1271	259.442	134.199	24.864	1.00	83.76	C
ATOM	26781	C5	A A1269	258.763	127.309	18.795	1.00	72.26	C	ATOM	26831	P	G A1272	256.379	132.602	29.796	1.00	99.94	P
ATOM	26782	C6	A A1269	259.662	126.414	19.404	1.00	72.26	C	ATOM	26832	O1P	G A1272	256.149	131.871	31.069	1.00	74.26	O
ATOM	26783	N6	A A1269	260.763	126.796	20.058	1.00	72.26	N	ATOM	26833	O2P	G A1272	255.272	133.375	29.180	1.00	74.26	O
ATOM	26784	N1	A A1269	259.395	125.096	19.313	1.00	72.26	N	ATOM	26834	O5*	G A1272	257.624	133.589	29.951	1.00	99.94	O
ATOM	26785	C2	A A1269	258.305	124.713	18.643	1.00	72.26	C	ATOM	26835	C5*	G A1272	258.672	133.315	30.908	1.00	99.94	C
ATOM	26786	N3	A A1269	257.391	125.454	18.022	1.00	72.26	N	ATOM	26836	C4*	G A1272	259.640	134.474	30.989	1.00	99.94	C
ATOM	26787	C4	A A1269	257.682	126.759	18.139	1.00	72.26	C	ATOM	26837	O4*	G A1272	260.079	134.655	29.699	1.00	99.94	O
ATOM	26788	P	A A1270	252.454	131.226	18.110	1.00	77.32	P	ATOM	26838	C3*	G A1272	259.043	135.836	31.312	1.00	99.94	C
ATOM	26789	O1P	A A1270	251.010	131.039	18.336	1.00	69.88	O	ATOM	26839	O3*	G A1272	258.865	136.048	32.709	1.00	99.94	O
ATOM	26790	O2P	C A1270	252.926	132.441	17.406	1.00	69.88	O	ATOM	26840	C2*	G A1272	260.068	136.795	30.721	1.00	99.94	C
ATOM	26791	O5*	C A1270	253.200	131.104	19.516	1.00	77.32	O	ATOM	26841	O2*	G A1272	261.163	137.030	31.578	1.00	99.94	O
ATOM	26792	C5*	C A1270	252.975	129.975	20.374	1.00	77.32	C	ATOM	26842	C1*	G A1272	260.528	136.033	29.478	1.00	99.94	C
ATOM	26793	C4*	C A1270	254.200	129.691	21.219	1.00	77.32	C	ATOM	26843	N9	G A1272	259.737	136.467	28.335	1.00	74.26	N
ATOM	26794	O4*	C A1270	255.385	129.816	20.384	1.00	77.32	O	ATOM	26844	C8	G A1272	258.590	135.886	27.852	1.00	74.26	C
ATOM	26795	C3*	C A1270	254.509	130.600	22.405	1.00	77.32	C	ATOM	26845	N7	G A1272	258.042	136.567	26.884	1.00	74.26	N
ATOM	26796	O3*	C A1270	253.783	130.286	23.591	1.00	77.32	O	ATOM	26846	C5	G A1272	258.889	137.648	26.704	1.00	74.26	C
ATOM	26797	O2*	C A1270	255.995	130.348	22.611	1.00	77.32	O	ATOM	26847	C6	G A1272	258.799	138.738	25.810	1.00	74.26	C
ATOM	26799	C1*	C A1270	256.253	129.124	23.275	1.00	77.32	O	ATOM	26848	O6	G A1272	257.916	138.985	24.983	1.00	74.26	O
ATOM	26800	N1	C A1270	256.485	130.245	21.172	1.00	77.32	C	ATOM	26849	N1	G A1272	259.877	139.603	25.949	1.00	74.26	N
ATOM	26801	C2	C A1270	256.936	131.572	20.707	1.00	69.88	N	ATOM	26850	C2	G A1272	260.906	139.442	26.837	1.00	74.26	C
ATOM	26802	O2	C A1270	258.225	131.998	21.054	1.00	69.88	C	ATOM	26851	N2	G A1272	261.853	140.384	26.800	1.00	74.26	N
ATOM	26803	N3	C A1270	258.961	131.226	21.686	1.00	69.88	O	ATOM	26852	N3	G A1272	260.997	138.435	27.692	1.00	74.26	N
ATOM	26804	C4	C A1270	258.635	133.234	20.691	1.00	69.88	N	ATOM	26853	C4	G A1272	259.958	137.583	27.570	1.00	74.26	C
ATOM	26805	N4	C A1270	257.822	134.027	19.994	1.00	69.88	C	ATOM	26854	P	G A1273	257.750	137.094	33.219	1.00	92.77	P
ATOM	26806	C5	C A1270	258.266	135.241	19.664	1.00	69.88	N	ATOM	26855	O1P	G A1273	257.816	137.092	34.703	1.00	103.58	O
ATOM	26807	C6	C A1270	256.514	133.612	19.605	1.00	69.88	C	ATOM	26856	O2P	G A1273	256.460	136.778	32.545	1.00	103.58	O
ATOM	26808	P	G A1271	256.116	132.389	19.977	1.00	69.88	C	ATOM	26857	O5*	G A1273	258.261	138.511	32.685	1.00	92.77	O
ATOM	26809	O1P	G A1271	253.583	131.418	24.724	1.00	93.90	P	ATOM	26858	C5*	G A1273	259.466	139.093	33.206	1.00	92.77	C
ATOM	26810	O2P	G A1271	252.588	130.914	25.702	1.00	83.76	O	ATOM	26859	C4*	G A1273	259.875	140.309	32.406	1.00	92.77	C
ATOM	26811	O5*	G A1271	253.355	132.721	24.053	1.00	83.76	O	ATOM	26860	O4*	G A1273	260.032	139.952	31.008	1.00	92.77	C
ATOM	26812	C5*	G A1271	254.993	131.494	25.457	1.00	93.90	O	ATOM	26861	C3*	G A1273	258.926	141.499	32.377	1.00	92.77	C
ATOM	26813	C4*	G A1271	255.582	130.322	26.048	1.00	93.90	C	ATOM	26862	O3*	G A1273	259.044	142.327	33.529	1.00	92.77	O
ATOM	26814	O4*	G A1271	256.993	130.617	26.504	1.00	93.90	C	ATOM	26863	C2*	G A1273	259.364	142.243	31.117	1.00	92.77	C
ATOM	26815	C3*	G A1271	257.824	130.953	25.362	1.00	93.90	O	ATOM	26864	O2*	G A1273	260.450	143.126	31.300	1.00	92.77	O
ATOM	26815	C3*	G A1271	257.161	131.803	27.440	1.00	93.90	C	ATOM	26865	C1*	G A1273	259.791	141.095	30.201	1.00	92.77	C



Table 2: Sheet 270/520

ATOM	26866	N9	G A1273	258.747	140.801	29.225	1.00103.58	N	ATOM	26916	C6	A A1275	251.052	146.960	25.174	1.00108.59	C
ATOM	26867	C8	G A1273	257.878	139.735	29.206	1.00103.58	C	ATOM	26917	N6	A A1275	250.446	145.776	25.245	1.00108.59	N
ATOM	26868	N7	G A1273	257.025	139.789	28.220	1.00103.58	N	ATOM	26918	N1	A A1275	250.846	147.726	24.080	1.00108.59	N
ATOM	26869	C5	G A1273	257.355	140.957	27.541	1.00103.58	C	ATOM	26919	C2	A A1275	251.452	148.918	24.010	1.00108.59	C
ATOM	26870	C6	G A1273	256.776	141.551	26.383	1.00103.58	C	ATOM	26920	N3	A A1275	252.265	149.501	24.885	1.00108.59	N
ATOM	26871	O6	G A1273	255.820	141.153	25.709	1.00103.58	O	ATOM	26921	C4	A A1275	252.448	148.714	25.960	1.00108.59	C
ATOM	26872	N1	G A1273	257.426	142.729	26.033	1.00103.58	N	ATOM	26922	P	G A1276	251.230	152.593	30.451	1.00124.82	P
ATOM	26873	C2	G A1273	258.493	143.270	26.704	1.00103.58	C	ATOM	26923	O1P	G A1276	251.095	153.941	31.061	1.00 98.13	O
ATOM	26874	N2	G A1273	258.986	144.409	26.207	1.00103.58	N	ATOM	26924	O2P	G A1276	250.874	151.384	31.248	1.00 98.13	O
ATOM	26875	N3	G A1273	259.039	142.733	27.781	1.00103.58	N	ATOM	26925	O5*	G A1276	250.380	152.584	29.102	1.00124.82	O
ATOM	26876	C4	G A1273	258.423	141.585	28.141	1.00103.58	C	ATOM	26926	C5*	G A1276	250.590	153.591	28.087	1.00124.82	C
ATOM	26877	P	G A1274	257.759	143.136	34.065	1.00 93.30	P	ATOM	26927	C4*	G A1276	249.730	153.308	26.873	1.00124.82	C
ATOM	26878	O1P	G A1274	258.196	143.983	35.210	1.00108.08	O	ATOM	26928	O4*	G A1276	250.136	152.057	26.264	1.00124.82	O
ATOM	26879	O2P	G A1274	256.654	142.163	34.256	1.00108.08	O	ATOM	26929	C3*	G A1276	248.245	153.136	27.148	1.00124.82	C
ATOM	26880	O5*	G A1274	257.379	144.110	32.864	1.00 93.30	O	ATOM	26930	O3*	G A1276	247.582	154.387	27.187	1.00124.82	O
ATOM	26881	C5*	G A1274	258.223	145.219	32.516	1.00 93.30	C	ATOM	26931	O2*	G A1276	247.785	152.268	25.985	1.00124.82	C
ATOM	26882	C4*	G A1274	257.748	145.844	31.230	1.00 93.30	C	ATOM	26932	O2*	G A1276	247.566	153.005	24.799	1.00124.82	O
ATOM	26883	O4*	G A1274	257.833	144.854	30.172	1.00 93.30	O	ATOM	26933	C1*	G A1276	248.998	151.366	25.779	1.00124.82	C
ATOM	26884	C3*	G A1274	256.290	146.281	31.231	1.00 93.30	C	ATOM	26934	N9	G A1276	248.893	150.107	26.511	1.00 98.13	N
ATOM	26885	O3*	G A1274	256.117	147.587	31.766	1.00 93.30	O	ATOM	26935	C8	G A1276	249.346	149.850	27.782	1.00 98.13	C
ATOM	26886	O2*	G A1274	255.906	146.195	29.758	1.00 93.30	O	ATOM	26936	N7	G A1276	249.138	148.620	28.162	1.00 98.13	N
ATOM	26887	C2*	G A1274	256.274	147.345	29.017	1.00 93.30	C	ATOM	26937	C5	G A1276	248.503	148.032	27.080	1.00 98.13	C
ATOM	26888	C1*	G A1274	256.719	144.980	29.300	1.00 93.30	C	ATOM	26938	C6	G A1276	248.046	146.710	26.901	1.00 98.13	C
ATOM	26889	N9	G A1274	255.949	143.738	29.364	1.00108.08	N	ATOM	26939	O6	G A1276	248.124	145.760	27.685	1.00 98.13	O
ATOM	26890	C8	G A1274	256.126	142.694	30.243	1.00108.08	C	ATOM	26940	N1	G A1276	247.454	146.537	25.656	1.00 98.13	N
ATOM	26891	N7	G A1274	255.268	141.727	30.071	1.00108.08	N	ATOM	26941	C2	G A1276	247.328	147.513	23.701	1.00 98.13	C
ATOM	26892	C5	G A1274	254.477	142.154	29.013	1.00108.08	C	ATOM	26942	N2	G A1276	246.732	147.150	23.560	1.00 98.13	N
ATOM	26893	C6	G A1274	253.376	141.527	28.383	1.00108.08	C	ATOM	26943	N3	G A1276	247.757	148.752	24.852	1.00 98.13	N
ATOM	26894	O6	G A1274	252.864	140.437	28.639	1.00108.08	O	ATOM	26944	C4	G A1276	248.332	148.940	26.057	1.00 98.13	C
ATOM	26895	N1	G A1274	252.866	142.306	27.352	1.00108.08	N	ATOM	26945	P	C A1277	246.280	154.561	28.105	1.00104.41	P
ATOM	26896	C2	G A1274	253.352	143.529	26.973	1.00108.08	C	ATOM	26946	O1P	C A1277	245.881	155.991	27.983	1.00 92.66	O
ATOM	26897	N2	G A1274	252.724	144.122	25.953	1.00108.08	N	ATOM	26947	O2P	C A1277	246.546	153.979	29.447	1.00 92.66	O
ATOM	26898	N3	G A1274	254.378	144.127	27.552	1.00108.08	N	ATOM	26948	O5*	C A1277	245.187	153.646	27.393	1.00104.41	O
ATOM	26899	C4	G A1274	254.889	143.388	28.560	1.00108.08	C	ATOM	26949	C5*	C A1277	244.629	154.022	26.122	1.00104.41	C
ATOM	26900	P	A A1275	254.644	148.088	32.173	1.00 96.74	P	ATOM	26950	C4*	C A1277	243.665	152.968	25.622	1.00104.41	C
ATOM	26901	O1P	A A1275	254.770	148.885	33.415	1.00108.59	O	ATOM	26951	O4*	C A1277	244.382	151.739	25.339	1.00104.41	O
ATOM	26902	O2P	A A1275	253.724	146.923	32.145	1.00108.59	O	ATOM	26952	C3*	C A1277	242.521	152.533	26.532	1.00104.41	C
ATOM	26903	O5*	A A1275	254.247	149.081	30.995	1.00 96.74	O	ATOM	26953	O3*	C A1277	241.408	153.429	26.484	1.00104.41	O
ATOM	26904	C5*	A A1275	255.032	150.252	30.746	1.00 96.74	C	ATOM	26954	O2*	C A1277	242.147	151.184	25.932	1.00104.41	C
ATOM	26905	C4*	A A1275	254.614	150.909	29.457	1.00 96.74	C	ATOM	26955	O2*	C A1277	241.371	151.340	24.766	1.00104.41	O
ATOM	26906	O4*	A A1275	254.901	150.028	28.338	1.00 96.74	O	ATOM	26956	C1*	C A1277	243.504	150.640	25.493	1.00104.41	C
ATOM	26907	C3*	A A1275	253.139	151.235	29.297	1.00 96.74	C	ATOM	26957	N1	C A1277	244.059	149.685	26.467	1.00 92.66	N
ATOM	26908	O3*	A A1275	252.749	152.431	29.949	1.00 96.74	O	ATOM	26958	C2	C A1277	243.818	148.315	26.272	1.00 92.66	C
ATOM	26909	C2*	A A1275	252.996	151.340	27.784	1.00 96.74	C	ATOM	26959	O2	C A1277	243.167	147.951	25.278	1.00 92.66	O
ATOM	26910	O2*	A A1275	253.415	152.594	27.276	1.00 96.74	O	ATOM	26960	N3	C A1277	244.296	147.424	27.171	1.00 92.66	N
ATOM	26911	C1*	A A1275	253.942	150.237	27.309	1.00 96.74	C	ATOM	26961	C4	C A1277	244.984	147.850	28.230	1.00 92.66	C
ATOM	26912	N9	A A1275	253.207	148.988	27.073	1.00108.59	N	ATOM	26962	N4	C A1277	245.423	146.936	29.097	1.00 92.66	N
ATOM	26913	C8	A A1275	253.089	147.883	27.886	1.00108.59	C	ATOM	26963	C5	C A1277	245.252	149.234	28.449	1.00 92.66	C
ATOM	26914	N7	A A1275	252.311	146.948	27.397	1.00108.59	N	ATOM	26964	C6	C A1277	244.779	150.108	27.549	1.00 92.66	C
ATOM	26915	C5	A A1275	251.896	147.465	26.177	1.00108.59	C	ATOM	26965	P	U A1278	240.487	153.637	27.792	1.00118.85	P



Table 2: Sheet 271/520

ATOM	26966	O1P	U A1278	239.578	154.779	27.521	1.00200.58	O	ATOM	27016	C2*	A A1280	238.280	156.921	17.323	1.00	85.51	C	
ATOM	26967	O2P	U A1278	241.373	153.674	28.984	1.00200.58	O	ATOM	27017	O2*	A A1280	239.525	157.021	16.674	1.00	85.51	O	
ATOM	26968	O5*	U A1278	239.594	152.319	27.892	1.00118.85	O	ATOM	27018	C1*	A A1280	237.176	156.732	16.291	1.00	85.51	C	
ATOM	26969	C5*	U A1278	238.892	151.786	26.740	1.00118.85	C	ATOM	27019	N9	A A1280	236.627	157.990	15.793	1.00	76.32	N	
ATOM	26970	C4*	U A1278	237.951	150.674	27.161	1.00118.85	C	ATOM	27020	C8	A A1280	236.304	159.110	16.511	1.00	76.32	C	
ATOM	26971	O4*	U A1278	238.707	149.788	28.021	1.00118.85	O	ATOM	27021	N7	A A1280	235.805	160.079	15.785	1.00	76.32	N	
ATOM	26972	C3*	U A1278	236.743	151.129	27.974	1.00118.85	C	ATOM	27022	C5	A A1280	235.802	159.565	14.500	1.00	76.32	C	
ATOM	26973	O3*	U A1278	235.590	151.261	27.136	1.00118.85	O	ATOM	27023	C6	A A1280	235.381	160.098	13.273	1.00	76.32	C	
ATOM	26974	C2*	U A1278	236.545	149.990	28.969	1.00118.85	C	ATOM	27024	N6	A A1280	234.845	161.313	13.139	1.00	76.32	N	
ATOM	26975	O2*	U A1278	235.802	148.914	28.430	1.00118.85	O	ATOM	27025	N1	A A1280	235.520	159.328	12.174	1.00	76.32	N	
ATOM	26976	C1*	U A1278	237.988	149.531	29.209	1.00118.85	C	ATOM	27026	C2	A A1280	236.037	158.099	12.315	1.00	76.32	C	
ATOM	26977	N1	U A1278	238.707	150.196	30.314	1.00200.58	N	ATOM	27027	N3	A A1280	236.459	157.482	13.418	1.00	76.32	N	
ATOM	26978	O2	U A1278	240.110	150.133	30.329	1.00200.58	O	ATOM	27028	C4	A A1280	236.314	158.280	14.488	1.00	76.32	C	
ATOM	26979	O2	U A1278	240.773	149.543	29.483	1.00200.58	O	ATOM	27029	P	U A1281	240.160	153.966	18.039	1.00121.80	P		
ATOM	26980	N3	U A1278	240.706	150.786	31.377	1.00200.58	N	ATOM	27030	O1P	U A1281	240.830	153.173	16.978	1.00103.38	O		
ATOM	26981	C4	U A1278	240.079	151.477	32.393	1.00200.58	C	ATOM	27031	O2P	U A1281	239.816	153.329	19.322	1.00103.38	O		
ATOM	26982	O4	U A1278	240.761	152.024	33.259	1.00200.58	O	ATOM	27032	O5*	U A1281	241.090	155.209	18.353	1.00121.80	O		
ATOM	26983	C5	U A1278	238.648	151.492	32.317	1.00200.58	C	ATOM	27033	C5*	U A1281	241.981	155.155	19.465	1.00121.80	C		
ATOM	26984	C6	U A1278	238.028	150.869	31.310	1.00200.58	C	ATOM	27034	C4*	U A1281	242.874	156.358	19.485	1.00121.80	C		
ATOM	26985	P	A A1279	235.439	152.536	26.164	1.00115.18	P	ATOM	27035	O4*	U A1281	242.075	157.563	19.416	1.00121.80	O		
ATOM	26986	O1P	A A1279	235.778	153.775	26.925	1.00	84.88	O	ATOM	27036	C3*	U A1281	243.672	156.454	20.768	1.00121.80	C	
ATOM	26987	O2P	A A1279	234.127	152.435	25.478	1.00	84.88	O	ATOM	27037	O3*	U A1281	244.850	155.614	20.727	1.00121.80	O	
ATOM	26988	O5*	A A1279	236.547	152.282	25.051	1.00115.18	O	ATOM	27038	C2*	U A1281	243.834	157.959	20.989	1.00121.80	C		
ATOM	26989	C5*	A A1279	237.387	153.343	24.571	1.00115.18	C	ATOM	27039	O2*	U A1281	244.969	158.514	20.351	1.00121.80	O		
ATOM	26990	C4*	A A1279	238.219	152.840	23.425	1.00115.18	C	ATOM	27040	C1*	U A1281	242.551	158.517	20.347	1.00121.80	C		
ATOM	26991	O4*	A A1279	239.057	151.775	23.914	1.00115.18	O	ATOM	27041	N1	U A1281	241.408	158.875	21.211	1.00103.38	N		
ATOM	26992	C3*	A A1279	237.382	152.226	22.319	1.00115.18	C	ATOM	27042	C2	U A1281	240.791	160.104	20.985	1.00103.38	C		
ATOM	26993	O3*	A A1279	237.156	153.225	21.327	1.00115.18	O	ATOM	27043	O2	U A1281	241.240	160.948	20.226	1.00103.38	O		
ATOM	26994	C2*	A A1279	238.292	151.140	21.744	1.00115.18	C	ATOM	27044	N3	U A1281	239.634	160.313	21.698	1.00103.38	N		
ATOM	26995	O2*	A A1279	239.142	151.652	20.754	1.00115.18	O	ATOM	27045	C4	U A1281	239.058	159.461	22.627	1.00103.38	C		
ATOM	26996	C1*	A A1279	239.175	150.773	22.937	1.00115.18	C	ATOM	27046	O4	U A1281	237.943	159.736	23.090	1.00103.38	O		
ATOM	26997	N9	A A1279	239.021	149.472	23.588	1.00	84.88	N	ATOM	27047	C5	U A1281	239.798	158.254	22.869	1.00103.38	C	
ATOM	26998	C8	A A1279	240.002	148.827	24.308	1.00	84.88	C	ATOM	27048	C6	U A1281	240.918	158.007	22.172	1.00103.38	C	
ATOM	26999	N7	A A1279	239.625	147.681	24.816	1.00	84.88	N	ATOM	27049	P	C A1282	245.866	155.644	19.456	1.00	91.36	P
ATOM	27000	C5	A A1279	238.312	147.556	24.404	1.00	84.88	C	ATOM	27050	O1P	C A1282	246.824	156.765	19.634	1.00107.79	O	
ATOM	27001	C6	A A1279	237.365	146.557	24.614	1.00	84.88	C	ATOM	27051	O2P	C A1282	245.137	155.514	18.172	1.00107.79	O	
ATOM	27002	N6	A A1279	237.607	145.458	25.333	1.00	84.88	N	ATOM	27052	O5*	C A1282	246.697	154.302	19.643	1.00	91.36	O
ATOM	27003	N1	A A1279	236.143	146.722	24.058	1.00	84.88	N	ATOM	27053	C5*	C A1282	247.689	154.213	20.670	1.00	91.36	C
ATOM	27004	C2	A A1279	235.909	147.835	23.340	1.00	84.88	C	ATOM	27054	C4*	C A1282	247.608	152.888	21.383	1.00	91.36	C
ATOM	27005	N3	A A1279	236.726	148.853	23.073	1.00	84.88	N	ATOM	27055	O4*	C A1282	246.383	152.791	22.157	1.00	91.36	O
ATOM	27006	C4	A A1279	237.925	148.650	23.640	1.00	84.88	C	ATOM	27056	C3*	C A1282	247.586	151.645	20.515	1.00	91.36	C
ATOM	27007	P	A A1280	236.048	154.374	21.555	1.00	85.51	P	ATOM	27057	O3*	C A1282	248.863	151.300	20.004	1.00	91.36	O
ATOM	27008	O1P	A A1280	236.186	154.910	22.928	1.00	76.32	O	ATOM	27058	C2*	C A1282	247.007	150.604	21.464	1.00	91.36	C
ATOM	27009	O2P	A A1280	234.724	153.860	21.107	1.00	76.32	O	ATOM	27059	O2*	C A1282	247.953	150.076	22.374	1.00	91.36	O
ATOM	27010	O5*	A A1280	236.530	155.519	20.554	1.00	85.51	O	ATOM	27060	C1*	C A1282	245.975	151.431	22.232	1.00	91.36	C
ATOM	27011	C5*	A A1280	235.836	155.808	19.320	1.00	85.51	C	ATOM	27061	N1	C A1282	244.638	151.282	21.620	1.00107.79	N	
ATOM	27012	C4*	A A1280	236.653	155.352	18.120	1.00	85.51	C	ATOM	27062	C2	C A1282	244.000	150.031	21.698	1.00107.79	C	
ATOM	27013	O4*	A A1280	236.139	156.026	16.939	1.00	85.51	O	ATOM	27063	O2	C A1282	244.542	149.116	22.336	1.00107.79	O	
ATOM	27014	C3*	A A1280	238.153	155.646	18.145	1.00	85.51	C	ATOM	27064	N3	C A1282	242.814	149.855	21.078	1.00107.79	N	
ATOM	27015	O3*	A A1280	238.823	154.609	17.440	1.00	85.51	O	ATOM	27065	C4	C A1282	242.257	150.863	20.408	1.00107.79	C	



ATOM	27066	N4	C A1282	241.112	150.626	19.772	1.00107.79	N	ATOM	27116	C5*	A A1285	249.346	142.005	12.171	1.00	86.50	C
ATOM	27067	C5	C A1282	242.857	152.153	20.347	1.00107.79	C	ATOM	27117	C4*	A A1285	248.805	143.260	11.540	1.00	86.50	C
ATOM	27068	C6	C A1282	244.036	152.318	20.962	1.00107.79	C	ATOM	27118	C4*	A A1285	247.444	143.012	11.136	1.00	86.50	C
ATOM	27069	P	G A1283	248.974	150.697	18.519	1.00 97.72	P	ATOM	27119	C3*	A A1285	248.736	144.474	12.457	1.00	86.50	O
ATOM	27070	OlP	G A1283	250.405	150.618	18.153	1.00 75.97	O	ATOM	27120	O3*	A A1285	250.009	145.162	12.562	1.00	86.50	O
ATOM	27071	O2P	G A1283	248.041	151.460	17.652	1.00 75.97	O	ATOM	27121	C2*	A A1285	247.522	145.273	11.966	1.00	86.50	C
ATOM	27072	O5*	G A1283	248.439	149.209	18.699	1.00 97.72	O	ATOM	27122	O2*	A A1285	247.780	146.334	11.069	1.00	86.50	O
ATOM	27073	C5*	G A1283	249.017	148.357	19.700	1.00 97.72	C	ATOM	27123	C1*	A A1285	246.689	144.199	11.256	1.00	86.50	C
ATOM	27074	C4*	G A1283	248.209	147.096	19.862	1.00 97.72	C	ATOM	27124	N9	A A1285	245.360	143.868	11.779	1.00	73.11	N
ATOM	27075	O4*	G A1283	246.913	147.380	20.454	1.00 97.72	O	ATOM	27125	C8	A A1285	244.991	142.847	12.625	1.00	73.11	C
ATOM	27076	C3*	G A1283	247.856	146.342	18.595	1.00 97.72	C	ATOM	27126	N7	A A1285	243.696	142.773	12.828	1.00	73.11	N
ATOM	27077	C3*	G A1283	248.929	145.587	18.075	1.00 97.72	C	ATOM	27127	C5	A A1285	243.181	143.829	12.085	1.00	73.11	C
ATOM	27078	O2*	G A1283	246.696	145.472	19.058	1.00 97.72	O	ATOM	27128	C6	A A1285	241.869	144.289	11.873	1.00	73.11	C
ATOM	27079	O2*	G A1283	247.118	144.337	19.791	1.00 97.72	O	ATOM	27129	N6	A A1285	240.783	143.726	12.405	1.00	73.11	N
ATOM	27080	C1*	G A1283	245.961	146.427	19.994	1.00 97.72	C	ATOM	27130	N1	A A1285	241.705	145.364	11.079	1.00	73.11	N
ATOM	27081	N9	G A1283	244.897	147.114	19.263	1.00 75.97	N	ATOM	27131	C2	A A1285	242.783	145.931	10.538	1.00	73.11	C
ATOM	27082	C8	G A1283	244.941	148.366	18.690	1.00 75.97	C	ATOM	27132	N3	A A1285	244.059	145.594	10.656	1.00	73.11	N
ATOM	27083	N7	G A1283	243.838	148.682	18.064	1.00 75.97	N	ATOM	27133	C4	A A1285	244.194	144.520	11.451	1.00	73.11	C
ATOM	27084	C5	G A1283	243.011	147.579	18.242	1.00 75.97	C	ATOM	27134	P	A A1286	250.747	145.808	11.258	1.00	77.87	P
ATOM	27085	C6	G A1283	241.689	147.340	17.788	1.00 75.97	C	ATOM	27135	OlP	A A1286	252.159	145.896	11.689	1.00	82.78	O
ATOM	27086	O6	G A1283	240.962	148.078	17.114	1.00 75.97	O	ATOM	27136	O2P	A A1286	250.069	147.039	10.767	1.00	82.78	O
ATOM	27087	N1	G A1283	241.227	146.094	18.196	1.00 75.97	N	ATOM	27137	O5*	A A1286	250.689	144.687	10.119	1.00	77.87	O
ATOM	27088	C2	G A1283	241.944	145.193	18.943	1.00 75.97	C	ATOM	27138	C5*	A A1286	251.901	144.046	9.655	1.00	77.87	C
ATOM	27089	N2	G A1283	241.326	144.051	19.244	1.00 75.97	N	ATOM	27139	C4*	A A1286	251.649	143.171	8.433	1.00	77.87	C
ATOM	27090	N3	G A1283	243.178	145.398	19.366	1.00 75.97	N	ATOM	27140	O4*	A A1286	250.950	141.942	8.793	1.00	77.87	O
ATOM	27091	C4	G A1283	243.646	146.605	18.985	1.00 75.97	C	ATOM	27141	C3*	A A1286	250.827	143.722	7.278	1.00	77.87	C
ATOM	27092	P	C A1284	248.930	145.202	16.516	1.00 83.73	P	ATOM	27142	O3*	A A1286	251.484	144.625	6.421	1.00	77.87	O
ATOM	27093	OlP	C A1284	250.274	144.637	16.222	1.00 65.17	O	ATOM	27143	C2*	A A1286	250.450	142.449	6.530	1.00	77.87	C
ATOM	27094	O2P	C A1284	248.437	146.370	15.737	1.00 65.17	O	ATOM	27144	O2*	A A1286	251.488	141.944	5.712	1.00	77.87	O
ATOM	27095	O5*	C A1284	247.867	144.015	16.432	1.00 83.73	O	ATOM	27145	C1*	A A1286	250.171	141.493	7.687	1.00	77.87	C
ATOM	27096	C5*	C A1284	247.990	142.856	17.296	1.00 83.73	C	ATOM	27146	N9	A A1286	248.752	141.575	8.048	1.00	82.78	N
ATOM	27097	C4*	C A1284	246.851	141.893	17.064	1.00 83.73	C	ATOM	27147	C8	A A1286	247.907	142.656	7.870	1.00	82.78	C
ATOM	27098	O4*	C A1284	245.604	142.478	17.514	1.00 83.73	O	ATOM	27148	N7	A A1286	246.685	142.447	8.275	1.00	82.78	N
ATOM	27099	C3*	C A1284	246.611	141.526	15.614	1.00 83.73	C	ATOM	27149	C5	A A1286	246.718	141.149	8.761	1.00	82.78	C
ATOM	27100	O3*	C A1284	247.463	140.461	15.216	1.00 83.73	O	ATOM	27150	C6	A A1286	245.732	140.345	9.347	1.00	82.78	C
ATOM	27101	C2*	C A1284	245.138	141.134	15.604	1.00 83.73	C	ATOM	27151	N6	A A1286	244.483	140.761	9.561	1.00	82.78	N
ATOM	27102	O2*	C A1284	244.922	139.801	16.013	1.00 83.73	O	ATOM	27152	N1	A A1286	246.080	139.090	9.717	1.00	82.78	N
ATOM	27103	C1*	C A1284	244.552	142.077	16.656	1.00 83.73	C	ATOM	27153	C2	A A1286	247.350	138.690	9.514	1.00	82.78	C
ATOM	27104	N1	C A1284	243.927	143.281	16.076	1.00 65.17	N	ATOM	27154	N3	A A1286	248.372	139.363	8.981	1.00	82.78	N
ATOM	27105	O2	C A1284	242.561	143.250	15.734	1.00 65.17	O	ATOM	27155	C4	A A1286	247.984	140.598	8.622	1.00	82.78	C
ATOM	27106	C2	C A1284	241.911	142.203	15.911	1.00 65.17	C	ATOM	27156	P	A A1287	250.603	145.544	5.438	1.00	95.16	P
ATOM	27107	N3	C A1284	241.987	144.360	15.211	1.00 65.17	N	ATOM	27157	OlP	A A1287	251.525	145.938	4.332	1.00	60.69	O
ATOM	27108	C4	C A1284	242.718	145.460	15.011	1.00 65.17	C	ATOM	27158	O2P	A A1287	249.884	146.605	6.234	1.00	60.69	O
ATOM	27109	N4	C A1284	242.116	146.529	14.489	1.00 65.17	N	ATOM	27159	O5*	A A1287	249.529	144.533	4.824	1.00	95.16	O
ATOM	27110	C5	C A1284	244.103	145.514	15.338	1.00 65.17	C	ATOM	27160	C5*	A A1287	248.133	144.884	4.708	1.00	95.16	C
ATOM	27111	C6	C A1284	244.660	144.415	15.865	1.00 65.17	C	ATOM	27161	C4*	A A1287	247.299	143.633	4.536	1.00	95.16	C
ATOM	27112	P	A A1285	247.951	140.364	13.688	1.00 86.50	P	ATOM	27162	O4*	A A1287	245.896	143.971	4.546	1.00	95.16	O
ATOM	27113	OlP	A A1285	246.741	140.346	12.833	1.00 73.11	O	ATOM	27163	C3*	A A1287	247.504	142.877	3.237	1.00	95.16	C
ATOM	27114	O2P	A A1285	248.939	139.255	13.597	1.00 73.11	O	ATOM	27164	O3*	A A1287	248.577	141.963	3.373	1.00	95.16	O
ATOM	27115	O5*	A A1285	248.673	141.754	13.413	1.00 86.50	O	ATOM	27165	C2*	A A1287	246.189	142.136	3.059	1.00	95.16	C



Table 2: Sheet 273/520

ATOM	27166	O2*	A A1287	246.161	140.940	3.809	1.00	95.16	O	ATOM	27216	C6	A A1289	245.006	144.830	-4.961	1.00	66.69	C
ATOM	27167	C1*	A A1287	245.192	143.120	3.663	1.00	95.16	C	ATOM	27217	N6	A A1289	245.492	145.999	-4.545	1.00	66.69	N
ATOM	27168	N9	A A1287	244.491	143.961	2.697	1.00	60.69	N	ATOM	27218	N1	A A1289	243.829	144.823	-5.612	1.00	66.69	N
ATOM	27169	C8	A A1287	244.750	145.276	2.426	1.00	60.69	C	ATOM	27219	C2	A A1289	243.344	143.661	-6.046	1.00	66.69	C
ATOM	27170	N7	A A1287	243.925	145.811	1.562	1.00	60.69	N	ATOM	27220	N3	A A1289	243.859	142.448	-5.939	1.00	66.69	N
ATOM	27171	C5	A A1287	243.071	144.773	1.225	1.00	60.69	C	ATOM	27221	C4	A A1289	245.028	142.486	-5.283	1.00	66.69	C
ATOM	27172	C6	A A1287	241.973	144.705	0.358	1.00	60.69	C	ATOM	27222	P	G A1290	249.334	139.785	-8.662	1.00	63.92	P
ATOM	27173	N6	A A1287	241.533	145.738	-0.360	1.00	60.69	N	ATOM	27223	O1P	G A1290	249.256	139.418	-10.097	1.00	68.82	O
ATOM	27174	N1	A A1287	241.335	143.526	0.249	1.00	60.69	N	ATOM	27224	O5P	G A1290	248.967	141.331	-7.911	1.00	68.82	O
ATOM	27175	C2	A A1287	241.784	142.487	0.962	1.00	60.69	C	ATOM	27225	O2P	G A1290	248.967	141.331	-8.527	1.00	63.92	O
ATOM	27176	N3	A A1287	242.807	142.425	1.810	1.00	60.69	N	ATOM	27226	C5*	G A1290	248.001	141.952	-9.396	1.00	63.92	C
ATOM	27177	C4	A A1287	243.416	143.620	1.903	1.00	60.69	C	ATOM	27227	C4*	G A1290	248.003	143.448	-9.188	1.00	63.92	C
ATOM	27178	P	A A1288	249.727	141.917	2.260	1.00	65.95	P	ATOM	27228	O4*	G A1290	247.886	143.700	-7.761	1.00	63.92	O
ATOM	27179	O1P	A A1288	250.901	141.250	2.893	1.00	61.75	O	ATOM	27229	C3*	G A1290	249.296	144.145	-9.580	1.00	63.92	C
ATOM	27180	O2P	A A1288	249.868	143.273	1.646	1.00	61.75	O	ATOM	27230	O3*	G A1290	249.377	144.469	-10.966	1.00	63.92	O
ATOM	27181	O5*	A A1288	249.154	140.953	1.138	1.00	65.95	O	ATOM	27231	C2*	G A1290	249.324	145.363	-8.663	1.00	63.92	C
ATOM	27182	C5*	A A1288	249.023	139.551	1.378	1.00	65.95	C	ATOM	27232	O2*	G A1290	248.545	146.449	-9.129	1.00	63.92	O
ATOM	27183	C4*	A A1288	248.035	138.969	0.418	1.00	65.95	C	ATOM	27233	C1*	G A1290	248.709	144.793	-7.386	1.00	63.92	C
ATOM	27184	O4*	A A1288	246.741	139.566	0.683	1.00	65.95	O	ATOM	27234	N8	G A1290	249.721	144.312	-6.445	1.00	68.82	N
ATOM	27185	C3*	A A1288	248.294	139.308	-1.040	1.00	65.95	C	ATOM	27235	C9	G A1290	249.931	143.015	-6.033	1.00	68.82	C
ATOM	27186	O3*	A A1288	249.249	138.486	-1.692	1.00	65.95	O	ATOM	27236	N7	G A1290	250.904	142.901	-5.170	1.00	68.82	N
ATOM	27187	C2*	A A1288	246.911	139.192	-1.652	1.00	65.95	C	ATOM	27237	C5	G A1290	251.361	144.200	-4.998	1.00	68.82	C
ATOM	27188	O1*	A A1288	246.561	137.843	-1.910	1.00	65.95	O	ATOM	27238	C6	G A1290	252.396	144.714	-4.160	1.00	68.82	C
ATOM	27189	C1*	A A1288	246.048	139.764	-0.533	1.00	65.95	C	ATOM	27239	O6	G A1290	253.118	144.101	-3.354	1.00	68.82	O
ATOM	27190	N9	A A1288	245.853	141.197	-0.723	1.00	61.75	N	ATOM	27240	N1	G A1290	252.539	146.090	-4.315	1.00	68.82	N
ATOM	27191	C8	A A1288	246.657	142.224	-0.310	1.00	61.75	C	ATOM	27241	C2	G A1290	251.777	146.875	-5.152	1.00	68.82	C
ATOM	27192	N7	A A1288	246.221	143.410	-0.659	1.00	61.75	N	ATOM	27242	N2	G A1290	252.065	148.185	-5.172	1.00	68.82	N
ATOM	27193	C5	A A1288	245.047	143.146	-1.345	1.00	61.75	C	ATOM	27243	N3	G A1290	250.801	146.411	-5.916	1.00	68.82	N
ATOM	27194	C6	A A1288	244.111	143.982	-1.974	1.00	61.75	C	ATOM	27244	C4	G A1290	250.650	145.079	-5.790	1.00	68.82	C
ATOM	27195	N6	A A1288	244.207	145.307	-2.008	1.00	61.75	N	ATOM	27245	P	G A1291	250.768	144.237	-11.745	1.00	77.00	P
ATOM	27196	N1	A A1288	243.057	143.401	-2.577	1.00	61.75	N	ATOM	27246	O1P	G A1291	250.537	144.479	-13.195	1.00	67.99	O
ATOM	27197	C2	A A1288	242.956	142.066	-2.540	1.00	61.75	C	ATOM	27247	O2P	G A1291	251.344	142.940	-11.296	1.00	67.99	O
ATOM	27198	N3	A A1288	243.765	141.173	-1.978	1.00	61.75	N	ATOM	27248	O5*	G A1291	251.706	145.388	-11.171	1.00	77.00	O
ATOM	27199	C4	A A1288	244.806	141.786	-1.390	1.00	61.75	C	ATOM	27249	C5*	G A1291	251.385	146.774	-11.390	1.00	77.00	C
ATOM	27200	P	A A1289	250.137	139.121	-2.870	1.00	67.82	P	ATOM	27250	C4*	G A1291	252.366	147.665	-10.667	1.00	77.00	C
ATOM	27201	O1P	A A1289	251.186	138.127	-3.229	1.00	66.69	O	ATOM	27251	O4*	G A1291	252.205	147.514	-9.234	1.00	77.00	O
ATOM	27202	O2P	A A1289	250.523	140.494	-2.446	1.00	66.69	O	ATOM	27252	C3*	G A1291	253.838	147.386	-10.916	1.00	77.00	C
ATOM	27203	O5*	A A1289	249.138	139.296	-4.099	1.00	67.82	O	ATOM	27253	O3*	G A1291	254.289	148.008	-12.113	1.00	77.00	O
ATOM	27204	C5*	A A1289	248.610	138.150	-4.780	1.00	67.82	C	ATOM	27254	C2*	G A1291	254.495	147.971	-9.673	1.00	77.00	C
ATOM	27205	C4*	A A1289	247.401	138.527	-5.599	1.00	67.82	C	ATOM	27255	O2*	G A1291	254.647	149.373	-9.755	1.00	77.00	O
ATOM	27206	O4*	A A1289	246.408	139.161	-4.747	1.00	67.82	O	ATOM	27256	C1*	G A1291	253.456	147.665	-8.595	1.00	77.00	C
ATOM	27207	C3*	A A1289	247.598	139.539	-6.713	1.00	67.82	C	ATOM	27257	N8	G A1291	253.750	146.436	-7.872	1.00	67.99	N
ATOM	27208	O3*	A A1289	248.161	138.988	-7.893	1.00	67.82	O	ATOM	27258	C9	G A1291	253.073	145.247	-7.958	1.00	67.99	C
ATOM	27209	C2*	A A1289	246.173	140.023	-6.939	1.00	67.82	C	ATOM	27259	N7	G A1291	253.576	144.315	-7.196	1.00	67.99	N
ATOM	27210	O2*	A A1289	245.388	139.117	-7.689	1.00	67.82	O	ATOM	27260	C5	G A1291	254.650	144.927	-6.570	1.00	67.99	C
ATOM	27211	C1*	A A1289	245.643	140.075	-5.511	1.00	67.82	C	ATOM	27261	C6	G A1291	255.582	144.408	-5.639	1.00	67.99	C
ATOM	27212	N9	A A1289	245.862	141.431	-5.019	1.00	66.69	N	ATOM	27262	O6	G A1291	255.650	143.266	-5.174	1.00	67.99	O
ATOM	27213	C8	A A1289	246.910	141.951	-4.304	1.00	66.69	C	ATOM	27263	N1	G A1291	256.510	145.368	-5.255	1.00	67.99	N
ATOM	27214	N7	A A1289	246.839	143.250	-4.140	1.00	66.69	N	ATOM	27264	C2	G A1291	256.543	146.663	-5.715	1.00	67.99	C
ATOM	27215	C5	A A1289	245.652	143.600	-4.768	1.00	66.69	C	ATOM	27265	N2	G A1291	257.522	147.443	-5.220	1.00	67.99	N



ATOM	27266	N3	G A1291	255.680	147.156	-6.594	1.00	67.99	N	ATOM	27316	C4*	G A1294	267.041	140.420	-10.684	1.00	87.10	C
ATOM	27267	P	G A1291	254.768	146.238	-6.973	1.00	67.99	C	ATOM	27317	O4*	G A1294	266.015	140.567	-9.665	1.00	87.10	O
ATOM	27268	C4	U A1292	255.495	147.348	-12.950	1.00	88.87	P	ATOM	27318	O3*	G A1294	266.763	139.048	-11.272	1.00	87.10	C
ATOM	27269	O1P	U A1292	255.641	148.193	-14.158	1.00	79.98	O	ATOM	27319	C3*	G A1294	267.845	138.471	-11.967	1.00	87.10	O
ATOM	27270	O2P	U A1292	255.284	145.890	-13.102	1.00	79.98	O	ATOM	27320	C2*	G A1294	266.365	138.247	-10.039	1.00	87.10	C
ATOM	27271	O5*	U A1292	256.765	147.533	-12.008	1.00	88.87	O	ATOM	27321	O2*	G A1294	267.466	137.806	-9.261	1.00	87.10	O
ATOM	27272	C5*	U A1292	257.426	148.804	-11.898	1.00	88.87	C	ATOM	27322	C1*	G A1294	265.542	139.280	-9.270	1.00	87.10	C
ATOM	27273	C4*	U A1292	258.697	148.662	-11.099	1.00	88.87	C	ATOM	27323	N9	G A1294	264.134	139.148	-9.652	1.00	96.81	N
ATOM	27274	O4*	U A1292	258.380	148.374	-9.709	1.00	88.87	O	ATOM	27324	C8	G A1294	263.431	139.918	-10.551	1.00	96.81	C
ATOM	27275	C3*	U A1292	259.591	147.510	-11.515	1.00	88.87	C	ATOM	27325	N7	G A1294	262.208	139.499	-10.740	1.00	96.81	N
ATOM	27276	O3*	U A1292	260.396	147.787	-12.647	1.00	88.87	O	ATOM	27326	C5	G A1294	262.090	138.397	-9.905	1.00	96.81	C
ATOM	27277	C2*	U A1292	260.400	147.237	-10.253	1.00	88.87	C	ATOM	27327	C6	G A1294	260.997	137.524	-9.693	1.00	96.81	C
ATOM	27278	O2*	U A1292	261.517	148.088	-10.094	1.00	88.87	O	ATOM	27328	O6	G A1294	259.880	137.545	-10.228	1.00	96.81	O
ATOM	27279	C1*	U A1292	259.364	147.507	-9.162	1.00	88.87	C	ATOM	27329	N1	G A1294	261.305	136.543	-8.756	1.00	96.81	N
ATOM	27280	N1	U A1292	258.723	146.249	-8.743	1.00	79.98	N	ATOM	27330	C2	G A1294	262.513	136.415	-8.115	1.00	96.81	C
ATOM	27281	C2	U A1292	259.329	145.528	-7.722	1.00	79.98	C	ATOM	27331	N2	G A1294	262.624	135.408	-7.244	1.00	96.81	N
ATOM	27282	O2	U A1292	260.321	145.914	-7.135	1.00	79.98	O	ATOM	27332	N3	G A1294	263.541	137.217	-8.312	1.00	96.81	N
ATOM	27283	N3	U A1292	258.731	144.334	-7.417	1.00	79.98	N	ATOM	27333	C4	G A1294	263.263	138.178	-9.213	1.00	96.81	C
ATOM	27284	C4	U A1292	257.611	143.798	-8.003	1.00	79.98	C	ATOM	27334	P	G A1295	267.541	137.407	-13.134	1.00	75.14	P
ATOM	27285	O4	U A1292	257.205	142.701	-7.625	1.00	79.98	O	ATOM	27335	O1P	G A1295	268.818	137.158	-13.852	1.00	72.49	O
ATOM	27286	C5	U A1292	257.022	144.608	-9.033	1.00	79.98	C	ATOM	27336	O2P	G A1295	266.343	137.869	-13.902	1.00	72.49	O
ATOM	27287	C6	U A1292	257.581	145.777	-9.356	1.00	79.98	C	ATOM	27337	O5*	G A1295	267.189	136.068	-12.346	1.00	75.14	O
ATOM	27288	P	G A1293	260.931	146.561	-13.539	1.00	86.55	P	ATOM	27338	C5*	G A1295	268.120	135.532	-11.403	1.00	75.14	C
ATOM	27289	O1P	G A1293	261.753	147.129	-14.641	1.00	89.56	O	ATOM	27339	C4*	G A1295	267.512	134.387	-10.632	1.00	75.14	C
ATOM	27290	O2P	G A1293	259.761	145.701	-13.870	1.00	89.56	O	ATOM	27340	O4*	G A1295	266.377	134.841	-9.851	1.00	75.14	O
ATOM	27291	O5*	G A1293	261.890	145.769	-12.536	1.00	86.55	O	ATOM	27341	C3*	G A1295	266.959	133.228	-11.431	1.00	75.14	C
ATOM	27292	C5*	G A1293	263.065	146.407	-12.010	1.00	86.55	C	ATOM	27342	O3*	G A1295	267.955	132.339	-11.870	1.00	75.14	O
ATOM	27293	C4*	G A1293	263.817	145.489	-11.075	1.00	86.55	C	ATOM	27343	C2*	G A1295	266.027	132.568	-10.429	1.00	75.14	C
ATOM	27294	O4*	G A1293	263.072	145.270	-9.852	1.00	86.55	O	ATOM	27344	O2*	G A1295	266.732	131.784	-9.485	1.00	75.14	O
ATOM	27295	C3*	G A1293	264.150	144.091	-11.564	1.00	86.55	C	ATOM	27345	C1*	G A1295	265.431	133.787	-9.729	1.00	75.14	C
ATOM	27296	O3*	G A1293	265.285	144.061	-12.412	1.00	86.55	O	ATOM	27346	N9	G A1295	264.182	134.196	-10.372	1.00	72.49	N
ATOM	27297	C2*	G A1293	264.423	143.349	-10.263	1.00	86.55	C	ATOM	27347	C8	G A1295	263.973	135.304	-11.156	1.00	72.49	C
ATOM	27298	O2*	G A1293	265.740	143.562	-9.801	1.00	86.55	O	ATOM	27348	N7	G A1295	262.752	135.389	-11.607	1.00	72.49	N
ATOM	27299	C1*	G A1293	263.421	144.005	-9.309	1.00	86.55	C	ATOM	27349	C5	G A1295	262.112	134.274	-11.084	1.00	72.49	C
ATOM	27300	N9	G A1293	262.216	143.190	-9.155	1.00	89.56	N	ATOM	27350	C6	G A1295	260.777	133.835	-11.227	1.00	72.49	C
ATOM	27301	C8	G A1293	261.012	143.336	-9.802	1.00	89.56	C	ATOM	27351	O6	G A1295	259.858	134.360	-11.856	1.00	72.49	O
ATOM	27302	N7	G A1293	260.146	142.412	-9.486	1.00	89.56	N	ATOM	27352	N1	G A1295	260.553	132.650	-10.543	1.00	72.49	N
ATOM	27303	C5	G A1293	260.812	141.614	-8.566	1.00	89.56	C	ATOM	27353	C2	G A1295	261.489	131.971	-9.814	1.00	72.49	C
ATOM	27304	C6	G A1293	260.386	140.443	-7.877	1.00	89.56	C	ATOM	27354	N2	G A1295	261.082	130.828	-9.247	1.00	72.49	N
ATOM	27305	O6	G A1293	259.296	139.855	-7.948	1.00	89.56	O	ATOM	27355	N3	G A1295	262.737	132.376	-9.658	1.00	72.49	N
ATOM	27306	N1	G A1293	261.382	139.953	-7.039	1.00	89.56	N	ATOM	27356	C4	G A1295	262.978	133.528	-10.319	1.00	72.49	C
ATOM	27307	C2	G A1293	262.624	140.510	-6.883	1.00	89.56	C	ATOM	27357	P	C A1296	267.763	131.599	-13.277	1.00	83.40	P
ATOM	27308	N2	G A1293	263.447	139.891	-6.028	1.00	89.56	N	ATOM	27358	O1P	C A1296	268.960	130.761	-13.523	1.00	56.25	O
ATOM	27309	N3	G A1293	263.032	141.593	-7.518	1.00	89.56	N	ATOM	27359	O2P	C A1296	267.350	132.632	-14.275	1.00	56.25	O
ATOM	27310	C4	G A1293	262.084	142.088	-8.339	1.00	89.56	C	ATOM	27360	O5*	C A1296	266.554	130.599	-13.020	1.00	83.40	O
ATOM	27311	P	G A1294	265.499	142.809	-13.392	1.00	87.10	P	ATOM	27361	C5*	C A1296	266.673	129.553	-12.047	1.00	83.40	C
ATOM	27312	O1P	G A1294	266.723	143.083	-14.183	1.00	96.81	O	ATOM	27362	C4*	C A1296	265.417	128.728	-12.015	1.00	83.40	C
ATOM	27313	O2P	G A1294	264.222	142.532	-14.095	1.00	96.81	O	ATOM	27363	O4*	C A1296	264.310	129.539	-11.570	1.00	83.40	O
ATOM	27314	O5*	G A1294	265.803	141.601	-12.400	1.00	87.10	O	ATOM	27364	C3*	C A1296	264.983	128.156	-13.345	1.00	83.40	C
ATOM	27315	C5*	G A1294	267.009	141.596	-11.628	1.00	87.10	C	ATOM	27365	O3*	C A1296	265.633	126.915	-13.526	1.00	83.40	O



Table 2: Sheet 275/520

ATOM	27366	C2*	C A1296	263.484	127.970	-13.162	1.00	83.40	C	ATOM	27416	C6	C A1298	259.473	125.953	-19.224	1.00	57.25	C
ATOM	27367	O2*	C A1296	263.179	126.751	-12.516	1.00	83.40	O	ATOM	27417	P	A A1299	258.678	119.326	-20.888	1.00	68.22	P
ATOM	27368	C1*	C A1296	263.129	129.133	-12.232	1.00	83.40	C	ATOM	27418	O1P	A A1299	259.897	119.175	-21.726	1.00	82.47	O
ATOM	27369	N1	C A1296	262.541	130.307	-12.906	1.00	56.25	N	ATOM	27419	O2P	A A1299	257.376	118.822	-21.395	1.00	82.47	O
ATOM	27370	C2	C A1296	261.153	130.355	-13.100	1.00	56.25	C	ATOM	27420	O5*	A A1299	258.918	118.654	-19.463	1.00	68.22	O
ATOM	27371	O2	C A1296	260.454	129.411	-12.699	1.00	56.25	O	ATOM	27421	C5*	A A1299	259.977	117.720	-19.257	1.00	68.22	C
ATOM	27372	N3	C A1296	260.609	131.428	-13.715	1.00	56.25	N	ATOM	27422	C4*	A A1299	260.528	117.869	-17.867	1.00	68.22	C
ATOM	27373	C4	C A1296	261.391	132.427	-14.123	1.00	56.25	C	ATOM	27423	O4*	A A1299	260.804	119.264	-17.637	1.00	68.22	O
ATOM	27374	N4	C A1296	260.815	133.468	-14.726	1.00	56.25	N	ATOM	27424	C3*	A A1299	259.588	117.501	-16.736	1.00	68.22	C
ATOM	27375	C5	C A1296	262.802	132.406	-13.934	1.00	56.25	C	ATOM	27425	O3*	A A1299	259.715	116.104	-16.463	1.00	68.22	O
ATOM	27376	C6	C A1296	263.330	131.338	-13.331	1.00	56.25	C	ATOM	27426	C2*	A A1299	260.123	118.319	-15.558	1.00	68.22	C
ATOM	27377	P	C A1297	266.473	126.646	-14.860	1.00	59.43	P	ATOM	27427	O2*	A A1299	261.154	117.639	-14.880	1.00	68.22	O
ATOM	27378	O1P	C A1297	267.108	125.314	-14.686	1.00	62.05	O	ATOM	27428	C1*	A A1299	260.770	119.518	-16.251	1.00	68.22	C
ATOM	27379	O2P	C A1297	267.314	127.839	-15.149	1.00	62.05	O	ATOM	27429	N9	A A1299	260.254	120.872	-16.017	1.00	82.47	N
ATOM	27380	O5*	C A1297	265.365	126.542	-15.995	1.00	59.43	O	ATOM	27430	C8	A A1299	260.985	121.924	-15.506	1.00	82.47	C
ATOM	27381	C5*	C A1297	264.459	125.436	-16.025	1.00	59.43	C	ATOM	27431	N7	A A1299	260.333	123.060	-15.468	1.00	82.47	N
ATOM	27382	C4*	C A1297	263.454	125.626	-17.123	1.00	59.43	C	ATOM	27432	C5	A A1299	259.084	122.738	-15.969	1.00	82.47	C
ATOM	27383	O4*	C A1297	262.839	126.927	-16.951	1.00	59.43	O	ATOM	27433	C6	A A1299	257.946	123.515	-16.205	1.00	82.47	C
ATOM	27384	C3*	C A1297	263.965	125.576	-18.558	1.00	59.43	C	ATOM	27434	N6	A A1299	257.884	124.829	-15.972	1.00	82.47	N
ATOM	27385	O3*	C A1297	262.972	124.953	-19.341	1.00	59.43	O	ATOM	27435	N1	A A1299	256.859	122.891	-16.709	1.00	82.47	N
ATOM	27386	C2*	C A1297	264.035	127.040	-18.974	1.00	59.43	C	ATOM	27436	C2	A A1299	256.934	121.569	-16.967	1.00	82.47	C
ATOM	27387	O2*	C A1297	263.740	127.208	-20.346	1.00	59.43	O	ATOM	27437	N3	A A1299	257.956	120.733	-16.799	1.00	82.47	N
ATOM	27388	C1*	C A1297	262.902	127.646	-18.157	1.00	59.43	C	ATOM	27438	C4	A A1299	259.012	121.386	-16.291	1.00	82.47	C
ATOM	27389	N1	C A1297	263.080	129.063	-17.839	1.00	62.05	N	ATOM	27439	P	G A1300	258.818	115.037	-17.270	1.00	84.89	P
ATOM	27390	C2	C A1297	262.371	130.012	-18.583	1.00	62.05	C	ATOM	27440	O1P	G A1300	259.733	114.089	-17.920	1.00	63.97	O
ATOM	27391	O2	C A1297	261.639	129.629	-19.510	1.00	62.05	O	ATOM	27441	O2P	G A1300	257.822	115.770	-18.096	1.00	63.97	O
ATOM	27392	N3	C A1297	262.495	131.318	-18.271	1.00	62.05	N	ATOM	27442	O5*	G A1300	258.055	114.218	-16.134	1.00	84.89	O
ATOM	27393	C4	C A1297	263.283	131.688	-17.261	1.00	62.05	C	ATOM	27443	C5*	G A1300	258.622	114.039	-14.809	1.00	84.89	C
ATOM	27394	N4	C A1297	263.343	132.986	-16.961	1.00	62.05	N	ATOM	27444	C4*	G A1300	258.157	115.154	-13.905	1.00	84.89	C
ATOM	27395	C5	C A1297	264.036	130.744	-16.506	1.00	62.05	C	ATOM	27445	O4*	G A1300	256.804	115.470	-14.267	1.00	84.89	O
ATOM	27396	C6	C A1297	263.908	129.455	-16.827	1.00	62.05	C	ATOM	27446	C3*	G A1300	258.143	114.927	-12.395	1.00	84.89	C
ATOM	27397	P	C A1298	263.386	123.847	-20.414	1.00	64.72	P	ATOM	27447	O3*	G A1300	259.452	115.226	-11.858	1.00	84.89	O
ATOM	27398	O1P	C A1298	264.489	123.058	-19.790	1.00	57.25	O	ATOM	27448	C2*	G A1300	257.059	115.890	-11.935	1.00	84.89	C
ATOM	27399	O2P	C A1298	263.590	124.518	-21.724	1.00	57.25	O	ATOM	27449	O2*	G A1300	257.594	117.191	-11.839	1.00	84.89	O
ATOM	27400	O5*	C A1298	262.098	122.920	-20.507	1.00	64.72	O	ATOM	27450	C1*	G A1300	256.114	115.915	-13.133	1.00	84.89	C
ATOM	27401	C5*	C A1298	261.702	122.104	-19.387	1.00	64.72	C	ATOM	27451	N9	G A1300	254.822	115.238	-13.064	1.00	63.97	N
ATOM	27402	C4*	C A1298	260.202	122.001	-19.322	1.00	64.72	C	ATOM	27452	C8	G A1300	254.553	113.892	-13.054	1.00	63.97	C
ATOM	27403	O4*	C A1298	259.633	123.218	-18.761	1.00	64.72	O	ATOM	27453	N7	G A1300	253.274	113.629	-13.090	1.00	63.97	N
ATOM	27404	C3*	C A1298	259.531	121.793	-20.672	1.00	64.72	C	ATOM	27454	C5	G A1300	252.670	114.878	-13.102	1.00	63.97	C
ATOM	27405	O3*	C A1298	258.455	120.879	-20.539	1.00	64.72	O	ATOM	27455	C6	G A1300	251.307	115.238	-13.157	1.00	63.97	O
ATOM	27406	C2*	C A1298	258.980	123.180	-20.987	1.00	64.72	C	ATOM	27456	O6	G A1300	250.319	114.503	-13.237	1.00	63.97	O
ATOM	27407	O2*	C A1298	257.872	123.154	-21.854	1.00	64.72	O	ATOM	27457	N1	G A1300	251.142	116.617	-13.133	1.00	63.97	N
ATOM	27408	C1*	C A1298	258.590	123.665	-19.594	1.00	64.72	C	ATOM	27458	C2	G A1300	252.160	117.536	-13.079	1.00	63.97	C
ATOM	27409	N1	C A1298	258.413	125.124	-19.452	1.00	57.25	N	ATOM	27459	N2	G A1300	251.811	118.831	-13.066	1.00	63.97	N
ATOM	27410	C2	C A1298	257.117	125.659	-19.585	1.00	57.25	C	ATOM	27460	N3	G A1300	253.428	117.212	-13.042	1.00	63.97	N
ATOM	27411	O2	C A1298	256.154	124.885	-19.724	1.00	57.25	O	ATOM	27461	C4	G A1300	253.611	115.876	-13.058	1.00	63.97	C
ATOM	27412	N3	C A1298	256.944	127.001	-19.549	1.00	57.25	N	ATOM	27462	P	U A1301	259.642	116.055	-10.468	1.00	70.59	P
ATOM	27413	C4	C A1298	257.991	127.801	-19.367	1.00	57.25	C	ATOM	27463	O1P	U A1301	260.911	115.555	-9.877	1.00	62.12	O
ATOM	27414	N4	C A1298	257.779	129.118	-19.379	1.00	57.25	N	ATOM	27464	O2P	U A1301	258.423	116.055	-9.625	1.00	62.12	O
ATOM	27415	C5	C A1298	259.310	127.286	-19.174	1.00	57.25	C	ATOM	27465	O5*	U A1301	259.944	117.543	-10.969	1.00	70.59	O



ATOM	27466	C5*	U A1301	261.189	117.853	-11.649	1.00	70.59	C	ATOM	27516	O2	C A1303	252.867	120.668	-10.827	1.00	52.84	O
ATOM	27467	C4*	U A1301	261.325	119.343	-11.867	1.00	70.59	C	ATOM	27517	N3	C A1303	254.301	119.112	-10.043	1.00	52.84	N
ATOM	27468	O4*	U A1301	260.395	119.762	-12.880	1.00	70.59	O	ATOM	27518	C4	C A1303	255.485	118.840	-9.510	1.00	52.84	C
ATOM	27469	C3*	U A1301	261.026	120.187	-10.643	1.00	70.59	C	ATOM	27519	N4	C A1303	255.758	117.573	-9.229	1.00	52.84	N
ATOM	27470	O3*	U A1301	262.221	120.242	-9.834	1.00	70.59	O	ATOM	27520	C5	C A1303	256.440	119.858	-9.239	1.00	52.84	C
ATOM	27471	C2*	U A1301	260.418	121.481	-11.196	1.00	70.59	C	ATOM	27521	C6	C A1303	256.118	121.118	-9.559	1.00	52.84	C
ATOM	27472	O2*	U A1301	261.292	122.565	-11.425	1.00	70.59	O	ATOM	27522	P	G A1304	253.163	125.195	-6.602	1.00	59.93	P
ATOM	27473	C1*	U A1301	259.860	121.023	-12.544	1.00	70.59	C	ATOM	27523	O1P	G A1304	252.047	126.163	-6.447	1.00	63.80	O
ATOM	27474	N1	U A1301	258.403	120.969	-12.713	1.00	62.12	N	ATOM	27524	O2P	G A1304	254.314	125.230	-5.655	1.00	63.80	O
ATOM	27475	C2	U A1301	257.755	122.137	-13.035	1.00	62.12	C	ATOM	27525	O5*	G A1304	252.546	123.731	-6.575	1.00	59.93	O
ATOM	27476	O2	U A1301	258.322	123.213	-13.092	1.00	62.12	O	ATOM	27526	C5*	G A1304	251.318	123.439	-7.259	1.00	59.93	C
ATOM	27477	N3	U A1301	256.413	121.999	-13.288	1.00	62.12	N	ATOM	27527	C4*	G A1304	250.744	122.158	-6.735	1.00	59.93	C
ATOM	27478	C4	U A1301	255.674	120.839	-13.240	1.00	62.12	C	ATOM	27528	O4*	G A1304	251.389	121.028	-7.356	1.00	59.93	O
ATOM	27479	O4	U A1301	254.520	120.842	-13.659	1.00	62.12	O	ATOM	27529	C3*	G A1304	250.972	121.989	-5.251	1.00	59.93	C
ATOM	27480	C5	U A1301	256.407	119.688	-12.841	1.00	62.12	C	ATOM	27530	O3*	G A1304	249.951	122.697	-4.566	1.00	59.93	O
ATOM	27481	C6	U A1301	257.711	119.789	-12.596	1.00	62.12	C	ATOM	27531	C2*	G A1304	250.976	120.475	-5.083	1.00	59.93	C
ATOM	27482	P	U A1302	263.296	121.444	-9.981	1.00	60.57	P	ATOM	27532	O2*	G A1304	249.679	119.944	-5.030	1.00	59.93	O
ATOM	27483	O1P	U A1302	263.501	121.800	-11.412	1.00	74.36	O	ATOM	27533	C1*	G A1304	251.621	120.016	-6.394	1.00	59.93	C
ATOM	27484	O2P	U A1302	264.443	120.961	-9.186	1.00	74.36	O	ATOM	27534	N9	G A1304	253.066	119.844	-6.318	1.00	63.80	N
ATOM	27485	O5*	U A1302	262.626	122.659	-9.190	1.00	60.57	O	ATOM	27535	C8	G A1304	253.982	120.861	-6.258	1.00	63.80	C
ATOM	27486	C5*	U A1302	261.997	122.418	-7.913	1.00	60.57	C	ATOM	27536	N7	G A1304	255.210	120.444	-6.211	1.00	63.80	N
ATOM	27487	C4*	U A1302	261.374	123.681	-7.351	1.00	60.57	C	ATOM	27537	C5	G A1304	255.105	119.068	-6.241	1.00	63.80	C
ATOM	27488	O4*	U A1302	262.392	124.704	-7.233	1.00	60.57	O	ATOM	27538	C6	G A1304	256.107	118.107	-6.222	1.00	63.80	C
ATOM	27489	C3*	U A1302	260.190	124.324	-8.078	1.00	60.57	C	ATOM	27539	O6	G A1304	257.335	118.291	-6.176	1.00	63.80	O
ATOM	27490	O3*	U A1302	259.315	124.885	-7.084	1.00	60.57	O	ATOM	27540	N1	G A1304	255.581	116.817	-6.264	1.00	63.80	N
ATOM	27491	C2*	U A1302	260.843	125.504	-8.798	1.00	60.57	C	ATOM	27541	C2	G A1304	254.244	116.514	-6.320	1.00	63.80	C
ATOM	27492	O2*	U A1302	259.955	126.582	-9.027	1.00	60.57	O	ATOM	27542	N2	G A1304	253.931	115.205	-6.342	1.00	63.80	N
ATOM	27493	C1*	U A1302	261.898	125.906	-7.770	1.00	60.57	C	ATOM	27543	N3	G A1304	253.287	117.425	-6.348	1.00	63.80	N
ATOM	27494	N1	U A1302	263.033	126.731	-8.204	1.00	74.36	N	ATOM	27544	C4	G A1304	253.787	118.675	-6.305	1.00	63.80	C
ATOM	27495	C2	U A1302	263.094	128.021	-7.708	1.00	74.36	C	ATOM	27545	P	G A1305	250.118	123.058	-3.013	1.00	48.62	P
ATOM	27496	O2	U A1302	262.254	128.488	-6.957	1.00	74.36	O	ATOM	27546	O1P	G A1305	249.129	124.122	-2.700	1.00	74.13	O
ATOM	27497	N3	U A1302	264.185	128.743	-8.114	1.00	74.36	N	ATOM	27547	O2P	G A1305	251.541	123.271	-2.688	1.00	74.13	O
ATOM	27498	C4	U A1302	265.205	128.316	-8.935	1.00	74.36	C	ATOM	27548	O5*	G A1305	249.645	121.708	-2.338	1.00	48.62	O
ATOM	27499	O4	U A1302	266.138	129.083	-9.180	1.00	74.36	O	ATOM	27549	C5*	G A1305	249.732	121.520	-0.948	1.00	48.62	C
ATOM	27500	C5	U A1302	265.067	126.971	-9.414	1.00	74.36	C	ATOM	27550	C4*	G A1305	249.844	120.063	-0.674	1.00	48.62	C
ATOM	27501	C6	U A1302	264.009	126.245	-9.046	1.00	74.36	C	ATOM	27551	O4*	G A1305	250.693	119.543	-1.704	1.00	48.62	O
ATOM	27502	P	C A1303	257.972	124.112	-6.631	1.00	58.06	P	ATOM	27552	C3*	G A1305	250.464	119.746	0.678	1.00	48.62	C
ATOM	27503	O1P	C A1303	257.198	125.095	-5.820	1.00	52.84	O	ATOM	27553	O3*	G A1305	249.370	119.226	1.451	1.00	48.62	O
ATOM	27504	O2P	C A1303	258.298	122.769	-6.041	1.00	52.84	O	ATOM	27554	C2*	G A1305	251.473	118.651	0.368	1.00	48.62	C
ATOM	27505	O5*	C A1303	257.169	123.903	-7.992	1.00	58.06	O	ATOM	27555	O1*	G A1305	250.804	117.421	0.444	1.00	48.62	O
ATOM	27506	C5*	C A1303	256.808	125.019	-8.823	1.00	58.06	C	ATOM	27556	C2*	G A1305	251.780	118.879	-1.114	1.00	48.62	C
ATOM	27507	C4*	C A1303	255.542	124.710	-9.579	1.00	58.06	C	ATOM	27557	N9	G A1305	253.004	119.564	-1.511	1.00	74.13	N
ATOM	27508	O4*	C A1303	255.757	123.588	-10.479	1.00	58.06	O	ATOM	27558	C8	G A1305	253.295	120.903	-1.428	1.00	74.13	C
ATOM	27509	C3*	C A1303	254.385	124.262	-8.707	1.00	58.06	C	ATOM	27559	N7	G A1305	254.443	121.209	-1.969	1.00	74.13	N
ATOM	27510	O3*	C A1303	253.685	125.343	-8.113	1.00	58.06	O	ATOM	27560	C5	G A1305	254.946	119.994	-2.407	1.00	74.13	C
ATOM	27511	C2*	C A1303	253.524	123.453	-9.666	1.00	58.06	C	ATOM	27561	C6	G A1305	256.153	119.687	-3.072	1.00	74.13	C
ATOM	27512	O2*	C A1303	252.679	124.260	-10.459	1.00	58.06	O	ATOM	27562	O6	G A1305	257.051	120.451	-3.432	1.00	74.13	O
ATOM	27513	C1*	C A1303	254.585	122.792	-10.544	1.00	58.06	C	ATOM	27563	N1	G A1305	256.263	118.329	-3.326	1.00	74.13	N
ATOM	27514	N1	C A1303	254.915	121.412	-10.129	1.00	52.84	N	ATOM	27564	C2	G A1305	255.324	117.391	-2.996	1.00	74.13	C
ATOM	27515	C2	C A1303	253.976	120.385	-10.354	1.00	52.84	C	ATOM	27565	N2	G A1305	255.588	116.150	-3.353	1.00	74.13	N



Table 2: Sheet 277/520

ATOM	27566	N3	G A1305	254.202	117.659	-2.371	1.00	74.13	N	ATOM	27616	O4*	U A1308	254.505	108.204	6.162	1.00	67.46	O
ATOM	27567	C4	G A1305	254.076	118.972	-2.112	1.00	74.13	C	ATOM	27617	C3*	U A1308	254.713	107.902	8.478	1.00	67.46	C
ATOM	27568	P	A A1306	249.626	118.276	2.733	1.00	50.84	P	ATOM	27618	O3*	U A1308	254.829	106.922	9.497	1.00	67.46	O
ATOM	27569	O1P	A A1306	248.563	118.682	3.698	1.00	51.45	O	ATOM	27619	C2*	U A1308	256.078	108.294	7.934	1.00	67.46	C
ATOM	27570	O2P	A A1306	251.053	118.316	3.158	1.00	51.45	O	ATOM	27620	O2*	U A1308	256.931	107.181	7.771	1.00	67.46	O
ATOM	27571	O5*	A A1306	249.287	116.800	2.232	1.00	50.84	O	ATOM	27621	C1*	U A1308	255.716	108.827	6.554	1.00	67.46	C
ATOM	27572	C5*	A A1306	247.961	116.461	1.806	1.00	50.84	C	ATOM	27622	N1	U A1308	255.500	110.280	6.571	1.00	63.96	N
ATOM	27573	C4*	A A1306	247.928	115.068	1.237	1.00	50.84	C	ATOM	27623	C2	U A1308	256.605	111.107	6.487	1.00	63.96	C
ATOM	27574	O4*	A A1306	248.766	114.993	0.053	1.00	50.84	O	ATOM	27624	O2	U A1308	257.754	110.685	6.417	1.00	63.96	O
ATOM	27575	C3*	A A1306	248.466	113.996	2.161	1.00	50.84	C	ATOM	27625	N3	U A1308	256.318	112.449	6.490	1.00	63.96	N
ATOM	27576	O3*	A A1306	247.469	113.553	3.060	1.00	50.84	O	ATOM	27626	C4	U A1308	255.071	113.029	6.572	1.00	63.96	C
ATOM	27577	C2*	A A1306	248.917	112.907	1.190	1.00	50.84	C	ATOM	27627	O4	U A1308	254.963	114.259	6.548	1.00	63.96	O
ATOM	27578	O2*	A A1306	247.852	112.085	0.746	1.00	50.84	O	ATOM	27628	C5	U A1308	253.992	112.104	6.666	1.00	63.96	C
ATOM	27579	C1*	A A1306	249.437	113.738	0.012	1.00	50.84	C	ATOM	27629	C6	U A1308	254.235	110.801	6.564	1.00	63.96	C
ATOM	27580	N9	A A1306	250.880	113.991	0.096	1.00	51.45	N	ATOM	27630	P	G A1309	255.245	107.376	10.979	1.00	80.75	P
ATOM	27581	C8	A A1306	251.467	115.206	0.286	1.00	51.45	C	ATOM	27631	O1P	G A1309	255.088	106.169	11.830	1.00	64.84	O
ATOM	27582	N7	A A1306	252.766	115.169	0.373	1.00	51.45	N	ATOM	27632	O2P	G A1309	254.509	108.620	11.326	1.00	64.84	O
ATOM	27583	C5	A A1306	253.066	113.827	0.222	1.00	51.45	C	ATOM	27633	O5*	G A1309	256.793	107.754	10.846	1.00	80.75	O
ATOM	27584	C6	A A1306	254.279	113.136	0.227	1.00	51.45	C	ATOM	27634	O5*	G A1309	257.798	106.735	10.607	1.00	80.75	O
ATOM	27585	N6	A A1306	255.453	113.725	0.433	1.00	51.45	N	ATOM	27635	C4*	G A1309	259.198	107.323	10.664	1.00	80.75	C
ATOM	27586	N1	A A1306	254.243	111.806	0.024	1.00	51.45	N	ATOM	27636	O4*	G A1309	259.406	108.207	9.532	1.00	80.75	O
ATOM	27587	C2	A A1306	253.052	111.222	-0.155	1.00	51.45	C	ATOM	27637	C3*	G A1309	259.548	108.180	11.876	1.00	80.75	C
ATOM	27588	N3	A A1306	251.841	111.763	-0.164	1.00	51.45	N	ATOM	27638	O3*	G A1309	259.927	107.444	13.037	1.00	80.75	O
ATOM	27589	C4	A A1306	251.915	113.087	0.032	1.00	51.45	C	ATOM	27639	C2*	G A1309	260.692	109.038	11.355	1.00	80.75	C
ATOM	27590	P	U A1307	247.888	113.103	4.538	1.00	54.20	P	ATOM	27640	O2*	G A1309	261.951	108.397	11.396	1.00	80.75	O
ATOM	27591	O1P	U A1307	246.698	112.499	5.184	1.00	55.51	O	ATOM	27641	C1*	G A1309	260.265	109.270	9.909	1.00	80.75	C
ATOM	27592	O2P	U A1307	248.563	114.248	5.183	1.00	55.51	O	ATOM	27642	N9	G A1309	259.518	110.516	9.833	1.00	64.84	N
ATOM	27593	O5*	U A1307	248.982	111.973	4.294	1.00	54.20	O	ATOM	27643	C8	G A1309	258.154	110.669	9.755	1.00	64.84	C
ATOM	27594	C5*	U A1307	248.635	110.728	3.676	1.00	54.20	C	ATOM	27644	N7	G A1309	257.779	111.920	9.733	1.00	64.84	N
ATOM	27595	C4*	U A1307	249.858	109.850	3.550	1.00	54.20	C	ATOM	27645	C5	G A1309	258.969	112.636	9.789	1.00	64.84	C
ATOM	27596	O4*	U A1307	250.773	110.403	2.566	1.00	54.20	O	ATOM	27646	C6	G A1309	259.207	114.046	9.787	1.00	64.84	C
ATOM	27597	C3*	U A1307	250.688	109.740	4.815	1.00	54.20	C	ATOM	27647	O6	G A1309	258.389	114.966	9.714	1.00	64.84	O
ATOM	27598	O3*	U A1307	250.186	108.787	5.733	1.00	54.20	O	ATOM	27648	N1	G A1309	260.563	114.337	9.875	1.00	64.84	N
ATOM	27599	C2*	U A1307	252.078	109.401	4.292	1.00	54.20	C	ATOM	27649	C2	G A1309	261.566	113.402	9.943	1.00	64.84	C
ATOM	27600	O2*	U A1307	252.245	108.022	4.028	1.00	54.20	O	ATOM	27650	N2	G A1309	262.811	113.886	10.027	1.00	64.84	N
ATOM	27601	C1*	U A1307	252.119	110.208	2.994	1.00	54.20	C	ATOM	27651	N3	G A1309	261.364	112.088	9.932	1.00	64.84	N
ATOM	27602	N1	U A1307	252.744	111.531	3.177	1.00	55.51	N	ATOM	27652	C4	G A1309	260.051	111.781	9.855	1.00	64.84	C
ATOM	27603	C2	U A1307	254.128	111.623	3.149	1.00	55.51	C	ATOM	27653	P	G A1310	259.609	108.052	14.497	1.00	83.37	P
ATOM	27604	O2	U A1307	254.858	110.663	2.969	1.00	55.51	O	ATOM	27654	O1P	G A1310	260.112	107.061	15.482	1.00	70.36	O
ATOM	27605	N3	U A1307	254.627	112.887	3.334	1.00	55.51	N	ATOM	27655	O2P	G A1310	258.182	108.476	14.546	1.00	70.36	O
ATOM	27606	C4	U A1307	253.905	114.042	3.534	1.00	55.51	C	ATOM	27656	O5*	G A1310	260.504	109.371	14.574	1.00	83.37	O
ATOM	27607	O4	U A1307	254.492	115.123	3.648	1.00	55.51	O	ATOM	27657	C5*	G A1310	261.928	109.297	14.401	1.00	83.37	C
ATOM	27608	C5	U A1307	252.493	113.859	3.549	1.00	55.51	C	ATOM	27658	C4*	G A1310	262.560	110.672	14.455	1.00	83.37	C
ATOM	27609	C6	U A1307	251.976	112.646	3.375	1.00	55.51	C	ATOM	27659	O4*	G A1310	262.241	111.448	13.268	1.00	83.37	O
ATOM	27610	P	U A1308	250.425	109.026	7.300	1.00	67.46	P	ATOM	27660	C3*	G A1310	262.188	111.602	15.597	1.00	83.37	C
ATOM	27611	O1P	U A1308	249.620	108.028	8.044	1.00	63.96	O	ATOM	27661	C3*	G A1310	262.836	111.297	16.822	1.00	83.37	O
ATOM	27612	O2P	U A1308	250.209	110.475	7.547	1.00	63.96	O	ATOM	27662	O2*	G A1310	262.654	112.952	15.066	1.00	83.37	O
ATOM	27613	O5*	U A1308	251.975	108.699	7.502	1.00	67.46	O	ATOM	27663	O2*	G A1310	264.045	113.143	15.238	1.00	83.37	O
ATOM	27614	C5*	U A1308	252.489	107.375	7.242	1.00	67.46	C	ATOM	27664	C1*	G A1310	262.331	112.834	13.577	1.00	83.37	C
ATOM	27615	C4*	U A1308	254.008	107.372	7.241	1.00	67.46	C	ATOM	27665	N9	G A1310	261.065	113.499	13.272	1.00	70.36	N



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ATOM	27665	C8	G A1310	259.823	112.930	13.139	1.00	70.36	C	ATOM	27716	O6	G A1312	254.256	118.460	17.484	1.00	70.19	O
ATOM	27667	N7	G A1310	258.879	113.805	12.916	1.00	70.36	N	ATOM	27717	N1	G A1312	254.779	120.679	17.516	1.00	70.19	N
ATOM	27668	C5	G A1310	259.537	115.024	12.892	1.00	70.36	C	ATOM	27718	C2	G A1312	255.617	121.737	17.768	1.00	70.19	C
ATOM	27669	C6	G A1310	259.032	116.341	12.702	1.00	70.36	C	ATOM	27719	N2	G A1312	255.151	122.956	17.471	1.00	70.19	N
ATOM	27670	O6	G A1310	257.865	116.700	12.525	1.00	70.36	O	ATOM	27720	N3	G A1312	256.825	121.612	18.275	1.00	70.19	N
ATOM	27671	N1	G A1310	260.046	117.290	12.747	1.00	70.36	N	ATOM	27721	C4	G A1312	257.138	120.325	18.531	1.00	70.19	C
ATOM	27672	C2	G A1310	261.375	117.013	12.958	1.00	70.36	C	ATOM	27722	P	U A1313	259.186	121.744	24.026	1.00	80.52	P
ATOM	27673	N2	G A1310	262.197	118.066	12.985	1.00	70.36	N	ATOM	27723	O1P	U A1313	259.838	122.368	25.202	1.00	67.97	O
ATOM	27674	N3	G A1310	261.859	115.791	13.136	1.00	70.36	N	ATOM	27724	O2P	U A1313	258.427	120.478	24.208	1.00	67.97	O
ATOM	27675	C4	G A1310	260.889	114.853	13.094	1.00	70.36	C	ATOM	27725	O5*	U A1313	258.234	122.852	23.392	1.00	80.52	O
ATOM	27676	P	G A1311	262.201	111.826	18.208	1.00	79.94	P	ATOM	27726	C5*	U A1313	258.754	124.145	23.056	1.00	80.52	C
ATOM	27677	O1P	G A1311	263.053	111.275	19.301	1.00	70.99	O	ATOM	27727	C4*	U A1313	257.676	125.022	22.460	1.00	80.52	C
ATOM	27678	O2P	G A1311	260.735	111.545	18.209	1.00	70.99	O	ATOM	27728	O4*	U A1313	257.195	124.451	21.217	1.00	80.52	O
ATOM	27679	O5*	G A1311	262.413	113.408	18.160	1.00	79.94	O	ATOM	27729	C3*	U A1313	256.416	125.214	23.285	1.00	80.52	C
ATOM	27680	C5*	G A1311	263.731	113.967	18.258	1.00	79.94	C	ATOM	27730	O3*	U A1313	256.555	126.204	24.282	1.00	80.52	O
ATOM	27681	C4*	G A1311	263.690	115.469	18.110	1.00	79.94	C	ATOM	27731	C2*	U A1313	255.386	125.612	22.236	1.00	80.52	C
ATOM	27682	O4*	G A1311	263.139	115.808	16.814	1.00	79.94	O	ATOM	27732	O2*	U A1313	255.443	126.981	21.878	1.00	80.52	O
ATOM	27683	C3*	G A1311	262.839	116.251	19.098	1.00	79.94	C	ATOM	27733	C1*	U A1313	255.816	124.752	21.051	1.00	80.52	C
ATOM	27684	O3*	G A1311	263.513	116.536	20.312	1.00	79.94	O	ATOM	27734	N1	U A1313	255.060	123.492	20.976	1.00	67.97	N
ATOM	27685	C2*	G A1311	262.562	117.544	18.346	1.00	79.94	C	ATOM	27735	C2	U A1313	253.716	123.561	20.625	1.00	67.97	C
ATOM	27686	O2*	G A1311	263.607	118.487	18.480	1.00	79.94	O	ATOM	27736	O2	U A1313	253.120	124.622	20.440	1.00	67.97	O
ATOM	27687	C1*	G A1311	262.459	117.050	16.901	1.00	79.94	C	ATOM	27737	N3	U A1313	253.090	122.346	20.513	1.00	67.97	N
ATOM	27688	N9	G A1311	261.063	116.870	16.505	1.00	70.99	N	ATOM	27738	C4	U A1313	253.645	121.103	20.733	1.00	67.97	C
ATOM	27689	C8	G A1311	260.348	115.698	16.409	1.00	70.99	C	ATOM	27739	O4	U A1313	252.959	120.099	20.560	1.00	67.97	O
ATOM	27690	N7	G A1311	259.101	115.887	16.068	1.00	70.99	N	ATOM	27740	C5	U A1313	255.017	121.120	21.126	1.00	67.97	C
ATOM	27691	C5	G A1311	258.990	117.265	15.920	1.00	70.99	C	ATOM	27741	C6	U A1313	255.660	122.282	21.231	1.00	67.97	C
ATOM	27692	C6	G A1311	257.872	118.074	15.559	1.00	70.99	C	ATOM	27742	P	C A1314	255.702	126.074	25.631	1.00	100.32	P
ATOM	27693	O6	G A1311	256.717	117.724	15.284	1.00	70.99	O	ATOM	27743	O1P	C A1314	256.038	127.273	26.447	1.00	62.28	O
ATOM	27694	N1	G A1311	258.208	119.423	15.536	1.00	70.99	N	ATOM	27744	O2P	C A1314	255.913	124.705	26.194	1.00	62.28	O
ATOM	27695	C2	G A1311	259.451	119.932	15.818	1.00	70.99	C	ATOM	27745	O5*	C A1314	254.194	126.222	25.139	1.00	100.32	O
ATOM	27696	N2	G A1311	259.575	121.256	15.754	1.00	70.99	N	ATOM	27746	C5*	C A1314	253.715	127.485	24.649	1.00	100.32	C
ATOM	27697	N3	G A1311	260.496	119.196	16.142	1.00	70.99	N	ATOM	27747	C4*	C A1314	252.251	127.399	24.293	1.00	100.32	C
ATOM	27698	C4	G A1311	260.196	117.882	16.177	1.00	70.99	C	ATOM	27748	O4*	C A1314	252.066	126.545	23.131	1.00	100.32	O
ATOM	27699	P	G A1312	262.664	116.748	21.663	1.00	83.84	P	ATOM	27749	C3*	C A1314	251.328	126.794	25.336	1.00	100.32	C
ATOM	27700	O1P	G A1312	263.646	117.213	22.687	1.00	70.19	O	ATOM	27750	O3*	C A1314	250.943	127.689	26.362	1.00	100.32	O
ATOM	27701	O2P	G A1312	261.866	115.510	21.916	1.00	70.19	O	ATOM	27751	C2*	C A1314	250.135	126.373	24.497	1.00	100.32	C
ATOM	27702	O5*	G A1312	261.689	117.976	21.350	1.00	83.84	O	ATOM	27752	O2*	C A1314	249.309	127.477	24.191	1.00	100.32	O
ATOM	27703	C5*	G A1312	262.227	119.304	21.338	1.00	83.84	C	ATOM	27753	C1*	C A1314	250.816	125.882	23.223	1.00	100.32	C
ATOM	27704	C4*	G A1312	261.205	120.334	20.908	1.00	83.84	C	ATOM	27754	N1	C A1314	251.042	124.424	23.278	1.00	62.28	N
ATOM	27705	O4*	G A1312	260.612	119.980	19.636	1.00	83.84	O	ATOM	27755	C2	C A1314	250.004	123.556	22.868	1.00	62.28	C
ATOM	27706	C3*	G A1312	259.994	120.660	21.767	1.00	83.84	C	ATOM	27756	O2	C A1314	248.927	124.041	22.472	1.00	62.28	O
ATOM	27707	O3*	G A1312	260.300	121.493	22.884	1.00	83.84	O	ATOM	27757	N3	C A1314	250.202	122.216	22.921	1.00	62.28	N
ATOM	27708	C2*	G A1312	259.145	121.454	20.779	1.00	83.84	C	ATOM	27758	C4	C A1314	251.363	121.732	23.358	1.00	62.28	C
ATOM	27709	O2*	G A1312	259.594	122.787	20.650	1.00	83.84	O	ATOM	27759	N4	C A1314	251.513	120.409	23.390	1.00	62.28	N
ATOM	27710	C1*	G A1312	259.434	120.743	19.459	1.00	83.84	C	ATOM	27760	C5	C A1314	252.427	122.585	23.780	1.00	62.28	C
ATOM	27711	N9	G A1312	258.321	119.881	19.066	1.00	70.19	N	ATOM	27761	C6	C A1314	252.226	123.910	23.724	1.00	62.28	C
ATOM	27712	C8	G A1312	258.218	118.511	19.157	1.00	70.19	C	ATOM	27762	P	U A1315	250.301	127.096	27.713	1.00	74.60	P
ATOM	27713	N7	G A1312	257.070	118.058	18.729	1.00	70.19	N	ATOM	27763	O1P	U A1315	250.136	128.235	28.663	1.00	63.72	O
ATOM	27714	C5	G A1312	256.379	119.196	18.328	1.00	70.19	C	ATOM	27764	O2P	U A1315	251.063	125.877	28.134	1.00	63.72	O
ATOM	27715	C6	G A1312	255.081	119.342	17.764	1.00	70.19	C	ATOM	27765	O5*	U A1315	248.857	126.599	27.254	1.00	74.60	O



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ATOM	27766	C5*	U A1315	247.875	127.526	26.743	1.00	74.60	C	ATOM	27816	CI*	C A1317	244.004	117.425	35.115	1.00	77.84	C
ATOM	27767	C4*	U A1315	246.603	126.796	26.383	1.00	74.60	C	ATOM	27817	N1	C A1317	242.846	117.036	34.297	1.00	88.07	N
ATOM	27768	O4*	U A1315	246.849	125.907	25.270	1.00	74.60	O	ATOM	27818	C2	C A1317	242.466	115.688	34.268	1.00	88.07	C
ATOM	27769	C3*	U A1315	246.026	125.902	27.466	1.00	74.60	C	ATOM	27819	O2	C A1317	243.091	114.866	34.954	1.00	88.07	O
ATOM	27770	O3*	U A1315	245.199	126.662	28.331	1.00	74.60	O	ATOM	27820	N3	C A1317	241.431	115.314	33.492	1.00	88.07	N
ATOM	27771	C2*	U A1315	245.213	124.890	26.672	1.00	74.60	C	ATOM	27821	C4	C A1317	240.780	116.224	32.765	1.00	88.07	C
ATOM	27772	O2*	U A1315	243.939	125.380	26.322	1.00	74.60	O	ATOM	27822	N4	C A1317	239.770	115.803	31.998	1.00	88.07	N
ATOM	27773	CI*	U A1315	246.040	124.756	25.397	1.00	74.60	C	ATOM	27823	C5	C A1317	241.135	117.605	32.788	1.00	88.07	C
ATOM	27774	N1	U A1315	246.901	123.570	25.394	1.00	63.72	N	ATOM	27824	C6	C A1317	242.160	117.963	33.561	1.00	88.07	C
ATOM	27775	C2	U A1315	246.344	122.385	24.959	1.00	63.72	C	ATOM	27825	P	A A1318	247.499	119.261	32.221	1.00	95.30	P
ATOM	27776	O2	U A1315	245.190	122.297	24.575	1.00	63.72	O	ATOM	27826	O1P	A A1318	248.971	119.473	32.268	1.00	66.14	O
ATOM	27777	N3	U A1315	247.188	121.304	24.985	1.00	63.72	N	ATOM	27827	O2P	A A1318	246.623	120.316	31.639	1.00	66.14	O
ATOM	27778	C4	U A1315	248.506	121.291	25.385	1.00	63.72	C	ATOM	27828	O5*	A A1318	247.265	117.864	31.494	1.00	95.30	O
ATOM	27779	O4	U A1315	249.137	120.230	25.360	1.00	63.72	O	ATOM	27829	C5*	A A1318	247.849	116.664	32.035	1.00	95.30	C
ATOM	27780	C5	U A1315	249.009	122.560	25.815	1.00	63.72	C	ATOM	27830	C4*	A A1318	247.184	115.440	31.453	1.00	95.30	C
ATOM	27781	C6	U A1315	248.208	123.627	25.807	1.00	63.72	C	ATOM	27831	O4*	A A1318	245.041	114.956	30.653	1.00	95.30	C
ATOM	27782	P	G A1316	245.364	126.528	29.925	1.00	73.48	P	ATOM	27832	C3*	A A1318	244.121	115.994	30.184	1.00	66.14	N
ATOM	27783	O1P	G A1316	244.538	127.627	30.492	1.00	72.24	O	ATOM	27833	O3*	A A1318	243.256	118.029	29.779	1.00	66.14	N
ATOM	27784	O2P	G A1316	246.807	126.425	30.283	1.00	72.24	O	ATOM	27834	C2*	A A1318	242.366	117.043	29.379	1.00	66.14	N
ATOM	27785	O5*	G A1316	244.685	125.136	30.289	1.00	73.48	O	ATOM	27835	O2*	A A1318	241.086	117.102	28.806	1.00	66.14	C
ATOM	27786	C5*	G A1316	243.279	124.941	30.108	1.00	73.48	C	ATOM	27836	CI*	A A1318	240.449	118.243	28.523	1.00	66.14	N
ATOM	27787	C4*	G A1316	243.006	123.498	29.825	1.00	73.48	C	ATOM	27837	N9	A A1318	241.109	114.791	28.812	1.00	66.14	N
ATOM	27788	O4*	G A1316	243.754	123.112	28.649	1.00	73.48	O	ATOM	27838	C8	A A1318	242.309	114.606	29.348	1.00	66.14	N
ATOM	27789	C3*	G A1316	243.489	122.548	30.900	1.00	73.48	C	ATOM	27839	N7	A A1318	242.891	115.785	29.613	1.00	66.14	C
ATOM	27790	O3*	G A1316	242.535	122.428	31.941	1.00	73.48	O	ATOM	27840	C5	A A1318	249.231	114.918	28.259	1.00	84.25	P
ATOM	27791	C2*	G A1316	243.711	121.252	30.132	1.00	73.48	C	ATOM	27841	C6	A A1318	250.391	114.001	28.196	1.00	59.76	O
ATOM	27792	O1*	G A1316	242.543	120.479	29.958	1.00	73.48	O	ATOM	27842	N6	A A1318	249.435	116.381	28.170	1.00	59.76	O
ATOM	27793	CI*	G A1316	244.201	121.778	28.782	1.00	73.48	C	ATOM	27843	N1	A A1318	248.229	114.458	27.116	1.00	84.25	O
ATOM	27794	N9	G A1316	245.657	121.764	28.724	1.00	72.24	N	ATOM	27844	C2	A A1318	248.710	114.138	25.795	1.00	84.25	C
ATOM	27795	C8	G A1316	246.523	122.793	28.999	1.00	72.24	C	ATOM	27845	N3	A A1318	247.568	114.183	24.814	1.00	84.25	C
ATOM	27796	N7	G A1316	247.773	122.424	28.973	1.00	72.24	N	ATOM	27846	C4	A A1318	246.956	115.474	24.878	1.00	84.25	C
ATOM	27797	C5	G A1316	247.726	121.079	28.638	1.00	72.24	C	ATOM	27847	P	A A1319	247.906	114.026	23.338	1.00	84.25	C
ATOM	27798	C6	G A1316	248.763	120.139	28.491	1.00	72.24	C	ATOM	27848	O1P	A A1319	247.829	112.641	22.988	1.00	84.25	O
ATOM	27799	O6	G A1316	249.972	120.302	28.655	1.00	72.24	O	ATOM	27849	O2P	A A1319	246.803	114.833	22.617	1.00	84.25	C
ATOM	27800	N1	G A1316	248.273	118.889	28.122	1.00	72.24	N	ATOM	27850	O5*	A A1319	245.813	114.042	21.976	1.00	84.25	O
ATOM	27801	C2	G A1316	246.947	118.585	27.929	1.00	72.24	C	ATOM	27851	C5*	A A1319	246.126	115.586	23.765	1.00	84.25	C
ATOM	27802	N2	G A1316	246.660	117.325	27.561	1.00	72.24	N	ATOM	27852	C4*	A A1319	245.778	116.987	23.580	1.00	59.76	N
ATOM	27803	N3	G A1316	245.972	119.453	28.085	1.00	72.24	N	ATOM	27853	O4*	A A1319	246.500	118.104	23.914	1.00	59.76	C
ATOM	27804	C4	G A1316	246.430	120.670	28.441	1.00	72.24	C	ATOM	27854	C3*	A A1319	245.870	119.231	23.681	1.00	59.76	N
ATOM	27805	P	C A1317	243.017	122.512	33.470	1.00	77.84	P	ATOM	27855	O3*	A A1319	244.657	118.826	23.141	1.00	59.76	C
ATOM	27806	O1P	C A1317	241.792	122.598	34.312	1.00	88.07	O	ATOM	27856	C2*	A A1319	243.550	119.544	22.670	1.00	59.76	C
ATOM	27807	O2P	C A1317	244.039	123.596	33.544	1.00	88.07	O	ATOM	27857	O2*	A A1319	243.482	120.880	22.662	1.00	59.76	N
ATOM	27808	O5*	C A1317	243.729	121.109	33.747	1.00	77.84	O	ATOM	27858	CI*	A A1319	242.503	118.836	22.191	1.00	59.76	N
ATOM	27809	C5*	C A1317	244.657	120.978	34.832	1.00	77.84	C	ATOM	27859	N9	A A1319						
ATOM	27810	C4*	C A1317	245.022	119.532	35.073	1.00	77.84	C	ATOM	27860	C8	A A1319						
ATOM	27811	O4*	C A1317	243.862	118.782	35.501	1.00	77.84	O	ATOM	27861	N7	A A1319						
ATOM	27812	C3*	C A1317	245.577	118.732	33.910	1.00	77.84	C	ATOM	27862	C5	A A1319						
ATOM	27813	O3*	C A1317	246.958	118.988	33.707	1.00	77.84	O	ATOM	27863	C6	A A1319						
ATOM	27814	C2*	C A1317	245.321	117.292	34.348	1.00	77.84	C	ATOM	27864	N6	A A1319						
ATOM	27815	O2*	C A1317	246.308	116.778	35.217	1.00	77.84	O	ATOM	27865	N1	A A1319						



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ATOM	27866	C2	A A1319	242.581	117.499	22.183	1.00	59.76	C	ATOM	27916	C3*	C A1322	243.433	111.701	17.828	1.00	64.22	C
ATOM	27867	N3	A A1319	243.570	116.712	22.591	1.00	59.76	N	ATOM	27917	O3*	C A1322	243.621	113.106	17.864	1.00	64.22	O
ATOM	27868	C4	A A1319	244.592	117.446	23.065	1.00	59.76	C	ATOM	27918	C2*	C A1322	243.047	111.262	19.243	1.00	64.22	C
ATOM	27869	P	C A1320	249.005	111.628	23.420	1.00	84.03	P	ATOM	27919	O2*	C A1322	243.682	112.012	20.272	1.00	64.22	O
ATOM	27870	O1P	C A1320	248.971	111.496	24.906	1.00	75.35	O	ATOM	27920	C1*	C A1322	241.555	111.589	19.263	1.00	64.22	C
ATOM	27871	O2P	C A1320	250.262	112.067	22.743	1.00	75.35	O	ATOM	27921	N1	C A1322	240.783	110.807	20.232	1.00	79.65	N
ATOM	27872	O5*	C A1320	248.550	110.219	22.823	1.00	84.03	O	ATOM	27922	C2	C A1322	240.474	111.395	21.453	1.00	79.65	C
ATOM	27873	C5*	C A1320	248.475	109.383	22.110	1.00	84.03	C	ATOM	27923	O2	C A1322	240.891	112.539	21.691	1.00	79.65	O
ATOM	27874	C4*	C A1320	248.821	108.077	21.731	1.00	84.03	C	ATOM	27924	N3	C A1322	239.740	110.708	22.347	1.00	79.65	N
ATOM	27875	O4*	C A1320	248.547	107.305	22.927	1.00	84.03	C	ATOM	27925	C4	C A1322	239.331	109.472	22.064	1.00	79.65	C
ATOM	27876	C3*	C A1320	247.473	108.168	21.039	1.00	84.03	C	ATOM	27926	N4	C A1322	238.603	108.834	22.976	1.00	79.65	N
ATOM	27877	O3*	C A1320	247.579	108.411	19.652	1.00	84.03	O	ATOM	27927	C5	C A1322	239.649	108.838	20.833	1.00	79.65	C
ATOM	27878	C2*	C A1320	246.850	106.811	21.334	1.00	84.03	C	ATOM	27928	C6	C A1322	240.369	109.536	19.952	1.00	79.65	C
ATOM	27879	O2*	C A1320	247.308	105.792	20.469	1.00	84.03	O	ATOM	27929	P	G A1323	244.660	113.807	16.869	1.00	66.64	P
ATOM	27880	C1*	C A1320	247.362	106.543	22.746	1.00	84.03	C	ATOM	27930	O1P	G A1323	244.227	113.490	15.486	1.00	75.23	O
ATOM	27881	N1	C A1320	246.382	106.938	23.774	1.00	75.35	N	ATOM	27931	O2P	G A1323	246.040	113.463	17.308	1.00	75.23	O
ATOM	27882	C2	C A1320	245.391	106.020	24.152	1.00	75.35	C	ATOM	27932	O5*	G A1323	244.398	115.360	17.115	1.00	66.64	O
ATOM	27883	O2	C A1320	245.376	104.894	23.623	1.00	75.35	O	ATOM	27933	C5*	G A1323	243.036	117.314	17.570	1.00	66.64	C
ATOM	27884	N3	C A1320	244.480	106.380	25.085	1.00	75.35	N	ATOM	27934	C4*	G A1323	243.036	117.314	17.570	1.00	66.64	C
ATOM	27885	C4	C A1320	244.538	107.593	25.641	1.00	75.35	C	ATOM	27935	O4*	G A1323	243.392	117.489	18.964	1.00	66.64	O
ATOM	27886	N4	C A1320	243.619	107.904	26.557	1.00	75.35	N	ATOM	27936	C3*	G A1323	243.990	118.219	16.824	1.00	66.64	C
ATOM	27887	C5	C A1320	245.539	108.541	25.282	1.00	75.35	C	ATOM	27937	O3*	G A1323	243.481	118.531	15.546	1.00	66.64	O
ATOM	27888	C6	C A1320	246.428	108.178	24.352	1.00	75.35	C	ATOM	27938	C2*	G A1323	244.119	119.413	17.767	1.00	66.64	C
ATOM	27889	P	C A1321	246.395	109.195	18.904	1.00	72.40	P	ATOM	27939	O2*	G A1323	243.040	120.324	17.686	1.00	66.64	O
ATOM	27890	O1P	C A1321	246.766	109.251	17.463	1.00	69.23	O	ATOM	27940	C1*	G A1323	244.070	118.727	19.133	1.00	66.64	C
ATOM	27891	O2P	C A1321	246.104	110.456	19.641	1.00	69.23	O	ATOM	27941	N9	G A1323	245.394	118.454	19.693	1.00	75.23	N
ATOM	27892	O5*	C A1321	245.149	108.220	19.059	1.00	72.40	O	ATOM	27942	C8	G A1323	246.041	117.239	19.743	1.00	75.23	C
ATOM	27893	C5*	C A1321	245.185	106.912	18.479	1.00	72.40	C	ATOM	27943	N7	G A1323	247.206	117.300	20.324	1.00	75.23	N
ATOM	27894	C4*	C A1321	243.984	106.113	18.909	1.00	72.40	C	ATOM	27944	C5	G A1323	247.346	118.635	20.674	1.00	75.23	C
ATOM	27895	O4*	C A1321	244.020	105.913	20.346	1.00	72.40	O	ATOM	27945	C6	G A1323	248.405	119.295	21.330	1.00	75.23	C
ATOM	27896	C3*	C A1321	242.627	106.745	18.643	1.00	72.40	C	ATOM	27946	O6	G A1323	249.469	118.818	21.744	1.00	75.23	O
ATOM	27897	O3*	C A1321	242.213	106.524	17.295	1.00	72.40	O	ATOM	27947	N1	G A1323	248.138	120.652	21.490	1.00	75.23	N
ATOM	27898	C2*	C A1321	241.737	106.047	19.670	1.00	72.40	C	ATOM	27948	C2	G A1323	246.996	121.287	21.072	1.00	75.23	C
ATOM	27899	O2*	C A1321	241.298	104.769	19.253	1.00	72.40	O	ATOM	27949	N2	G A1323	246.925	122.595	21.325	1.00	75.23	N
ATOM	27900	C1*	C A1321	242.699	105.864	20.848	1.00	72.40	C	ATOM	27950	N3	G A1323	245.998	120.682	20.454	1.00	75.23	N
ATOM	27901	N1	C A1321	242.545	106.894	21.890	1.00	69.23	N	ATOM	27951	C4	G A1323	246.238	119.364	20.288	1.00	75.23	C
ATOM	27902	C2	C A1321	241.902	106.551	23.093	1.00	69.23	C	ATOM	27952	P	A A1324	244.461	118.497	14.279	1.00	65.87	P
ATOM	27903	O2	C A1321	241.524	105.378	23.268	1.00	69.23	O	ATOM	27953	O1P	A A1324	243.622	118.340	13.063	1.00	60.24	O
ATOM	27904	N3	C A1321	241.711	107.505	24.033	1.00	69.23	N	ATOM	27954	O2P	A A1324	245.559	117.527	14.531	1.00	60.24	O
ATOM	27905	C4	C A1321	242.138	108.750	23.819	1.00	69.23	C	ATOM	27955	O5*	A A1324	245.042	119.973	14.284	1.00	65.87	O
ATOM	27906	N4	C A1321	241.909	109.658	24.765	1.00	69.23	N	ATOM	27956	C5*	A A1324	244.146	121.094	14.257	1.00	65.87	C
ATOM	27907	C5	C A1321	242.816	109.120	22.620	1.00	69.23	C	ATOM	27957	C4*	A A1324	244.811	122.305	14.842	1.00	65.87	C
ATOM	27908	C6	C A1321	242.999	108.169	21.691	1.00	69.23	C	ATOM	27958	O4*	A A1324	245.056	122.079	16.248	1.00	65.87	O
ATOM	27909	P	C A1322	241.525	107.716	16.460	1.00	64.22	P	ATOM	27959	C3*	A A1324	246.174	122.633	14.264	1.00	65.87	C
ATOM	27910	O1P	C A1322	240.141	107.921	16.940	1.00	79.65	O	ATOM	27960	O3*	A A1324	246.058	123.402	13.080	1.00	65.87	O
ATOM	27911	O2P	C A1322	241.760	107.430	15.029	1.00	79.65	O	ATOM	27961	C2*	A A1324	246.824	123.405	15.397	1.00	65.87	C
ATOM	27912	O5*	C A1322	242.343	109.021	16.843	1.00	64.22	O	ATOM	27962	O2*	A A1324	246.333	124.730	15.459	1.00	65.87	O
ATOM	27913	C5*	C A1322	242.145	110.227	16.101	1.00	64.22	C	ATOM	27963	C1*	A A1324	246.297	122.650	16.613	1.00	65.87	C
ATOM	27914	C4*	C A1322	242.163	111.428	17.016	1.00	64.22	C	ATOM	27964	N9	A A1324	247.183	121.561	17.017	1.00	60.24	N
ATOM	27915	O4*	C A1322	241.066	111.336	17.965	1.00	64.22	O	ATOM	27965	C8	A A1324	247.080	120.234	16.677	1.00	60.24	C



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ATOM	27966	N7	A	A1324	248.011	119.479	17.202	1.00	60.24	N	ATOM	28016	O2P	C	A1327	256.737	126.073	9.257	1.00	68.84	O
ATOM	27967	C5	A	A1324	248.784	120.368	17.933	1.00	60.24	C	ATOM	28017	O5*	C	A1327	259.019	125.924	10.217	1.00	65.41	O
ATOM	27968	N6	A	A1324	249.919	120.198	18.727	1.00	60.24	C	ATOM	28018	C5*	C	A1327	260.213	126.436	10.819	1.00	65.41	C
ATOM	27969	C6	A	A1324	250.497	118.998	18.928	1.00	60.24	N	ATOM	28019	O4*	C	A1327	261.152	125.314	11.184	1.00	65.41	C
ATOM	27970	N1	A	A1324	250.446	121.281	19.323	1.00	60.24	N	ATOM	28020	O4*	C	A1327	260.595	124.524	12.262	1.00	65.41	O
ATOM	27971	C2	A	A1324	249.858	122.464	19.126	1.00	60.24	C	ATOM	28021	C3*	C	A1327	261.470	124.298	10.102	1.00	65.41	C
ATOM	27972	N3	A	A1324	248.785	122.759	18.405	1.00	60.24	N	ATOM	28022	O3*	C	A1327	262.452	124.755	9.190	1.00	65.41	O
ATOM	27973	C4	A	A1324	248.289	121.654	17.826	1.00	60.24	C	ATOM	28023	C2*	C	A1327	261.951	123.099	10.909	1.00	65.41	C
ATOM	27974	P	C	A1325	247.198	123.291	11.955	1.00	63.11	P	ATOM	28024	O2*	C	A1327	263.312	123.197	11.287	1.00	65.41	O
ATOM	27975	O1P	C	A1325	246.742	124.077	10.779	1.00	57.29	O	ATOM	28025	C1*	C	A1327	261.070	123.188	12.157	1.00	65.41	C
ATOM	27976	O2P	C	A1325	247.578	121.857	11.791	1.00	57.29	O	ATOM	28026	N1	C	A1327	259.927	122.261	12.091	1.00	68.84	N
ATOM	27977	O5*	C	A1325	248.424	124.068	12.600	1.00	63.11	O	ATOM	28027	C2	C	A1327	260.132	120.922	12.450	1.00	68.84	C
ATOM	27978	C5*	C	A1325	248.342	125.472	12.861	1.00	63.11	C	ATOM	28028	O2	C	A1327	261.252	120.569	12.840	1.00	68.84	O
ATOM	27979	C4*	C	A1325	249.549	125.913	13.635	1.00	63.11	C	ATOM	28029	N3	C	A1327	259.106	120.048	12.365	1.00	68.84	N
ATOM	27980	O4*	C	A1325	249.577	125.209	14.902	1.00	63.11	O	ATOM	28030	C4	C	A1327	257.910	120.466	11.953	1.00	68.84	C
ATOM	27981	C3*	C	A1325	250.875	125.561	12.995	1.00	63.11	C	ATOM	28031	N4	C	A1327	256.931	119.567	11.880	1.00	68.84	N
ATOM	27982	O3*	C	A1325	251.269	126.499	12.007	1.00	63.11	O	ATOM	28032	C5	C	A1327	257.667	121.824	11.596	1.00	68.84	C
ATOM	27983	C2*	C	A1325	251.818	125.509	14.188	1.00	63.11	C	ATOM	28033	C6	C	A1327	258.693	122.680	11.679	1.00	68.84	C
ATOM	27984	O2*	C	A1325	252.244	126.787	14.610	1.00	63.11	O	ATOM	28034	P	C	A1328	262.557	124.072	7.740	1.00	62.09	P
ATOM	27985	C1*	C	A1325	250.912	124.934	15.268	1.00	63.11	C	ATOM	28035	O1P	C	A1328	263.543	124.864	6.959	1.00	73.71	O
ATOM	27986	N1	C	A1325	251.077	123.485	15.392	1.00	57.29	N	ATOM	28036	O2P	C	A1328	261.190	123.865	7.190	1.00	73.71	O
ATOM	27987	C2	C	A1325	252.009	122.995	16.308	1.00	57.29	C	ATOM	28037	O5*	C	A1328	263.185	122.638	8.041	1.00	62.09	O
ATOM	27988	O2	C	A1325	252.637	123.797	17.008	1.00	57.29	O	ATOM	28038	C5*	C	A1328	264.537	122.526	8.498	1.00	62.09	C
ATOM	27989	N3	C	A1325	252.198	121.662	16.413	1.00	57.29	N	ATOM	28039	C4*	C	A1328	264.942	121.081	8.631	1.00	62.09	C
ATOM	27990	C4	C	A1325	251.486	120.830	15.657	1.00	57.29	C	ATOM	28040	O4*	C	A1328	264.218	120.446	9.718	1.00	62.09	O
ATOM	27991	N4	C	A1325	251.703	119.525	15.795	1.00	57.29	N	ATOM	28041	C3*	C	A1328	264.669	120.196	7.434	1.00	62.09	C
ATOM	27992	C5	C	A1325	250.519	121.301	14.725	1.00	57.29	C	ATOM	28042	O3*	C	A1328	265.643	120.347	6.417	1.00	62.09	O
ATOM	27993	C6	C	A1325	250.348	122.623	14.624	1.00	57.29	C	ATOM	28043	C2*	C	A1328	264.642	118.798	8.048	1.00	62.09	C
ATOM	27994	P	C	A1326	252.320	126.047	10.885	1.00	62.73	P	ATOM	28044	O2*	C	A1328	265.911	118.209	8.213	1.00	62.09	O
ATOM	27995	O1P	C	A1326	252.321	127.095	9.858	1.00	50.64	O	ATOM	28045	C1*	C	A1328	264.038	119.068	9.426	1.00	62.09	C
ATOM	27996	O2P	C	A1326	252.062	124.639	10.506	1.00	50.64	O	ATOM	28046	N1	C	A1328	262.601	118.736	9.473	1.00	73.71	N
ATOM	27997	O5*	C	A1326	253.717	126.036	11.641	1.00	62.73	O	ATOM	28047	C2	C	A1328	262.231	117.400	9.672	1.00	73.71	C
ATOM	27998	C5*	C	A1326	254.173	127.195	12.352	1.00	62.73	C	ATOM	28048	O2	C	A1328	263.114	116.550	9.831	1.00	73.71	O
ATOM	27999	C4*	C	A1326	255.482	126.906	13.041	1.00	62.73	C	ATOM	28049	N3	C	A1328	260.924	117.070	9.684	1.00	73.71	N
ATOM	28000	O4*	C	A1326	255.279	125.993	14.145	1.00	62.73	O	ATOM	28050	C4	C	A1328	259.999	118.012	9.515	1.00	73.71	C
ATOM	28001	C3*	C	A1326	256.542	126.247	12.175	1.00	62.73	C	ATOM	28051	N4	C	A1328	258.720	117.638	9.528	1.00	73.71	N
ATOM	28002	O3*	C	A1326	257.251	127.233	11.424	1.00	62.73	O	ATOM	28052	C5	C	A1328	260.344	119.383	9.323	1.00	73.71	C
ATOM	28003	C2*	C	A1326	257.424	125.553	13.203	1.00	62.73	C	ATOM	28053	C6	C	A1328	261.644	119.698	9.311	1.00	73.71	C
ATOM	28004	O2*	C	A1326	258.339	126.453	13.786	1.00	62.73	O	ATOM	28054	P	A	A1329	265.250	119.993	4.897	1.00	61.29	P
ATOM	28005	C1*	C	A1326	256.407	125.154	14.273	1.00	62.73	C	ATOM	28055	O1P	A	A1329	266.482	120.073	4.074	1.00	61.04	O
ATOM	28006	N1	C	A1326	255.966	123.755	14.185	1.00	50.64	N	ATOM	28056	O2P	A	A1329	264.057	120.791	4.499	1.00	61.04	O
ATOM	28007	C2	C	A1326	256.827	122.750	14.638	1.00	50.64	C	ATOM	28057	O5*	A	A1329	264.881	118.447	4.992	1.00	61.29	O
ATOM	28008	O2	C	A1326	257.937	123.069	15.083	1.00	50.64	O	ATOM	28058	C5*	A	A1329	265.928	117.493	5.190	1.00	61.29	C
ATOM	28009	N3	C	A1326	256.429	121.457	14.583	1.00	50.64	N	ATOM	28059	C4*	A	A1329	265.377	116.108	5.375	1.00	61.29	C
ATOM	28010	C4	C	A1326	255.224	121.153	14.106	1.00	50.64	C	ATOM	28060	O4*	A	A1329	264.573	116.041	6.580	1.00	61.29	O
ATOM	28011	N4	C	A1326	254.868	119.873	14.090	1.00	50.64	N	ATOM	28061	C3*	A	A1329	264.469	115.555	4.294	1.00	61.29	C
ATOM	28012	C5	C	A1326	254.329	122.152	13.629	1.00	50.64	C	ATOM	28062	O3*	A	A1329	265.176	115.100	3.150	1.00	61.29	O
ATOM	28013	C6	C	A1326	254.737	123.430	13.682	1.00	50.64	C	ATOM	28063	C2*	A	A1329	263.769	114.427	5.036	1.00	61.29	C
ATOM	28014	P	C	A1327	257.775	126.881	9.947	1.00	65.41	P	ATOM	28064	O2*	A	A1329	264.558	113.261	5.156	1.00	61.29	O
ATOM	28015	O1P	C	A1327	258.247	128.155	9.332	1.00	68.84	O	ATOM	28065	C1*	A	A1329	263.579	115.043	6.423	1.00	61.29	C



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ATOM	28066	N9	A A1329	262.259	115.671	6.476	1.00	61.04	N	ATOM	28116	N2	G A1331	254.607	118.088	0.920	1.00	69.38	N
ATOM	28067	C8	A A1329	261.934	117.004	6.426	1.00	61.04	C	ATOM	28117	N3	G A1331	256.255	116.747	0.001	1.00	69.38	N
ATOM	28068	N7	A A1329	260.644	117.229	6.400	1.00	61.04	N	ATOM	28118	C4	G A1331	257.590	116.697	-0.235	1.00	69.38	C
ATOM	28069	C5	A A1329	260.081	115.960	6.456	1.00	61.04	C	ATOM	28119	P	A A1332	256.890	112.514	-5.342	1.00	62.21	P
ATOM	28070	C6	A A1329	258.749	115.516	6.452	1.00	61.04	C	ATOM	28120	O1P	A A1332	257.354	111.822	-6.579	1.00	60.39	O
ATOM	28071	N6	A A1329	257.702	116.342	6.369	1.00	61.04	N	ATOM	28121	O2P	A A1332	256.582	113.974	-5.415	1.00	60.39	O
ATOM	28072	N1	A A1329	258.526	114.184	6.530	1.00	61.04	N	ATOM	28122	O5*	A A1332	255.609	111.722	-4.813	1.00	62.21	O
ATOM	28073	C2	A A1329	259.579	113.364	6.594	1.00	61.04	C	ATOM	28123	C5*	A A1332	255.697	110.306	-4.495	1.00	62.21	C
ATOM	28074	N3	A A1329	260.877	113.659	6.596	1.00	61.04	N	ATOM	28124	C4*	A A1332	254.317	109.717	-4.309	1.00	62.21	C
ATOM	28075	C4	A A1329	261.062	114.993	6.525	1.00	61.04	C	ATOM	28125	O4*	A A1332	253.723	110.253	-3.104	1.00	62.21	O
ATOM	28076	P	U A1330	264.502	115.254	1.697	1.00	74.45	P	ATOM	28126	C3*	A A1332	253.348	110.048	-5.428	1.00	62.21	C
ATOM	28077	O1P	U A1330	265.477	114.893	0.633	1.00	60.45	O	ATOM	28127	O3*	A A1332	253.414	109.050	-6.428	1.00	62.21	O
ATOM	28078	O2P	U A1330	263.852	116.588	1.655	1.00	60.45	O	ATOM	28128	C2*	A A1332	252.004	110.058	-4.725	1.00	62.21	C
ATOM	28079	O5*	U A1330	263.368	114.141	1.723	1.00	74.45	O	ATOM	28129	O2*	A A1332	251.507	108.746	-4.585	1.00	62.21	O
ATOM	28080	C5*	U A1330	263.659	112.811	2.167	1.00	74.45	C	ATOM	28130	C1*	A A1332	252.380	110.609	-3.347	1.00	62.21	C
ATOM	28081	C4*	U A1330	262.383	112.043	2.364	1.00	74.45	C	ATOM	28131	N9	A A1332	252.301	112.065	-3.228	1.00	60.39	N
ATOM	28082	O4*	U A1330	261.612	112.644	3.434	1.00	74.45	O	ATOM	28132	C8	A A1332	253.351	112.916	-2.999	1.00	60.39	C
ATOM	28083	C3*	U A1330	261.445	112.046	1.172	1.00	74.45	C	ATOM	28133	N7	A A1332	253.008	114.175	-2.929	1.00	60.39	N
ATOM	28084	O3*	U A1330	261.798	111.035	0.244	1.00	74.45	O	ATOM	28134	C5	A A1332	251.638	114.157	-3.128	1.00	60.39	C
ATOM	28085	C2*	U A1330	260.084	111.794	1.807	1.00	74.45	C	ATOM	28135	C6	A A1332	250.687	115.177	-3.176	1.00	60.39	C
ATOM	28086	O2*	U A1330	259.853	110.417	2.023	1.00	74.45	O	ATOM	28136	N6	A A1332	250.980	116.469	-3.022	1.00	60.39	N
ATOM	28087	C1*	U A1330	260.228	112.513	3.152	1.00	74.45	C	ATOM	28137	N1	A A1332	249.405	114.829	-3.394	1.00	60.39	N
ATOM	28088	N1	U A1330	259.605	113.847	3.191	1.00	60.45	N	ATOM	28138	C2	A A1332	249.112	113.537	-3.555	1.00	60.39	C
ATOM	28089	C2	U A1330	258.230	113.921	3.409	1.00	60.45	C	ATOM	28139	N3	A A1332	249.919	112.483	-3.537	1.00	60.39	N
ATOM	28090	O2	U A1330	257.522	112.935	3.578	1.00	60.45	O	ATOM	28140	C4	A A1332	251.187	112.865	-3.315	1.00	60.39	C
ATOM	28091	N3	U A1330	257.716	115.191	3.421	1.00	60.45	N	ATOM	28141	P	A A1333	253.229	109.456	-7.967	1.00	74.01	P
ATOM	28092	C4	U A1330	258.406	116.366	3.247	1.00	60.45	C	ATOM	28142	O1P	A A1333	253.586	108.251	-8.761	1.00	52.48	O
ATOM	28093	O4	U A1330	257.796	117.432	3.262	1.00	60.45	O	ATOM	28143	O2P	A A1333	253.935	110.738	-8.227	1.00	52.48	O
ATOM	28094	C5	U A1330	259.812	116.209	3.040	1.00	60.45	C	ATOM	28144	O5*	A A1333	251.664	109.725	-8.095	1.00	74.01	O
ATOM	28095	C6	U A1330	260.349	114.988	3.019	1.00	60.45	C	ATOM	28145	C5*	A A1333	250.720	108.652	-7.947	1.00	74.01	C
ATOM	28096	P	G A1331	262.059	111.431	-1.286	1.00	81.14	P	ATOM	28146	C4*	A A1333	249.321	109.198	-7.857	1.00	74.01	C
ATOM	28097	O1P	G A1331	262.224	110.164	-2.044	1.00	69.38	O	ATOM	28147	O4*	A A1333	249.246	110.064	-6.701	1.00	74.01	O
ATOM	28098	O2P	G A1331	263.085	112.501	-1.382	1.00	69.38	O	ATOM	28148	C3*	A A1333	248.859	110.067	-9.018	1.00	74.01	C
ATOM	28099	O5*	G A1331	260.700	112.099	-1.726	1.00	81.14	O	ATOM	28149	O3*	A A1333	248.296	109.300	-10.075	1.00	74.01	O
ATOM	28100	C5*	G A1331	259.485	111.382	-1.601	1.00	81.14	C	ATOM	28150	C2*	A A1333	247.796	110.939	-8.372	1.00	74.01	C
ATOM	28101	C4*	G A1331	258.335	112.295	-1.867	1.00	81.14	C	ATOM	28151	O2*	A A1333	246.561	110.270	-8.271	1.00	74.01	O
ATOM	28102	O4*	G A1331	258.313	113.318	-0.853	1.00	81.14	O	ATOM	28152	C1*	A A1333	248.366	111.136	-6.969	1.00	74.01	C
ATOM	28103	C3*	G A1331	258.376	113.068	-3.176	1.00	81.14	C	ATOM	28153	N9	A A1333	249.104	112.389	-6.845	1.00	52.48	N
ATOM	28104	O3*	G A1331	257.995	112.144	-4.218	1.00	81.14	O	ATOM	28154	C8	A A1333	250.457	112.596	-6.822	1.00	52.48	C
ATOM	28105	C2*	G A1331	257.467	114.257	-2.880	1.00	81.14	C	ATOM	28155	N7	A A1333	250.796	113.857	-6.700	1.00	52.48	N
ATOM	28106	O2*	G A1331	256.110	113.903	-3.055	1.00	81.14	O	ATOM	28156	C5	A A1333	249.582	114.523	-6.636	1.00	52.48	C
ATOM	28107	C1*	G A1331	257.655	114.413	-1.370	1.00	81.14	C	ATOM	28157	C6	A A1333	249.250	115.880	-6.486	1.00	52.48	C
ATOM	28108	N9	G A1331	258.269	115.663	-0.852	1.00	69.38	N	ATOM	28158	N6	A A1333	250.148	116.858	-6.363	1.00	52.48	N
ATOM	28109	C8	G A1331	259.592	116.025	-0.866	1.00	69.38	C	ATOM	28159	N1	A A1333	247.941	116.205	-6.460	1.00	52.48	N
ATOM	28110	N7	G A1331	259.807	117.199	-0.330	1.00	69.38	N	ATOM	28160	C2	A A1333	247.034	115.227	-6.572	1.00	52.48	C
ATOM	28111	C5	G A1331	258.549	117.637	0.063	1.00	69.38	C	ATOM	28161	N3	A A1333	247.219	113.923	-6.708	1.00	52.48	N
ATOM	28112	C6	G A1331	258.144	118.850	0.603	1.00	69.38	C	ATOM	28162	C4	A A1333	248.532	113.632	-6.731	1.00	52.48	C
ATOM	28113	O6	G A1331	258.833	119.819	1.001	1.00	69.38	O	ATOM	28163	P	G A1334	248.358	109.855	-11.585	1.00	45.17	P
ATOM	28114	N1	G A1331	256.775	118.875	0.920	1.00	69.38	N	ATOM	28164	O1P	G A1334	247.367	109.101	-12.400	1.00	53.58	O
ATOM	28115	C2	G A1331	255.898	117.875	0.596	1.00	69.38	C	ATOM	28165	O2P	G A1334	249.780	109.879	-12.015	1.00	53.58	O



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ATOM	28166	O5*	G A1334	247.885	111.378	-11.471	1.00	45.17	O	ATOM	28216	O2*	C A1336	241.406	121.102	-18.261	1.00	52.42	O
ATOM	28167	C5*	G A1334	246.501	111.729	-11.275	1.00	45.17	C	ATOM	28217	Cl*	C A1336	242.636	119.872	-16.598	1.00	52.42	C
ATOM	28168	O4*	G A1334	246.366	113.219	-11.062	1.00	45.17	C	ATOM	28218	N1	C A1336	243.799	120.672	-16.188	1.00	62.67	N
ATOM	28169	O4*	G A1334	247.199	113.609	-9.940	1.00	45.17	O	ATOM	28219	C2	C A1336	243.613	122.007	-15.794	1.00	62.67	C
ATOM	28170	C3*	G A1334	246.820	114.095	-12.219	1.00	45.17	C	ATOM	28220	O2	C A1336	242.463	122.487	-15.780	1.00	62.67	O
ATOM	28171	O3*	G A1334	245.748	114.316	-13.143	1.00	45.17	O	ATOM	28221	N3	C A1336	244.693	122.736	-15.429	1.00	62.67	N
ATOM	28172	C2*	G A1334	247.239	115.391	-11.526	1.00	45.17	C	ATOM	28222	C4	C A1336	245.908	122.181	-15.431	1.00	62.67	C
ATOM	28173	O2*	G A1334	246.158	116.267	-11.305	1.00	45.17	O	ATOM	28223	N4	C A1336	246.943	122.934	-15.067	1.00	62.67	N
ATOM	28174	Cl*	G A1334	247.760	114.889	-10.175	1.00	45.17	C	ATOM	28224	C5	C A1336	246.116	120.830	-15.809	1.00	62.67	C
ATOM	28175	N9	G A1334	249.217	114.782	-10.075	1.00	53.58	N	ATOM	28225	C6	C A1336	245.051	120.123	-16.185	1.00	62.67	C
ATOM	28176	C8	G A1334	249.956	113.625	-10.081	1.00	53.58	C	ATOM	28226	P	G A1337	239.062	118.495	-18.897	1.00	50.37	P
ATOM	28177	N7	G A1334	251.238	113.836	-9.990	1.00	53.58	N	ATOM	28227	O1P	G A1337	239.594	118.510	-20.292	1.00	51.83	O
ATOM	28178	C5	G A1334	251.359	115.215	-9.912	1.00	53.58	C	ATOM	28228	O2P	G A1337	238.069	119.515	-18.484	1.00	51.83	O
ATOM	28179	C6	G A1334	252.520	116.033	-9.801	1.00	53.58	O	ATOM	28229	O5*	G A1337	238.487	117.055	-18.548	1.00	50.37	O
ATOM	28180	O6	G A1334	253.721	115.686	-9.761	1.00	53.58	O	ATOM	28230	C5*	G A1337	239.035	115.856	-19.131	1.00	50.37	C
ATOM	28181	N1	G A1334	252.187	117.382	-9.741	1.00	53.58	N	ATOM	28231	C4*	G A1337	238.814	114.706	-18.190	1.00	50.37	C
ATOM	28182	C2	G A1334	250.916	117.881	-9.788	1.00	53.58	C	ATOM	28232	O4*	G A1337	239.669	114.931	-17.051	1.00	50.37	O
ATOM	28183	N2	G A1334	250.812	119.206	-9.709	1.00	53.58	N	ATOM	28233	C3*	G A1337	237.386	114.681	-17.673	1.00	50.37	C
ATOM	28184	N3	G A1334	249.829	117.135	-9.902	1.00	53.58	N	ATOM	28234	O3*	G A1337	236.533	113.702	-18.396	1.00	50.37	O
ATOM	28185	C4	G A1334	250.124	115.817	-9.958	1.00	53.58	C	ATOM	28235	C2*	G A1337	237.542	114.308	-16.201	1.00	50.37	C
ATOM	28186	P	C A1335	245.958	114.008	-14.711	1.00	53.50	P	ATOM	28236	O2*	G A1337	237.574	112.917	-16.008	1.00	50.37	O
ATOM	28187	O1P	C A1335	244.733	114.425	-15.439	1.00	61.86	O	ATOM	28237	Cl*	G A1337	238.924	114.879	-15.861	1.00	50.37	C
ATOM	28188	O2P	C A1335	246.442	112.609	-14.824	1.00	61.86	O	ATOM	28238	N9	G A1337	239.007	116.214	-15.278	1.00	51.83	N
ATOM	28189	O5*	C A1335	247.111	115.013	-15.149	1.00	53.50	O	ATOM	28239	C8	G A1337	238.045	117.188	-15.251	1.00	51.83	C
ATOM	28190	C5*	C A1335	246.973	116.399	-14.880	1.00	53.50	C	ATOM	28240	N7	G A1337	238.469	118.310	-14.740	1.00	51.83	N
ATOM	28191	C4*	C A1335	247.386	117.217	-16.073	1.00	53.50	C	ATOM	28241	C5	G A1337	239.783	118.054	-14.389	1.00	51.83	C
ATOM	28192	O4*	C A1335	248.821	117.400	-17.055	1.00	53.50	O	ATOM	28242	C6	G A1337	240.759	118.899	-13.804	1.00	51.83	C
ATOM	28193	C3*	C A1335	246.998	116.711	-17.460	1.00	53.50	C	ATOM	28243	O6	G A1337	240.647	120.084	-13.453	1.00	51.83	O
ATOM	28194	O3*	C A1335	246.510	117.789	-18.266	1.00	53.50	O	ATOM	28244	N1	G A1337	241.969	118.242	-13.634	1.00	51.83	N
ATOM	28195	C2*	C A1335	248.325	116.184	-18.015	1.00	53.50	C	ATOM	28245	C2	G A1337	242.214	116.940	-13.976	1.00	51.83	C
ATOM	28196	O2*	C A1335	248.442	116.341	-19.414	1.00	53.50	O	ATOM	28246	N2	G A1337	243.464	116.491	-13.754	1.00	51.83	N
ATOM	28197	Cl*	C A1335	249.361	117.067	-17.313	1.00	53.50	C	ATOM	28247	N3	G A1337	241.307	116.136	-14.506	1.00	51.83	N
ATOM	28198	N1	C A1335	250.651	116.387	-17.084	1.00	61.86	N	ATOM	28248	C4	G A1337	240.124	116.760	-14.691	1.00	51.83	C
ATOM	28199	C2	C A1335	251.843	117.002	-17.506	1.00	61.86	C	ATOM	28249	P	G A1338	235.747	114.131	-19.678	1.00	47.69	P
ATOM	28200	O2	C A1335	251.799	118.113	-18.056	1.00	61.86	O	ATOM	28250	O1P	G A1338	236.665	114.399	-20.812	1.00	67.43	O
ATOM	28201	N3	C A1335	253.016	116.368	-17.304	1.00	61.86	N	ATOM	28251	O2P	G A1338	234.767	115.177	-19.285	1.00	67.43	O
ATOM	28202	C4	C A1335	253.036	115.170	-16.716	1.00	61.86	C	ATOM	28252	O5*	G A1338	234.917	112.800	-19.985	1.00	47.69	O
ATOM	28203	N4	C A1335	254.217	114.572	-16.558	1.00	61.86	N	ATOM	28253	C5*	G A1338	235.366	111.843	-20.963	1.00	47.69	C
ATOM	28204	C5	C A1335	251.849	114.529	-16.270	1.00	61.86	C	ATOM	28254	C4*	G A1338	234.539	110.574	-20.896	1.00	47.69	C
ATOM	28205	C6	C A1335	250.691	115.167	-16.469	1.00	61.86	C	ATOM	28255	O4*	G A1338	234.943	109.763	-19.768	1.00	47.69	O
ATOM	28206	P	C A1336	245.609	117.483	-19.574	1.00	52.42	P	ATOM	28256	C3*	G A1338	233.040	110.751	-20.730	1.00	47.69	C
ATOM	28207	O1P	C A1336	245.675	116.035	-19.899	1.00	62.67	O	ATOM	28257	O3*	G A1338	232.409	111.013	-21.962	1.00	47.69	O
ATOM	28208	O2P	C A1336	245.947	118.497	-20.614	1.00	62.67	O	ATOM	28258	C2*	G A1338	232.604	109.435	-20.097	1.00	47.69	C
ATOM	28209	O5*	C A1336	244.122	117.779	-19.109	1.00	52.42	O	ATOM	28259	O2*	G A1338	232.416	108.379	-21.015	1.00	47.69	O
ATOM	28210	C4*	C A1336	243.450	116.927	-18.168	1.00	52.42	C	ATOM	28260	Cl*	G A1338	233.809	109.108	-19.216	1.00	47.69	C
ATOM	28211	C5*	C A1336	242.376	117.709	-17.454	1.00	52.42	C	ATOM	28261	N9	G A1338	233.647	109.578	-17.843	1.00	67.43	N
ATOM	28212	O4*	C A1336	242.948	118.514	-16.393	1.00	52.42	O	ATOM	28262	C8	G A1338	234.154	110.735	-17.306	1.00	67.43	C
ATOM	28213	C3*	C A1336	241.605	118.661	-18.346	1.00	52.42	C	ATOM	28263	N7	G A1338	233.894	110.868	-16.036	1.00	67.43	N
ATOM	28214	O3*	C A1336	240.275	118.669	-17.871	1.00	52.42	O	ATOM	28264	C5	G A1338	233.162	109.734	-15.717	1.00	67.43	C
ATOM	28215	C2*	C A1336	242.271	120.005	-18.072	1.00	52.42	C	ATOM	28265	C6	G A1338	232.625	109.315	-14.482	1.00	67.43	C



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ATOM	28266	O6	G A1338	232.715	109.865	-13.378	1.00	67.43	O	ATOM	28316	P	U A1341	222.413	115.355	-17.778	1.00	55.14	P
ATOM	28267	N1	G A1338	231.933	108.115	-14.607	1.00	67.43	N	ATOM	28317	O1P	U A1341	220.949	115.374	-17.574	1.00	60.47	O
ATOM	28268	C2	G A1338	231.796	107.404	-15.767	1.00	67.43	C	ATOM	28318	O2P	U A1341	222.984	115.931	-19.017	1.00	60.47	O
ATOM	28269	N2	G A1338	231.085	106.278	-15.681	1.00	67.43	N	ATOM	28319	O5*	U A1341	223.141	116.066	-16.549	1.00	55.14	O
ATOM	28270	N3	G A1338	232.316	107.772	-16.924	1.00	67.43	N	ATOM	28320	C5*	U A1341	222.796	115.745	-15.185	1.00	55.14	C
ATOM	28271	C4	G A1338	232.981	108.940	-16.826	1.00	67.43	C	ATOM	28321	C4*	U A1341	223.605	116.586	-14.218	1.00	55.14	C
ATOM	28272	P	A A1339	231.399	112.245	-22.065	1.00	49.28	P	ATOM	28322	O4*	U A1341	225.015	116.316	-14.429	1.00	55.14	O
ATOM	28273	O1P	A A1339	231.314	112.702	-22.481	1.00	50.22	O	ATOM	28323	C3*	U A1341	223.489	118.098	-14.343	1.00	55.14	C
ATOM	28274	O2P	A A1339	231.782	113.219	-21.005	1.00	50.22	O	ATOM	28324	C3*	U A1341	222.405	118.635	-13.613	1.00	55.14	C
ATOM	28275	O5*	A A1339	230.002	111.582	-21.688	1.00	49.28	O	ATOM	28325	O2*	U A1341	224.798	118.576	-13.740	1.00	55.14	O
ATOM	28276	C5*	A A1339	229.489	110.481	-22.456	1.00	49.28	C	ATOM	28326	O2*	U A1341	224.763	118.549	-12.328	1.00	55.14	O
ATOM	28277	C4*	A A1339	228.549	109.655	-21.622	1.00	49.28	C	ATOM	28327	C1*	U A1341	225.767	117.498	-14.213	1.00	55.14	C
ATOM	28278	O4*	A A1339	229.286	109.024	-20.540	1.00	49.28	O	ATOM	28328	N1	U A1341	226.417	117.883	-15.474	1.00	60.47	N
ATOM	28279	C3*	A A1339	227.444	110.439	-20.940	1.00	49.28	C	ATOM	28329	C2	U A1341	227.614	118.569	-15.403	1.00	60.47	C
ATOM	28280	O3*	A A1339	226.348	110.653	-21.815	1.00	49.28	O	ATOM	28330	O2	U A1341	228.153	118.869	-14.349	1.00	60.47	O
ATOM	28281	C2*	A A1339	227.106	109.552	-19.745	1.00	49.28	C	ATOM	28331	N3	U A1341	228.161	118.893	-16.615	1.00	60.47	N
ATOM	28282	C1*	A A1339	226.236	108.479	-20.015	1.00	49.28	C	ATOM	28332	C4	U A1341	227.649	118.606	-17.850	1.00	60.47	C
ATOM	28283	N9	A A1339	228.472	108.967	-19.385	1.00	49.28	N	ATOM	28333	O4	U A1341	228.282	118.924	-18.847	1.00	60.47	O
ATOM	28284	N9	A A1339	229.086	109.781	-18.346	1.00	50.22	N	ATOM	28334	C5	U A1341	226.414	117.907	-17.839	1.00	60.47	C
ATOM	28285	C8	A A1339	229.779	110.947	-18.513	1.00	50.22	C	ATOM	28335	C6	U A1341	225.854	117.578	-16.684	1.00	60.47	C
ATOM	28286	N7	A A1339	230.156	111.499	-17.394	1.00	50.22	N	ATOM	28336	P	C A1342	221.962	120.162	-13.869	1.00	51.10	P
ATOM	28287	C5	A A1339	229.692	110.627	-16.421	1.00	50.22	C	ATOM	28337	O1P	C A1342	220.574	120.322	-13.363	1.00	60.70	O
ATOM	28288	C6	A A1339	229.769	110.652	-15.025	1.00	50.22	C	ATOM	28338	O2P	C A1342	222.265	120.507	-15.278	1.00	60.70	O
ATOM	28289	N6	A A1339	230.376	111.628	-14.346	1.00	50.22	N	ATOM	28339	O5*	C A1342	222.922	121.017	-12.933	1.00	51.10	O
ATOM	28290	N1	A A1339	229.201	109.630	-14.341	1.00	50.22	N	ATOM	28340	C5*	C A1342	222.899	120.854	-11.508	1.00	51.10	C
ATOM	28291	C2	A A1339	228.606	108.656	-15.032	1.00	50.22	C	ATOM	28341	C4*	C A1342	223.805	121.867	-10.850	1.00	51.10	C
ATOM	28292	N3	A A1339	228.473	108.523	-16.332	1.00	50.22	N	ATOM	28342	O4*	C A1342	225.178	121.598	-11.233	1.00	51.10	O
ATOM	28293	C4	A A1339	229.044	109.558	-16.994	1.00	50.22	C	ATOM	28343	C3*	C A1342	223.585	123.326	-11.225	1.00	51.10	C
ATOM	28294	P	A A1340	225.756	112.140	-22.008	1.00	55.80	P	ATOM	28344	O3*	C A1342	222.551	123.925	-10.459	1.00	51.10	O
ATOM	28295	O1P	A A1340	224.527	112.021	-22.827	1.00	58.45	O	ATOM	28345	C2*	C A1342	224.945	123.944	-10.929	1.00	51.10	C
ATOM	28296	O2P	A A1340	226.832	113.053	-22.456	1.00	55.80	O	ATOM	28346	O2*	C A1342	225.895	122.819	-11.332	1.00	51.10	O
ATOM	28297	O5*	A A1340	225.334	112.581	-20.535	1.00	55.80	O	ATOM	28347	C1*	C A1342	226.384	123.002	-12.715	1.00	60.70	N
ATOM	28298	C5*	A A1340	224.323	111.848	-19.823	1.00	55.80	C	ATOM	28348	N1	C A1342	227.207	124.099	-12.982	1.00	60.70	N
ATOM	28299	C4*	A A1340	224.433	112.073	-18.332	1.00	55.80	C	ATOM	28349	C2	C A1342	227.506	124.863	-12.051	1.00	60.70	O
ATOM	28300	O4*	A A1340	225.767	111.726	-17.873	1.00	55.80	O	ATOM	28350	O2	C A1342	227.302	123.476	-15.212	1.00	60.70	N
ATOM	28301	C3*	A A1340	224.225	113.484	-17.873	1.00	55.80	O	ATOM	28351	N3	C A1342	227.751	123.738	-16.436	1.00	60.70	N
ATOM	28302	O3*	A A1340	222.861	113.817	-17.671	1.00	55.80	O	ATOM	28352	C4	C A1342	226.471	122.342	-14.974	1.00	60.70	C
ATOM	28303	C2*	A A1340	224.915	113.432	-16.473	1.00	55.80	C	ATOM	28353	N4	C A1342	226.041	122.142	-13.721	1.00	60.70	C
ATOM	28304	O2*	A A1340	224.096	112.808	-15.500	1.00	55.80	O	ATOM	28354	C5	C A1342	222.688	125.289	-10.963	1.00	55.18	P
ATOM	28305	C1*	A A1340	226.128	112.557	-16.785	1.00	55.80	C	ATOM	28355	O5*	G A1343	221.694	125.268	-12.432	1.00	53.92	O
ATOM	28306	N9	A A1340	227.241	113.410	-17.202	1.00	58.45	N	ATOM	28356	P	G A1343	222.925	126.425	-10.604	1.00	55.18	O
ATOM	28307	C8	A A1340	227.731	113.629	-18.466	1.00	58.45	C	ATOM	28357	O1P	G A1343	223.410	126.599	-9.246	1.00	55.18	C
ATOM	28308	N7	A A1340	228.678	114.531	-18.515	1.00	58.45	N	ATOM	28358	O2P	G A1343	224.475	127.677	-9.197	1.00	55.18	C
ATOM	28309	C5	A A1340	228.837	114.920	-17.193	1.00	58.45	C	ATOM	28359	O5*	G A1343	225.673	127.221	-9.870	1.00	55.18	O
ATOM	28310	C6	A A1340	229.677	115.861	-16.577	1.00	58.45	C	ATOM	28360	C5*	G A1343	224.093	128.954	-9.920	1.00	55.18	C
ATOM	28311	N6	A A1340	230.532	116.634	-17.240	1.00	58.45	N	ATOM	28361	C4*	G A1343	223.354	129.814	-9.089	1.00	55.18	O
ATOM	28312	N1	A A1340	229.599	115.992	-15.237	1.00	58.45	N	ATOM	28362	O4*	G A1343	225.430	129.551	-10.328	1.00	55.18	C
ATOM	28313	C2	A A1340	228.722	115.239	-14.572	1.00	58.45	C	ATOM	28363	C3*	G A1343						
ATOM	28314	N3	A A1340	227.869	114.331	-15.036	1.00	58.45	N	ATOM	28364	O3*	G A1343						
ATOM	28315	C4	A A1340	227.978	114.218	-16.371	1.00	58.45	C	ATOM	28365	C2*	G A1343						



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ATOM	28366	O2*	G A1343	226.029	130.307	-9.298	1.00	55.18	O	ATOM	28416	O4	U A1345	221.887	135.054	-20.519	1.00	52.18	O
ATOM	28367	C1*	G A1343	226.254	128.294	-10.599	1.00	55.18	C	ATOM	28417	C5	U A1345	221.440	135.622	-18.276	1.00	52.18	C
ATOM	28368	N9	G A1343	226.266	127.936	-12.014	1.00	53.92	N	ATOM	28418	C6	U A1345	221.670	136.519	-17.322	1.00	52.18	C
ATOM	28369	C8	G A1343	225.488	126.994	-12.633	1.00	53.92	C	ATOM	28419	P	A A1346	222.262	141.955	-13.515	1.00	63.98	P
ATOM	28370	N7	G A1343	225.725	126.897	-13.908	1.00	53.92	N	ATOM	28420	O1P	A A1346	221.433	141.461	-12.390	1.00	51.49	O
ATOM	28371	C5	G A1343	226.718	127.834	-14.149	1.00	53.92	C	ATOM	28421	O2P	A A1346	221.900	143.210	-14.212	1.00	51.49	O
ATOM	28372	C6	G A1343	227.382	128.183	-15.352	1.00	53.92	C	ATOM	28422	O5*	A A1346	223.772	142.027	-13.022	1.00	63.98	O
ATOM	28373	O6	G A1343	227.214	127.720	-16.488	1.00	53.92	O	ATOM	28423	C5*	A A1346	224.118	142.629	-11.771	1.00	63.98	C
ATOM	28374	N1	G A1343	228.328	129.178	-15.145	1.00	53.92	N	ATOM	28424	C4*	A A1346	225.308	143.538	-11.949	1.00	63.98	C
ATOM	28375	C2	G A1343	228.603	129.763	-13.946	1.00	53.92	C	ATOM	28425	O4*	A A1346	226.392	142.743	-12.473	1.00	63.98	O
ATOM	28376	N2	G A1343	229.550	130.689	-13.958	1.00	53.92	N	ATOM	28426	C3*	A A1346	225.153	144.679	-12.954	1.00	63.98	C
ATOM	28377	N3	G A1343	227.992	129.455	-12.816	1.00	53.92	N	ATOM	28427	O3*	A A1346	224.418	145.826	-12.435	1.00	63.98	O
ATOM	28378	C4	G A1343	227.065	128.484	-12.992	1.00	53.92	C	ATOM	28428	C2*	A A1346	226.569	144.928	-13.466	1.00	63.98	C
ATOM	28379	P	C A1344	222.195	130.700	-9.733	1.00	45.52	P	ATOM	28428	O2*	A A1346	227.322	145.926	-12.799	1.00	63.98	O
ATOM	28380	O1P	C A1344	221.355	131.181	-8.603	1.00	53.59	O	ATOM	28430	C1*	A A1346	227.244	143.574	-13.227	1.00	63.98	C
ATOM	28381	O2P	C A1344	221.583	129.912	-10.839	1.00	53.59	O	ATOM	28431	N9	A A1346	227.728	142.871	-14.415	1.00	51.49	N
ATOM	28382	O5*	C A1344	222.966	131.924	-10.399	1.00	45.52	O	ATOM	28432	C8	A A1346	227.380	141.646	-14.917	1.00	51.49	C
ATOM	28383	C5*	C A1344	223.730	132.846	-9.599	1.00	45.52	C	ATOM	28433	N7	A A1346	228.027	141.323	-16.010	1.00	51.49	N
ATOM	28384	C4*	C A1344	224.689	133.612	-10.469	1.00	45.52	C	ATOM	28434	C5	A A1346	228.859	142.410	-16.242	1.00	51.49	C
ATOM	28385	O4*	C A1344	225.628	132.682	-11.065	1.00	45.52	O	ATOM	28435	C6	A A1346	229.791	142.699	-17.257	1.00	51.49	C
ATOM	28386	C3*	C A1344	224.069	134.337	-11.652	1.00	45.52	C	ATOM	28436	N6	A A1346	230.062	141.882	-18.275	1.00	51.49	N
ATOM	28387	O3*	C A1344	223.567	135.605	-11.274	1.00	45.52	O	ATOM	28437	N1	A A1346	230.445	143.879	-17.189	1.00	51.49	N
ATOM	28388	C2*	C A1344	225.235	134.430	-12.633	1.00	45.52	C	ATOM	28438	C2	A A1346	230.176	144.701	-16.172	1.00	51.49	C
ATOM	28389	O2*	C A1344	226.149	135.484	-12.398	1.00	45.52	O	ATOM	28439	N3	A A1346	229.327	144.546	-15.169	1.00	51.49	N
ATOM	28390	C1*	C A1344	225.957	133.108	-12.379	1.00	45.52	C	ATOM	28440	C4	A A1346	228.689	143.367	-15.265	1.00	51.49	C
ATOM	28391	N1	C A1344	225.534	132.074	-13.347	1.00	53.59	N	ATOM	28441	P	G A1347	225.044	146.818	-11.298	1.00	45.87	P
ATOM	28392	C2	C A1344	226.153	132.035	-14.603	1.00	53.59	C	ATOM	28442	O1P	G A1347	223.872	147.420	-10.607	1.00	77.16	O
ATOM	28393	O2	C A1344	227.072	132.817	-14.843	1.00	53.59	O	ATOM	28443	O2P	G A1347	226.073	147.717	-11.877	1.00	77.16	O
ATOM	28394	N3	C A1344	225.731	131.142	-15.517	1.00	53.59	N	ATOM	28444	O5*	G A1347	225.714	145.850	-10.227	1.00	45.87	O
ATOM	28395	C4	C A1344	224.743	130.297	-15.219	1.00	53.59	C	ATOM	28445	C5*	G A1347	226.742	146.312	-9.336	1.00	45.87	C
ATOM	28396	N4	C A1344	224.341	129.456	-16.168	1.00	53.59	N	ATOM	28446	C4*	G A1347	227.906	145.362	-9.406	1.00	45.87	C
ATOM	28397	C5	C A1344	224.119	130.286	-13.938	1.00	53.59	C	ATOM	28447	O4*	G A1347	228.970	145.978	-10.170	1.00	45.87	O
ATOM	28398	C6	C A1344	224.540	131.182	-13.041	1.00	53.59	C	ATOM	28448	C3*	G A1347	228.538	144.850	-8.114	1.00	45.87	C
ATOM	28399	P	U A1345	222.363	136.262	-12.104	1.00	46.90	P	ATOM	28449	O3*	G A1347	228.871	143.491	-8.399	1.00	45.87	O
ATOM	28400	O1P	U A1345	221.876	137.449	-11.346	1.00	52.18	O	ATOM	28450	C2*	G A1347	229.806	145.692	-8.021	1.00	45.87	C
ATOM	28401	O2P	U A1345	221.408	135.180	-12.451	1.00	52.18	O	ATOM	28451	O2*	G A1347	230.833	145.067	-7.301	1.00	45.87	O
ATOM	28402	O5*	U A1345	223.061	136.789	-13.431	1.00	46.90	O	ATOM	28452	C1*	G A1347	230.185	145.783	-9.494	1.00	45.87	C
ATOM	28403	C5*	U A1345	224.033	137.836	-13.367	1.00	46.90	C	ATOM	28453	N9	G A1347	231.125	146.802	-9.935	1.00	77.16	N
ATOM	28404	C4*	U A1345	223.707	138.901	-14.378	1.00	46.90	C	ATOM	28454	C8	G A1347	231.289	148.070	-9.450	1.00	77.16	C
ATOM	28405	O3*	U A1345	223.879	138.366	-15.717	1.00	46.90	O	ATOM	28455	N7	G A1347	232.191	148.750	-10.098	1.00	77.16	N
ATOM	28406	C3*	U A1345	222.288	139.458	-14.308	1.00	46.90	C	ATOM	28456	C5	G A1347	232.654	147.870	-11.061	1.00	77.16	C
ATOM	28407	O3*	U A1345	222.310	140.839	-14.654	1.00	46.90	O	ATOM	28457	C6	G A1347	233.634	148.043	-12.062	1.00	77.16	C
ATOM	28408	C2*	U A1345	221.583	138.733	-15.448	1.00	46.90	C	ATOM	28458	O6	G A1347	234.324	149.044	-12.303	1.00	77.16	O
ATOM	28409	O2*	U A1345	220.539	139.485	-16.038	1.00	46.90	O	ATOM	28459	N1	G A1347	233.785	146.894	-12.831	1.00	77.16	N
ATOM	28410	C1*	U A1345	222.715	138.606	-17.461	1.00	46.90	C	ATOM	28460	C2	G A1347	233.088	145.728	-12.654	1.00	77.16	C
ATOM	28411	N1	U A1345	222.549	137.562	-17.481	1.00	52.18	N	ATOM	28461	N2	G A1347	233.371	144.728	-13.504	1.00	77.16	N
ATOM	28412	C2	U A1345	223.288	137.688	-18.633	1.00	52.18	C	ATOM	28462	N3	G A1347	232.179	145.555	-11.715	1.00	77.16	N
ATOM	28413	O2	U A1345	224.126	138.554	-18.787	1.00	52.18	O	ATOM	28463	C4	G A1347	232.012	146.662	-10.965	1.00	77.16	C
ATOM	28414	N3	U A1345	223.017	136.756	-19.597	1.00	52.18	N	ATOM	28464	P	U A1348	229.382	142.491	-7.242	1.00	46.67	P
ATOM	28415	C4	U A1345	222.122	135.721	-19.518	1.00	52.18	C	ATOM	28465	O1P	U A1348	228.838	142.863	-5.912	1.00	65.87	O



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ATOM	28466	O2P	U A1348	230.836	142.263	-7.393	1.00	65.87	O	ATOM	28516	O2*	A A1350	237.670	133.600	-12.082	1.00	47.68	O
ATOM	28467	O5*	U A1348	228.728	141.109	-7.668	1.00	46.67	O	ATOM	28517	C1*	A A1350	235.577	134.772	-11.784	1.00	47.68	C
ATOM	28468	C5*	U A1348	227.311	140.895	-7.546	1.00	46.67	C	ATOM	28518	N9	A A1350	235.007	135.728	-10.833	1.00	61.27	N
ATOM	28469	C4*	U A1348	226.850	139.943	-8.611	1.00	46.67	C	ATOM	28519	C8	A A1350	233.840	135.611	-10.123	1.00	61.27	C
ATOM	28470	O4*	U A1348	226.770	140.633	-9.877	1.00	46.67	O	ATOM	28520	N7	A A1350	233.609	136.615	-9.319	1.00	61.27	N
ATOM	28471	C3*	U A1348	227.789	138.775	-8.839	1.00	46.67	C	ATOM	28521	C5	A A1350	234.692	137.459	-9.520	1.00	61.27	C
ATOM	28472	O2*	U A1348	227.470	137.726	-7.941	1.00	46.67	O	ATOM	28522	C6	A A1350	235.041	138.698	-8.963	1.00	61.27	C
ATOM	28473	C2*	U A1348	227.506	138.407	-10.287	1.00	46.67	C	ATOM	28523	N6	A A1350	234.302	139.347	-8.061	1.00	61.27	N
ATOM	28474	O2*	U A1348	226.348	137.607	-10.416	1.00	46.67	O	ATOM	28524	N1	A A1350	236.195	139.259	-9.372	1.00	61.27	N
ATOM	28475	C1*	U A1348	227.205	139.774	-10.910	1.00	46.67	C	ATOM	28525	C2	A A1350	236.933	138.620	-10.280	1.00	61.27	C
ATOM	28476	N1	U A1348	228.337	140.412	-11.602	1.00	65.87	N	ATOM	28526	N3	A A1350	236.709	137.465	-10.878	1.00	61.27	N
ATOM	28477	C2	U A1348	228.827	139.806	-12.740	1.00	65.87	C	ATOM	28527	C4	A A1350	235.559	136.925	-10.450	1.00	61.27	C
ATOM	28478	O2	U A1348	228.394	138.757	-13.170	1.00	65.87	O	ATOM	28528	P	U A1351	237.233	131.229	-8.928	1.00	50.86	P
ATOM	28479	N3	U A1348	229.848	140.477	-13.356	1.00	65.87	N	ATOM	28529	O1P	U A1351	237.793	129.850	-8.982	1.00	61.09	O
ATOM	28480	C4	U A1348	230.426	141.660	-12.961	1.00	65.87	C	ATOM	28530	O2P	U A1351	236.141	131.545	-7.964	1.00	61.09	O
ATOM	28481	O4	U A1348	231.280	142.106	-13.676	1.00	65.87	O	ATOM	28531	O5*	U A1351	238.413	132.244	-8.613	1.00	50.86	O
ATOM	28482	C5	U A1348	229.886	142.209	-11.765	1.00	65.87	C	ATOM	28532	C5*	U A1351	239.570	132.327	-9.457	1.00	50.86	C
ATOM	28483	C6	U A1348	228.887	141.585	-11.143	1.00	65.87	C	ATOM	28533	C4*	U A1351	240.325	133.591	-9.157	1.00	50.86	C
ATOM	28484	P	A A1349	228.632	136.771	-7.380	1.00	48.87	P	ATOM	28534	O4*	U A1351	239.494	134.726	-9.526	1.00	50.86	O
ATOM	28485	O1P	A A1349	228.025	135.698	-6.544	1.00	64.39	O	ATOM	28535	C3*	U A1351	240.658	133.815	-7.691	1.00	50.86	C
ATOM	28486	O2P	A A1349	229.707	137.623	-6.811	1.00	64.39	O	ATOM	28536	O3*	U A1351	241.862	133.168	-7.299	1.00	50.86	O
ATOM	28487	O5*	A A1349	229.207	136.085	-8.696	1.00	48.87	O	ATOM	28537	C2*	U A1351	240.771	135.327	-7.616	1.00	50.86	C
ATOM	28488	C5*	A A1349	228.422	135.143	-9.434	1.00	48.87	C	ATOM	28538	O2*	U A1351	239.676	135.760	-8.112	1.00	50.86	O
ATOM	28489	C4*	A A1349	229.172	134.688	-10.657	1.00	48.87	C	ATOM	28539	C1*	U A1351	238.387	136.051	-7.929	1.00	61.09	N
ATOM	28490	O4*	A A1349	229.320	135.795	-11.578	1.00	48.87	O	ATOM	28540	N1	U A1351	238.207	137.309	-7.388	1.00	61.09	C
ATOM	28491	C3*	A A1349	230.586	134.171	-10.448	1.00	48.87	C	ATOM	28541	C2	U A1351	239.042	137.181	-7.449	1.00	61.09	O
ATOM	28492	O3*	A A1349	230.607	132.800	-10.098	1.00	48.87	O	ATOM	28542	N2	U A1351	237.006	137.514	-6.772	1.00	61.09	N
ATOM	28493	C2*	A A1349	231.196	134.357	-11.825	1.00	48.87	C	ATOM	28543	C4	U A1351	235.979	136.624	-6.645	1.00	61.09	C
ATOM	28494	O2*	A A1349	230.794	133.321	-12.682	1.00	48.87	O	ATOM	28544	O4	U A1351	234.945	136.985	-6.088	1.00	61.09	O
ATOM	28495	C1*	A A1349	230.529	135.649	-12.300	1.00	48.87	C	ATOM	28545	O4	U A1351	236.223	135.344	-7.232	1.00	61.09	C
ATOM	28496	N9	A A1349	231.353	136.856	-12.130	1.00	64.39	N	ATOM	28546	C5	U A1351	237.391	135.106	-7.838	1.00	61.09	C
ATOM	28497	C8	A A1349	231.157	137.906	-11.268	1.00	64.39	C	ATOM	28547	C6	U A1351	242.143	132.875	-5.732	1.00	48.15	P
ATOM	28498	N7	A A1349	232.052	138.859	-11.380	1.00	64.39	N	ATOM	28548	P	C A1352	243.426	132.113	-5.636	1.00	71.45	O
ATOM	28499	C5	A A1349	232.903	138.406	-12.375	1.00	64.39	C	ATOM	28549	O1P	C A1352	240.924	132.315	-5.096	1.00	71.45	O
ATOM	28500	C6	A A1349	234.045	138.966	-12.966	1.00	64.39	C	ATOM	28550	O2P	C A1352	242.345	134.331	-5.120	1.00	48.15	O
ATOM	28501	N6	A A1349	234.562	140.141	-12.610	1.00	64.39	N	ATOM	28551	O5*	C A1352	243.528	135.084	-5.403	1.00	48.15	C
ATOM	28502	N1	A A1349	234.650	138.269	-13.946	1.00	64.39	N	ATOM	28552	C5*	C A1352	243.591	136.312	-4.534	1.00	48.15	C
ATOM	28503	C2	A A1349	234.146	137.082	-14.291	1.00	64.39	C	ATOM	28553	C4*	C A1352	242.569	137.261	-4.938	1.00	48.15	O
ATOM	28504	N3	A A1349	233.087	136.443	-13.807	1.00	64.39	N	ATOM	28554	O4*	C A1352	244.495	135.628	-2.377	1.00	48.15	C
ATOM	28505	C4	A A1349	232.494	137.170	-12.842	1.00	64.39	C	ATOM	28555	C3*	C A1352	242.910	137.475	-2.591	1.00	48.15	O
ATOM	28506	P	A A1350	231.810	132.235	-9.186	1.00	47.68	P	ATOM	28556	O3*	C A1352	243.997	138.349	-2.393	1.00	48.15	C
ATOM	28507	O1P	A A1350	231.751	130.752	-9.152	1.00	61.27	O	ATOM	28557	C2*	C A1352	242.111	137.972	-3.797	1.00	48.15	C
ATOM	28508	O2P	A A1350	231.808	132.988	-7.913	1.00	61.27	O	ATOM	28558	O2*	C A1352	240.655	137.763	-3.625	1.00	71.45	N
ATOM	28509	O5*	A A1350	233.117	132.669	-9.982	1.00	47.68	O	ATOM	28559	C1*	C A1352	239.898	138.783	-3.039	1.00	71.45	C
ATOM	28510	C5*	A A1350	233.611	131.901	-11.095	1.00	47.68	C	ATOM	28560	N1	C A1352	240.457	139.834	-2.714	1.00	71.45	O
ATOM	28511	C4*	A A1350	234.870	132.535	-11.635	1.00	47.68	C	ATOM	28561	C2	C A1352	238.576	138.598	-2.843	1.00	71.45	N
ATOM	28512	O4*	A A1350	234.556	133.860	-12.153	1.00	47.68	O	ATOM	28562	O2	C A1352	237.999	137.459	-3.213	1.00	71.45	C
ATOM	28513	C3*	A A1350	235.936	132.770	-10.581	1.00	47.68	C	ATOM	28563	N3	C A1352	236.691	137.329	-3.000	1.00	71.45	N
ATOM	28514	O3*	A A1350	236.761	131.640	-10.406	1.00	47.68	O	ATOM	28564	C4	C A1352						
ATOM	28515	C2*	A A1350	236.700	133.964	-11.125	1.00	47.68	C	ATOM	28565	N4	C A1352						



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ATOM	28566	C5	C A1352	238.738	136.405	-3.821	1.00	71.45	C	ATOM	28616	C4*	G A1355	238.650	140.444	11.271	1.00	59.00	C
ATOM	28567	C6	C A1352	240.052	136.597	-4.008	1.00	71.45	C	ATOM	28617	O4*	G A1355	237.849	140.497	10.060	1.00	59.00	C
ATOM	28568	P	G A1353	244.342	134.498	-1.243	1.00	54.74	P	ATOM	28618	C3*	G A1355	237.954	139.413	12.147	1.00	59.00	C
ATOM	28569	O1P	G A1353	245.645	133.796	-1.113	1.00	63.95	O	ATOM	28619	O3*	G A1355	238.192	139.653	13.517	1.00	59.00	O
ATOM	28570	O2P	G A1353	243.116	133.713	-1.541	1.00	63.95	O	ATOM	28620	C2*	G A1355	236.486	139.627	11.806	1.00	59.00	C
ATOM	28571	O5*	G A1353	244.072	135.309	0.103	1.00	54.74	O	ATOM	28621	O2*	G A1355	235.933	140.724	12.506	1.00	59.00	C
ATOM	28572	C5*	G A1353	245.112	136.076	0.714	1.00	54.74	C	ATOM	28622	C1*	G A1355	236.557	139.958	10.314	1.00	59.00	C
ATOM	28573	C4*	G A1353	244.587	137.417	1.164	1.00	54.74	C	ATOM	28623	N9	G A1355	236.383	138.766	9.482	1.00	80.59	N
ATOM	28574	O4*	G A1353	243.628	137.906	0.192	1.00	54.74	O	ATOM	28624	C8	G A1355	237.356	138.117	8.758	1.00	80.59	C
ATOM	28575	C3*	G A1353	243.829	137.478	2.475	1.00	54.74	C	ATOM	28625	N7	G A1355	236.915	137.059	8.138	1.00	80.59	N
ATOM	28576	O3*	G A1353	244.707	137.579	3.569	1.00	54.74	O	ATOM	28626	C5	G A1355	235.566	137.005	8.462	1.00	80.59	C
ATOM	28577	C2*	G A1353	243.023	138.757	2.326	1.00	54.74	C	ATOM	28627	C6	G A1355	234.571	136.073	8.083	1.00	80.59	C
ATOM	28578	O2*	G A1353	243.797	139.912	2.565	1.00	54.74	O	ATOM	28628	O6	G A1355	234.685	135.074	7.369	1.00	80.59	O
ATOM	28579	C1*	G A1353	242.663	138.723	0.841	1.00	54.74	C	ATOM	28629	N1	G A1355	233.337	136.391	8.630	1.00	80.59	N
ATOM	28580	N9	G A1353	241.325	138.170	0.619	1.00	63.95	N	ATOM	28630	C2	G A1355	233.091	137.460	9.441	1.00	80.59	C
ATOM	28581	C8	G A1353	241.001	136.981	0.013	1.00	63.95	C	ATOM	28631	N2	G A1355	231.835	137.583	9.872	1.00	80.59	N
ATOM	28582	N7	G A1353	239.718	136.748	-0.001	1.00	63.95	N	ATOM	28632	N3	G A1355	234.007	138.341	9.807	1.00	80.59	N
ATOM	28583	C5	G A1353	239.158	137.952	0.628	1.00	63.95	C	ATOM	28633	C4	G A1355	235.217	138.053	9.284	1.00	80.59	C
ATOM	28584	C6	G A1353	237.801	138.156	0.917	1.00	63.95	C	ATOM	28634	P	G A1356	238.001	138.466	14.575	1.00	71.48	P
ATOM	28585	O6	G A1353	236.798	137.499	0.665	1.00	63.95	O	ATOM	28635	O1P	G A1356	238.412	138.990	15.895	1.00	74.92	O
ATOM	28586	N1	G A1353	237.678	139.367	1.572	1.00	63.95	N	ATOM	28636	O2P	G A1356	238.639	137.239	14.046	1.00	74.92	O
ATOM	28587	C2	G A1354	238.717	140.183	1.913	1.00	63.95	C	ATOM	28637	O5*	G A1356	236.426	138.241	14.621	1.00	71.48	O
ATOM	28588	N2	G A1353	238.383	141.299	2.559	1.00	63.95	N	ATOM	28638	C5*	G A1356	235.533	139.280	15.072	1.00	71.48	C
ATOM	28589	N3	G A1353	239.985	139.922	1.646	1.00	63.95	N	ATOM	28639	C4*	G A1356	234.104	138.794	15.018	1.00	71.48	C
ATOM	28590	C4	G A1353	240.131	138.744	1.007	1.00	63.95	C	ATOM	28640	O4*	G A1356	233.769	138.484	13.642	1.00	71.48	O
ATOM	28591	P	C A1354	244.224	137.090	5.016	1.00	50.20	P	ATOM	28641	C3*	G A1356	233.825	137.512	15.791	1.00	71.48	C
ATOM	28592	O1P	C A1354	245.406	137.167	5.930	1.00	64.01	O	ATOM	28642	O3*	G A1356	233.489	137.786	17.143	1.00	71.48	O
ATOM	28593	O2P	C A1354	243.512	135.794	4.860	1.00	64.01	O	ATOM	28643	C2*	G A1356	232.644	136.913	15.042	1.00	71.48	C
ATOM	28594	O5*	C A1354	243.157	138.196	5.441	1.00	50.20	O	ATOM	28644	O2*	G A1356	231.408	137.445	15.469	1.00	71.48	O
ATOM	28595	C5*	C A1354	243.579	139.496	5.895	1.00	50.20	C	ATOM	28645	C1*	G A1356	232.934	137.339	13.599	1.00	71.48	C
ATOM	28596	C4*	C A1354	242.411	140.266	6.472	1.00	50.20	C	ATOM	28646	N9	G A1356	233.610	136.299	12.824	1.00	74.92	N
ATOM	28597	O4*	C A1354	241.484	140.638	5.417	1.00	50.20	O	ATOM	28647	C8	G A1356	234.963	136.142	12.643	1.00	74.92	C
ATOM	28598	C3*	C A1354	241.552	139.524	7.485	1.00	50.20	C	ATOM	28648	N7	G A1356	235.266	135.109	11.908	1.00	74.92	N
ATOM	28599	O3*	C A1354	242.095	139.523	8.786	1.00	50.20	O	ATOM	28649	C5	G A1356	234.040	134.549	11.581	1.00	74.92	C
ATOM	28600	C2*	C A1354	240.237	140.283	7.410	1.00	50.20	C	ATOM	28650	C6	G A1356	233.734	133.408	10.808	1.00	74.92	C
ATOM	28601	O2*	C A1354	240.237	141.488	8.147	1.00	50.20	O	ATOM	28651	O6	G A1356	234.512	132.639	10.239	1.00	74.92	O
ATOM	28602	C1*	C A1354	240.153	140.596	5.916	1.00	50.20	C	ATOM	28652	N1	G A1356	232.363	133.194	10.730	1.00	74.92	N
ATOM	28603	N1	C A1354	239.426	139.503	5.241	1.00	64.01	N	ATOM	28653	C2	G A1356	231.410	133.977	11.323	1.00	74.92	C
ATOM	28604	C2	C A1354	238.024	139.460	5.323	1.00	64.01	C	ATOM	28654	N2	G A1356	230.141	133.605	11.143	1.00	74.92	N
ATOM	28605	O2	C A1354	237.428	140.362	5.919	1.00	64.01	O	ATOM	28655	N3	G A1356	231.681	135.047	12.045	1.00	74.92	N
ATOM	28606	N3	C A1354	237.363	138.432	4.751	1.00	64.01	N	ATOM	28656	C4	G A1356	233.008	135.272	12.134	1.00	74.92	C
ATOM	28607	C4	C A1354	238.040	137.477	4.115	1.00	64.01	C	ATOM	28657	P	A A1357	233.669	136.644	18.261	1.00	61.04	P
ATOM	28608	N4	C A1354	237.356	136.480	3.573	1.00	64.01	N	ATOM	28658	O1P	A A1357	233.695	137.333	19.569	1.00	79.43	O
ATOM	28609	C5	C A1354	239.456	137.502	4.005	1.00	64.01	C	ATOM	28659	O2P	A A1357	234.782	135.738	17.887	1.00	79.43	O
ATOM	28610	C6	C A1354	240.103	138.525	4.570	1.00	64.01	C	ATOM	28660	O5*	A A1357	232.315	135.824	18.204	1.00	61.04	O
ATOM	28611	P	G A1355	241.681	138.359	9.815	1.00	59.00	P	ATOM	28661	C5*	A A1357	231.046	136.450	18.467	1.00	61.04	C
ATOM	28612	O1P	G A1355	242.649	138.350	10.944	1.00	80.59	O	ATOM	28662	C4*	A A1357	229.935	135.523	18.046	1.00	61.04	C
ATOM	28613	O2P	G A1355	241.471	137.109	9.042	1.00	80.59	O	ATOM	28663	O4*	A A1357	230.048	135.304	16.617	1.00	61.04	O
ATOM	28614	O5*	G A1355	240.270	138.856	10.373	1.00	59.00	O	ATOM	28664	C3*	A A1357	230.035	134.145	18.685	1.00	61.04	C
ATOM	28615	C5*	G A1355	240.107	140.179	10.931	1.00	59.00	C	ATOM	28665	O3*	A A1357	229.245	134.128	19.866	1.00	61.04	O



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ATOM	28666	C2*	A A1357	229.437	133.230	17.628	1.00	61.04	C	ATOM	28716	N4	C A1359	233.773	133.829	20.475	1.00	52.45	N
ATOM	28667	O2*	A A1357	228.026	133.198	17.717	1.00	61.04	O	ATOM	28717	C5	C A1359	233.366	131.785	21.650	1.00	52.45	C
ATOM	28668	C1*	A A1357	229.831	133.940	16.327	1.00	61.04	C	ATOM	28718	C6	C A1359	233.782	130.533	21.883	1.00	52.45	C
ATOM	28669	N9	A A1357	231.034	133.421	15.675	1.00	79.43	N	ATOM	28719	P	A A1360	236.018	127.753	26.090	1.00	71.75	P
ATOM	28670	C8	A A1357	232.331	133.832	15.846	1.00	79.43	C	ATOM	28720	O1P	A A1360	236.143	126.654	27.087	1.00	68.91	O
ATOM	28671	N7	A A1357	233.192	133.194	15.096	1.00	79.43	N	ATOM	28721	O2P	A A1360	235.163	128.944	26.386	1.00	68.91	O
ATOM	28672	C5	A A1357	232.411	132.296	14.386	1.00	79.43	C	ATOM	28722	O5*	A A1360	237.470	128.278	25.712	1.00	71.75	O
ATOM	28673	C6	A A1357	232.724	131.336	13.419	1.00	79.43	C	ATOM	28723	C5*	A A1360	238.256	129.014	26.653	1.00	71.75	C
ATOM	28674	N6	A A1357	233.953	131.115	12.962	1.00	79.43	N	ATOM	28724	C4*	A A1360	239.631	128.410	26.754	1.00	71.75	C
ATOM	28675	N1	A A1357	231.714	130.601	12.920	1.00	79.43	N	ATOM	28725	O4*	A A1360	239.562	127.128	27.422	1.00	71.75	O
ATOM	28676	C2	A A1357	230.478	130.828	13.360	1.00	79.43	C	ATOM	28726	C3*	A A1360	240.306	128.111	25.431	1.00	71.75	C
ATOM	28677	N3	A A1357	230.054	131.706	14.255	1.00	79.43	N	ATOM	28727	O3*	A A1360	240.923	129.271	24.897	1.00	71.75	O
ATOM	28678	C4	A A1357	231.083	132.419	14.739	1.00	79.43	C	ATOM	28728	C2*	A A1360	241.305	127.019	25.798	1.00	71.75	C
ATOM	28679	P	U A1358	229.900	133.738	21.278	1.00	55.46	P	ATOM	28729	O2*	A A1360	242.503	127.533	26.337	1.00	71.75	O
ATOM	28680	O1P	U A1358	228.843	134.041	22.278	1.00	72.45	O	ATOM	28730	C1*	A A1360	240.567	126.275	26.911	1.00	71.75	C
ATOM	28681	O2P	U A1358	231.238	134.376	21.403	1.00	72.45	O	ATOM	28731	N9	A A1360	239.953	125.004	26.523	1.00	68.91	N
ATOM	28682	O5*	U A1358	230.093	132.163	21.210	1.00	55.46	O	ATOM	28732	C8	A A1360	238.618	124.707	26.419	1.00	68.91	C
ATOM	28683	C5*	U A1358	228.960	131.296	21.109	1.00	55.46	C	ATOM	28733	N7	A A1360	238.378	123.449	26.133	1.00	68.91	N
ATOM	28684	C4*	U A1358	229.381	129.956	20.575	1.00	55.46	C	ATOM	28734	C5	A A1360	239.639	122.887	26.023	1.00	68.91	C
ATOM	28685	O4*	U A1358	229.898	130.106	19.238	1.00	55.46	O	ATOM	28735	C6	A A1360	240.068	121.579	25.755	1.00	68.91	C
ATOM	28686	C3*	U A1358	230.514	129.286	21.335	1.00	55.46	C	ATOM	28736	N6	A A1360	239.239	120.552	25.552	1.00	68.91	N
ATOM	28687	O3*	U A1358	229.960	128.497	22.385	1.00	55.46	O	ATOM	28737	N1	A A1360	241.394	121.351	25.707	1.00	68.91	N
ATOM	28688	C2*	U A1358	231.177	128.383	20.292	1.00	55.46	C	ATOM	28738	C2	A A1360	242.224	122.376	25.918	1.00	68.91	C
ATOM	28689	O2*	U A1358	230.773	127.033	20.365	1.00	55.46	O	ATOM	28739	N3	A A1360	241.943	123.646	26.188	1.00	68.91	N
ATOM	28690	C1*	U A1358	230.730	129.002	18.964	1.00	55.46	C	ATOM	28740	C4	A A1360	240.617	123.837	26.232	1.00	68.91	C
ATOM	28691	N1	U A1358	231.822	129.408	18.070	1.00	72.45	N	ATOM	28741	P	G A1361	240.910	129.507	23.310	1.00	55.27	P
ATOM	28692	C2	U A1358	232.174	128.522	17.066	1.00	72.45	C	ATOM	28742	O1P	G A1361	241.814	130.638	22.959	1.00	57.99	O
ATOM	28693	O2	U A1358	231.597	127.464	16.874	1.00	72.45	O	ATOM	28743	O2P	G A1361	239.490	129.556	22.874	1.00	57.99	O
ATOM	28694	N3	U A1358	233.229	128.918	16.295	1.00	72.45	N	ATOM	28744	O5*	G A1361	241.584	128.174	22.767	1.00	55.27	O
ATOM	28695	O4	U A1358	233.949	130.079	16.411	1.00	72.45	O	ATOM	28745	C5*	G A1361	242.983	127.953	22.943	1.00	55.27	C
ATOM	28696	O4	U A1358	234.944	130.232	15.710	1.00	72.45	O	ATOM	28746	C4*	G A1361	243.359	126.594	22.432	1.00	55.27	C
ATOM	28697	C5	U A1358	233.506	130.961	17.446	1.00	72.45	C	ATOM	28747	O4*	G A1361	242.818	125.584	23.310	1.00	55.27	O
ATOM	28698	C6	U A1358	232.484	130.604	18.223	1.00	72.45	C	ATOM	28748	C3*	G A1361	242.821	126.251	21.057	1.00	55.27	C
ATOM	28699	P	C A1359	230.612	128.536	23.849	1.00	68.99	P	ATOM	28749	O3*	G A1361	243.673	126.744	20.041	1.00	55.27	O
ATOM	28700	O1P	C A1359	230.120	127.349	24.609	1.00	52.45	O	ATOM	28750	C2*	G A1361	242.775	124.733	21.092	1.00	55.27	C
ATOM	28701	O2P	C A1359	230.381	129.905	24.387	1.00	52.45	O	ATOM	28751	O2*	G A1361	244.036	124.161	20.814	1.00	55.27	O
ATOM	28702	O5*	C A1359	232.163	128.317	23.580	1.00	68.99	O	ATOM	28752	C1*	G A1361	242.393	124.469	22.552	1.00	55.27	C
ATOM	28703	C5*	C A1359	232.666	127.022	23.233	1.00	68.99	C	ATOM	28753	N9	G A1361	240.949	124.362	22.719	1.00	57.99	N
ATOM	28704	C4*	C A1359	234.096	127.126	22.773	1.00	68.99	C	ATOM	28754	C8	G A1361	240.068	125.396	22.945	1.00	57.99	C
ATOM	28705	O4*	C A1359	234.152	127.848	21.523	1.00	68.99	O	ATOM	28755	N7	G A1361	238.830	125.003	23.018	1.00	57.99	N
ATOM	28706	C3*	C A1359	235.016	127.901	23.694	1.00	68.99	C	ATOM	28756	C5	G A1361	238.897	123.628	22.843	1.00	57.99	C
ATOM	28707	O3*	C A1359	235.504	127.077	24.731	1.00	68.99	O	ATOM	28757	C6	G A1361	237.877	122.668	22.835	1.00	57.99	C
ATOM	28708	C2*	C A1359	236.115	128.376	22.756	1.00	68.99	C	ATOM	28758	O6	G A1361	236.668	122.839	23.000	1.00	57.99	O
ATOM	28709	O2*	C A1359	237.060	127.359	22.480	1.00	68.99	O	ATOM	28759	N1	G A1361	238.374	121.391	22.612	1.00	57.99	N
ATOM	28710	C1*	C A1359	235.323	128.643	21.483	1.00	52.45	N	ATOM	28760	C2	G A1361	239.691	121.080	22.429	1.00	57.99	C
ATOM	28711	N1	C A1359	234.920	130.045	21.304	1.00	52.45	N	ATOM	28761	N2	G A1361	239.967	119.785	22.209	1.00	57.99	N
ATOM	28712	C2	C A1359	235.704	130.862	20.500	1.00	52.45	C	ATOM	28762	N3	G A1361	240.664	121.970	22.455	1.00	57.99	N
ATOM	28713	O2	C A1359	236.766	130.401	20.021	1.00	52.45	O	ATOM	28763	C4	G A1361	240.197	123.217	22.662	1.00	57.99	C
ATOM	28714	N3	C A1359	235.298	132.132	20.255	1.00	52.45	N	ATOM	28764	P	C A1361A	243.037	127.302	18.682	1.00	60.16	P
ATOM	28715	C4	C A1359	234.161	132.586	20.787	1.00	52.45	C	ATOM	28765	O1P	C A1361A	244.135	127.793	17.807	1.00	65.19	O



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ATOM	28766	O2P	C A1361A	241.928	128.220	19.039	1.00	65.19	O	ATOM	28816	N9	A A1363	235.712	125.591	10.974	1.00	68.80	N
ATOM	28767	O5*	C A1361A	242.436	125.982	18.031	1.00	60.16	O	ATOM	28817	C8	A A1363	234.972	124.438	11.071	1.00	68.80	C
ATOM	28768	C5*	C A1361A	243.299	124.901	17.670	1.00	60.16	C	ATOM	28818	N7	A A1363	234.133	124.433	12.074	1.00	68.80	N
ATOM	28769	C4*	C A1361A	242.496	123.749	17.131	1.00	60.16	C	ATOM	28819	C5	A A1363	234.328	125.667	12.676	1.00	68.80	C
ATOM	28770	O4*	C A1361A	241.765	123.108	18.211	1.00	60.16	O	ATOM	28820	C6	A A1363	233.751	126.264	13.800	1.00	68.80	C
ATOM	28771	C3*	C A1361A	241.438	124.077	16.085	1.00	60.16	C	ATOM	28821	N6	A A1363	232.814	125.673	14.550	1.00	68.80	N
ATOM	28772	O3*	C A1361A	241.982	124.197	14.776	1.00	60.16	O	ATOM	28822	N1	A A1363	234.171	127.501	14.137	1.00	68.80	N
ATOM	28773	C2*	C A1361A	240.496	122.887	16.202	1.00	60.16	C	ATOM	28823	C2	A A1363	235.103	128.081	13.390	1.00	68.80	C
ATOM	28774	O2*	C A1361A	241.007	121.775	15.495	1.00	60.16	O	ATOM	28824	N3	A A1363	235.723	127.623	12.313	1.00	68.80	N
ATOM	28775	C1*	C A1361A	240.534	122.606	17.709	1.00	60.16	C	ATOM	28825	C4	A A1363	235.288	126.394	12.005	1.00	68.80	C
ATOM	28776	N1	C A1361A	239.423	123.256	18.438	1.00	65.19	N	ATOM	28826	P	U A1364	240.416	126.438	7.410	1.00	57.34	P
ATOM	28777	C2	C A1361A	238.324	122.486	18.819	1.00	65.19	C	ATOM	28827	O1P	U A1364	241.296	125.285	7.747	1.00	61.15	O
ATOM	28778	O2	C A1361A	238.311	121.275	18.541	1.00	65.19	O	ATOM	28828	O2P	U A1364	240.998	127.791	7.224	1.00	61.15	O
ATOM	28779	N3	C A1361A	237.298	123.076	19.480	1.00	65.19	N	ATOM	28829	O5*	U A1364	239.608	126.053	6.101	1.00	57.34	O
ATOM	28780	C4	C A1361A	237.344	124.381	19.757	1.00	65.19	C	ATOM	28830	C5*	U A1364	239.568	126.942	4.986	1.00	57.34	C
ATOM	28781	N4	C A1361A	236.308	124.925	20.410	1.00	65.19	N	ATOM	28831	C4*	U A1364	238.639	126.398	3.943	1.00	57.34	C
ATOM	28782	C5	C A1361A	238.453	125.189	19.381	1.00	65.19	C	ATOM	28832	O4*	U A1364	239.243	125.224	3.348	1.00	57.34	O
ATOM	28783	C6	C A1362	239.462	124.592	18.733	1.00	65.19	C	ATOM	28833	C3*	U A1364	237.284	125.978	4.477	1.00	57.34	C
ATOM	28784	P	C A1362	241.009	124.516	13.528	1.00	52.47	P	ATOM	28834	O3*	U A1364	236.246	126.685	3.760	1.00	57.34	O
ATOM	28785	O1P	C A1362	241.717	125.389	12.543	1.00	55.42	O	ATOM	28835	C2*	U A1364	237.401	124.455	4.624	1.00	57.34	C
ATOM	28786	O2P	C A1362	239.688	124.943	14.050	1.00	55.42	O	ATOM	28836	O2*	U A1364	236.232	123.697	4.454	1.00	57.34	O
ATOM	28787	O5*	C A1362	239.610	122.429	12.715	1.00	52.47	C	ATOM	28837	C1*	U A1364	238.456	124.081	3.589	1.00	57.34	C
ATOM	28788	C5*	C A1362	239.833	120.993	12.342	1.00	52.47	C	ATOM	28838	N1	U A1364	239.365	123.024	4.066	1.00	61.15	N
ATOM	28789	C4*	C A1362	240.498	120.331	13.435	1.00	52.47	C	ATOM	28840	O2	U A1364	239.314	121.765	3.467	1.00	61.15	O
ATOM	28790	O4*	C A1362	238.591	120.157	12.117	1.00	52.47	O	ATOM	28841	N3	U A1364	238.526	121.469	2.583	1.00	61.15	N
ATOM	28791	C3*	C A1362	238.142	120.304	10.779	1.00	52.47	O	ATOM	28842	C4	U A1364	240.226	120.861	3.947	1.00	61.15	C
ATOM	28792	O3*	C A1362	239.095	118.737	12.362	1.00	52.47	C	ATOM	28843	O4	U A1364	241.159	121.075	4.936	1.00	61.15	O
ATOM	28793	C2*	C A1362	239.623	118.119	11.203	1.00	52.47	O	ATOM	28844	C5	U A1364	241.986	120.201	5.186	1.00	61.15	C
ATOM	28794	O2*	C A1362	240.222	118.957	13.373	1.00	52.47	C	ATOM	28845	C6	U A1364	241.128	122.377	5.513	1.00	61.15	C
ATOM	28795	C1*	C A1362	239.935	118.451	14.718	1.00	55.42	N	ATOM	28846	P	G A1365	240.257	123.281	5.072	1.00	61.15	C
ATOM	28796	N1	C A1362	240.306	117.148	15.005	1.00	55.42	C	ATOM	28847	O1P	G A1365	235.386	125.988	2.605	1.00	43.70	P
ATOM	28797	C2	C A1362	240.918	116.500	14.133	1.00	55.42	O	ATOM	28848	O2P	G A1365	236.055	124.747	2.188	1.00	68.88	O
ATOM	28798	O2	C A1362	240.007	116.618	16.216	1.00	55.42	N	ATOM	28849	O5*	G A1365	235.104	127.041	1.600	1.00	68.88	O
ATOM	28799	N3	C A1362	239.380	117.358	17.129	1.00	55.42	C	ATOM	28850	C5*	G A1365	234.009	125.623	3.309	1.00	43.70	O
ATOM	28800	N4	C A1362	239.096	116.786	18.308	1.00	55.42	N	ATOM	28851	C4*	G A1365	233.997	124.885	4.526	1.00	43.70	C
ATOM	28802	C5	C A1362	239.013	118.715	16.874	1.00	55.42	C	ATOM	28852	O4*	G A1365	232.593	124.550	4.948	1.00	43.70	C
ATOM	28803	C6	C A1362	239.306	119.215	15.663	1.00	55.42	C	ATOM	28853	C3*	G A1365	232.721	124.058	6.310	1.00	43.70	C
ATOM	28804	P	A A1363	237.058	121.427	10.425	1.00	62.17	P	ATOM	28854	O3*	G A1365	231.640	125.744	5.025	1.00	43.70	C
ATOM	28805	O1P	A A1363	236.220	121.706	11.622	1.00	68.80	O	ATOM	28855	C2*	G A1365	230.773	125.789	3.903	1.00	43.70	O
ATOM	28806	O2P	A A1363	236.419	121.003	9.164	1.00	68.80	O	ATOM	28856	O2*	G A1365	230.842	125.457	6.242	1.00	43.70	C
ATOM	28807	O5*	A A1363	237.916	122.728	10.126	1.00	62.17	O	ATOM	28857	C1*	G A1365	229.846	124.490	6.031	1.00	43.70	O
ATOM	28808	C5*	A A1363	238.239	123.082	8.783	1.00	62.17	C	ATOM	28858	N9	G A1365	232.769	125.850	7.805	1.00	68.88	N
ATOM	28809	C4*	A A1363	238.051	124.559	8.583	1.00	62.17	C	ATOM	28859	C8	G A1365	234.036	126.214	7.417	1.00	68.88	C
ATOM	28810	C3*	A A1363	236.709	124.915	8.985	1.00	62.17	O	ATOM	28860	N7	G A1365	234.545	127.162	8.149	1.00	68.88	N
ATOM	28811	C3*	A A1363	238.997	125.452	9.371	1.00	62.17	C	ATOM	28861	C5	G A1365	233.562	127.441	9.083	1.00	68.88	C
ATOM	28812	O3*	A A1363	239.300	126.574	8.553	1.00	62.17	O	ATOM	28862	C6	G A1365	233.544	128.385	10.127	1.00	68.88	C
ATOM	28813	C2*	A A1363	238.165	125.887	10.573	1.00	62.17	C	ATOM	28863	O6	G A1365	234.419	129.188	10.445	1.00	68.88	O
ATOM	28814	O2*	A A1363	238.522	127.190	11.007	1.00	62.17	O	ATOM	28864	N1	G A1365	232.350	128.344	10.832	1.00	68.88	N
ATOM	28815	C1*	A A1363	236.751	125.903	9.991	1.00	62.17	C	ATOM	28865	C2	G A1365	231.301	127.506	10.560	1.00	68.88	C



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ATOM	28866	N2	G A1365	230.226	127.626	11.350	1.00	68.88	N	ATOM	28916	C3*	G A1368	228.138	139.989	5.430	1.00	45.74	C
ATOM	28867	N3	G A1365	231.304	126.616	9.585	1.00	68.88	N	ATOM	28917	O3*	G A1368	227.647	141.296	5.149	1.00	45.74	O
ATOM	28868	C4	G A1365	232.459	126.638	8.890	1.00	68.88	C	ATOM	28918	C2*	G A1368	229.510	140.130	6.073	1.00	45.74	C
ATOM	28869	P	C A1366	229.979	127.145	3.555	1.00	50.38	P	ATOM	28919	O2*	G A1368	229.531	141.196	6.996	1.00	45.74	O
ATOM	28870	O1P	C A1366	228.815	126.797	2.686	1.00	69.27	O	ATOM	28920	C1*	G A1368	229.641	138.828	6.857	1.00	45.74	C
ATOM	28871	O2P	C A1366	230.951	128.166	3.091	1.00	69.27	O	ATOM	28921	N9	G A1368	230.530	137.891	6.173	1.00	64.77	N
ATOM	28872	O5*	C A1366	229.395	127.616	4.961	1.00	50.38	O	ATOM	28922	C8	G A1368	230.223	136.709	5.544	1.00	64.77	C
ATOM	28873	C5*	C A1366	228.131	127.116	5.453	1.00	50.38	C	ATOM	28923	N7	G A1368	231.266	136.129	5.010	1.00	64.77	N
ATOM	28874	C4*	C A1366	227.635	127.992	6.570	1.00	50.38	C	ATOM	28924	C5	G A1368	232.323	136.979	5.307	1.00	64.77	C
ATOM	28875	O4*	C A1366	228.599	127.954	7.653	1.00	50.38	O	ATOM	28925	C6	G A1368	233.707	136.889	4.984	1.00	64.77	C
ATOM	28876	C3*	C A1366	227.505	129.459	6.203	1.00	50.38	C	ATOM	28926	O6	G A1368	234.294	136.009	4.352	1.00	64.77	O
ATOM	28877	O3*	C A1366	226.215	129.722	5.705	1.00	50.38	O	ATOM	28927	N1	G A1368	234.422	137.975	5.479	1.00	64.77	N
ATOM	28878	C2*	C A1366	227.712	130.170	7.528	1.00	50.38	C	ATOM	28928	C2	G A1368	233.884	139.018	6.189	1.00	64.77	C
ATOM	28879	O2*	C A1366	226.513	130.249	8.255	1.00	50.38	O	ATOM	28929	N2	G A1368	234.727	139.982	6.567	1.00	64.77	N
ATOM	28880	C1*	C A1366	228.707	129.243	8.237	1.00	50.38	C	ATOM	28930	N3	G A1368	232.606	139.112	6.500	1.00	64.77	N
ATOM	28881	N1	C A1366	230.107	129.700	8.114	1.00	69.27	N	ATOM	28931	C4	G A1368	231.887	138.065	6.028	1.00	64.77	C
ATOM	28882	C2	C A1366	230.633	130.550	9.092	1.00	69.27	C	ATOM	28932	P	C A1369	228.237	142.105	3.887	1.00	44.76	P
ATOM	28883	O2	C A1366	229.929	130.871	10.049	1.00	69.27	O	ATOM	28933	O1P	C A1369	227.557	143.425	3.773	1.00	68.81	O
ATOM	28884	N3	C A1366	231.897	130.996	8.968	1.00	69.27	N	ATOM	28934	O2P	C A1369	228.244	141.187	2.716	1.00	68.81	O
ATOM	28885	C4	C A1366	232.636	130.616	7.931	1.00	69.27	C	ATOM	28935	O5*	C A1369	229.753	142.379	4.294	1.00	44.76	O
ATOM	28886	N4	C A1366	233.875	131.078	7.850	1.00	69.27	N	ATOM	28936	C5*	C A1369	230.094	143.364	5.294	1.00	44.76	C
ATOM	28887	C5	C A1366	232.136	129.741	6.928	1.00	69.27	C	ATOM	28937	C4*	C A1369	231.531	143.807	5.138	1.00	44.76	C
ATOM	28888	C6	C A1366	230.880	129.310	7.056	1.00	69.27	C	ATOM	28938	O4*	C A1369	232.429	142.719	5.467	1.00	44.76	O
ATOM	28889	P	C A1367	225.943	131.061	4.872	1.00	46.62	P	ATOM	28939	C3*	C A1369	231.927	144.232	3.739	1.00	44.76	C
ATOM	28890	O1P	C A1367	224.519	131.040	4.427	1.00	64.31	O	ATOM	28940	O3*	C A1369	231.613	145.585	3.523	1.00	44.76	O
ATOM	28891	O2P	C A1367	227.023	131.200	3.870	1.00	64.31	O	ATOM	28941	C2*	C A1369	233.427	144.002	3.717	1.00	44.76	C
ATOM	28892	O5*	C A1367	226.126	132.224	5.944	1.00	46.62	O	ATOM	28942	O2*	C A1369	234.151	145.077	4.251	1.00	44.76	O
ATOM	28893	C5*	C A1367	225.146	132.451	6.987	1.00	46.62	C	ATOM	28943	C1*	C A1369	233.583	142.795	4.646	1.00	44.76	C
ATOM	28894	C4*	C A1367	225.514	133.678	7.786	1.00	46.62	C	ATOM	28944	N1	C A1369	233.717	141.541	3.890	1.00	68.81	N
ATOM	28895	O4*	C A1367	226.695	133.416	8.586	1.00	46.62	O	ATOM	28945	C2	C A1369	234.950	141.233	3.314	1.00	68.81	C
ATOM	28896	C3*	C A1367	225.887	134.884	6.945	1.00	46.62	C	ATOM	28946	O2	C A1369	235.900	142.011	3.472	1.00	68.81	O
ATOM	28897	O3*	C A1367	224.773	135.645	6.555	1.00	46.62	O	ATOM	28947	N3	C A1369	235.077	140.099	2.595	1.00	68.81	N
ATOM	28898	C2*	C A1367	226.792	135.686	7.860	1.00	46.62	C	ATOM	28948	C4	C A1369	234.034	139.286	2.449	1.00	68.81	C
ATOM	28899	O2*	C A1367	226.083	136.511	8.752	1.00	46.62	O	ATOM	28949	N4	C A1369	234.203	138.182	1.730	1.00	68.81	N
ATOM	28900	C1*	C A1367	227.500	134.582	8.636	1.00	46.62	C	ATOM	28950	C5	C A1369	232.772	139.569	3.033	1.00	68.81	C
ATOM	28901	N1	C A1367	228.819	134.281	8.054	1.00	64.31	N	ATOM	28951	C6	C A1369	232.657	140.695	3.737	1.00	68.81	C
ATOM	28902	C2	C A1367	229.866	135.190	8.251	1.00	64.31	C	ATOM	28952	P	G A1370	231.211	146.074	2.051	1.00	55.34	P
ATOM	28903	O2	C A1367	229.647	136.232	8.874	1.00	64.31	O	ATOM	28953	O1P	G A1370	230.632	147.439	2.178	1.00	75.31	O
ATOM	28904	N3	C A1367	231.085	134.913	7.750	1.00	64.31	N	ATOM	28954	O2P	G A1370	230.408	144.995	1.415	1.00	75.31	O
ATOM	28905	C4	C A1367	231.282	133.786	7.067	1.00	64.31	C	ATOM	28955	O5*	G A1370	232.599	146.205	1.279	1.00	55.34	O
ATOM	28906	N4	C A1367	232.504	133.546	6.594	1.00	64.31	N	ATOM	28956	C5*	G A1370	233.383	147.402	1.394	1.00	55.34	C
ATOM	28907	C5	C A1367	230.232	132.852	6.838	1.00	64.31	C	ATOM	28957	C4*	G A1370	234.841	147.111	1.141	1.00	55.34	C
ATOM	28908	C6	C A1367	229.028	133.137	7.343	1.00	64.31	C	ATOM	28958	O4*	G A1370	235.190	145.861	1.790	1.00	55.34	O
ATOM	28909	P	G A1368	224.860	136.492	5.209	1.00	45.74	P	ATOM	28959	C3*	G A1370	235.281	146.929	-0.303	1.00	55.34	C
ATOM	28910	O1P	G A1368	223.629	137.322	5.061	1.00	64.77	O	ATOM	28960	O3*	G A1370	235.574	148.185	-0.895	1.00	55.34	O
ATOM	28911	O2P	G A1368	225.201	135.502	4.170	1.00	64.77	O	ATOM	28961	C2*	G A1370	236.545	146.102	-0.141	1.00	55.34	C
ATOM	28912	O5*	G A1368	226.124	137.445	5.421	1.00	45.74	O	ATOM	28962	O2*	G A1370	237.640	146.904	0.236	1.00	55.34	O
ATOM	28913	C5*	G A1368	226.015	138.614	6.246	1.00	45.74	C	ATOM	28963	C1*	G A1370	236.177	145.191	1.033	1.00	55.34	C
ATOM	28914	C4*	G A1368	227.373	139.258	6.524	1.00	45.74	C	ATOM	28964	H9	G A1370	235.607	143.940	0.547	1.00	75.31	H
ATOM	28915	O4*	G A1368	228.344	138.286	7.005	1.00	45.74	O	ATOM	28965	C8	G A1370	234.283	143.582	0.530	1.00	75.31	C



Table 2: Sheet 29/520

ATOM	28966	N7	G A1370	234.071	142.436	-0.055	1.00	75.31	N	ATOM	29016	C5	U A1372	237.197	143.821	-7.153	1.00	77.36	C
ATOM	28967	C5	G A1370	235.334	142.000	-0.426	1.00	75.31	C	ATOM	29017	C6	U A1372	238.424	144.129	-7.578	1.00	77.36	C
ATOM	28968	C6	G A1370	235.734	140.829	-1.107	1.00	75.31	C	ATOM	29018	P	G A1373	239.716	147.288	-12.113	1.00	53.73	P
ATOM	28969	O6	G A1370	235.029	139.911	-1.531	1.00	75.31	O	ATOM	29019	O1P	G A1373	240.402	147.763	-13.345	1.00	78.45	O
ATOM	28970	N1	G A1370	237.112	140.786	-1.280	1.00	75.31	N	ATOM	29020	O2P	G A1373	238.847	148.221	-11.351	1.00	78.45	O
ATOM	28971	C2	G A1370	237.993	141.751	-0.853	1.00	75.31	C	ATOM	29021	O5*	G A1373	238.851	146.019	-12.525	1.00	53.73	O
ATOM	28972	N2	G A1370	239.283	141.541	-1.113	1.00	75.31	N	ATOM	29022	C5*	G A1373	239.415	144.947	-13.311	1.00	53.73	C
ATOM	28973	N3	G A1370	237.631	142.846	-0.218	1.00	75.31	N	ATOM	29023	C4*	G A1373	238.377	143.873	-13.545	1.00	53.73	C
ATOM	28974	C4	G A1370	236.295	142.908	-0.041	1.00	75.31	C	ATOM	29024	O4*	G A1373	238.064	143.196	-12.296	1.00	53.73	O
ATOM	28975	P	G A1371	235.731	148.311	-2.492	1.00	53.27	P	ATOM	29025	C3*	G A1373	237.036	144.390	-14.033	1.00	53.73	C
ATOM	28976	O1P	G A1371	236.023	149.733	-2.801	1.00	85.45	O	ATOM	29026	O3*	G A1373	237.012	144.599	-15.422	1.00	53.73	O
ATOM	28977	O2P	G A1371	234.591	147.640	-3.165	1.00	85.45	O	ATOM	29027	C2*	G A1373	236.079	143.298	-13.589	1.00	53.73	C
ATOM	28978	O5*	G A1371	237.056	147.480	-2.806	1.00	53.27	O	ATOM	29028	O2*	G A1373	236.102	142.186	-14.451	1.00	53.73	O
ATOM	28979	C5*	G A1371	238.344	148.019	-2.473	1.00	53.27	C	ATOM	29029	C1*	G A1373	236.673	142.913	-12.238	1.00	53.73	C
ATOM	28980	C4*	G A1371	239.453	147.149	-3.018	1.00	53.27	C	ATOM	29030	N9	G A1373	236.079	143.762	-11.209	1.00	78.45	N
ATOM	28981	O4*	G A1371	239.377	145.819	-2.453	1.00	53.27	O	ATOM	29031	C8	G A1373	236.513	145.003	-10.806	1.00	78.45	C
ATOM	28982	C3*	G A1371	239.504	146.918	-4.516	1.00	53.27	C	ATOM	29032	N7	G A1373	235.739	145.551	-9.913	1.00	78.45	N
ATOM	28983	O3*	G A1371	240.149	147.986	-5.160	1.00	53.27	O	ATOM	29033	C5	G A1373	234.740	144.613	-9.701	1.00	78.45	C
ATOM	28984	C2*	G A1371	240.351	145.661	-4.622	1.00	53.27	C	ATOM	29034	C6	G A1373	233.618	144.651	-8.845	1.00	78.45	C
ATOM	28985	O2*	G A1371	241.729	145.952	-4.536	1.00	53.27	O	ATOM	29035	O6	G A1373	233.259	145.558	-8.088	1.00	78.45	O
ATOM	28986	C1*	G A1371	239.930	144.887	-3.369	1.00	53.27	C	ATOM	29036	N1	G A1373	232.875	143.482	-8.930	1.00	78.45	N
ATOM	28987	N9	G A1371	238.936	143.854	-3.652	1.00	85.45	N	ATOM	29037	C2	G A1373	233.169	142.412	-9.740	1.00	78.45	C
ATOM	28988	C8	G A1371	237.631	143.817	-3.230	1.00	85.45	C	ATOM	29038	N2	G A1373	232.338	141.366	-9.671	1.00	78.45	N
ATOM	28989	N7	G A1371	236.985	142.767	-3.657	1.00	85.45	N	ATOM	29039	N3	G A1373	234.204	142.370	-10.553	1.00	78.45	N
ATOM	28990	C5	G A1371	237.919	142.070	-4.407	1.00	85.45	C	ATOM	29040	C4	G A1373	234.944	143.495	-10.482	1.00	78.45	C
ATOM	28991	C6	G A1371	237.796	140.855	-5.127	1.00	85.45	C	ATOM	29041	P	A A1374	235.751	145.328	-16.074	1.00	52.29	P
ATOM	28992	O6	G A1371	236.794	140.129	-5.262	1.00	85.45	O	ATOM	29042	O1P	A A1374	236.103	145.720	-17.467	1.00	82.25	O
ATOM	28993	N1	G A1371	238.996	140.502	-5.736	1.00	85.45	N	ATOM	29043	O2P	A A1374	235.291	146.363	-15.121	1.00	82.25	O
ATOM	28994	C2	G A1371	240.157	141.226	-5.668	1.00	85.45	C	ATOM	29044	O5*	A A1374	234.667	144.163	-16.131	1.00	52.29	O
ATOM	28995	N2	G A1371	241.214	140.712	-6.310	1.00	85.45	N	ATOM	29045	C5*	A A1374	234.046	143.775	-17.379	1.00	52.29	C
ATOM	28996	N3	G A1371	240.278	142.365	-5.016	1.00	85.45	N	ATOM	29046	C4*	A A1374	234.691	142.512	-17.918	1.00	52.29	C
ATOM	28997	C4	G A1371	239.130	142.723	-4.409	1.00	85.45	C	ATOM	29047	O4*	A A1374	234.816	141.525	-16.863	1.00	52.29	O
ATOM	28998	P	U A1372	239.549	148.556	-6.524	1.00	56.25	P	ATOM	29048	C3*	A A1374	233.908	141.810	-19.011	1.00	52.29	C
ATOM	28999	O1P	U A1372	240.332	149.759	-6.900	1.00	77.36	O	ATOM	29049	O3*	A A1374	234.195	142.352	-20.281	1.00	52.29	O
ATOM	29000	O2P	U A1372	238.075	148.660	-6.379	1.00	77.36	O	ATOM	29050	C2*	A A1374	234.380	140.374	-18.889	1.00	52.29	C
ATOM	29001	O5*	U A1372	239.880	147.407	-7.570	1.00	56.25	O	ATOM	29051	O2*	A A1374	235.624	140.186	-19.515	1.00	52.29	O
ATOM	29002	C5*	U A1372	241.240	147.103	-7.904	1.00	56.25	C	ATOM	29052	C1*	A A1374	234.562	140.233	-17.377	1.00	52.29	C
ATOM	29003	C4*	U A1372	241.309	145.920	-8.840	1.00	56.25	C	ATOM	29053	N9	A A1374	233.366	139.712	-16.709	1.00	82.25	N
ATOM	29004	O4*	U A1372	241.027	144.687	-8.130	1.00	56.25	O	ATOM	29054	C8	A A1374	232.634	140.318	-15.721	1.00	82.25	C
ATOM	29005	C3*	U A1372	240.340	145.913	-10.005	1.00	56.25	C	ATOM	29055	N7	A A1374	231.587	139.631	-15.343	1.00	82.25	N
ATOM	29006	O3*	U A1372	240.787	146.696	-11.085	1.00	56.25	O	ATOM	29056	C5	A A1374	231.635	138.488	-16.127	1.00	82.25	C
ATOM	29007	C2*	U A1372	240.304	144.441	-10.380	1.00	56.25	C	ATOM	29057	C6	A A1374	230.799	137.362	-16.213	1.00	82.25	C
ATOM	29008	O2*	U A1372	241.391	144.050	-11.188	1.00	56.25	O	ATOM	29058	N6	A A1374	229.705	137.185	-15.469	1.00	82.25	N
ATOM	29009	C1*	U A1372	240.426	143.762	-9.017	1.00	56.25	C	ATOM	29059	N1	A A1374	231.129	136.405	-17.103	1.00	82.25	N
ATOM	29010	N1	U A1372	239.100	143.375	-8.510	1.00	77.36	N	ATOM	29060	C2	A A1374	232.224	136.572	-17.845	1.00	82.25	C
ATOM	29011	C2	U A1372	238.538	142.223	-9.032	1.00	77.36	C	ATOM	29061	N3	A A1374	233.086	137.579	-17.857	1.00	82.25	N
ATOM	29012	O2	U A1372	239.116	141.507	-9.839	1.00	77.36	O	ATOM	29062	C4	A A1374	232.731	138.518	-16.965	1.00	82.25	C
ATOM	29013	N3	U A1372	237.276	141.940	-8.577	1.00	77.36	N	ATOM	29063	P	A A1375	233.056	142.363	-21.404	1.00	53.70	P
ATOM	29014	C4	U A1372	236.537	142.664	-7.670	1.00	77.36	C	ATOM	29064	O1P	A A1375	233.675	142.885	-22.658	1.00	58.16	O
ATOM	29015	O4	U A1372	235.379	142.322	-7.428	1.00	77.36	O	ATOM	29065	O2P	A A1375	231.840	143.017	-20.856	1.00	58.16	O



Table 2: Sheet 292/520

ATOM	29066	O5*	A A1375	232.751	140.818	-21.609	1.00	53.70	O	ATOM	29116	Cl*	A A1377	221.583	136.839	-24.223	1.00	53.28	C
ATOM	29067	C5*	A A1375	233.749	139.955	-22.163	1.00	53.70	C	ATOM	29117	N9	A A1377	222.146	137.943	-23.455	1.00	58.76	N
ATOM	29068	C4*	A A1375	233.173	138.588	-22.400	1.00	53.70	C	ATOM	29118	C8	A A1377	223.131	138.808	-23.837	1.00	58.76	C
ATOM	29069	O4*	A A1375	232.888	137.951	-21.128	1.00	53.70	O	ATOM	29119	N7	A A1377	223.369	139.755	-22.968	1.00	58.76	N
ATOM	29070	C3*	A A1375	231.856	138.568	-23.146	1.00	53.70	C	ATOM	29120	C5	A A1377	222.492	139.485	-21.934	1.00	58.76	C
ATOM	29071	O3*	A A1375	232.051	138.614	-24.543	1.00	53.70	O	ATOM	29121	C6	A A1377	222.250	140.129	-20.722	1.00	58.76	C
ATOM	29072	C2*	A A1375	231.242	137.256	-22.686	1.00	53.70	C	ATOM	29122	N6	A A1377	222.891	141.233	-20.339	1.00	58.76	N
ATOM	29073	O2*	A A1375	231.777	136.149	-23.389	1.00	53.70	O	ATOM	29123	N1	A A1377	221.313	139.601	-19.906	1.00	58.76	N
ATOM	29074	Cl*	A A1375	231.687	137.209	-21.220	1.00	53.70	C	ATOM	29124	C2	A A1377	220.671	138.500	-20.302	1.00	58.76	N
ATOM	29075	N9	A A1375	230.718	137.839	-20.319	1.00	58.16	N	ATOM	29125	N3	A A1377	220.809	137.802	-21.425	1.00	58.76	N
ATOM	29076	C8	A A1375	230.833	139.075	-19.738	1.00	58.16	C	ATOM	29126	C4	A A1377	221.746	138.358	-22.209	1.00	58.76	C
ATOM	29077	N7	A A1375	229.817	139.400	-18.984	1.00	58.16	N	ATOM	29127	P	C A1378	219.266	138.955	-27.648	1.00	57.00	P
ATOM	29078	C5	A A1375	228.969	138.308	-19.071	1.00	58.16	C	ATOM	29128	O1P	C A1378	220.067	140.208	-27.570	1.00	59.03	O
ATOM	29079	C6	A A1375	227.720	138.041	-18.497	1.00	58.16	C	ATOM	29129	O2P	C A1378	218.105	138.769	-26.731	1.00	59.03	O
ATOM	29080	N6	A A1375	227.068	138.902	-17.717	1.00	58.16	N	ATOM	29130	O5*	C A1378	218.742	138.825	-29.140	1.00	57.00	O
ATOM	29081	N1	A A1375	227.149	136.848	-18.763	1.00	58.16	N	ATOM	29131	C5*	C A1378	219.562	139.236	-30.248	1.00	57.00	C
ATOM	29082	C2	A A1375	227.790	136.000	-19.575	1.00	58.16	C	ATOM	29132	C4*	C A1378	219.412	138.265	-31.385	1.00	57.00	C
ATOM	29083	N3	A A1375	228.959	136.147	-20.191	1.00	58.16	N	ATOM	29133	O4*	C A1378	220.154	137.058	-31.107	1.00	57.00	O
ATOM	29084	C4	A A1375	229.510	137.335	-19.888	1.00	58.16	C	ATOM	29134	C3*	C A1378	217.990	137.798	-31.602	1.00	57.00	O
ATOM	29085	P	U A1376	231.008	139.418	-25.460	1.00	55.28	P	ATOM	29135	O3*	C A1378	217.267	138.713	-32.391	1.00	57.00	O
ATOM	29086	O1P	U A1376	231.409	139.185	-26.876	1.00	56.45	O	ATOM	29136	C2*	C A1378	218.156	136.440	-32.259	1.00	57.00	C
ATOM	29087	O2P	U A1376	230.880	140.810	-24.953	1.00	56.45	O	ATOM	29137	O2*	C A1378	218.349	136.551	-33.654	1.00	57.00	O
ATOM	29088	O5*	U A1376	229.642	138.640	-25.214	1.00	55.28	O	ATOM	29138	Cl*	C A1378	219.445	135.940	-31.608	1.00	57.00	O
ATOM	29089	C5*	U A1376	229.528	137.262	-25.600	1.00	55.28	C	ATOM	29139	N1	C A1378	219.286	134.943	-30.525	1.00	59.03	N
ATOM	29090	C4*	U A1376	228.244	136.669	-25.094	1.00	55.28	C	ATOM	29140	C2	C A1378	219.017	133.614	-30.873	1.00	59.03	C
ATOM	29091	O4*	U A1376	228.270	136.612	-23.645	1.00	55.28	O	ATOM	29141	O2	C A1378	218.815	133.332	-32.068	1.00	59.03	O
ATOM	29092	C3*	U A1376	226.961	137.411	-25.435	1.00	55.28	C	ATOM	29142	N3	C A1378	218.977	132.671	-29.903	1.00	59.03	N
ATOM	29093	O3*	U A1376	226.492	137.078	-26.739	1.00	55.28	O	ATOM	29143	C4	C A1378	219.175	133.013	-28.632	1.00	59.03	C
ATOM	29094	C2*	U A1376	226.016	136.906	-24.355	1.00	55.28	C	ATOM	29144	N4	C A1378	219.166	132.040	-27.715	1.00	59.03	N
ATOM	29095	O2*	U A1376	225.523	135.620	-24.667	1.00	55.28	O	ATOM	29145	C5	C A1378	219.399	134.365	-28.243	1.00	59.03	C
ATOM	29096	Cl*	U A1376	226.953	136.782	-23.150	1.00	55.28	C	ATOM	29146	C6	C A1378	219.440	135.290	-29.211	1.00	59.03	C
ATOM	29097	N1	U A1376	226.902	137.979	-22.293	1.00	56.45	N	ATOM	29147	P	G A1379	215.800	139.129	-31.925	1.00	64.53	P
ATOM	29098	C2	U A1376	225.939	138.011	-21.312	1.00	56.45	C	ATOM	29148	O1P	G A1379	215.213	140.044	-32.942	1.00	53.08	O
ATOM	29099	O2	U A1376	225.197	137.077	-21.083	1.00	56.45	O	ATOM	29149	O2P	G A1379	215.912	139.572	-30.502	1.00	53.08	O
ATOM	29100	N3	U A1376	225.875	139.177	-20.597	1.00	56.45	N	ATOM	29150	O5*	G A1379	215.018	137.744	-31.951	1.00	64.53	O
ATOM	29101	C4	U A1376	226.666	140.284	-20.746	1.00	56.45	C	ATOM	29151	C5*	G A1379	214.379	137.227	-30.773	1.00	64.53	C
ATOM	29102	O4	U A1376	226.440	141.284	-20.061	1.00	56.45	O	ATOM	29152	C4*	G A1379	214.527	135.732	-30.732	1.00	64.53	C
ATOM	29103	C5	U A1376	227.667	140.163	-21.755	1.00	56.45	C	ATOM	29153	O4*	G A1379	215.782	135.370	-30.098	1.00	64.53	O
ATOM	29104	C6	U A1376	227.751	139.040	-22.474	1.00	56.45	C	ATOM	29154	C3*	G A1379	213.478	134.997	-29.927	1.00	64.53	C
ATOM	29105	P	A A1377	225.570	138.121	-27.554	1.00	53.28	P	ATOM	29155	O3*	G A1379	212.312	134.827	-30.721	1.00	64.53	O
ATOM	29106	O1P	A A1377	225.580	137.718	-28.988	1.00	58.76	O	ATOM	29156	C2*	G A1379	214.182	133.683	-29.587	1.00	64.53	C
ATOM	29107	O2P	A A1377	225.967	139.504	-27.173	1.00	58.76	O	ATOM	29157	O2*	G A1379	214.159	132.726	-30.632	1.00	64.53	O
ATOM	29108	O5*	A A1377	224.097	137.871	-27.002	1.00	53.28	O	ATOM	29158	Cl*	G A1379	215.627	134.143	-29.402	1.00	64.53	C
ATOM	29109	C5*	A A1377	223.366	136.695	-27.366	1.00	53.28	C	ATOM	29159	N9	G A1379	216.021	134.321	-28.004	1.00	53.08	N
ATOM	29110	C4*	A A1377	222.157	136.519	-26.474	1.00	53.28	C	ATOM	29160	C8	G A1379	216.348	135.493	-27.368	1.00	53.08	C
ATOM	29111	O4*	A A1377	222.579	136.336	-25.094	1.00	53.28	O	ATOM	29161	N7	G A1379	216.682	135.323	-26.115	1.00	53.08	N
ATOM	29112	C3*	A A1377	221.156	137.658	-26.399	1.00	53.28	C	ATOM	29162	C5	G A1379	216.563	133.957	-25.909	1.00	53.08	C
ATOM	29113	O3*	A A1377	220.252	137.694	-27.485	1.00	53.28	O	ATOM	29163	C6	G A1379	216.789	133.180	-24.742	1.00	53.08	C
ATOM	29114	C2*	A A1377	220.439	137.364	-25.090	1.00	53.28	C	ATOM	29164	O6	G A1379	217.129	133.559	-23.621	1.00	53.08	O
ATOM	29115	O2*	A A1377	219.437	136.372	-25.211	1.00	53.28	O	ATOM	29165	N1	G A1379	216.555	131.831	-24.971	1.00	53.08	N



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ATOM	29166	C2	G A1379	216.128	131.299	-26.160	1.00	53.08	C	ATOM	29216	O4*	C A1382	211.942	122.293	-28.067	1.00	52.66	O
ATOM	29167	N2	G A1379	215.919	129.987	-26.169	1.00	53.08	N	ATOM	29217	C3*	C A1382	210.936	121.229	-26.242	1.00	52.66	C
ATOM	29168	N3	G A1379	215.911	132.008	-27.256	1.00	53.08	N	ATOM	29218	O3*	C A1382	210.337	120.026	-25.847	1.00	52.66	O
ATOM	29169	C4	G A1379	216.149	133.323	-27.061	1.00	53.08	C	ATOM	29219	O2*	C A1382	212.432	121.246	-25.982	1.00	52.66	C
ATOM	29170	P	U A1380	210.877	134.649	-30.011	1.00	72.31	P	ATOM	29220	C2*	C A1382	213.061	120.004	-26.210	1.00	52.66	C
ATOM	29171	O1P	U A1380	209.881	134.436	-31.098	1.00	58.26	O	ATOM	29221	C1*	C A1382	212.907	122.253	-27.027	1.00	52.66	C
ATOM	29172	O2P	U A1380	210.655	135.731	-29.023	1.00	58.26	O	ATOM	29222	N1	C A1382	213.093	123.613	-26.479	1.00	64.50	N
ATOM	29173	O5*	U A1380	211.033	133.288	-29.211	1.00	72.31	O	ATOM	29223	C2	C A1382	214.242	123.872	-25.735	1.00	64.50	C
ATOM	29174	C5*	U A1380	210.995	132.029	-29.885	1.00	72.31	C	ATOM	29224	O2	C A1382	215.038	122.944	-25.511	1.00	64.50	O
ATOM	29175	C4*	U A1380	210.710	130.970	-28.881	1.00	72.31	C	ATOM	29225	N3	C A1382	214.458	125.119	-25.265	1.00	64.50	N
ATOM	29176	O4*	U A1380	211.822	130.966	-27.968	1.00	72.31	O	ATOM	29226	C4	C A1382	213.568	126.080	-25.490	1.00	64.50	C
ATOM	29177	C3*	U A1380	209.501	131.359	-28.059	1.00	72.31	C	ATOM	29227	N4	C A1382	213.833	127.293	-25.003	1.00	64.50	N
ATOM	29178	O3*	U A1380	208.271	130.980	-28.733	1.00	72.31	O	ATOM	29228	C5	C A1382	212.370	125.839	-26.222	1.00	64.50	C
ATOM	29179	C2*	U A1380	209.834	130.973	-26.611	1.00	72.31	C	ATOM	29229	C6	C A1382	212.176	124.604	-26.695	1.00	64.50	C
ATOM	29180	O2*	U A1380	209.277	129.793	-26.080	1.00	72.31	O	ATOM	29230	P	C A1382	209.623	119.947	-24.423	1.00	56.44	P
ATOM	29181	C1*	U A1380	211.361	130.845	-26.649	1.00	72.31	C	ATOM	29231	O1P	C A1383	208.914	118.647	-24.353	1.00	47.04	O
ATOM	29182	N1	U A1380	212.168	131.730	-25.805	1.00	58.26	N	ATOM	29232	O2P	C A1383	208.853	121.217	-24.265	1.00	47.04	O
ATOM	29183	C2	U A1380	212.735	131.182	-24.664	1.00	58.26	C	ATOM	29233	O5*	C A1383	210.833	119.901	-23.386	1.00	56.44	O
ATOM	29184	O2	U A1380	212.619	130.011	-24.358	1.00	58.26	O	ATOM	29234	C5*	C A1383	211.597	118.700	-23.215	1.00	56.44	C
ATOM	29185	N3	U A1380	213.454	132.054	-23.897	1.00	58.26	N	ATOM	29235	C4*	C A1383	212.566	118.850	-22.071	1.00	56.44	C
ATOM	29186	C4	U A1380	213.672	133.385	-24.149	1.00	58.26	C	ATOM	29236	O4*	C A1383	213.544	119.866	-22.395	1.00	56.44	O
ATOM	29187	O5	U A1380	214.301	134.054	-23.329	1.00	58.26	O	ATOM	29237	C3*	C A1383	211.963	119.332	-20.771	1.00	56.44	C
ATOM	29188	C5	U A1380	213.081	133.873	-25.364	1.00	58.26	C	ATOM	29238	O3*	C A1383	211.369	118.300	-20.020	1.00	56.44	O
ATOM	29189	C6	U A1380	212.363	133.046	-26.127	1.00	58.26	C	ATOM	29239	C2*	C A1383	213.146	119.963	-20.062	1.00	56.44	C
ATOM	29190	P	U A1381	207.786	129.428	-28.855	1.00	64.36	P	ATOM	29240	O2*	C A1383	213.965	118.994	-19.446	1.00	56.44	O
ATOM	29191	O1P	U A1381	206.478	129.561	-29.553	1.00	77.26	O	ATOM	29241	C1*	C A1383	213.887	120.597	-21.231	1.00	56.44	C
ATOM	29192	O2P	U A1381	207.850	128.667	-27.581	1.00	77.26	O	ATOM	29242	N1	C A1383	213.508	122.008	-21.437	1.00	47.04	N
ATOM	29193	O5*	U A1381	208.768	128.679	-29.866	1.00	64.36	O	ATOM	29243	C2	C A1383	214.068	122.981	-20.605	1.00	47.04	C
ATOM	29194	C5*	U A1381	208.220	127.729	-30.812	1.00	64.36	C	ATOM	29244	O2	C A1383	214.849	122.621	-19.704	1.00	47.04	O
ATOM	29195	O4*	U A1381	208.988	126.417	-30.819	1.00	64.36	O	ATOM	29245	N3	C A1383	213.745	124.285	-20.797	1.00	47.04	N
ATOM	29196	O4*	U A1381	210.326	126.641	-31.322	1.00	64.36	O	ATOM	29246	C4	C A1383	212.901	124.625	-21.773	1.00	47.04	C
ATOM	29197	C3*	U A1381	209.185	125.630	-29.527	1.00	64.36	C	ATOM	29247	N4	C A1383	212.625	125.924	-21.945	1.00	47.04	N
ATOM	29198	O3*	U A1381	208.090	124.783	-29.182	1.00	64.36	O	ATOM	29248	C5	C A1383	212.303	123.650	-22.625	1.00	47.04	C
ATOM	29199	C2*	U A1381	210.393	124.760	-29.857	1.00	64.36	C	ATOM	29249	C6	C A1383	212.631	122.368	-22.424	1.00	47.04	C
ATOM	29200	O2*	U A1381	210.058	123.569	-30.530	1.00	64.36	O	ATOM	29250	P	C A1384	210.010	118.611	-19.235	1.00	49.33	P
ATOM	29201	C1*	U A1381	211.202	125.668	-30.781	1.00	64.36	C	ATOM	29251	O1P	C A1384	209.463	117.331	-18.713	1.00	36.38	O
ATOM	29202	N1	U A1381	212.277	126.345	-30.044	1.00	77.26	N	ATOM	29252	O2P	C A1384	209.189	119.453	-20.138	1.00	36.38	O
ATOM	29203	C2	U A1381	213.387	125.596	-29.734	1.00	77.26	C	ATOM	29253	O5*	C A1384	210.492	119.509	-18.012	1.00	49.33	O
ATOM	29204	O2	U A1381	213.491	124.417	-30.033	1.00	77.26	O	ATOM	29254	C5*	C A1384	211.250	118.920	-16.952	1.00	49.33	C
ATOM	29205	N3	U A1381	214.364	126.270	-29.053	1.00	77.26	N	ATOM	29255	C4*	C A1384	211.620	119.954	-15.934	1.00	49.33	C
ATOM	29206	C4	U A1381	214.338	127.587	-28.653	1.00	77.26	C	ATOM	29256	O4*	C A1384	212.433	120.970	-16.560	1.00	49.33	O
ATOM	29207	O4	U A1381	215.325	128.069	-28.102	1.00	77.26	O	ATOM	29257	C3*	C A1384	210.491	120.750	-15.317	1.00	49.33	C
ATOM	29208	C5	U A1381	213.147	128.291	-28.996	1.00	77.26	C	ATOM	29258	O3*	C A1384	209.814	120.053	-14.290	1.00	49.33	O
ATOM	29209	C6	U A1381	212.183	127.665	-29.667	1.00	77.26	C	ATOM	29259	C2*	C A1384	211.223	121.972	-14.796	1.00	49.33	C
ATOM	29210	P	U A1382	208.015	124.131	-27.700	1.00	52.66	P	ATOM	29260	O2*	C A1384	211.937	121.689	-13.608	1.00	49.33	O
ATOM	29211	O1P	C A1382	206.901	123.139	-27.651	1.00	64.50	O	ATOM	29261	C1*	C A1384	212.220	122.212	-15.919	1.00	49.33	C
ATOM	29212	O2P	C A1382	208.046	125.259	-26.711	1.00	64.50	O	ATOM	29262	N1	C A1384	211.703	123.172	-16.906	1.00	36.38	N
ATOM	29213	O5*	C A1382	209.374	123.313	-27.551	1.00	52.66	O	ATOM	29263	C2	C A1384	211.606	124.526	-16.543	1.00	36.38	C
ATOM	29214	C5*	C A1382	209.551	122.047	-28.193	1.00	52.66	C	ATOM	29264	O2	C A1384	211.941	124.870	-15.394	1.00	36.38	O
ATOM	29215	C4*	C A1382	210.837	121.417	-27.739	1.00	52.66	C	ATOM	29265	N3	C A1384	211.148	125.421	-17.442	1.00	36.38	N



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ATOM	29266	C4	C A1384	210.779	125.012	-18.651	1.00	36.38	C	ATOM	29316	P	G A1387	200.481	127.871	-11.307	1.00	49.43	P
ATOM	29267	N4	C A1384	210.315	125.926	-19.497	1.00	36.38	N	ATOM	29317	O1P	G A1387	199.664	127.850	-10.067	1.00	42.89	O
ATOM	29268	C5	C A1384	210.862	123.646	-19.047	1.00	36.38	C	ATOM	29318	O2P	G A1387	200.407	126.729	-12.248	1.00	42.89	O
ATOM	29269	C6	C A1384	211.324	122.768	-18.152	1.00	36.38	C	ATOM	29319	O5*	G A1387	200.199	129.212	-12.116	1.00	49.43	O
ATOM	29270	P	G A1385	208.218	120.231	-14.145	1.00	52.20	P	ATOM	29320	C5*	G A1387	200.279	130.452	-11.430	1.00	49.43	C
ATOM	29271	O1P	G A1385	207.811	119.187	-13.162	1.00	37.36	O	ATOM	29321	C4*	G A1387	200.051	131.611	-12.356	1.00	49.43	C
ATOM	29272	O2P	G A1385	207.591	120.276	-15.499	1.00	37.36	O	ATOM	29322	O4*	G A1387	201.125	131.701	-13.316	1.00	49.43	O
ATOM	29273	O5*	G A1385	208.042	121.676	-13.496	1.00	52.20	C	ATOM	29323	C3*	G A1387	198.798	131.628	-13.208	1.00	49.43	C
ATOM	29274	C5*	G A1385	208.672	121.981	-12.249	1.00	52.20	C	ATOM	29324	O3*	G A1387	197.641	132.017	-12.494	1.00	49.43	O
ATOM	29275	C4*	G A1385	208.536	123.441	-11.932	1.00	52.20	C	ATOM	29325	C2*	G A1387	199.167	132.650	-14.271	1.00	49.43	C
ATOM	29276	O4*	G A1385	209.381	124.252	-12.777	1.00	52.20	O	ATOM	29326	O2*	G A1387	199.027	133.978	-13.793	1.00	49.43	O
ATOM	29277	C3*	G A1385	207.171	124.048	-12.123	1.00	52.20	C	ATOM	29327	C1*	G A1387	200.643	132.324	-14.498	1.00	49.43	C
ATOM	29278	O3*	G A1385	206.308	123.699	-11.069	1.00	52.20	O	ATOM	29328	N9	G A1387	200.820	131.395	-15.610	1.00	42.89	N
ATOM	29279	C2*	G A1385	207.493	125.534	-12.148	1.00	52.20	C	ATOM	29329	C8	G A1387	201.191	130.075	-15.535	1.00	42.89	C
ATOM	29280	O2*	G A1385	207.687	126.076	-10.859	1.00	52.20	O	ATOM	29330	N7	G A1387	201.266	129.501	-16.701	1.00	42.89	N
ATOM	29281	C1*	G A1385	208.818	125.546	-12.904	1.00	52.20	C	ATOM	29331	C5	G A1387	200.929	130.502	-17.600	1.00	42.89	C
ATOM	29282	N9	G A1385	208.567	125.810	-14.314	1.00	37.36	N	ATOM	29332	C6	G A1387	200.860	130.475	-19.003	1.00	42.89	C
ATOM	29283	C8	G A1385	208.443	124.883	-15.316	1.00	37.36	C	ATOM	29333	O6	G A1387	201.115	129.538	-19.763	1.00	42.89	O
ATOM	29284	N7	G A1385	208.145	125.417	-16.469	1.00	37.36	N	ATOM	29334	N1	G A1387	200.464	131.700	-19.521	1.00	42.89	N
ATOM	29285	C5	G A1385	208.082	126.777	-16.212	1.00	37.36	C	ATOM	29335	C2	G A1387	200.195	132.809	-18.781	1.00	42.89	C
ATOM	29286	C6	G A1385	207.778	127.861	-17.080	1.00	37.36	C	ATOM	29336	N2	G A1387	199.830	133.886	-19.467	1.00	42.89	N
ATOM	29287	O6	G A1385	207.462	127.825	-18.277	1.00	37.36	O	ATOM	29337	N3	G A1387	200.277	132.858	-17.467	1.00	42.89	N
ATOM	29288	N1	G A1385	207.848	129.078	-16.417	1.00	37.36	N	ATOM	29338	C4	G A1387	200.645	131.673	-16.945	1.00	42.89	C
ATOM	29289	C2	G A1385	208.153	129.226	-15.089	1.00	37.36	C	ATOM	29339	P	C A1388	196.221	131.376	-12.889	1.00	48.06	P
ATOM	29290	N2	G A1385	208.189	130.475	-14.642	1.00	37.36	N	ATOM	29340	O1P	C A1388	195.289	131.703	-11.793	1.00	50.34	O
ATOM	29291	N3	G A1385	208.410	128.220	-14.263	1.00	37.36	N	ATOM	29341	O2P	C A1388	196.440	129.951	-13.243	1.00	50.34	O
ATOM	29292	C4	G A1386	208.361	127.036	-14.891	1.00	37.36	C	ATOM	29342	O5*	C A1388	195.788	132.189	-14.191	1.00	48.06	O
ATOM	29293	P	G A1386	204.727	123.626	-11.333	1.00	51.00	P	ATOM	29343	C5*	C A1388	195.664	133.618	-14.163	1.00	48.06	C
ATOM	29294	O1P	G A1386	204.193	123.142	-10.042	1.00	40.26	O	ATOM	29344	C4*	C A1388	195.275	134.141	-15.527	1.00	48.06	C
ATOM	29295	O2P	G A1386	204.417	122.879	-12.582	1.00	40.26	O	ATOM	29345	O4*	C A1388	196.416	134.126	-16.426	1.00	48.06	O
ATOM	29296	O5*	G A1386	204.326	125.153	-11.555	1.00	51.00	O	ATOM	29346	C3*	C A1388	194.205	133.352	-16.263	1.00	48.06	C
ATOM	29297	C5*	G A1386	204.554	126.112	-10.510	1.00	51.00	C	ATOM	29347	O3*	C A1388	192.892	133.680	-15.855	1.00	48.06	O
ATOM	29298	C4*	G A1386	204.375	127.510	-11.025	1.00	51.00	C	ATOM	29348	C2*	C A1388	194.461	133.721	-17.716	1.00	48.06	C
ATOM	29299	O4*	G A1386	205.344	127.773	-12.065	1.00	51.00	O	ATOM	29349	O2*	C A1388	193.919	134.974	-18.071	1.00	48.06	O
ATOM	29300	C3*	G A1386	203.064	127.827	-11.706	1.00	51.00	C	ATOM	29350	C1*	C A1388	195.983	133.809	-17.744	1.00	48.06	C
ATOM	29301	O3*	G A1386	201.998	128.049	-10.801	1.00	51.00	O	ATOM	29351	N1	C A1388	196.553	132.503	-18.138	1.00	50.34	N
ATOM	29302	C2*	G A1386	203.414	129.077	-12.502	1.00	51.00	C	ATOM	29352	C2	C A1388	196.683	132.210	-19.493	1.00	50.34	C
ATOM	29303	O2*	G A1386	203.351	130.277	-11.750	1.00	51.00	O	ATOM	29353	O2	C A1388	196.352	133.073	-20.328	1.00	50.34	O
ATOM	29304	C1*	G A1386	204.854	128.784	-12.923	1.00	40.26	C	ATOM	29354	N3	C A1388	197.163	130.994	-19.862	1.00	50.34	N
ATOM	29305	N9	G A1386	204.887	128.319	-14.306	1.00	40.26	N	ATOM	29355	C4	C A1388	197.503	130.100	-18.930	1.00	50.34	C
ATOM	29306	C8	G A1386	205.062	127.037	-14.770	1.00	40.26	C	ATOM	29356	N4	C A1388	197.942	128.903	-19.326	1.00	50.34	N
ATOM	29307	N7	G A1386	204.920	126.942	-16.068	1.00	40.26	N	ATOM	29357	C5	C A1388	197.402	130.387	-17.547	1.00	50.34	C
ATOM	29308	C5	G A1386	204.659	128.242	-16.483	1.00	40.26	C	ATOM	29358	C6	C A1388	196.928	131.586	-17.198	1.00	50.34	C
ATOM	29309	C6	G A1386	204.403	128.762	-17.773	1.00	40.26	C	ATOM	29359	P	C A1389	191.752	132.547	-15.890	1.00	52.25	P
ATOM	29310	O6	G A1386	204.326	128.159	-18.847	1.00	40.26	O	ATOM	29360	O1P	C A1389	190.600	133.096	-15.125	1.00	49.94	O
ATOM	29311	N1	G A1386	204.215	130.136	-17.741	1.00	40.26	N	ATOM	29361	O2P	C A1389	192.366	131.250	-15.473	1.00	49.94	O
ATOM	29312	C2	G A1386	204.257	130.904	-16.614	1.00	40.26	C	ATOM	29362	O5*	C A1389	191.346	132.465	-17.427	1.00	52.25	O
ATOM	29313	N2	G A1386	204.050	132.208	-16.781	1.00	40.26	N	ATOM	29363	C5*	C A1389	190.642	133.543	-18.040	1.00	52.25	C
ATOM	29314	N3	G A1386	204.485	130.432	-15.410	1.00	40.26	N	ATOM	29364	C4*	C A1389	190.501	133.303	-19.513	1.00	52.25	C
ATOM	29315	C4	G A1386	204.672	129.105	-15.416	1.00	40.26	C	ATOM	29365	O4*	C A1389	191.820	133.292	-20.104	1.00	52.25	O



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ATOM	29366	C3*	C A1389	189.888	131.978	-19.935	1.00	52.25	C	ATOM	29416	O4	U A1391	190.739	123.311	-19.877	1.00	53.52	O
ATOM	29367	O3*	C A1389	188.473	131.988	-19.928	1.00	52.25	O	ATOM	29417	C5	U A1391	189.355	124.134	-21.613	1.00	53.52	C
ATOM	29368	O2*	C A1389	190.436	131.808	-21.340	1.00	52.25	C	ATOM	29418	C6	U A1391	188.976	123.957	-22.876	1.00	53.52	C
ATOM	29369	O2*	C A1389	189.728	132.580	-22.284	1.00	52.25	O	ATOM	29419	P	G A1392	184.587	120.978	-25.289	1.00	48.78	P
ATOM	29370	C1*	C A1389	191.846	132.374	-21.185	1.00	52.25	C	ATOM	29420	O1P	G A1392	183.461	120.725	-26.234	1.00	44.55	O
ATOM	29371	N1	C A1389	192.785	131.279	-20.874	1.00	49.94	N	ATOM	29421	O2P	G A1392	184.292	121.489	-23.911	1.00	44.55	O
ATOM	29372	C2	C A1389	193.246	130.482	-21.925	1.00	49.94	C	ATOM	29422	O5*	G A1392	185.426	119.633	-25.125	1.00	48.78	O
ATOM	29373	O2	C A1389	192.947	130.793	-23.097	1.00	49.94	O	ATOM	29423	C5*	G A1392	185.785	118.853	-26.264	1.00	48.78	C
ATOM	29374	N3	C A1389	194.006	129.400	-21.646	1.00	49.94	N	ATOM	29424	C4*	G A1392	186.573	117.645	-25.834	1.00	48.78	C
ATOM	29375	C4	C A1389	194.317	129.117	-20.384	1.00	49.94	C	ATOM	29425	O4*	G A1392	187.907	118.048	-25.460	1.00	48.78	O
ATOM	29376	N4	C A1389	195.012	128.003	-20.148	1.00	49.94	N	ATOM	29426	C3*	G A1392	186.042	116.919	-24.618	1.00	48.78	C
ATOM	29377	C5	C A1389	193.918	129.952	-19.305	1.00	49.94	C	ATOM	29427	O3*	G A1392	185.052	115.968	-24.939	1.00	48.78	O
ATOM	29378	C6	C A1389	193.165	131.012	-19.591	1.00	49.94	C	ATOM	29428	C2*	G A1392	187.278	116.230	-24.086	1.00	48.78	C
ATOM	29379	P	U A1390	187.671	130.610	-19.702	1.00	54.12	P	ATOM	29429	C1*	G A1392	187.530	115.084	-24.852	1.00	48.78	O
ATOM	29380	O1P	U A1390	186.231	130.952	-19.703	1.00	54.96	O	ATOM	29430	O2*	G A1392	188.354	117.274	-24.363	1.00	48.78	C
ATOM	29381	O2P	U A1390	188.242	129.862	-18.564	1.00	54.96	O	ATOM	29431	N9	G A1392	188.508	118.181	-23.236	1.00	44.55	N
ATOM	29382	O5*	U A1390	187.990	129.751	-20.999	1.00	54.12	O	ATOM	29432	C8	G A1392	187.810	119.343	-23.045	1.00	44.55	C
ATOM	29383	C5*	U A1390	187.687	130.253	-22.300	1.00	54.12	C	ATOM	29433	N7	G A1392	188.146	119.969	-21.960	1.00	44.55	N
ATOM	29384	C4*	U A1390	188.277	129.352	-23.355	1.00	54.12	C	ATOM	29434	C5	G A1392	189.128	119.173	-21.397	1.00	44.55	C
ATOM	29385	O4*	U A1390	189.720	129.291	-23.207	1.00	54.12	O	ATOM	29435	C6	G A1392	189.868	119.360	-20.221	1.00	44.55	C
ATOM	29386	C3*	U A1390	187.846	127.897	-23.326	1.00	54.12	C	ATOM	29436	O6	G A1392	189.815	120.302	-19.429	1.00	44.55	O
ATOM	29387	O2*	U A1390	186.597	127.717	-23.971	1.00	54.12	O	ATOM	29437	N1	G A1392	190.754	118.319	-20.004	1.00	44.55	N
ATOM	29388	C3*	U A1390	188.969	127.214	-24.091	1.00	54.12	C	ATOM	29438	C2	G A1392	190.916	117.242	-20.831	1.00	44.55	C
ATOM	29389	O2*	U A1390	188.800	127.339	-25.489	1.00	54.12	O	ATOM	29439	N2	G A1392	191.839	116.361	-20.455	1.00	44.55	N
ATOM	29390	C1*	U A1390	190.186	128.030	-23.654	1.00	54.12	C	ATOM	29440	N3	G A1392	190.227	117.055	-21.949	1.00	44.55	N
ATOM	29391	N1	U A1390	190.942	127.370	-22.577	1.00	54.96	N	ATOM	29441	C4	G A1392	189.357	118.059	-22.167	1.00	44.55	C
ATOM	29392	C2	U A1390	191.744	126.325	-22.944	1.00	54.96	C	ATOM	29442	P	U A1393	184.000	115.526	-23.811	1.00	37.40	P
ATOM	29393	O2	U A1390	191.901	125.999	-24.105	1.00	54.96	O	ATOM	29443	O1P	U A1393	183.038	114.614	-24.481	1.00	52.19	O
ATOM	29394	N3	U A1390	192.367	125.672	-21.909	1.00	54.96	N	ATOM	29444	O2P	U A1393	183.505	116.752	-23.134	1.00	52.19	O
ATOM	29395	C4	U A1390	192.286	125.963	-20.572	1.00	54.96	C	ATOM	29445	O5*	U A1393	185.498	113.486	-23.151	1.00	37.40	C
ATOM	29396	O4	U A1390	192.780	125.180	-19.749	1.00	54.96	O	ATOM	29446	C5*	U A1393	186.300	112.917	-22.016	1.00	37.40	C
ATOM	29397	C5	U A1390	191.479	127.094	-20.275	1.00	54.96	C	ATOM	29447	C4*	U A1393	187.423	113.779	-21.731	1.00	37.40	C
ATOM	29398	C6	U A1390	190.846	127.744	-21.264	1.00	54.96	C	ATOM	29448	O4*	U A1393	185.582	112.780	-20.690	1.00	37.40	O
ATOM	29399	P	U A1391	185.626	126.520	-23.510	1.00	50.31	P	ATOM	29449	C3*	U A1393	184.802	111.595	-20.660	1.00	37.40	C
ATOM	29400	O1P	U A1391	184.328	126.787	-24.182	1.00	53.52	O	ATOM	29450	O3*	U A1393	186.741	112.754	-19.708	1.00	37.40	O
ATOM	29401	O2P	U A1391	185.669	126.356	-22.023	1.00	53.52	O	ATOM	29451	C2*	U A1393	187.371	111.496	-19.691	1.00	37.40	C
ATOM	29402	O5*	U A1391	186.283	125.232	-24.175	1.00	50.31	O	ATOM	29452	O2*	U A1393	187.714	113.738	-20.350	1.00	52.19	N
ATOM	29403	C5*	U A1391	186.388	125.112	-25.598	1.00	50.31	C	ATOM	29453	C1*	U A1393	188.221	115.364	-18.604	1.00	52.19	C
ATOM	29404	C4*	U A1391	187.148	123.867	-25.947	1.00	50.31	C	ATOM	29454	N1	U A1393	188.864	114.529	-17.987	1.00	52.19	O
ATOM	29405	O3*	U A1391	188.517	124.017	-25.510	1.00	50.31	O	ATOM	29455	C2	U A1393	188.067	116.644	-18.143	1.00	52.19	N
ATOM	29406	C4*	U A1391	186.654	122.600	-25.270	1.00	50.31	C	ATOM	29456	O2	U A1393	187.380	117.662	-18.750	1.00	52.19	C
ATOM	29407	O3*	U A1391	185.610	121.985	-26.019	1.00	50.31	O	ATOM	29457	N3	U A1393	187.249	118.737	-18.159	1.00	52.19	O
ATOM	29408	C2*	U A1391	187.902	121.731	-25.224	1.00	50.31	C	ATOM	29458	C4	U A1393	186.785	117.315	-19.999	1.00	52.19	C
ATOM	29409	O2*	U A1391	188.119	121.008	-26.419	1.00	50.31	O	ATOM	29459	O4	U A1393	186.910	116.078	-20.470	1.00	52.19	C
ATOM	29410	C1*	U A1391	189.007	122.774	-25.050	1.00	50.31	C	ATOM	29460	C5	U A1393	183.586	111.465	-19.615	1.00	45.08	P
ATOM	29411	N1	U A1391	189.445	122.932	-23.656	1.00	53.52	N	ATOM	29461	C6	A A1394	182.566	110.542	-20.164	1.00	55.33	O
ATOM	29412	C2	U A1391	190.350	122.012	-23.154	1.00	53.52	C	ATOM	29462	P	A A1394	183.189	112.829	-19.194	1.00	55.33	O
ATOM	29413	O2	U A1391	190.800	121.086	-23.812	1.00	53.52	O	ATOM	29463	O1P	A A1394	184.259	110.727	-18.389	1.00	45.08	O
ATOM	29414	N3	U A1391	190.712	122.218	-21.850	1.00	53.52	N	ATOM	29464	O2P	A A1394						
ATOM	29415	C4	U A1391	190.281	123.229	-21.019	1.00	53.52	C	ATOM	29465	O5*	A A1394						



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ATOM	29466	C5*	A A1394	183.467	110.025	-17.447	1.00	45.08	C	ATOM	29516	N9	A A1396	187.153	113.678	-9.600	1.00	39.63	N
ATOM	29467	C4*	A A1394	184.070	108.678	-17.139	1.00	45.08	C	ATOM	29517	C8	A A1396	186.854	112.921	-10.705	1.00	39.63	C
ATOM	29468	O4*	A A1394	183.805	107.826	-18.337	1.00	45.08	O	ATOM	29518	N7	A A1396	186.302	113.604	-11.677	1.00	39.63	N
ATOM	29469	C3*	A A1394	185.582	108.708	-17.011	1.00	45.08	C	ATOM	29519	C5	A A1396	186.220	114.890	-11.168	1.00	39.63	C
ATOM	29470	O3*	A A1394	185.922	107.739	-16.051	1.00	45.08	O	ATOM	29520	C6	A A1396	185.749	116.088	-11.713	1.00	39.63	C
ATOM	29471	C2*	A A1394	186.112	108.313	-18.381	1.00	45.08	C	ATOM	29521	N6	A A1396	185.271	116.197	-12.953	1.00	39.63	N
ATOM	29472	O2*	A A1394	187.352	107.647	-18.358	1.00	45.08	O	ATOM	29522	N1	A A1396	185.794	117.190	-10.938	1.00	39.63	N
ATOM	29473	C1*	A A1394	185.026	107.364	-18.868	1.00	45.08	C	ATOM	29523	C2	A A1396	186.290	117.082	-9.708	1.00	39.63	C
ATOM	29474	N9	A A1394	184.925	107.386	-20.319	1.00	55.33	N	ATOM	29524	N3	A A1396	186.774	116.016	-9.088	1.00	39.63	N
ATOM	29475	C8	A A1394	184.334	108.325	-21.120	1.00	55.33	C	ATOM	29525	C4	A A1396	186.711	114.941	-9.883	1.00	39.63	C
ATOM	29476	N7	A A1394	184.397	108.040	-22.392	1.00	55.33	N	ATOM	29526	P	C A1397	189.155	111.252	-4.436	1.00	163.13	P
ATOM	29477	C5	A A1394	185.080	106.834	-22.426	1.00	55.33	C	ATOM	29527	O1P	C A1397	189.287	109.838	-4.837	1.00	129.42	O
ATOM	29478	C6	A A1394	185.461	106.006	-23.474	1.00	55.33	C	ATOM	29528	O2P	C A1397	188.239	111.612	-3.349	1.00	129.42	O
ATOM	29479	N6	A A1394	185.190	106.267	-24.753	1.00	55.33	N	ATOM	29529	O5*	C A1397	190.594	111.803	-4.059	1.00	66.76	O
ATOM	29480	N1	A A1394	186.140	104.882	-23.169	1.00	55.33	N	ATOM	29530	C5*	C A1397	191.630	111.974	-5.066	1.00	66.76	C
ATOM	29481	C2	A A1394	186.404	104.620	-21.886	1.00	55.33	C	ATOM	29531	C4*	C A1397	192.938	111.314	-4.627	1.00	66.76	C
ATOM	29482	N3	A A1394	186.091	105.319	-20.813	1.00	55.33	N	ATOM	29532	O4*	C A1397	193.232	111.693	-3.256	1.00	66.76	O
ATOM	29483	C4	A A1394	185.419	106.428	-21.158	1.00	55.33	C	ATOM	29533	C3*	C A1397	192.991	109.784	-4.624	1.00	66.76	C
ATOM	29484	P	C A1395	186.055	108.183	-14.526	1.00	45.18	P	ATOM	29534	O3*	C A1397	193.307	109.241	-5.920	1.00	66.76	O
ATOM	29485	O1P	C A1395	186.047	106.931	-13.693	1.00	43.76	O	ATOM	29535	C2*	C A1397	194.016	109.439	-3.548	1.00	66.76	C
ATOM	29486	O2P	C A1395	185.011	109.220	-14.312	1.00	43.76	O	ATOM	29536	O2*	C A1397	195.364	109.324	-3.966	1.00	66.76	O
ATOM	29487	O5*	C A1395	187.470	108.915	-14.471	1.00	45.18	O	ATOM	29537	C1*	C A1397	193.885	110.621	-2.588	1.00	66.76	C
ATOM	29488	C5*	C A1395	188.690	108.175	-14.335	1.00	45.18	C	ATOM	29538	N1	C A1397	193.163	110.274	-1.345	1.00	129.42	N
ATOM	29489	C4*	C A1395	189.757	109.075	-13.790	1.00	45.18	C	ATOM	29539	C2	C A1397	193.901	110.127	-0.149	1.00	129.42	C
ATOM	29490	O4*	C A1395	189.886	110.195	-14.686	1.00	45.18	O	ATOM	29540	O2	C A1397	195.131	110.333	-0.160	1.00	129.42	O
ATOM	29491	C3*	C A1395	189.414	109.681	-12.446	1.00	45.18	C	ATOM	29541	N3	C A1397	193.254	109.766	0.982	1.00	129.42	N
ATOM	29492	O3*	C A1395	189.924	108.833	-11.434	1.00	45.18	O	ATOM	29542	C4	C A1397	191.934	109.560	0.961	1.00	129.42	C
ATOM	29493	C2*	C A1395	190.112	111.037	-12.470	1.00	45.18	C	ATOM	29543	N4	C A1397	191.339	109.192	2.100	1.00	129.42	N
ATOM	29494	O2*	C A1395	191.473	110.964	-12.091	1.00	45.18	O	ATOM	29544	C5	C A1397	191.162	109.719	-0.228	1.00	129.42	C
ATOM	29495	C1*	C A1395	190.057	111.387	-13.954	1.00	45.18	C	ATOM	29545	C6	C A1397	191.809	110.075	-1.345	1.00	129.42	C
ATOM	29496	N1	C A1395	189.027	112.341	-14.394	1.00	43.76	N	ATOM	29546	P	A A1398	194.748	109.530	-6.621	1.00	58.42	P
ATOM	29497	C2	C A1395	189.115	113.664	-13.979	1.00	43.76	C	ATOM	29547	O1P	A A1398	195.431	108.221	-6.847	1.00	52.84	O
ATOM	29498	O2	C A1395	189.984	113.976	-13.161	1.00	43.76	O	ATOM	29548	O2P	A A1398	195.496	110.647	-5.951	1.00	52.84	O
ATOM	29499	N3	C A1395	188.246	114.572	-14.479	1.00	43.76	N	ATOM	29549	O5*	A A1398	194.321	110.103	-8.038	1.00	58.42	O
ATOM	29500	C4	C A1395	187.308	114.186	-15.343	1.00	43.76	C	ATOM	29550	C5*	A A1398	194.884	111.316	-8.514	1.00	58.42	C
ATOM	29501	N4	C A1395	186.512	115.118	-15.851	1.00	43.76	N	ATOM	29551	C4*	A A1398	193.942	111.977	-9.460	1.00	58.42	C
ATOM	29502	C5	C A1395	187.156	112.829	-15.734	1.00	43.76	C	ATOM	29552	O4*	A A1398	192.808	112.506	-8.733	1.00	58.42	O
ATOM	29503	C6	C A1395	188.023	111.949	-15.239	1.00	43.76	C	ATOM	29553	C3*	A A1398	194.546	113.186	-10.122	1.00	58.42	C
ATOM	29504	P	A A1396	189.119	108.665	-10.069	1.00	45.69	P	ATOM	29554	O3*	A A1398	195.322	112.802	-11.221	1.00	58.42	O
ATOM	29505	O1P	A A1396	189.951	107.887	-9.113	1.00	39.63	O	ATOM	29555	C2*	A A1398	193.326	114.002	-10.500	1.00	58.42	C
ATOM	29506	O2P	A A1396	187.780	108.149	-10.468	1.00	39.63	O	ATOM	29556	O2*	A A1398	192.725	113.533	-11.693	1.00	58.42	O
ATOM	29507	O5*	A A1396	189.014	110.162	-9.521	1.00	45.69	O	ATOM	29557	C1*	A A1398	192.419	113.751	-9.294	1.00	58.42	C
ATOM	29508	C5*	A A1396	190.142	110.787	-8.852	1.00	45.69	C	ATOM	29558	N9	A A1398	192.582	114.797	-8.275	1.00	52.84	N
ATOM	29509	C4*	A A1396	189.674	111.891	-7.924	1.00	45.69	C	ATOM	29559	C8	A A1398	193.311	114.741	-7.115	1.00	52.84	C
ATOM	29510	O4*	A A1396	189.192	112.999	-8.721	1.00	45.69	O	ATOM	29560	N7	A A1398	193.298	115.857	-6.426	1.00	52.84	N
ATOM	29511	C3*	A A1396	188.543	111.512	-6.970	1.00	45.69	C	ATOM	29561	C5	A A1398	192.498	116.706	-7.175	1.00	52.84	C
ATOM	29512	O3*	A A1396	188.747	112.138	-5.697	1.00	45.69	O	ATOM	29562	C6	A A1398	192.098	118.051	-6.987	1.00	52.84	C
ATOM	29513	C2*	A A1396	187.303	112.048	-7.694	1.00	45.69	C	ATOM	29563	N6	A A1398	192.463	118.802	-5.949	1.00	52.84	N
ATOM	29514	O2*	A A1396	186.215	112.394	-6.874	1.00	45.69	O	ATOM	29564	N1	A A1398	191.299	118.601	-7.917	1.00	52.84	N
ATOM	29515	C1*	A A1396	187.852	113.292	-8.378	1.00	45.69	C	ATOM	29565	C2	A A1398	190.924	117.850	-8.964	1.00	52.84	C



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ATOM	29566	N3	A	Al398	191.237	116.585	-9.256	1.00	52.84	N	ATOM	29616	O3*	G	Al401	193.975	106.287	-10.111	1.00	52.15	O
ATOM	29567	C4	A	Al398	192.039	116.065	-8.311	1.00	52.84	C	ATOM	29617	C2*	G	Al401	193.701	107.772	-11.962	1.00	52.15	C
ATOM	29568	P	C	Al399	196.496	113.759	-11.715	1.00	52.11	P	ATOM	29618	O2*	G	Al401	192.808	108.466	-11.114	1.00	52.15	O
ATOM	29569	O1P	C	Al399	197.349	114.098	-10.558	1.00	65.05	O	ATOM	29619	C1*	G	Al401	194.651	108.769	-12.628	1.00	52.15	C
ATOM	29570	O2P	C	Al399	195.882	114.837	-12.520	1.00	65.05	O	ATOM	29620	N9	G	Al401	195.137	108.194	-13.879	1.00	63.41	N
ATOM	29571	O5*	C	Al399	197.337	112.825	-12.691	1.00	52.11	O	ATOM	29621	C8	G	Al401	196.362	107.622	-14.096	1.00	63.41	C
ATOM	29572	C5*	C	Al399	197.993	111.623	-12.214	1.00	52.11	C	ATOM	29622	N7	G	Al401	196.482	107.105	-15.283	1.00	63.41	N
ATOM	29573	C4*	C	Al399	198.658	110.909	-13.369	1.00	52.11	C	ATOM	29623	C5	G	Al401	195.270	107.368	-15.898	1.00	63.41	C
ATOM	29574	O4*	C	Al399	197.630	110.377	-14.233	1.00	52.11	O	ATOM	29624	C6	G	Al401	194.810	107.034	-17.197	1.00	63.41	C
ATOM	29575	C3*	C	Al399	199.530	111.809	-14.238	1.00	52.11	C	ATOM	29625	O6	G	Al401	195.390	106.399	-18.081	1.00	63.41	O
ATOM	29576	O3*	C	Al399	200.583	111.046	-14.810	1.00	52.11	O	ATOM	29626	N1	G	Al401	193.527	107.510	-17.419	1.00	63.41	N
ATOM	29577	C2*	C	Al399	198.590	112.206	-15.368	1.00	52.11	C	ATOM	29627	C2	G	Al401	192.776	108.205	-16.507	1.00	63.41	C
ATOM	29578	O2*	C	Al399	199.296	112.556	-16.549	1.00	52.11	O	ATOM	29628	N2	G	Al401	191.564	108.589	-16.914	1.00	63.41	N
ATOM	29579	C1*	C	Al399	197.763	110.928	-15.523	1.00	52.11	C	ATOM	29629	N3	G	Al401	193.187	108.506	-15.286	1.00	63.41	N
ATOM	29580	N1	C	Al399	196.413	111.089	-16.077	1.00	65.05	N	ATOM	29630	C4	G	Al401	194.437	108.062	-15.053	1.00	63.41	C
ATOM	29581	C2	C	Al399	196.014	110.255	-17.137	1.00	65.05	C	ATOM	29631	P	C	Al402	193.624	104.731	-10.254	1.00	57.47	P
ATOM	29582	O2	C	Al399	196.821	109.435	-17.597	1.00	65.05	O	ATOM	29632	O1P	C	Al402	192.854	104.296	-9.058	1.00	61.53	O
ATOM	29583	N3	C	Al399	194.764	110.367	-17.632	1.00	65.05	N	ATOM	29633	O2P	C	Al402	194.884	104.032	-10.616	1.00	61.53	O
ATOM	29584	C4	C	Al399	193.926	111.266	-17.120	1.00	65.05	C	ATOM	29634	O5*	C	Al402	192.637	104.657	-11.497	1.00	57.47	O
ATOM	29585	N4	C	Al399	192.696	111.333	-17.628	1.00	65.05	N	ATOM	29635	C5*	C	Al402	191.345	105.277	-11.440	1.00	57.47	C
ATOM	29586	C5	C	Al399	194.311	112.136	-16.057	1.00	65.05	C	ATOM	29636	C4*	C	Al402	190.700	105.275	-12.804	1.00	57.47	C
ATOM	29587	C6	C	Al399	195.550	112.016	-15.570	1.00	65.05	C	ATOM	29637	O4*	C	Al402	191.590	105.932	-13.745	1.00	57.47	O
ATOM	29588	P	C	Al400	201.996	110.935	-14.063	1.00	49.04	P	ATOM	29638	C3*	C	Al402	190.423	103.917	-13.426	1.00	57.47	C
ATOM	29589	O1P	C	Al400	202.264	112.225	-13.363	1.00	61.22	O	ATOM	29639	O3*	C	Al402	189.185	103.377	-12.995	1.00	57.47	O
ATOM	29590	O2P	C	Al400	202.947	110.443	-15.088	1.00	61.22	O	ATOM	29640	C2*	C	Al402	190.394	104.243	-14.912	1.00	57.47	C
ATOM	29591	O5*	C	Al400	201.775	109.769	-13.004	1.00	49.04	O	ATOM	29641	O2*	C	Al402	189.161	104.798	-15.331	1.00	57.47	O
ATOM	29592	C5*	C	Al400	201.416	108.454	-13.441	1.00	49.04	C	ATOM	29642	C1*	C	Al402	191.483	105.313	-15.015	1.00	57.47	C
ATOM	29593	C4*	C	Al400	201.461	107.512	-12.276	1.00	49.04	C	ATOM	29643	N1	C	Al402	192.794	104.738	-15.385	1.00	61.53	N
ATOM	29594	O4*	C	Al400	202.772	107.654	-11.683	1.00	49.04	O	ATOM	29644	C2	C	Al402	192.988	104.321	-16.697	1.00	61.53	C
ATOM	29595	C3*	C	Al400	200.455	107.827	-11.175	1.00	49.04	C	ATOM	29645	O2	C	Al402	192.081	104.483	-17.514	1.00	61.53	O
ATOM	29596	O3*	C	Al400	200.069	106.603	-10.538	1.00	49.04	O	ATOM	29646	N3	C	Al402	194.155	103.751	-17.047	1.00	61.53	N
ATOM	29597	C2*	C	Al400	201.260	108.713	-10.224	1.00	49.04	C	ATOM	29647	C4	C	Al402	195.115	103.592	-16.140	1.00	61.53	C
ATOM	29598	O2*	C	Al400	200.846	108.661	-8.876	1.00	49.04	O	ATOM	29648	N4	C	Al402	196.246	102.987	-16.528	1.00	61.53	N
ATOM	29599	C1*	C	Al400	202.656	108.115	-10.357	1.00	49.04	C	ATOM	29649	C5	C	Al402	194.959	104.034	-14.796	1.00	61.53	C
ATOM	29600	N1	C	Al400	203.746	109.069	-10.108	1.00	61.22	N	ATOM	29650	C6	C	Al402	193.794	104.597	-14.465	1.00	61.53	C
ATOM	29601	C2	C	Al400	204.511	108.929	-8.946	1.00	61.22	C	ATOM	29651	P	C	Al403	189.002	101.779	-12.907	1.00	56.89	P
ATOM	29602	O2	C	Al400	204.242	108.012	-8.154	1.00	61.22	O	ATOM	29652	O1P	C	Al403	187.583	101.459	-12.585	1.00	78.14	O
ATOM	29603	N3	C	Al400	205.526	109.791	-8.718	1.00	61.22	N	ATOM	29653	O2P	C	Al403	190.082	101.227	-12.053	1.00	78.14	O
ATOM	29604	C4	C	Al400	205.794	110.758	-9.606	1.00	61.22	C	ATOM	29654	O5*	C	Al403	189.250	101.296	-14.400	1.00	56.89	O
ATOM	29605	N4	C	Al400	206.823	111.576	-9.355	1.00	61.22	N	ATOM	29655	C5*	C	Al403	188.386	101.720	-15.467	1.00	56.89	C
ATOM	29606	C5	C	Al400	205.025	110.926	-10.794	1.00	61.22	C	ATOM	29656	C4*	C	Al403	188.958	101.283	-16.792	1.00	56.89	C
ATOM	29607	C6	C	Al400	204.019	110.071	-11.001	1.00	61.22	C	ATOM	29657	O4*	C	Al403	190.250	101.912	-16.971	1.00	56.89	O
ATOM	29608	P	G	Al401	198.814	105.768	-11.103	1.00	52.15	P	ATOM	29658	C3*	C	Al403	189.210	99.790	-16.932	1.00	56.89	C
ATOM	29609	O1P	G	Al401	198.339	104.818	-10.048	1.00	63.41	O	ATOM	29659	O3*	C	Al403	188.031	99.147	-17.419	1.00	56.89	O
ATOM	29610	O2P	G	Al401	199.181	105.238	-12.439	1.00	63.41	O	ATOM	29660	C2*	C	Al403	190.357	99.745	-17.934	1.00	56.89	C
ATOM	29611	O5*	G	Al401	197.687	106.872	-11.341	1.00	52.15	O	ATOM	29661	O2*	C	Al403	189.907	99.920	-17.261	1.00	56.89	O
ATOM	29612	C5*	G	Al401	197.025	107.517	-10.238	1.00	52.15	C	ATOM	29662	C1*	C	Al403	191.151	100.997	-17.558	1.00	56.89	C
ATOM	29613	C4*	G	Al401	195.645	107.988	-10.646	1.00	52.15	C	ATOM	29663	N1	C	Al403	192.249	100.767	-16.599	1.00	78.14	N
ATOM	29614	O4*	G	Al401	195.758	108.927	-11.752	1.00	52.15	O	ATOM	29664	C2	C	Al403	193.343	100.003	-16.991	1.00	78.14	C
ATOM	29615	C3*	G	Al401	194.668	106.935	-11.149	1.00	52.15	C	ATOM	29665	O2	C	Al403	193.360	99.523	-18.121	1.00	78.14	O



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ATOM	29666	N3	C A1403	194.356	99.803	-16.124	1.00	78.14	N	ATOM	29716	O2P	U A1406	188.471	87.886	-19.849	1.00	67.63	O
ATOM	29667	C4	C A1403	194.301	100.331	-14.902	1.00	78.14	C	ATOM	29717	O5*	U A1406	189.772	86.596	-21.533	1.00	54.27	O
ATOM	29668	N4	C A1403	195.326	100.112	-14.077	1.00	78.14	N	ATOM	29718	C5*	U A1406	190.054	86.117	-22.858	1.00	54.27	C
ATOM	29669	C5	C A1403	193.193	101.108	-14.471	1.00	78.14	C	ATOM	29719	C4*	U A1406	191.444	85.534	-22.941	1.00	54.27	C
ATOM	29670	C6	C A1403	192.200	101.299	-15.342	1.00	78.14	C	ATOM	29720	O4*	U A1406	192.461	86.574	-22.881	1.00	54.27	O
ATOM	29671	P	C A1404	187.791	97.583	-17.135	1.00	46.18	P	ATOM	29721	C3*	U A1406	191.857	84.543	-21.871	1.00	54.27	C
ATOM	29672	O1P	C A1404	186.340	97.356	-16.974	1.00	59.68	O	ATOM	29722	O3*	U A1406	191.338	83.245	-22.111	1.00	54.27	O
ATOM	29673	O2P	C A1404	188.719	97.148	-16.066	1.00	59.68	O	ATOM	29723	C2*	U A1406	193.376	84.563	-21.990	1.00	54.27	C
ATOM	29674	O5*	C A1404	188.215	96.880	-18.499	1.00	46.18	O	ATOM	29724	O2*	U A1406	193.844	83.743	-23.047	1.00	54.27	C
ATOM	29675	C5*	C A1404	187.762	97.396	-19.771	1.00	46.18	C	ATOM	29725	C1*	U A1406	193.651	86.026	-22.342	1.00	54.27	C
ATOM	29676	C4*	C A1404	188.505	96.723	-20.905	1.00	46.18	C	ATOM	29726	N1	U A1406	194.055	86.790	-21.155	1.00	67.63	N
ATOM	29677	O4*	C A1404	189.865	97.221	-20.986	1.00	46.18	O	ATOM	29727	C2	U A1406	195.385	86.734	-20.797	1.00	67.63	C
ATOM	29678	C3*	C A1404	188.643	95.224	-20.746	1.00	46.18	C	ATOM	29728	O2	U A1406	196.217	86.133	-21.450	1.00	67.63	O
ATOM	29679	O3*	C A1404	187.505	94.536	-21.229	1.00	46.18	O	ATOM	29729	N3	U A1406	195.708	87.410	-19.650	1.00	67.63	N
ATOM	29680	C2*	C A1404	189.908	94.900	-21.520	1.00	46.18	C	ATOM	29730	C4	U A1406	194.857	88.135	-18.855	1.00	67.63	C
ATOM	29681	O2*	C A1404	189.656	94.711	-22.898	1.00	46.18	O	ATOM	29731	O5	U A1406	195.288	88.657	-17.829	1.00	67.63	O
ATOM	29682	C1*	C A1404	190.746	96.158	-21.280	1.00	46.18	C	ATOM	29732	C4	U A1406	193.503	88.171	-19.308	1.00	67.63	C
ATOM	29683	N1	C A1404	191.665	96.015	-20.142	1.00	59.68	N	ATOM	29733	C6	U A1406	193.157	87.513	-20.415	1.00	67.63	C
ATOM	29684	C2	C A1404	192.948	95.539	-20.376	1.00	59.68	C	ATOM	29734	P	C A1407	190.939	82.311	-20.861	1.00	57.49	P
ATOM	29685	O2	C A1404	193.272	95.230	-21.536	1.00	59.68	O	ATOM	29735	O1P	C A1407	190.470	81.011	-21.404	1.00	68.26	O
ATOM	29686	N3	C A1404	193.806	95.421	-19.337	1.00	59.68	N	ATOM	29736	O2P	C A1407	190.066	83.080	-19.936	1.00	68.26	O
ATOM	29687	C4	C A1404	193.414	95.750	-18.105	1.00	59.68	C	ATOM	29737	O5*	C A1407	192.301	82.095	-20.068	1.00	57.49	O
ATOM	29688	N4	C A1404	194.295	95.620	-17.118	1.00	59.68	N	ATOM	29738	C5*	C A1407	193.466	81.596	-20.727	1.00	57.49	C
ATOM	29689	C5	C A1404	192.104	96.226	-17.834	1.00	59.68	C	ATOM	29739	C4*	C A1407	194.660	81.708	-19.816	1.00	57.49	C
ATOM	29690	C6	C A1404	191.271	96.344	-18.871	1.00	59.68	C	ATOM	29740	O4*	C A1407	195.036	83.101	-19.629	1.00	57.49	O
ATOM	29691	P	G A1405	186.963	93.278	-20.406	1.00	40.58	P	ATOM	29741	C3*	C A1407	194.433	81.195	-18.410	1.00	57.49	C
ATOM	29692	O1P	G A1405	185.518	93.020	-20.670	1.00	60.36	O	ATOM	29742	O3*	C A1407	194.579	79.803	-18.305	1.00	57.49	O
ATOM	29693	O2P	G A1405	187.413	93.606	-19.031	1.00	60.36	O	ATOM	29743	C2*	C A1407	195.495	81.920	-17.609	1.00	57.49	C
ATOM	29694	O5*	G A1405	187.798	92.064	-22.383	1.00	40.58	O	ATOM	29744	O2*	C A1407	196.735	81.249	-17.707	1.00	57.49	O
ATOM	29695	C5*	G A1405	187.593	91.680	-22.009	1.00	40.58	C	ATOM	29745	C1*	C A1407	195.534	83.282	-18.311	1.00	57.49	C
ATOM	29696	C4*	G A1405	188.740	90.857	-22.904	1.00	40.58	C	ATOM	29746	N1	C A1407	194.697	84.282	-17.613	1.00	68.26	N
ATOM	29697	O4*	G A1405	189.944	91.667	-23.002	1.00	40.58	O	ATOM	29747	C2	C A1407	195.228	84.938	-16.504	1.00	68.26	C
ATOM	29698	C3*	G A1405	189.162	89.656	-22.081	1.00	40.58	C	ATOM	29748	O2	C A1407	196.387	84.672	-16.146	1.00	68.26	O
ATOM	29699	O3*	G A1405	188.321	88.528	-22.272	1.00	40.58	O	ATOM	29749	N3	C A1407	194.470	85.839	-15.846	1.00	68.26	N
ATOM	29700	C2*	G A1405	190.575	89.422	-22.596	1.00	40.58	C	ATOM	29750	C4	C A1407	193.226	86.094	-16.254	1.00	68.26	C
ATOM	29701	O2*	G A1405	190.555	88.829	-23.885	1.00	40.58	O	ATOM	29751	N4	C A1407	192.514	86.992	-15.567	1.00	68.26	N
ATOM	29702	C1*	G A1405	191.084	90.854	-22.744	1.00	40.58	C	ATOM	29752	C5	C A1407	192.657	85.444	-17.382	1.00	68.26	C
ATOM	29703	N9	G A1405	191.727	91.303	-21.505	1.00	60.36	N	ATOM	29753	C6	C A1407	193.420	84.557	-18.029	1.00	68.26	C
ATOM	29704	C8	G A1405	191.106	91.812	-20.387	1.00	60.36	C	ATOM	29754	P	A A1408	193.824	79.037	-17.117	1.00	60.17	P
ATOM	29705	N7	G A1405	191.935	92.076	-19.413	1.00	60.36	N	ATOM	29755	O1P	A A1408	194.008	77.572	-17.323	1.00	71.14	O
ATOM	29706	C5	G A1405	193.183	91.729	-19.915	1.00	60.36	C	ATOM	29756	O2P	A A1408	192.443	79.595	-17.000	1.00	71.14	O
ATOM	29707	C6	G A1405	194.473	91.777	-19.306	1.00	60.36	C	ATOM	29757	O5*	A A1408	194.654	79.477	-15.831	1.00	60.17	O
ATOM	29708	O6	G A1405	194.775	92.128	-18.160	1.00	60.36	O	ATOM	29758	C5*	A A1408	196.029	79.121	-15.705	1.00	60.17	C
ATOM	29709	N1	G A1405	195.463	91.346	-20.177	1.00	60.36	N	ATOM	29759	C4*	A A1408	196.529	79.451	-14.329	1.00	60.17	C
ATOM	29710	C2	G A1405	195.253	90.915	-21.459	1.00	60.36	C	ATOM	29760	O4*	A A1408	196.705	80.880	-14.189	1.00	60.17	O
ATOM	29711	N2	G A1405	196.344	90.558	-22.146	1.00	60.36	N	ATOM	29761	C3*	A A1408	195.631	79.060	-13.175	1.00	60.17	C
ATOM	29712	N3	G A1405	194.063	90.843	-22.032	1.00	60.36	N	ATOM	29762	O3*	A A1408	195.807	77.704	-12.822	1.00	60.17	O
ATOM	29713	C4	G A1405	193.078	91.265	-21.210	1.00	60.36	C	ATOM	29763	C2*	A A1408	196.114	79.981	-12.067	1.00	60.17	C
ATOM	29714	P	U A1406	188.384	87.312	-21.220	1.00	54.27	P	ATOM	29764	O2*	A A1408	197.273	79.469	-11.454	1.00	60.17	O
ATOM	29715	O1P	U A1406	187.281	86.383	-21.564	1.00	67.63	O	ATOM	29765	C1*	A A1408	196.474	81.254	-12.842	1.00	60.17	C



Table 2: Sheet 299/520

ATOM	29766	N9	A A1408	195.398	82.248	-12.807	1.00	71.14	N	ATOM	29816	N2	G A1410	184.919	82.702	-6.173	1.00	71.70	N
ATOM	29767	C8	A A1408	194.557	82.615	-13.827	1.00	71.14	C	ATOM	29817	N3	G A1410	186.715	81.258	-6.082	1.00	71.70	N
ATOM	29768	N7	A A1408	193.638	83.480	-13.471	1.00	71.14	N	ATOM	29818	C4	G A1410	187.649	80.672	-6.854	1.00	71.70	C
ATOM	29769	C5	A A1408	193.902	83.712	-12.131	1.00	71.14	C	ATOM	29819	P	C A1411	186.908	75.078	-4.551	1.00	80.74	P
ATOM	29770	C6	A A1408	193.281	84.525	-11.184	1.00	71.14	C	ATOM	29820	O1P	C A1411	186.764	73.958	-3.584	1.00	64.10	O
ATOM	29771	N6	A A1408	192.204	85.264	-11.444	1.00	71.14	N	ATOM	29821	O2P	C A1411	187.092	74.778	-6.000	1.00	64.10	O
ATOM	29772	N1	A A1408	193.801	84.551	-9.943	1.00	71.14	N	ATOM	29822	OS*	C A1411	185.638	76.041	-4.435	1.00	80.74	O
ATOM	29773	C2	A A1408	194.868	83.792	-9.680	1.00	71.14	C	ATOM	29823	CS*	C A1411	185.201	76.568	-3.160	1.00	80.74	C
ATOM	29774	N3	A A1408	195.536	82.973	-10.484	1.00	71.14	N	ATOM	29824	C4*	C A1411	184.033	77.518	-3.346	1.00	80.74	C
ATOM	29775	C4	A A1408	194.997	82.979	-11.713	1.00	71.14	C	ATOM	29825	O4*	C A1411	184.463	78.703	-4.066	1.00	80.74	O
ATOM	29776	P	C A1409	194.582	76.889	-12.177	1.00	57.50	P	ATOM	29826	CS*	C A1411	182.859	77.011	-4.166	1.00	80.74	C
ATOM	29777	O1P	C A1409	195.022	75.484	-11.972	1.00	63.72	O	ATOM	29827	O3*	C A1411	181.958	76.191	-3.453	1.00	80.74	O
ATOM	29778	O2P	C A1409	193.368	77.157	-12.997	1.00	63.72	O	ATOM	29828	C2*	C A1411	182.186	78.295	-4.617	1.00	80.74	C
ATOM	29779	O5*	C A1409	194.384	77.559	-10.744	1.00	57.50	O	ATOM	29829	O2*	C A1411	181.360	78.854	-3.617	1.00	80.74	O
ATOM	29780	CS*	C A1409	195.365	77.399	-9.717	1.00	57.50	C	ATOM	29830	CI*	C A1411	183.389	79.199	-4.853	1.00	80.74	C
ATOM	29781	C4*	C A1409	194.916	78.080	-8.451	1.00	57.50	C	ATOM	29831	N1	C A1411	183.779	79.206	-6.276	1.00	64.10	N
ATOM	29782	O4*	C A1409	194.951	79.518	-8.637	1.00	57.50	O	ATOM	29832	C2	C A1411	182.990	79.928	-7.188	1.00	64.10	C
ATOM	29783	C3*	C A1409	193.491	77.806	-8.003	1.00	57.50	C	ATOM	29833	O2	C A1411	181.988	80.529	-6.778	1.00	64.10	O
ATOM	29784	O3*	C A1409	193.313	76.588	-7.310	1.00	57.50	O	ATOM	29834	N3	C A1411	183.339	79.949	-8.489	1.00	64.10	N
ATOM	29785	C2*	C A1409	193.187	79.011	-7.130	1.00	57.50	C	ATOM	29835	C4	C A1411	184.422	79.293	-8.901	1.00	64.10	C
ATOM	29786	O2*	C A1409	193.755	78.883	-5.842	1.00	57.50	O	ATOM	29836	N4	C A1411	184.734	79.363	-10.191	1.00	64.10	N
ATOM	29787	CI*	C A1409	193.894	80.124	-7.901	1.00	57.50	C	ATOM	29837	C5	C A1411	185.236	78.543	-8.005	1.00	64.10	C
ATOM	29788	N1	C A1409	192.963	80.789	-8.847	1.00	63.72	N	ATOM	29838	C6	C A1411	184.882	78.527	-6.714	1.00	64.10	C
ATOM	29789	C2	C A1409	192.218	81.888	-8.405	1.00	63.72	C	ATOM	29839	P	C A1412	181.098	75.098	-4.259	1.00	60.79	P
ATOM	29790	O2	C A1409	192.376	82.296	-7.247	1.00	63.72	O	ATOM	29840	O1P	C A1412	180.381	74.299	-3.235	1.00	58.88	O
ATOM	29791	N3	C A1409	191.344	82.476	-9.250	1.00	63.72	N	ATOM	29841	O2P	C A1412	181.998	74.416	-5.238	1.00	58.88	O
ATOM	29792	C4	C A1409	191.195	82.007	-10.487	1.00	63.72	C	ATOM	29842	O5*	C A1412	180.045	75.951	-5.102	1.00	60.79	O
ATOM	29793	N4	C A1409	190.302	82.603	-11.279	1.00	63.72	N	ATOM	29843	CS*	C A1412	179.099	76.800	-5.426	1.00	60.79	C
ATOM	29794	C5	C A1409	191.950	80.905	-10.968	1.00	63.72	C	ATOM	29844	C4*	C A1412	178.299	77.608	-5.426	1.00	60.79	C
ATOM	29795	C6	C A1409	192.814	80.333	-10.127	1.00	63.72	C	ATOM	29845	O4*	C A1412	179.148	78.561	-6.106	1.00	60.79	O
ATOM	29796	P	G A1410	191.956	75.758	-7.538	1.00	70.46	P	ATOM	29846	C3*	C A1412	177.597	76.859	-6.544	1.00	60.79	C
ATOM	29797	O1P	G A1410	192.139	74.384	-7.005	1.00	71.70	O	ATOM	29847	O3*	C A1412	176.358	76.328	-6.116	1.00	60.79	O
ATOM	29798	O2P	G A1410	191.535	75.944	-8.951	1.00	71.70	O	ATOM	29848	C2*	C A1412	177.374	77.951	-7.576	1.00	60.79	C
ATOM	29799	O5*	G A1410	190.908	76.509	-6.608	1.00	70.46	O	ATOM	29849	O2*	C A1412	176.225	78.721	-7.287	1.00	60.79	O
ATOM	29800	CS*	G A1410	191.124	76.593	-5.188	1.00	70.46	C	ATOM	29850	CI*	C A1412	178.625	78.812	-7.396	1.00	60.79	C
ATOM	29801	C4*	G A1410	190.043	77.419	-4.536	1.00	70.46	C	ATOM	29851	N1	C A1412	179.652	78.497	-8.397	1.00	58.88	N
ATOM	29802	O4*	G A1410	190.154	78.798	-4.969	1.00	70.46	O	ATOM	29852	C2	C A1412	179.550	79.081	-9.664	1.00	58.88	C
ATOM	29803	C3*	G A1410	188.610	77.037	-4.857	1.00	70.46	C	ATOM	29853	O2	C A1412	178.614	79.865	-9.892	1.00	58.88	O
ATOM	29804	O3*	G A1410	188.138	75.982	-4.041	1.00	70.46	O	ATOM	29854	N3	C A1412	180.470	78.781	-10.603	1.00	58.88	N
ATOM	29805	C2*	G A1410	187.862	78.327	-4.572	1.00	70.46	C	ATOM	29855	C4	C A1412	181.466	77.946	-10.315	1.00	58.88	C
ATOM	29806	O2*	G A1410	187.647	78.500	-3.186	1.00	70.46	O	ATOM	29856	N4	C A1412	182.348	77.681	-11.271	1.00	58.88	N
ATOM	29807	CI*	G A1410	188.863	79.377	-5.047	1.00	70.46	C	ATOM	29857	C5	C A1412	181.601	77.347	-9.031	1.00	58.88	C
ATOM	29808	N9	G A1410	188.628	79.807	-6.424	1.00	71.70	N	ATOM	29858	C6	C A1412	180.681	77.646	-8.111	1.00	58.88	C
ATOM	29809	C8	G A1410	189.340	79.445	-7.541	1.00	71.70	C	ATOM	29859	P	A A1413	175.727	75.074	-6.886	1.00	57.98	P
ATOM	29810	N7	G A1410	188.909	80.017	-8.630	1.00	71.70	N	ATOM	29860	O1P	A A1413	174.679	74.498	-6.002	1.00	56.11	O
ATOM	29811	C5	G A1410	187.846	80.803	-8.208	1.00	71.70	C	ATOM	29861	O2P	A A1413	176.833	74.213	-7.369	1.00	56.11	O
ATOM	29812	C6	G A1410	186.998	81.671	-8.941	1.00	71.70	C	ATOM	29862	OS*	A A1413	175.015	75.719	-8.152	1.00	57.98	O
ATOM	29813	O6	G A1410	187.022	81.935	-10.143	1.00	71.70	O	ATOM	29863	CS*	A A1413	173.786	76.445	-8.012	1.00	57.98	C
ATOM	29814	N1	G A1410	186.049	82.264	-8.127	1.00	71.70	N	ATOM	29864	C4*	A A1413	173.474	77.192	-9.281	1.00	57.98	C
ATOM	29815	C2	G A1410	185.924	82.052	-6.781	1.00	71.70	C	ATOM	29865	O4*	A A1413	174.572	78.089	-9.584	1.00	57.98	O



Table 2: Sheet 300/520

ATOM	29866	C3*	A A1413	173.319	76.355	-10.540	1.00	57.98	C	ATOM	29916	C5	G A1415	176.788	72.970	-20.266	1.00	68.68	C
ATOM	29867	O3*	A A1413	172.006	75.840	-10.677	1.00	57.98	O	ATOM	29917	C6	G A1415	177.923	72.149	-20.447	1.00	68.68	C
ATOM	29868	C2*	A A1413	173.619	77.368	-11.629	1.00	57.98	C	ATOM	29918	O6	G A1415	178.548	71.506	-19.596	1.00	68.68	O
ATOM	29869	O2*	A A1413	172.510	78.209	-11.868	1.00	57.98	O	ATOM	29919	N1	G A1415	178.323	72.119	-21.778	1.00	68.68	N
ATOM	29870	C1*	A A1413	174.729	78.191	-10.983	1.00	57.98	C	ATOM	29920	C2	G A1415	177.703	72.788	-22.805	1.00	68.68	C
ATOM	29871	N9	A A1413	176.035	77.648	-11.339	1.00	56.11	N	ATOM	29921	N2	G A1415	178.230	72.632	-24.025	1.00	68.68	N
ATOM	29872	C8	A A1413	176.812	76.758	-10.643	1.00	56.11	C	ATOM	29922	N3	G A1415	176.643	73.554	-22.649	1.00	68.68	N
ATOM	29873	N7	A A1413	177.924	76.438	-11.257	1.00	56.11	N	ATOM	29923	C4	G A1415	176.242	73.601	-21.363	1.00	68.68	C
ATOM	29874	C5	A A1413	177.876	77.176	-12.432	1.00	56.11	C	ATOM	29924	P	G A1416	170.804	72.017	-23.075	1.00	60.89	P
ATOM	29875	C6	A A1413	178.757	77.284	-13.518	1.00	56.11	C	ATOM	29925	O1P	G A1416	169.566	71.971	-23.891	1.00	68.79	O
ATOM	29876	N6	A A1413	179.916	76.628	-13.597	1.00	56.11	N	ATOM	29926	O2P	G A1416	170.839	71.345	-21.749	1.00	68.79	O
ATOM	29877	N1	A A1413	178.406	78.102	-14.533	1.00	56.11	N	ATOM	29927	O5*	G A1416	171.993	71.473	-23.977	1.00	60.89	O
ATOM	29878	C2	A A1413	177.253	78.763	-14.448	1.00	56.11	C	ATOM	29928	C5*	G A1416	172.182	71.989	-25.301	1.00	60.89	C
ATOM	29879	N3	A A1413	176.347	78.750	-13.480	1.00	56.11	N	ATOM	29929	C4*	G A1416	173.386	71.355	-25.935	1.00	60.89	C
ATOM	29880	C4	A A1413	176.723	77.927	-12.491	1.00	56.11	C	ATOM	29930	O4*	G A1416	174.574	71.730	-25.197	1.00	60.89	O
ATOM	29881	P	U A1414	171.738	74.603	-11.667	1.00	52.99	P	ATOM	29931	C3*	G A1416	173.389	69.839	-25.935	1.00	60.89	C
ATOM	29882	O1P	U A1414	170.262	74.411	-11.723	1.00	64.90	O	ATOM	29932	O3*	G A1416	172.658	69.342	-27.046	1.00	60.89	O
ATOM	29883	O2P	U A1414	172.614	73.470	-11.274	1.00	64.90	O	ATOM	29933	C2*	G A1416	174.877	69.510	-25.991	1.00	60.89	C
ATOM	29884	O5*	U A1414	172.213	75.113	-13.099	1.00	52.99	O	ATOM	29934	O2*	G A1416	175.415	69.618	-27.297	1.00	60.89	O
ATOM	29885	C5*	U A1414	171.425	76.056	-13.829	1.00	52.99	C	ATOM	29935	C1*	G A1416	175.472	70.635	-25.144	1.00	60.89	C
ATOM	29886	C4*	U A1414	172.123	76.470	-15.099	1.00	52.99	C	ATOM	29936	N9	G A1416	175.659	70.279	-23.742	1.00	68.79	N
ATOM	29887	O4*	U A1414	173.442	77.008	-14.808	1.00	52.99	O	ATOM	29937	C8	G A1416	174.947	70.763	-22.672	1.00	68.79	C
ATOM	29888	C3*	U A1414	172.393	75.390	-16.123	1.00	52.99	C	ATOM	29938	N7	G A1416	175.349	70.283	-21.528	1.00	68.79	N
ATOM	29889	O3*	U A1414	171.243	75.100	-16.897	1.00	52.99	O	ATOM	29939	C5	G A1416	176.380	69.426	-21.865	1.00	68.79	C
ATOM	29890	C2*	U A1414	173.490	76.025	-16.965	1.00	52.99	C	ATOM	29940	C6	G A1416	177.191	68.627	-21.043	1.00	68.79	C
ATOM	29891	O2*	U A1414	172.986	76.958	-17.895	1.00	52.99	O	ATOM	29941	O6	G A1416	177.161	68.524	-19.808	1.00	68.79	O
ATOM	29892	C1*	U A1414	174.300	76.784	-15.913	1.00	52.99	C	ATOM	29942	N1	G A1416	178.113	67.899	-21.789	1.00	68.79	N
ATOM	29893	N1	U A1414	175.466	75.989	-15.492	1.00	64.90	N	ATOM	29943	C2	G A1416	178.238	67.948	-23.160	1.00	68.79	C
ATOM	29894	C2	U A1414	176.504	75.849	-16.402	1.00	64.90	C	ATOM	29944	N2	G A1416	179.177	67.174	-23.704	1.00	68.79	N
ATOM	29895	O2	U A1414	176.552	76.445	-17.461	1.00	64.90	O	ATOM	29945	N3	G A1416	177.481	68.702	-23.939	1.00	68.79	N
ATOM	29896	N3	U A1414	177.491	74.988	-16.024	1.00	64.90	N	ATOM	29946	C4	G A1416	176.581	68.014	-26.881	1.00	68.79	C
ATOM	29897	C4	U A1414	177.570	74.282	-14.852	1.00	64.90	C	ATOM	29947	P	G A1417	171.774	68.014	-26.881	1.00	79.41	P
ATOM	29898	O4	U A1414	178.417	73.390	-14.752	1.00	64.90	O	ATOM	29948	O1P	G A1417	171.229	67.702	-28.230	1.00	76.08	O
ATOM	29899	C5	U A1414	176.507	74.539	-13.931	1.00	64.90	C	ATOM	29949	O2P	G A1417	170.847	68.165	-25.735	1.00	76.08	O
ATOM	29900	C6	U A1414	175.518	75.363	-14.274	1.00	64.90	C	ATOM	29950	O5*	G A1417	172.847	66.912	-26.470	1.00	79.41	O
ATOM	29901	P	G A1415	171.120	73.679	-17.644	1.00	53.47	P	ATOM	29951	C5*	G A1417	173.905	66.539	-27.371	1.00	79.41	C
ATOM	29902	O1P	G A1415	169.664	73.402	-17.802	1.00	68.68	O	ATOM	29952	C4*	G A1417	174.874	65.607	-26.687	1.00	79.41	C
ATOM	29903	O2P	G A1415	171.986	72.684	-16.958	1.00	68.68	O	ATOM	29953	O4*	G A1417	175.602	66.325	-25.662	1.00	79.41	O
ATOM	29904	O5*	G A1415	171.733	73.959	-19.081	1.00	53.47	O	ATOM	29954	C3*	G A1417	174.252	64.422	-25.964	1.00	79.41	C
ATOM	29905	C5*	G A1415	171.125	74.918	-19.931	1.00	53.47	C	ATOM	29955	O3*	G A1417	174.025	63.346	-26.859	1.00	79.41	O
ATOM	29906	C4*	G A1415	171.956	75.127	-21.161	1.00	53.47	C	ATOM	29956	C2*	G A1417	175.312	64.081	-24.927	1.00	79.41	C
ATOM	29907	O4*	G A1415	173.260	75.617	-20.774	1.00	53.47	O	ATOM	29957	O2*	G A1417	176.365	63.320	-25.492	1.00	79.41	O
ATOM	29908	C3*	G A1415	172.250	73.895	-21.990	1.00	53.47	C	ATOM	29958	C1*	G A1417	175.838	65.470	-24.558	1.00	79.41	C
ATOM	29909	O3*	G A1415	171.185	73.562	-22.860	1.00	53.47	O	ATOM	29959	N9	G A1417	175.166	66.042	-23.396	1.00	76.08	N
ATOM	29910	C2*	G A1415	173.511	74.303	-22.735	1.00	53.47	C	ATOM	29960	C8	G A1417	174.098	66.906	-23.399	1.00	76.08	C
ATOM	29911	O2*	G A1415	173.229	75.109	-23.867	1.00	53.47	O	ATOM	29961	N7	G A1417	173.719	67.254	-22.202	1.00	76.08	N
ATOM	29912	C1*	G A1415	174.241	75.116	-21.662	1.00	53.47	C	ATOM	29962	C5	G A1417	174.587	66.577	-21.358	1.00	76.08	C
ATOM	29913	N9	G A1415	175.167	74.304	-20.881	1.00	68.68	N	ATOM	29963	C6	G A1417	174.667	66.567	-19.947	1.00	76.08	C
ATOM	29914	C8	G A1415	175.131	74.076	-19.525	1.00	68.68	C	ATOM	29964	O6	G A1417	173.966	67.179	-19.131	1.00	76.08	O
ATOM	29915	N7	G A1415	176.080	73.281	-19.114	1.00	68.68	N	ATOM	29965	N1	G A1417	175.691	65.741	-19.499	1.00	76.08	N



Table 2: Sheet 301/520

ATOM	29966	C2	G A1417	176.534	65.022	-20.307	1.00	76.08	C	ATOM	30016	O1P	C A1420	171.343	50.941	-24.001	1.00128.52
ATOM	29967	N2	G A1417	177.458	64.276	-19.688	1.00	76.08	N	ATOM	30017	O2P	C A1420	170.519	53.329	-24.452	1.00128.52
ATOM	29968	N3	G A1417	176.475	65.032	-21.625	1.00	76.08	N	ATOM	30018	O5*	C A1420	171.255	52.626	-22.166	1.00120.33
ATOM	29969	C4	G A1417	175.483	65.824	-22.079	1.00	76.08	C	ATOM	30019	C5*	C A1420	172.006	51.837	-21.231	1.00120.33
ATOM	29970	P	A A1418	172.851	62.292	-26.562	1.00110.79	P	ATOM	30020	C4*	C A1420	171.719	52.269	-19.814	1.00120.33	
ATOM	29971	O1P	A A1418	171.805	62.497	-27.597	1.00	96.56	O	ATOM	30021	O4*	C A1420	172.183	53.628	-19.609	1.00120.33
ATOM	29972	O2P	A A1418	172.484	62.340	-25.123	1.00	96.56	O	ATOM	30022	C3*	C A1420	170.264	52.303	-19.378	1.00120.33
ATOM	29973	O5*	A A1418	173.545	60.892	-26.851	1.00110.79	O	ATOM	30023	O3*	C A1420	169.766	51.027	-18.999	1.00120.33	
ATOM	29974	C5*	A A1418	174.210	60.644	-28.104	1.00110.79	C	ATOM	30024	C2*	C A1420	170.295	53.265	-18.197	1.00120.33	
ATOM	29975	C4*	A A1418	175.245	59.564	-27.929	1.00110.79	C	ATOM	30025	O2*	C A1420	170.677	52.645	-16.982	1.00120.33	
ATOM	29976	O4*	A A1418	176.304	60.051	-27.063	1.00110.79	O	ATOM	30026	C1*	C A1420	171.367	54.265	-18.636	1.00120.33	
ATOM	29977	C3*	A A1418	174.728	58.318	-27.231	1.00110.79	C	ATOM	30027	N1	C A1420	170.777	55.491	-19.215	1.00128.52	
ATOM	29978	O3*	A A1418	174.069	57.421	-28.111	1.00110.79	O	ATOM	30028	C2	C A1420	170.433	56.550	-18.350	1.00128.52	
ATOM	29979	C2*	A A1418	175.985	57.738	-26.599	1.00110.79	C	ATOM	30029	O2	C A1420	170.663	56.439	-17.132	1.00128.52	
ATOM	29980	O2*	A A1418	176.762	56.952	-27.481	1.00110.79	O	ATOM	30030	N3	C A1420	169.863	57.662	-18.864	1.00128.52	
ATOM	29981	C1*	A A1418	176.739	59.008	-26.206	1.00110.79	C	ATOM	30031	C4	C A1420	169.638	57.752	-20.175	1.00128.52	
ATOM	29982	N9	A A1418	176.400	59.374	-24.833	1.00	96.56	N	ATOM	30032	N4	C A1420	169.071	58.872	-20.632	1.00128.52
ATOM	29983	C8	A A1418	175.393	60.291	-24.400	1.00	96.56	C	ATOM	30033	C5	C A1420	169.985	56.702	-21.077	1.00128.52
ATOM	29984	N7	A A1418	175.309	60.291	-23.098	1.00	96.56	N	ATOM	30034	C6	C A1420	170.548	55.602	-20.561	1.00128.52
ATOM	29985	C5	A A1418	176.335	59.479	-22.641	1.00	96.56	C	ATOM	30035	P	G A1421	168.187	50.732	-19.101	1.00137.87
ATOM	29986	C6	A A1418	176.772	59.150	-21.352	1.00	96.56	C	ATOM	30036	O1P	G A1421	167.997	49.279	-18.845	1.00131.39
ATOM	29987	N6	A A1418	176.200	59.611	-20.237	1.00	96.56	C	ATOM	30037	O2P	G A1421	167.673	51.329	-20.364	1.00131.39
ATOM	29988	N1	A A1418	177.828	58.317	-21.241	1.00	96.56	N	ATOM	30038	O5*	G A1421	167.560	51.537	-17.879	1.00137.87
ATOM	29989	C2	A A1418	178.392	57.848	-22.360	1.00	96.56	C	ATOM	30039	C5*	G A1421	167.679	51.039	-16.538	1.00137.87
ATOM	29990	N3	A A1418	178.069	58.083	-23.627	1.00	96.56	N	ATOM	30040	C4*	G A1421	167.002	51.974	-15.570	1.00137.87
ATOM	29991	C4	A A1418	177.020	58.916	-23.699	1.00	96.56	C	ATOM	30041	O4*	G A1421	167.702	53.246	-15.561	1.00137.87
ATOM	29992	P	G A1419	172.756	56.645	-27.604	1.00129.47	P	ATOM	30042	C3*	G A1421	165.560	52.345	-15.884	1.00137.87	
ATOM	29993	O1P	G A1419	172.524	55.558	-28.586	1.00112.38	O	ATOM	30043	O3*	G A1421	164.616	51.361	-15.476	1.00137.87	
ATOM	29994	O2P	G A1419	171.674	57.625	-27.328	1.00112.38	O	ATOM	30044	C2*	G A1421	165.400	53.665	-15.141	1.00137.87	
ATOM	29995	O5*	G A1419	173.194	56.002	-26.212	1.00129.47	O	ATOM	30045	O2*	G A1421	165.155	53.503	-13.757	1.00137.87	
ATOM	29996	C5*	G A1419	174.200	54.974	-26.159	1.00129.47	C	ATOM	30046	C1*	G A1421	166.775	54.301	-15.350	1.00137.87	
ATOM	29997	C4*	G A1419	174.500	54.605	-24.727	1.00129.47	C	ATOM	30047	N9	G A1421	166.765	55.166	-16.530	1.00131.39	
ATOM	29998	O4*	G A1419	175.075	55.749	-24.048	1.00129.47	O	ATOM	30048	C8	G A1421	167.343	54.922	-17.754	1.00131.39	
ATOM	29999	C3*	G A1419	173.301	54.219	-23.876	1.00129.47	C	ATOM	30049	N7	G A1421	167.108	55.862	-18.630	1.00131.39	
ATOM	30000	O3*	G A1419	172.941	52.854	-24.029	1.00129.47	O	ATOM	30050	C5	G A1421	166.336	56.789	-17.941	1.00131.39	
ATOM	30001	C2*	G A1419	173.779	54.528	-22.463	1.00129.47	C	ATOM	30051	C6	G A1421	165.765	58.013	-18.375	1.00131.39	
ATOM	30002	O2*	G A1419	174.549	53.487	-21.894	1.00129.47	O	ATOM	30052	O6	G A1421	165.817	58.535	-19.494	1.00131.39	
ATOM	30003	C1*	G A1419	174.651	55.764	-22.694	1.00129.47	C	ATOM	30053	N1	G A1421	165.066	58.642	-17.349	1.00131.39	
ATOM	30004	N9	G A1419	173.905	56.995	-22.457	1.00112.38	N	ATOM	30054	C2	G A1421	164.924	58.153	-16.073	1.00131.39	
ATOM	30005	C8	G A1419	173.283	57.783	-23.396	1.00112.38	C	ATOM	30055	N2	G A1421	164.216	58.909	-15.221	1.00131.39	
ATOM	30006	N7	G A1419	172.657	58.801	-22.875	1.00112.38	N	ATOM	30056	N3	G A1421	165.439	57.009	-15.660	1.00131.39	
ATOM	30007	C5	G A1419	172.885	58.684	-21.511	1.00112.38	C	ATOM	30057	C4	G A1421	166.129	56.383	-16.639	1.00131.39	
ATOM	30008	C6	G A1419	172.446	59.496	-20.435	1.00112.38	C	ATOM	30058	P	G A1422	163.276	51.133	-16.347	1.00157.89	
ATOM	30009	O6	G A1419	171.739	60.516	-20.475	1.00112.38	O	ATOM	30059	O1P	G A1422	162.668	49.859	-15.877	1.00127.67	
ATOM	30010	N1	G A1419	172.906	59.014	-19.213	1.00112.38	N	ATOM	30060	O2P	G A1422	163.601	51.303	-17.793	1.00127.67	
ATOM	30011	C2	G A1419	173.682	57.895	-19.045	1.00112.38	C	ATOM	30061	O5*	G A1422	162.313	52.328	-15.911	1.00157.89	
ATOM	30012	N2	G A1419	174.015	57.590	-17.782	1.00112.38	N	ATOM	30062	C5*	G A1422	161.728	52.358	-14.592	1.00157.89	
ATOM	30013	N3	G A1419	174.096	57.131	-20.040	1.00112.38	N	ATOM	30063	C4*	G A1422	161.038	53.681	-14.342	1.00157.89	
ATOM	30014	C4	G A1419	173.662	57.580	-21.237	1.00112.38	C	ATOM	30064	O4*	G A1422	162.006	54.760	-14.445	1.00157.89	
ATOM	30015	P	C A1420	171.428	52.398	-23.734	1.00120.33	P	ATOM	30065	C3*	G A1422	159.939	54.077	-15.315	1.00157.89	



Table 2: Sheet 302/520

ATOM	30066	O3*	G A1422	158.681	53.483	-15.025	1.00157.89	O	ATOM	30116	N1	C A1424	153.833	59.929	-21.009	1.00107.07	N
ATOM	30067	C2*	G A1422	159.902	55.591	-15.165	1.00157.89	C	ATOM	30117	C2	C A1424	154.164	60.297	-22.321	1.00107.07	C
ATOM	30068	O1*	G A1422	159.176	56.019	-14.030	1.00157.89	O	ATOM	30118	O2	C A1424	153.657	61.318	-22.808	1.00107.07	O
ATOM	30069	C1*	G A1422	161.383	55.915	-14.985	1.00157.89	C	ATOM	30119	N3	C A1424	155.024	59.528	-23.024	1.00107.07	N
ATOM	30070	N9	G A1422	161.980	56.197	-16.287	1.00127.67	N	ATOM	30120	C4	C A1424	155.550	58.435	-22.468	1.00107.07	C
ATOM	30071	C8	G A1422	162.834	55.393	-17.003	1.00127.67	C	ATOM	30121	N4	C A1424	156.392	57.703	-23.203	1.00107.07	N
ATOM	30072	N7	G A1422	163.148	55.888	-18.168	1.00127.67	N	ATOM	30122	C5	C A1424	155.238	58.043	-21.134	1.00107.07	C
ATOM	30073	C5	G A1422	162.470	57.098	-18.222	1.00127.67	C	ATOM	30123	C6	C A1424	154.386	58.811	-20.447	1.00107.07	C
ATOM	30074	C6	G A1422	162.419	58.078	-19.247	1.00127.67	C	ATOM	30124	P	U A1425	148.669	58.504	-20.620	1.00134.57	P
ATOM	30075	O6	G A1422	162.976	58.068	-20.352	1.00127.67	O	ATOM	30125	O1P	U A1425	147.234	58.721	-20.304	1.00139.89	O
ATOM	30076	N1	G A1422	161.616	59.155	-18.885	1.00127.67	N	ATOM	30126	O2P	U A1425	149.244	57.137	-20.523	1.00139.89	O
ATOM	30077	C2	G A1422	160.950	59.276	-17.691	1.00127.67	C	ATOM	30127	O5*	U A1425	148.954	59.064	-22.083	1.00134.57	O
ATOM	30078	N2	G A1422	160.234	60.395	-17.525	1.00127.67	N	ATOM	30128	C5*	U A1425	148.608	60.417	-22.430	1.00134.57	C
ATOM	30079	N3	G A1422	160.984	58.367	-16.731	1.00127.67	N	ATOM	30129	C4*	U A1425	148.980	60.702	-23.862	1.00134.57	C
ATOM	30080	C4	G A1422	161.758	57.312	-17.062	1.00127.67	C	ATOM	30130	O4*	U A1425	150.422	60.704	-24.006	1.00134.57	O
ATOM	30081	P	G A1423	157.532	53.475	-16.154	1.00136.98	P	ATOM	30131	C3*	U A1425	148.490	59.684	-24.877	1.00134.57	C
ATOM	30082	O1P	G A1423	156.451	52.562	-15.697	1.00130.54	O	ATOM	30132	O3*	U A1425	147.141	59.936	-25.259	1.00134.57	O
ATOM	30083	O2P	G A1423	158.177	53.244	-17.477	1.00130.54	O	ATOM	30133	C2*	U A1425	149.482	59.845	-26.025	1.00134.57	C
ATOM	30084	O5*	G A1423	156.967	54.966	-16.133	1.00136.98	O	ATOM	30134	O2*	U A1425	149.154	60.898	-26.907	1.00134.57	O
ATOM	30085	C5*	G A1423	156.305	55.491	-14.965	1.00136.98	C	ATOM	30135	C1*	U A1425	150.774	60.190	-25.279	1.00134.57	C
ATOM	30086	C4*	G A1423	155.779	56.878	-15.244	1.00136.98	C	ATOM	30136	N1	U A1425	151.670	59.037	-25.096	1.00139.89	N
ATOM	30087	O3*	G A1423	156.897	57.747	-15.569	1.00136.98	O	ATOM	30137	C2	U A1425	152.539	58.730	-26.130	1.00139.89	C
ATOM	30088	C3*	G A1423	154.858	56.994	-16.447	1.00136.98	C	ATOM	30138	O2	U A1425	152.586	59.369	-27.168	1.00139.89	O
ATOM	30089	O3*	G A1423	153.509	56.664	-16.159	1.00136.98	O	ATOM	30139	N3	U A1425	153.351	57.646	-25.904	1.00139.89	N
ATOM	30090	C2*	G A1423	155.037	58.446	-16.864	1.00136.98	C	ATOM	30140	C4	U A1425	153.385	56.853	-24.775	1.00139.89	C
ATOM	30091	O2*	G A1423	154.285	59.338	-16.067	1.00136.98	O	ATOM	30141	O4	U A1425	154.174	55.908	-24.722	1.00139.89	O
ATOM	30092	C1*	G A1423	156.526	58.650	-16.600	1.00130.54	C	ATOM	30142	C5	U A1425	152.459	58.283	-23.942	1.00139.89	C
ATOM	30093	N9	G A1423	157.318	58.338	-17.789	1.00130.54	N	ATOM	30143	O6	U A1426	151.654	58.803	-26.041	1.00118.86	P
ATOM	30094	C8	G A1423	158.065	57.203	-18.020	1.00130.54	C	ATOM	30144	P	C A1426	144.875	59.166	-25.993	1.00135.50	O
ATOM	30095	N7	G A1423	158.640	57.196	-19.192	1.00130.54	N	ATOM	30145	O1P	C A1426	146.749	57.467	-25.558	1.00135.50	O
ATOM	30096	C5	G A1423	158.257	58.398	-19.770	1.00130.54	C	ATOM	30146	O2P	C A1426	146.802	58.977	-27.542	1.00118.86	O
ATOM	30097	C6	G A1423	159.257	58.944	-21.041	1.00130.54	C	ATOM	30147	O5*	C A1426	147.206	60.154	-29.605	1.00118.86	C
ATOM	30098	O6	G A1423	157.971	60.189	-21.218	1.00130.54	N	ATOM	30148	C5*	C A1426	147.206	60.154	-29.605	1.00118.86	C
ATOM	30099	N1	G A1423	157.180	60.826	-20.294	1.00130.54	C	ATOM	30149	C4*	C A1426	148.648	60.071	-29.491	1.00118.86	O
ATOM	30100	C2	G A1423	156.707	62.027	-20.648	1.00130.54	N	ATOM	30150	O4*	C A1426	146.815	58.931	-30.414	1.00118.86	C
ATOM	30101	N2	G A1423	156.878	60.324	-19.110	1.00130.54	N	ATOM	30151	C3*	C A1426	145.573	59.108	-31.078	1.00118.86	C
ATOM	30102	N3	G A1423	157.447	59.118	-18.915	1.00130.54	C	ATOM	30152	O3*	C A1426	147.981	58.775	-31.380	1.00118.86	O
ATOM	30103	C4	G A1423	152.531	56.240	-17.365	1.00144.49	P	ATOM	30153	C2*	C A1426	147.859	59.611	-32.514	1.00118.86	O
ATOM	30104	P	C A1424	151.233	55.830	-16.769	1.00107.07	O	ATOM	30154	O2*	C A1426	149.161	59.241	-30.522	1.00118.86	C
ATOM	30105	O1P	C A1424	151.233	55.830	-16.769	1.00107.07	O	ATOM	30155	C1*	C A1426	149.926	58.133	-29.910	1.00135.50	N
ATOM	30106	O2P	C A1424	153.250	55.306	-18.273	1.00107.07	O	ATOM	30156	N1	C A1426	150.764	57.348	-30.727	1.00135.50	C
ATOM	30107	O5*	C A1424	152.317	57.601	-18.161	1.00144.49	O	ATOM	30157	C2	C A1426	150.827	57.590	-31.942	1.00135.50	O
ATOM	30108	C5*	C A1424	151.775	58.757	-17.504	1.00144.49	C	ATOM	30158	O2	C A1426	151.479	56.347	-30.168	1.00135.50	N
ATOM	30109	C4*	C A1424	151.611	59.884	-18.489	1.00144.49	C	ATOM	30159	N3	C A1426	151.385	56.109	-28.858	1.00135.50	C
ATOM	30110	O4*	C A1424	152.912	60.380	-18.893	1.00144.49	O	ATOM	30160	C4	C A1426	152.120	55.118	-28.350	1.00135.50	N
ATOM	30111	C3*	C A1424	150.931	59.498	-19.790	1.00144.49	C	ATOM	30161	N4	C A1426	150.536	56.880	-28.010	1.00135.50	C
ATOM	30112	O3*	C A1424	149.519	59.484	-19.678	1.00144.49	O	ATOM	30162	C5	C A1426	149.832	57.870	-28.570	1.00135.50	C
ATOM	30113	C2*	C A1424	151.445	60.549	-20.763	1.00144.49	C	ATOM	30163	C6	C A1426	144.724	57.817	-31.517	1.00126.01	P
ATOM	30114	O2*	C A1424	150.733	61.769	-20.705	1.00144.49	O	ATOM	30164	P	U A1427	143.451	58.302	-32.114	1.00109.99	O
ATOM	30115	C1*	C A1424	152.873	60.760	-20.260	1.00144.49	C	ATOM	30165	O1P	U A1427					

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Table 2: Sheet 303/520

ATOM	30166	O2P	U A1427	144.681	56.880	-30.368	1.00109.99	O	ATOM	30216	O2*	C A1429	146.734	43.310	-35.648	1.00106.61
ATOM	30167	O5*	U A1427	145.613	57.160	-32.664	1.00126.01	O	ATOM	30217	Cl*	C A1429	147.034	45.642	-35.202	1.00106.61
ATOM	30168	C5*	U A1427	145.909	57.889	-33.869	1.00126.01	C	ATOM	30218	N1	C A1429	146.906	46.540	-34.040	1.00106.07
ATOM	30169	C4*	U A1427	146.791	57.070	-34.780	1.00126.01	C	ATOM	30219	O2	C A1429	147.689	46.284	-32.903	1.00106.07
ATOM	30170	O4*	U A1427	148.132	56.970	-34.236	1.00126.01	O	ATOM	30220	C2	C A1429	148.496	45.338	-32.924	1.00106.07
ATOM	30171	C3*	U A1427	146.353	55.633	-34.982	1.00126.01	C	ATOM	30221	N3	C A1429	147.549	47.074	-31.816	1.00106.07
ATOM	30172	O3*	U A1427	145.342	55.523	-35.968	1.00126.01	O	ATOM	30222	C4	C A1429	146.685	48.090	-31.836	1.00106.07
ATOM	30173	C2*	U A1427	147.645	54.934	-35.382	1.00126.01	C	ATOM	30223	N4	C A1429	146.577	48.836	-30.736	1.00106.07
ATOM	30174	O2*	U A1427	147.931	55.065	-36.760	1.00126.01	O	ATOM	30224	C5	C A1429	145.893	48.386	-32.984	1.00106.07
ATOM	30175	Cl*	U A1427	148.683	55.703	-34.559	1.00126.01	C	ATOM	30225	C6	C A1429	146.033	47.594	-34.053	1.00106.07
ATOM	30176	N1	U A1427	149.054	55.015	-33.312	1.00109.99	N	ATOM	30226	P	C A1430	142.933	43.260	-35.426	1.00 93.43
ATOM	30177	C2	U A1427	150.018	54.026	-33.384	1.00109.99	C	ATOM	30227	O1P	C A1430	142.168	42.267	-36.228	1.00 90.20
ATOM	30178	O2	U A1427	150.564	53.704	-34.424	1.00109.99	O	ATOM	30228	O2P	C A1430	142.226	44.428	-34.828	1.00 90.20
ATOM	30179	N3	U A1427	150.320	53.423	-32.193	1.00109.99	N	ATOM	30229	O5*	C A1430	143.698	42.479	-34.269	1.00 93.43
ATOM	30180	C4	U A1427	149.772	53.696	-30.964	1.00109.99	C	ATOM	30230	C5*	C A1430	144.556	41.374	-34.581	1.00 93.43
ATOM	30181	O4	U A1427	150.163	53.072	-29.978	1.00109.99	O	ATOM	30231	C4*	C A1430	145.198	40.841	-33.328	1.00 93.43
ATOM	30182	C5	U A1427	148.781	54.725	-30.967	1.00109.99	C	ATOM	30232	O4*	C A1430	146.149	41.804	-32.803	1.00 93.43
ATOM	30183	C6	U A1427	148.465	55.335	-32.111	1.00109.99	C	ATOM	30233	C3*	C A1430	144.251	40.583	-32.173	1.00 93.43
ATOM	30184	P	A A1428	144.310	54.298	-35.894	1.00131.02	P	ATOM	30234	O3*	C A1430	143.583	39.343	-32.286	1.00 93.43
ATOM	30185	O1P	A A1428	143.294	54.480	-36.965	1.00105.93	O	ATOM	30235	C2*	C A1430	145.171	40.657	-30.963	1.00 93.43
ATOM	30186	O2P	A A1428	143.868	54.152	-34.481	1.00105.93	O	ATOM	30236	O2*	C A1430	145.887	39.458	-30.731	1.00 93.43
ATOM	30187	O5*	A A1428	145.217	53.042	-36.256	1.00131.02	O	ATOM	30237	Cl*	C A1430	146.139	41.763	-31.385	1.00 93.43
ATOM	30188	C5*	A A1428	145.721	52.853	-37.589	1.00131.02	C	ATOM	30238	N1	C A1430	145.719	43.084	-30.877	1.00 93.43
ATOM	30189	C4*	A A1428	146.459	51.544	-37.677	1.00131.02	C	ATOM	30239	C2	C A1430	146.001	43.416	-29.545	1.00 90.20
ATOM	30190	O4*	A A1428	147.721	51.646	-36.971	1.00131.02	O	ATOM	30240	O2	C A1430	146.600	42.596	-28.835	1.00 90.20
ATOM	30191	C3*	A A1428	145.750	50.374	-37.019	1.00131.02	C	ATOM	30241	N3	C A1430	145.616	44.621	-29.069	1.00 90.20
ATOM	30192	O3*	A A1428	144.782	49.779	-37.867	1.00131.02	O	ATOM	30242	C4	C A1430	144.979	45.482	-29.868	1.00 90.20
ATOM	30193	C2*	A A1428	146.894	49.432	-36.682	1.00131.02	C	ATOM	30243	N4	C A1430	144.629	46.664	-29.362	1.00 90.20
ATOM	30194	O2*	A A1428	147.279	48.646	-37.789	1.00131.02	O	ATOM	30244	C5	C A1430	144.677	45.170	-31.225	1.00 90.20
ATOM	30195	Cl*	A A1428	148.012	50.415	-36.332	1.00131.02	C	ATOM	30245	C6	C A1430	145.061	43.973	-31.683	1.00 90.20
ATOM	30196	N9	A A1428	148.127	50.654	-34.891	1.00105.93	N	ATOM	30246	P	C A1431	142.162	39.154	-31.566	1.00 98.06
ATOM	30197	C8	A A1428	147.505	51.623	-34.135	1.00105.93	C	ATOM	30247	O1P	C A1431	141.600	37.857	-32.025	1.00 76.84
ATOM	30198	N7	A A1428	147.819	51.584	-32.863	1.00105.93	N	ATOM	30248	O2P	C A1431	141.369	40.400	-31.748	1.00 76.84
ATOM	30199	C5	A A1428	148.706	50.519	-32.772	1.00105.93	C	ATOM	30249	O5*	C A1431	142.547	39.034	-30.025	1.00 98.06
ATOM	30200	C6	A A1428	149.407	49.963	-31.690	1.00105.93	C	ATOM	30250	C5*	C A1431	143.402	37.972	-29.566	1.00 98.06
ATOM	30201	N6	A A1428	149.324	50.421	-30.441	1.00105.93	N	ATOM	30251	C4*	C A1431	143.669	38.109	-28.086	1.00 98.06
ATOM	30202	N1	A A1428	150.209	48.906	-31.937	1.00105.93	N	ATOM	30252	O4*	C A1431	144.501	39.273	-27.835	1.00 98.06
ATOM	30203	C2	A A1428	150.295	48.447	-33.188	1.00105.93	C	ATOM	30253	C3*	C A1431	142.450	38.339	-27.214	1.00 98.06
ATOM	30204	N3	A A1428	149.689	48.883	-34.289	1.00105.93	N	ATOM	30254	O3*	C A1431	141.738	37.161	-26.910	1.00 98.06
ATOM	30205	C4	A A1428	148.900	49.935	-34.011	1.00105.93	C	ATOM	30255	C2*	C A1431	143.045	38.992	-25.979	1.00 98.06
ATOM	30206	P	C A1429	143.526	49.019	-37.215	1.00106.61	P	ATOM	30256	O2*	C A1431	143.610	38.057	-25.081	1.00 98.06
ATOM	30207	O1P	C A1429	142.554	48.723	-38.306	1.00106.07	O	ATOM	30257	Cl*	C A1431	144.137	39.863	-26.595	1.00 98.06
ATOM	30208	O2P	C A1429	143.086	49.799	-36.027	1.00106.07	O	ATOM	30258	N1	C A1431	143.637	41.231	-26.844	1.00 76.84
ATOM	30209	O5*	C A1429	144.142	47.636	-36.725	1.00106.61	O	ATOM	30259	C2	C A1431	143.460	42.094	-25.753	1.00 76.84
ATOM	30210	C5*	C A1429	144.664	46.706	-37.682	1.00106.61	C	ATOM	30260	O2	C A1431	143.759	41.697	-24.613	1.00 76.84
ATOM	30211	C4*	C A1429	145.538	45.686	-37.005	1.00106.61	C	ATOM	30261	N3	C A1431	142.968	43.333	-25.967	1.00 76.84
ATOM	30212	O4*	C A1429	146.663	46.347	-36.375	1.00106.61	O	ATOM	30262	C4	C A1431	142.660	43.725	-27.205	1.00 76.84
ATOM	30213	C3*	C A1429	144.899	44.904	-35.876	1.00106.61	C	ATOM	30263	N4	C A1431	142.157	44.949	-27.365	1.00 76.84
ATOM	30214	O3*	C A1429	144.120	43.824	-36.346	1.00106.61	O	ATOM	30264	C5	C A1431	142.847	42.877	-28.333	1.00 76.84
ATOM	30215	C2*	C A1429	146.105	44.438	-35.076	1.00106.61	C	ATOM	30265	C6	C A1431	143.334	41.652	-28.110	1.00 76.84



ATOM	30256	P	G A1432	140.150	37.248	-26.714	1.00	78.65	P	ATOM	30316	C4*	A A1434	132.661	40.946	-14.481	1.00	58.82	C
ATOM	30267	O1P	G A1432	139.691	35.909	-26.254	1.00	80.11	O	ATOM	30317	O4*	A A1434	133.569	41.991	-14.907	1.00	58.82	O
ATOM	30268	O2P	G A1432	139.542	37.862	-27.923	1.00	80.11	O	ATOM	30318	C3*	A A1434	131.283	41.454	-14.853	1.00	58.82	C
ATOM	30269	O5*	G A1432	139.972	38.292	-25.522	1.00	78.65	O	ATOM	30319	C3*	A A1434	130.282	40.858	-14.047	1.00	58.82	O
ATOM	30270	C5*	G A1432	140.511	38.023	-24.215	1.00	78.65	C	ATOM	30320	C2*	A A1434	131.408	42.949	-14.604	1.00	58.82	C
ATOM	30271	C4*	G A1432	140.260	39.190	-23.289	1.00	78.65	C	ATOM	30321	O2*	A A1434	131.201	43.308	-13.250	1.00	58.82	O
ATOM	30272	O4*	G A1432	140.984	40.354	-23.758	1.00	78.65	O	ATOM	30322	C1*	A A1434	132.865	43.216	-14.998	1.00	58.82	C
ATOM	30273	C3*	G A1432	138.821	39.653	-23.157	1.00	78.65	C	ATOM	30323	N9	A A1434	132.952	43.718	-16.370	1.00	60.01	N
ATOM	30274	O3*	G A1432	138.155	38.853	-22.189	1.00	78.65	O	ATOM	30324	C8	A A1434	133.009	43.007	-17.540	1.00	60.01	C
ATOM	30275	C2*	G A1432	138.985	41.103	-22.713	1.00	78.65	C	ATOM	30325	N7	A A1434	132.984	43.754	-18.615	1.00	60.01	N
ATOM	30276	O2*	G A1432	139.235	41.221	-21.324	1.00	78.65	O	ATOM	30326	C5	A A1434	132.924	45.046	-18.119	1.00	60.01	C
ATOM	30277	C1*	G A1432	140.240	41.524	-23.483	1.00	78.65	C	ATOM	30327	C6	A A1434	132.858	46.300	-18.751	1.00	60.01	C
ATOM	30278	N9	G A1432	139.927	42.170	-24.754	1.00	80.11	N	ATOM	30328	N6	A A1434	132.828	46.465	-20.078	1.00	60.01	N
ATOM	30279	C8	G A1432	139.825	41.572	-25.987	1.00	80.11	C	ATOM	30329	N1	A A1434	132.819	47.396	-17.963	1.00	60.01	N
ATOM	30280	N7	G A1432	139.489	42.402	-26.935	1.00	80.11	N	ATOM	30330	C2	A A1434	132.846	47.231	-16.634	1.00	60.01	C
ATOM	30281	C5	G A1432	139.370	43.623	-26.292	1.00	80.11	C	ATOM	30331	N3	A A1434	132.900	46.109	-15.926	1.00	60.01	N
ATOM	30282	C6	G A1432	139.015	44.891	-26.802	1.00	80.11	C	ATOM	30332	C4	A A1434	132.933	45.040	-16.738	1.00	60.01	C
ATOM	30283	O6	G A1432	138.709	45.194	-27.967	1.00	80.11	O	ATOM	30333	P	G A1435	128.904	40.362	-14.717	1.00	61.67	P
ATOM	30284	N1	G A1432	139.024	45.865	-25.804	1.00	80.11	N	ATOM	30334	O1P	G A1435	128.060	39.781	-13.640	1.00	66.87	O
ATOM	30285	C2	G A1432	139.326	45.639	-24.482	1.00	80.11	C	ATOM	30335	O2P	G A1435	129.225	39.550	-15.920	1.00	66.87	O
ATOM	30286	N2	G A1432	139.285	46.701	-23.671	1.00	80.11	N	ATOM	30336	O5*	G A1435	128.191	41.702	-15.200	1.00	61.67	O
ATOM	30287	N3	G A1432	139.646	44.456	-23.992	1.00	80.11	N	ATOM	30337	C5*	G A1435	127.842	42.731	-14.255	1.00	61.67	C
ATOM	30288	C4	G A1432	139.650	43.500	-24.946	1.00	80.11	C	ATOM	30338	C4*	G A1435	127.547	44.027	-14.970	1.00	61.67	C
ATOM	30289	P	A A1433	136.610	39.125	-21.835	1.00	70.79	P	ATOM	30339	O4*	G A1435	128.747	44.509	-15.627	1.00	61.67	O
ATOM	30290	O1P	A A1433	135.903	37.827	-21.849	1.00	60.08	O	ATOM	30340	C3*	G A1435	126.499	43.950	-16.068	1.00	61.67	C
ATOM	30291	O2P	A A1433	136.094	40.247	-22.663	1.00	60.08	O	ATOM	30341	O3*	G A1435	125.181	44.075	-15.537	1.00	61.67	O
ATOM	30292	O5*	A A1433	136.674	39.572	-20.311	1.00	70.79	O	ATOM	30342	C2*	G A1435	126.874	45.129	-16.948	1.00	61.67	C
ATOM	30293	C5*	A A1433	137.335	38.741	-19.342	1.00	70.79	C	ATOM	30343	O2*	G A1435	126.377	46.335	-16.407	1.00	61.67	O
ATOM	30294	C4*	A A1433	137.170	39.312	-17.958	1.00	70.79	C	ATOM	30344	C1*	G A1435	128.403	45.123	-16.852	1.00	61.67	C
ATOM	30295	O4*	A A1433	137.957	40.523	-17.815	1.00	70.79	O	ATOM	30345	N9	G A1435	129.021	44.357	-17.929	1.00	66.87	N
ATOM	30296	C3*	A A1433	135.757	39.725	-17.606	1.00	70.79	C	ATOM	30346	C8	G A1435	129.306	43.015	-17.923	1.00	66.87	C
ATOM	30297	O3*	A A1433	134.990	38.619	-17.180	1.00	70.79	O	ATOM	30347	N7	G A1435	129.821	42.593	-19.046	1.00	66.87	N
ATOM	30298	C2*	A A1433	135.977	40.768	-16.519	1.00	70.79	C	ATOM	30348	C5	G A1435	129.890	43.729	-19.841	1.00	66.87	C
ATOM	30299	O2*	A A1433	136.200	40.182	-15.251	1.00	70.79	O	ATOM	30349	C6	G A1435	130.354	43.892	-21.172	1.00	66.87	C
ATOM	30300	C1*	A A1433	137.260	41.453	-17.003	1.00	70.79	C	ATOM	30350	O6	G A1435	130.799	43.040	-21.941	1.00	66.87	O
ATOM	30301	N9	A A1433	136.994	42.649	-17.810	1.00	60.08	N	ATOM	30351	N1	G A1435	130.254	45.208	-21.588	1.00	66.87	N
ATOM	30302	C8	A A1433	136.954	42.746	-19.183	1.00	60.08	C	ATOM	30352	C2	G A1435	129.768	46.238	-20.829	1.00	66.87	C
ATOM	30303	N7	A A1433	136.670	43.947	-19.620	1.00	60.08	N	ATOM	30353	N2	G A1435	129.763	47.443	-21.408	1.00	66.87	N
ATOM	30304	C5	A A1433	136.514	44.694	-18.463	1.00	60.08	C	ATOM	30354	N3	G A1435	129.322	46.101	-19.592	1.00	66.87	N
ATOM	30305	C6	A A1433	136.197	46.039	-18.255	1.00	60.08	C	ATOM	30355	P4	G A1435	129.412	44.829	-19.163	1.00	66.87	C
ATOM	30306	N6	A A1433	135.975	46.898	-19.242	1.00	60.08	N	ATOM	30356	P	G A1436	123.955	43.278	-16.223	1.00	55.71	P
ATOM	30307	N1	A A1433	136.115	46.477	-16.981	1.00	60.08	N	ATOM	30357	O1P	U A1436	122.942	43.027	-15.155	1.00	73.87	O
ATOM	30308	C2	A A1433	136.342	45.599	-15.988	1.00	60.08	C	ATOM	30358	O2P	U A1436	124.468	42.140	-17.031	1.00	73.87	O
ATOM	30309	N3	A A1433	136.648	44.306	-16.058	1.00	60.08	N	ATOM	30359	O5*	U A1436	123.339	44.331	-17.242	1.00	55.71	O
ATOM	30310	C4	A A1433	136.717	43.910	-17.340	1.00	60.08	C	ATOM	30360	C5*	U A1436	122.920	45.625	-16.788	1.00	55.71	C
ATOM	30311	P	A A1434	133.419	38.588	-17.496	1.00	58.82	P	ATOM	30361	C4*	U A1436	122.941	46.604	-17.926	1.00	55.71	C
ATOM	30312	O1P	A A1434	132.859	37.304	-17.008	1.00	60.01	O	ATOM	30362	O4*	U A1436	124.311	46.834	-18.346	1.00	55.71	O
ATOM	30313	O2P	A A1434	133.198	38.993	-18.908	1.00	60.01	O	ATOM	30363	C3*	U A1436	122.212	46.178	-19.191	1.00	55.71	C
ATOM	30314	O5*	A A1434	132.848	39.725	-16.543	1.00	58.82	O	ATOM	30364	O3*	U A1436	120.814	46.455	-19.104	1.00	55.71	O
ATOM	30315	C5*	A A1434	133.050	39.650	-15.126	1.00	58.82	C	ATOM	30365	C2*	U A1436	122.902	47.022	-20.262	1.00	55.71	C



Table 2: Sheet 305/520

ATOM	30366	O2*	U A1436	122.381	48.333	-20.342	1.00	55.71	O	ATOM	30416	N2	G A1438	124.374	38.845	-29.720	1.00	65.02	N
ATOM	30367	C1*	U A1436	124.340	47.102	-19.737	1.00	55.71	C	ATOM	30417	N3	G A1438	123.097	40.608	-29.005	1.00	65.02	N
ATOM	30368	N1	U A1436	125.254	46.158	-20.402	1.00	73.87	N	ATOM	30418	C4	G A1438	122.650	41.215	-27.893	1.00	65.02	C
ATOM	30369	C2	U A1436	125.856	46.571	-21.578	1.00	73.87	C	ATOM	30419	P	C A1439	116.833	41.842	-30.080	1.00	70.08	P
ATOM	30370	O2	U A1436	125.701	47.688	-22.045	1.00	73.87	O	ATOM	30420	O1P	C A1439	115.741	42.151	-31.045	1.00	73.48	O
ATOM	30371	N3	U A1436	126.650	45.632	-22.188	1.00	73.87	N	ATOM	30421	O2P	C A1439	116.506	41.639	-28.649	1.00	73.48	O
ATOM	30372	C4	U A1436	126.911	44.355	-21.746	1.00	73.87	C	ATOM	30422	O5*	C A1439	117.622	40.561	-30.603	1.00	70.08	O
ATOM	30373	O4	U A1436	127.580	43.595	-22.449	1.00	73.87	O	ATOM	30423	C5*	C A1439	118.020	40.466	-31.977	1.00	70.08	C
ATOM	30374	C5	U A1436	126.283	44.013	-20.507	1.00	73.87	C	ATOM	30424	C4*	C A1439	118.830	39.213	-32.214	1.00	70.08	C
ATOM	30375	C6	U A1436	125.496	44.902	-19.895	1.00	73.87	C	ATOM	30425	O4*	C A1439	120.128	39.329	-31.581	1.00	70.08	O
ATOM	30376	P	C A1437	119.764	45.602	-19.980	1.00	53.74	P	ATOM	30426	C3*	C A1439	118.254	37.927	-31.652	1.00	70.08	C
ATOM	30377	O1P	C A1437	118.426	46.239	-19.798	1.00	69.25	O	ATOM	30427	O3*	C A1439	117.268	37.353	-32.482	1.00	70.08	O
ATOM	30378	O2P	C A1437	119.930	44.155	-19.691	1.00	69.25	O	ATOM	30428	C2*	C A1439	119.480	37.040	-31.526	1.00	70.08	C
ATOM	30379	O5*	C A1437	120.217	45.867	-21.482	1.00	53.74	O	ATOM	30429	O2*	C A1439	119.844	36.441	-32.749	1.00	70.08	O
ATOM	30380	C5*	C A1437	120.032	47.155	-22.077	1.00	53.74	C	ATOM	30430	C1*	C A1439	120.545	38.054	-31.120	1.00	70.08	C
ATOM	30381	O4*	C A1437	120.611	47.175	-23.458	1.00	53.74	O	ATOM	30431	N1	C A1439	120.691	38.102	-29.657	1.00	73.48	N
ATOM	30382	O4*	C A1437	122.045	47.012	-23.375	1.00	53.74	O	ATOM	30432	C2	C A1439	121.491	37.143	-29.038	1.00	73.48	C
ATOM	30383	C3*	C A1437	120.151	46.057	-24.372	1.00	53.74	C	ATOM	30433	O2	C A1439	122.053	36.289	-29.741	1.00	73.48	O
ATOM	30384	O3*	C A1437	118.944	46.402	-25.019	1.00	53.74	O	ATOM	30434	N3	C A1439	121.631	37.167	-27.693	1.00	73.48	N
ATOM	30385	C2*	C A1437	121.288	45.964	-25.374	1.00	53.74	C	ATOM	30435	C4	C A1439	121.004	38.099	-26.975	1.00	73.48	C
ATOM	30386	O2*	C A1437	121.157	46.941	-26.386	1.00	53.74	O	ATOM	30436	N4	C A1439	121.174	38.088	-25.653	1.00	73.48	N
ATOM	30387	C1*	C A1437	122.505	46.292	-24.503	1.00	53.74	C	ATOM	30437	C5	C A1439	120.177	38.086	-27.579	1.00	73.48	C
ATOM	30388	N1	C A1437	123.216	45.079	-24.048	1.00	69.25	N	ATOM	30438	C6	C A1439	120.052	39.054	-28.910	1.00	73.48	C
ATOM	30389	C2	C A1437	124.134	44.474	-24.915	1.00	69.25	O	ATOM	30439	P	C A1440	116.124	36.447	-31.819	1.00	70.38	P
ATOM	30390	O2	C A1437	124.386	45.017	-25.998	1.00	69.25	O	ATOM	30440	O1P	C A1440	115.078	36.213	-32.853	1.00	65.97	O
ATOM	30391	N3	C A1437	124.729	43.321	-24.548	1.00	69.25	N	ATOM	30441	O2P	C A1440	115.745	37.053	-30.513	1.00	65.97	O
ATOM	30392	C4	C A1437	124.461	42.785	-23.362	1.00	69.25	C	ATOM	30442	O5*	C A1440	116.864	35.068	-31.528	1.00	70.38	O
ATOM	30393	N4	C A1437	125.061	41.642	-23.047	1.00	69.25	N	ATOM	30443	C5*	C A1440	117.320	34.248	-32.608	1.00	70.38	C
ATOM	30394	C5	C A1437	123.564	43.398	-22.443	1.00	69.25	C	ATOM	30444	C4*	C A1440	118.188	33.135	-32.087	1.00	70.38	C
ATOM	30395	C6	C A1437	122.970	44.533	-22.821	1.00	69.25	C	ATOM	30445	O4*	C A1440	119.303	33.703	-31.355	1.00	70.38	O
ATOM	30396	P	G A1438	117.963	45.243	-25.530	1.00	57.23	P	ATOM	30446	C3*	C A1440	117.545	32.186	-31.095	1.00	70.38	C
ATOM	30397	O1P	G A1438	116.714	45.896	-26.014	1.00	65.02	O	ATOM	30447	O3*	C A1440	116.807	31.166	-31.735	1.00	70.38	O
ATOM	30398	O2P	G A1438	117.890	44.222	-24.460	1.00	65.02	O	ATOM	30448	C2*	C A1440	118.746	31.625	-30.353	1.00	70.38	C
ATOM	30399	O5*	G A1438	118.720	44.606	-26.774	1.00	57.23	O	ATOM	30449	O2*	C A1440	119.395	30.599	-31.076	1.00	70.38	O
ATOM	30400	C5*	G A1438	118.753	45.289	-28.027	1.00	57.23	C	ATOM	30450	C1*	C A1440	119.657	32.848	-30.283	1.00	70.38	C
ATOM	30401	C4*	G A1438	119.504	44.476	-29.042	1.00	57.23	C	ATOM	30451	N1	C A1440	119.463	33.576	-29.020	1.00	65.97	N
ATOM	30402	O4*	G A1438	120.879	44.322	-28.612	1.00	57.23	O	ATOM	30452	C2	C A1440	119.935	33.005	-27.837	1.00	65.97	C
ATOM	30403	C3*	G A1438	117.922	43.025	-30.169	1.00	57.23	C	ATOM	30453	O2	C A1440	120.547	31.927	-27.892	1.00	65.97	O
ATOM	30404	O3*	G A1438	120.240	42.331	-29.758	1.00	57.23	O	ATOM	30454	N3	C A1440	119.714	33.639	-26.666	1.00	65.97	N
ATOM	30405	C2*	G A1438	120.436	42.499	-31.141	1.00	57.23	O	ATOM	30455	C4	C A1440	119.060	34.800	-26.652	1.00	65.97	C
ATOM	30406	O2*	G A1438	121.365	43.057	-29.022	1.00	57.23	C	ATOM	30456	N4	C A1440	118.840	35.380	-25.475	1.00	65.97	N
ATOM	30407	C1*	G A1438	121.863	42.332	-27.856	1.00	65.02	N	ATOM	30457	C5	C A1440	118.596	35.416	-27.843	1.00	65.97	C
ATOM	30408	N9	G A1438	121.650	42.613	-26.525	1.00	65.02	C	ATOM	30458	C6	C A1440	118.816	34.778	-28.993	1.00	65.97	C
ATOM	30409	C8	G A1438	122.234	41.764	-25.724	1.00	65.02	N	ATOM	30459	P	G A1441	115.442	30.649	-31.068	1.00	65.33	P
ATOM	30410	N7	G A1438	122.869	40.874	-26.579	1.00	65.02	C	ATOM	30460	O1P	G A1441	114.947	29.496	-31.870	1.00	71.21	O
ATOM	30411	C5	G A1438	123.665	39.735	-26.298	1.00	65.02	C	ATOM	30461	O2P	G A1441	114.560	31.830	-30.855	1.00	71.21	O
ATOM	30412	C6	G A1438	123.973	39.260	-25.202	1.00	65.02	O	ATOM	30462	O5*	G A1441	115.892	30.116	-29.638	1.00	65.33	O
ATOM	30413	O6	G A1438	124.115	39.130	-27.460	1.00	65.02	H	ATOM	30463	C5*	G A1441	116.773	28.991	-29.498	1.00	65.33	C
ATOM	30414	N1	G A1438	123.839	39.558	-28.727	1.00	65.02	C	ATOM	30464	C4*	G A1441	117.075	28.764	-28.036	1.00	65.33	C
ATOM	30415	C2	G A1438							ATOM	30465	O4*	G A1441	117.831	29.890	-27.518	1.00	65.33	O



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ATOM	30466	C3*	G A1441	115.843	28.675	-27.148	1.00	65.33	C	ATOM	30516	C1*	G A1443	112.827	16.673	-29.585	1.00	133.49	C
ATOM	30467	O3*	G A1441	115.381	27.341	-27.069	1.00	65.33	O	ATOM	30517	N9	G A1443	111.606	17.308	-30.065	1.00	115.99	N
ATOM	30468	C2*	G A1441	116.363	29.144	-25.798	1.00	65.33	C	ATOM	30518	C8	G A1443	111.291	18.648	-30.042	1.00	115.99	C
ATOM	30469	O2*	G A1441	116.983	28.088	-25.094	1.00	65.33	O	ATOM	30519	N7	G A1443	110.088	18.897	-30.484	1.00	115.99	N
ATOM	30470	C1*	G A1441	117.399	30.197	-26.203	1.00	65.33	C	ATOM	30520	C5	G A1443	109.586	17.650	-30.831	1.00	115.99	C
ATOM	30471	N8	G A1441	116.841	31.546	-26.216	1.00	71.21	N	ATOM	30521	C6	G A1443	108.322	17.281	-31.365	1.00	115.99	C
ATOM	30472	C8	G A1441	116.283	32.196	-27.290	1.00	71.21	C	ATOM	30522	O6	G A1443	107.350	18.004	-31.624	1.00	115.99	O
ATOM	30473	N7	G A1441	115.846	33.388	-26.997	1.00	71.21	N	ATOM	30523	N1	G A1443	108.246	15.911	-31.591	1.00	115.99	N
ATOM	30474	C5	G A1441	116.137	33.537	-25.650	1.00	71.21	C	ATOM	30524	C2	G A1443	109.250	15.010	-31.330	1.00	115.99	C
ATOM	30475	C6	G A1441	115.897	34.629	-24.778	1.00	71.21	C	ATOM	30525	N2	G A1443	108.991	13.730	-31.638	1.00	115.99	N
ATOM	30476	O6	G A1441	115.355	35.722	-25.029	1.00	71.21	O	ATOM	30526	N3	G A1443	110.421	15.338	-30.813	1.00	115.99	N
ATOM	30477	N1	G A1441	116.357	34.359	-23.494	1.00	71.21	N	ATOM	30527	C4	G A1443	110.521	16.663	-30.594	1.00	115.99	C
ATOM	30478	C2	G A1441	116.964	33.193	-23.102	1.00	71.21	C	ATOM	30528	P	G A1446	117.435	18.500	-30.309	1.00	111.90	P
ATOM	30479	N2	G A1441	117.331	33.125	-21.819	1.00	71.21	N	ATOM	30529	O1P	A A1446	116.744	19.810	-30.430	1.00	148.69	O
ATOM	30480	N3	G A1441	117.192	32.171	-23.906	1.00	71.21	N	ATOM	30530	O2P	A A1446	118.370	18.067	-31.378	1.00	148.69	O
ATOM	30481	C4	G A1441	116.756	32.410	-25.156	1.00	71.21	C	ATOM	30531	O5*	A A1446	118.234	18.481	-28.932	1.00	111.90	O
ATOM	30482	P	G A1442	113.882	26.983	-27.501	1.00	98.83	P	ATOM	30532	C5*	A A1446	117.615	18.964	-27.741	1.00	111.90	C
ATOM	30483	O1P	G A1442	113.430	27.946	-28.541	1.00	115.18	O	ATOM	30533	C4*	A A1446	118.606	19.047	-26.621	1.00	111.90	C
ATOM	30484	O2P	G A1442	113.096	26.829	-26.250	1.00	115.18	O	ATOM	30534	O4*	A A1446	119.737	19.845	-27.023	1.00	111.90	O
ATOM	30485	O5*	G A1442	114.059	25.544	-28.158	1.00	98.83	O	ATOM	30535	C3*	A A1446	118.068	19.750	-25.389	1.00	111.90	C
ATOM	30486	C5*	G A1442	113.833	25.321	-29.564	1.00	98.83	C	ATOM	30536	C2*	A A1446	117.389	18.794	-24.585	1.00	111.90	O
ATOM	30487	C4*	G A1442	114.972	24.522	-30.168	1.00	98.83	C	ATOM	30537	O3*	A A1446	119.321	20.294	-24.706	1.00	111.90	O
ATOM	30488	O4*	G A1442	116.075	25.400	-30.511	1.00	98.83	O	ATOM	30538	O2*	A A1446	119.897	19.373	-23.801	1.00	111.90	O
ATOM	30489	C3*	G A1442	115.584	23.428	-29.301	1.00	98.83	C	ATOM	30539	C1*	A A1446	120.280	20.479	-25.885	1.00	111.90	C
ATOM	30490	O3*	G A1442	114.834	22.203	-29.359	1.00	98.83	O	ATOM	30540	N9	A A1446	120.712	21.834	-26.232	1.00	148.69	N
ATOM	30491	C2*	G A1442	116.985	23.277	-29.901	1.00	98.83	C	ATOM	30541	C8	A A1446	121.259	22.775	-25.392	1.00	148.69	C
ATOM	30492	O2*	G A1442	117.021	22.425	-31.028	1.00	98.83	O	ATOM	30542	N7	A A1446	121.658	23.863	-26.003	1.00	148.69	N
ATOM	30493	C1*	G A1442	117.299	24.706	-30.361	1.00	98.83	C	ATOM	30543	C5	A A1446	121.331	23.635	-27.333	1.00	148.69	C
ATOM	30494	N9	G A1442	118.166	25.490	-29.482	1.00	115.18	N	ATOM	30544	C6	A A1446	121.512	24.404	-28.496	1.00	148.69	C
ATOM	30495	C8	G A1442	118.969	26.540	-29.859	1.00	115.18	C	ATOM	30545	N6	A A1446	122.110	25.598	-28.507	1.00	148.69	N
ATOM	30496	N7	G A1442	119.616	27.077	-28.860	1.00	115.18	N	ATOM	30546	N1	A A1446	121.059	23.895	-29.664	1.00	148.69	N
ATOM	30497	C5	G A1442	119.221	26.335	-27.754	1.00	115.18	C	ATOM	30547	C2	A A1446	120.476	22.690	-29.653	1.00	148.69	C
ATOM	30498	C6	G A1442	119.594	26.451	-26.387	1.00	115.18	C	ATOM	30548	N3	A A1446	120.261	21.868	-28.629	1.00	148.69	N
ATOM	30499	O6	G A1442	120.363	27.268	-25.862	1.00	115.18	O	ATOM	30549	C4	A A1446	120.719	22.404	-27.484	1.00	148.69	C
ATOM	30500	N1	G A1442	118.970	25.484	-25.604	1.00	115.18	N	ATOM	30550	P	G A1447	116.303	19.279	-23.506	1.00	90.52	P
ATOM	30501	C2	G A1442	118.100	24.530	-26.073	1.00	115.18	C	ATOM	30551	O1P	G A1447	115.219	18.255	-23.468	1.00	83.90	O
ATOM	30502	N2	G A1442	117.607	23.673	-25.164	1.00	115.18	N	ATOM	30552	O2P	G A1447	115.956	20.710	-23.774	1.00	83.90	O
ATOM	30503	N3	G A1442	117.741	24.418	-27.341	1.00	115.18	N	ATOM	30553	O5*	G A1447	117.081	19.192	-22.121	1.00	90.52	O
ATOM	30504	C4	G A1442	118.334	25.345	-28.121	1.00	115.18	C	ATOM	30554	C5*	G A1447	116.386	19.416	-20.900	1.00	90.52	C
ATOM	30505	P	G A1443	114.212	21.568	-28.008	1.00	133.49	P	ATOM	30555	C4*	G A1447	117.300	20.037	-19.887	1.00	90.52	C
ATOM	30506	O1P	G A1443	112.864	22.163	-27.836	1.00	115.99	O	ATOM	30556	O4*	G A1447	118.128	21.043	-20.513	1.00	90.52	O
ATOM	30507	O2P	G A1443	115.206	21.662	-26.898	1.00	115.99	O	ATOM	30557	C3*	G A1447	116.522	20.768	-18.821	1.00	90.52	C
ATOM	30508	O5*	G A1443	113.990	20.032	-28.372	1.00	133.49	O	ATOM	30558	O3*	G A1447	116.122	19.871	-17.813	1.00	90.52	O
ATOM	30509	C5*	G A1443	114.736	18.995	-27.706	1.00	133.49	C	ATOM	30559	O2*	G A1447	117.479	21.859	-18.371	1.00	90.52	C
ATOM	30510	C4*	G A1443	114.587	17.687	-28.444	1.00	133.49	C	ATOM	30560	C2*	G A1447	118.397	21.413	-17.393	1.00	90.52	C
ATOM	30511	O4*	G A1443	113.201	17.297	-28.381	1.00	133.49	O	ATOM	30561	C1*	G A1447	118.197	22.191	-19.685	1.00	90.52	O
ATOM	30512	C3*	G A1443	114.938	17.725	-29.925	1.00	133.49	C	ATOM	30562	N9	G A1447	117.608	23.302	-20.433	1.00	83.90	N
ATOM	30513	O3*	G A1443	116.311	17.364	-30.111	1.00	133.49	O	ATOM	30563	C8	G A1447	117.346	23.325	-21.762	1.00	83.90	C
ATOM	30514	C2*	G A1443	114.033	16.649	-30.525	1.00	133.49	C	ATOM	30564	N7	G A1447	116.822	24.449	-22.186	1.00	83.90	N
ATOM	30515	O2*	G A1443	114.596	15.356	-30.461	1.00	133.49	O	ATOM	30565	C5	G A1447	116.732	25.217	-21.038	1.00	83.90	C



Table 2: Sheet 307/520

ATOM	30566	C6	G A1447	116.246	26.527	-20.859	1.00	83.90	C	ATOM	30616	O5*	U A1450	104.787	24.847	-14.961	1.00	61.07	O
ATOM	30567	O6	G A1447	115.786	27.298	-21.708	1.00	83.90	O	ATOM	30617	C5*	U A1450	104.090	25.980	-14.422	1.00	61.07	C
ATOM	30568	N1	G A1447	116.333	26.925	-19.531	1.00	83.90	N	ATOM	30618	C4*	U A1450	103.595	26.858	-15.538	1.00	61.07	C
ATOM	30569	C2	G A1447	116.828	26.158	-18.508	1.00	83.90	C	ATOM	30619	O4*	U A1450	104.730	27.335	-16.306	1.00	61.07	O
ATOM	30570	N2	G A1447	116.836	26.721	-17.296	1.00	83.90	N	ATOM	30620	C3*	U A1450	102.705	26.172	-16.560	1.00	61.07	C
ATOM	30571	N3	G A1447	117.285	24.931	-18.663	1.00	83.90	N	ATOM	30621	O3*	U A1450	101.352	26.106	-16.117	1.00	61.07	O
ATOM	30572	C4	G A1447	117.209	24.525	-19.945	1.00	83.90	C	ATOM	30622	C2*	U A1450	102.905	27.036	-17.805	1.00	61.07	C
ATOM	30573	P	C A1448	114.559	19.633	-17.564	1.00	85.23	P	ATOM	30623	O2*	U A1450	102.116	28.209	-17.812	1.00	61.07	O
ATOM	30574	O1P	C A1448	114.413	18.388	-16.769	1.00	80.06	O	ATOM	30624	C1*	U A1450	104.374	27.437	-17.675	1.00	61.07	C
ATOM	30575	O2P	C A1448	113.848	19.758	-18.871	1.00	80.06	O	ATOM	30625	N1	U A1450	105.279	26.588	-18.464	1.00	71.51	N
ATOM	30576	O5*	C A1448	114.149	20.859	-16.635	1.00	85.23	O	ATOM	30626	C2	U A1450	105.360	26.815	-19.830	1.00	71.51	C
ATOM	30577	C5*	C A1448	114.742	21.021	-15.337	1.00	85.23	C	ATOM	30627	O2	U A1450	104.747	27.705	-20.392	1.00	71.51	O
ATOM	30578	C4*	C A1448	114.372	22.358	-14.757	1.00	85.23	C	ATOM	30628	N3	U A1450	106.193	25.963	-20.512	1.00	71.51	N
ATOM	30579	O4*	C A1448	115.083	23.419	-15.443	1.00	85.23	O	ATOM	30629	C4	U A1450	106.951	24.939	-19.978	1.00	71.51	C
ATOM	30580	C3*	C A1448	112.914	22.728	-14.909	1.00	85.23	C	ATOM	30630	O4	U A1450	107.654	24.249	-20.720	1.00	71.51	O
ATOM	30581	O3*	C A1448	112.117	22.136	-13.920	1.00	85.23	O	ATOM	30631	C5	U A1450	106.830	24.786	-18.562	1.00	71.51	C
ATOM	30582	C2*	C A1448	112.939	24.244	-14.819	1.00	85.23	C	ATOM	30632	C6	U A1450	106.018	25.594	-17.871	1.00	71.51	C
ATOM	30583	O2*	C A1448	112.978	24.722	-13.489	1.00	85.23	O	ATOM	30633	P	A A1451	100.304	25.170	-16.894	1.00	67.00	P
ATOM	30584	C1*	C A1448	114.254	24.568	-15.530	1.00	85.23	C	ATOM	30634	O1P	A A1451	99.206	24.840	-15.951	1.00	95.89	O
ATOM	30585	N1	C A1448	114.022	24.888	-16.950	1.00	80.06	N	ATOM	30635	O2P	A A1451	101.040	24.080	-17.580	1.00	95.89	O
ATOM	30586	C2	C A1448	113.479	26.135	-17.275	1.00	80.06	C	ATOM	30636	O5*	A A1451	99.708	26.131	-18.007	1.00	67.00	O
ATOM	30587	O2	C A1448	113.262	26.949	-16.370	1.00	80.06	O	ATOM	30637	C5*	A A1451	98.405	25.910	-18.574	1.00	67.00	C
ATOM	30588	N3	C A1448	113.206	26.421	-18.563	1.00	80.06	N	ATOM	30638	C4*	A A1451	97.717	27.235	-18.784	1.00	67.00	C
ATOM	30589	C4	C A1448	113.460	25.522	-19.512	1.00	80.06	C	ATOM	30639	O4*	A A1451	97.313	27.762	-17.503	1.00	67.00	O
ATOM	30590	N4	C A1448	113.154	25.839	-20.768	1.00	80.06	N	ATOM	30640	C3*	A A1451	98.629	28.290	-19.383	1.00	67.00	C
ATOM	30591	C5	C A1448	114.038	24.255	-19.214	1.00	80.06	C	ATOM	30641	O3*	A A1451	98.681	28.200	-20.808	1.00	67.00	O
ATOM	30592	C6	C A1448	114.303	23.983	-17.934	1.00	80.06	C	ATOM	30642	C2*	A A1451	98.137	29.606	-18.797	1.00	67.00	C
ATOM	30593	P	C A1449	110.631	21.679	-14.294	1.00	75.90	P	ATOM	30643	O2*	A A1451	97.150	30.273	-19.550	1.00	67.00	O
ATOM	30594	O1P	C A1449	110.167	20.780	-13.210	1.00	66.52	O	ATOM	30644	C1*	A A1451	97.555	29.152	-17.456	1.00	67.00	C
ATOM	30595	O2P	C A1449	110.620	21.209	-15.708	1.00	66.52	O	ATOM	30645	N9	A A1451	98.384	29.412	-16.288	1.00	95.89	N
ATOM	30596	O5*	C A1449	109.786	23.020	-14.205	1.00	75.90	O	ATOM	30646	C8	A A1451	99.603	28.876	-15.962	1.00	95.89	C
ATOM	30597	C5*	C A1449	109.674	23.725	-12.966	1.00	75.90	C	ATOM	30647	N7	A A1451	100.062	29.280	-14.804	1.00	95.89	N
ATOM	30598	C4*	C A1449	108.959	25.028	-13.181	1.00	75.90	C	ATOM	30648	C5	A A1451	99.082	30.149	-14.345	1.00	95.89	C
ATOM	30599	O4*	C A1449	109.803	25.950	-13.922	1.00	75.90	O	ATOM	30649	C6	A A1451	98.964	30.903	-13.169	1.00	95.89	C
ATOM	30600	C3*	C A1449	107.703	24.922	-14.018	1.00	75.90	C	ATOM	30650	N6	A A1451	99.877	30.894	-12.195	1.00	95.89	N
ATOM	30601	O3*	C A1449	106.594	24.500	-13.260	1.00	75.90	O	ATOM	30651	N1	A A1451	97.861	31.673	-13.022	1.00	95.89	N
ATOM	30602	C2*	C A1449	107.544	26.335	-14.550	1.00	75.90	C	ATOM	30652	C2	A A1451	96.945	31.669	-13.995	1.00	95.89	C
ATOM	30603	O1*	C A1449	106.974	27.180	-13.578	1.00	75.90	O	ATOM	30653	N3	A A1451	96.941	30.998	-15.143	1.00	95.89	N
ATOM	30604	C1*	C A1449	109.000	26.741	-14.785	1.00	75.90	C	ATOM	30654	C4	A A1451	98.051	30.248	-15.256	1.00	95.89	C
ATOM	30605	N1	C A1449	109.405	26.493	-16.185	1.00	66.52	N	ATOM	30655	P	C A1452	97.331	28.013	-21.679	1.00	62.70	P
ATOM	30606	C2	C A1449	108.980	27.389	-17.173	1.00	66.52	C	ATOM	30656	O1P	C A1452	96.327	29.061	-21.379	1.00	58.51	O
ATOM	30607	O2	C A1449	108.358	28.399	-16.833	1.00	66.52	O	ATOM	30657	O2P	C A1452	96.928	26.590	-21.589	1.00	58.51	O
ATOM	30608	N3	C A1449	109.263	27.131	-18.468	1.00	66.52	N	ATOM	30658	O5*	C A1452	97.868	28.267	-23.158	1.00	62.70	O
ATOM	30609	C4	C A1449	109.956	26.038	-18.791	1.00	66.52	C	ATOM	30659	C5*	C A1452	98.583	29.475	-23.478	1.00	62.70	C
ATOM	30610	N4	C A1449	110.184	25.799	-20.086	1.00	66.52	N	ATOM	30660	C4*	C A1452	99.877	29.163	-24.196	1.00	62.70	C
ATOM	30611	C5	C A1449	110.441	25.134	-17.802	1.00	66.52	C	ATOM	30661	O4*	C A1452	100.822	28.544	-23.287	1.00	62.70	O
ATOM	30612	C6	C A1449	110.149	25.399	-16.525	1.00	66.52	C	ATOM	30662	C3*	C A1452	99.792	28.256	-25.420	1.00	62.70	C
ATOM	30613	P	C A1449	105.396	23.734	-13.999	1.00	61.07	P	ATOM	30663	O3*	C A1452	100.741	28.698	-26.387	1.00	62.70	O
ATOM	30614	O1P	U A1450	104.361	23.408	-12.981	1.00	71.51	O	ATOM	30664	C2*	C A1452	100.317	26.929	-24.890	1.00	62.70	C
ATOM	30615	O2P	U A1450	105.988	22.649	-14.836	1.00	71.51	O	ATOM	30665	O2*	C A1452	100.892	26.137	-25.910	1.00	62.70	O



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ATOM 30666	C A1452	101.382	27.419	-23.913	1.00	62.70	C	ATOM 30716	N1	G A1454	108.179	29.354	-20.343	1.00	68.72	N
ATOM 30667	C A1452	101.840	26.464	-22.896	1.00	58.51	N	ATOM 30717	C2	G A1454	107.636	30.414	-19.670	1.00	68.72	C
ATOM 30668	C A1452	102.990	25.731	-23.156	1.00	58.51	C	ATOM 30718	N2	G A1454	107.756	30.390	-18.350	1.00	68.72	N
ATOM 30669	C A1452	103.560	25.880	-24.236	1.00	58.51	O	ATOM 30719	N3	G A1454	107.022	31.428	-20.248	1.00	68.72	N
ATOM 30670	C A1452	103.454	24.874	-22.230	1.00	58.51	N	ATOM 30720	C4	G A1454	106.982	31.297	-21.587	1.00	68.72	C
ATOM 30671	C A1452	102.812	24.731	-21.073	1.00	58.51	C	ATOM 30721	P	G A1455	110.001	35.873	-22.987	1.00	58.60	P
ATOM 30672	C A1452	103.334	23.895	-20.179	1.00	58.51	N	ATOM 30722	O1P	G A1455	110.700	37.162	-23.177	1.00	60.64	O
ATOM 30673	C A1452	101.618	25.446	-20.782	1.00	58.51	C	ATOM 30723	O2P	G A1455	110.386	34.705	-23.819	1.00	60.64	O
ATOM 30674	C A1452	101.171	26.297	-21.715	1.00	58.51	C	ATOM 30724	O5*	G A1455	110.169	35.493	-21.451	1.00	58.60	O
ATOM 30675	P	100.258	29.490	-27.698	1.00	65.07	P	ATOM 30725	C5*	G A1455	109.736	36.401	-20.425	1.00	58.60	C
ATOM 30676	O1P	98.787	29.362	-27.870	1.00	62.48	O	ATOM 30726	C4*	G A1455	110.012	35.820	-19.066	1.00	58.60	C
ATOM 30677	O2P	101.169	29.104	-28.806	1.00	62.48	O	ATOM 30727	O4*	G A1455	109.236	34.601	-18.917	1.00	58.60	O
ATOM 30678	O5*	100.534	31.009	-27.329	1.00	65.07	O	ATOM 30728	C3*	G A1455	111.449	35.380	-18.841	1.00	58.60	C
ATOM 30679	C5*	101.857	31.462	-27.006	1.00	65.07	C	ATOM 30729	O3*	G A1455	112.328	36.426	-18.465	1.00	58.60	O
ATOM 30680	C4*	101.776	32.793	-26.319	1.00	65.07	C	ATOM 30730	C2*	G A1455	111.305	34.297	-17.784	1.00	58.60	C
ATOM 30681	O4*	100.847	32.686	-25.218	1.00	65.07	O	ATOM 30731	O2*	G A1455	111.194	34.800	-16.469	1.00	58.60	O
ATOM 30682	C3*	103.070	33.307	-25.712	1.00	65.07	C	ATOM 30732	C1*	G A1455	110.002	33.627	-18.221	1.00	58.60	C
ATOM 30683	O3*	103.774	34.063	-26.690	1.00	65.07	O	ATOM 30733	N9	G A1455	110.302	32.535	-19.145	1.00	60.64	N
ATOM 30684	C2*	102.587	34.212	-24.577	1.00	65.07	C	ATOM 30734	C8	G A1455	110.122	32.522	-20.509	1.00	60.64	C
ATOM 30685	O1*	102.407	35.562	-24.973	1.00	65.07	O	ATOM 30735	N7	G A1455	110.541	31.419	-21.070	1.00	60.64	N
ATOM 30686	C1*	101.232	33.587	-24.208	1.00	65.07	C	ATOM 30736	C5	G A1455	111.016	30.654	-20.014	1.00	60.64	C
ATOM 30687	N9	101.127	32.914	-22.920	1.00	62.48	N	ATOM 30737	C6	G A1455	111.595	29.369	-20.005	1.00	60.64	C
ATOM 30688	C8	100.283	33.266	-21.900	1.00	62.48	C	ATOM 30738	O6	G A1455	111.826	28.629	-20.958	1.00	60.64	O
ATOM 30689	N7	100.390	32.492	-20.857	1.00	62.48	N	ATOM 30739	N1	G A1455	111.923	28.964	-18.719	1.00	60.64	N
ATOM 30690	C5	101.364	31.572	-21.210	1.00	62.48	C	ATOM 30740	C2	G A1455	111.724	29.703	-17.586	1.00	60.64	C
ATOM 30691	C6	101.892	30.487	-20.483	1.00	62.48	O	ATOM 30741	N2	G A1455	112.093	29.138	-16.439	1.00	60.64	N
ATOM 30692	O6	101.581	30.098	-19.349	1.00	62.48	O	ATOM 30742	N3	G A1455	111.196	30.910	-17.578	1.00	60.64	N
ATOM 30693	N1	102.868	29.815	-21.207	1.00	62.48	N	ATOM 30743	C4	G A1455	110.864	31.321	-18.818	1.00	60.64	C
ATOM 30694	C2	103.266	30.137	-22.478	1.00	62.48	C	ATOM 30744	P	C A1459	113.869	36.351	-18.923	1.00	60.22	P
ATOM 30695	N2	104.212	29.356	-23.015	1.00	62.48	N	ATOM 30745	O1P	C A1459	114.495	37.658	-18.631	1.00	62.23	O
ATOM 30696	N3	102.771	31.146	-23.174	1.00	62.48	N	ATOM 30746	O2P	C A1459	113.949	35.788	-20.299	1.00	62.23	O
ATOM 30697	C4	101.832	31.818	-22.481	1.00	62.48	C	ATOM 30747	O5*	C A1459	114.504	35.263	-17.957	1.00	60.22	O
ATOM 30698	P	105.260	33.635	-27.123	1.00	62.34	P	ATOM 30748	C5*	C A1459	114.441	35.409	-16.531	1.00	60.22	C
ATOM 30700	O2P	105.606	34.510	-28.263	1.00	68.72	O	ATOM 30749	C4*	C A1459	114.985	34.170	-15.868	1.00	60.22	C
ATOM 30701	O5*	105.295	32.164	-27.297	1.00	68.72	O	ATOM 30750	O4*	C A1459	114.129	33.040	-16.187	1.00	60.22	O
ATOM 30702	C5*	106.180	34.037	-25.883	1.00	62.34	O	ATOM 30751	C3*	C A1459	116.354	33.736	-16.355	1.00	60.22	C
ATOM 30703	C4*	106.181	35.260	-23.780	1.00	62.34	C	ATOM 30752	O3*	C A1459	117.415	34.421	-15.713	1.00	60.22	O
ATOM 30704	O4*	105.384	34.141	-23.298	1.00	62.34	C	ATOM 30753	C2*	C A1459	116.362	32.249	-16.046	1.00	60.22	C
ATOM 30705	C3*	107.556	34.983	-23.197	1.00	62.34	O	ATOM 30754	O2*	C A1459	116.641	31.988	-14.695	1.00	60.22	O
ATOM 30706	O3*	108.415	36.110	-23.128	1.00	62.34	O	ATOM 30755	C1*	C A1459	114.914	31.868	-16.331	1.00	60.22	C
ATOM 30707	C2*	107.215	34.423	-21.822	1.00	62.34	C	ATOM 30756	N1	C A1459	114.792	31.363	-17.708	1.00	62.23	N
ATOM 30708	O2*	106.899	35.403	-20.849	1.00	62.34	O	ATOM 30757	C2	C A1459	115.230	30.069	-17.982	1.00	62.23	C
ATOM 30709	C1*	105.995	33.564	-22.147	1.00	62.34	O	ATOM 30758	O2	C A1459	115.624	29.359	-17.044	1.00	62.23	O
ATOM 30710	N9	106.474	32.220	-22.478	1.00	68.72	N	ATOM 30759	N3	C A1459	115.211	29.619	-19.254	1.00	62.23	N
ATOM 30711	C8	106.603	31.660	-23.724	1.00	68.72	C	ATOM 30760	C4	C A1459	114.755	30.401	-20.228	1.00	62.23	C
ATOM 30712	N7	107.215	30.506	-23.705	1.00	68.72	N	ATOM 30761	N4	C A1459	114.776	29.926	-21.473	1.00	62.23	N
ATOM 30713	C5	107.477	30.506	-23.705	1.00	68.72	N	ATOM 30762	C5	C A1459	114.261	31.708	-19.973	1.00	62.23	C
ATOM 30714	C6	108.163	29.171	-21.721	1.00	68.72	C	ATOM 30763	C6	C A1459	114.296	32.145	-18.711	1.00	62.23	C
ATOM 30715	O6	108.722	28.221	-22.235	1.00	68.72	O	ATOM 30764	P	A A1460	118.844	34.515	-16.449	1.00	65.23	P
								ATOM 30765	O1P	A A1460	119.732	35.328	-15.576	1.00	74.99	O



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ATOM	30766	O2P	A A1460	118.626	34.919	-17.862	1.00	74.99	O	ATOM	30816	C3*	G A1462	127.493	30.457	-25.221	1.00	85.79	C
ATOM	30767	O5*	A A1460	119.373	33.010	-16.490	1.00	65.23	O	ATOM	30817	O3*	G A1462	128.785	30.160	-25.730	1.00	85.79	O
ATOM	30768	C5*	A A1460	119.525	32.246	-15.282	1.00	65.23	C	ATOM	30818	C2*	G A1462	126.494	30.816	-26.314	1.00	85.79	C
ATOM	30769	C4*	A A1460	119.856	30.808	-15.599	1.00	65.23	C	ATOM	30819	O2*	G A1462	126.646	30.024	-27.472	1.00	85.79	C
ATOM	30770	O4*	A A1460	118.769	30.191	-16.330	1.00	65.23	O	ATOM	30820	C1*	G A1462	125.160	30.491	-25.637	1.00	85.79	C
ATOM	30771	C3*	A A1460	121.069	30.579	-16.478	1.00	65.23	C	ATOM	30821	N9	G A1462	124.578	31.676	-25.009	1.00	75.86	N
ATOM	30772	O3*	A A1460	122.270	30.592	-15.738	1.00	65.23	O	ATOM	30822	C8	G A1462	124.591	32.002	-23.672	1.00	75.86	C
ATOM	30773	C2*	A A1460	120.809	29.197	-17.051	1.00	65.23	C	ATOM	30823	N7	G A1462	124.044	33.160	-23.420	1.00	75.86	N
ATOM	30774	O2*	A A1460	121.188	28.177	-16.152	1.00	65.23	O	ATOM	30824	C5	G A1462	123.632	33.623	-24.661	1.00	75.86	C
ATOM	30775	C1*	A A1460	119.291	29.210	-17.213	1.00	65.23	C	ATOM	30825	C6	G A1462	122.984	34.835	-25.022	1.00	75.86	C
ATOM	30776	N9	A A1460	118.903	29.549	-18.580	1.00	74.99	N	ATOM	30826	O6	G A1462	122.628	35.774	-24.289	1.00	75.86	O
ATOM	30777	C8	A A1460	118.294	30.692	-19.031	1.00	74.99	C	ATOM	30827	N1	G A1462	122.753	34.898	-26.392	1.00	75.86	N
ATOM	30778	N7	A A1460	118.084	30.703	-20.324	1.00	74.99	N	ATOM	30828	C2	G A1462	123.094	33.923	-27.296	1.00	75.86	C
ATOM	30779	C5	A A1460	118.589	29.486	-20.754	1.00	74.99	C	ATOM	30829	N2	G A1462	122.776	34.168	-28.568	1.00	75.86	N
ATOM	30780	C6	A A1460	118.667	28.897	-22.025	1.00	74.99	C	ATOM	30830	N3	G A1462	123.698	32.791	-26.975	1.00	75.86	N
ATOM	30781	N6	A A1460	118.233	29.491	-23.137	1.00	74.99	N	ATOM	30831	C4	G A1462	123.938	32.709	-25.651	1.00	75.86	C
ATOM	30782	N1	A A1460	119.217	27.665	-22.115	1.00	74.99	N	ATOM	30832	P	C A1463	129.860	31.344	-25.897	1.00	70.05	P
ATOM	30783	C2	A A1460	119.663	27.083	-20.993	1.00	74.99	C	ATOM	30833	O1P	C A1463	131.126	30.713	-26.350	1.00	57.09	O
ATOM	30784	N3	A A1460	119.652	27.542	-19.740	1.00	74.99	N	ATOM	30834	O2P	C A1463	129.865	32.202	-24.688	1.00	57.09	O
ATOM	30785	C4	A A1460	119.093	28.762	-19.690	1.00	74.99	C	ATOM	30835	O5*	C A1463	129.280	32.199	-27.107	1.00	70.05	O
ATOM	30786	P	G A1461	123.567	31.290	-16.367	1.00	72.28	P	ATOM	30836	C5*	C A1463	129.254	31.632	-28.417	1.00	70.05	C
ATOM	30787	O1P	G A1461	124.719	30.961	-15.489	1.00	75.42	O	ATOM	30837	C4*	C A1463	128.687	32.604	-29.447	1.00	70.05	C
ATOM	30788	O2P	G A1461	123.222	32.716	-16.635	1.00	75.42	O	ATOM	30838	O4*	C A1463	127.280	32.806	-29.145	1.00	70.05	O
ATOM	30789	O5*	G A1461	123.779	30.537	-17.753	1.00	72.28	O	ATOM	30839	C3*	C A1463	129.258	34.005	-29.386	1.00	70.05	C
ATOM	30790	C5*	G A1461	124.185	29.165	-17.783	1.00	72.28	C	ATOM	30840	O3*	C A1463	130.483	34.135	-30.057	1.00	70.05	O
ATOM	30791	C4*	G A1461	124.082	28.624	-19.184	1.00	72.28	C	ATOM	30841	C2*	C A1463	128.166	34.803	-30.067	1.00	70.05	C
ATOM	30792	O4*	G A1461	122.704	28.695	-19.627	1.00	72.28	O	ATOM	30842	O2*	C A1463	128.200	34.684	-31.472	1.00	70.05	O
ATOM	30793	C3*	G A1461	124.855	29.394	-20.236	1.00	72.28	C	ATOM	30843	C1*	C A1463	126.920	34.126	-29.509	1.00	70.05	C
ATOM	30794	O3*	G A1461	126.211	28.997	-20.285	1.00	72.28	O	ATOM	30844	N1	C A1463	126.522	34.855	-28.301	1.00	57.09	N
ATOM	30795	C2*	G A1461	124.103	29.062	-21.515	1.00	72.28	C	ATOM	30845	C2	C A1463	125.608	35.904	-28.428	1.00	57.09	C
ATOM	30796	O2*	G A1461	124.466	27.824	-22.079	1.00	72.28	O	ATOM	30846	O2	C A1463	125.121	36.147	-29.552	1.00	57.09	O
ATOM	30797	C1*	G A1461	122.662	28.985	-21.014	1.00	72.28	C	ATOM	30847	N3	C A1463	125.284	36.627	-27.331	1.00	57.09	N
ATOM	30798	N9	G A1461	121.999	30.269	-21.200	1.00	75.42	N	ATOM	30848	C4	C A1463	125.836	36.335	-26.150	1.00	57.09	C
ATOM	30799	C8	G A1461	121.733	31.222	-20.247	1.00	75.42	C	ATOM	30849	N4	C A1463	125.518	37.097	-25.108	1.00	57.09	N
ATOM	30800	N7	G A1461	121.188	32.299	-20.740	1.00	75.42	N	ATOM	30850	C5	C A1463	126.748	35.255	-25.990	1.00	57.09	C
ATOM	30801	C5	G A1461	121.074	32.033	-22.096	1.00	75.42	C	ATOM	30851	C6	C A1463	127.058	34.544	-27.079	1.00	57.09	C
ATOM	30802	C6	G A1461	120.574	32.836	-23.148	1.00	75.42	C	ATOM	30852	P	G A1464	131.498	35.286	-29.592	1.00	73.28	P
ATOM	30803	O6	G A1461	120.123	33.985	-23.089	1.00	75.42	O	ATOM	30853	O1P	G A1464	132.732	35.100	-30.400	1.00	74.26	O
ATOM	30804	N1	G A1461	120.644	32.178	-24.371	1.00	75.42	N	ATOM	30854	O2P	G A1464	131.584	35.266	-28.105	1.00	74.26	O
ATOM	30805	C2	G A1461	121.144	30.914	-24.558	1.00	75.42	C	ATOM	30855	O5*	G A1464	130.763	36.635	-30.031	1.00	73.28	O
ATOM	30806	N2	G A1461	121.137	30.453	-25.812	1.00	75.42	N	ATOM	30856	C5*	G A1464	130.414	36.862	-31.405	1.00	73.28	C
ATOM	30807	N3	G A1461	121.619	30.159	-23.586	1.00	75.42	N	ATOM	30857	C4*	G A1464	129.654	38.158	-31.560	1.00	73.28	C
ATOM	30808	C4	G A1461	121.555	30.778	-22.391	1.00	75.42	C	ATOM	30858	O4*	G A1464	128.383	38.075	-30.874	1.00	73.28	O
ATOM	30809	P	G A1462	127.326	30.055	-20.750	1.00	85.79	P	ATOM	30859	C3*	G A1464	130.299	39.418	-31.010	1.00	73.28	C
ATOM	30810	O1P	G A1462	128.660	29.444	-20.486	1.00	75.86	O	ATOM	30860	O3*	G A1464	131.234	39.956	-31.925	1.00	73.28	O
ATOM	30811	O2P	G A1462	126.990	31.371	-20.146	1.00	75.86	O	ATOM	30861	C2*	G A1464	129.105	40.345	-30.821	1.00	73.28	C
ATOM	30812	O5*	G A1462	127.118	30.142	-22.328	1.00	85.79	O	ATOM	30862	O2*	G A1464	128.719	41.009	-32.008	1.00	73.28	O
ATOM	30813	C5*	G A1462	127.252	28.965	-23.143	1.00	85.79	C	ATOM	30863	C1*	G A1464	128.013	39.360	-30.404	1.00	73.28	C
ATOM	30814	C4*	G A1462	126.842	29.252	-24.567	1.00	85.79	C	ATOM	30864	N9	G A1464	127.889	39.301	-28.954	1.00	74.26	N
ATOM	30815	O4*	G A1462	125.419	29.529	-24.625	1.00	85.79	O	ATOM	30865	C8	G A1464	128.410	38.353	-28.111	1.00	74.26	C



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ATOM	30866	N7	G A1464	128.172	38.602	-26.854	1.00	74.26	N	ATOM	30916	O1P	G A1467	135.347	52.207	-27.518	1.00	75.56	O
ATOM	30867	C5	G A1464	127.441	39.777	-26.873	1.00	74.26	C	ATOM	30917	O2P	G A1467	135.765	49.808	-28.336	1.00	75.56	O
ATOM	30868	C6	G A1464	126.908	40.532	-25.815	1.00	74.26	C	ATOM	30918	O5*	G A1467	135.159	50.249	-25.965	1.00	70.22	O
ATOM	30869	O6	G A1464	126.983	40.311	-24.606	1.00	74.26	O	ATOM	30919	C5*	G A1467	134.533	50.965	-24.888	1.00	70.22	C
ATOM	30870	N1	G A1464	126.232	41.654	-26.275	1.00	74.26	N	ATOM	30920	C4*	G A1467	134.592	50.165	-23.612	1.00	70.22	C
ATOM	30871	C2	G A1464	126.094	42.002	-27.592	1.00	74.26	C	ATOM	30921	O4*	G A1467	133.865	48.923	-23.775	1.00	70.22	O
ATOM	30872	N2	G A1464	125.416	43.125	-27.841	1.00	74.26	N	ATOM	30922	C3*	G A1467	135.966	49.728	-22.140	1.00	70.22	C
ATOM	30873	N3	G A1464	126.589	41.303	-28.593	1.00	74.26	N	ATOM	30923	O3*	G A1467	136.623	50.742	-22.409	1.00	70.22	O
ATOM	30874	C4	G A1464	127.248	40.212	-28.163	1.00	74.26	C	ATOM	30924	C2*	G A1467	135.635	48.553	-22.234	1.00	70.22	C
ATOM	30875	P	C A1465	132.281	41.067	-31.432	1.00	67.94	P	ATOM	30925	O2*	G A1467	135.218	48.986	-20.952	1.00	70.22	O
ATOM	30876	O1P	C A1465	133.181	41.313	-32.583	1.00	77.58	O	ATOM	30926	C1*	G A1467	134.460	47.916	-22.976	1.00	70.22	C
ATOM	30877	O2P	C A1465	132.861	40.673	-30.122	1.00	77.58	O	ATOM	30927	N9	G A1467	134.929	46.847	-23.848	1.00	75.56	N
ATOM	30878	O5*	C A1465	131.375	42.363	-31.222	1.00	67.94	O	ATOM	30928	C8	G A1467	135.391	46.973	-25.136	1.00	75.56	C
ATOM	30879	C5*	C A1465	130.858	43.105	-32.345	1.00	67.94	C	ATOM	30929	N7	G A1467	135.803	45.845	-25.645	1.00	75.56	N
ATOM	30880	C4*	C A1465	130.242	44.399	-31.874	1.00	67.94	C	ATOM	30930	C5	G A1467	135.590	44.915	-24.638	1.00	75.56	C
ATOM	30881	O4*	C A1465	129.092	44.095	-31.045	1.00	67.94	O	ATOM	30931	C6	G A1467	135.857	43.527	-24.605	1.00	75.56	C
ATOM	30882	C3*	C A1465	131.119	45.265	-30.983	1.00	67.94	C	ATOM	30932	O6	G A1467	136.361	42.820	-25.484	1.00	75.56	O
ATOM	30883	O3*	C A1465	132.001	46.101	-31.704	1.00	67.94	O	ATOM	30933	N1	G A1467	135.478	42.962	-23.392	1.00	75.56	N
ATOM	30884	C2*	C A1465	130.108	46.077	-30.188	1.00	67.94	C	ATOM	30934	C2	G A1467	134.913	43.644	-22.342	1.00	75.56	C
ATOM	30885	O2*	C A1465	129.654	47.227	-30.876	1.00	67.94	O	ATOM	30935	N2	G A1467	134.595	42.907	-21.263	1.00	75.56	N
ATOM	30886	C1*	C A1465	128.968	45.070	-30.019	1.00	67.94	C	ATOM	30936	N3	G A1467	134.672	44.1947	-22.353	1.00	75.56	N
ATOM	30887	N1	C A1465	128.993	44.405	-28.699	1.00	77.58	N	ATOM	30937	C4	G A1467	135.033	45.515	-22.526	1.00	75.56	C
ATOM	30888	C2	C A1465	128.406	45.062	-27.604	1.00	77.58	C	ATOM	30938	P	A A1468	138.185	51.010	-22.649	1.00	62.69	P
ATOM	30889	O2	C A1465	127.850	46.164	-27.782	1.00	77.58	O	ATOM	30939	O1P	A A1468	138.260	52.423	-23.090	1.00	63.86	O
ATOM	30890	N3	C A1465	128.458	44.485	-26.381	1.00	77.58	N	ATOM	30940	O2P	A A1468	138.767	49.938	-23.502	1.00	63.86	O
ATOM	30891	C4	C A1465	129.058	43.307	-26.224	1.00	77.58	C	ATOM	30941	O5*	A A1468	138.830	50.921	-21.194	1.00	62.69	O
ATOM	30892	N4	C A1465	129.107	42.795	-24.995	1.00	77.58	N	ATOM	30942	C5*	A A1468	138.414	51.821	-20.151	1.00	62.69	C
ATOM	30893	C5	C A1465	129.641	42.605	-27.321	1.00	77.58	C	ATOM	30943	C4*	A A1468	138.693	51.220	-18.796	1.00	62.69	C
ATOM	30894	C6	C A1465	129.586	43.184	-28.528	1.00	77.58	C	ATOM	30944	O4*	A A1468	137.933	49.995	-18.647	1.00	62.69	O
ATOM	30895	P	C A1466	133.403	46.525	-31.040	1.00	68.86	P	ATOM	30945	C3*	A A1468	140.129	50.799	-18.555	1.00	62.69	C
ATOM	30896	O1P	C A1466	134.122	47.399	-32.009	1.00	82.43	O	ATOM	30946	O3*	A A1468	140.938	51.877	-18.142	1.00	62.69	O
ATOM	30897	O2P	C A1466	134.062	45.291	-30.530	1.00	82.43	O	ATOM	30947	C2*	A A1468	139.990	49.722	-17.491	1.00	62.69	C
ATOM	30898	O5*	C A1466	132.973	47.422	-29.797	1.00	68.86	O	ATOM	30948	O2*	A A1468	139.814	50.230	-16.186	1.00	62.69	O
ATOM	30899	C5*	C A1466	132.196	48.615	-29.992	1.00	68.86	C	ATOM	30949	C1*	A A1468	138.699	49.042	-17.929	1.00	62.69	C
ATOM	30900	C4*	C A1466	131.723	49.160	-28.666	1.00	68.86	C	ATOM	30950	N9	A A1468	138.981	47.920	-18.819	1.00	63.86	N
ATOM	30901	O4*	C A1466	130.807	48.223	-28.042	1.00	68.86	O	ATOM	30951	C8	A A1468	138.886	47.869	-20.187	1.00	63.86	C
ATOM	30902	C3*	C A1466	132.802	49.385	-27.624	1.00	68.86	C	ATOM	30952	N7	A A1468	139.185	46.698	-20.693	1.00	63.86	N
ATOM	30903	O2*	C A1466	132.447	50.632	-27.790	1.00	68.86	O	ATOM	30953	C5	A A1468	139.501	45.928	-19.583	1.00	63.86	C
ATOM	30904	C3*	C A1466	132.019	49.337	-26.322	1.00	68.86	C	ATOM	30954	C6	A A1468	139.880	44.587	-19.443	1.00	63.86	C
ATOM	30905	O2*	C A1466	131.390	50.566	-26.042	1.00	68.86	O	ATOM	30955	N6	A A1468	139.996	43.737	-20.467	1.00	63.86	N
ATOM	30906	C1*	C A1466	130.954	48.285	-26.633	1.00	68.86	C	ATOM	30956	N1	A A1468	140.130	44.136	-18.198	1.00	63.86	N
ATOM	30907	N1	C A1466	131.323	46.951	-26.118	1.00	82.43	N	ATOM	30957	C2	A A1468	139.995	44.983	-17.166	1.00	63.86	C
ATOM	30908	C2	C A1466	130.963	46.612	-24.803	1.00	82.43	C	ATOM	30958	N3	A A1468	139.635	46.259	-17.170	1.00	63.86	N
ATOM	30909	O2	C A1466	130.318	47.425	-24.124	1.00	82.43	O	ATOM	30959	C4	A A1468	139.397	46.675	-18.424	1.00	63.86	C
ATOM	30910	N3	C A1466	131.324	45.406	-24.308	1.00	82.43	N	ATOM	30960	P	G A1469	142.283	52.190	-18.951	1.00	72.77	P
ATOM	30911	C4	C A1466	132.007	44.551	-25.070	1.00	82.43	C	ATOM	30961	O1P	G A1469	142.954	53.347	-18.304	1.00	70.84	O
ATOM	30912	N4	C A1466	132.344	43.379	-24.540	1.00	82.43	N	ATOM	30962	O2P	G A1469	141.893	52.265	-20.381	1.00	70.84	O
ATOM	30913	C5	C A1466	132.375	44.863	-26.410	1.00	82.43	C	ATOM	30963	O5*	G A1469	143.167	50.879	-18.755	1.00	72.77	O
ATOM	30914	C6	C A1466	132.015	46.060	-26.891	1.00	82.43	C	ATOM	30964	C5*	G A1469	143.465	50.391	-17.440	1.00	72.77	C
ATOM	30915	P	G A1467	135.019	50.758	-27.470	1.00	70.22	P	ATOM	30965	C4*	G A1469	143.849	48.931	-17.484	1.00	72.77	C



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ATOM	30966	O4*	G A1469	142.753	48.157	-18.035	1.00	72.77	O	ATOM	31016	O2*	G A1471	152.037	41.810	-26.694	1.00	103.08	O
ATOM	30967	C3*	G A1469	145.036	48.548	-18.353	1.00	72.77	C	ATOM	31017	Cl*	G A1471	150.377	43.249	-25.714	1.00	103.08	C
ATOM	30968	O3*	G A1469	146.286	47.763	-17.726	1.00	72.77	O	ATOM	31018	N9	G A1471	149.796	44.554	-26.018	1.00	84.80	N
ATOM	30969	C2*	G A1469	144.784	47.068	-18.600	1.00	72.77	C	ATOM	31019	N8	G A1471	149.579	45.607	-25.157	1.00	84.80	C
ATOM	30970	O2*	G A1469	145.164	46.264	-17.497	1.00	72.77	O	ATOM	31020	N7	G A1471	149.029	46.639	-25.738	1.00	84.80	N
ATOM	30971	Cl*	G A1469	143.266	47.047	-18.751	1.00	72.77	C	ATOM	31021	C5	G A1471	148.874	46.243	-27.060	1.00	84.80	C
ATOM	30972	N9	G A1469	142.911	47.197	-20.158	1.00	70.84	N	ATOM	31022	C6	G A1471	148.323	46.932	-28.166	1.00	84.80	C
ATOM	30973	C8	G A1469	142.461	48.329	-20.793	1.00	70.84	C	ATOM	31023	O6	G A1471	147.842	48.066	-28.203	1.00	84.80	O
ATOM	30974	N7	G A1469	142.275	48.158	-22.074	1.00	70.84	N	ATOM	31024	N1	G A1471	148.368	46.160	-29.322	1.00	84.80	N
ATOM	30975	C5	G A1469	142.613	46.832	-22.295	1.00	70.84	C	ATOM	31025	C2	G A1471	148.879	44.888	-29.404	1.00	84.80	C
ATOM	30976	C6	G A1469	142.621	46.080	-23.488	1.00	70.84	C	ATOM	31026	N2	G A1471	148.849	44.309	-30.611	1.00	84.80	N
ATOM	30977	O6	G A1469	142.321	46.450	-24.630	1.00	70.84	O	ATOM	31027	N3	G A1471	149.386	44.233	-28.380	1.00	84.80	N
ATOM	30978	N1	G A1469	143.035	44.768	-23.263	1.00	70.84	N	ATOM	31028	C4	G A1471	149.351	44.963	-27.248	1.00	84.80	C
ATOM	30979	C2	G A1469	143.396	44.248	-22.042	1.00	70.84	C	ATOM	31029	P	U A1472	155.142	43.734	-25.511	1.00	99.94	P
ATOM	30980	N2	G A1469	143.760	42.962	-22.022	1.00	70.84	N	ATOM	31030	O1P	U A1472	156.370	42.965	-25.194	1.00	80.94	O
ATOM	30981	N3	G A1469	143.397	44.943	-20.920	1.00	70.84	N	ATOM	31031	O2P	U A1472	155.026	45.142	-25.051	1.00	80.94	O
ATOM	30982	C4	G A1469	142.998	46.221	-21.120	1.00	70.84	C	ATOM	31032	O5*	U A1472	154.916	43.699	-27.088	1.00	99.94	O
ATOM	30983	P	G A1470	147.584	49.049	-18.630	1.00	85.52	P	ATOM	31033	C5*	U A1472	155.219	42.516	-27.850	1.00	99.94	C
ATOM	30984	O1P	G A1470	148.691	49.275	-17.668	1.00	67.63	O	ATOM	31034	C4*	U A1472	155.057	42.789	-29.323	1.00	99.94	C
ATOM	30985	O2P	G A1470	147.277	50.082	-19.652	1.00	67.63	O	ATOM	31035	O4*	U A1472	153.653	43.015	-29.614	1.00	99.94	O
ATOM	30986	O5*	G A1470	147.838	47.660	-19.363	1.00	85.52	O	ATOM	31036	C3*	U A1472	155.755	44.035	-29.850	1.00	99.94	C
ATOM	30987	C5*	G A1470	148.209	46.510	-18.596	1.00	85.52	C	ATOM	31037	O3*	U A1472	157.140	43.853	-30.138	1.00	99.94	O
ATOM	30988	C4*	G A1470	148.338	45.296	-19.476	1.00	85.52	C	ATOM	31038	C2*	U A1472	154.940	44.375	-31.092	1.00	99.94	C
ATOM	30989	O4*	G A1470	147.056	44.977	-20.076	1.00	85.52	O	ATOM	31039	O2*	U A1472	155.332	43.647	-32.240	1.00	99.94	O
ATOM	30990	C3*	G A1470	149.274	45.402	-20.662	1.00	85.52	C	ATOM	31040	Cl*	U A1472	153.528	43.975	-30.655	1.00	99.94	C
ATOM	30991	O3*	G A1470	150.639	45.238	-20.315	1.00	85.52	O	ATOM	31041	N1	U A1472	152.789	45.141	-30.143	1.00	80.94	N
ATOM	30992	C2*	G A1470	148.768	44.285	-21.567	1.00	85.52	C	ATOM	31042	C2	U A1472	151.917	45.800	-31.009	1.00	80.94	C
ATOM	30993	O2*	G A1470	149.233	43.000	-21.201	1.00	85.52	O	ATOM	31043	O2	U A1472	151.681	45.420	-32.148	1.00	80.94	O
ATOM	30994	Cl*	G A1470	147.261	44.373	-21.342	1.00	85.52	C	ATOM	31044	N3	U A1472	151.326	46.920	-30.485	1.00	80.94	N
ATOM	30995	N9	G A1470	146.693	45.230	-22.373	1.00	67.63	N	ATOM	31045	C4	U A1472	151.491	47.433	-29.213	1.00	80.94	C
ATOM	30996	C8	G A1470	146.298	46.539	-22.257	1.00	67.63	C	ATOM	31046	O4	U A1472	150.918	48.483	-28.903	1.00	80.94	O
ATOM	30997	N7	G A1470	145.913	47.055	-23.391	1.00	67.63	N	ATOM	31047	C5	U A1472	152.372	46.679	-28.374	1.00	80.94	C
ATOM	30998	C5	G A1470	146.046	46.018	-24.302	1.00	67.63	C	ATOM	31048	C6	U A1472	152.973	45.589	-28.853	1.00	80.94	C
ATOM	30999	C6	G A1470	145.797	45.981	-25.698	1.00	67.63	C	ATOM	31049	P	A A1473	158.119	45.135	-30.167	1.00	123.30	P
ATOM	31000	O6	G A1470	145.403	46.896	-26.437	1.00	67.63	O	ATOM	31050	O1P	A A1473	159.489	44.628	-30.430	1.00	97.38	O
ATOM	31001	N1	G A1470	146.063	44.723	-26.232	1.00	67.63	N	ATOM	31051	O2P	A A1473	157.873	45.979	-28.968	1.00	97.38	O
ATOM	31002	C2	G A1470	146.517	43.646	-25.516	1.00	67.63	C	ATOM	31052	O5*	A A1473	157.628	45.958	-31.441	1.00	123.30	O
ATOM	31003	N2	G A1470	146.726	42.515	-26.205	1.00	67.63	N	ATOM	31053	C5*	A A1473	157.794	45.430	-32.770	1.00	123.30	C
ATOM	31004	N3	G A1470	146.755	43.672	-24.218	1.00	67.63	N	ATOM	31054	C4*	A A1473	157.258	46.403	-33.791	1.00	123.30	C
ATOM	31005	C4	G A1470	146.502	44.881	-23.682	1.00	67.63	C	ATOM	31055	O4*	A A1473	155.812	46.467	-33.696	1.00	123.30	O
ATOM	31006	P	G A1471	151.775	45.848	-21.280	1.00	103.08	P	ATOM	31056	C3*	A A1473	157.712	47.842	-33.619	1.00	123.30	C
ATOM	31007	O1P	G A1471	153.073	45.615	-20.591	1.00	84.80	O	ATOM	31057	O3*	A A1473	158.994	48.082	-34.180	1.00	123.30	O
ATOM	31008	O2P	G A1471	151.385	47.230	-21.674	1.00	84.80	O	ATOM	31058	C2*	A A1473	156.602	48.630	-34.303	1.00	123.30	C
ATOM	31009	O5*	G A1471	151.707	44.932	-22.582	1.00	103.08	O	ATOM	31059	O2*	A A1473	156.751	48.709	-35.706	1.00	123.30	O
ATOM	31010	C5*	G A1471	151.895	43.509	-22.487	1.00	103.08	C	ATOM	31060	Cl*	A A1473	155.372	47.791	-33.954	1.00	123.30	C
ATOM	31011	C4*	G A1471	151.732	42.868	-23.842	1.00	103.08	C	ATOM	31061	N9	A A1473	154.706	48.298	-32.754	1.00	97.38	N
ATOM	31012	O4*	G A1471	150.376	43.068	-24.309	1.00	103.08	O	ATOM	31062	C8	A A1473	154.869	47.884	-31.453	1.00	97.38	C
ATOM	31013	C3*	G A1471	152.605	43.444	-24.944	1.00	103.08	C	ATOM	31063	N7	A A1473	154.158	48.565	-30.588	1.00	97.38	N
ATOM	31014	O3*	G A1471	153.909	42.880	-24.939	1.00	103.08	O	ATOM	31064	C5	A A1473	153.472	49.483	-31.371	1.00	97.38	C
ATOM	31015	C2*	G A1471	151.818	43.119	-26.208	1.00	103.08	C	ATOM	31065	C6	A A1473	152.554	50.498	-31.052	1.00	97.38	C



Table 2. Sheet 312/520

ATOM	31066	A	A1473	152.152	50.769	-29.810	1.00	97.38	N	ATOM	31116	C4	G	A1475	155.639	57.204	-31.495	1.00190.83	C
ATOM	31067	A	A1473	152.056	51.236	-32.068	1.00	97.38	N	ATOM	31117	P	G	A1476	160.215	60.664	-33.590	1.00141.90	P
ATOM	31068	A	A1473	152.460	50.967	-33.313	1.00	97.38	C	ATOM	31118	O1P	G	A1476	161.019	61.649	-34.358	1.00173.12	O
ATOM	31069	A	A1473	153.317	50.042	-33.739	1.00	97.38	N	ATOM	31119	O2P	G	A1476	160.907	59.647	-32.753	1.00173.12	O
ATOM	31070	A	A1473	153.793	49.325	-32.707	1.00	97.38	C	ATOM	31120	O5*	G	A1476	159.176	61.450	-32.671	1.00141.90	O
ATOM	31071	P	G	A1474	159.868	49.320	-33.646	1.00144.11	P	ATOM	31121	C5*	G	A1476	158.365	62.509	-33.217	1.00141.90	C
ATOM	31072	O1P	G	A1474	161.222	49.190	-34.240	1.00146.72	O	ATOM	31122	C4*	G	A1476	157.446	63.077	-32.160	1.00141.90	C
ATOM	31073	O2P	G	A1474	159.721	49.419	-32.172	1.00146.72	O	ATOM	31123	O4*	G	A1476	156.442	62.096	-31.800	1.00141.90	O
ATOM	31074	O5*	G	A1474	159.148	50.582	-34.295	1.00144.11	O	ATOM	31124	C3*	G	A1476	158.090	63.465	-30.838	1.00141.90	O
ATOM	31075	C5*	G	A1474	159.112	50.743	-35.722	1.00144.11	C	ATOM	31125	O3*	G	A1476	158.682	64.757	-30.874	1.00141.90	O
ATOM	31076	C4*	G	A1474	158.304	51.959	-36.094	1.00144.11	C	ATOM	31126	C2*	G	A1476	156.917	63.406	-29.868	1.00141.90	C
ATOM	31077	O4*	G	A1474	156.903	51.725	-35.793	1.00144.11	O	ATOM	31127	O2*	G	A1476	156.127	64.579	-29.887	1.00141.90	O
ATOM	31078	C3*	G	A1474	158.641	53.235	-35.341	1.00144.11	C	ATOM	31128	C1*	G	A1476	156.108	62.236	-30.428	1.00141.90	C
ATOM	31079	O3*	G	A1474	159.777	53.914	-35.852	1.00144.11	O	ATOM	31129	N9	G	A1476	156.413	60.983	-29.741	1.00173.12	N
ATOM	31080	O2*	G	A1474	157.355	54.039	-35.471	1.00144.11	O	ATOM	31130	C8	G	A1476	157.086	59.897	-30.246	1.00173.12	C
ATOM	31081	C2*	G	A1474	157.242	54.717	-36.708	1.00144.11	C	ATOM	31131	N7	G	A1476	157.208	58.924	-29.384	1.00173.12	N
ATOM	31082	C1*	G	A1474	156.299	52.936	-35.370	1.00144.11	C	ATOM	31132	C5	G	A1476	156.577	59.395	-28.242	1.00173.12	C
ATOM	31083	N9	G	A1474	155.870	52.778	-33.983	1.00146.72	N	ATOM	31133	C6	G	A1476	156.389	58.780	-26.979	1.00173.12	C
ATOM	31084	C8	G	A1474	156.390	51.921	-33.040	1.00146.72	C	ATOM	31134	O6	G	A1476	156.748	57.656	-26.607	1.00173.12	O
ATOM	31085	N7	G	A1474	155.834	52.053	-31.868	1.00146.72	N	ATOM	31135	N1	G	A1476	155.702	59.614	-26.104	1.00173.12	N
ATOM	31086	C5	G	A1474	154.880	53.045	-32.049	1.00146.72	C	ATOM	31136	C2	G	A1476	155.250	60.873	-26.405	1.00173.12	C
ATOM	31087	C6	G	A1474	153.970	53.619	-31.131	1.00146.72	C	ATOM	31137	N2	G	A1476	154.609	61.521	-25.424	1.00173.12	N
ATOM	31088	O6	G	A1474	153.821	53.361	-29.933	1.00146.72	O	ATOM	31138	N3	G	A1476	155.414	61.455	-27.579	1.00173.12	N
ATOM	31089	N1	G	A1474	153.180	54.594	-31.735	1.00146.72	N	ATOM	31139	C4	G	A1476	156.081	60.664	-28.444	1.00173.12	C
ATOM	31090	C2	G	A1474	152.416	55.933	-33.445	1.00146.72	C	ATOM	31140	P	C	A1477	159.882	65.109	-29.861	1.00165.54	P
ATOM	31091	N2	G	A1474	154.107	54.444	-33.918	1.00146.72	N	ATOM	31141	O1P	C	A1477	160.383	66.457	-30.242	1.00152.37	O
ATOM	31092	N3	G	A1474	154.882	53.494	-33.352	1.00146.72	N	ATOM	31142	O2P	C	A1477	160.825	63.958	-29.823	1.00152.37	O
ATOM	31093	C4	G	A1474	160.629	54.866	-34.876	1.00151.51	C	ATOM	31143	O5*	C	A1477	159.172	65.217	-28.435	1.00165.54	O
ATOM	31094	P	G	A1475	161.836	55.301	-35.621	1.00190.83	P	ATOM	31144	C5*	C	A1477	158.113	66.172	-28.209	1.00165.54	C
ATOM	31095	O1P	G	A1475	160.782	54.190	-33.560	1.00190.83	O	ATOM	31145	C4*	C	A1477	157.540	66.019	-26.816	1.00165.54	C
ATOM	31096	O2P	G	A1475	159.684	56.132	-34.673	1.00151.51	O	ATOM	31146	O4*	C	A1477	157.001	64.682	-26.654	1.00165.54	O
ATOM	31097	O5*	G	A1475	159.204	56.880	-35.809	1.00151.51	O	ATOM	31147	C3*	C	A1477	158.501	66.182	-25.648	1.00165.54	C
ATOM	31098	C5*	G	A1475	158.145	57.866	-35.380	1.00151.51	C	ATOM	31148	O3*	C	A1477	158.697	67.545	-25.299	1.00165.54	O
ATOM	31099	C4*	G	A1475	156.977	57.152	-34.898	1.00151.51	C	ATOM	31149	C2*	C	A1477	157.801	65.416	-24.531	1.00165.54	C
ATOM	31100	O4*	G	A1475	158.532	58.775	-34.226	1.00151.51	O	ATOM	31150	O2*	C	A1477	156.802	66.176	-23.881	1.00165.54	O
ATOM	31101	C3*	G	A1475	159.280	59.901	-34.649	1.00151.51	C	ATOM	31151	C1*	C	A1477	157.143	64.273	-25.303	1.00165.54	C
ATOM	31102	O3*	G	A1475	157.185	59.159	-33.630	1.00151.51	O	ATOM	31152	N1	C	A1477	157.942	63.034	-25.251	1.00152.37	N
ATOM	31103	C2*	G	A1475	156.562	60.230	-34.313	1.00151.51	C	ATOM	31153	C2	C	A1477	157.747	62.155	-24.175	1.00152.37	C
ATOM	31104	O2*	G	A1475	156.385	57.869	-33.824	1.00151.51	O	ATOM	31154	O3	C	A1477	156.904	62.440	-23.309	1.00152.37	O
ATOM	31105	C1*	G	A1475	156.406	57.028	-32.626	1.00190.83	C	ATOM	31155	N2	C	A1477	158.482	61.022	-24.103	1.00152.37	C
ATOM	31106	N9	G	A1475	157.196	55.926	-32.388	1.00190.83	N	ATOM	31156	C4	C	A1477	159.383	60.751	-25.049	1.00152.37	C
ATOM	31107	C8	G	A1475	157.005	55.402	-31.206	1.00190.83	C	ATOM	31157	N4	C	A1477	160.091	59.624	-24.930	1.00152.37	N
ATOM	31108	N7	G	A1475	156.026	56.202	-30.629	1.00190.83	N	ATOM	31158	C5	C	A1477	159.600	61.623	-26.158	1.00152.37	C
ATOM	31109	C5	G	A1475	155.414	56.129	-29.347	1.00190.83	C	ATOM	31159	C6	C	A1477	158.864	62.742	-26.219	1.00152.37	C
ATOM	31110	C6	G	A1475	155.622	55.315	-28.436	1.00190.83	C	ATOM	31160	P	C	A1478	159.990	67.969	-24.439	1.00139.87	P
ATOM	31111	O6	G	A1475	154.472	57.139	-29.174	1.00190.83	O	ATOM	31161	O1P	C	A1478	159.957	69.452	-24.345	1.00128.05	O
ATOM	31112	N1	G	A1475	154.159	58.098	-30.108	1.00190.83	N	ATOM	31162	O2P	C	A1478	161.198	67.294	-24.991	1.00128.05	O
ATOM	31113	C2	G	A1475	153.228	58.993	-29.754	1.00190.83	C	ATOM	31163	O5*	C	A1478	159.710	67.375	-22.986	1.00139.87	O
ATOM	31114	N2	G	A1475	154.720	58.175	-31.302	1.00190.83	N	ATOM	31164	C5*	C	A1478	158.709	67.964	-22.135	1.00139.87	C
ATOM	31115	N3	G	A1475						ATOM	31165	C4*	C	A1478	158.651	67.254	-20.803	1.00139.87	C



Table 2: Sheet 313/520

ATOM	31166	O4*	C A1478	158.190	65.891	-20.982	1.00139.87	O	ATOM	31216	C6	G A1480	167.706	60.587	-17.727	1.00107.19	C
ATOM	31167	C3*	C A1478	159.954	67.103	-20.038	1.00139.87	C	ATOM	31217	O6	G A1480	167.793	60.821	-18.943	1.00107.19	O
ATOM	31168	O3*	C A1478	160.296	68.264	-19.300	1.00139.87	C	ATOM	31218	N1	G A1480	168.286	59.437	-17.196	1.00107.19	N
ATOM	31169	C2*	C A1478	159.661	65.935	-19.105	1.00139.87	C	ATOM	31219	C2	G A1480	168.268	59.083	-15.868	1.00107.19	C
ATOM	31170	O1*	C A1478	158.986	66.318	-17.925	1.00139.87	O	ATOM	31220	N2	G A1480	168.886	57.935	-15.552	1.00107.19	N
ATOM	31171	C2*	C A1478	158.735	65.073	-19.960	1.00139.87	C	ATOM	31221	N3	G A1480	167.689	59.802	-14.920	1.00107.19	N
ATOM	31172	N1	C A1478	159.454	63.936	-20.557	1.00128.05	N	ATOM	31222	C4	G A1480	167.116	60.920	-15.415	1.00107.19	C
ATOM	31173	C2	C A1478	159.738	62.828	-19.744	1.00128.05	C	ATOM	31223	P	U A1481	169.675	64.774	-11.476	1.00107.19	P
ATOM	31174	O2	C A1478	159.352	62.832	-18.563	1.00128.05	O	ATOM	31224	O1P	U A1481	170.219	65.209	-10.161	1.00108.51	O
ATOM	31175	N3	C A1478	160.424	61.785	-20.262	1.00128.05	N	ATOM	31225	O2P	U A1481	169.582	65.753	-12.595	1.00108.51	O
ATOM	31176	C4	C A1478	160.818	61.814	-21.536	1.00128.05	C	ATOM	31226	O5*	U A1481	170.510	63.518	-11.990	1.00108.51	O
ATOM	31177	N4	C A1478	161.498	60.763	-22.004	1.00128.05	N	ATOM	31227	C5*	U A1481	170.571	62.310	-11.213	1.00108.51	C
ATOM	31178	C5	C A1478	160.533	62.923	-22.390	1.00128.05	C	ATOM	31228	C4*	U A1481	171.262	61.224	-11.994	1.00108.51	C
ATOM	31179	C6	C A1478	159.854	63.952	-21.864	1.00128.05	C	ATOM	31229	O4*	U A1481	170.428	60.773	-13.090	1.00108.51	O
ATOM	31180	P	C A1479	161.798	68.436	-18.758	1.00134.00	P	ATOM	31230	C3*	U A1481	172.553	61.651	-12.656	1.00108.51	C
ATOM	31181	O1P	C A1479	161.890	69.752	-18.079	1.00104.80	O	ATOM	31231	O3*	U A1481	173.624	61.608	-11.747	1.00108.51	O
ATOM	31182	O2P	C A1479	162.719	68.122	-19.876	1.00104.80	O	ATOM	31232	C2*	U A1481	172.701	60.651	-13.792	1.00108.51	C
ATOM	31183	O5*	C A1479	161.952	67.291	-17.662	1.00134.00	O	ATOM	31233	O2*	U A1481	173.268	59.430	-13.371	1.00108.51	O
ATOM	31184	C5*	C A1479	161.262	67.381	-16.403	1.00134.00	C	ATOM	31234	C1*	U A1481	171.244	60.429	-14.198	1.00108.51	C
ATOM	31185	O4*	C A1479	161.632	66.220	-15.509	1.00134.00	C	ATOM	31235	N1	U A1481	170.844	61.248	-15.353	1.00108.51	N
ATOM	31186	C4*	C A1479	161.122	64.979	-16.065	1.00134.00	C	ATOM	31236	C2	U A1481	171.140	60.763	-16.621	1.00108.51	C
ATOM	31187	C3*	C A1479	163.116	65.956	-15.325	1.00134.00	O	ATOM	31237	O2	U A1481	171.710	59.703	-16.811	1.00108.51	O
ATOM	31188	O3*	C A1479	163.725	66.803	-14.366	1.00134.00	O	ATOM	31238	N3	U A1481	170.742	61.570	-17.659	1.00108.51	N
ATOM	31189	C2*	C A1479	163.141	64.492	-14.906	1.00134.00	C	ATOM	31239	C4	U A1481	170.093	62.785	-17.568	1.00108.51	C
ATOM	31190	O2*	C A1479	162.838	64.297	-13.540	1.00134.00	O	ATOM	31240	O4	U A1481	169.768	63.377	-18.601	1.00108.51	O
ATOM	31191	C1*	C A1479	162.011	63.917	-15.753	1.00134.00	C	ATOM	31241	C5	U A1481	169.826	63.221	-16.226	1.00108.51	C
ATOM	31192	N1	C A1479	162.532	63.336	-17.005	1.00104.80	N	ATOM	31242	C6	U A1481	170.200	62.458	-15.192	1.00108.51	C
ATOM	31193	C2	C A1479	163.082	62.048	-16.967	1.00104.80	C	ATOM	31243	P	G A1482	174.827	62.652	-11.908	1.00104.84	P
ATOM	31194	O2	C A1479	163.111	61.437	-15.887	1.00104.80	O	ATOM	31244	O1P	G A1482	175.764	62.398	-10.778	1.00102.54	O
ATOM	31195	N3	C A1479	163.574	61.506	-18.105	1.00104.80	N	ATOM	31245	O2P	G A1482	174.242	64.007	-12.088	1.00102.54	O
ATOM	31196	C4	C A1479	163.538	62.200	-19.246	1.00104.80	C	ATOM	31246	O5*	G A1482	175.516	62.211	-13.276	1.00104.84	O
ATOM	31197	N4	C A1479	164.050	61.630	-20.342	1.00104.80	N	ATOM	31247	C5*	G A1482	176.026	60.876	-13.435	1.00104.84	C
ATOM	31198	C5	C A1479	162.981	63.510	-19.313	1.00104.80	C	ATOM	31248	C4*	G A1482	176.385	60.613	-14.875	1.00104.84	C
ATOM	31199	C6	C A1479	162.493	64.034	-18.181	1.00104.80	C	ATOM	31249	O4*	G A1482	175.190	60.531	-15.684	1.00104.84	O
ATOM	31200	P	G A1480	165.318	67.010	-14.404	1.00118.36	P	ATOM	31250	C3*	G A1482	177.244	61.666	-15.552	1.00104.84	C
ATOM	31201	O1P	G A1480	165.640	68.161	-13.521	1.00107.19	O	ATOM	31251	O3*	G A1482	178.615	61.447	-15.276	1.00104.84	O
ATOM	31202	O2P	G A1480	165.750	67.028	-15.829	1.00107.19	O	ATOM	31252	C2*	G A1482	176.929	61.463	-17.028	1.00104.84	C
ATOM	31203	O5*	G A1480	165.887	65.685	-13.725	1.00118.36	O	ATOM	31253	O2*	G A1482	177.700	60.432	-17.618	1.00104.84	O
ATOM	31204	C5*	G A1480	165.457	65.293	-12.407	1.00118.36	C	ATOM	31254	C1*	G A1482	175.457	61.047	-16.976	1.00104.84	C
ATOM	31205	C4*	G A1480	165.963	63.909	-12.078	1.00118.36	C	ATOM	31255	N9	G A1482	174.538	62.153	-17.223	1.00102.54	N
ATOM	31206	O4*	G A1480	165.326	62.924	-12.932	1.00118.36	O	ATOM	31256	C8	G A1482	173.891	62.916	-16.281	1.00102.54	C
ATOM	31207	C3*	G A1480	167.447	63.700	-12.304	1.00118.36	C	ATOM	31257	N7	G A1482	173.103	63.813	-16.802	1.00102.54	N
ATOM	31208	O3*	G A1480	168.212	64.169	-11.209	1.00118.36	O	ATOM	31258	C5	G A1482	173.241	63.638	-18.172	1.00102.54	C
ATOM	31209	C2*	G A1480	167.547	62.195	-12.495	1.00118.36	C	ATOM	31259	C6	G A1482	172.624	64.319	-19.248	1.00102.54	C
ATOM	31210	O2*	G A1480	167.567	61.495	-11.268	1.00118.36	O	ATOM	31260	O6	G A1482	171.792	65.234	-19.204	1.00102.54	O
ATOM	31211	C1*	G A1480	166.248	61.892	-13.242	1.00118.36	C	ATOM	31261	N1	G A1482	173.061	63.835	-20.477	1.00102.54	N
ATOM	31212	N9	G A1480	166.450	61.879	-14.687	1.00107.19	N	ATOM	31262	C2	G A1482	173.970	62.824	-20.649	1.00102.54	C
ATOM	31213	C8	G A1480	166.034	62.828	-15.589	1.00107.19	C	ATOM	31263	N2	G A1482	174.273	62.514	-21.913	1.00102.54	N
ATOM	31214	N7	G A1480	166.309	62.561	-16.816	1.00107.19	N	ATOM	31264	N3	G A1482	174.541	62.169	-19.653	1.00102.54	N
ATOM	31215	C5	G A1480	167.076	61.361	-16.722	1.00107.19	C	ATOM	31265	C4	G A1482	174.134	62.627	-18.449	1.00102.54	C



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ATOM	31266	P	A A1483	179.689	62.589	-15.614	1.00	89.24	P	ATOM	31316	O3*	U A1485	185.419	70.793	-24.202	1.00	96.48	O
ATOM	31267	O1P	A A1483	180.363	62.923	-14.330	1.00	109.27	O	ATOM	31317	O2*	U A1485	183.156	70.214	-23.695	1.00	96.48	C
ATOM	31268	O2P	A A1483	179.045	63.668	-16.409	1.00	109.27	O	ATOM	31318	O2*	U A1485	182.879	70.568	-25.034	1.00	96.48	O
ATOM	31269	O5*	A A1483	180.727	61.847	-16.566	1.00	89.24	O	ATOM	31319	C1*	U A1485	182.493	68.883	-23.368	1.00	96.48	C
ATOM	31270	C5*	A A1483	181.358	60.620	-16.160	1.00	89.24	C	ATOM	31320	N1	U A1485	182.095	68.850	-21.956	1.00	72.83	N
ATOM	31271	C4*	A A1483	181.984	59.951	-17.352	1.00	89.24	C	ATOM	31321	C2	U A1485	180.911	59.470	-21.613	1.00	72.83	C
ATOM	31272	O4*	A A1483	180.942	59.518	-18.257	1.00	89.24	O	ATOM	31322	O2	U A1485	180.186	70.014	-22.422	1.00	72.83	O
ATOM	31273	C3*	A A1483	182.864	60.861	-18.191	1.00	89.24	C	ATOM	31323	N3	U A1485	180.606	69.431	-20.285	1.00	72.83	N
ATOM	31274	O3*	A A1483	184.180	60.939	-17.673	1.00	89.24	O	ATOM	31324	C4	U A1485	181.341	68.845	-19.287	1.00	72.83	C
ATOM	31275	C2*	A A1483	182.811	60.227	-19.575	1.00	89.24	C	ATOM	31325	O4	U A1485	180.912	68.874	-18.136	1.00	72.83	O
ATOM	31276	O2*	A A1483	183.765	59.206	-19.786	1.00	89.24	O	ATOM	31326	C5	U A1485	182.549	68.220	-19.717	1.00	72.83	C
ATOM	31277	C1*	A A1483	181.394	59.648	-19.597	1.00	89.24	C	ATOM	31327	C6	U A1485	182.875	68.241	-21.004	1.00	72.83	C
ATOM	31278	N9	A A1483	180.454	60.494	-20.330	1.00	109.27	N	ATOM	31328	P	G A1486	185.751	72.220	-23.547	1.00	87.85	P
ATOM	31279	C8	A A1483	179.580	61.429	-19.835	1.00	109.27	C	ATOM	31329	O1P	G A1486	186.823	72.837	-24.378	1.00	65.27	O
ATOM	31280	N7	A A1483	178.874	62.031	-20.760	1.00	109.27	N	ATOM	31330	O2P	G A1486	185.975	71.999	-22.090	1.00	65.27	O
ATOM	31281	C5	A A1483	179.309	61.451	-21.942	1.00	109.27	C	ATOM	31331	O5*	G A1486	184.412	73.075	-23.723	1.00	87.85	O
ATOM	31282	C6	A A1483	178.944	61.652	-23.280	1.00	109.27	C	ATOM	31332	C5*	G A1486	184.005	73.526	-25.029	1.00	87.85	C
ATOM	31283	N6	A A1483	178.022	62.531	-23.666	1.00	109.27	N	ATOM	31333	C4*	G A1486	182.890	74.548	-24.937	1.00	87.85	C
ATOM	31284	N1	A A1483	179.567	60.910	-24.221	1.00	109.27	N	ATOM	31334	O4*	G A1486	181.688	73.940	-24.401	1.00	87.85	O
ATOM	31285	C2	A A1483	180.494	60.031	-23.831	1.00	109.27	C	ATOM	31335	C3*	G A1486	183.103	75.764	-24.059	1.00	87.85	C
ATOM	31286	N3	A A1483	180.925	59.752	-22.605	1.00	109.27	N	ATOM	31336	O3*	G A1486	183.895	76.767	-24.672	1.00	87.85	O
ATOM	31287	C4	A A1483	180.282	60.505	-21.694	1.00	109.27	C	ATOM	31337	C2*	G A1486	181.678	76.239	-23.821	1.00	87.85	C
ATOM	31288	P	C A1484	184.828	62.380	-17.382	1.00	84.44	P	ATOM	31338	O2*	G A1486	181.177	76.970	-24.920	1.00	87.85	O
ATOM	31289	O1P	C A1484	186.236	62.176	-16.948	1.00	112.05	O	ATOM	31339	C1*	G A1486	180.928	74.916	-23.709	1.00	87.85	C
ATOM	31290	O2P	C A1484	183.889	63.123	-16.495	1.00	84.44	O	ATOM	31340	N9	G A1486	180.796	74.502	-22.316	1.00	65.27	N
ATOM	31291	O5*	C A1484	184.855	63.073	-18.817	1.00	84.44	C	ATOM	31341	C8	G A1486	181.544	73.557	-21.661	1.00	65.27	C
ATOM	31292	C5*	C A1484	185.529	62.442	-19.913	1.00	84.44	C	ATOM	31342	N7	G A1486	181.221	73.427	-20.403	1.00	65.27	N
ATOM	31293	C4*	C A1484	185.011	62.972	-21.221	1.00	84.44	C	ATOM	31343	C5	G A1486	180.197	74.341	-20.214	1.00	65.27	C
ATOM	31294	O4*	C A1484	183.602	62.649	-21.355	1.00	84.44	O	ATOM	31344	C6	G A1486	179.454	74.656	-19.047	1.00	65.27	C
ATOM	31295	C3*	C A1484	185.051	64.477	-21.384	1.00	84.44	C	ATOM	31345	O6	G A1486	179.574	74.192	-17.903	1.00	65.27	O
ATOM	31296	O3*	C A1484	186.314	64.964	-21.767	1.00	84.44	O	ATOM	31346	N1	G A1486	178.488	75.620	-19.305	1.00	65.27	N
ATOM	31297	C2*	C A1484	184.002	64.716	-22.453	1.00	84.44	C	ATOM	31347	C2	G A1486	178.269	76.210	-20.525	1.00	65.27	C
ATOM	31298	O2*	C A1484	184.490	64.446	-23.751	1.00	84.44	O	ATOM	31348	N2	G A1486	177.268	77.096	-20.574	1.00	65.27	N
ATOM	31299	C1*	C A1484	182.940	63.690	-22.061	1.00	84.44	C	ATOM	31349	N3	G A1486	178.971	75.945	-21.615	1.00	65.27	N
ATOM	31300	N1	C A1484	181.943	64.320	-21.171	1.00	112.05	N	ATOM	31350	C4	G A1486	179.909	75.003	-21.390	1.00	65.27	C
ATOM	31301	C2	C A1484	180.936	65.110	-21.742	1.00	112.05	C	ATOM	31351	P	G A1487	185.091	77.433	-23.829	1.00	76.44	P
ATOM	31302	O2	C A1484	180.861	65.187	-22.977	1.00	112.05	O	ATOM	31352	O1P	G A1487	186.091	77.975	-24.790	1.00	55.21	O
ATOM	31303	N3	C A1484	180.072	65.766	-20.932	1.00	112.05	N	ATOM	31353	O2P	G A1487	185.508	76.434	-22.798	1.00	55.21	O
ATOM	31304	C4	C A1484	180.175	65.644	-19.607	1.00	112.05	C	ATOM	31354	O5*	G A1487	184.424	78.645	-23.041	1.00	76.44	O
ATOM	31305	N4	C A1484	179.326	66.336	-18.849	1.00	112.05	N	ATOM	31355	C5*	G A1487	183.945	79.791	-23.738	1.00	76.44	C
ATOM	31306	C5	C A1484	181.159	64.814	-19.001	1.00	112.05	C	ATOM	31356	C4*	G A1487	182.601	80.213	-23.196	1.00	76.44	C
ATOM	31307	C6	C A1484	182.013	64.175	-19.811	1.00	112.05	C	ATOM	31357	O4*	G A1487	181.831	79.033	-22.848	1.00	76.44	O
ATOM	31308	P	U A1485	186.768	66.428	-21.279	1.00	96.48	P	ATOM	31358	C3*	G A1487	182.560	81.041	-21.926	1.00	76.44	C
ATOM	31309	O1P	U A1485	188.161	66.641	-21.779	1.00	72.83	O	ATOM	31359	O3*	G A1487	182.788	82.414	-22.176	1.00	76.44	O
ATOM	31310	O2P	U A1485	186.484	66.532	-19.817	1.00	72.83	O	ATOM	31360	C2*	G A1487	181.131	80.810	-21.460	1.00	76.44	C
ATOM	31311	O5*	U A1485	185.777	67.421	-22.048	1.00	96.48	O	ATOM	31361	O2*	G A1487	180.185	81.557	-22.206	1.00	76.44	O
ATOM	31312	C5*	U A1485	185.845	67.577	-23.485	1.00	96.48	C	ATOM	31362	C1*	G A1487	180.939	79.338	-21.794	1.00	76.44	C
ATOM	31313	C4*	U A1485	184.708	68.446	-23.992	1.00	96.48	C	ATOM	31363	N9	G A1487	181.277	78.527	-20.631	1.00	55.21	N
ATOM	31314	O4*	U A1485	183.445	67.859	-23.593	1.00	96.48	O	ATOM	31364	C8	G A1487	182.400	77.771	-20.437	1.00	55.21	C
ATOM	31315	C3*	U A1485	184.619	69.878	-23.485	1.00	96.48	C	ATOM	31365	N7	G A1487	182.437	77.206	-19.262	1.00	55.21	N



Table 2: Sheet 315/520

ATOM	31366	G A1487	181.258	77.606	-18.648	1.00	55.21	C	ATOM	31416	C2	G A1489	180.864	82.273	-9.712	1.00	61.27	C
ATOM	31367	G A1487	180.748	77.320	-17.352	1.00	55.21	C	ATOM	31417	N2	G A1489	180.481	81.874	-8.495	1.00	61.27	N
ATOM	31368	O6	181.263	76.647	-16.449	1.00	55.21	O	ATOM	31418	N3	G A1489	180.134	83.145	-10.386	1.00	61.27	N
ATOM	31369	N1	179.513	77.919	-17.147	1.00	55.21	N	ATOM	31419	C4	G A1489	180.678	83.433	-11.586	1.00	61.27	C
ATOM	31370	C2	178.857	78.703	-18.057	1.00	55.21	C	ATOM	31420	P	C A1490	180.111	89.625	-11.904	1.00	45.20	P
ATOM	31371	N2	177.665	79.185	-17.678	1.00	55.21	N	ATOM	31421	O1P	C A1490	179.461	90.921	-11.543	1.00	56.70	O
ATOM	31372	N3	179.330	78.993	-19.254	1.00	55.21	N	ATOM	31422	O2P	C A1490	181.309	89.625	-12.771	1.00	56.70	O
ATOM	31373	C4	180.525	78.410	-19.483	1.00	55.21	C	ATOM	31423	O5*	C A1490	180.466	88.839	-10.564	1.00	45.20	O
ATOM	31374	P	183.160	83.388	-20.953	1.00	53.09	P	ATOM	31424	C5*	C A1490	179.547	88.834	-9.463	1.00	45.20	C
ATOM	31375	O1P	183.184	84.784	-21.508	1.00	59.51	O	ATOM	31425	C4*	C A1490	180.107	88.055	-8.306	1.00	45.20	C
ATOM	31376	O2P	184.360	82.854	-20.243	1.00	59.51	O	ATOM	31426	O4*	C A1490	180.275	86.663	-8.684	1.00	45.20	O
ATOM	31377	O5*	181.919	83.250	-19.962	1.00	53.09	O	ATOM	31427	C3*	C A1490	181.480	88.460	-7.822	1.00	45.20	C
ATOM	31378	C5*	180.638	83.787	-20.325	1.00	53.09	C	ATOM	31428	O3*	C A1490	181.454	89.581	-6.985	1.00	45.20	O
ATOM	31379	C4*	179.700	83.775	-19.144	1.00	53.09	C	ATOM	31429	C2*	C A1490	181.958	87.212	-7.099	1.00	45.20	C
ATOM	31380	O4*	179.406	82.415	-18.736	1.00	53.09	O	ATOM	31430	O2*	C A1490	181.461	87.116	-5.786	1.00	45.20	O
ATOM	31381	C3*	180.178	84.458	-17.875	1.00	53.09	C	ATOM	31431	C1*	C A1490	181.373	86.105	-7.977	1.00	45.20	C
ATOM	31382	O3*	180.004	85.864	-17.951	1.00	53.09	O	ATOM	31432	N1	C A1490	182.378	85.635	-8.945	1.00	56.70	N
ATOM	31383	C2*	179.281	83.823	-16.822	1.00	53.09	C	ATOM	31433	C2	C A1490	183.168	84.543	-8.610	1.00	56.70	C
ATOM	31384	O2*	178.001	84.422	-16.799	1.00	53.09	O	ATOM	31434	O2	C A1490	182.932	83.937	-7.559	1.00	56.70	O
ATOM	31385	C1*	179.149	82.388	-17.343	1.00	53.09	C	ATOM	31435	N3	C A1490	184.168	84.169	-9.441	1.00	56.70	N
ATOM	31386	N9	180.109	81.489	-16.713	1.00	59.51	N	ATOM	31436	C4	C A1490	184.372	84.833	-10.578	1.00	56.70	C
ATOM	31387	C8	181.232	80.952	-17.284	1.00	59.51	C	ATOM	31437	N4	C A1490	185.389	84.456	-11.354	1.00	56.70	N
ATOM	31388	N7	181.931	80.227	-16.456	1.00	59.51	N	ATOM	31438	C5	C A1490	183.547	85.920	-10.968	1.00	56.70	C
ATOM	31389	C5	181.222	80.280	-15.269	1.00	59.51	C	ATOM	31439	C6	C A1490	182.567	86.282	-10.133	1.00	56.70	C
ATOM	31390	C6	181.506	79.704	-14.013	1.00	59.51	C	ATOM	31440	P	G A1491	182.802	90.415	-6.766	1.00	45.78	P
ATOM	31391	O6	182.469	79.013	-13.689	1.00	59.51	O	ATOM	31441	O1P	G A1491	182.483	91.515	-5.830	1.00	70.42	O
ATOM	31392	N1	180.528	80.009	-13.077	1.00	59.51	N	ATOM	31442	O2P	G A1491	183.380	90.730	-8.093	1.00	70.42	O
ATOM	31393	C2	179.421	80.775	-13.318	1.00	59.51	C	ATOM	31443	O5*	G A1491	183.755	89.380	-6.022	1.00	45.78	O
ATOM	31394	N2	178.604	80.967	-12.278	1.00	59.51	N	ATOM	31444	C5*	G A1491	183.449	88.931	-4.702	1.00	45.78	C
ATOM	31395	N3	179.140	81.318	-14.492	1.00	59.51	N	ATOM	31445	C4*	G A1491	184.554	88.049	-4.169	1.00	45.78	C
ATOM	31396	C4	180.083	81.036	-15.414	1.00	59.51	C	ATOM	31446	O4*	G A1491	184.573	86.773	-4.859	1.00	45.78	O
ATOM	31397	P	180.855	86.828	-16.988	1.00	52.52	P	ATOM	31447	C3*	G A1491	185.977	88.562	-4.297	1.00	45.78	C
ATOM	31398	O1P	180.612	88.220	-17.423	1.00	61.27	O	ATOM	31448	O3*	G A1491	186.281	89.473	-3.264	1.00	45.78	O
ATOM	31399	O2P	182.243	86.338	-16.874	1.00	61.27	O	ATOM	31449	C2*	G A1491	186.793	87.281	-4.180	1.00	45.78	C
ATOM	31400	O5*	180.170	86.626	-15.572	1.00	52.52	O	ATOM	31450	O2*	G A1491	186.929	86.857	-2.836	1.00	45.78	O
ATOM	31401	C5*	178.836	87.087	-15.342	1.00	52.52	C	ATOM	31451	C1*	G A1491	185.902	86.278	-4.913	1.00	45.78	C
ATOM	31402	C4*	178.420	86.772	-13.933	1.00	52.52	C	ATOM	31452	N9	G A1491	186.296	86.159	-6.311	1.00	70.42	N
ATOM	31403	O4*	178.462	85.336	-13.726	1.00	52.52	O	ATOM	31453	C8	G A1491	185.770	86.835	-7.379	1.00	70.42	C
ATOM	31404	C3*	179.334	87.339	-12.866	1.00	52.52	C	ATOM	31454	N7	G A1491	186.378	86.571	-8.498	1.00	70.42	N
ATOM	31405	O3*	179.004	88.680	-12.569	1.00	52.52	O	ATOM	31455	C5	G A1491	187.360	85.658	-8.151	1.00	70.42	C
ATOM	31406	C2*	179.102	86.396	-11.696	1.00	52.52	C	ATOM	31456	C6	G A1491	188.349	85.024	-8.944	1.00	70.42	C
ATOM	31407	O2*	177.918	86.703	-10.992	1.00	52.52	O	ATOM	31457	O6	G A1491	188.573	85.161	-10.144	1.00	70.42	O
ATOM	31408	C1*	178.918	85.058	-12.416	1.00	52.52	C	ATOM	31458	N1	G A1491	189.129	84.158	-8.193	1.00	70.42	N
ATOM	31409	N8	180.158	84.294	-12.525	1.00	61.27	N	ATOM	31459	C2	G A1491	188.982	83.932	-6.853	1.00	70.42	C
ATOM	31410	C9	181.032	84.286	-13.581	1.00	61.27	C	ATOM	31460	N2	G A1491	189.816	83.048	-6.314	1.00	70.42	N
ATOM	31411	N7	182.050	83.492	-13.396	1.00	61.27	N	ATOM	31461	N3	G A1491	188.079	84.527	-6.097	1.00	70.42	N
ATOM	31412	C5	181.835	82.943	-12.142	1.00	61.27	C	ATOM	31462	C4	G A1491	187.306	85.374	-6.808	1.00	70.42	C
ATOM	31413	C6	182.596	82.001	-11.414	1.00	61.27	C	ATOM	31463	P	A A1492	187.008	90.844	-3.620	1.00	56.47	P
ATOM	31414	O6	183.637	81.430	-11.745	1.00	61.27	O	ATOM	31464	O1P	A A1492	186.602	91.815	-2.580	1.00	90.48	O
ATOM	31415	N1	182.024	81.726	-10.181	1.00	61.27	N	ATOM	31465	O2P	A A1492	186.796	91.164	-5.043	1.00	90.48	O



Table 2: Sheet 316/520

ATOM 31466	O5*	A Al492	188.544	90.494	-3.449	1.00 58.47	O	ATOM 31516	C2*	G Al494	200.078	86.606	-9.848	1.00 61.52	C
ATOM 31467	C5*	A Al492	189.255	90.886	-2.269	1.00 58.47	C	ATOM 31517	O2*	G Al494	201.141	85.695	-9.711	1.00 61.52	O
ATOM 31468	C4*	A Al492	190.224	91.992	-2.599	1.00 58.47	C	ATOM 31518	C1*	G Al494	198.884	86.209	-8.977	1.00 61.52	C
ATOM 31469	O4*	A Al492	190.484	92.747	-1.399	1.00 58.47	O	ATOM 31519	N9	G Al494	197.617	86.499	-9.649	1.00 79.80	N
ATOM 31470	C3*	A Al492	191.597	91.602	-3.127	1.00 58.47	C	ATOM 31520	C8	G Al494	196.559	87.218	-9.149	1.00 79.80	C
ATOM 31471	O3*	A Al492	191.599	91.389	-4.538	1.00 58.47	O	ATOM 31521	N7	G Al494	195.586	87.362	-10.007	1.00 79.80	N
ATOM 31472	C2*	A Al492	192.440	92.814	-2.746	1.00 58.47	C	ATOM 31522	C5	G Al494	196.023	86.692	-11.142	1.00 79.80	C
ATOM 31473	O2*	A Al492	192.255	93.884	-3.656	1.00 58.47	O	ATOM 31523	C6	G Al494	195.406	86.535	-12.406	1.00 79.80	C
ATOM 31474	C1*	A Al492	191.817	93.217	-1.409	1.00 58.47	C	ATOM 31524	O6	G Al494	194.329	86.989	-12.798	1.00 79.80	O
ATOM 31475	N9	A Al492	192.489	92.682	-0.225	1.00 90.48	N	ATOM 31525	N1	G Al494	196.181	85.771	-13.263	1.00 79.80	N
ATOM 31476	C8	A Al492	192.880	91.418	1.594	1.00 90.48	C	ATOM 31526	C2	G Al494	197.399	85.241	-12.957	1.00 79.80	C
ATOM 31477	N7	A Al492	192.886	92.364	1.443	1.00 90.48	N	ATOM 31527	N2	G Al494	197.982	84.525	-13.930	1.00 79.80	N
ATOM 31478	C5	A Al492	193.886	92.650	2.197	1.00 90.48	C	ATOM 31528	N3	G Al494	198.002	85.398	-11.788	1.00 79.80	N
ATOM 31479	C6	A Al492	195.040	92.650	2.197	1.00 90.48	C	ATOM 31529	C4	G Al494	197.260	86.130	-10.933	1.00 79.80	C
ATOM 31480	N6	A Al492	195.392	91.976	3.295	1.00 90.48	N	ATOM 31530	P	U Al495	202.098	89.406	-10.633	1.00 51.38	P
ATOM 31481	N1	A Al492	195.833	93.662	1.774	1.00 90.48	N	ATOM 31531	O1P	U Al495	203.519	89.826	-10.463	1.00 60.60	O
ATOM 31482	C2	A Al492	195.484	94.330	0.665	1.00 90.48	C	ATOM 31532	O2P	U Al495	201.014	90.439	-10.614	1.00 60.60	O
ATOM 31483	N3	A Al492	194.429	94.153	-0.129	1.00 90.48	N	ATOM 31533	O5*	U Al495	201.954	88.577	-11.986	1.00 51.38	O
ATOM 31484	C4	A Al492	193.659	93.145	0.322	1.00 90.48	C	ATOM 31534	C5*	U Al495	202.684	87.358	-12.194	1.00 51.38	C
ATOM 31485	P	A Al493	192.707	90.428	-5.199	1.00 69.48	P	ATOM 31535	C4*	U Al495	202.487	86.876	-13.606	1.00 51.38	C
ATOM 31486	O1P	A Al493	192.530	90.434	-6.674	1.00 83.25	O	ATOM 31536	O4*	U Al495	201.162	86.306	-13.747	1.00 51.38	O
ATOM 31487	O2P	A Al493	192.686	89.143	-4.470	1.00 83.25	O	ATOM 31537	C3*	U Al495	202.552	87.953	-14.674	1.00 51.38	C
ATOM 31488	O5*	A Al493	194.078	91.140	-4.818	1.00 69.48	O	ATOM 31538	O3*	U Al495	203.867	88.239	-15.088	1.00 51.38	C
ATOM 31489	C5*	A Al493	194.500	92.374	-5.424	1.00 69.48	C	ATOM 31539	C2*	U Al495	201.743	87.357	-15.813	1.00 51.38	C
ATOM 31490	C4*	A Al493	195.907	92.712	-4.960	1.00 69.48	C	ATOM 31540	O2*	U Al495	202.524	86.501	-16.621	1.00 51.38	O
ATOM 31491	O4*	A Al493	195.890	93.011	-3.536	1.00 69.48	O	ATOM 31541	C1*	U Al495	200.669	86.567	-15.057	1.00 51.38	C
ATOM 31492	C3*	A Al493	196.905	91.569	-5.101	1.00 69.48	C	ATOM 31542	N1	U Al495	199.385	87.287	-14.960	1.00 60.60	N
ATOM 31493	O3*	A Al493	197.462	91.512	-6.407	1.00 69.48	O	ATOM 31543	C2	U Al495	198.499	87.217	-16.041	1.00 60.60	C
ATOM 31494	C2*	A Al493	197.919	91.851	-3.999	1.00 69.48	C	ATOM 31544	O2	U Al495	198.715	86.567	-17.058	1.00 60.60	O
ATOM 31495	O2*	A Al493	198.901	92.797	-4.367	1.00 69.48	O	ATOM 31545	N3	U Al495	197.347	87.948	-15.887	1.00 60.60	N
ATOM 31496	C1*	A Al493	197.023	92.437	-2.905	1.00 69.48	C	ATOM 31546	C4	U Al495	196.994	88.725	-14.809	1.00 60.60	C
ATOM 31497	N9	A Al493	196.533	91.406	-1.995	1.00 83.25	N	ATOM 31547	O4	U Al495	196.014	89.455	-14.897	1.00 60.60	O
ATOM 31498	C8	A Al493	195.591	90.443	-2.270	1.00 83.25	C	ATOM 31548	C5	U Al495	197.935	88.722	-13.736	1.00 60.60	C
ATOM 31499	N7	A Al493	195.353	89.635	-1.271	1.00 83.25	N	ATOM 31549	C6	U Al495	199.067	88.024	-13.843	1.00 60.60	C
ATOM 31500	C5	A Al493	196.189	90.096	-0.267	1.00 83.25	C	ATOM 31550	P	C Al496	204.181	89.639	-15.810	1.00 53.56	P
ATOM 31501	C6	A Al493	196.409	89.658	1.046	1.00 83.25	C	ATOM 31551	O1P	C Al496	205.665	89.745	-15.927	1.00 62.37	O
ATOM 31502	N6	A Al493	195.780	88.609	1.591	1.00 83.25	N	ATOM 31552	O2P	C Al496	203.427	90.712	-15.103	1.00 62.37	O
ATOM 31503	N1	A Al493	197.310	90.338	1.790	1.00 83.25	N	ATOM 31553	O5*	C Al496	203.567	89.474	-17.275	1.00 53.56	O
ATOM 31504	C2	A Al493	197.946	91.383	1.235	1.00 83.25	C	ATOM 31554	C5*	C Al496	204.211	88.638	-18.244	1.00 53.56	C
ATOM 31505	N3	A Al493	197.825	91.888	0.009	1.00 83.25	N	ATOM 31555	C4*	C Al496	203.520	88.740	-19.575	1.00 53.56	C
ATOM 31506	C4	A Al493	196.920	91.191	-0.699	1.00 83.25	C	ATOM 31556	O4*	C Al496	202.211	88.135	-19.485	1.00 53.56	O
ATOM 31507	P	A Al494	197.326	90.158	-7.255	1.00 61.52	P	ATOM 31557	C3*	C Al496	203.267	90.147	-20.075	1.00 53.56	C
ATOM 31508	O1P	G Al494	197.583	90.474	-8.691	1.00 79.80	O	ATOM 31558	O3*	C Al496	204.393	90.689	-20.739	1.00 53.56	O
ATOM 31509	O2P	G Al494	196.061	89.492	-6.871	1.00 79.80	O	ATOM 31559	C2*	C Al496	202.081	89.954	-21.003	1.00 53.56	C
ATOM 31510	O5*	G Al494	198.475	89.224	-6.658	1.00 61.52	O	ATOM 31560	O2*	C Al496	202.453	89.469	-22.278	1.00 53.56	O
ATOM 31511	C5*	G Al494	199.800	89.213	-7.206	1.00 61.52	C	ATOM 31561	C1*	C Al496	201.287	88.880	-20.258	1.00 53.56	C
ATOM 31512	C4*	G Al494	200.103	87.865	-7.825	1.00 61.52	C	ATOM 31562	N1	C Al496	200.293	89.489	-19.344	1.00 62.37	N
ATOM 31513	O4*	G Al494	198.955	86.973	-7.774	1.00 61.52	O	ATOM 31563	C2	C Al496	199.147	90.091	-19.888	1.00 62.37	C
ATOM 31514	C3*	G Al494	200.422	87.975	-9.298	1.00 61.52	C	ATOM 31564	O2	C Al496	198.979	90.073	-21.116	1.00 62.37	O
ATOM 31515	O3*	G Al494	201.761	88.322	-9.513	1.00 61.52	O	ATOM 31565	N3	C Al496	198.256	90.676	-19.062	1.00 62.37	N



Table 2: Sheet 3171520

ATOM	31566	C4	C A1496	198.464	90.672	-17.746	1.00	62.37	C	ATOM	31616	O5*	A A1499	196.620	98.809	-27.096	1.00	36.91	O
ATOM	31567	N4	C A1496	197.554	91.264	-16.967	1.00	62.37	N	ATOM	31617	C5*	A A1499	195.883	98.702	-28.339	1.00	36.91	C
ATOM	31568	C5	C A1496	199.614	90.060	-17.167	1.00	62.37	C	ATOM	31618	C4*	A A1499	194.381	98.792	-28.105	1.00	36.91	C
ATOM	31569	C6	C A1496	200.489	89.486	-17.992	1.00	62.37	C	ATOM	31619	O4*	A A1499	193.947	97.711	-27.231	1.00	36.91	O
ATOM	31570	P	G A1497	205.033	92.067	-20.209	1.00	49.14	P	ATOM	31620	C3*	A A1499	193.837	100.060	-27.455	1.00	36.91	C
ATOM	31571	O1P	G A1497	206.470	92.076	-20.604	1.00	88.66	O	ATOM	31621	O3*	A A1499	193.607	101.092	-28.398	1.00	36.91	O
ATOM	31572	O2P	G A1497	204.663	92.223	-18.768	1.00	88.66	O	ATOM	31622	C2*	A A1499	192.525	99.582	-26.851	1.00	36.91	C
ATOM	31573	O5*	G A1497	204.276	93.196	-21.038	1.00	49.14	O	ATOM	31623	O2*	A A1499	191.483	99.520	-27.800	1.00	36.91	O
ATOM	31574	C5*	G A1497	204.432	93.273	-22.451	1.00	49.14	C	ATOM	31624	C1*	A A1499	192.883	98.161	-26.406	1.00	36.91	C
ATOM	31575	C4*	G A1497	203.087	93.326	-23.135	1.00	49.14	C	ATOM	31625	N9	A A1499	193.362	98.166	-25.025	1.00	49.38	N
ATOM	31576	O4*	G A1497	202.121	92.493	-22.433	1.00	49.14	O	ATOM	31626	C8	A A1499	194.589	97.761	-24.570	1.00	49.38	C
ATOM	31577	C3*	G A1497	202.391	94.670	-23.275	1.00	49.14	C	ATOM	31627	N7	A A1499	194.752	97.920	-23.285	1.00	49.38	N
ATOM	31578	O3*	G A1497	202.909	95.382	-24.393	1.00	49.14	O	ATOM	31628	C5	A A1499	193.548	98.453	-22.860	1.00	49.38	C
ATOM	31579	C2*	G A1497	200.958	94.233	-23.555	1.00	49.14	C	ATOM	31629	C6	A A1499	193.096	98.847	-21.605	1.00	49.38	C
ATOM	31580	O2*	G A1497	200.803	93.811	-24.898	1.00	49.14	O	ATOM	31630	N6	A A1499	193.818	98.707	-20.501	1.00	49.38	N
ATOM	31581	C1*	G A1497	200.815	92.995	-22.667	1.00	49.14	C	ATOM	31631	N1	A A1499	191.860	99.379	-21.517	1.00	49.38	N
ATOM	31582	N9	G A1497	200.176	93.315	-21.393	1.00	88.66	N	ATOM	31632	C2	A A1499	191.126	99.469	-22.627	1.00	49.38	C
ATOM	31583	C8	G A1497	200.763	93.361	-20.154	1.00	88.66	C	ATOM	31633	N3	A A1499	191.433	99.110	-23.867	1.00	49.38	N
ATOM	31584	N7	G A1497	199.937	93.715	-19.207	1.00	88.66	N	ATOM	31634	C4	A A1499	192.680	98.608	-23.917	1.00	49.38	C
ATOM	31585	C5	G A1497	198.727	93.905	-19.858	1.00	88.66	C	ATOM	31635	P	A A1500	193.589	102.619	-27.911	1.00	39.38	P
ATOM	31586	C6	G A1497	197.465	94.296	-19.347	1.00	88.66	C	ATOM	31636	O1P	A A1500	193.483	103.509	-29.092	1.00	48.01	O
ATOM	31587	O6	G A1497	197.159	94.576	-18.182	1.00	88.66	O	ATOM	31637	O2P	A A1500	194.681	102.820	-26.930	1.00	48.01	O
ATOM	31588	N1	G A1497	196.505	94.353	-20.350	1.00	88.66	N	ATOM	31638	O5*	A A1500	192.245	102.704	-27.076	1.00	39.38	O
ATOM	31589	C2	G A1497	196.730	94.079	-21.673	1.00	88.66	C	ATOM	31639	C5*	A A1500	190.992	102.377	-27.672	1.00	39.38	C
ATOM	31590	N2	G A1497	195.672	94.175	-22.482	1.00	88.66	N	ATOM	31640	C4*	A A1500	189.880	102.638	-26.701	1.00	39.38	C
ATOM	31591	N3	G A1497	197.906	93.728	-22.165	1.00	88.66	N	ATOM	31641	O4*	A A1500	190.024	101.737	-25.577	1.00	39.38	O
ATOM	31592	C4	G A1497	198.852	93.656	-21.206	1.00	88.66	C	ATOM	31642	C3*	A A1500	189.902	104.016	-26.075	1.00	39.38	C
ATOM	31593	P	U A1498	202.814	96.987	-24.448	1.00	50.05	P	ATOM	31643	O3*	A A1500	189.299	105.006	-26.875	1.00	39.38	O
ATOM	31594	O1P	U A1498	203.193	97.464	-25.804	1.00	57.50	O	ATOM	31644	C2*	A A1500	189.161	103.791	-24.776	1.00	39.38	C
ATOM	31595	O2P	U A1498	203.512	97.532	-23.266	1.00	57.50	O	ATOM	31645	O2*	A A1500	187.777	103.721	-25.028	1.00	39.38	O
ATOM	31596	O5*	U A1498	201.261	97.278	-24.275	1.00	50.05	O	ATOM	31646	C1*	A A1500	189.677	102.411	-24.378	1.00	39.38	C
ATOM	31597	C5*	U A1498	200.287	96.740	-25.191	1.00	50.05	C	ATOM	31647	N9	A A1500	190.876	102.499	-23.542	1.00	48.01	N
ATOM	31598	C4*	U A1498	198.955	97.422	-24.978	1.00	50.05	C	ATOM	31648	C8	A A1500	192.167	102.212	-23.892	1.00	48.01	C
ATOM	31599	O4*	U A1498	198.447	97.114	-23.653	1.00	50.05	O	ATOM	31649	N7	A A1500	193.025	102.370	-22.920	1.00	48.01	N
ATOM	31600	C3*	U A1498	199.035	98.929	-25.037	1.00	50.05	C	ATOM	31650	C5	A A1500	192.250	102.798	-21.856	1.00	48.01	C
ATOM	31601	O3*	U A1498	198.868	99.628	-26.280	1.00	50.05	O	ATOM	31651	C6	A A1500	192.564	103.124	-20.530	1.00	48.01	C
ATOM	31602	C2*	U A1498	199.017	99.431	-23.596	1.00	50.05	C	ATOM	31652	N6	A A1500	193.786	103.046	-20.019	1.00	48.01	N
ATOM	31603	O2*	U A1498	198.292	100.622	-23.431	1.00	50.05	O	ATOM	31653	N1	A A1500	191.564	103.525	-19.730	1.00	48.01	N
ATOM	31604	C1*	U A1498	198.254	98.302	-22.904	1.00	50.05	C	ATOM	31654	C2	A A1500	190.331	103.576	-20.226	1.00	48.01	C
ATOM	31605	N1	U A1498	198.632	98.000	-21.512	1.00	57.50	N	ATOM	31655	N3	A A1500	189.902	103.281	-21.450	1.00	48.01	N
ATOM	31606	C2	U A1498	197.686	98.219	-20.519	1.00	57.50	C	ATOM	31656	C4	A A1500	190.927	102.892	-22.227	1.00	48.01	C
ATOM	31607	O2	U A1498	196.604	98.716	-20.740	1.00	57.50	O	ATOM	31657	P	C A1501	189.928	106.479	-26.876	1.00	37.63	P
ATOM	31608	N3	U A1498	198.060	97.834	-19.255	1.00	57.50	N	ATOM	31658	O1P	C A1501	189.182	107.268	-27.901	1.00	54.67	O
ATOM	31609	C4	U A1498	199.262	97.278	-18.880	1.00	57.50	C	ATOM	31659	O2P	C A1501	191.412	106.374	-26.960	1.00	54.67	O
ATOM	31610	O4	U A1498	199.451	96.973	-17.696	1.00	57.50	O	ATOM	31660	O5*	C A1501	189.564	107.012	-25.428	1.00	37.63	O
ATOM	31611	C5	U A1498	200.203	97.112	-19.955	1.00	57.50	C	ATOM	31661	C5*	C A1501	188.195	107.093	-25.031	1.00	37.63	C
ATOM	31612	C6	U A1498	199.865	97.475	-21.200	1.00	57.50	C	ATOM	31662	C4*	C A1501	188.084	107.642	-23.643	1.00	37.63	C
ATOM	31613	P	A A1499	197.419	100.142	-26.735	1.00	36.91	P	ATOM	31663	O4*	C A1501	188.688	106.712	-22.722	1.00	37.63	O
ATOM	31614	O1P	A A1499	197.589	100.954	-27.964	1.00	49.38	O	ATOM	31664	C3*	C A1501	188.785	108.954	-23.362	1.00	37.63	C
ATOM	31615	O2P	A A1499	196.758	100.755	-25.545	1.00	49.38	O	ATOM	31665	O3*	C A1501	187.995	110.044	-23.789	1.00	37.63	O



Table 2: Sheet 318/520

ATOM	31666	C2*	C A1501	188.957	108.912	-21.853	1.00	37.63	C	ATOM	31716	N6	A A1503	196.623	119.580	-31.762	1.00	65.71	N
ATOM	31667	O2*	C A1501	187.768	109.282	-21.187	1.00	37.63	O	ATOM	31717	N1	A A1503	196.683	117.831	-33.270	1.00	65.71	N
ATOM	31668	C1*	C A1501	189.183	107.421	-21.608	1.00	37.63	C	ATOM	31718	C2	A A1503	196.375	116.561	-33.573	1.00	65.71	C
ATOM	31669	N1	C A1501	190.577	107.029	-21.378	1.00	54.67	N	ATOM	31719	N3	A A1503	195.740	115.648	-32.839	1.00	65.71	N
ATOM	31670	C2	C A1501	191.116	107.229	-20.114	1.00	54.67	C	ATOM	31720	C4	A A1503	195.399	116.157	-31.642	1.00	65.71	C
ATOM	31671	O2	C A1501	190.414	107.746	-19.242	1.00	54.67	O	ATOM	31721	P	G A1504	193.829	109.751	-29.770	1.00	40.07	P
ATOM	31672	N3	C A1501	192.387	106.863	-19.872	1.00	54.67	N	ATOM	31722	O1P	G A1504	194.306	108.827	-30.831	1.00	60.53	O
ATOM	31673	C4	C A1501	193.116	106.323	-20.840	1.00	54.67	C	ATOM	31723	O2P	G A1504	192.681	109.343	-28.941	1.00	60.53	O
ATOM	31674	N4	C A1501	194.366	105.999	-20.555	1.00	54.67	N	ATOM	31724	O5*	G A1504	195.089	110.062	-28.857	1.00	40.07	O
ATOM	31675	C5	C A1501	192.594	106.101	-22.144	1.00	54.67	C	ATOM	31725	C5*	G A1504	195.015	110.007	-27.448	1.00	40.07	C
ATOM	31676	C6	C A1501	191.331	106.470	-22.370	1.00	54.67	C	ATOM	31726	C4*	G A1504	195.638	108.738	-26.990	1.00	40.07	C
ATOM	31677	P	A A1502	188.557	111.006	-24.929	1.00	53.33	P	ATOM	31727	O4*	G A1504	194.856	107.506	-27.398	1.00	40.07	O
ATOM	31678	O1P	A A1502	187.487	111.923	-25.370	1.00	72.55	O	ATOM	31728	C3*	G A1504	195.521	106.604	-28.310	1.00	40.07	C
ATOM	31679	O2P	A A1502	189.253	110.163	-25.929	1.00	72.55	O	ATOM	31729	O3*	G A1504	194.111	107.035	-26.147	1.00	40.07	C
ATOM	31680	O5*	A A1502	189.671	111.830	-24.166	1.00	53.33	O	ATOM	31730	C2*	G A1504	194.215	105.642	-25.924	1.00	40.07	O
ATOM	31681	C5*	A A1502	189.482	113.210	-23.921	1.00	53.33	C	ATOM	31731	O2*	G A1504	194.841	107.764	-25.020	1.00	40.07	C
ATOM	31682	C4*	A A1502	190.783	113.961	-24.037	1.00	53.33	C	ATOM	31732	C1*	G A1504	193.964	108.419	-24.051	1.00	60.53	N
ATOM	31683	O4*	A A1502	191.531	113.921	-22.805	1.00	53.33	C	ATOM	31733	N9	G A1504	192.689	108.886	-24.246	1.00	60.53	N
ATOM	31684	C3*	A A1502	191.765	113.645	-25.162	1.00	53.33	C	ATOM	31734	C8	G A1504	192.178	109.435	-23.181	1.00	60.53	N
ATOM	31685	O3*	A A1502	192.063	114.888	-25.769	1.00	53.33	O	ATOM	31735	N7	G A1504	193.176	109.324	-22.227	1.00	60.53	C
ATOM	31686	C2*	A A1502	193.008	113.163	-24.405	1.00	53.33	C	ATOM	31736	C5	G A1504	193.205	109.742	-20.882	1.00	60.53	C
ATOM	31687	O2*	A A1502	194.203	113.539	-25.050	1.00	53.33	C	ATOM	31737	C6	G A1504	192.328	110.317	-20.235	1.00	60.53	O
ATOM	31688	C1*	A A1502	192.893	113.980	-23.125	1.00	53.33	C	ATOM	31738	O6	G A1504	194.411	109.430	-20.281	1.00	60.53	N
ATOM	31689	N9	A A1502	193.684	113.627	-21.944	1.00	72.55	N	ATOM	31739	N1	G A1504	195.456	108.804	-20.895	1.00	60.53	C
ATOM	31690	C8	A A1502	193.500	114.079	-20.652	1.00	72.55	C	ATOM	31740	C2	G A1504	196.536	108.603	-20.154	1.00	60.53	N
ATOM	31691	N7	A A1502	194.409	113.666	-19.808	1.00	72.55	N	ATOM	31741	N2	G A1504	195.445	108.409	-22.141	1.00	60.53	N
ATOM	31692	C5	A A1502	195.233	112.879	-20.587	1.00	72.55	C	ATOM	31742	N3	G A1504	194.281	108.699	-22.747	1.00	60.53	C
ATOM	31693	C6	A A1502	196.379	112.172	-20.287	1.00	72.55	C	ATOM	31743	C4	G A1504	196.632	105.573	-27.792	1.00	38.30	P
ATOM	31694	N6	A A1502	196.944	112.169	-19.080	1.00	72.55	N	ATOM	31744	P	G A1505	196.832	105.851	-26.370	1.00	33.50	O
ATOM	31695	N1	A A1502	196.950	111.464	-21.286	1.00	72.55	N	ATOM	31745	O1P	G A1505	196.266	104.212	-28.213	1.00	38.30	O
ATOM	31696	C2	A A1502	196.387	111.505	-22.510	1.00	72.55	C	ATOM	31746	O2P	G A1505	197.921	106.023	-28.610	1.00	38.30	C
ATOM	31697	N3	A A1502	195.323	112.156	-22.917	1.00	72.55	N	ATOM	31747	O5*	G A1505	197.798	106.685	-29.896	1.00	38.30	C
ATOM	31698	C4	A A1502	194.785	112.829	-21.899	1.00	72.55	C	ATOM	31748	C5*	G A1505	198.878	107.733	-30.049	1.00	38.30	C
ATOM	31699	P	A A1503	191.215	115.375	-27.036	1.00	53.33	P	ATOM	31749	C4*	G A1505	198.707	108.709	-28.998	1.00	38.30	O
ATOM	31700	O1P	A A1503	191.433	116.833	-27.217	1.00	65.71	O	ATOM	31750	O4*	G A1505	200.284	107.180	-29.894	1.00	38.30	C
ATOM	31701	O2P	A A1503	189.828	114.847	-26.913	1.00	65.71	O	ATOM	31751	C3*	G A1505	200.838	106.995	-31.196	1.00	38.30	O
ATOM	31702	O5*	A A1503	191.941	114.616	-28.225	1.00	53.33	O	ATOM	31752	O3*	G A1505	201.031	108.310	-29.187	1.00	38.30	C
ATOM	31703	C5*	A A1503	191.227	113.725	-29.091	1.00	53.33	C	ATOM	31753	C2*	G A1505	201.416	109.334	-30.086	1.00	38.30	O
ATOM	31704	C4*	A A1503	192.175	113.139	-30.101	1.00	53.33	C	ATOM	31754	O2*	G A1505	199.933	108.934	-28.340	1.00	38.30	C
ATOM	31705	O4*	A A1503	192.814	114.228	-30.828	1.00	53.33	C	ATOM	31755	C1*	G A1505	199.764	108.501	-26.957	1.00	33.50	N
ATOM	31706	C3*	A A1503	193.297	112.308	-29.503	1.00	53.33	C	ATOM	31756	N9	G A1505	199.964	107.262	-26.401	1.00	33.50	C
ATOM	31707	O3*	A A1503	193.551	111.206	-30.382	1.00	53.33	O	ATOM	31757	C8	G A1505	199.610	107.206	-25.140	1.00	33.50	N
ATOM	31708	C2*	A A1503	195.737	112.724	-29.449	1.00	53.33	C	ATOM	31758	N7	G A1505	199.171	108.492	-24.854	1.00	33.50	C
ATOM	31709	O2*	A A1503	194.455	113.303	-29.433	1.00	53.33	C	ATOM	31759	C5	G A1505	198.650	109.049	-23.662	1.00	33.50	C
ATOM	31710	C1*	A A1503	195.737	112.724	-29.449	1.00	53.33	C	ATOM	31760	C6	G A1505	198.451	108.502	-22.574	1.00	33.50	O
ATOM	31711	N9	A A1503	194.211	114.154	-30.677	1.00	53.33	O	ATOM	31761	O6	G A1505	198.340	110.389	-23.818	1.00	33.50	N
ATOM	31712	C8	A A1503	194.724	115.522	-30.628	1.00	65.71	N	ATOM	31762	N1	G A1505	198.498	111.113	-24.963	1.00	33.50	C
ATOM	31713	N7	A A1503	194.622	116.440	-29.616	1.00	65.71	N	ATOM	31763	C2	G A1505	198.144	112.406	-24.911	1.00	33.50	N
ATOM	31714	C5	A A1503	195.156	117.605	-29.900	1.00	65.71	C	ATOM	31764	N2	G A1505	198.972	110.613	-26.001	1.00	33.50	N
ATOM	31715	C6	A A1503	196.324	118.312	-32.060	1.00	65.71	G	ATOM	31765	N3	G A1505						



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ATOM	31766	C4	G A1505	199.286	109.303	-25.956	1.00	33.50	C	ATOM	31816	C3*	G A1508	187.535	104.311	-30.878	1.00	40.01	C
ATOM	31767	P	U A1506	200.587	105.629	-32.008	1.00	54.77	P	ATOM	31817	O3*	G A1508	187.457	103.292	-29.900	1.00	40.01	O
ATOM	31768	O1P	U A1506	200.197	104.492	-31.079	1.00	39.62	O	ATOM	31818	C2*	G A1508	186.184	104.971	-31.118	1.00	40.01	C
ATOM	31769	O2P	U A1506	201.779	105.478	-32.904	1.00	39.62	O	ATOM	31819	O2*	G A1508	185.450	105.103	-29.917	1.00	40.01	O
ATOM	31770	O5*	U A1506	199.364	106.006	-32.954	1.00	54.77	O	ATOM	31820	C1*	G A1508	186.593	106.353	-31.637	1.00	40.01	C
ATOM	31771	C5*	U A1506	199.487	107.083	-33.903	1.00	54.77	C	ATOM	31821	N9	G A1508	186.587	106.395	-33.094	1.00	48.13	N
ATOM	31772	C4*	U A1506	198.418	106.966	-34.952	1.00	54.77	C	ATOM	31822	C8	G A1508	187.638	106.120	-33.925	1.00	48.13	C
ATOM	31773	O4*	U A1506	198.536	105.661	-35.567	1.00	54.77	O	ATOM	31823	N7	G A1508	187.320	106.167	-35.186	1.00	48.13	N
ATOM	31774	C3*	U A1506	196.990	107.070	-34.434	1.00	54.77	C	ATOM	31824	C5	G A1508	185.981	106.506	-35.191	1.00	48.13	C
ATOM	31775	O3*	U A1506	196.174	107.624	-35.446	1.00	54.77	O	ATOM	31825	C6	G A1508	185.099	106.679	-36.267	1.00	48.13	C
ATOM	31776	C2*	U A1506	196.576	105.620	-34.280	1.00	54.77	C	ATOM	31826	O6	G A1508	185.328	106.553	-37.466	1.00	48.13	O
ATOM	31777	O2*	U A1506	195.175	105.445	-34.399	1.00	54.77	O	ATOM	31827	N1	G A1508	183.828	107.033	-35.836	1.00	48.13	N
ATOM	31778	C1*	U A1506	197.320	104.972	-35.444	1.00	39.62	C	ATOM	31828	C2	G A1508	183.455	107.195	-34.528	1.00	48.13	C
ATOM	31779	N1	U A1506	197.598	103.545	-35.248	1.00	39.62	N	ATOM	31829	N2	G A1508	182.194	107.573	-34.324	1.00	48.13	N
ATOM	31780	C2	U A1506	197.127	102.674	-36.206	1.00	39.62	C	ATOM	31830	N3	G A1508	184.269	107.010	-33.504	1.00	48.13	N
ATOM	31781	O2	U A1506	196.598	103.049	-37.242	1.00	39.62	O	ATOM	31831	C4	G A1508	185.514	106.671	-33.908	1.00	48.13	C
ATOM	31782	N3	U A1506	197.314	101.348	-35.924	1.00	39.62	N	ATOM	31832	P	C A1509	186.945	101.836	-30.330	1.00	35.61	P
ATOM	31783	C4	U A1506	197.944	100.823	-34.829	1.00	39.62	C	ATOM	31833	O1P	C A1509	186.950	100.940	-29.135	1.00	42.86	O
ATOM	31784	O4	U A1506	197.980	99.599	-34.678	1.00	39.62	O	ATOM	31834	O2P	C A1509	187.715	101.455	-31.538	1.00	42.86	O
ATOM	31785	C5	U A1506	198.456	101.794	-33.919	1.00	39.62	C	ATOM	31835	O5*	C A1509	185.439	102.076	-30.788	1.00	35.61	O
ATOM	31786	C6	U A1506	198.267	103.089	-34.155	1.00	39.62	C	ATOM	31836	C5*	C A1509	184.439	102.409	-29.820	1.00	35.61	C
ATOM	31787	P	A A1507	195.846	109.188	-35.439	1.00	48.29	P	ATOM	31837	C4*	C A1509	183.112	102.698	-30.484	1.00	35.61	C
ATOM	31788	O1P	A A1507	195.496	109.617	-36.826	1.00	44.02	O	ATOM	31838	O4*	C A1509	183.224	103.849	-31.356	1.00	35.61	O
ATOM	31789	O2P	A A1507	196.972	109.860	-34.727	1.00	44.02	O	ATOM	31839	C3*	C A1509	182.542	101.611	-31.370	1.00	35.61	C
ATOM	31790	O5*	A A1507	194.547	109.338	-34.518	1.00	48.29	O	ATOM	31840	O3*	C A1509	181.883	100.616	-30.637	1.00	35.61	O
ATOM	31791	C5*	A A1507	193.549	108.303	-34.420	1.00	48.29	C	ATOM	31841	O2*	C A1509	181.584	102.387	-32.253	1.00	35.61	C
ATOM	31792	C4*	A A1507	192.518	108.682	-33.380	1.00	48.29	C	ATOM	31842	C2*	C A1509	180.384	102.677	-31.575	1.00	35.61	O
ATOM	31793	O4*	A A1507	191.800	109.864	-33.807	1.00	48.29	O	ATOM	31843	C1*	C A1509	182.368	103.679	-32.475	1.00	42.86	N
ATOM	31794	C3*	A A1507	191.440	107.651	-33.133	1.00	48.29	C	ATOM	31844	N1	C A1509	183.205	103.570	-33.679	1.00	42.86	N
ATOM	31795	O3*	A A1507	191.905	106.676	-32.220	1.00	48.29	O	ATOM	31845	C2	C A1509	182.624	103.777	-34.925	1.00	42.86	C
ATOM	31796	C2*	A A1507	190.288	108.494	-32.609	1.00	48.29	C	ATOM	31846	O2	C A1509	181.417	104.025	-34.988	1.00	42.86	O
ATOM	31797	O2*	A A1507	190.438	108.869	-31.254	1.00	48.29	O	ATOM	31847	N3	C A1509	183.390	103.684	-36.032	1.00	42.86	N
ATOM	31798	C1*	A A1507	190.435	109.754	-33.455	1.00	48.29	C	ATOM	31848	C4	C A1509	184.681	103.379	-35.923	1.00	42.86	C
ATOM	31799	N9	A A1507	189.654	109.707	-34.694	1.00	44.02	N	ATOM	31849	N4	C A1509	185.399	103.290	-37.035	1.00	42.86	N
ATOM	31800	C8	A A1507	190.140	109.630	-35.973	1.00	44.02	C	ATOM	31850	C5	C A1509	185.294	103.150	-34.664	1.00	42.86	C
ATOM	31801	N7	A A1507	189.211	109.612	-36.894	1.00	44.02	N	ATOM	31851	C6	C A1509	184.531	103.259	-33.580	1.00	42.86	C
ATOM	31802	C5	A A1507	188.028	109.674	-36.175	1.00	44.02	C	ATOM	31852	P	U A1510	181.819	99.130	-31.228	1.00	36.64	P
ATOM	31803	C6	A A1507	186.683	109.690	-36.572	1.00	44.02	C	ATOM	31853	O1P	U A1510	180.995	98.315	-30.296	1.00	54.75	O
ATOM	31804	N6	A A1507	186.283	109.612	-37.837	1.00	44.02	N	ATOM	31854	O2P	U A1510	183.198	98.697	-31.558	1.00	54.75	O
ATOM	31805	N1	A A1507	185.751	109.783	-35.612	1.00	44.02	N	ATOM	31855	O5*	U A1510	181.007	99.325	-32.578	1.00	36.64	O
ATOM	31806	C2	A A1507	186.145	109.836	-34.343	1.00	44.02	C	ATOM	31856	C5*	U A1510	179.679	99.815	-32.540	1.00	36.64	C
ATOM	31807	N3	A A1507	187.370	109.814	-33.838	1.00	44.02	N	ATOM	31857	C4*	U A1510	179.127	99.933	-33.930	1.00	36.64	C
ATOM	31808	C4	A A1507	188.283	109.734	-34.819	1.00	44.02	C	ATOM	31858	O4*	U A1510	179.872	100.929	-34.675	1.00	36.64	O
ATOM	31809	P	G A1508	191.637	105.129	-32.527	1.00	40.01	P	ATOM	31859	C3*	U A1510	179.196	98.691	-34.794	1.00	36.64	C
ATOM	31810	O1P	G A1508	192.611	104.296	-31.771	1.00	48.13	O	ATOM	31860	O3*	U A1510	178.134	97.810	-34.516	1.00	36.64	O
ATOM	31811	O2P	G A1508	191.537	104.989	-33.993	1.00	48.13	O	ATOM	31861	C2*	U A1510	179.111	99.261	-36.203	1.00	36.64	C
ATOM	31812	O5*	G A1508	190.193	104.880	-31.915	1.00	40.01	O	ATOM	31862	O2*	U A1510	177.783	99.502	-36.610	1.00	36.64	O
ATOM	31813	C5*	G A1508	189.879	105.287	-30.568	1.00	40.01	C	ATOM	31863	Cl*	U A1510	179.868	100.586	-36.053	1.00	36.64	C
ATOM	31814	C4*	G A1508	188.387	105.470	-30.405	1.00	40.01	C	ATOM	31864	N1	U A1510	181.261	100.483	-36.507	1.00	54.75	N
ATOM	31815	O4*	G A1508	187.911	106.607	-31.181	1.00	40.01	O	ATOM	31865	C2	U A1510	181.513	100.667	-37.849	1.00	54.75	C



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ATOM	31866	O2	U	A1510	180.641	100.921	-38.656	1.00	54.75	O	ATOM	31916	O1P	A	A1513	179.468	86.805	-42.383	1.00	50.79	O
ATOM	31867	N3	U	A1510	182.824	100.531	-38.208	1.00	54.75	N	ATOM	31917	O2P	A	A1513	180.271	87.902	-40.216	1.00	50.79	O
ATOM	31868	C4	U	A1510	183.885	100.225	-37.376	1.00	54.75	C	ATOM	31918	O5*	A	A1513	181.632	88.044	-42.300	1.00	43.34	C
ATOM	31869	O4	U	A1510	185.004	100.062	-37.857	1.00	54.75	O	ATOM	31919	C5*	A	A1513	181.848	87.940	-43.720	1.00	43.34	C
ATOM	31870	C5	U	A1510	183.540	100.063	-36.004	1.00	54.75	C	ATOM	31920	C4*	A	A1513	183.301	88.179	-44.049	1.00	43.34	C
ATOM	31871	C6	U	A1510	182.276	100.197	-35.624	1.00	54.75	C	ATOM	31921	O4*	A	A1513	183.617	89.587	-43.951	1.00	43.34	O
ATOM	31872	P	G	A1511	178.402	96.230	-34.531	1.00	40.16	P	ATOM	31922	C3*	A	A1513	184.340	87.502	-43.174	1.00	43.34	C
ATOM	31873	O1P	G	A1511	177.428	95.607	-33.588	1.00	46.96	O	ATOM	31923	O3*	A	A1513	184.532	86.157	-43.572	1.00	43.34	C
ATOM	31874	O2P	G	A1511	179.852	95.964	-34.344	1.00	46.96	O	ATOM	31924	C2*	A	A1513	185.575	88.341	-43.451	1.00	43.34	C
ATOM	31875	O5*	G	A1511	178.030	95.825	-36.023	1.00	40.16	O	ATOM	31925	O2*	A	A1513	186.188	87.999	-44.670	1.00	43.34	O
ATOM	31876	C5*	G	A1511	176.676	95.630	-36.409	1.00	40.16	C	ATOM	31926	C1*	A	A1513	184.982	89.737	-43.620	1.00	43.34	C
ATOM	31877	C4*	G	A1511	176.591	95.430	-37.893	1.00	40.16	C	ATOM	31927	N9	A	A1513	185.107	90.506	-42.386	1.00	50.79	N
ATOM	31878	O4*	G	A1511	177.136	96.599	-38.547	1.00	40.16	O	ATOM	31928	C8	A	A1513	184.268	90.549	-41.307	1.00	50.79	C
ATOM	31879	C3*	G	A1511	177.393	94.281	-38.470	1.00	40.16	C	ATOM	31929	N7	A	A1513	184.729	91.264	-40.310	1.00	50.79	N
ATOM	31880	O3*	G	A1511	176.695	93.065	-38.362	1.00	40.16	O	ATOM	31930	C5	A	A1513	185.942	91.743	-40.777	1.00	50.79	C
ATOM	31881	C2*	G	A1511	177.593	94.723	-39.911	1.00	40.16	C	ATOM	31931	C6	A	A1513	186.920	92.557	-40.197	1.00	50.79	C
ATOM	31882	O2*	G	A1511	176.435	94.549	-40.715	1.00	40.16	O	ATOM	31932	N6	A	A1513	186.832	93.055	-38.961	1.00	50.79	N
ATOM	31883	C1*	G	A1511	177.813	96.220	-39.732	1.00	40.16	C	ATOM	31933	N1	A	A1513	188.009	92.849	-40.936	1.00	50.79	N
ATOM	31884	N9	G	A1511	179.220	96.554	-39.550	1.00	46.96	N	ATOM	31934	C2	A	A1513	188.096	92.356	-42.172	1.00	50.79	C
ATOM	31885	C8	G	A1511	179.848	96.798	-38.356	1.00	46.96	C	ATOM	31935	N3	A	A1513	187.244	91.580	-42.827	1.00	50.79	N
ATOM	31886	N7	G	A1511	181.106	97.106	-38.493	1.00	46.96	N	ATOM	31936	C4	A	A1513	186.175	91.304	-42.063	1.00	50.79	C
ATOM	31887	C5	G	A1511	181.324	97.055	-39.862	1.00	46.96	C	ATOM	31937	P	C	A1514	185.118	85.079	-42.526	1.00	43.09	P
ATOM	31888	C6	G	A1511	182.500	97.293	-40.607	1.00	46.96	C	ATOM	31938	O1P	C	A1514	184.886	83.744	-43.146	1.00	49.04	O
ATOM	31889	O6	G	A1511	183.621	97.602	-40.197	1.00	46.96	O	ATOM	31939	O2P	C	A1514	184.595	85.351	-41.164	1.00	49.04	O
ATOM	31890	N1	G	A1511	182.280	97.128	-41.964	1.00	46.96	N	ATOM	31940	O5*	C	A1514	186.691	85.353	-42.530	1.00	43.09	O
ATOM	31891	C2	G	A1511	181.089	96.766	-42.532	1.00	46.96	C	ATOM	31941	C5*	C	A1514	187.469	85.025	-43.685	1.00	43.09	C
ATOM	31892	N2	G	A1511	181.079	96.664	-43.863	1.00	46.96	N	ATOM	31942	C4*	C	A1514	188.823	85.680	-43.630	1.00	43.09	C
ATOM	31893	N3	G	A1511	179.990	96.527	-41.848	1.00	46.96	N	ATOM	31943	O4*	C	A1514	188.687	87.123	-43.571	1.00	43.09	O
ATOM	31894	C4	G	A1511	180.175	96.699	-40.527	1.00	46.96	C	ATOM	31944	C3*	C	A1514	189.714	85.351	-42.452	1.00	43.09	C
ATOM	31895	P	U	A1512	177.492	91.741	-37.945	1.00	38.41	P	ATOM	31945	O3*	C	A1514	190.380	84.125	-42.620	1.00	43.09	O
ATOM	31896	O1P	U	A1512	176.514	90.648	-37.701	1.00	46.71	O	ATOM	31946	C2*	C	A1514	190.691	86.515	-42.468	1.00	43.09	C
ATOM	31897	O2P	U	A1512	178.463	92.113	-36.869	1.00	46.71	O	ATOM	31947	O2*	C	A1514	191.655	86.369	-43.501	1.00	43.09	O
ATOM	31898	O5*	U	A1512	178.313	91.384	-39.259	1.00	38.41	O	ATOM	31948	C1*	C	A1514	189.768	87.675	-42.835	1.00	43.09	C
ATOM	31899	C5*	U	A1512	177.669	91.356	-40.544	1.00	38.41	C	ATOM	31949	N1	C	A1514	189.235	88.331	-41.623	1.00	49.04	N
ATOM	31900	C4*	U	A1512	178.689	91.466	-41.649	1.00	38.41	C	ATOM	31950	C2	C	A1514	189.980	89.353	-41.023	1.00	49.04	C
ATOM	31901	O4*	U	A1512	179.278	92.789	-41.660	1.00	38.41	O	ATOM	31951	O2	C	A1514	191.053	89.693	-41.530	1.00	49.04	O
ATOM	31902	C3*	U	A1512	179.865	90.509	-41.582	1.00	38.41	C	ATOM	31952	N3	C	A1514	189.507	89.941	-39.904	1.00	49.04	N
ATOM	31903	O3*	U	A1512	179.478	89.279	-42.165	1.00	38.41	O	ATOM	31953	C4	C	A1514	188.345	89.549	-39.387	1.00	49.04	C
ATOM	31904	C2*	U	A1512	180.925	91.231	-42.410	1.00	38.41	C	ATOM	31954	N4	C	A1514	187.925	90.151	-38.292	1.00	49.04	N
ATOM	31905	O2*	U	A1512	180.765	91.020	-43.805	1.00	38.41	O	ATOM	31955	C5	C	A1514	187.566	88.521	-39.976	1.00	49.04	C
ATOM	31906	C1*	U	A1512	180.623	92.704	-42.096	1.00	38.41	C	ATOM	31956	C6	C	A1514	188.040	87.944	-41.081	1.00	49.04	C
ATOM	31907	N1	U	A1512	181.489	93.296	-41.062	1.00	46.71	N	ATOM	31957	P	C	A1515	190.771	83.268	-41.329	1.00	42.32	P
ATOM	31908	C2	U	A1512	182.670	93.865	-41.477	1.00	46.71	C	ATOM	31958	O1P	C	A1515	190.320	81.983	-41.823	1.00	55.59	O
ATOM	31909	O2	U	A1512	183.002	93.894	-42.642	1.00	46.71	O	ATOM	31959	O2P	C	A1515	189.619	83.263	-40.382	1.00	55.59	O
ATOM	31910	N3	U	A1512	183.448	94.398	-40.475	1.00	46.71	N	ATOM	31960	O5*	C	A1515	191.955	84.096	-40.664	1.00	42.32	O
ATOM	31911	C4	U	A1512	183.162	94.421	-39.128	1.00	46.71	C	ATOM	31961	C5*	C	A1515	193.214	84.222	-41.326	1.00	42.32	C
ATOM	31912	O4	U	A1512	183.933	94.988	-38.347	1.00	46.71	O	ATOM	31962	C4*	C	A1515	194.087	85.203	-40.597	1.00	42.32	C
ATOM	31913	C5	U	A1512	181.922	93.812	-38.782	1.00	46.71	C	ATOM	31963	O4*	C	A1515	193.435	86.498	-40.571	1.00	42.32	O
ATOM	31914	C6	U	A1512	181.147	93.286	-39.733	1.00	46.71	C	ATOM	31964	C3*	C	A1515	194.348	84.879	-39.137	1.00	42.32	C
ATOM	31915	P	A	A1513	180.170	87.912	-41.692	1.00	43.34	P	ATOM	31965	O3*	C	A1515	195.410	83.954	-38.997	1.00	42.32	O



Table 2: Sheet 321/520

ATOM	31966	C2*	C A1515	194.665	86.249	-38.552	1.00	42.32	C	ATOM	32016	C6	G A1517	200.371	89.082	-25.044	1.00	55.02	C
ATOM	31967	O2*	C A1515	195.992	86.665	-38.808	1.00	42.32	C	ATOM	32017	O6	G A1517	201.026	90.135	-25.172	1.00	55.02	O
ATOM	31968	C1*	C A1515	193.709	87.146	-39.342	1.00	42.32	C	ATOM	32018	N1	G A1517	199.701	88.825	-23.852	1.00	55.02	N
ATOM	31969	N1	C A1515	192.439	87.361	-38.620	1.00	55.59	N	ATOM	32019	C2	G A1517	198.933	87.718	-23.599	1.00	55.02	C
ATOM	31970	C2	C A1515	192.405	88.290	-37.573	1.00	55.59	C	ATOM	32020	N2	G A1517	198.356	87.661	-22.387	1.00	55.02	N
ATOM	31971	O2	C A1515	193.412	88.954	-37.328	1.00	55.59	O	ATOM	32021	N3	G A1517	198.743	86.738	-24.469	1.00	55.02	N
ATOM	31972	N3	C A1515	191.277	88.438	-36.858	1.00	55.59	N	ATOM	32022	C4	G A1517	199.398	86.957	-25.633	1.00	55.02	C
ATOM	31973	C4	C A1515	190.205	87.715	-37.153	1.00	55.59	C	ATOM	32023	P	A A1518	194.761	85.579	-29.514	1.00	49.27	P
ATOM	31974	N4	C A1515	189.133	87.865	-36.392	1.00	55.59	N	ATOM	32024	O1P	A A1518	193.597	84.809	-30.006	1.00	44.14	O
ATOM	31975	C5	C A1515	190.191	86.795	-38.239	1.00	55.59	C	ATOM	32025	O2P	A A1518	195.588	86.366	-30.482	1.00	44.14	O
ATOM	31976	C6	C A1515	191.318	86.651	-38.942	1.00	55.59	C	ATOM	32026	O5*	A A1518	194.330	86.574	-28.349	1.00	49.27	O
ATOM	31977	P	G A1516	195.467	82.999	-37.710	1.00	52.90	P	ATOM	32027	C5*	A A1518	193.618	86.104	-27.196	1.00	49.27	C
ATOM	31978	O1P	G A1516	196.555	82.020	-37.976	1.00	63.00	O	ATOM	32028	C4*	A A1518	193.724	87.110	-26.086	1.00	49.27	C
ATOM	31979	O2P	G A1516	194.107	82.503	-37.390	1.00	63.00	O	ATOM	32029	O4*	A A1518	195.115	87.236	-25.689	1.00	49.27	O
ATOM	31980	O5*	G A1516	195.958	83.982	-36.561	1.00	52.90	O	ATOM	32030	C3*	A A1518	193.314	88.523	-26.462	1.00	49.27	C
ATOM	31981	C5*	G A1516	197.249	84.607	-36.651	1.00	52.90	C	ATOM	32031	O3*	A A1518	191.906	88.702	-26.378	1.00	49.27	O
ATOM	31982	C4*	G A1516	197.494	85.501	-35.464	1.00	52.90	C	ATOM	32032	C2*	A A1518	193.441	89.274	-24.185	1.00	49.27	C
ATOM	31983	O4*	G A1516	196.656	86.681	-35.558	1.00	52.90	O	ATOM	32033	O2*	A A1518	195.398	88.578	-25.344	1.00	49.27	O
ATOM	31984	C3*	G A1516	197.155	84.890	-34.118	1.00	52.90	C	ATOM	32034	C1*	A A1518	196.443	89.082	-26.244	1.00	44.14	N
ATOM	31985	O3*	G A1516	198.204	84.090	-33.614	1.00	52.90	O	ATOM	32035	N9	A A1518	197.843	88.543	-27.442	1.00	44.14	C
ATOM	31986	C2*	G A1516	196.881	86.112	-33.250	1.00	52.90	C	ATOM	32036	C8	A A1518	196.843	88.543	-27.442	1.00	44.14	C
ATOM	31987	O2*	G A1516	198.033	86.687	-32.671	1.00	52.90	O	ATOM	32037	N7	A A1518	197.806	89.213	-28.032	1.00	44.14	N
ATOM	31988	C1*	G A1516	196.254	87.079	-34.258	1.00	52.90	C	ATOM	32038	C5	A A1518	198.059	90.266	-27.166	1.00	44.14	C
ATOM	31989	N9	G A1516	194.798	87.038	-34.169	1.00	63.00	N	ATOM	32039	C6	A A1518	198.983	91.333	-27.214	1.00	44.14	C
ATOM	31990	C8	G A1516	193.926	86.320	-34.944	1.00	63.00	C	ATOM	32040	N1	A A1518	199.834	91.547	-28.232	1.00	44.14	N
ATOM	31991	N7	G A1516	192.687	86.430	-34.553	1.00	63.00	N	ATOM	32041	N6	A A1518	198.996	92.193	-26.169	1.00	44.14	N
ATOM	31992	C5	G A1516	192.747	87.289	-33.462	1.00	63.00	C	ATOM	32042	C2	A A1518	198.122	92.005	-25.170	1.00	44.14	C
ATOM	31993	C6	G A1516	191.722	87.764	-32.602	1.00	63.00	C	ATOM	32043	N3	A A1518	197.202	91.055	-25.022	1.00	44.14	N
ATOM	31994	O6	G A1516	190.518	87.493	-32.616	1.00	63.00	O	ATOM	32044	C4	A A1518	197.227	90.201	-26.060	1.00	44.14	C
ATOM	31995	N1	G A1516	192.222	88.629	-31.641	1.00	63.00	N	ATOM	32045	P	A A1519	191.095	89.225	-27.665	1.00	52.61	P
ATOM	31996	C2	G A1516	193.540	88.980	-31.505	1.00	63.00	C	ATOM	32046	O1P	A A1519	189.717	88.690	-27.549	1.00	54.24	O
ATOM	31997	N2	G A1516	193.837	89.841	-30.514	1.00	63.00	N	ATOM	32047	O2P	A A1519	191.888	88.930	-28.870	1.00	54.24	O
ATOM	31998	N3	G A1516	194.504	88.525	-32.281	1.00	63.00	N	ATOM	32048	O5*	A A1519	191.052	90.808	-27.506	1.00	52.61	O
ATOM	31999	C4	G A1516	194.038	87.691	-33.232	1.00	63.00	C	ATOM	32049	C5*	A A1519	190.300	91.402	-26.449	1.00	52.61	C
ATOM	32000	P	G A1517	197.867	82.898	-32.595	1.00	63.25	P	ATOM	32050	C4*	A A1519	191.155	92.359	-25.659	1.00	52.61	C
ATOM	32001	O1P	G A1517	199.122	82.121	-32.394	1.00	55.02	O	ATOM	32051	O4*	A A1519	192.494	91.808	-25.498	1.00	52.61	O
ATOM	32002	O2P	G A1517	196.650	82.203	-33.081	1.00	55.02	O	ATOM	32052	C3*	A A1519	191.429	93.725	-26.252	1.00	52.61	C
ATOM	32003	O5*	G A1517	197.496	83.653	-31.241	1.00	63.25	O	ATOM	32053	O3*	A A1519	190.379	94.631	-26.056	1.00	52.61	O
ATOM	32004	C5*	G A1517	198.521	84.141	-30.352	1.00	63.25	C	ATOM	32054	C2*	A A1519	192.619	94.165	-25.419	1.00	52.61	C
ATOM	32005	C4*	G A1517	198.087	83.968	-28.919	1.00	63.25	C	ATOM	32055	O2*	A A1519	192.218	94.549	-24.114	1.00	52.61	O
ATOM	32006	O4*	G A1517	199.211	84.200	-28.040	1.00	63.25	O	ATOM	32056	C1*	A A1519	193.422	92.869	-25.331	1.00	52.61	C
ATOM	32007	C3*	G A1517	197.030	84.937	-28.428	1.00	63.25	C	ATOM	32057	N9	A A1519	194.400	92.866	-26.424	1.00	54.24	N
ATOM	32008	O3*	G A1517	195.725	84.534	-28.774	1.00	63.25	O	ATOM	32058	C8	A A1519	194.409	92.169	-27.604	1.00	54.24	C
ATOM	32009	C2*	G A1517	197.247	84.939	-26.927	1.00	63.25	C	ATOM	32059	N7	A A1519	195.396	92.502	-28.407	1.00	54.24	N
ATOM	32010	O2*	G A1517	196.649	83.824	-26.297	1.00	63.25	O	ATOM	32060	C5	A A1519	196.099	93.467	-27.696	1.00	54.24	C
ATOM	32011	C1*	G A1517	198.764	84.816	-26.845	1.00	63.25	C	ATOM	32061	C6	A A1519	197.257	94.240	-27.997	1.00	54.24	C
ATOM	32012	N9	G A1517	199.417	86.116	-26.729	1.00	55.02	N	ATOM	32062	N6	A A1519	197.937	94.190	-29.150	1.00	54.24	N
ATOM	32013	C8	G A1517	200.181	86.739	-27.680	1.00	55.02	C	ATOM	32063	N1	A A1519	197.689	95.092	-27.048	1.00	54.24	N
ATOM	32014	N7	G A1517	200.660	87.885	-27.281	1.00	55.02	N	ATOM	32064	C2	A A1519	197.006	95.173	-25.892	1.00	54.24	C
ATOM	32015	C5	G A1517	200.179	88.032	-25.987	1.00	55.02	C	ATOM	32065	N3	A A1519	195.919	94.526	-25.507	1.00	54.24	N



Table 2: Sheet 322/520

ATOM	32066	C4	A Al519	195.510	93.679	-26.461	1.00	54.24	C	ATOM	32116	O5*	U Al522	194.565	98.229	-39.069	1.00	43.03	O
ATOM	32067	P	G Al520	189.504	95.122	-27.309	1.00	48.14	P	ATOM	32117	C5*	U Al522	195.616	97.799	-39.925	1.00	43.03	C
ATOM	32068	O1P	G Al520	189.055	96.520	-27.042	1.00	53.49	O	ATOM	32118	C4*	U Al522	195.072	96.929	-41.015	1.00	43.03	C
ATOM	32069	O2P	G Al520	188.501	94.057	-27.551	1.00	53.49	O	ATOM	32119	O4*	U Al522	194.572	95.693	-40.450	1.00	43.03	O
ATOM	32070	O5*	G Al520	190.467	95.126	-28.575	1.00	48.14	O	ATOM	32120	C3*	U Al522	193.895	97.493	-41.774	1.00	43.03	C
ATOM	32071	C5*	G Al520	191.451	96.147	-28.773	1.00	48.14	C	ATOM	32121	O3*	U Al522	194.310	98.363	-42.791	1.00	43.03	O
ATOM	32072	C4*	G Al520	192.568	95.607	-29.635	1.00	48.14	C	ATOM	32122	C2*	U Al522	193.243	96.243	-42.335	1.00	43.03	C
ATOM	32073	O4*	G Al520	192.514	94.152	-29.640	1.00	48.14	O	ATOM	32123	O2*	U Al522	193.923	95.760	-43.471	1.00	43.03	O
ATOM	32074	C3*	G Al520	192.570	95.993	-31.104	1.00	48.14	C	ATOM	32124	C1*	U Al522	193.458	95.251	-41.195	1.00	43.03	C
ATOM	32075	O3*	G Al520	193.229	97.235	-31.270	1.00	48.14	O	ATOM	32125	N1	U Al522	192.286	95.203	-40.314	1.00	50.68	N
ATOM	32076	C2*	G Al520	193.380	94.869	-31.731	1.00	48.14	C	ATOM	32126	C2	U Al522	191.280	94.360	-40.682	1.00	50.68	C
ATOM	32077	O2*	G Al520	194.767	95.054	-31.537	1.00	48.14	O	ATOM	32127	O2	U Al522	191.358	93.641	-41.644	1.00	50.68	O
ATOM	32078	C1*	G Al520	192.963	93.665	-30.885	1.00	48.14	C	ATOM	32128	N3	U Al522	190.176	94.383	-39.880	1.00	50.68	N
ATOM	32079	N9	G Al520	191.903	92.860	-31.487	1.00	53.49	N	ATOM	32129	C4	U Al522	189.985	95.144	-38.756	1.00	50.68	C
ATOM	32080	C8	G Al520	190.612	92.738	-31.055	1.00	53.49	C	ATOM	32130	O4	U Al522	188.895	95.097	-38.174	1.00	50.68	O
ATOM	32081	N7	G Al520	189.894	91.948	-31.806	1.00	53.49	N	ATOM	32131	C5	U Al522	191.097	95.977	-38.411	1.00	50.68	C
ATOM	32082	C5	G Al520	190.765	91.520	-32.793	1.00	53.49	C	ATOM	32132	C6	U Al522	192.184	95.978	-39.186	1.00	50.68	C
ATOM	32083	C6	G Al520	190.556	90.648	-33.887	1.00	53.49	C	ATOM	32133	P	G Al523	193.249	99.381	-43.413	1.00	38.47	P
ATOM	32084	O6	G Al520	189.535	90.047	-34.209	1.00	53.49	O	ATOM	32134	O1P	G Al523	193.930	100.279	-44.395	1.00	46.47	O
ATOM	32085	N1	G Al520	191.701	90.493	-34.640	1.00	53.49	N	ATOM	32135	O2P	G Al523	192.537	99.965	-42.245	1.00	46.47	O
ATOM	32086	C2	G Al520	192.901	91.082	-34.372	1.00	53.49	C	ATOM	32136	O5*	G Al523	192.263	98.426	-44.219	1.00	38.47	O
ATOM	32087	N2	G Al520	193.889	90.796	-35.218	1.00	53.49	N	ATOM	32137	C5*	G Al523	192.760	97.708	-45.354	1.00	38.47	C
ATOM	32088	N3	G Al520	193.118	91.889	-33.353	1.00	53.49	N	ATOM	32138	C4*	G Al523	191.671	96.919	-46.038	1.00	38.47	C
ATOM	32089	C4	G Al520	192.010	92.068	-32.611	1.00	53.49	C	ATOM	32139	O4*	G Al523	191.233	95.809	-45.218	1.00	38.47	O
ATOM	32090	P	G Al521	192.968	98.113	-32.588	1.00	44.24	P	ATOM	32140	C3*	G Al523	190.395	97.626	-46.427	1.00	38.47	C
ATOM	32091	O1P	G Al521	193.685	99.400	-32.405	1.00	52.73	O	ATOM	32141	O3*	G Al523	190.561	98.388	-47.603	1.00	38.47	O
ATOM	32092	O2P	G Al521	191.518	98.120	-32.915	1.00	52.73	O	ATOM	32142	C2*	G Al523	189.463	96.444	-46.648	1.00	38.47	C
ATOM	32093	O5*	G Al521	193.681	97.289	-33.742	1.00	44.24	O	ATOM	32143	O2*	G Al523	189.746	95.834	-47.893	1.00	38.47	O
ATOM	32094	C5*	G Al521	195.099	97.168	-33.788	1.00	44.24	C	ATOM	32144	C1*	G Al523	189.892	95.499	-45.527	1.00	38.47	C
ATOM	32095	C4*	G Al521	195.506	96.437	-35.035	1.00	44.24	C	ATOM	32145	N9	G Al523	189.098	95.658	-44.309	1.00	46.47	N
ATOM	32096	O4*	G Al521	195.071	95.055	-34.967	1.00	44.24	O	ATOM	32146	C8	G Al523	189.444	96.353	-43.173	1.00	46.47	C
ATOM	32097	C3*	G Al521	194.874	96.980	-36.296	1.00	44.24	C	ATOM	32147	N7	G Al523	188.532	96.299	-42.240	1.00	46.47	N
ATOM	32098	O3*	G Al521	195.612	98.076	-36.809	1.00	44.24	O	ATOM	32148	C5	G Al523	187.521	95.527	-42.795	1.00	46.47	C
ATOM	32099	C2*	G Al521	194.895	95.778	-37.226	1.00	44.24	C	ATOM	32149	C6	G Al523	186.278	95.117	-42.257	1.00	46.47	C
ATOM	32100	O2*	G Al521	196.153	95.651	-37.851	1.00	44.24	O	ATOM	32150	O6	G Al523	185.791	95.365	-41.148	1.00	46.47	O
ATOM	32101	C1*	G Al521	194.685	94.614	-36.254	1.00	44.24	C	ATOM	32151	N1	G Al523	185.575	94.335	-43.152	1.00	46.47	N
ATOM	32102	N9	G Al521	193.301	94.164	-36.176	1.00	52.73	N	ATOM	32152	C2	G Al523	186.002	93.987	-44.406	1.00	46.47	C
ATOM	32103	C8	G Al521	192.386	94.532	-35.230	1.00	52.73	C	ATOM	32153	N2	G Al523	185.188	93.178	-45.108	1.00	46.47	N
ATOM	32104	N7	G Al521	191.220	93.981	-35.403	1.00	52.73	N	ATOM	32154	C4	G Al523	187.142	95.132	-44.072	1.00	46.47	C
ATOM	32105	C5	G Al521	191.372	93.201	-36.533	1.00	52.73	C	ATOM	32155	N3	G Al523	187.851	95.132	-44.072	1.00	46.47	N
ATOM	32106	C6	G Al521	190.439	92.375	-37.198	1.00	52.73	C	ATOM	32156	P	C Al524	190.029	99.907	-47.642	1.00	42.23	P
ATOM	32107	O6	G Al521	189.257	92.180	-36.923	1.00	52.73	O	ATOM	32157	O1P	C Al524	190.635	100.604	-48.800	1.00	53.82	O
ATOM	32108	N1	G Al521	191.003	91.746	-38.295	1.00	52.73	N	ATOM	32158	O2P	C Al524	190.193	100.472	-46.277	1.00	53.82	O
ATOM	32109	C2	G Al521	192.299	91.898	-38.705	1.00	52.73	C	ATOM	32159	O5*	C Al524	188.481	99.739	-47.938	1.00	42.23	O
ATOM	32110	N2	G Al521	192.647	91.191	-39.781	1.00	52.73	N	ATOM	32160	C5*	C Al524	188.044	98.950	-49.038	1.00	42.23	C
ATOM	32111	N3	G Al521	193.185	92.683	-38.099	1.00	52.73	N	ATOM	32161	C4*	C Al524	186.579	98.640	-48.909	1.00	42.23	C
ATOM	32112	C4	G Al521	192.653	93.298	-37.024	1.00	52.73	C	ATOM	32162	O4*	C Al524	186.362	97.626	-47.904	1.00	42.23	O
ATOM	32113	P	U Al522	194.889	99.113	-37.791	1.00	43.03	P	ATOM	32163	C3*	C Al524	185.673	99.776	-48.487	1.00	42.23	C
ATOM	32114	O1P	U Al522	195.842	100.191	-38.167	1.00	50.68	O	ATOM	32164	O3*	C Al524	185.374	100.629	-49.569	1.00	42.23	O
ATOM	32115	O2P	U Al522	193.586	99.475	-37.184	1.00	50.68	O	ATOM	32165	C2*	C Al524	184.449	99.038	-47.957	1.00	42.23	C



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ATOM	32166	O2*	C A1524	183.553	98.615	-48.967	1.00	42.23	O	ATOM	32216	O6	G A1526	183.915	103.811	-39.538	1.00	49.51	O
ATOM	32167	C1*	C A1524	185.084	97.802	-47.325	1.00	42.23	C	ATOM	32217	N1	G A1526	181.860	103.836	-38.571	1.00	49.51	N
ATOM	32168	N1	C A1524	185.239	97.957	-45.875	1.00	53.82	N	ATOM	32218	C2	G A1526	180.493	103.865	-38.617	1.00	49.51	C
ATOM	32169	C2	C A1524	184.241	97.451	-45.036	1.00	53.82	C	ATOM	32219	N2	G A1526	179.868	103.841	-37.437	1.00	49.51	N
ATOM	32170	O2	C A1524	183.273	96.862	-45.538	1.00	53.82	O	ATOM	32220	N3	G A1526	179.793	103.914	-39.734	1.00	49.51	N
ATOM	32171	N3	C A1524	184.353	97.621	-43.705	1.00	53.82	N	ATOM	32221	C4	G A1526	180.587	103.953	-40.818	1.00	49.51	C
ATOM	32172	C4	C A1524	185.397	98.275	-43.204	1.00	53.82	C	ATOM	32222	P	C A1527	177.711	108.673	-43.212	1.00	42.42	P
ATOM	32173	N4	C A1524	185.443	98.456	-41.887	1.00	53.82	N	ATOM	32223	O1P	C A1527	176.636	109.574	-43.703	1.00	39.92	O
ATOM	32174	C5	C A1524	186.438	98.783	-44.032	1.00	53.82	C	ATOM	32224	O2P	C A1527	179.131	108.968	-43.549	1.00	39.92	O
ATOM	32175	C6	C A1524	186.323	98.600	-45.348	1.00	53.82	C	ATOM	32225	O5*	C A1527	177.590	108.556	-41.630	1.00	42.42	O
ATOM	32176	P	G A1525	185.333	102.214	-49.332	1.00	46.26	P	ATOM	32226	C5*	C A1527	176.340	108.233	-41.019	1.00	42.42	C
ATOM	32177	O1P	G A1525	185.244	102.841	-45.680	1.00	52.02	O	ATOM	32227	C4*	C A1527	176.474	108.254	-39.521	1.00	42.42	C
ATOM	32178	O2P	G A1525	186.422	102.614	-48.403	1.00	52.02	O	ATOM	32228	O4*	C A1527	177.269	107.517	-39.091	1.00	42.42	O
ATOM	32179	O5*	G A1525	183.944	102.429	-48.596	1.00	46.26	O	ATOM	32229	C3*	C A1527	177.178	109.474	-38.949	1.00	42.42	C
ATOM	32180	C5*	G A1525	182.737	102.224	-49.318	1.00	46.26	C	ATOM	32230	O3*	C A1527	176.277	110.536	-38.748	1.00	42.42	O
ATOM	32181	C4*	G A1525	181.572	102.081	-48.388	1.00	46.26	C	ATOM	32231	C2*	C A1527	177.726	108.949	-37.634	1.00	42.42	C
ATOM	32182	O4*	G A1525	181.732	100.904	-47.562	1.00	46.26	C	ATOM	32232	O2*	C A1527	176.729	108.895	-36.635	1.00	42.42	O
ATOM	32183	C3*	G A1525	181.325	103.178	-47.381	1.00	46.26	C	ATOM	32233	C1*	C A1527	178.108	107.517	-38.012	1.00	42.42	C
ATOM	32184	O3*	G A1525	180.726	104.312	-47.964	1.00	46.26	O	ATOM	32234	N1	C A1527	179.518	107.382	-38.446	1.00	39.92	N
ATOM	32185	C2*	G A1525	180.397	102.474	-46.406	1.00	46.26	C	ATOM	32235	C2	C A1527	180.530	107.328	-37.478	1.00	39.92	C
ATOM	32186	O2*	G A1525	179.078	102.364	-46.902	1.00	46.26	O	ATOM	32236	O2	C A1527	180.240	107.472	-36.285	1.00	39.92	O
ATOM	32187	C1*	G A1525	181.001	101.074	-46.369	1.00	46.26	C	ATOM	32237	N3	C A1527	181.804	107.135	-37.872	1.00	39.92	N
ATOM	32188	N9	G A1525	181.901	100.985	-45.231	1.00	52.02	N	ATOM	32238	C4	C A1527	182.090	107.029	-39.166	1.00	39.92	C
ATOM	32189	C8	G A1525	183.239	101.271	-45.183	1.00	52.02	C	ATOM	32239	N4	C A1527	183.355	106.832	-39.501	1.00	39.92	N
ATOM	32190	N7	G A1525	183.731	101.198	-43.977	1.00	52.02	N	ATOM	32240	C5	C A1527	181.089	107.118	-40.172	1.00	39.92	C
ATOM	32191	C5	G A1525	182.651	100.821	-43.191	1.00	52.02	C	ATOM	32241	C6	C A1527	179.832	107.293	-39.774	1.00	46.35	P
ATOM	32192	C6	G A1525	182.553	100.612	-41.792	1.00	52.02	C	ATOM	32242	P	U A1528	176.830	112.040	-38.672	1.00	46.35	P
ATOM	32193	O6	G A1525	183.419	100.757	-40.930	1.00	52.02	O	ATOM	32243	O1P	U A1528	175.649	112.941	-38.717	1.00	46.86	O
ATOM	32194	N1	G A1525	181.278	100.217	-41.421	1.00	52.02	N	ATOM	32244	O2P	U A1528	177.924	112.223	-39.663	1.00	46.86	O
ATOM	32195	C2	G A1525	180.220	100.071	-42.273	1.00	52.02	C	ATOM	32245	O5*	U A1528	177.493	112.136	-37.230	1.00	46.35	O
ATOM	32196	N2	G A1525	179.065	99.681	-41.721	1.00	52.02	N	ATOM	32246	C5*	U A1528	176.771	111.773	-36.050	1.00	46.35	C
ATOM	32197	N3	G A1525	180.286	100.291	-43.570	1.00	52.02	N	ATOM	32247	C4*	U A1528	177.622	112.050	-34.840	1.00	46.35	C
ATOM	32198	C4	G A1525	181.526	100.656	-43.958	1.00	52.02	C	ATOM	32248	O4*	U A1528	178.807	111.206	-34.884	1.00	46.35	C
ATOM	32199	P	G A1526	180.910	105.750	-47.263	1.00	41.48	P	ATOM	32249	C3*	U A1528	178.151	113.470	-34.767	1.00	46.35	C
ATOM	32200	O1P	G A1526	180.238	106.725	-48.163	1.00	49.51	O	ATOM	32250	O3*	U A1528	177.405	114.561	-34.214	1.00	46.35	O
ATOM	32201	O2P	G A1526	182.337	105.954	-46.886	1.00	49.51	O	ATOM	32251	C2*	U A1528	179.602	113.435	-35.205	1.00	46.35	C
ATOM	32202	O5*	G A1526	180.067	105.632	-45.923	1.00	41.48	O	ATOM	32252	O2*	U A1528	180.400	114.310	-34.460	1.00	46.35	O
ATOM	32203	C5*	G A1526	178.697	105.289	-45.984	1.00	41.48	C	ATOM	32253	C1*	U A1528	179.987	111.999	-34.853	1.00	46.35	C
ATOM	32204	C4*	G A1526	178.151	105.062	-44.607	1.00	41.48	C	ATOM	32254	N1	U A1528	180.945	111.407	-35.804	1.00	46.86	N
ATOM	32205	O4*	G A1526	178.779	103.907	-43.995	1.00	41.48	O	ATOM	32255	C2	U A1528	182.149	110.898	-35.310	1.00	46.86	C
ATOM	32206	C3*	G A1526	178.336	106.167	-43.598	1.00	41.48	C	ATOM	32256	O2	U A1528	182.452	110.900	-34.119	1.00	46.86	O
ATOM	32207	O3*	G A1526	177.370	107.190	-43.732	1.00	41.48	O	ATOM	32257	N3	U A1528	182.981	110.379	-36.268	1.00	46.86	N
ATOM	32208	C2*	G A1526	178.125	105.416	-42.287	1.00	41.48	C	ATOM	32258	C4	U A1528	182.747	110.312	-37.628	1.00	46.86	C
ATOM	32209	O2*	G A1526	176.749	105.195	-42.079	1.00	41.48	O	ATOM	32259	O4	U A1528	183.615	109.852	-38.371	1.00	46.86	O
ATOM	32210	C1*	G A1526	178.788	104.071	-42.598	1.00	41.48	C	ATOM	32260	C5	U A1528	181.490	110.838	-38.045	1.00	46.86	C
ATOM	32211	N9	G A1526	180.169	104.026	-42.120	1.00	49.51	N	ATOM	32261	C6	U A1528	180.658	111.355	-37.150	1.00	46.86	C
ATOM	32212	C8	G A1526	181.303	104.055	-42.889	1.00	49.51	C	ATOM	32262	P	G A1529	177.524	114.934	-32.651	1.00	38.19	P
ATOM	32213	N7	G A1526	182.399	104.009	-42.187	1.00	49.51	N	ATOM	32263	O1P	G A1529	176.231	115.534	-32.353	1.00	35.31	O
ATOM	32214	C5	G A1526	181.959	103.938	-40.877	1.00	49.51	C	ATOM	32264	O2P	G A1529	178.750	115.715	-32.389	1.00	35.31	O
ATOM	32215	C6	G A1526	182.693	103.861	-39.681	1.00	49.51	C	ATOM	32265	O5*	G A1529	177.553	113.525	-31.913	1.00	38.19	O



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ATOM	32266	C5*	G A1529	177.384	113.450	-30.514	1.00	38.19	C	ATOM	32316	O3*	A A1531	189.379	120.043	-29.042	1.00	96.59	O
ATOM	32267	C4*	G A1529	178.404	112.526	-29.934	1.00	38.19	C	ATOM	32317	C2*	A A1531	190.718	118.426	-30.319	1.00	96.59	C
ATOM	32268	O4*	G A1529	177.800	111.257	-29.584	1.00	38.19	O	ATOM	32318	O2*	A A1531	191.639	118.410	-29.245	1.00	96.59	O
ATOM	32269	C3*	G A1529	179.586	112.227	-30.846	1.00	38.19	C	ATOM	32319	C1*	A A1531	190.409	116.994	-30.755	1.00	96.59	C
ATOM	32270	O3*	G A1529	180.786	112.227	-30.079	1.00	38.19	O	ATOM	32320	N9	A A1531	190.064	116.914	-32.181	1.00	92.42	N
ATOM	32271	C2*	G A1529	179.265	110.810	-31.335	1.00	38.19	C	ATOM	32321	C8	A A1531	188.815	117.079	-32.749	1.00	92.42	C
ATOM	32272	O2*	G A1529	180.394	110.035	-31.693	1.00	38.19	O	ATOM	32322	N7	A A1531	188.799	116.948	-34.051	1.00	92.42	N
ATOM	32273	C1*	G A1529	178.593	110.221	-30.097	1.00	38.19	C	ATOM	32323	C5	A A1531	190.121	116.680	-34.372	1.00	92.42	C
ATOM	32274	N9	G A1529	177.769	109.033	-30.294	1.00	35.31	N	ATOM	32324	C6	A A1531	190.756	116.431	-35.596	1.00	92.42	C
ATOM	32275	C8	G A1529	177.917	107.842	-29.636	1.00	35.31	C	ATOM	32325	N6	A A1531	190.109	116.401	-36.768	1.00	92.42	N
ATOM	32276	N7	G A1529	177.068	106.933	-30.022	1.00	35.31	N	ATOM	32326	N1	A A1531	192.092	116.206	-35.577	1.00	92.42	N
ATOM	32277	C5	G A1529	176.309	107.561	-30.993	1.00	35.31	C	ATOM	32327	C2	A A1531	192.733	116.227	-34.394	1.00	92.42	C
ATOM	32278	C6	G A1529	175.254	107.066	-31.772	1.00	35.31	C	ATOM	32328	N3	A A1531	192.244	116.442	-33.175	1.00	92.42	N
ATOM	32279	O6	G A1529	174.755	105.939	-31.760	1.00	35.31	O	ATOM	32329	C4	A A1531	190.917	116.663	-33.231	1.00	92.42	C
ATOM	32280	N1	G A1529	174.766	108.028	-32.638	1.00	35.31	N	ATOM	32330	P	U A1532	189.369	121.544	-29.628	1.00	112.50	P
ATOM	32281	C2	G A1529	175.236	109.305	-32.738	1.00	35.31	C	ATOM	32331	O1P	U A1532	189.634	122.468	-28.495	1.00	162.43	O
ATOM	32282	N2	G A1529	174.631	110.074	-33.635	1.00	35.31	N	ATOM	32332	O2P	U A1532	188.146	121.722	-30.447	1.00	162.43	O
ATOM	32283	N3	G A1529	176.227	109.789	-32.011	1.00	35.31	N	ATOM	32333	O5*	U A1532	190.619	121.592	-30.610	1.00	112.50	O
ATOM	32284	C4	G A1529	176.717	108.864	-31.166	1.00	35.31	C	ATOM	32334	C5*	U A1532	191.961	121.705	-30.104	1.00	112.50	C
ATOM	32285	P	G A1530	181.482	113.617	-29.674	1.00	56.95	P	ATOM	32335	C4*	U A1532	192.944	121.783	-31.251	1.00	112.50	C
ATOM	32286	O1P	G A1530	182.773	113.263	-29.023	1.00	75.85	O	ATOM	32336	O4*	U A1532	192.869	120.545	-32.013	1.00	112.50	O
ATOM	32287	O2P	G A1530	180.500	114.441	-28.944	1.00	75.85	O	ATOM	32337	C3*	U A1532	192.676	122.878	-32.280	1.00	112.50	C
ATOM	32288	O5*	G A1530	181.776	114.376	-31.040	1.00	56.95	O	ATOM	32338	O3*	U A1532	193.176	124.165	-31.911	1.00	112.50	O
ATOM	32289	C5*	G A1530	182.515	113.748	-32.085	1.00	56.95	C	ATOM	32339	C2*	U A1532	193.327	122.310	-33.537	1.00	112.50	C
ATOM	32290	C4*	G A1530	184.005	113.930	-31.876	1.00	56.95	C	ATOM	32340	O2*	U A1532	194.730	122.483	-33.578	1.00	112.50	O
ATOM	32291	O4*	G A1530	184.653	112.928	-32.679	1.00	56.95	O	ATOM	32341	C1*	U A1532	193.009	120.822	-33.396	1.00	112.50	C
ATOM	32292	C3*	G A1530	184.648	115.260	-32.272	1.00	56.95	C	ATOM	32342	N1	U A1532	191.748	120.476	-34.075	1.00	162.43	N
ATOM	32293	O3*	G A1530	184.720	116.161	-31.150	1.00	56.95	O	ATOM	32343	C2	U A1532	191.828	119.777	-35.265	1.00	162.43	C
ATOM	32294	C2*	G A1530	186.060	114.844	-32.675	1.00	56.95	C	ATOM	32344	O2	U A1532	192.887	119.419	-35.757	1.00	162.43	O
ATOM	32295	O2*	G A1530	186.905	114.694	-31.556	1.00	56.95	O	ATOM	32345	N3	U A1532	190.620	119.509	-35.861	1.00	162.43	N
ATOM	32296	C1*	G A1530	185.838	113.442	-33.231	1.00	56.95	C	ATOM	32346	C4	U A1532	189.368	119.853	-35.396	1.00	162.43	C
ATOM	32297	N9	G A1530	185.726	113.350	-34.676	1.00	75.85	N	ATOM	32347	O4	U A1532	188.375	119.508	-36.033	1.00	162.43	O
ATOM	32298	C8	G A1530	184.576	113.416	-35.425	1.00	75.85	C	ATOM	32348	C5	U A1532	189.364	120.566	-34.159	1.00	162.43	C
ATOM	32299	N7	G A1530	184.790	113.261	-36.701	1.00	75.85	N	ATOM	32349	C6	U A1532	190.521	120.845	-33.554	1.00	130.60	C
ATOM	32300	C5	G A1530	186.165	113.094	-36.797	1.00	75.85	C	ATOM	32350	P	C A1533	192.417	125.490	-32.427	1.00	130.60	P
ATOM	32301	C6	G A1530	186.982	112.884	-37.927	1.00	75.85	C	ATOM	32351	O1P	C A1533	193.174	126.673	-31.949	1.00	200.58	O
ATOM	32302	O6	G A1530	186.643	112.800	-39.116	1.00	75.85	O	ATOM	32352	O2P	C A1533	190.977	125.356	-32.080	1.00	200.58	O
ATOM	32303	N1	G A1530	188.323	112.769	-37.572	1.00	75.85	N	ATOM	32353	O5*	C A1533	192.577	125.418	-34.014	1.00	130.60	O
ATOM	32304	C2	G A1530	188.814	112.849	-36.293	1.00	75.85	C	ATOM	32354	C5*	C A1533	191.485	124.976	-34.877	1.00	130.60	C
ATOM	32305	N2	G A1530	190.137	112.719	-36.155	1.00	75.85	N	ATOM	32355	C4*	C A1533	191.885	125.142	-36.336	1.00	130.60	C
ATOM	32306	N3	G A1530	188.061	113.041	-35.230	1.00	75.85	N	ATOM	32356	O4*	C A1533	192.308	126.516	-36.535	1.00	130.60	O
ATOM	32307	C4	G A1530	186.755	113.154	-35.554	1.00	75.85	C	ATOM	32357	C3*	C A1533	193.056	124.279	-36.800	1.00	130.60	C
ATOM	32308	P	A A1531	185.259	117.669	-31.354	1.00	96.59	P	ATOM	32358	O3*	C A1533	192.578	123.040	-37.332	1.00	130.60	O
ATOM	32309	O1P	A A1531	184.514	118.523	-30.396	1.00	92.42	O	ATOM	32359	C2*	C A1533	193.725	125.137	-37.870	1.00	130.60	C
ATOM	32310	O2P	A A1531	185.243	118.003	-32.804	1.00	92.42	O	ATOM	32360	O2*	C A1533	193.140	124.990	-39.150	1.00	130.60	O
ATOM	32311	O5*	A A1531	186.783	117.620	-30.882	1.00	96.59	O	ATOM	32361	C1*	C A1533	193.469	126.558	-37.348	1.00	130.60	C
ATOM	32312	C5*	A A1531	187.156	117.603	-29.476	1.00	96.59	C	ATOM	32362	N1	C A1533	194.559	127.172	-36.547	1.00	200.58	N
ATOM	32313	C4*	A A1531	188.671	117.697	-29.326	1.00	96.59	C	ATOM	32363	C2	C A1533	195.900	127.073	-36.984	1.00	200.58	C
ATOM	32314	O4*	A A1531	189.276	116.567	-30.014	1.00	96.59	O	ATOM	32364	O2	C A1533	196.157	126.471	-38.044	1.00	200.58	O
ATOM	32315	C3*	A A1531	189.329	118.932	-29.938	1.00	96.59	C	ATOM	32365	N3	C A1533	196.878	127.639	-36.234	1.00	200.58	N



Table 2: Sheet 325/520

ATOM	32366	C4	C A1533	196.571	128.280	-35.101	1.00200.58	C	ATOM	32416	O4*	UNK X	2	207.173	105.568	-33.465	1.00129.06	
ATOM	32367	N4	C A1533	197.567	128.818	-34.395	1.00200.58	N	ATOM	32417	C1*	UNK X	2	207.830	104.716	-32.542	1.00129.06	
ATOM	32368	C5	C A1533	195.229	128.397	-34.641	1.00200.58	C	ATOM	32418	N1	UNK X	2	209.011	105.424	-32.011	1.00101.95	
ATOM	32369	C6	C A1533	194.267	127.836	-35.384	1.00200.58	C	ATOM	32419	C6	UNK X	2	209.103	106.803	-32.050	1.00101.95	
ATOM	32370	P	A A1534	193.598	121.818	-37.575	0.00106.48	P	ATOM	32420	C2	UNK X	2	210.050	104.662	-31.485	1.00101.95	
ATOM	32371	O1P	A A1534	192.786	120.662	-38.034	0.00106.48	O	ATOM	32421	O2	UNK X	2	210.006	103.448	-31.397	1.00101.95	
ATOM	32372	O2P	A A1534	194.469	121.675	-36.381	0.00106.48	O	ATOM	32422	N3	UNK X	2	211.142	105.380	-31.061	1.00101.95	
ATOM	32373	O5*	A A1534	194.500	122.290	-38.800	0.00106.48	O	ATOM	32423	C4	UNK X	2	211.301	106.751	-31.092	1.00101.95	
ATOM	32374	C5*	A A1534	193.947	122.417	-40.128	0.00106.48	C	ATOM	32424	O4	UNK X	2	212.357	107.247	-30.692	1.00101.95	
ATOM	32375	C4*	A A1534	195.053	122.628	-41.134	0.00106.48	C	ATOM	32425	C5	UNK X	2	210.182	107.471	-31.622	1.00101.95	
ATOM	32376	O4*	A A1534	195.823	123.798	-40.755	0.00106.48	O	ATOM	32426	C2*	UNK X	2	206.803	104.276	-31.495	1.00129.06	
ATOM	32377	C3*	A A1534	196.083	121.513	-41.212	0.00106.48	C	ATOM	32427	O2*	UNK X	2	206.269	103.022	-31.876	1.00129.06	
ATOM	32378	O3*	A A1534	195.665	120.266	-41.781	0.00106.48	O	ATOM	32428	C3*	UNK X	2	205.780	105.404	-31.570	1.00129.06	
ATOM	32379	C2*	A A1534	197.322	122.223	-41.740	0.00106.48	C	ATOM	32429	O3*	UNK X	2	204.472	104.990	-31.181	1.00129.06	
ATOM	32380	O2*	A A1534	197.295	122.398	-43.142	0.00106.48	O	ATOM	32430	P	UNK X	3	203.772	105.659	-29.897	1.00133.87	
ATOM	32381	C1*	A A1534	197.192	123.593	-41.066	0.00106.48	C	ATOM	32431	O1P	UNK X	3	202.535	104.880	-29.621	1.00102.54	
ATOM	32382	N9	A A1534	197.960	123.706	-39.825	0.00106.48	N	ATOM	32432	O2P	UNK X	3	203.687	107.132	-30.104	1.00102.54	
ATOM	32383	C8	A A1534	197.741	123.050	-38.636	0.00106.48	C	ATOM	32433	O5*	UNK X	3	204.803	105.389	-28.714	1.00133.87	
ATOM	32384	N7	A A1534	198.599	123.358	-37.696	0.00106.48	N	ATOM	32434	C5*	UNK X	3	205.155	104.046	-28.330	1.00133.87	
ATOM	32385	C5	A A1534	199.441	124.279	-38.302	0.00106.48	C	ATOM	32435	C4*	UNK X	3	206.353	104.063	-27.410	1.00133.87	
ATOM	32386	C6	A A1534	200.561	124.988	-37.832	0.00106.48	C	ATOM	32436	O4*	UNK X	3	207.514	104.541	-28.135	1.00133.87	
ATOM	32387	N6	A A1534	201.042	124.874	-36.592	0.00106.48	N	ATOM	32437	C1*	UNK X	3	208.338	105.293	-27.266	1.00133.87	
ATOM	32388	N1	A A1534	201.177	125.829	-38.691	0.00106.48	N	ATOM	32438	N1	UNK X	3	208.515	106.635	-27.840	1.00102.54	
ATOM	32389	C2	A A1534	200.693	125.943	-39.934	0.00106.48	C	ATOM	32439	C6	UNK X	3	207.438	107.388	-28.262	1.00102.54	
ATOM	32390	N3	A A1534	199.650	125.332	-40.492	0.00106.48	N	ATOM	32440	C2	UNK X	3	209.811	107.125	-27.941	1.00102.54	
ATOM	32391	C4	A A1534	199.060	124.503	-39.613	0.00106.48	C	ATOM	32441	O2	UNK X	3	210.796	106.486	-27.589	1.00102.54	
TER	32392		A A1534						ATOM	32442	N3	UNK X	3	209.913	108.389	-28.473	1.00102.54	
ATOM	32393	O5*	UNK X	1	210.544	110.737	-33.960	1.00118.21	O	ATOM	32443	C4	UNK X	3	208.879	109.194	-28.912	1.00102.54
ATOM	32394	C5*	UNK X	1	209.594	111.336	-34.856	1.00118.21	C	ATOM	32444	O4	UNK X	3	209.134	110.311	-29.376	1.00102.54
ATOM	32395	C4*	UNK X	1	208.740	110.335	-35.609	1.00118.21	C	ATOM	32445	C5	UNK X	3	207.572	108.614	-28.779	1.00102.54
ATOM	32396	O4*	UNK X	1	209.591	109.488	-36.428	1.00118.21	O	ATOM	32446	C2*	UNK X	3	207.700	105.284	-25.874	1.00133.87
ATOM	32397	C1*	UNK X	1	209.056	108.172	-36.482	1.00118.21	C	ATOM	32447	O2*	UNK X	3	208.309	104.274	-25.094	1.00133.87
ATOM	32398	N1	UNK X	1	210.041	107.225	-35.909	1.00 84.68	N	ATOM	32448	C3*	UNK X	3	206.241	104.977	-26.199	1.00133.87
ATOM	32399	C6	UNK X	1	211.183	107.673	-35.301	1.00 84.68	C	ATOM	32449	O3*	UNK X	3	205.582	104.316	-25.124	1.00133.87
ATOM	32400	C2	UNK X	1	209.775	105.840	-35.979	1.00 84.68	C	ATOM	32450	P	U X	4	204.254	104.957	-24.480	1.00 72.63
ATOM	32401	O2	UNK X	1	208.754	105.447	-36.569	1.00 84.68	O	ATOM	32451	O1P	U X	4	203.275	105.157	-25.572	1.00 55.38
ATOM	32402	N3	UNK X	1	210.643	104.969	-35.406	1.00 84.68	N	ATOM	32452	O2P	U X	4	204.657	106.120	-23.650	1.00 55.38
ATOM	32403	C4	UNK X	1	211.741	105.424	-34.796	1.00 84.68	C	ATOM	32453	O5*	U X	4	203.721	103.797	-23.526	1.00 72.63
ATOM	32404	N4	UNK X	1	212.560	104.529	-34.227	1.00 84.68	N	ATOM	32454	C5*	U X	4	203.121	102.619	-24.085	1.00 72.63
ATOM	32405	C5	UNK X	1	212.050	106.818	-34.738	1.00 84.68	C	ATOM	32455	C4*	U X	4	203.391	101.418	-23.215	1.00 72.63
ATOM	32406	C2*	UNK X	1	207.741	108.178	-35.698	1.00118.21	C	ATOM	32456	O4*	U X	4	204.815	101.160	-23.142	1.00 72.63
ATOM	32407	O2*	UNK X	1	206.647	108.349	-36.580	1.00118.21	O	ATOM	32457	C3*	U X	4	202.960	101.541	-21.770	1.00 72.63
ATOM	32408	C3*	UNK X	1	207.949	109.355	-34.753	1.00118.21	C	ATOM	32458	O3*	U X	4	201.585	101.246	-21.626	1.00 72.63
ATOM	32409	O3*	UNK X	1	206.720	109.889	-34.266	1.00118.21	O	ATOM	32459	C2*	U X	4	203.841	100.518	-21.065	1.00 72.63
ATOM	32410	P	UNK X	2	206.325	109.681	-32.718	1.00129.06	P	ATOM	32460	O2*	U X	4	203.342	99.196	-21.127	1.00 72.63
ATOM	32411	O1P	UNK X	2	204.937	110.169	-32.506	1.00101.95	O	ATOM	32461	C1*	U X	4	205.137	100.617	-21.871	1.00 72.63
ATOM	32412	O2P	UNK X	2	207.432	110.234	-31.893	1.00101.95	O	ATOM	32462	N1	U X	4	206.118	101.489	-21.208	1.00 55.38
ATOM	32413	O5*	UNK X	2	206.321	108.101	-32.521	1.00129.06	O	ATOM	32463	C2	U X	4	206.730	101.013	-20.054	1.00 55.38
ATOM	32414	C5*	UNK X	2	205.456	107.246	-33.297	1.00129.06	C	ATOM	32464	O2	U X	4	206.520	99.899	-19.594	1.00 55.38
ATOM	32415	C4*	UNK X	2	205.807	105.800	-33.039	1.00129.06	C	ATOM	32465	N3	U X	4	207.589	101.896	-19.453	1.00 55.38



Table 2: Sheet 326/520

ATOM	32466	C4	U X	4	207.894	103.180	-19.867	1.00	55.38	C	ATOM	32516	CG1	VAL B	7	151.502	170.185	-19.664	1.00	84.59	C
ATOM	32467	O4	U X	4	208.556	103.912	-19.122	1.00	55.38	O	ATOM	32517	CG2	VAL B	7	150.351	171.995	-18.385	1.00	84.59	C
ATOM	32468	C5	U X	4	207.251	103.584	-21.085	1.00	55.38	C	ATOM	32518	N	LYS B	8	150.931	170.454	-22.620	1.00	130.92	N
ATOM	32469	C6	U X	4	206.409	102.748	-21.697	1.00	55.38	C	ATOM	32519	CA	LYS B	8	150.716	169.618	-22.801	1.00	130.92	C
ATOM	32470	P	C X	5	200.725	102.011	-20.509	1.00	62.28	P	ATOM	32520	C	LYS B	8	150.864	170.384	-25.099	1.00	130.92	C
ATOM	32471	O1P	C X	5	199.324	101.526	-20.662	1.00	51.43	O	ATOM	32521	O	LYS B	8	151.139	171.580	-25.112	1.00	130.92	O
ATOM	32472	O2P	C X	5	201.025	103.468	-20.621	1.00	51.43	O	ATOM	32522	CB	LYS B	8	149.321	168.979	-23.798	1.00	122.68	C
ATOM	32473	O5*	C X	5	201.286	101.441	-19.129	1.00	62.28	O	ATOM	32523	CG	LYS B	8	149.203	167.674	-23.045	1.00	122.68	C
ATOM	32474	C5*	C X	5	201.102	100.058	-18.791	1.00	62.28	C	ATOM	32524	CD	LYS B	8	147.878	167.013	-23.361	1.00	122.68	C
ATOM	32475	C4*	C X	5	201.928	99.693	-17.589	1.00	62.28	C	ATOM	32525	CE	LYS B	8	147.754	165.668	-22.678	1.00	122.68	C
ATOM	32476	O4*	C X	5	203.317	100.011	-17.858	1.00	62.28	O	ATOM	32526	NZ	LYS B	8	146.487	164.978	-23.050	1.00	122.68	N
ATOM	32477	C3*	C X	5	201.618	100.451	-16.311	1.00	62.28	C	ATOM	32527	N	GLU B	9	150.666	169.653	-26.186	1.00	121.82	N
ATOM	32478	O3*	C X	5	200.520	99.902	-15.595	1.00	62.28	O	ATOM	32528	CA	GLU B	9	150.717	170.164	-27.547	1.00	121.82	C
ATOM	32479	C2*	C X	5	202.925	100.350	-15.534	1.00	62.28	C	ATOM	32529	C	GLU B	9	150.588	168.931	-28.398	1.00	121.82	C
ATOM	32480	O2*	C X	5	203.069	99.119	-14.850	1.00	62.28	O	ATOM	32530	O	GLU B	9	151.434	168.046	-28.350	1.00	121.82	O
ATOM	32481	C1*	C X	5	203.958	100.423	-16.657	1.00	62.28	C	ATOM	32531	CB	GLU B	9	152.026	170.894	-27.846	1.00	200.58	C
ATOM	32482	N1	C X	5	204.535	101.774	-16.848	1.00	51.43	N	ATOM	32532	CG	GLU B	9	151.903	172.402	-27.679	1.00	200.58	C
ATOM	32483	C2	C X	5	205.373	102.305	-15.848	1.00	51.43	C	ATOM	32533	CD	GLU B	9	152.875	173.175	-28.541	1.00	200.58	C
ATOM	32484	O2	C X	5	205.586	101.636	-14.811	1.00	51.43	O	ATOM	32534	OE1	GLU B	9	152.884	172.947	-29.768	1.00	200.58	O
ATOM	32485	N3	C X	5	205.924	103.530	-16.035	1.00	51.43	N	ATOM	32535	OE2	GLU B	9	153.621	174.015	-27.994	1.00	125.85	N
ATOM	32486	C4	C X	5	205.662	104.220	-17.147	1.00	51.43	C	ATOM	32536	CA	LEU B	10	149.510	168.875	-29.167	1.00	125.85	C
ATOM	32487	N4	C X	5	206.226	105.420	-17.288	1.00	51.43	N	ATOM	32537	N	LEU B	10	149.225	167.717	-29.994	1.00	125.85	C
ATOM	32488	C5	C X	5	204.809	103.713	-18.164	1.00	51.43	C	ATOM	32538	C	LEU B	10	149.648	167.848	-31.446	1.00	125.85	C
ATOM	32489	C6	C X	5	204.272	102.501	-17.977	1.00	51.43	C	ATOM	32539	O	LEU B	10	150.398	168.758	-31.809	1.00	125.85	O
ATOM	32490	P	U X	6	199.591	100.876	-14.718	1.00	82.97	P	ATOM	32540	CB	LEU B	10	147.729	167.412	-29.928	1.00	200.58	C
ATOM	32491	O1P	U X	6	198.581	100.017	-14.062	1.00	59.12	O	ATOM	32541	CG	LEU B	10	147.103	167.473	-28.531	1.00	200.58	C
ATOM	32492	O2P	U X	6	199.155	102.012	-15.573	1.00	59.12	O	ATOM	32542	CD1	LEU B	10	145.625	167.134	-28.635	1.00	200.58	C
ATOM	32493	O5*	U X	6	200.565	101.442	-13.590	1.00	82.97	O	ATOM	32543	CD2	LEU B	10	147.818	166.516	-27.584	1.00	200.58	C
ATOM	32494	C5*	U X	6	200.956	100.622	-12.467	1.00	82.97	C	ATOM	32544	N	LEU B	11	149.153	166.913	-32.259	1.00	92.33	N
ATOM	32495	C4*	U X	6	201.831	101.409	-11.516	1.00	82.97	C	ATOM	32545	CA	LEU B	11	149.440	166.870	-33.684	1.00	92.33	C
ATOM	32496	O4*	U X	6	203.037	101.833	-12.202	1.00	82.97	O	ATOM	32546	C	LEU B	11	150.889	167.288	-33.861	1.00	92.33	C
ATOM	32497	C3*	U X	6	201.238	102.697	-10.970	1.00	82.97	C	ATOM	32547	O	LEU B	11	151.204	168.237	-34.592	1.00	92.33	C
ATOM	32498	O3*	U X	6	200.165	102.585	-10.028	1.00	82.97	O	ATOM	32548	CB	LEU B	11	148.510	167.831	-34.421	1.00	179.16	C
ATOM	32499	C2*	U X	6	202.470	103.513	-10.607	1.00	82.97	C	ATOM	32549	CG	LEU B	11	147.093	167.906	-33.840	1.00	179.16	C
ATOM	32500	O2*	U X	6	203.029	103.120	-9.368	1.00	82.97	O	ATOM	32550	CD1	LEU B	11	146.244	168.817	-34.707	1.00	179.16	C
ATOM	32501	C1*	U X	6	203.442	103.105	-11.718	1.00	82.97	C	ATOM	32551	CD2	LEU B	11	146.476	166.517	-33.756	1.00	179.16	C
ATOM	32502	N1	U X	6	203.475	104.045	-12.852	1.00	59.12	N	ATOM	32552	N	GLU B	12	151.770	166.581	-33.159	1.00	108.21	N
ATOM	32503	C2	U X	6	204.348	105.134	-12.784	1.00	59.12	C	ATOM	32553	CA	GLU B	12	153.184	166.885	-33.220	1.00	108.21	C
ATOM	32504	O2	U X	6	205.091	105.348	-11.829	1.00	59.12	O	ATOM	32554	C	GLU B	12	153.961	166.074	-34.242	1.00	108.21	C
ATOM	32505	N3	U X	6	204.318	105.964	-13.881	1.00	59.12	N	ATOM	32555	O	GLU B	12	155.064	165.590	-33.969	1.00	108.21	O
ATOM	32506	C4	U X	6	203.530	105.825	-15.012	1.00	59.12	C	ATOM	32556	CB	GLU B	12	153.833	166.721	-31.854	1.00	111.77	C
ATOM	32507	O4	U X	6	203.616	106.656	-15.922	1.00	59.12	O	ATOM	32557	CG	GLU B	12	155.228	167.294	-31.842	1.00	111.77	C
ATOM	32508	C5	U X	6	202.668	104.681	-15.001	1.00	59.12	C	ATOM	32558	CD	GLU B	12	155.256	168.737	-32.313	1.00	111.77	C
ATOM	32509	C6	U X	6	202.668	103.856	-13.952	1.00	59.12	C	ATOM	32559	OE1	GLU B	12	154.687	169.038	-33.387	1.00	111.77	O
TER	32510		U X	6							ATOM	32560	OE2	GLU B	12	155.852	169.572	-31.606	1.00	111.77	O
ATOM	32511	N	VAL B	7	149.485	173.246	-20.725	1.00	152.20	N	ATOM	32561	N	ALA B	13	153.381	165.926	-35.426	1.00	132.94	N
ATOM	32512	CA	VAL B	7	150.391	172.073	-20.889	1.00	152.20	C	ATOM	32562	CA	ALA B	13	154.051	165.203	-36.492	1.00	132.94	C
ATOM	32513	C	VAL B	7	149.996	171.263	-22.125	1.00	152.20	C	ATOM	32563	C	ALA B	13	155.326	165.996	-36.711	1.00	132.94	C
ATOM	32514	O	VAL B	7	148.870	171.374	-22.615	1.00	152.20	O	ATOM	32564	O	ALA B	13	156.305	165.500	-37.268	1.00	132.94	O
ATOM	32515	CB	VAL B	7	150.334	171.155	-19.649	1.00	84.59	C	ATOM	32565	CB	ALA B	13	153.201	165.213	-37.752	1.00	50.50	C



Table 2: Sheet 327/520

ATOM	32566	N	GLY B 14	155.293	167.239	-36.244	1.00101.90	N	ATOM	32616	CB	GLU B 20	162.592	151.459	-35.283	1.00	68.15	C
ATOM	32567	CA	GLY B 14	156.428	168.128	-36.379	1.00101.90	C	ATOM	32617	CG	GLU B 20	162.905	152.053	-33.912	1.00	68.15	C
ATOM	32568	C	GLY B 14	157.725	167.531	-35.883	1.00101.90	C	ATOM	32618	CD	GLU B 20	164.386	152.277	-33.684	1.00	68.15	C
ATOM	32569	O	GLY B 14	158.780	168.150	-36.025	1.00101.90	O	ATOM	32619	OE1	GLU B 20	165.179	151.687	-34.439	1.00	68.15	O
ATOM	32570	N	VAL B 15	157.662	166.338	-35.298	1.00110.44	N	ATOM	32620	OE2	GLU B 20	164.753	153.026	-32.748	1.00	68.15	O
ATOM	32571	CA	VAL B 15	158.874	165.705	-34.800	1.00110.44	C	ATOM	32621	N	ARG B 21	163.855	151.083	-38.403	1.00109.13	N	
ATOM	32572	C	VAL B 15	158.855	164.172	-34.717	1.00110.44	C	ATOM	32622	CA	ARG B 21	163.764	150.371	-39.675	1.00109.13	C	
ATOM	32573	O	VAL B 15	159.371	163.485	-35.598	1.00110.44	O	ATOM	32623	C	ARG B 21	162.533	149.482	-39.786	1.00109.13	C	
ATOM	32574	CB	VAL B 15	159.248	166.243	-33.397	1.00	90.68	ATOM	32624	O	ARG B 21	161.445	149.942	-40.133	1.00109.13	O	
ATOM	32575	CG1	VAL B 15	160.587	165.671	-32.980	1.00	90.68	ATOM	32625	CB	ARG B 21	165.022	149.524	-39.880	1.00151.64	C	
ATOM	32576	CG2	VAL B 15	159.289	167.763	-33.392	1.00	90.68	ATOM	32626	CG	ARG B 21	166.291	150.336	-39.998	1.00151.64	C	
ATOM	32577	N	HIS B 16	158.259	163.651	-33.646	1.00149.22	N	ATOM	32627	CD	ARG B 21	167.482	149.454	-40.305	1.00151.64	C	
ATOM	32578	CA	HIS B 16	158.199	162.214	-33.376	1.00149.22	C	ATOM	32628	NE	ARG B 21	168.519	150.200	-41.012	1.00151.64	N	
ATOM	32579	C	HIS B 16	157.761	161.243	-34.452	1.00149.22	C	ATOM	32629	CZ	ARG B 21	169.680	149.685	-41.405	1.00151.64	C	
ATOM	32580	O	HIS B 16	158.494	160.971	-35.400	1.00149.22	O	ATOM	32630	NH1	ARG B 21	169.962	148.413	-41.158	1.00151.64	N	
ATOM	32581	CB	HIS B 16	157.346	161.955	-32.139	1.00177.70	C	ATOM	32631	NH2	ARG B 21	170.556	150.440	-42.058	1.00151.64	N	
ATOM	32582	CG	HIS B 16	157.899	162.569	-30.898	1.00177.70	C	ATOM	32632	N	LYS B 22	162.729	148.200	-39.501	1.00	86.52	N
ATOM	32583	ND1	HIS B 16	158.027	163.931	-30.740	1.00177.70	N	ATOM	32633	CA	LYS B 22	161.667	147.201	-39.548	1.00	86.52	C
ATOM	32584	CD2	HIS B 16	158.398	162.009	-29.772	1.00177.70	C	ATOM	32634	C	LYS B 22	162.166	145.984	-38.759	1.00	86.52	C
ATOM	32585	CE1	HIS B 16	158.584	164.185	-29.570	1.00177.70	C	ATOM	32635	O	LYS B 22	161.797	144.842	-39.025	1.00	86.52	O
ATOM	32586	NE2	HIS B 16	158.821	163.036	-28.963	1.00177.70	N	ATOM	32636	CB	LYS B 22	161.354	146.833	-41.000	1.00102.37	C	
ATOM	32587	N	PHE B 17	156.553	160.719	-34.274	1.00	91.89	ATOM	32637	CG	LYS B 22	159.963	146.267	-41.224	1.00102.37	C	
ATOM	32588	CA	PHE B 17	155.971	159.712	-35.151	1.00	91.89	ATOM	32638	CD	LYS B 22	159.671	146.163	-42.716	1.00102.37	C	
ATOM	32589	C	PHE B 17	157.025	158.708	-35.582	1.00	91.89	ATOM	32639	CE	LYS B 22	158.360	145.442	-42.993	1.00102.37	C	
ATOM	32590	O	PHE B 17	158.060	158.563	-34.926	1.00	91.89	ATOM	32640	NZ	LYS B 22	158.108	145.287	-44.456	1.00102.37	N	
ATOM	32591	CB	PHE B 17	155.233	160.322	-36.375	1.00	97.52	ATOM	32641	N	ARG B 23	163.041	146.270	-37.797	1.00102.05	N	
ATOM	32592	CG	PHE B 17	156.124	160.959	-37.426	1.00	97.52	ATOM	32642	CA	ARG B 23	163.603	145.533	-35.615	1.00102.05	C	
ATOM	32593	CD1	PHE B 17	157.284	160.335	-37.890	1.00	97.52	ATOM	32643	C	ARG B 23	162.799	145.533	-35.615	1.00102.05	C	
ATOM	32594	CE2	PHE B 17	155.747	162.158	-38.013	1.00	97.52	ATOM	32644	O	ARG B 23	163.327	145.703	-34.513	1.00102.05	O	
ATOM	32595	CD2	PHE B 17	158.049	160.890	-38.917	1.00	97.52	ATOM	32645	CB	ARG B 23	165.087	145.552	-36.655	1.00125.85	C	
ATOM	32596	CE2	PHE B 17	156.501	162.719	-39.037	1.00	97.52	ATOM	32646	CG	ARG B 23	165.397	146.885	-35.982	1.00125.85	C	
ATOM	32597	CZ	PHE B 17	157.654	162.082	-39.489	1.00	97.52	ATOM	32647	CD	ARG B 23	166.883	146.973	-35.660	1.00125.85	C	
ATOM	32598	N	GLY B 18	156.741	158.010	-36.675	1.00	81.37	ATOM	32648	NE	ARG B 23	167.203	148.042	-34.720	1.00125.85	N	
ATOM	32599	CA	GLY B 18	157.642	157.007	-37.213	1.00	81.37	ATOM	32649	CZ	ARG B 23	167.044	149.335	-34.971	1.00125.85	C	
ATOM	32600	C	GLY B 18	159.109	156.967	-36.827	1.00	81.37	ATOM	32650	NH1	ARG B 23	166.562	149.734	-36.143	1.00125.85	N	
ATOM	32601	O	GLY B 18	159.768	157.997	-36.663	1.00	81.37	ATOM	32651	NH2	ARG B 23	167.372	150.229	-34.050	1.00125.85	N	
ATOM	32602	N	HIS B 19	159.610	155.741	-36.693	1.00	99.90	ATOM	32652	N	TRP B 24	161.491	145.567	-35.823	1.00	80.25	N
ATOM	32603	CA	HIS B 19	161.003	155.494	-36.358	1.00	99.90	ATOM	32653	CA	TRP B 24	160.494	145.836	-34.808	1.00	80.25	C
ATOM	32604	C	HIS B 19	161.318	153.999	-36.490	1.00	99.90	ATOM	32654	C	TRP B 24	160.301	144.737	-33.792	1.00	80.25	C
ATOM	32605	O	HIS B 19	160.418	153.185	-36.712	1.00	99.90	ATOM	32655	O	TRP B 24	161.008	143.732	-33.783	1.00	80.25	O
ATOM	32606	CB	HIS B 19	161.310	155.976	-34.936	1.00175.22	C	ATOM	32656	CB	TRP B 24	159.154	146.069	-35.495	1.00	60.30	C
ATOM	32607	CG	HIS B 19	162.774	156.123	-34.657	1.00175.22	C	ATOM	32657	CG	TRP B 24	158.519	144.787	-35.924	1.00	60.30	C
ATOM	32608	ND1	HIS B 19	163.570	157.033	-35.319	1.00175.22	N	ATOM	32658	CD1	TRP B 24	159.160	143.637	-36.303	1.00	60.30	C
ATOM	32609	CD2	HIS B 19	163.592	155.457	-33.810	1.00175.22	C	ATOM	32659	CD2	TRP B 24	157.123	144.513	-36.003	1.00	60.30	C
ATOM	32610	CE1	HIS B 19	164.815	156.921	-34.891	1.00175.22	C	ATOM	32660	NE1	TRP B 24	158.244	142.661	-36.608	1.00	60.30	N
ATOM	32611	NE2	HIS B 19	164.855	155.971	-33.974	1.00175.22	N	ATOM	32661	CE2	TRP B 24	156.984	143.171	-36.434	1.00	60.30	C
ATOM	32612	N	GLU B 20	162.604	153.662	-36.366	1.00	82.70	ATOM	32662	CE3	TRP B 24	155.973	145.266	-35.751	1.00	60.30	C
ATOM	32613	CA	GLU B 20	163.112	152.290	-36.453	1.00	82.70	ATOM	32663	CZ2	TRP B 24	155.733	142.568	-36.621	1.00	60.30	C
ATOM	32614	C	GLU B 20	162.798	151.575	-37.762	1.00	82.70	ATOM	32664	CZ3	TRP B 24	154.729	144.667	-35.937	1.00	60.30	C
ATOM	32615	O	GLU B 20	161.640	151.466	-38.169	1.00	82.70	ATOM	32665	CH2	TRP B 24	154.620	143.328	-36.369	1.00	60.30	C



Table 2: Sheet 328/520

ATOM	32666	N	ASN B	25	159.285	144.955	-32.963	1.00	65.95	N	ATOM	32716	NH2	ARG B	30	150.936	144.860	-26.509	1.00	109.21	N
ATOM	32667	CA	ASN B	25	158.866	144.039	-31.916	1.00	65.95	C	ATOM	32717	N	TYR B	31	150.625	150.249	-31.964	1.00	76.05	N
ATOM	32668	C	ASN B	25	157.367	143.907	-32.114	1.00	65.95	C	ATOM	32718	CA	TYR B	31	150.968	151.664	-32.028	1.00	76.05	C
ATOM	32669	O	ASN B	25	156.607	144.808	-31.776	1.00	65.95	O	ATOM	32719	C	TYR B	31	151.514	152.065	-33.387	1.00	76.05	C
ATOM	32670	CB	ASN B	25	159.157	144.633	-30.547	1.00	58.15	C	ATOM	32720	O	TYR B	31	151.741	153.241	-33.646	1.00	76.05	O
ATOM	32671	CG	ASN B	25	158.793	143.696	-29.432	1.00	58.15	C	ATOM	32721	CB	TYR B	31	152.019	151.994	-30.978	1.00	72.48	C
ATOM	32672	OD1	ASN B	25	159.526	143.576	-28.446	1.00	58.15	O	ATOM	32722	CG	TYR B	31	151.582	151.738	-29.566	1.00	72.48	C
ATOM	32673	ND2	ASN B	25	157.655	143.021	-29.572	1.00	58.15	N	ATOM	32723	CD1	TYR B	31	152.322	150.905	-28.734	1.00	72.48	C
ATOM	32674	N	PRO B	26	156.922	142.776	-32.666	1.00	61.56	N	ATOM	32724	CD2	TYR B	31	150.454	152.361	-29.042	1.00	72.48	C
ATOM	32675	CA	PRO B	26	155.504	142.536	-32.921	1.00	61.56	C	ATOM	32725	CE1	TYR B	31	151.953	150.702	-27.414	1.00	72.48	C
ATOM	32676	C	PRO B	26	154.561	143.072	-31.854	1.00	61.56	C	ATOM	32726	CE2	TYR B	31	150.076	152.166	-27.726	1.00	72.48	C
ATOM	32677	O	PRO B	26	153.443	143.482	-32.163	1.00	61.56	O	ATOM	32727	CZ	TYR B	31	150.830	151.335	-26.919	1.00	72.48	C
ATOM	32678	CB	PRO B	26	155.440	141.019	-33.059	1.00	49.05	C	ATOM	32728	OH	TYR B	31	150.460	151.134	-25.615	1.00	72.48	O
ATOM	32679	CG	PRO B	26	156.749	140.707	-33.696	1.00	49.05	C	ATOM	32729	N	ILE B	32	151.741	151.082	-34.245	1.00	69.01	N
ATOM	32680	CD	PRO B	26	157.696	141.540	-32.864	1.00	49.05	C	ATOM	32730	CA	ILE B	32	152.280	151.346	-35.565	1.00	69.01	C
ATOM	32681	N	LYS B	27	155.016	143.080	-30.604	1.00	49.16	N	ATOM	32731	C	ILE B	32	151.149	151.593	-36.552	1.00	69.01	C
ATOM	32682	CA	LYS B	27	154.189	143.552	-29.507	1.00	49.16	C	ATOM	32732	O	ILE B	32	150.315	150.717	-36.786	1.00	69.01	O
ATOM	32683	C	LYS B	27	153.925	145.053	-29.555	1.00	49.16	C	ATOM	32733	CB	ILE B	32	153.154	150.170	-36.007	1.00	66.72	C
ATOM	32684	O	LYS B	27	153.138	145.580	-28.771	1.00	49.16	O	ATOM	32734	CG1	ILE B	32	154.336	150.046	-35.047	1.00	66.72	C
ATOM	32685	CB	LYS B	27	154.830	143.183	-28.172	1.00	65.98	C	ATOM	32735	CG2	ILE B	32	153.645	150.376	-37.420	1.00	66.72	C
ATOM	32686	CG	LYS B	27	154.885	141.688	-27.913	1.00	65.98	C	ATOM	32736	CD1	ILE B	32	155.189	148.843	-35.281	1.00	66.72	C
ATOM	32687	CD	LYS B	27	155.220	141.386	-26.461	1.00	65.98	C	ATOM	32737	N	TYR B	33	151.132	152.798	-37.119	1.00	86.51	N
ATOM	32688	CE	LYS B	27	155.198	139.891	-26.219	1.00	65.98	C	ATOM	32738	CA	TYR B	33	150.098	153.209	-38.062	1.00	86.51	C
ATOM	32689	NZ	LYS B	27	155.153	139.513	-24.772	1.00	65.98	N	ATOM	32739	C	TYR B	33	150.193	152.535	-39.417	1.00	86.51	C
ATOM	32690	N	PHE B	28	154.571	145.741	-30.485	1.00	59.08	N	ATOM	32740	O	TYR B	33	149.189	152.090	-39.972	1.00	86.51	O
ATOM	32691	CA	PHE B	28	154.391	147.174	-30.599	1.00	59.08	C	ATOM	32741	CB	TYR B	33	150.137	154.723	-38.265	1.00	144.41	C
ATOM	32692	C	PHE B	28	153.460	147.494	-31.762	1.00	59.08	C	ATOM	32742	CG	TYR B	33	149.115	155.214	-39.264	1.00	144.41	C
ATOM	32693	O	PHE B	28	153.323	148.653	-32.167	1.00	59.08	O	ATOM	32743	CD1	TYR B	33	147.749	155.051	-39.031	1.00	144.41	C
ATOM	32694	CB	PHE B	28	155.743	147.848	-30.823	1.00	53.44	C	ATOM	32744	CD2	TYR B	33	149.511	155.823	-40.453	1.00	144.41	C
ATOM	32695	CG	PHE B	28	155.736	149.322	-30.546	1.00	53.44	C	ATOM	32745	CE1	TYR B	33	146.803	155.482	-39.957	1.00	144.41	C
ATOM	32696	CD1	PHE B	28	155.815	149.793	-29.246	1.00	53.44	C	ATOM	32746	CE2	TYR B	33	148.574	156.257	-41.386	1.00	144.41	C
ATOM	32697	CD2	PHE B	28	155.636	150.237	-31.584	1.00	53.44	C	ATOM	32747	CZ	TYR B	33	147.223	156.083	-41.131	1.00	144.41	C
ATOM	32698	CE1	PHE B	28	155.797	151.152	-28.981	1.00	53.44	C	ATOM	32748	OH	TYR B	33	146.293	156.504	-42.053	1.00	144.41	O
ATOM	32699	CE2	PHE B	28	155.615	151.596	-31.330	1.00	53.44	C	ATOM	32749	N	ALA B	34	151.400	152.480	-39.956	1.00	90.00	N
ATOM	32700	CZ	PHE B	28	155.696	152.056	-30.023	1.00	53.44	C	ATOM	32750	CA	ALA B	34	151.623	151.865	-41.254	1.00	90.00	C
ATOM	32701	N	ALA B	29	152.810	146.472	-32.301	1.00	69.40	N	ATOM	32751	C	ALA B	34	153.088	152.075	-41.609	1.00	90.00	C
ATOM	32702	CA	ALA B	29	151.923	146.690	-33.432	1.00	69.40	C	ATOM	32752	O	ALA B	34	153.661	153.112	-41.283	1.00	90.00	O
ATOM	32703	C	ALA B	29	150.764	147.604	-33.071	1.00	69.40	C	ATOM	32753	CB	ALA B	34	150.711	152.514	-42.308	1.00	50.99	C
ATOM	32704	O	ALA B	29	150.278	148.360	-33.915	1.00	69.40	O	ATOM	32754	N	GLU B	35	153.697	151.086	-42.257	1.00	100.22	N
ATOM	32705	CB	ALA B	29	151.402	145.361	-33.950	1.00	54.24	C	ATOM	32755	CA	GLU B	35	155.099	151.188	-42.642	1.00	100.22	C
ATOM	32706	N	ARG B	30	150.333	147.546	-31.813	1.00	75.85	N	ATOM	32756	C	GLU B	35	155.191	151.832	-44.012	1.00	100.22	C
ATOM	32707	CA	ARG B	30	149.211	148.354	-31.351	1.00	75.85	C	ATOM	32757	O	GLU B	35	154.505	151.419	-44.944	1.00	100.22	O
ATOM	32708	C	ARG B	30	149.498	149.855	-31.388	1.00	75.85	C	ATOM	32758	CB	GLU B	35	155.751	149.803	-42.675	1.00	139.07	C
ATOM	32709	O	ARG B	30	148.704	150.653	-30.908	1.00	75.85	O	ATOM	32759	CG	GLU B	35	155.078	148.811	-43.610	1.00	139.07	C
ATOM	32710	CB	ARG B	30	148.812	147.934	-29.931	1.00	109.21	C	ATOM	32760	CD	GLU B	35	155.886	147.542	-43.793	1.00	139.07	C
ATOM	32711	CG	ARG B	30	149.524	148.687	-28.821	1.00	109.21	C	ATOM	32761	OE1	GLU B	35	157.038	147.639	-44.262	1.00	139.07	O
ATOM	32712	CD	ARG B	30	149.330	148.021	-27.469	1.00	109.21	C	ATOM	32762	OE2	GLU B	35	155.371	146.449	-43.473	1.00	139.07	O
ATOM	32713	NE	ARG B	30	149.898	146.677	-27.469	1.00	109.21	N	ATOM	32763	CA	ARG B	36	156.031	152.853	-44.133	1.00	96.53	N
ATOM	32714	CZ	ARG B	30	150.436	146.088	-26.406	1.00	109.21	C	ATOM	32764	N	ARG B	36	156.185	153.533	-45.407	1.00	96.53	C
ATOM	32715	NH1	ARG B	30	150.482	146.727	-25.242	1.00	109.21	N	ATOM	32765	C	ARG B	36	157.643	153.688	-45.784	1.00	96.53	C



Table 2: Sheet 329/520

ATOM	32766	O	ARG B	36	158.398	154.400	-45.122	1.00	96.53	O	ATOM	32816	CB	ILE B	42	154.583	156.026	-33.801	1.00	59.10	C
ATOM	32767	CB	ARG B	36	155.490	154.895	-45.367	1.00	148.68	C	ATOM	32817	CG1	ILE B	42	155.885	155.245	-33.649	1.00	59.10	C
ATOM	32768	CG	ARG B	36	154.001	154.764	-45.118	1.00	148.68	C	ATOM	32818	CG2	ILE B	42	153.734	155.883	-32.553	1.00	59.10	C
ATOM	32769	CD	ARG B	36	153.196	155.870	-45.769	1.00	148.68	C	ATOM	32819	CD1	ILE B	42	156.740	155.704	-32.494	1.00	59.10	C
ATOM	32770	NE	ARG B	36	151.775	155.530	-45.782	1.00	148.68	N	ATOM	32820	N	ASP B	43	151.458	155.701	-34.539	1.00	80.86	N
ATOM	32771	C2	ARG B	36	150.834	156.247	-46.389	1.00	148.68	C	ATOM	32821	CA	ASP B	43	150.109	156.284	-34.498	1.00	80.86	C
ATOM	32772	NH1	ARG B	36	151.157	157.358	-47.039	1.00	148.68	N	ATOM	32822	C	ASP B	43	150.074	157.438	-33.508	1.00	80.86	C
ATOM	32773	NH2	ARG B	36	149.568	155.848	-46.349	1.00	148.68	N	ATOM	32823	O	ASP B	43	149.871	157.240	-32.308	1.00	80.86	C
ATOM	32774	N	ASN B	37	158.025	153.002	-46.855	1.00	121.78	N	ATOM	32824	CB	ASP B	43	149.080	155.238	-34.056	1.00	184.74	O
ATOM	32775	CA	ASN B	37	159.393	153.025	-47.348	1.00	121.78	C	ATOM	32825	CG	ASP B	43	148.355	154.599	-35.218	1.00	184.74	C
ATOM	32776	C	ASN B	37	160.368	152.781	-46.208	1.00	121.78	C	ATOM	32826	OD1	ASP B	43	147.627	155.321	-35.930	1.00	184.74	O
ATOM	32777	O	ASN B	37	161.343	153.512	-46.041	1.00	121.78	O	ATOM	32827	OD2	ASP B	43	148.509	153.375	-35.417	1.00	184.74	O
ATOM	32778	CB	ASN B	37	159.695	154.364	-48.021	1.00	150.28	C	ATOM	32828	N	LEU B	44	150.259	158.645	-34.021	1.00	70.91	N
ATOM	32779	CG	ASN B	37	158.794	154.630	-49.210	1.00	150.28	C	ATOM	32829	CA	LEU B	44	150.275	159.834	-33.187	1.00	70.91	C
ATOM	32780	OD1	ASN B	37	158.671	153.797	-50.109	1.00	150.28	O	ATOM	32830	C	LEU B	44	148.999	160.042	-32.380	1.00	70.91	C
ATOM	32781	ND2	ASN B	37	158.160	155.797	-49.222	1.00	150.28	N	ATOM	32831	O	LEU B	44	149.037	160.635	-31.301	1.00	70.91	O
ATOM	32782	N	GLY B	38	160.092	151.747	-45.421	1.00	102.58	N	ATOM	32832	CB	LEU B	44	150.571	161.053	-34.056	1.00	88.64	C
ATOM	32783	CA	GLY B	38	160.956	151.417	-44.306	1.00	102.58	C	ATOM	32833	CG	LEU B	44	151.960	160.963	-34.692	1.00	88.64	C
ATOM	32784	C	GLY B	38	160.275	151.636	-42.976	1.00	102.58	C	ATOM	32834	CD1	LEU B	44	152.137	162.062	-35.726	1.00	88.64	C
ATOM	32785	O	GLY B	38	159.509	150.791	-42.523	1.00	102.58	O	ATOM	32835	CD2	LEU B	44	153.018	161.047	-33.599	1.00	88.64	C
ATOM	32786	N	ILE B	39	160.553	152.777	-42.357	1.00	98.07	N	ATOM	32836	N	GLN B	45	147.868	159.566	-32.889	1.00	75.33	N
ATOM	32787	CA	ILE B	39	159.975	153.119	-41.064	1.00	98.07	C	ATOM	32837	CA	GLN B	45	146.635	159.717	-32.134	1.00	75.33	C
ATOM	32788	C	ILE B	39	158.568	152.567	-40.854	1.00	98.07	C	ATOM	32838	C	GLN B	45	146.845	159.046	-30.778	1.00	75.33	C
ATOM	32789	O	ILE B	39	157.758	152.522	-41.780	1.00	98.07	O	ATOM	32839	O	GLN B	45	146.671	159.659	-29.717	1.00	75.33	O
ATOM	32790	CB	ILE B	39	159.925	154.641	-40.873	1.00	200.58	C	ATOM	32840	CB	GLN B	45	145.470	159.063	-32.873	1.00	166.79	C
ATOM	32791	CG1	ILE B	39	161.337	155.221	-40.975	1.00	200.58	C	ATOM	32841	CG	GLN B	45	144.733	160.009	-33.799	1.00	166.79	C
ATOM	32792	CG2	ILE B	39	159.300	154.973	-39.527	1.00	200.58	C	ATOM	32842	CD	GLN B	45	144.123	161.182	-33.053	1.00	166.79	C
ATOM	32793	CD1	ILE B	39	161.394	156.732	-40.856	1.00	200.58	C	ATOM	32843	OE1	GLN B	45	143.343	160.999	-32.118	1.00	166.79	O
ATOM	32794	N	HIS B	40	158.287	152.152	-39.625	1.00	96.03	N	ATOM	32844	NE2	GLN B	45	144.474	162.395	-33.465	1.00	166.79	N
ATOM	32795	CA	HIS B	40	156.983	151.611	-39.282	1.00	96.03	C	ATOM	32845	N	LYS B	46	147.247	157.781	-30.833	1.00	78.93	N
ATOM	32796	C	HIS B	40	155.972	152.734	-39.088	1.00	96.03	C	ATOM	32846	CA	LYS B	46	147.502	156.992	-29.640	1.00	78.93	C
ATOM	32797	O	HIS B	40	154.789	152.565	-39.359	1.00	96.03	O	ATOM	32847	C	LYS B	46	148.606	157.622	-28.805	1.00	78.93	C
ATOM	32798	CB	HIS B	40	157.076	150.780	-38.000	1.00	89.80	C	ATOM	32848	O	LYS B	46	148.529	157.634	-27.581	1.00	78.93	O
ATOM	32799	CG	HIS B	40	157.207	149.307	-38.233	1.00	89.80	C	ATOM	32849	CB	LYS B	46	147.869	155.562	-30.045	1.00	78.78	C
ATOM	32800	ND1	HIS B	40	156.273	148.579	-38.939	1.00	89.80	N	ATOM	32850	CG	LYS B	46	146.741	154.864	-30.798	1.00	78.78	C
ATOM	32801	CD2	HIS B	40	158.144	148.420	-37.822	1.00	89.80	C	ATOM	32851	CD	LYS B	46	147.095	153.450	-31.216	1.00	78.78	C
ATOM	32802	CE1	HIS B	40	156.627	147.307	-38.951	1.00	89.80	C	ATOM	32852	CE	LYS B	46	145.929	152.797	-31.950	1.00	78.78	C
ATOM	32803	NE2	HIS B	40	157.759	147.183	-38.280	1.00	89.80	N	ATOM	32853	NZ	LYS B	46	146.227	151.403	-32.409	1.00	78.78	N
ATOM	32804	N	ILE B	41	156.446	153.875	-38.605	1.00	69.50	N	ATOM	32854	CA	THR B	47	149.629	158.152	-29.465	1.00	59.47	N
ATOM	32805	CA	ILE B	41	155.588	155.032	-38.367	1.00	69.50	C	ATOM	32855	CA	THR B	47	150.729	158.798	-28.759	1.00	59.47	C
ATOM	32806	C	ILE B	41	154.546	154.822	-37.274	1.00	69.50	C	ATOM	32856	C	THR B	47	150.187	159.885	-27.828	1.00	59.47	C
ATOM	32807	O	ILE B	41	153.624	154.021	-37.412	1.00	69.50	O	ATOM	32857	O	THR B	47	150.792	160.194	-26.797	1.00	59.47	O
ATOM	32808	CB	ILE B	41	154.881	155.478	-39.655	1.00	89.61	C	ATOM	32858	CB	THR B	47	151.705	159.440	-29.737	1.00	66.03	C
ATOM	32809	CG1	ILE B	41	155.924	155.880	-40.698	1.00	89.61	C	ATOM	32859	CG2	THR B	47	152.070	158.479	-30.729	1.00	66.03	O
ATOM	32810	CG2	ILE B	41	153.983	156.663	-39.367	1.00	89.61	C	ATOM	32860	CG1	THR B	47	152.950	159.905	-29.013	1.00	66.03	C
ATOM	32811	CD1	ILE B	41	155.339	156.368	-42.012	1.00	89.61	C	ATOM	32861	N	MET B	48	149.052	160.472	-28.204	1.00	83.65	N
ATOM	32812	N	ILE B	42	154.695	155.587	-36.200	1.00	67.69	N	ATOM	32862	CA	MET B	48	148.424	161.499	-27.381	1.00	83.65	C
ATOM	32813	CA	ILE B	42	153.826	155.514	-35.034	1.00	67.69	C	ATOM	32863	C	MET B	48	147.659	160.790	-26.277	1.00	83.65	C
ATOM	32814	C	ILE B	42	152.505	156.275	-35.136	1.00	67.69	C	ATOM	32864	O	MET B	48	147.855	161.076	-25.091	1.00	83.65	O
ATOM	32815	O	ILE B	42	152.443	157.349	-35.727	1.00	67.69	O	ATOM	32865	CB	MET B	48	147.442	162.336	-28.192	1.00	156.87	C



Table 2: Sheet 330/520

ATOM	32866	CG	MET B	48	148.062	153.184	-29.266	1.00156.87	C	ATOM	32916	CA	THR B	54	150.911	159.091	-18.598	1.00	66.55	C	
ATOM	32867	SD	MET B	48	146.830	164.324	-29.911	1.00156.87	S	ATOM	32917	C	THR B	54	151.182	160.355	-17.814	1.00	66.55	C	
ATOM	32868	CE	MET B	48	145.766	163.208	-30.840	1.00156.87	C	ATOM	32918	O	THR B	54	151.601	160.296	-16.661	1.00	66.55	O	
ATOM	32869	N	GLU B	49	146.786	159.862	-26.682	1.00	68.59	N	ATOM	32919	CB	THR B	54	152.008	158.930	-19.675	1.00	73.44	C
ATOM	32870	CA	GLU B	49	145.979	159.084	-25.743	1.00	68.59	C	ATOM	32920	OG1	THR B	54	152.015	157.574	-20.145	1.00	73.44	O
ATOM	32871	C	GLU B	49	146.856	158.566	-24.611	1.00	68.59	C	ATOM	32921	CG2	THR B	54	153.374	159.279	-19.110	1.00	73.44	C
ATOM	32872	O	GLU B	49	146.447	158.551	-23.452	1.00	68.59	O	ATOM	32922	N	PHE B	55	150.953	161.504	-18.435	1.00	61.56	N
ATOM	32873	CB	GLU B	49	145.309	157.928	-26.475	1.00131.54	C	ATOM	32923	CA	PHE B	55	151.199	162.759	-17.745	1.00	61.56	C	
ATOM	32874	CG	GLU B	49	144.390	158.405	-27.577	1.00131.54	C	ATOM	32924	C	PHE B	55	150.335	162.825	-16.496	1.00	61.56	C	
ATOM	32875	CD	GLU B	49	143.816	157.274	-28.397	1.00131.54	C	ATOM	32925	O	PHE B	55	150.803	163.226	-15.422	1.00	61.56	O	
ATOM	32876	OE1	GLU B	49	143.189	156.371	-27.803	1.00131.54	O	ATOM	32926	CB	PHE B	55	150.929	163.935	-18.685	1.00	94.58	C	
ATOM	32877	OE2	GLU B	49	143.988	157.292	-27.635	1.00131.54	O	ATOM	32927	CG	PHE B	55	152.089	164.253	-19.592	1.00	94.58	C	
ATOM	32878	N	GLU B	50	148.074	158.158	-24.954	1.00	77.18	N	ATOM	32928	CD1	PHE B	55	152.895	163.233	-20.097	1.00	94.58	C
ATOM	32879	CA	GLU B	50	149.013	157.664	-23.964	1.00	77.18	C	ATOM	32929	CD2	PHE B	55	152.382	165.565	-19.936	1.00	94.58	C
ATOM	32880	C	GLU B	50	149.567	158.826	-23.158	1.00	77.18	C	ATOM	32930	CE1	PHE B	55	153.978	163.516	-20.927	1.00	94.58	C
ATOM	32881	O	GLU B	50	149.653	158.750	-21.931	1.00	77.18	O	ATOM	32931	CE2	PHE B	55	153.465	165.857	-20.768	1.00	94.58	C
ATOM	32882	CB	GLU B	50	150.153	156.904	-24.638	1.00	96.02	C	ATOM	32932	CZ	PHE B	55	154.264	164.828	-21.263	1.00	94.58	C
ATOM	32883	CG	GLU B	50	149.741	155.551	-25.198	1.00	96.02	C	ATOM	32933	N	ARG B	56	149.080	162.407	-16.647	1.00	67.62	N
ATOM	32884	CD	GLU B	50	148.978	154.701	-24.192	1.00	96.02	C	ATOM	32934	CA	ARG B	56	148.134	162.376	-15.541	1.00	67.62	C
ATOM	32885	OE1	GLU B	50	149.285	154.784	-22.981	1.00	96.02	O	ATOM	32935	C	ARG B	56	148.880	161.731	-14.369	1.00	67.62	C
ATOM	32886	OE2	GLU B	50	148.080	153.940	-24.615	1.00	96.02	O	ATOM	32936	O	ARG B	56	148.904	162.255	-13.256	1.00	67.62	O
ATOM	32887	N	LEU B	51	149.946	159.900	-23.846	1.00	63.63	N	ATOM	32937	CB	ARG B	56	146.930	161.524	-15.929	1.00	116.58	C
ATOM	32888	CA	LEU B	51	150.468	161.081	-23.166	1.00	63.63	C	ATOM	32938	CG	ARG B	56	145.638	161.874	-15.227	1.00	116.58	C
ATOM	32889	C	LEU B	51	149.470	161.529	-22.107	1.00	63.63	C	ATOM	32939	CD	ARG B	56	144.602	160.794	-15.489	1.00	116.58	C
ATOM	32890	O	LEU B	51	149.838	161.760	-20.953	1.00	63.63	O	ATOM	32940	NE	ARG B	56	144.560	160.411	-16.900	1.00	116.58	N
ATOM	32891	CB	LEU B	51	150.703	162.204	-24.170	1.00	59.07	C	ATOM	32941	CZ	ARG B	56	143.958	159.317	-17.363	1.00	116.58	C
ATOM	32892	CG	LEU B	51	152.014	162.058	-24.939	1.00	59.07	C	ATOM	32942	NH1	ARG B	56	143.342	158.490	-16.525	1.00	116.58	N
ATOM	32893	CD1	LEU B	51	151.971	162.896	-26.203	1.00	59.07	C	ATOM	32943	NH2	ARG B	56	143.976	159.046	-18.664	1.00	116.58	N
ATOM	32894	CD2	LEU B	51	153.183	162.460	-24.033	1.00	59.07	C	ATOM	32944	N	PHE B	57	149.507	160.592	-14.646	1.00	55.87	N
ATOM	32895	N	GLU B	52	148.203	161.641	-22.503	1.00	76.49	N	ATOM	32945	CA	PHE B	57	150.276	159.866	-13.647	1.00	55.87	C
ATOM	32896	CA	GLU B	52	147.148	162.039	-21.582	1.00	76.49	C	ATOM	32946	C	PHE B	57	151.438	160.706	-13.131	1.00	55.87	C
ATOM	32897	C	GLU B	52	147.317	161.261	-20.276	1.00	76.49	C	ATOM	32947	O	PHE B	57	151.782	160.620	-11.957	1.00	55.87	O
ATOM	32898	O	GLU B	52	147.688	161.820	-19.239	1.00	76.49	O	ATOM	32948	CB	PHE B	57	150.817	158.546	-14.229	1.00	47.04	C
ATOM	32899	CB	GLU B	52	145.775	161.728	-22.188	1.00159.23	C	ATOM	32949	CG	PHE B	57	151.805	157.852	-13.333	1.00	47.04	C	
ATOM	32900	CG	GLU B	52	144.602	161.932	-21.233	1.00159.23	C	ATOM	32950	CD1	PHE B	57	151.395	157.269	-12.141	1.00	47.04	C	
ATOM	32901	CD	GLU B	52	143.285	161.412	-21.792	1.00159.23	C	ATOM	32951	CD2	PHE B	57	153.161	157.866	-13.631	1.00	47.04	C	
ATOM	32902	OE1	GLU B	52	142.249	161.541	-21.105	1.00159.23	O	ATOM	32952	CE1	PHE B	57	152.321	156.719	-11.254	1.00	47.04	C	
ATOM	32903	OE2	GLU B	52	143.282	160.873	-22.919	1.00159.23	O	ATOM	32953	CE2	PHE B	57	154.094	157.317	-12.744	1.00	47.04	C	
ATOM	32904	N	ARG B	53	147.063	159.958	-20.355	1.00	81.29	N	ATOM	32954	CZ	PHE B	57	153.670	156.746	-11.553	1.00	47.04	C
ATOM	32905	CA	ARG B	53	147.154	159.054	-19.212	1.00	81.29	C	ATOM	32955	N	ILE B	58	152.051	161.514	-13.994	1.00	57.96	N
ATOM	32906	C	ARG B	53	148.482	159.094	-18.454	1.00	81.29	C	ATOM	32956	CA	ILE B	58	153.181	162.334	-13.548	1.00	57.96	C
ATOM	32907	O	ARG B	53	148.504	159.134	-17.223	1.00	81.29	O	ATOM	32957	C	ILE B	58	152.774	163.482	-12.617	1.00	57.96	C
ATOM	32908	CB	ARG B	53	146.876	157.627	-19.684	1.00	64.39	C	ATOM	32958	O	ILE B	58	153.425	163.700	-11.593	1.00	57.96	O
ATOM	32909	CG	ARG B	53	147.110	156.566	-18.638	1.00	64.39	C	ATOM	32959	CB	ILE B	58	153.988	162.889	-14.740	1.00	63.91	C
ATOM	32910	CD	ARG B	53	146.743	155.182	-19.163	1.00	64.39	C	ATOM	32960	CG1	ILE B	58	154.551	161.723	-15.556	1.00	63.91	C
ATOM	32911	NE	ARG B	53	147.160	154.135	-18.236	1.00	64.39	N	ATOM	32961	CG2	ILE B	58	155.132	163.765	-14.233	1.00	63.91	C
ATOM	32912	CZ	ARG B	53	148.427	153.798	-18.022	1.00	64.39	C	ATOM	32962	CD1	ILE B	58	155.615	162.112	-16.550	1.00	63.91	C
ATOM	32913	NH1	ARG B	53	149.398	154.421	-18.679	1.00	64.39	N	ATOM	32963	N	GLU B	59	151.716	164.218	-12.966	1.00	77.26	N
ATOM	32914	NH2	ARG B	53	148.727	152.859	-17.136	1.00	64.39	N	ATOM	32964	CA	GLU B	59	151.247	165.292	-12.093	1.00	77.26	C
ATOM	32915	N	THR B	54	149.583	159.078	-19.195	1.00	66.55	N	ATOM	32965	C	GLU B	59	151.050	164.626	-10.748	1.00	77.26	C



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ATOM	32966	O	GLU B	59	151.434	165.159	-9.707	1.00	77.26	O	ATOM	33016	N	GLY B	66	156.623	163.436	-5.035	1.00	85.40	N
ATOM	32967	CB	GLU B	59	149.894	165.848	-12.537	1.00	108.16	C	ATOM	33017	CA	GLY B	66	157.327	162.201	-5.332	1.00	85.40	C
ATOM	32968	CG	GLU B	59	149.919	166.776	-13.723	1.00	108.16	C	ATOM	33018	C	GLY B	66	158.500	162.362	-6.276	1.00	85.40	C
ATOM	32969	CD	GLU B	59	148.688	167.658	-13.774	1.00	108.16	C	ATOM	33019	O	GLY B	66	158.486	163.212	-7.165	1.00	85.40	O
ATOM	32970	OE1	GLU B	59	148.555	168.529	-12.891	1.00	108.16	O	ATOM	33020	N	THR B	67	159.513	161.524	-6.084	1.00	59.28	N
ATOM	32971	OE2	GLU B	59	147.850	167.477	-14.684	1.00	108.16	O	ATOM	33021	CA	THR B	67	160.726	161.551	-6.896	1.00	59.28	C
ATOM	32972	N	ASP B	60	150.423	163.456	-10.796	1.00	68.01	N	ATOM	33022	C	THR B	67	160.630	160.690	-8.147	1.00	59.28	C
ATOM	32973	CA	ASP B	60	150.169	162.651	-9.616	1.00	68.01	C	ATOM	33023	O	THR B	67	159.985	159.648	-8.146	1.00	59.28	O
ATOM	32974	C	ASP B	60	151.396	162.728	-8.707	1.00	68.01	C	ATOM	33024	CB	THR B	67	161.908	161.027	-6.105	1.00	68.40	C
ATOM	32975	O	ASP B	60	151.344	163.347	-7.644	1.00	68.01	O	ATOM	33025	OG1	THR B	67	161.845	161.532	-4.769	1.00	68.40	O
ATOM	32976	CB	ASP B	60	149.902	161.203	-10.043	1.00	200.58	C	ATOM	33026	CG2	THR B	67	163.194	161.464	-6.746	1.00	68.40	C
ATOM	32977	CG	ASP B	60	149.859	160.236	-8.876	1.00	200.58	C	ATOM	33027	N	ILE B	68	161.293	161.130	-9.209	1.00	68.87	N
ATOM	32978	OD1	ASP B	60	150.876	160.105	-8.162	1.00	200.58	O	ATOM	33028	CA	ILE B	68	161.325	160.400	-10.470	1.00	68.87	C
ATOM	32979	OD2	ASP B	60	148.806	159.596	-8.680	1.00	200.58	O	ATOM	33029	C	ILE B	68	162.768	160.306	-10.930	1.00	68.87	C
ATOM	32980	N	LEU B	61	152.501	162.117	-9.132	1.00	64.53	N	ATOM	33030	O	ILE B	68	163.474	161.312	-10.978	1.00	68.87	O
ATOM	32981	CA	LEU B	61	153.729	162.133	-8.339	1.00	64.53	C	ATOM	33031	CB	ILE B	68	160.536	161.116	-11.563	1.00	43.44	C
ATOM	32982	C	LEU B	61	154.184	163.548	-8.065	1.00	64.53	C	ATOM	33032	CG1	ILE B	68	159.057	161.126	-11.205	1.00	43.44	C
ATOM	32983	O	LEU B	61	154.426	163.923	-6.917	1.00	64.53	O	ATOM	33033	CG2	ILE B	68	160.755	160.421	-12.895	1.00	43.44	C
ATOM	32984	CB	LEU B	61	154.874	161.428	-9.060	1.00	71.74	C	ATOM	33034	CD1	ILE B	68	158.152	161.542	-12.364	1.00	43.44	C
ATOM	32985	CG	LEU B	61	154.991	159.915	-9.089	1.00	71.74	C	ATOM	33035	N	LEU B	69	163.210	159.102	-11.266	1.00	62.41	N
ATOM	32986	CD1	LEU B	61	156.385	159.590	-9.589	1.00	71.74	C	ATOM	33036	CA	LEU B	69	164.582	158.918	-11.727	1.00	62.41	C
ATOM	32987	CD2	LEU B	61	154.775	159.327	-7.704	1.00	71.74	C	ATOM	33037	C	LEU B	69	164.603	158.878	-13.255	1.00	62.41	C
ATOM	32988	N	ALA B	62	154.327	164.315	-9.145	1.00	58.27	N	ATOM	33038	O	LEU B	69	164.093	157.940	-13.863	1.00	62.41	O
ATOM	32989	CA	ALA B	62	154.769	165.702	-9.082	1.00	58.27	C	ATOM	33039	CB	LEU B	69	165.159	157.619	-11.157	1.00	59.13	C
ATOM	32990	C	ALA B	62	154.218	166.441	-7.867	1.00	58.27	C	ATOM	33040	CG	LEU B	69	166.681	157.507	-11.037	1.00	59.13	C
ATOM	32991	O	ALA B	62	154.940	166.671	-6.898	1.00	58.27	O	ATOM	33041	CD1	LEU B	69	167.051	156.144	-10.445	1.00	59.13	C
ATOM	32992	CB	ALA B	62	154.369	166.431	-10.363	1.00	146.00	C	ATOM	33042	CD2	LEU B	69	167.323	157.692	-12.398	1.00	59.13	C
ATOM	32993	N	MET B	63	152.937	166.799	-7.912	1.00	78.76	N	ATOM	33043	N	PHE B	70	165.177	159.907	-13.872	1.00	78.04	N
ATOM	32994	CA	MET B	63	152.328	167.534	-6.811	1.00	78.76	C	ATOM	33044	CA	PHE B	70	165.264	159.964	-15.326	1.00	78.04	C
ATOM	32995	C	MET B	63	152.446	166.800	-5.485	1.00	78.76	C	ATOM	33045	C	PHE B	70	166.470	159.166	-15.800	1.00	78.04	C
ATOM	32996	O	MET B	63	152.664	167.414	-4.442	1.00	78.76	O	ATOM	33046	O	PHE B	70	167.578	159.354	-15.296	1.00	78.04	O
ATOM	32997	CB	MET B	63	150.857	167.813	-7.100	1.00	125.51	C	ATOM	33047	CB	PHE B	70	165.379	161.410	-15.795	1.00	51.83	C
ATOM	32998	CG	MET B	63	150.025	166.569	-7.245	1.00	125.51	C	ATOM	33048	CG	PHE B	70	164.085	162.168	-15.735	1.00	51.83	C
ATOM	32999	SD	MET B	63	148.354	166.862	-6.677	1.00	125.51	S	ATOM	33049	CD1	PHE B	70	163.552	162.570	-14.516	1.00	51.83	C
ATOM	33000	CE	MET B	63	148.443	166.176	-5.003	1.00	125.51	C	ATOM	33050	CD2	PHE B	70	163.381	162.459	-16.901	1.00	51.83	C
ATOM	33001	N	ARG B	64	152.313	165.482	-5.533	1.00	57.36	N	ATOM	33051	CE1	PHE B	70	162.332	163.252	-14.459	1.00	51.83	C
ATOM	33002	CA	ARG B	64	152.379	164.656	-4.331	1.00	57.36	C	ATOM	33052	CE2	PHE B	70	162.164	163.136	-16.857	1.00	51.83	C
ATOM	33003	C	ARG B	64	153.739	164.701	-3.635	1.00	57.36	C	ATOM	33053	CZ	PHE B	70	161.638	163.534	-15.634	1.00	51.83	C
ATOM	33004	O	ARG B	64	153.877	164.185	-2.524	1.00	57.36	O	ATOM	33054	N	VAL B	71	166.255	158.275	-16.769	1.00	58.83	N
ATOM	33005	CB	ARG B	64	152.030	163.214	-4.689	1.00	128.36	C	ATOM	33055	CA	VAL B	71	167.338	157.439	-17.280	1.00	58.83	C
ATOM	33006	CG	ARG B	64	151.206	162.499	-3.649	1.00	128.36	C	ATOM	33056	C	VAL B	71	167.521	157.502	-18.798	1.00	58.83	C
ATOM	33007	CD	ARG B	64	150.319	161.487	-4.330	1.00	128.36	C	ATOM	33057	O	VAL B	71	166.602	157.200	-19.560	1.00	58.83	O
ATOM	33008	NE	ARG B	64	149.623	162.106	-5.455	1.00	128.36	N	ATOM	33058	CB	VAL B	71	167.123	155.972	-16.883	1.00	68.59	C
ATOM	33009	CZ	ARG B	64	148.803	161.462	-6.279	1.00	128.36	C	ATOM	33059	CG1	VAL B	71	168.317	155.155	-17.317	1.00	68.59	C
ATOM	33010	NH1	ARG B	64	148.566	160.169	-6.103	1.00	128.36	N	ATOM	33060	CG2	VAL B	71	166.919	155.856	-15.382	1.00	68.59	C
ATOM	33011	NH2	ARG B	64	148.228	162.110	-7.286	1.00	128.36	N	ATOM	33061	N	GLY B	72	168.719	157.888	-19.226	1.00	70.46	N
ATOM	33012	N	GLY B	65	154.730	165.313	-4.291	1.00	65.80	N	ATOM	33062	CA	GLY B	72	169.011	157.986	-20.646	1.00	70.46	C
ATOM	33013	CA	GLY B	65	156.074	165.407	-3.733	1.00	65.80	C	ATOM	33063	O	GLY B	72	170.502	157.846	-20.919	1.00	70.46	C
ATOM	33014	C	GLY B	65	156.904	164.144	-3.942	1.00	65.80	C	ATOM	33064	O	GLY B	72	171.211	158.847	-21.068	1.00	70.46	O
ATOM	33015	O	GLY B	65	157.783	163.820	-3.136	1.00	65.80	O	ATOM	33065	N	THR B	73	170.983	156.603	-20.969	1.00	62.53	N



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ATOM	33066	CA	THR B	73	172.392	156.323	-21.219	1.00	62.53	C	ATOM	33116	O	ASP B	79	171.332	166.426	-20.929	1.00	84.92	O
ATOM	33067	C	THR B	73	172.696	156.569	-22.694	1.00	62.53	C	ATOM	33117	CB	ASP B	79	173.210	166.535	-23.712	1.00	123.36	C
ATOM	33068	O	THR B	73	173.779	157.039	-23.049	1.00	62.53	O	ATOM	33118	CG	ASP B	79	174.590	166.253	-24.253	1.00	123.36	C
ATOM	33069	CB	THR B	73	172.736	154.863	-20.852	1.00	109.64	C	ATOM	33119	OD1	ASP B	79	175.546	166.201	-23.450	1.00	123.36	O
ATOM	33070	OG1	THR B	73	172.546	154.672	-19.444	1.00	109.64	C	ATOM	33120	OD2	ASP B	79	174.715	166.086	-25.484	1.00	123.36	O
ATOM	33071	CG2	THR B	73	174.181	154.534	-21.218	1.00	109.64	C	ATOM	33121	N	ILE B	80	170.416	165.831	-22.901	1.00	77.80	N
ATOM	33072	CA	LYS B	74	171.729	156.251	-23.548	1.00	65.29	N	ATOM	33122	CA	ILE B	80	169.047	166.191	-22.534	1.00	77.80	C
ATOM	33073	N	LYS B	74	171.859	156.449	-24.987	1.00	65.29	C	ATOM	33123	C	ILE B	80	168.595	165.656	-21.178	1.00	77.80	C
ATOM	33074	C	LYS B	74	172.491	157.815	-25.289	1.00	65.29	C	ATOM	33124	O	ILE B	80	168.111	166.412	-20.331	1.00	77.80	O
ATOM	33075	O	LYS B	74	172.264	158.779	-24.564	1.00	65.29	O	ATOM	33125	CB	ILE B	80	168.052	165.700	-23.590	1.00	53.80	C
ATOM	33076	CB	LYS B	74	170.472	156.360	-25.617	1.00	60.83	C	ATOM	33126	CG1	ILE B	80	168.236	166.499	-24.874	1.00	53.80	C
ATOM	33077	CG	LYS B	74	170.411	156.775	-27.062	1.00	60.83	C	ATOM	33127	CG2	ILE B	80	166.638	165.826	-23.071	1.00	53.80	C
ATOM	33078	CD	LYS B	74	168.969	156.915	-27.535	1.00	60.83	C	ATOM	33128	CD1	ILE B	80	167.257	166.132	-25.958	1.00	53.80	C
ATOM	33079	CE	LYS B	74	168.237	155.593	-27.552	1.00	60.83	C	ATOM	33129	N	VAL B	81	168.727	164.348	-20.985	1.00	88.80	N
ATOM	33080	NZ	LYS B	74	166.977	155.731	-28.327	1.00	60.83	N	ATOM	33130	CA	VAL B	81	168.813	164.577	-18.558	1.00	88.80	C
ATOM	33081	N	LYS B	75	173.286	157.907	-26.353	1.00	100.57	N	ATOM	33131	C	VAL B	81	168.144	164.662	-17.535	1.00	88.80	O
ATOM	33082	CA	LYS B	75	173.926	159.178	-26.698	1.00	100.57	C	ATOM	33132	O	VAL B	81	168.914	162.316	-19.603	1.00	61.40	C
ATOM	33083	C	LYS B	75	172.937	160.211	-27.223	1.00	100.57	C	ATOM	33133	CB	VAL B	81	168.914	162.316	-19.603	1.00	61.40	C
ATOM	33084	O	LYS B	75	173.077	161.403	-26.958	1.00	100.57	O	ATOM	33134	CG1	VAL B	81	168.909	161.869	-18.147	1.00	61.40	C
ATOM	33085	CB	LYS B	75	175.043	158.958	-27.724	1.00	41.15	C	ATOM	33135	CG2	VAL B	81	168.099	161.365	-20.451	1.00	61.40	C
ATOM	33086	CD	LYS B	75	176.366	158.522	-27.108	1.00	41.15	C	ATOM	33136	N	ARG B	82	169.971	165.205	-18.710	1.00	68.38	N
ATOM	33087	CE	LYS B	75	176.849	159.550	-26.087	1.00	41.15	C	ATOM	33137	CA	ARG B	82	170.494	166.047	-17.650	1.00	68.38	C
ATOM	33088	CE	LYS B	75	178.134	159.120	-25.379	1.00	41.15	C	ATOM	33138	C	ARG B	82	169.712	167.362	-17.585	1.00	68.38	O
ATOM	33089	NZ	LYS B	75	179.324	159.121	-26.274	1.00	41.15	N	ATOM	33139	O	ARG B	82	169.038	167.641	-16.598	1.00	68.38	C
ATOM	33090	CA	GLN B	76	171.939	159.745	-27.966	1.00	105.01	N	ATOM	33140	CB	ARG B	82	171.977	166.331	-17.873	1.00	117.70	C
ATOM	33091	CA	GLN B	76	170.907	160.611	-28.529	1.00	105.01	C	ATOM	33141	CG	ARG B	82	172.525	167.341	-16.900	1.00	117.70	C
ATOM	33092	C	GLN B	76	170.211	161.508	-27.497	1.00	105.01	C	ATOM	33142	CD	ARG B	82	174.023	167.468	-17.002	1.00	117.70	C
ATOM	33093	O	GLN B	76	169.762	162.607	-27.827	1.00	105.01	C	ATOM	33143	NE	ARG B	82	174.692	166.261	-16.534	1.00	117.70	N
ATOM	33094	CB	GLN B	76	169.852	159.757	-29.234	1.00	44.67	C	ATOM	33144	CZ	ARG B	82	176.006	166.152	-16.378	1.00	117.70	C
ATOM	33095	CD	GLN B	76	170.261	159.247	-30.596	1.00	144.67	C	ATOM	33145	NH1	ARG B	82	176.796	167.182	-16.652	1.00	117.70	N
ATOM	33096	CD	GLN B	76	170.172	160.325	-31.651	1.00	144.67	C	ATOM	33146	NH2	ARG B	82	176.532	165.012	-15.953	1.00	117.70	N
ATOM	33097	OE1	GLN B	76	170.848	161.349	-31.568	1.00	144.67	O	ATOM	33147	N	MET B	83	169.794	168.166	-18.637	1.00	91.52	N
ATOM	33098	NE2	GLN B	76	169.328	160.103	-32.651	1.00	144.67	N	ATOM	33148	CA	MET B	83	169.084	169.439	-18.668	1.00	91.52	C
ATOM	33099	N	ALA B	77	170.111	161.044	-26.254	1.00	82.23	N	ATOM	33149	C	MET B	83	167.748	169.361	-17.923	1.00	91.52	C
ATOM	33100	CA	ALA B	77	169.449	161.826	-25.211	1.00	82.23	C	ATOM	33150	O	MET B	83	167.569	169.986	-16.876	1.00	91.52	O
ATOM	33101	C	ALA B	77	170.296	161.960	-23.956	1.00	82.23	C	ATOM	33151	CB	MET B	83	168.834	169.866	-20.117	1.00	122.75	C
ATOM	33102	O	ALA B	77	169.790	162.306	-22.888	1.00	87.23	C	ATOM	33152	CG	MET B	83	170.095	170.058	-20.944	1.00	122.75	C
ATOM	33103	CB	ALA B	77	168.113	161.192	-24.856	1.00	87.23	C	ATOM	33153	SD	MET B	83	171.082	171.469	-20.418	1.00	122.75	S
ATOM	33104	N	GLN B	78	171.586	161.690	-24.085	1.00	64.07	N	ATOM	33154	CE	MET B	83	170.580	172.699	-21.619	1.00	122.75	C
ATOM	33105	CA	GLN B	78	172.483	161.767	-22.945	1.00	64.07	C	ATOM	33155	N	GLU B	84	166.820	168.578	-18.465	1.00	82.09	N
ATOM	33106	C	GLN B	78	172.466	163.169	-22.321	1.00	64.07	C	ATOM	33156	CA	GLU B	84	165.493	168.418	-17.882	1.00	82.09	C
ATOM	33107	O	GLN B	78	172.150	163.325	-21.143	1.00	64.07	O	ATOM	33157	C	GLU B	84	165.498	167.909	-16.438	1.00	82.09	C
ATOM	33108	CB	GLN B	78	173.893	161.376	-23.383	1.00	110.35	C	ATOM	33158	O	GLU B	84	164.790	168.447	-15.587	1.00	82.09	O
ATOM	33109	CG	GLN B	78	174.819	161.016	-22.246	1.00	110.35	C	ATOM	33159	CB	GLU B	84	164.669	167.485	-18.761	1.00	100.22	C
ATOM	33110	CD	GLN B	78	176.129	160.443	-22.739	1.00	110.35	C	ATOM	33160	CG	GLU B	84	164.646	167.907	-20.214	1.00	100.22	C
ATOM	33111	OE1	GLN B	78	176.808	161.048	-23.565	1.00	110.35	O	ATOM	33161	CD	GLU B	84	164.178	169.334	-20.385	1.00	100.22	C
ATOM	33112	NE2	GLN B	78	176.495	159.272	-22.234	1.00	110.35	N	ATOM	33162	OE1	GLU B	84	163.044	169.635	-19.965	1.00	100.22	C
ATOM	33113	N	ASP B	79	172.784	164.189	-23.113	1.00	84.92	N	ATOM	33163	OE2	GLU B	84	164.939	170.157	-20.936	1.00	100.22	O
ATOM	33114	CA	ASP B	79	172.801	165.562	-22.609	1.00	84.92	C	ATOM	33164	N	ALA B	85	166.283	166.871	-16.161	1.00	69.21	N
ATOM	33115	C	ASP B	79	171.443	165.978	-22.068	1.00	84.92	C	ATOM	33165	CA	ALA B	85	166.354	166.325	-14.805	1.00	69.21	C



Table 2: Sheet 333/520

ATOM	33166	C	ALA	B	85	166.931	167.370	-13.867	1.00	69.21	C	ATOM	33216	O	TYR	B	92	171.220	160.032	-12.663	1.00	62.25	O
ATOM	33167	O	ALA	B	85	166.701	167.325	-12.662	1.00	69.21	O	ATOM	33217	CB	TYR	B	92	169.172	162.015	-14.447	1.00	77.53	C
ATOM	33168	CB	ALA	B	85	167.223	165.060	-14.768	1.00	52.42	C	ATOM	33218	CG	TYR	B	92	170.420	162.854	-14.328	1.00	77.53	C
ATOM	33169	N	GLU	B	86	167.703	168.298	-14.426	1.00	81.86	N	ATOM	33219	CD1	TYR	B	92	171.603	162.465	-14.948	1.00	77.53	C
ATOM	33170	CA	GLU	B	86	168.303	169.361	-13.635	1.00	81.86	C	ATOM	33220	CD2	TYR	B	92	170.453	163.977	-13.501	1.00	77.53	C
ATOM	33171	C	GLU	B	86	167.190	170.324	-13.271	1.00	81.86	C	ATOM	33221	CE1	TYR	B	92	172.794	163.167	-14.740	1.00	77.53	C
ATOM	33172	O	GLU	B	86	167.054	170.701	-12.110	1.00	81.86	O	ATOM	33222	CE2	TYR	B	92	171.640	164.684	-13.287	1.00	77.53	C
ATOM	33173	CB	GLU	B	86	169.393	170.081	-14.431	1.00	167.94	C	ATOM	33223	C2	TYR	B	92	172.804	164.269	-13.905	1.00	77.53	C
ATOM	33174	CG	GLU	B	86	170.622	169.229	-14.702	1.00	167.94	C	ATOM	33224	OH	TYR	B	92	173.986	164.922	-13.661	1.00	77.53	O
ATOM	33175	CD	GLU	B	86	171.677	169.958	-15.514	1.00	167.94	C	ATOM	33225	N	VAL	B	93	170.364	159.236	-14.599	1.00	70.44	N
ATOM	33176	OE1	GLU	B	86	171.368	170.397	-16.643	1.00	167.94	O	ATOM	33226	CA	VAL	B	93	171.500	158.378	-14.908	1.00	70.44	C
ATOM	33177	OE2	GLU	B	86	172.820	170.086	-15.028	1.00	167.94	O	ATOM	33227	C	VAL	B	93	171.851	158.617	-16.371	1.00	70.44	C
ATOM	33178	N	ARG	B	87	166.386	170.713	-14.258	1.00	82.94	N	ATOM	33228	O	VAL	B	93	171.085	158.290	-17.285	1.00	70.44	C
ATOM	33179	CA	ARG	B	87	165.276	171.618	-13.989	1.00	82.94	C	ATOM	33229	CB	VAL	B	93	171.203	156.905	-14.661	1.00	48.51	C
ATOM	33180	C	ARG	B	87	164.495	171.058	-12.808	1.00	82.94	C	ATOM	33230	CG1	VAL	B	93	172.281	156.053	-15.306	1.00	48.51	C
ATOM	33181	O	ARG	B	87	164.652	171.539	-11.688	1.00	82.94	O	ATOM	33231	CG2	VAL	B	93	171.181	156.643	-13.160	1.00	48.51	C
ATOM	33182	CB	ARG	B	87	164.373	171.763	-15.213	1.00	77.80	C	ATOM	33232	N	ASN	B	94	173.030	159.203	-16.557	1.00	71.10	N
ATOM	33183	CG	ARG	B	87	165.008	172.557	-16.338	1.00	77.80	C	ATOM	33233	CA	ASN	B	94	173.542	159.598	-17.859	1.00	71.10	C
ATOM	33184	CD	ARG	B	87	163.951	173.303	-17.116	1.00	77.80	C	ATOM	33234	C	ASN	B	94	174.624	158.716	-18.457	1.00	71.10	C
ATOM	33185	NE	ARG	B	87	163.071	172.402	-17.844	1.00	77.80	N	ATOM	33235	O	ASN	B	94	174.539	158.332	-19.618	1.00	71.10	O
ATOM	33186	C2	ARG	B	87	161.811	172.687	-18.156	1.00	77.80	C	ATOM	33236	CB	ASN	B	94	174.069	161.023	-17.741	1.00	80.48	C
ATOM	33187	NH1	ARG	B	87	161.285	173.850	-17.796	1.00	77.80	N	ATOM	33237	CG	ASN	B	94	173.473	161.930	-18.761	1.00	80.48	C
ATOM	33188	NH2	ARG	B	87	161.076	171.814	-18.835	1.00	77.80	N	ATOM	33238	OD1	ASN	B	94	172.416	161.635	-19.309	1.00	80.48	O
ATOM	33189	N	ALA	B	88	163.657	170.050	-13.037	1.00	96.51	N	ATOM	33239	ND2	ASN	B	94	174.132	163.048	-19.023	1.00	80.48	N
ATOM	33190	CA	ALA	B	88	162.931	169.448	-11.923	1.00	96.51	C	ATOM	33240	N	GLN	B	95	175.643	158.414	-17.661	1.00	77.99	N
ATOM	33191	C	ALA	B	88	164.053	168.957	-11.014	1.00	96.51	C	ATOM	33241	CA	GLN	B	95	176.767	157.599	-18.104	1.00	77.99	C
ATOM	33192	O	ALA	B	88	165.088	168.523	-11.503	1.00	96.51	O	ATOM	33242	C	GLN	B	95	176.412	156.153	-18.447	1.00	77.99	C
ATOM	33193	CB	ALA	B	88	162.092	168.282	-12.408	1.00	57.81	C	ATOM	33243	O	GLN	B	95	176.130	155.830	-19.603	1.00	77.99	O
ATOM	33194	N	GLY	B	89	163.877	169.036	-9.703	1.00	77.71	N	ATOM	33244	CB	GLN	B	95	177.856	157.612	-17.036	1.00	153.18	C
ATOM	33195	CA	GLY	B	89	164.946	168.599	-8.818	1.00	77.71	C	ATOM	33245	CG	GLN	B	95	178.362	158.998	-16.703	1.00	153.18	C
ATOM	33196	C	GLY	B	89	165.094	167.093	-8.826	1.00	77.71	C	ATOM	33246	CD	GLN	B	95	179.043	159.666	-17.877	1.00	153.18	C
ATOM	33197	O	GLY	B	89	165.375	166.472	-7.796	1.00	77.71	O	ATOM	33247	OE1	GLN	B	95	178.443	159.847	-18.937	1.00	153.18	O
ATOM	33198	N	MET	B	90	164.932	166.511	-10.010	1.00	73.56	N	ATOM	33248	NE2	GLN	B	95	180.305	160.039	-17.693	1.00	153.18	N
ATOM	33199	CA	MET	B	90	164.980	165.070	-10.183	1.00	73.56	C	ATOM	33249	N	ARG	B	96	176.460	155.282	-17.445	1.00	75.07	N
ATOM	33200	C	MET	B	90	166.324	164.456	-10.569	1.00	73.56	C	ATOM	33250	CA	ARG	B	96	176.134	153.877	-17.643	1.00	75.07	C
ATOM	33201	O	MET	B	90	167.052	165.005	-11.391	1.00	73.56	O	ATOM	33251	C	ARG	B	96	175.358	153.388	-16.429	1.00	75.07	C
ATOM	33202	CB	MET	B	90	163.917	164.677	-11.208	1.00	68.60	C	ATOM	33252	O	ARG	B	96	175.745	153.653	-15.293	1.00	75.07	O
ATOM	33203	CG	MET	B	90	162.557	165.278	-10.902	1.00	68.60	C	ATOM	33253	CB	ARG	B	96	177.417	153.051	-17.831	1.00	58.49	C
ATOM	33204	SD	MET	B	90	162.054	164.911	-9.207	1.00	68.60	S	ATOM	33254	CG	ARG	B	96	177.706	152.022	-16.737	1.00	58.49	C
ATOM	33205	CE	MET	B	90	160.608	163.919	-9.496	1.00	68.60	C	ATOM	33255	CD	ARG	B	96	179.011	151.280	-16.989	1.00	58.49	C
ATOM	33206	N	PRO	B	91	166.660	163.295	-9.962	1.00	71.30	N	ATOM	33256	NE	ARG	B	96	179.417	150.477	-15.839	1.00	58.49	N
ATOM	33207	CA	PRO	B	91	167.889	162.519	-10.177	1.00	71.30	C	ATOM	33257	C2	ARG	B	96	178.872	149.313	-15.501	1.00	58.49	C
ATOM	33208	C	PRO	B	91	167.876	161.906	-11.573	1.00	71.30	C	ATOM	33258	NH1	ARG	B	96	177.891	148.791	-16.225	1.00	58.49	N
ATOM	33209	O	PRO	B	91	166.818	161.793	-12.199	1.00	71.30	O	ATOM	33259	NH2	ARG	B	96	179.303	148.670	-14.425	1.00	59.12	N
ATOM	33210	CB	PRO	B	91	167.817	161.437	-9.101	1.00	70.45	C	ATOM	33260	N	TRP	B	97	174.258	152.683	-16.658	1.00	59.12	N
ATOM	33211	CG	PRO	B	91	166.959	162.046	-8.038	1.00	70.45	C	ATOM	33261	CA	TRP	B	97	173.482	152.189	-15.539	1.00	59.12	C
ATOM	33212	CD	PRO	B	91	165.889	162.729	-8.840	1.00	70.45	C	ATOM	33262	C	TRP	B	97	174.269	151.108	-14.814	1.00	59.12	C
ATOM	33213	N	TYR	B	92	169.042	161.496	-12.060	1.00	62.25	N	ATOM	33263	O	TRP	B	97	174.599	150.083	-15.404	1.00	59.12	O
ATOM	33214	CA	TYR	B	92	169.112	160.906	-13.392	1.00	62.25	C	ATOM	33264	CB	TRP	B	97	172.145	151.623	-16.018	1.00	84.94	C
ATOM	33215	C	TYR	B	92	170.337	160.021	-13.526	1.00	62.25	C	ATOM	33265	CG	TRP	B	97	171.019	152.025	-15.128	1.00	84.94	C



ATOM	33266	CD1 TRP B 97	170.490	153.281	-14.985	1.00	84.94	C	ATOM	33316	O	ASN B 104	172.590	148.769	-3.853	1.00	58.40	O
ATOM	33267	CD2 TRP B 97	170.322	151.195	-14.203	1.00	84.94	C	ATOM	33317	CB	ASN B 104	172.315	146.387	-5.278	1.00	47.11	C
ATOM	33268	NE1 TRP B 97	169.507	153.282	-14.022	1.00	84.94	N	ATOM	33318	CG	ASN B 104	173.276	145.899	-4.200	1.00	47.11	C
ATOM	33269	CE2 TRP B 97	169.383	152.015	-13.525	1.00	84.94	C	ATOM	33319	OD1	ASN B 104	173.013	146.047	-3.013	1.00	47.11	O
ATOM	33270	CE3 TRP B 97	170.399	149.842	-13.878	1.00	84.94	C	ATOM	33320	ND2	ASN B 104	174.394	145.315	-4.615	1.00	47.11	N
ATOM	33271	CZ2 TRP B 97	168.533	151.524	-12.546	1.00	84.94	C	ATOM	33321	N	PHE B 105	170.401	149.327	-4.134	1.00	59.49	N
ATOM	33272	CZ3 TRP B 97	169.556	149.355	-12.910	1.00	84.94	C	ATOM	33322	CA	PHE B 105	170.465	150.729	-3.690	1.00	59.49	C
ATOM	33273	CH2 TRP B 97	168.631	150.194	-12.249	1.00	84.94	C	ATOM	33323	C	PHE B 105	171.263	150.970	-2.413	1.00	59.49	C
ATOM	33274	N LEU B 98	174.596	151.349	-13.546	1.00	57.32	N	ATOM	33324	O	PHE B 105	172.211	151.738	-2.413	1.00	59.49	O
ATOM	33275	CA LEU B 98	175.323	150.364	-12.750	1.00	57.32	C	ATOM	33325	CB	PHE B 105	169.044	151.264	-3.491	1.00	56.08	C
ATOM	33276	C LEU B 98	174.356	149.258	-12.377	1.00	57.32	C	ATOM	33326	CG	PHE B 105	168.970	152.748	-3.284	1.00	56.08	C
ATOM	33277	O LEU B 98	173.199	149.518	-12.072	1.00	57.32	O	ATOM	33327	CD1	PHE B 105	169.027	153.620	-4.372	1.00	56.08	C
ATOM	33278	CB LEU B 98	175.869	150.993	-11.473	1.00	50.69	C	ATOM	33328	CD2	PHE B 105	168.818	153.277	-2.010	1.00	56.08	C
ATOM	33279	CG LEU B 98	176.666	152.287	-11.663	1.00	50.69	C	ATOM	33329	CE1	PHE B 105	168.927	155.002	-4.192	1.00	56.08	C
ATOM	33280	CD1 LEU B 98	177.443	152.604	-10.392	1.00	50.69	C	ATOM	33330	CE2	PHE B 105	168.719	154.651	-1.817	1.00	56.08	C
ATOM	33281	CD2 LEU B 98	177.619	152.136	-12.830	1.00	50.69	C	ATOM	33331	CZ	PHE B 105	168.773	155.516	-2.912	1.00	56.08	C
ATOM	33282	N GLY B 99	174.817	148.019	-12.408	1.00	52.19	N	ATOM	33332	N	LYS B 106	170.866	150.327	-1.322	1.00	56.07	N
ATOM	33283	CA GLY B 99	173.931	146.922	-12.064	1.00	52.19	C	ATOM	33333	CA	LYS B 106	171.568	150.507	-0.061	1.00	56.07	C
ATOM	33284	C GLY B 99	173.495	146.939	-10.609	1.00	52.19	C	ATOM	33334	C	LYS B 106	173.073	150.458	-0.269	1.00	56.07	C
ATOM	33285	O GLY B 99	174.315	146.776	-9.698	1.00	52.19	O	ATOM	33335	O	LYS B 106	173.813	151.193	0.382	1.00	56.07	O
ATOM	33286	N GLY B 100	172.204	147.153	-10.381	1.00	61.24	N	ATOM	33336	CB	LYS B 106	171.159	149.427	0.941	1.00	108.09	C
ATOM	33287	CA GLY B 100	171.695	147.157	-9.022	1.00	61.24	C	ATOM	33337	CG	LYS B 106	171.901	149.482	2.288	1.00	108.09	C
ATOM	33288	C GLY B 100	171.482	148.508	-8.370	1.00	61.24	C	ATOM	33338	CD	LYS B 106	171.216	150.372	3.339	1.00	108.09	C
ATOM	33289	O GLY B 100	171.311	148.578	-7.153	1.00	61.24	O	ATOM	33339	CE	LYS B 106	171.390	151.862	3.072	1.00	108.09	C
ATOM	33290	N MET B 101	171.488	149.582	-9.154	1.00	73.76	N	ATOM	33340	NZ	LYS B 106	170.797	152.689	4.165	1.00	108.09	N
ATOM	33291	CA MET B 101	171.278	150.898	-8.573	1.00	73.76	C	ATOM	33341	N	THR B 107	173.527	149.596	-1.177	1.00	64.73	N
ATOM	33292	C MET B 101	170.008	150.836	-7.740	1.00	73.76	C	ATOM	33342	CA	THR B 107	174.955	149.453	-1.454	1.00	64.73	C
ATOM	33293	O MET B 101	170.005	151.213	-6.572	1.00	73.76	O	ATOM	33343	C	THR B 107	175.478	150.540	-2.380	1.00	64.73	C
ATOM	33294	CB MET B 101	171.168	151.963	-9.664	1.00	59.59	C	ATOM	33344	O	THR B 107	176.317	151.348	-1.988	1.00	64.73	O
ATOM	33295	CG MET B 101	172.461	152.138	-10.440	1.00	59.59	C	ATOM	33345	CB	THR B 107	175.272	148.079	-2.085	1.00	61.14	C
ATOM	33296	SD MET B 101	172.547	153.611	-11.472	1.00	59.59	S	ATOM	33346	OG1	THR B 107	175.270	147.063	-1.070	1.00	61.14	O
ATOM	33297	CE MET B 101	173.889	154.460	-10.689	1.00	59.59	C	ATOM	33347	CG2	THR B 107	176.635	148.109	-2.767	1.00	61.14	C
ATOM	33298	N LEU B 102	168.928	150.344	-8.329	1.00	49.56	N	ATOM	33348	N	ILE B 108	174.984	150.550	-3.614	1.00	57.62	N
ATOM	33299	CA LEU B 102	167.687	150.217	-7.584	1.00	49.56	C	ATOM	33349	CA	ILE B 108	175.396	151.538	-4.602	1.00	57.62	C
ATOM	33300	C LEU B 102	167.770	148.980	-6.674	1.00	49.56	C	ATOM	33350	C	ILE B 108	175.188	152.959	-4.106	1.00	57.62	C
ATOM	33301	O LEU B 102	167.810	149.058	-5.445	1.00	49.56	O	ATOM	33351	O	ILE B 108	175.500	153.923	-4.799	1.00	57.62	O
ATOM	33302	CB LEU B 102	166.530	150.063	-8.563	1.00	32.45	C	ATOM	33352	CB	ILE B 108	174.640	151.321	-5.930	1.00	82.50	C
ATOM	33303	CG LEU B 102	165.821	151.323	-9.069	1.00	32.45	C	ATOM	33353	CG1	ILE B 108	175.232	150.101	-6.631	1.00	82.50	C
ATOM	33304	CD1 LEU B 102	166.742	152.524	-9.020	1.00	32.45	C	ATOM	33354	CG2	ILE B 108	174.725	152.555	-6.827	1.00	82.50	C
ATOM	33305	CD2 LEU B 102	165.299	151.065	-10.485	1.00	32.45	C	ATOM	33355	CD1	ILE B 108	174.752	149.909	-8.059	1.00	82.50	C
ATOM	33306	N THR B 103	167.799	147.834	-7.324	1.00	36.72	N	ATOM	33356	N	SER B 109	174.668	153.088	-2.892	1.00	74.15	N
ATOM	33307	CA THR B 103	167.875	146.534	-6.702	1.00	36.72	C	ATOM	33357	CA	SER B 109	174.432	154.401	-2.310	1.00	74.15	C
ATOM	33308	C THR B 103	168.961	146.367	-5.631	1.00	36.72	C	ATOM	33358	C	SER B 109	175.682	154.810	-1.559	1.00	74.15	C
ATOM	33309	O THR B 103	168.850	145.507	-4.755	1.00	36.72	O	ATOM	33359	O	SER B 109	176.052	155.979	-1.555	1.00	74.15	O
ATOM	33310	CB THR B 103	168.036	145.495	-7.828	1.00	42.40	C	ATOM	33360	CB	SER B 109	173.245	154.360	-1.346	1.00	113.67	C
ATOM	33311	OG1 THR B 103	166.744	145.214	-8.396	1.00	42.40	O	ATOM	33361	OG	SER B 109	173.562	153.611	-0.185	1.00	113.67	O
ATOM	33312	CG2 THR B 103	168.693	144.244	-7.334	1.00	42.40	C	ATOM	33362	N	GLN B 110	176.330	153.833	-0.928	1.00	66.15	N
ATOM	33313	N ASN B 104	170.017	147.171	-5.696	1.00	58.40	N	ATOM	33363	CA	GLN B 110	177.547	154.085	-0.171	1.00	66.15	C
ATOM	33314	CA ASN B 104	171.078	147.078	-4.694	1.00	58.40	C	ATOM	33364	C	GLN B 110	178.551	154.746	-1.085	1.00	66.15	C
ATOM	33315	C ASN B 104	171.433	148.480	-4.190	1.00	58.40	C	ATOM	33365	O	GLN B 110	179.410	155.508	-0.635	1.00	66.15	O



Table 2: Sheet 335/520

ATOM	33366	CB	GLN B 110	178.114	152.784	0.359	1.00	80.93	C	ATOM	33416	CD1	LEU B 115	179.435	161.860	-5.900	1.00	62.08	C
ATOM	33367	CG	GLN B 110	177.135	152.033	1.202	1.00	80.93	C	ATOM	33417	CD2	LEU B 115	181.160	163.133	-4.654	1.00	62.08	C
ATOM	33368	CD	GLN B 110	177.625	150.652	1.536	1.00	80.93	C	ATOM	33418	N	GLU B 116	180.722	162.257	-1.479	1.00	83.84	N
ATOM	33369	OE1	GLN B 110	178.023	149.893	0.649	1.00	80.93	O	ATOM	33419	CA	GLU B 116	180.661	163.400	-0.579	1.00	83.84	C
ATOM	33370	NE2	GLN B 110	177.597	150.307	2.820	1.00	80.93	N	ATOM	33420	C	GLU B 116	181.878	163.379	0.342	1.00	83.84	C
ATOM	33371	N	ARG B 111	178.445	154.441	-2.374	1.00	84.46	N	ATOM	33421	O	GLU B 116	182.630	164.352	0.411	1.00	83.84	O
ATOM	33372	CA	ARG B 111	179.327	155.041	-3.361	1.00	84.46	C	ATOM	33422	CB	GLU B 116	179.365	163.332	0.228	1.00	120.59	C
ATOM	33373	C	ARG B 111	179.134	156.548	-3.290	1.00	84.46	C	ATOM	33423	CG	GLU B 116	178.152	163.089	-0.664	1.00	120.59	C
ATOM	33374	O	ARG B 111	180.086	157.311	-3.441	1.00	84.46	O	ATOM	33424	CD	GLU B 116	176.861	162.849	0.100	1.00	120.59	C
ATOM	33375	CB	ARG B 111	178.982	154.541	-4.763	1.00	70.72	C	ATOM	33425	OE1	GLU B 116	176.877	162.075	1.084	1.00	120.59	O
ATOM	33376	CG	ARG B 111	179.660	153.241	-5.153	1.00	70.72	C	ATOM	33426	OE2	GLU B 116	175.825	163.423	-0.304	1.00	120.59	O
ATOM	33377	CD	ARG B 111	181.170	153.397	-5.170	1.00	70.72	C	ATOM	33427	N	GLU B 117	182.079	162.259	1.032	1.00	72.74	N
ATOM	33378	NE	ARG B 111	181.745	153.233	-3.842	1.00	70.72	N	ATOM	33428	CA	GLU B 117	183.218	162.104	1.935	1.00	72.74	C
ATOM	33379	CZ	ARG B 111	183.026	153.437	-3.554	1.00	70.72	C	ATOM	33429	C	GLU B 117	184.518	162.567	1.291	1.00	72.74	C
ATOM	33380	NH1	ARG B 111	183.873	153.822	-4.503	1.00	70.72	N	ATOM	33430	O	GLU B 117	185.402	163.067	1.977	1.00	72.74	O
ATOM	33381	NH2	ARG B 111	183.463	153.244	-2.317	1.00	70.72	N	ATOM	33431	CB	GLU B 117	183.377	160.642	2.356	1.00	170.61	C
ATOM	33382	N	VAL B 112	177.888	156.962	-3.054	1.00	64.86	N	ATOM	33432	CG	GLU B 117	182.267	160.109	3.237	1.00	170.61	C
ATOM	33383	CA	VAL B 112	177.542	158.376	-2.941	1.00	64.86	C	ATOM	33433	CD	GLU B 117	182.429	158.629	3.528	1.00	170.61	C
ATOM	33384	C	VAL B 112	178.056	158.925	-1.612	1.00	64.86	C	ATOM	33434	OE1	GLU B 117	183.499	158.242	4.049	1.00	170.61	O
ATOM	33385	O	VAL B 112	178.522	160.053	-1.552	1.00	64.86	O	ATOM	33435	OE2	GLU B 117	181.488	157.857	3.236	1.00	170.61	O
ATOM	33386	CB	VAL B 112	176.013	158.597	-3.044	1.00	61.28	C	ATOM	33436	N	LEU B 118	184.638	162.387	-0.024	1.00	114.08	N
ATOM	33387	CG1	VAL B 112	175.696	160.083	-3.058	1.00	61.28	C	ATOM	33437	CA	LEU B 118	185.845	162.792	-0.740	1.00	114.08	C
ATOM	33388	CG2	VAL B 112	175.482	157.943	-4.310	1.00	61.28	C	ATOM	33438	C	LEU B 118	185.866	164.266	-1.084	1.00	114.08	C
ATOM	33389	N	HIS B 113	177.982	158.133	-0.546	1.00	71.48	N	ATOM	33439	O	LEU B 118	186.904	164.917	-0.967	1.00	114.08	O
ATOM	33390	CA	HIS B 113	178.498	158.590	0.737	1.00	71.48	C	ATOM	33440	CB	LEU B 118	186.023	161.980	-2.022	1.00	94.53	C
ATOM	33391	C	HIS B 113	179.978	158.858	0.529	1.00	71.48	C	ATOM	33441	CG	LEU B 118	186.639	160.596	-1.840	1.00	94.53	C
ATOM	33392	O	HIS B 113	180.481	159.933	0.859	1.00	71.48	O	ATOM	33442	CD1	LEU B 118	186.983	160.011	-3.201	1.00	94.53	C
ATOM	33393	CB	HIS B 113	178.324	157.522	1.811	1.00	117.59	C	ATOM	33443	CD2	LEU B 118	187.890	160.711	-0.984	1.00	94.53	C
ATOM	33394	CG	HIS B 113	176.896	157.223	2.131	1.00	117.59	C	ATOM	33444	N	GLU B 119	184.733	164.797	-1.527	1.00	81.47	N
ATOM	33395	ND1	HIS B 113	176.008	158.195	2.538	1.00	117.59	N	ATOM	33445	CA	GLU B 119	184.687	166.208	-1.854	1.00	81.47	C
ATOM	33396	CD2	HIS B 113	176.199	156.063	2.103	1.00	117.59	C	ATOM	33446	C	GLU B 119	184.956	166.975	-0.564	1.00	81.47	C
ATOM	33397	CE1	HIS B 113	174.825	157.646	2.746	1.00	117.59	C	ATOM	33447	O	GLU B 119	185.444	168.104	-0.589	1.00	81.47	O
ATOM	33398	NE2	HIS B 113	174.914	156.353	2.490	1.00	117.59	N	ATOM	33448	CB	GLU B 119	183.323	166.581	-2.417	1.00	124.08	C
ATOM	33399	N	ARG B 114	180.663	157.871	-0.043	1.00	79.00	N	ATOM	33449	CG	GLU B 119	182.928	165.763	-3.618	1.00	124.08	C
ATOM	33400	CA	ARG B 114	182.092	157.968	-0.321	1.00	79.00	C	ATOM	33450	CD	GLU B 119	181.697	166.312	-4.299	1.00	124.08	C
ATOM	33401	C	ARG B 114	182.409	159.203	-1.158	1.00	79.00	C	ATOM	33451	OE1	GLU B 119	181.823	167.269	-5.093	1.00	124.08	O
ATOM	33402	O	ARG B 114	183.420	159.865	-0.941	1.00	79.00	O	ATOM	33452	OE2	GLU B 119	180.598	165.793	-4.028	1.00	124.08	O
ATOM	33403	CB	ARG B 114	182.563	156.719	-1.065	1.00	102.47	C	ATOM	33453	N	ALA B 120	184.643	166.343	0.563	1.00	112.66	N
ATOM	33404	CG	ARG B 114	183.852	156.120	-0.528	1.00	102.47	C	ATOM	33454	CA	ALA B 120	184.856	166.950	1.871	1.00	112.66	C
ATOM	33405	CD	ARG B 114	185.066	156.991	-0.799	1.00	102.47	C	ATOM	33455	C	ALA B 120	186.341	166.962	2.185	1.00	112.66	C
ATOM	33406	NE	ARG B 114	186.257	156.417	-0.175	1.00	102.47	N	ATOM	33456	O	ALA B 120	186.869	167.949	2.694	1.00	112.66	O
ATOM	33407	CZ	ARG B 114	187.491	156.876	-0.346	1.00	102.47	C	ATOM	33457	CB	ALA B 120	184.111	166.170	2.938	1.00	87.70	C
ATOM	33408	NH1	ARG B 114	187.706	157.923	-1.129	1.00	102.47	N	ATOM	33458	N	LEU B 121	187.008	165.853	1.882	1.00	98.68	N
ATOM	33409	NH2	ARG B 114	188.511	156.286	0.263	1.00	102.47	N	ATOM	33459	CA	LEU B 121	188.440	165.731	2.123	1.00	98.68	C
ATOM	33410	N	LEU B 115	181.544	159.503	-2.120	1.00	63.87	N	ATOM	33460	C	LEU B 121	189.157	166.827	1.358	1.00	98.68	C
ATOM	33411	CA	LEU B 115	181.742	160.660	-2.975	1.00	63.87	C	ATOM	33461	O	LEU B 121	189.978	167.545	1.920	1.00	98.68	O
ATOM	33412	C	LEU B 115	181.845	161.882	-2.078	1.00	63.87	C	ATOM	33462	CB	LEU B 121	188.944	164.359	1.676	1.00	116.92	C
ATOM	33413	O	LEU B 115	182.914	162.472	-1.937	1.00	63.87	O	ATOM	33463	CG	LEU B 121	190.426	164.062	1.910	1.00	116.92	C
ATOM	33414	CB	LEU B 115	180.562	160.821	-3.934	1.00	62.08	C	ATOM	33464	CD1	LEU B 121	190.809	164.397	3.344	1.00	116.92	C
ATOM	33415	CG	LEU B 115	180.740	161.764	-5.128	1.00	62.08	C	ATOM	33465	CD2	LEU B 121	190.694	162.597	1.607	1.00	116.92	C



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ATOM	33466	N	PHE B 122	188.847	166.957	0.072	1.00	97.26	N	ATOM	33516	CB	GLU B 128	197.742	169.817	0.481	1.00150.24	C
ATOM	33467	CA	PHE B 122	189.456	168.007	-0.728	1.00	97.26	C	ATOM	33517	CG	GLU B 128	196.987	170.241	-0.766	1.00150.24	C
ATOM	33468	C	PHE B 122	188.845	169.324	-0.265	1.00	97.26	C	ATOM	33518	CD	GLU B 128	196.759	171.733	-0.826	1.00150.24	C
ATOM	33469	O	PHE B 122	188.487	169.467	0.905	1.00	97.26	O	ATOM	33519	OE1	GLU B 128	196.063	172.266	0.064	1.00150.24	O
ATOM	33470	CB	PHE B 122	189.182	167.794	-2.221	1.00113.84		C	ATOM	33520	OE2	GLU B 128	197.277	172.375	-1.762	1.00150.24	O
ATOM	33471	CG	PHE B 122	190.014	166.702	-2.850	1.00113.84		C	ATOM	33521	N	GLU B 129	197.903	166.909	2.776	1.00146.48	N
ATOM	33472	CD1	PHE B 122	189.999	166.511	-4.228	1.00113.84		C	ATOM	33522	CA	GLU B 129	198.550	166.480	4.009	1.00146.48	C
ATOM	33473	CD2	PHE B 122	190.806	165.862	-2.069	1.00113.84		C	ATOM	33523	C	GLU B 129	199.228	165.125	3.870	1.00146.48	C
ATOM	33474	CE1	PHE B 122	190.758	165.502	-4.820	1.00113.84		C	ATOM	33524	O	GLU B 129	200.046	164.744	4.706	1.00146.48	O
ATOM	33475	CE2	PHE B 122	191.569	164.850	-2.654	1.00113.84		C	ATOM	33525	CB	GLU B 129	197.526	166.414	5.143	1.00200.58	C
ATOM	33476	CZ	PHE B 122	191.543	164.671	-4.033	1.00113.84		C	ATOM	33526	CG	GLU B 129	197.156	167.761	5.736	1.00200.58	C
ATOM	33477	N	ALA B 123	188.718	170.279	-1.178	1.00163.90		N	ATOM	33527	CD	GLU B 129	196.090	167.646	6.807	1.00200.58	C
ATOM	33478	CA	ALA B 123	188.153	171.584	-0.848	1.00163.90		C	ATOM	33528	OE1	GLU B 129	196.170	166.709	7.630	1.00200.58	O
ATOM	33479	C	ALA B 123	189.045	172.374	0.112	1.00163.90		C	ATOM	33529	OE2	GLU B 129	195.178	168.500	6.835	1.00200.58	O
ATOM	33480	O	ALA B 123	189.060	173.605	0.059	1.00163.90		O	ATOM	33530	N	ARG B 130	198.890	164.400	2.811	1.00119.53	N
ATOM	33481	CB	ALA B 123	186.752	171.424	-0.256	1.00	66.58	C	ATOM	33531	CA	ARG B 130	199.461	163.079	2.591	1.00119.53	C
ATOM	33482	N	SER B 124	189.775	171.672	0.984	1.00143.02		N	ATOM	33532	C	ARG B 130	200.032	163.864	0.399	1.00119.53	C
ATOM	33483	CA	SER B 124	190.681	172.321	1.939	1.00143.02		C	ATOM	33533	O	ARG B 130	200.032	163.864	0.399	1.00119.53	O
ATOM	33484	C	SER B 124	191.211	171.479	3.111	1.00143.02		C	ATOM	33534	CB	ARG B 130	198.358	162.033	2.770	1.00128.79	C
ATOM	33485	O	SER B 124	192.420	171.417	3.338	1.00143.02		O	ATOM	33535	CG	ARG B 130	197.864	161.942	4.211	1.00128.79	C
ATOM	33486	CB	SER B 124	190.034	173.595	2.497	1.00200.58		C	ATOM	33536	CD	ARG B 130	196.571	161.158	4.330	1.00128.79	C
ATOM	33487	OG	SER B 124	188.666	173.387	2.804	1.00200.58		O	ATOM	33537	NE	ARG B 130	195.486	161.794	3.592	1.00128.79	N
ATOM	33488	N	PRO B 125	190.319	170.821	3.870	1.00160.01		N	ATOM	33538	CZ	ARG B 130	194.218	161.407	3.653	1.00128.79	C
ATOM	33489	CA	PRO B 125	190.760	170.009	5.011	1.00160.01		C	ATOM	33539	NH1	ARG B 130	193.872	160.384	4.420	1.00128.79	N
ATOM	33490	C	PRO B 125	191.570	168.764	4.668	1.00160.01		C	ATOM	33540	NH2	ARG B 130	193.297	162.041	2.945	1.00128.79	N
ATOM	33491	O	PRO B 125	191.012	167.749	4.255	1.00160.01		O	ATOM	33541	N	PRO B 131	200.825	161.839	0.965	1.00181.01	N
ATOM	33492	CB	PRO B 125	189.448	169.665	5.706	1.00200.58		C	ATOM	33542	CA	PRO B 131	201.498	161.654	-0.324	1.00181.01	C
ATOM	33493	CG	PRO B 125	188.514	169.515	4.553	1.00200.58		C	ATOM	33543	C	PRO B 131	200.704	162.118	-1.540	1.00181.01	C
ATOM	33494	CD	PRO B 125	188.861	170.707	3.685	1.00200.58		C	ATOM	33544	O	PRO B 131	199.573	161.687	-1.760	1.00181.01	O
ATOM	33495	N	GLU B 126	192.884	168.848	4.857	1.00153.28		N	ATOM	33545	CB	PRO B 131	201.797	160.151	-0.351	1.00127.85	C
ATOM	33496	CA	GLU B 126	193.788	167.733	4.582	1.00153.28		C	ATOM	33546	CG	PRO B 131	200.807	159.568	0.625	1.00127.85	C
ATOM	33497	C	GLU B 126	193.967	167.459	3.096	1.00153.28		C	ATOM	33547	CD	PRO B 131	200.828	160.581	1.727	1.00127.85	C
ATOM	33498	O	GLU B 126	194.607	166.476	2.713	1.00153.28		O	ATOM	33548	N	LYS B 132	201.318	163.002	-2.322	1.00137.59	N
ATOM	33499	CB	GLU B 126	193.290	166.458	5.259	1.00191.83		C	ATOM	33549	CA	LYS B 132	200.708	163.549	-3.528	1.00137.59	C
ATOM	33500	CG	GLU B 126	193.044	166.591	6.740	1.00191.83		C	ATOM	33550	C	LYS B 132	200.295	162.417	-4.462	1.00137.59	C
ATOM	33501	CD	GLU B 126	192.632	165.280	7.359	1.00191.83		C	ATOM	33551	O	LYS B 132	199.577	162.634	-5.436	1.00137.59	O
ATOM	33502	OE1	GLU B 126	193.440	164.326	7.321	1.00191.83		O	ATOM	33552	CB	LYS B 132	201.699	164.478	-4.234	1.00162.44	C
ATOM	33503	OE2	GLU B 126	191.500	165.201	7.878	1.00191.83		O	ATOM	33553	CG	LYS B 132	202.292	165.539	-3.318	1.00162.44	C
ATOM	33504	N	ILE B 127	193.394	168.322	2.264	1.00200.58		N	ATOM	33554	CD	LYS B 132	203.408	166.316	-3.995	1.00162.44	C
ATOM	33505	CA	ILE B 127	193.498	168.172	0.818	1.00200.58		C	ATOM	33555	CE	LYS B 132	204.057	167.294	-3.027	1.00162.44	C
ATOM	33506	C	ILE B 127	194.962	168.019	0.425	1.00200.58		C	ATOM	33556	NZ	LYS B 132	205.160	168.065	-3.665	1.00162.44	N
ATOM	33507	O	ILE B 127	195.285	167.448	-0.617	1.00200.58		O	ATOM	33557	N	LYS B 133	200.767	161.211	-4.164	1.00185.60	N
ATOM	33508	CB	ILE B 127	192.916	169.403	0.091	1.00147.95		C	ATOM	33558	CA	LYS B 133	200.422	160.042	-4.960	1.00185.60	C
ATOM	33509	CG1	ILE B 127	193.148	169.277	-1.419	1.00147.95		C	ATOM	33559	C	LYS B 133	199.037	159.581	-4.528	1.00185.60	C
ATOM	33510	CG2	ILE B 127	193.549	170.675	0.640	1.00147.95		C	ATOM	33560	O	LYS B 133	198.119	159.481	-5.343	1.00185.60	O
ATOM	33511	CD1	ILE B 127	192.625	170.448	-2.233	1.00147.95		C	ATOM	33561	CB	LYS B 133	201.435	158.917	-4.737	1.00175.56	C
ATOM	33512	N	GLU B 128	195.842	168.530	1.279	1.00169.38		N	ATOM	33562	CG	LYS B 133	202.791	159.171	-5.368	1.00175.56	C
ATOM	33513	CA	GLU B 128	197.276	168.474	1.036	1.00169.38		C	ATOM	33563	CD	LYS B 133	203.633	157.907	-5.374	1.00175.56	C
ATOM	33514	C	GLU B 128	198.010	168.156	2.333	1.00169.38		C	ATOM	33564	CE	LYS B 133	204.894	158.092	-6.201	1.00175.56	C
ATOM	33515	O	GLU B 128	198.656	169.022	2.920	1.00169.38		O	ATOM	33565	NZ	LYS B 133	205.696	156.841	-6.304	1.00175.56	N



Table 2: Sheet 337/520

ATOM	33566	N	GLU B 134	198.896	159.305	-3.236	1.00180.04	N	ATOM	33616	CD	LYS B 139	194.250	165.111	-7.822	1.00178.70	C
ATOM	33567	CA	GLU B 134	197.621	158.875	-2.682	1.00180.04	C	ATOM	33617	CE	LYS B 139	195.031	166.009	-6.883	1.00178.70	C
ATOM	33568	C	GLU B 134	196.603	159.981	-2.930	1.00180.04	C	ATOM	33618	NZ	LYS B 139	196.174	166.653	-7.581	1.00178.70	N
ATOM	33569	O	GLU B 134	195.441	159.717	-3.234	1.00180.04	O	ATOM	33619	N	HIS B 140	190.969	160.614	-8.562	1.00147.59	N
ATOM	33570	CB	GLU B 134	197.754	158.636	-1.179	1.00168.55	C	ATOM	33620	CA	HIS B 140	190.383	159.680	-9.519	1.00147.59	C
ATOM	33571	CG	GLU B 134	196.470	158.179	-0.509	1.00168.55	C	ATOM	33621	C	HIS B 140	189.015	159.252	-9.009	1.00147.59	C
ATOM	33572	CD	GLU B 134	196.523	158.311	1.000	1.00168.55	C	ATOM	33622	O	HIS B 140	188.000	159.492	-9.664	1.00147.59	O
ATOM	33573	OE1	GLU B 134	196.639	159.454	1.491	1.00168.55	O	ATOM	33623	CB	HIS B 140	191.277	158.448	-9.698	1.00140.37	C
ATOM	33574	OE2	GLU B 134	196.450	157.277	1.696	1.00168.55	O	ATOM	33624	CG	HIS B 140	192.545	158.725	-10.446	1.00140.37	C
ATOM	33575	N	GLN B 135	197.061	161.223	-2.801	1.00102.91	N	ATOM	33625	ND1	HIS B 140	192.559	159.264	-11.715	1.00140.37	N
ATOM	33576	CA	GLN B 135	196.215	162.393	-2.998	1.00102.91	C	ATOM	33626	CD2	HIS B 140	193.842	158.538	-10.103	1.00140.37	C
ATOM	33577	C	GLN B 135	195.672	162.513	-4.418	1.00102.91	C	ATOM	33627	CE1	HIS B 140	193.809	159.399	-12.120	1.00140.37	C
ATOM	33578	O	GLN B 135	194.587	163.058	-4.626	1.00102.91	O	ATOM	33628	NE2	HIS B 140	194.607	158.965	-11.161	1.00140.37	N
ATOM	33579	CB	GLN B 135	196.979	163.672	-2.641	1.00180.76	C	ATOM	33629	N	GLU B 141	188.994	158.622	-7.838	1.00103.05	N
ATOM	33580	CG	GLN B 135	197.467	163.730	-1.203	1.00180.76	C	ATOM	33630	CA	GLU B 141	187.741	158.181	-7.240	1.00103.05	C
ATOM	33581	CD	GLN B 135	197.884	165.127	-0.788	1.00180.76	C	ATOM	33631	C	GLU B 141	186.698	159.272	-7.396	1.00103.05	C
ATOM	33582	OE1	GLN B 135	198.664	165.784	-1.478	1.00180.76	O	ATOM	33632	O	GLU B 141	185.572	159.012	-7.813	1.00103.05	O
ATOM	33583	NE2	GLN B 135	197.369	165.585	0.348	1.00180.76	N	ATOM	33633	CB	GLU B 141	187.936	157.869	-5.762	1.00 94.93	C
ATOM	33584	N	VAL B 136	196.427	162.029	-5.398	1.00120.21	N	ATOM	33634	CG	GLU B 141	188.852	156.701	-5.524	1.00 94.93	C
ATOM	33585	CA	VAL B 136	195.963	162.091	-6.775	1.00120.21	C	ATOM	33635	CD	GLU B 141	188.856	156.257	-4.082	1.00 94.93	C
ATOM	33586	C	VAL B 136	195.128	160.847	-7.062	1.00112.98	C	ATOM	33636	OE1	GLU B 141	187.753	156.044	-3.502	1.00 94.93	O
ATOM	33587	O	VAL B 136	194.317	160.828	-7.991	1.00120.21	O	ATOM	33637	OE2	GLU B 141	189.957	156.110	-3.502	1.00 94.93	O
ATOM	33588	CB	VAL B 136	197.136	162.186	-7.769	1.00112.98	C	ATOM	33638	N	LEU B 142	187.079	160.498	-7.062	1.00 68.45	N
ATOM	33589	CG1	VAL B 136	196.616	162.114	-9.197	1.00112.98	C	ATOM	33639	CA	LEU B 142	186.165	161.613	-7.194	1.00 68.45	C
ATOM	33590	CG2	VAL B 136	197.874	163.498	-7.562	1.00112.98	C	ATOM	33640	C	LEU B 142	185.714	161.726	-8.639	1.00 68.45	C
ATOM	33591	N	ARG B 137	195.327	159.809	-6.252	1.00140.34	N	ATOM	33641	O	LEU B 142	184.536	161.553	-8.933	1.00 68.45	O
ATOM	33592	CA	ARG B 137	194.562	158.575	-6.395	1.00140.34	C	ATOM	33642	CB	LEU B 142	186.824	162.912	-6.733	1.00111.41	C
ATOM	33593	C	ARG B 137	193.108	158.908	-6.081	1.00140.34	C	ATOM	33643	CG	LEU B 142	186.640	163.193	-5.240	1.00111.41	C
ATOM	33594	O	ARG B 137	192.187	158.446	-6.753	1.00140.34	O	ATOM	33644	CD1	LEU B 142	187.457	164.402	-4.836	1.00111.41	C
ATOM	33595	CB	ARG B 137	195.060	157.513	-5.413	1.00155.59	C	ATOM	33645	CD2	LEU B 142	185.164	163.426	-4.945	1.00111.41	C
ATOM	33596	CG	ARG B 137	194.065	156.389	-5.199	1.00155.59	C	ATOM	33646	N	GLU B 143	186.642	161.998	-9.547	1.00 87.38	N
ATOM	33597	CD	ARG B 137	194.567	155.356	-4.216	1.00155.59	C	ATOM	33647	CA	GLU B 143	186.277	162.119	-10.951	1.00 87.38	C
ATOM	33598	NE	ARG B 137	193.508	154.415	-3.863	1.00155.59	N	ATOM	33648	C	GLU B 143	185.333	160.990	-11.361	1.00 87.38	C
ATOM	33599	CZ	ARG B 137	193.687	153.322	-3.128	1.00155.59	C	ATOM	33649	O	GLU B 143	184.292	161.246	-11.961	1.00 87.38	O
ATOM	33600	NH1	ARG B 137	194.893	153.021	-2.665	1.00155.59	N	ATOM	33650	CB	GLU B 143	187.524	162.102	-11.835	1.00161.80	C
ATOM	33601	NH2	ARG B 137	192.658	152.532	-2.852	1.00155.59	N	ATOM	33651	CG	GLU B 143	188.430	163.304	-11.654	1.00161.80	C
ATOM	33602	N	LEU B 138	192.922	159.717	-5.043	1.00113.28	N	ATOM	33652	CD	GLU B 143	189.566	163.322	-12.656	1.00161.80	C
ATOM	33603	CA	LEU B 138	191.600	160.141	-4.620	1.00113.28	C	ATOM	33653	OE1	GLU B 143	189.290	163.464	-13.865	1.00161.80	O
ATOM	33604	C	LEU B 138	190.955	160.955	-5.728	1.00113.28	C	ATOM	33654	OE2	GLU B 143	190.735	163.187	-12.237	1.00161.80	O
ATOM	33605	O	LEU B 138	189.791	160.741	-6.060	1.00113.28	O	ATOM	33655	N	ARG B 144	185.684	159.748	-11.030	1.00 93.76	N
ATOM	33606	CB	LEU B 138	191.698	160.983	-3.349	1.00 78.97	C	ATOM	33656	CA	ARG B 144	184.835	158.610	-11.380	1.00 93.76	C
ATOM	33607	CG	LEU B 138	192.448	160.343	-2.176	1.00 78.97	C	ATOM	33657	C	ARG B 144	183.480	158.711	-10.695	1.00 93.76	C
ATOM	33608	CD1	LEU B 138	192.211	161.172	-0.924	1.00 78.97	C	ATOM	33658	O	ARG B 144	182.451	158.834	-11.367	1.00 93.76	O
ATOM	33609	CD2	LEU B 138	191.971	158.919	-0.952	1.00 78.97	C	ATOM	33659	CB	ARG B 144	185.508	157.287	-11.010	1.00185.25	C
ATOM	33610	N	LYS B 139	191.714	161.888	-6.298	1.00 87.17	N	ATOM	33660	CG	ARG B 144	186.581	156.866	-11.993	1.00185.25	C
ATOM	33611	CA	LYS B 139	191.212	162.726	-7.384	1.00 87.17	C	ATOM	33661	CD	ARG B 144	187.186	155.521	-11.635	1.00185.25	C
ATOM	33612	C	LYS B 139	190.521	161.862	-8.438	1.00 87.17	C	ATOM	33662	CE	ARG B 144	188.271	155.166	-12.548	1.00185.25	N
ATOM	33613	O	LYS B 139	189.608	162.322	-9.128	1.00 87.17	O	ATOM	33663	NZ	ARG B 144	189.040	154.089	-12.419	1.00185.25	C
ATOM	33614	CB	LYS B 139	192.358	163.499	-8.039	1.00178.70	C	ATOM	33664	NH1	ARG B 144	188.847	153.250	-11.409	1.00185.25	N
ATOM	33615	CG	LYS B 139	193.097	164.434	-7.105	1.00178.70	C	ATOM	33665	NH2	ARG B 144	190.005	153.851	-13.297	1.00185.25	N



Table 2: Sheet 338/520

ATOM	33666	N	LEU B 145	183.482	158.658	-9.363	1.00	69.23	N	ATOM	33716	CB	SER B 150	176.898	163.664	-12.173	1.00	86.26	C
ATOM	33667	CA	LEU B 145	182.250	158.761	-8.589	1.00	69.23	C	ATOM	33717	OG	SER B 150	176.386	162.922	-13.264	1.00	86.26	O
ATOM	33668	C	LEU B 145	181.404	159.901	-9.125	1.00	69.23	C	ATOM	33718	N	GLY B 151	174.089	162.441	-11.168	1.00	82.96	N
ATOM	33669	O	LEU B 145	180.188	159.779	-9.254	1.00	69.23	O	ATOM	33719	CA	GLY B 151	172.648	162.621	-11.061	1.00	82.96	C
ATOM	33670	CB	LEU B 145	182.564	159.014	-7.117	1.00	40.31	C	ATOM	33720	C	GLY B 151	171.962	161.666	-10.103	1.00	82.96	C
ATOM	33671	CG	LEU B 145	183.052	157.803	-6.321	1.00	40.31	C	ATOM	33721	O	GLY B 151	170.936	161.986	-9.501	1.00	82.96	O
ATOM	33672	CD1	LEU B 145	183.519	158.199	-4.918	1.00	40.31	C	ATOM	33722	N	PHE B 152	172.531	160.477	-9.971	1.00	66.59	N
ATOM	33673	CD2	LEU B 145	181.914	156.808	-6.238	1.00	40.31	C	ATOM	33723	CA	PHE B 152	171.992	159.469	-9.072	1.00	66.59	C
ATOM	33674	N	GLN B 146	182.058	161.006	-9.451	1.00	53.22	N	ATOM	33724	C	PHE B 152	172.319	159.906	-7.646	1.00	66.59	C
ATOM	33675	CA	GLN B 146	181.360	162.166	-9.968	1.00	53.22	C	ATOM	33725	O	PHE B 152	172.008	159.227	-6.674	1.00	66.59	O
ATOM	33676	C	GLN B 146	180.883	161.946	-11.392	1.00	53.22	C	ATOM	33726	CB	PHE B 152	172.655	158.125	-9.375	1.00	54.62	C
ATOM	33677	O	GLN B 146	179.935	162.595	-11.838	1.00	53.22	O	ATOM	33727	CG	PHE B 152	172.196	157.008	-8.492	1.00	54.62	C
ATOM	33678	CB	GLN B 146	182.263	163.399	-9.898	1.00	113.60	C	ATOM	33728	CD1	PHE B 152	170.990	156.368	-8.735	1.00	54.62	C
ATOM	33679	CG	GLN B 146	182.668	163.766	-8.478	1.00	113.60	C	ATOM	33729	CD2	PHE B 152	172.974	156.597	-7.415	1.00	54.62	C
ATOM	33680	CD	GLN B 146	183.631	164.930	-8.423	1.00	113.60	C	ATOM	33730	CE1	PHE B 152	170.562	155.334	-7.923	1.00	54.62	C
ATOM	33681	OE1	GLN B 146	183.324	166.022	-8.895	1.00	113.60	O	ATOM	33731	CE2	PHE B 152	172.558	155.563	-6.592	1.00	54.62	C
ATOM	33682	NE2	GLN B 146	184.803	164.704	-7.840	1.00	113.60	N	ATOM	33732	C2	PHE B 152	171.347	154.927	-6.847	1.00	54.62	C
ATOM	33683	N	LYS B 147	181.529	161.037	-12.115	1.00	78.19	N	ATOM	33733	N	ARG B 153	172.949	161.063	-7.542	1.00	65.56	N
ATOM	33684	CA	LYS B 147	181.126	160.765	-13.490	1.00	78.19	C	ATOM	33734	CA	ARG B 153	173.362	161.603	-6.263	1.00	65.56	C
ATOM	33685	C	LYS B 147	179.850	159.939	-13.531	1.00	78.19	C	ATOM	33735	C	ARG B 153	172.189	162.039	-5.402	1.00	65.56	C
ATOM	33686	O	LYS B 147	178.924	160.249	-14.276	1.00	78.19	O	ATOM	33736	O	ARG B 153	172.254	161.970	-4.168	1.00	65.56	O
ATOM	33687	CB	LYS B 147	182.233	160.026	-14.248	1.00	141.08	C	ATOM	33737	CB	ARG B 153	174.297	162.784	-6.501	1.00	108.02	C
ATOM	33688	CG	LYS B 147	183.413	160.902	-14.627	1.00	141.08	C	ATOM	33738	CG	ARG B 153	174.851	163.382	-5.248	1.00	108.02	C
ATOM	33689	CD	LYS B 147	184.549	160.090	-15.236	1.00	141.08	C	ATOM	33739	CD	ARG B 153	175.914	164.394	-5.571	1.00	108.02	C
ATOM	33690	CE	LYS B 147	185.782	160.957	-15.476	1.00	141.08	C	ATOM	33740	NE	ARG B 153	176.577	164.831	-4.351	1.00	108.02	N
ATOM	33691	NZ	LYS B 147	186.941	160.159	-15.958	1.00	87.85	N	ATOM	33741	C2	ARG B 153	177.747	165.455	-4.323	1.00	108.02	C
ATOM	33692	N	TYR B 148	179.800	158.900	-12.706	1.00	87.85	N	ATOM	33742	NH1	ARG B 153	178.386	165.716	-5.458	1.00	108.02	N
ATOM	33693	CA	TYR B 148	178.655	158.001	-12.667	1.00	87.85	C	ATOM	33743	NH2	ARG B 153	178.279	165.812	-3.161	1.00	108.02	N
ATOM	33694	C	TYR B 148	177.547	158.372	-11.691	1.00	87.85	C	ATOM	33744	N	LEU B 154	171.113	162.483	-6.047	1.00	72.56	N
ATOM	33695	O	TYR B 148	176.392	157.998	-11.891	1.00	87.85	O	ATOM	33745	CA	LEU B 154	169.941	162.941	-5.312	1.00	72.56	C
ATOM	33696	CB	TYR B 148	179.154	156.588	-12.365	1.00	101.80	C	ATOM	33746	C	LEU B 154	169.171	161.841	-4.588	1.00	72.56	C
ATOM	33697	CG	TYR B 148	180.085	156.062	-13.428	1.00	101.80	C	ATOM	33747	O	LEU B 154	168.904	161.962	-3.394	1.00	72.56	O
ATOM	33698	CD1	TYR B 148	181.181	155.265	-13.098	1.00	101.80	C	ATOM	33748	CB	LEU B 154	168.997	163.698	-6.241	1.00	76.23	C
ATOM	33699	CD2	TYR B 148	179.869	156.364	-14.769	1.00	101.80	C	ATOM	33749	CG	LEU B 154	169.599	164.919	-6.934	1.00	76.23	C
ATOM	33700	CE1	TYR B 148	182.038	154.786	-14.084	1.00	101.80	C	ATOM	33750	CD1	LEU B 154	168.514	165.612	-7.748	1.00	76.23	C
ATOM	33701	CE2	TYR B 148	180.712	155.894	-15.756	1.00	101.80	C	ATOM	33751	CD2	LEU B 154	170.187	165.872	-5.905	1.00	76.23	C
ATOM	33702	C2	TYR B 148	181.792	155.108	-15.413	1.00	101.80	C	ATOM	33752	N	LEU B 155	168.811	160.774	-5.290	1.00	71.93	N
ATOM	33703	OH	TYR B 148	182.616	154.646	-16.412	1.00	101.80	O	ATOM	33753	CA	LEU B 155	168.072	159.695	-4.644	1.00	71.93	C
ATOM	33704	N	LEU B 149	177.890	159.112	-9.646	1.00	66.80	N	ATOM	33754	C	LEU B 155	168.575	159.401	-3.229	1.00	71.93	C
ATOM	33705	CA	LEU B 149	176.908	159.489	-9.681	1.00	66.80	C	ATOM	33755	O	LEU B 155	169.753	159.089	-3.029	1.00	71.93	O
ATOM	33706	C	LEU B 149	176.472	160.957	-9.681	1.00	66.80	C	ATOM	33756	CB	LEU B 155	168.143	158.407	-5.468	1.00	43.85	C
ATOM	33707	O	LEU B 149	175.830	161.437	-8.753	1.00	66.80	O	ATOM	33757	CG	LEU B 155	167.223	158.241	-6.681	1.00	43.85	C
ATOM	33708	CB	LEU B 149	177.455	159.148	-8.265	1.00	48.07	C	ATOM	33758	CD1	LEU B 155	167.340	156.794	-7.152	1.00	43.85	C
ATOM	33709	CG	LEU B 149	177.980	157.718	-8.128	1.00	48.07	C	ATOM	33759	CD2	LEU B 155	165.780	158.569	-6.333	1.00	43.85	C
ATOM	33710	CD1	LEU B 149	178.304	157.424	-8.654	1.00	48.07	C	ATOM	33760	N	LYS B 156	167.674	159.512	-2.256	1.00	66.05	N
ATOM	33711	CD2	LEU B 149	176.932	156.739	-8.655	1.00	48.07	C	ATOM	33761	CA	LYS B 156	167.990	159.244	-0.855	1.00	66.05	C
ATOM	33712	N	SER B 150	176.801	161.673	-10.749	1.00	80.56	N	ATOM	33762	C	LYS B 156	167.232	157.972	-0.461	1.00	66.05	C
ATOM	33713	CA	SER B 150	176.426	163.080	-10.839	1.00	80.56	C	ATOM	33763	O	LYS B 156	167.424	157.410	0.623	1.00	66.05	O
ATOM	33714	C	SER B 150	174.928	163.343	-10.664	1.00	80.56	C	ATOM	33764	CB	LYS B 156	167.555	160.436	0.014	1.00	173.84	C
ATOM	33715	O	SER B 150	174.542	164.352	-10.074	1.00	80.56	O	ATOM	33765	CG	LYS B 156	167.635	160.228	1.531	1.00	173.84	C



Table 2: Sheet 339/520

ATOM	33766	CD	LVS B 156	166.308	159.728	2.105	1.00173.84	C	ATOM	33816	N	PHE B 163	161.594	157.201	-15.349	1.00	68.11	N
ATOM	33767	CE	LVS B 156	166.324	159.676	3.629	1.00173.84	C	ATOM	33817	CA	PHE B 163	161.263	157.685	-16.676	1.00	68.11	C
ATOM	33768	NZ	LVS B 156	167.312	158.694	4.157	1.00173.84	N	ATOM	33818	C	PHE B 163	162.392	157.176	-17.534	1.00	68.11	C
ATOM	33769	N	ARG B 157	166.383	157.514	-1.377	1.00 47.68	N	ATOM	33819	O	PHE B 163	163.553	157.531	-17.332	1.00	68.11	O
ATOM	33770	CA	ARG B 157	165.565	156.321	-1.173	1.00 47.68	C	ATOM	33820	CB	PHE B 163	161.227	159.204	-16.723	1.00	56.92	C
ATOM	33771	C	ARG B 157	165.086	155.942	-2.565	1.00 47.68	C	ATOM	33821	CG	PHE B 163	160.489	159.747	-17.908	1.00	56.92	C
ATOM	33772	O	ARG B 157	165.140	156.772	-3.475	1.00 47.68	O	ATOM	33822	CD1	PHE B 163	159.321	160.476	-17.738	1.00	56.92	C
ATOM	33773	CB	ARG B 157	164.362	156.679	-0.308	1.00 76.29	C	ATOM	33823	CD2	PHE B 163	160.945	159.507	-19.196	1.00	56.92	C
ATOM	33774	CG	ARG B 157	163.456	157.671	-1.017	1.00 76.29	C	ATOM	33824	CE1	PHE B 163	158.613	160.960	-18.832	1.00	56.92	C
ATOM	33775	CD	ARG B 157	162.563	158.434	-0.077	1.00 76.29	C	ATOM	33825	CE2	PHE B 163	160.246	159.986	-20.302	1.00	56.92	C
ATOM	33776	NE	ARG B 157	161.642	157.560	0.625	1.00 76.29	N	ATOM	33826	CZ	PHE B 163	159.074	160.715	-20.120	1.00	56.92	C
ATOM	33777	CZ	ARG B 157	160.629	157.992	1.360	1.00 76.29	C	ATOM	33827	N	VAL B 164	162.049	156.332	-18.491	1.00	71.86	N
ATOM	33778	NH1	ARG B 157	160.403	159.292	1.491	1.00 76.29	N	ATOM	33828	CA	VAL B 164	163.040	155.734	-19.360	1.00	71.86	C
ATOM	33779	NH2	ARG B 157	159.843	157.119	1.965	1.00 76.29	N	ATOM	33829	C	VAL B 164	162.964	156.257	-20.791	1.00	71.86	C
ATOM	33780	N	LEU B 158	164.617	154.711	-2.740	1.00 42.71	N	ATOM	33830	O	VAL B 164	161.874	156.446	-21.340	1.00	71.86	O
ATOM	33781	CA	LEU B 158	164.123	154.283	-4.054	1.00 42.71	C	ATOM	33831	CB	VAL B 164	162.874	154.199	-19.307	1.00	50.28	C
ATOM	33782	C	LEU B 158	163.067	155.243	-4.607	1.00 42.71	C	ATOM	33832	CG1	VAL B 164	163.050	153.571	-20.676	1.00	50.28	C
ATOM	33783	O	LEU B 158	162.162	155.652	-3.889	1.00 42.71	O	ATOM	33833	CG2	VAL B 164	163.866	153.633	-18.328	1.00	50.28	C
ATOM	33784	CB	LEU B 158	163.523	152.883	-3.958	1.00 49.31	C	ATOM	33834	N	VAL B 165	164.128	156.497	-21.387	1.00	83.13	N
ATOM	33785	CG	LEU B 158	164.549	151.778	-3.752	1.00 49.31	C	ATOM	33835	CA	VAL B 165	164.185	156.993	-22.753	1.00	83.13	C
ATOM	33786	CD1	LEU B 158	163.847	150.499	-3.366	1.00 49.31	C	ATOM	33836	C	VAL B 165	164.100	155.858	-23.777	1.00	83.13	C
ATOM	33787	CD2	LEU B 158	165.364	151.610	-5.041	1.00 49.31	C	ATOM	33837	O	VAL B 165	163.332	155.941	-24.726	1.00	83.13	O
ATOM	33788	N	PRO B 159	163.161	155.598	-5.896	1.00 41.20	N	ATOM	33838	CB	VAL B 165	165.453	157.807	-22.982	1.00	74.79	C
ATOM	33789	CA	PRO B 159	162.202	156.514	-6.527	1.00 41.20	C	ATOM	33839	CG1	VAL B 165	165.460	158.364	-24.391	1.00	74.79	C
ATOM	33790	C	PRO B 159	160.757	156.005	-6.556	1.00 41.20	C	ATOM	33840	CG2	VAL B 165	165.520	158.936	-21.974	1.00	74.79	C
ATOM	33791	O	PRO B 159	160.488	154.815	-6.423	1.00 41.20	O	ATOM	33841	N	ASP B 166	164.895	154.808	-23.610	1.00	71.01	N
ATOM	33792	CB	PRO B 159	162.763	156.679	-7.932	1.00 54.57	C	ATOM	33842	CA	ASP B 166	164.811	153.661	-24.517	1.00	71.01	C
ATOM	33793	CG	PRO B 159	163.324	155.325	-8.202	1.00 54.57	C	ATOM	33843	C	ASP B 166	164.761	152.420	-23.625	1.00	71.01	C
ATOM	33794	CD	PRO B 159	164.061	155.016	-6.903	1.00 54.57	C	ATOM	33844	O	ASP B 166	165.792	151.933	-23.157	1.00	71.01	O
ATOM	33795	N	ASP B 160	159.822	156.921	-6.742	1.00 52.58	N	ATOM	33845	CB	ASP B 166	166.019	153.600	-25.459	1.00	111.03	C
ATOM	33796	CA	ASP B 160	158.422	156.549	-6.791	1.00 52.58	C	ATOM	33846	CG	ASP B 166	165.808	152.630	-26.618	1.00	111.03	C
ATOM	33797	C	ASP B 160	158.093	156.125	-8.203	1.00 52.58	C	ATOM	33847	OD1	ASP B 166	164.769	152.737	-27.302	1.00	111.03	O
ATOM	33798	O	ASP B 160	157.024	155.585	-8.476	1.00 52.58	O	ATOM	33848	OD2	ASP B 166	166.677	151.768	-26.854	1.00	111.03	O
ATOM	33799	CB	ASP B 160	157.564	157.734	-6.358	1.00 87.02	C	ATOM	33849	N	PRO B 167	163.549	151.897	-23.376	1.00	70.79	N
ATOM	33800	CG	ASP B 160	157.835	158.138	-4.924	1.00 87.02	C	ATOM	33850	CA	PRO B 167	163.354	150.717	-22.528	1.00	70.79	C
ATOM	33801	OD1	ASP B 160	157.383	157.410	-4.010	1.00 87.02	O	ATOM	33851	C	PRO B 167	164.247	149.552	-22.932	1.00	70.79	C
ATOM	33802	OD2	ASP B 160	158.514	159.167	-4.711	1.00 87.02	O	ATOM	33852	O	PRO B 167	164.787	148.837	-22.083	1.00	70.79	O
ATOM	33803	N	ALA B 161	159.036	156.371	-9.098	1.00 50.43	N	ATOM	33853	CB	PRO B 167	161.872	150.417	-22.707	1.00	56.28	C
ATOM	33804	CA	ALA B 161	158.870	156.004	-10.488	1.00 50.43	C	ATOM	33854	CG	PRO B 167	161.636	150.815	-24.123	1.00	56.28	C
ATOM	33805	C	ALA B 161	160.163	156.225	-11.252	1.00 50.43	C	ATOM	33855	CD	PRO B 167	162.345	152.147	-24.185	1.00	56.28	C
ATOM	33806	O	ALA B 161	161.126	156.799	-10.739	1.00 50.43	O	ATOM	33856	N	THR B 168	164.408	149.367	-24.233	1.00	66.79	N
ATOM	33807	CB	ALA B 161	157.747	156.808	-11.125	1.00 30.34	C	ATOM	33857	CA	THR B 168	165.246	148.287	-24.706	1.00	66.79	C
ATOM	33808	N	ILE B 162	160.164	155.753	-12.490	1.00 50.55	N	ATOM	33858	C	THR B 168	166.681	148.627	-24.334	1.00	66.79	C
ATOM	33809	CA	ILE B 162	161.306	155.866	-13.362	1.00 50.55	C	ATOM	33859	O	THR B 168	167.352	147.854	-23.659	1.00	66.79	O
ATOM	33810	C	ILE B 162	160.821	156.322	-14.721	1.00 50.55	C	ATOM	33860	CB	THR B 168	165.130	148.125	-26.217	1.00	67.14	C
ATOM	33811	O	ILE B 162	159.753	155.903	-15.181	1.00 50.55	O	ATOM	33861	OG1	THR B 168	163.778	148.375	-26.612	1.00	67.14	O
ATOM	33812	CB	ILE B 162	162.004	154.507	-13.503	1.00 55.69	C	ATOM	33862	CG2	THR B 168	165.503	146.711	-26.620	1.00	67.14	C
ATOM	33813	CG1	ILE B 162	162.894	154.271	-12.299	1.00 55.69	C	ATOM	33863	N	LYS B 169	167.145	149.796	-24.765	1.00	58.60	N
ATOM	33814	CG2	ILE B 162	162.823	154.443	-14.776	1.00 55.69	C	ATOM	33864	CA	LYS B 169	168.499	150.231	-24.454	1.00	58.60	C
ATOM	33815	CD1	ILE B 162	163.729	153.040	-12.450	1.00 55.69	C	ATOM	33865	C	LYS B 169	168.682	150.136	-22.936	1.00	58.60	C



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ATOM	33866	O	LYS B 169	169.611	149.497	-22.458	1.00	58.60	O	ATOM	33916	NH2	ARG B 175	168.912	141.342	-13.387	1.00	87.66	N
ATOM	33867	CB	LYS B 169	168.699	151.672	-24.927	1.00	103.82	C	ATOM	33917	N	GLU B 176	165.011	146.129	-12.846	1.00	59.07	N
ATOM	33868	CG	LYS B 169	170.128	152.067	-25.280	1.00	103.82	C	ATOM	33918	CA	GLU B 176	165.036	146.414	-11.422	1.00	59.07	C
ATOM	33869	CD	LYS B 169	171.056	152.037	-24.079	1.00	103.82	C	ATOM	33919	C	GLU B 176	163.762	147.123	-10.964	1.00	59.07	C
ATOM	33870	CE	LYS B 169	172.286	152.905	-24.315	1.00	103.82	C	ATOM	33920	O	GLU B 176	163.177	146.768	-9.935	1.00	59.07	C
ATOM	33871	NZ	LYS B 169	173.003	152.565	-25.579	1.00	103.82	N	ATOM	33921	CB	GLU B 176	166.271	147.244	-11.076	1.00	48.55	C
ATOM	33872	N	GLU B 170	167.773	150.753	-22.185	1.00	70.48	N	ATOM	33922	CG	GLU B 176	167.543	146.502	-11.369	1.00	48.55	C
ATOM	33873	CA	GLU B 170	167.838	150.747	-20.726	1.00	70.48	C	ATOM	33923	CD	GLU B 176	168.773	147.167	-10.804	1.00	48.55	C
ATOM	33874	C	GLU B 170	167.004	149.641	-20.074	1.00	70.48	C	ATOM	33924	OE1	GLU B 176	168.742	147.557	-9.622	1.00	48.55	C
ATOM	33875	O	GLU B 170	166.265	149.886	-19.120	1.00	70.48	O	ATOM	33925	OE2	GLU B 176	169.779	147.281	-11.539	1.00	48.55	O
ATOM	33876	CB	GLU B 170	167.390	152.105	-20.191	1.00	99.89	C	ATOM	33926	N	ALA B 177	163.326	148.122	-11.723	1.00	54.79	N
ATOM	33877	CG	GLU B 170	169.275	153.488	-21.190	1.00	99.89	C	ATOM	33927	CA	ALA B 177	162.114	148.838	-11.359	1.00	54.79	C
ATOM	33878	CD	GLU B 170	168.677	154.138	-22.081	1.00	99.89	C	ATOM	33928	C	ALA B 177	161.057	147.769	-11.157	1.00	54.79	C
ATOM	33879	OE1	GLU B 170	170.475	153.156	-21.279	1.00	99.89	O	ATOM	33929	O	ALA B 177	160.635	147.508	-10.036	1.00	54.79	O
ATOM	33880	OE2	GLU B 170	167.144	148.419	-20.572	1.00	99.89	O	ATOM	33930	CB	ALA B 177	161.704	149.785	-12.473	1.00	55.86	C
ATOM	33881	N	ALA B 171	166.378	147.294	-20.049	1.00	64.86	N	ATOM	33931	N	ARG B 178	160.661	147.138	-12.256	1.00	39.09	N
ATOM	33882	CA	ALA B 171	166.682	146.857	-18.630	1.00	64.86	C	ATOM	33932	CA	ARG B 178	159.668	146.078	-12.238	1.00	39.09	C
ATOM	33883	C	ALA B 171	165.770	146.503	-17.893	1.00	64.86	C	ATOM	33933	C	ARG B 178	159.781	145.230	-10.968	1.00	39.09	C
ATOM	33884	O	ALA B 171	166.520	146.129	-20.951	1.00	18.16	C	ATOM	33934	O	ARG B 178	158.882	145.199	-10.141	1.00	39.09	O
ATOM	33885	CB	ALA B 171	167.948	146.838	-18.240	1.00	57.19	N	ATOM	33935	CB	ARG B 178	159.873	145.182	-13.446	1.00	63.84	C
ATOM	33886	N	ILE B 172	168.258	146.434	-16.878	1.00	57.19	C	ATOM	33936	CG	ARG B 178	158.707	145.099	-14.362	1.00	63.84	C
ATOM	33887	CA	ILE B 172	167.547	147.356	-15.890	1.00	57.19	C	ATOM	33937	CD	ARG B 178	158.533	146.387	-15.076	1.00	63.84	C
ATOM	33888	C	ILE B 172	167.052	146.911	-14.849	1.00	57.19	O	ATOM	33938	NE	ARG B 178	157.369	146.340	-15.945	1.00	63.84	N
ATOM	33889	O	ILE B 172	169.752	146.501	-16.579	1.00	40.76	C	ATOM	33939	CZ	ARG B 178	156.186	145.857	-15.578	1.00	63.84	N
ATOM	33890	CB	ILE B 172	170.518	145.644	-17.585	1.00	40.76	C	ATOM	33940	NH1	ARG B 178	156.006	145.369	-14.362	1.00	63.84	N
ATOM	33891	CG1	ILE B 172	170.005	146.039	-15.149	1.00	40.76	C	ATOM	33941	NH2	ARG B 178	155.170	145.887	-16.422	1.00	63.84	N
ATOM	33892	CG2	ILE B 172	171.951	145.347	-17.176	1.00	40.76	C	ATOM	33942	N	LYS B 179	160.900	144.540	-10.825	1.00	48.14	N
ATOM	33893	CD1	ILE B 172	167.504	148.646	-16.209	1.00	50.69	N	ATOM	33943	CA	LYS B 179	161.122	143.686	-9.680	1.00	48.14	C
ATOM	33894	N	ALA B 173	166.843	149.594	-15.333	1.00	50.69	C	ATOM	33944	C	LYS B 179	160.811	144.360	-8.352	1.00	48.14	C
ATOM	33895	CA	ALA B 173	165.374	149.183	-15.237	1.00	50.69	C	ATOM	33945	O	LYS B 179	160.319	143.722	-7.423	1.00	48.14	O
ATOM	33896	C	ALA B 173	164.836	148.984	-14.147	1.00	50.69	C	ATOM	33946	CB	LYS B 179	162.567	143.193	-9.672	1.00	53.46	C
ATOM	33897	O	ALA B 173	166.975	150.987	-15.896	1.00	39.46	C	ATOM	33947	CG	LYS B 179	162.875	142.396	-8.434	1.00	53.46	C
ATOM	33898	CB	ALA B 173	164.731	149.042	-16.389	1.00	35.87	N	ATOM	33948	CD	LYS B 179	164.297	141.917	-8.376	1.00	53.46	C
ATOM	33899	N	VAL B 174	163.339	148.633	-16.428	1.00	35.87	C	ATOM	33949	CE	LYS B 179	164.524	140.750	-9.292	1.00	53.46	C
ATOM	33900	CA	VAL B 174	163.139	147.382	-15.599	1.00	35.87	C	ATOM	33950	NZ	LYS B 179	165.663	139.970	-8.753	1.00	53.46	N
ATOM	33901	C	VAL B 174	162.128	147.237	-14.932	1.00	35.87	O	ATOM	33951	N	LEU B 180	161.105	145.648	-8.248	1.00	49.32	N
ATOM	33902	O	VAL B 174	162.888	148.315	-17.853	1.00	33.97	C	ATOM	33952	CA	LEU B 180	160.848	146.367	-7.004	1.00	49.32	C
ATOM	33903	CB	VAL B 174	161.500	147.714	-17.830	1.00	33.97	C	ATOM	33953	C	LEU B 180	159.462	147.024	-6.929	1.00	49.32	C
ATOM	33904	CG1	VAL B 174	162.915	149.573	-18.692	1.00	33.97	C	ATOM	33954	O	LEU B 180	159.133	147.673	-5.940	1.00	49.32	O
ATOM	33905	CG2	VAL B 174	164.097	146.467	-15.643	1.00	40.53	N	ATOM	33955	CB	LEU B 180	161.924	147.426	-6.797	1.00	41.83	C
ATOM	33906	N	ARG B 175	163.967	145.238	-14.879	1.00	40.53	C	ATOM	33956	CG	LEU B 180	163.300	146.887	-6.442	1.00	41.83	C
ATOM	33907	CA	ARG B 175	163.950	145.535	-13.369	1.00	40.53	C	ATOM	33957	CD1	LEU B 180	164.325	148.007	-6.554	1.00	41.83	C
ATOM	33908	C	ARG B 175	162.978	145.241	-12.685	1.00	40.53	O	ATOM	33958	CD2	LEU B 180	163.275	146.322	-5.047	1.00	41.83	C
ATOM	33909	O	ARG B 175	165.103	144.269	-15.229	1.00	87.66	C	ATOM	33959	N	PHE B 181	158.664	146.857	-7.978	1.00	72.84	N
ATOM	33910	CB	ARG B 175	164.708	142.798	-15.149	1.00	87.66	C	ATOM	33960	CA	PHE B 181	157.320	147.417	-8.035	1.00	72.84	C
ATOM	33911	CG	ARG B 175	165.884	141.866	-15.426	1.00	87.66	C	ATOM	33961	C	PHE B 181	157.283	148.923	-8.217	1.00	72.84	C
ATOM	33912	CD	ARG B 175	166.898	141.911	-14.368	1.00	87.66	H	ATOM	33962	O	PHE B 181	156.367	149.600	-7.752	1.00	72.84	O
ATOM	33913	NE	ARG B 175	168.047	141.233	-14.390	1.00	87.66	C	ATOM	33963	CB	PHE B 181	156.533	147.027	-6.788	1.00	56.29	C
ATOM	33914	CZ	ARG B 175	168.340	140.448	-15.418	1.00	87.66	N	ATOM	33964	CG	PHE B 181	156.236	145.570	-6.709	1.00	56.29	C
ATOM	33915	NH1	ARG B 175							ATOM	33965	CD1	PHE B 181	156.813	144.783	-5.723	1.00	56.29	C



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ATOM	33966	CD2 PHE B 181	155.414	144.970	-7.655	1.00	56.29	C	ATOM	34016	O	ALA B 188	157.586	154.065	-27.818	1.00	54.63	O
ATOM	33967	CE1 PHE B 181	156.581	143.415	-5.680	1.00	56.29	C	ATOM	34017	CB	ALA B 188	159.386	152.785	-25.502	1.00	52.74	C
ATOM	33968	CE2 PHE B 181	155.172	143.603	-7.625	1.00	56.29	C	ATOM	34018	N	ASP B 189	159.462	153.163	-28.671	1.00	79.40	N
ATOM	33969	CZ PHE B 181	155.757	142.822	-6.636	1.00	56.29	C	ATOM	34019	CA	ASP B 189	158.846	152.910	-29.966	1.00	79.40	C
ATOM	33970	N ILE B 182	158.282	149.445	-8.909	1.00	45.17	N	ATOM	34020	C	ASP B 189	158.966	151.491	-30.515	1.00	79.40	C
ATOM	33971	CA ILE B 182	158.350	150.867	-9.177	1.00	45.17	C	ATOM	34021	O	ASP B 189	158.996	150.512	-29.774	1.00	79.40	O
ATOM	33972	C ILE B 182	157.790	151.108	-10.577	1.00	45.17	C	ATOM	34022	CB	ASP B 189	159.411	153.890	-30.987	1.00	98.19	C
ATOM	33973	O ILE B 182	158.238	150.499	-11.535	1.00	45.17	O	ATOM	34023	CG	ASP B 189	160.904	153.770	-31.123	1.00	98.19	C
ATOM	33974	CB ILE B 182	159.804	151.330	-9.100	1.00	33.80	C	ATOM	34024	OD1	ASP B 189	161.547	153.381	-30.123	1.00	98.19	C
ATOM	33975	CG1 ILE B 182	160.299	151.178	-7.664	1.00	33.80	C	ATOM	34025	OD2	ASP B 189	161.430	154.071	-32.215	1.00	98.19	O
ATOM	33976	CG2 ILE B 182	159.930	152.757	-9.593	1.00	33.80	C	ATOM	34026	N	THR B 190	159.029	151.416	-31.838	1.00	62.80	N
ATOM	33977	CD1 ILE B 182	161.785	151.249	-7.529	1.00	33.80	C	ATOM	34027	CA	THR B 190	159.115	150.176	-32.593	1.00	62.80	C
ATOM	33978	N PRO B 183	156.782	151.978	-10.711	1.00	48.22	N	ATOM	34028	C	THR B 190	160.009	149.070	-32.035	1.00	62.80	C
ATOM	33979	CA PRO B 183	156.211	152.246	-12.033	1.00	48.22	C	ATOM	34029	O	THR B 190	159.564	147.938	-31.840	1.00	62.80	O
ATOM	33980	C PRO B 183	157.280	152.591	-13.034	1.00	48.22	C	ATOM	34030	CB	THR B 190	159.558	150.492	-34.025	1.00	81.49	C
ATOM	33981	O PRO B 183	158.332	153.127	-12.670	1.00	48.22	O	ATOM	34031	CG1	THR B 190	158.664	151.459	-34.578	1.00	81.49	O
ATOM	33982	CB PRO B 183	155.285	153.428	-11.779	1.00	31.66	C	ATOM	34032	CG2	THR B 190	159.541	149.251	-34.896	1.00	81.49	C
ATOM	33983	CG PRO B 183	154.785	153.150	-10.445	1.00	31.66	C	ATOM	34033	N	ASP B 191	161.266	149.390	-31.774	1.00	75.05	N
ATOM	33984	CD PRO B 183	156.026	152.698	-9.677	1.00	31.66	C	ATOM	34034	CA	ASP B 191	162.199	148.390	-31.281	1.00	75.05	C
ATOM	33985	N VAL B 184	157.008	152.281	-14.295	1.00	38.93	N	ATOM	34035	C	ASP B 191	161.960	147.881	-29.861	1.00	75.05	C
ATOM	33986	CA VAL B 184	157.955	152.579	-15.354	1.00	38.93	C	ATOM	34036	O	ASP B 191	162.903	147.427	-29.217	1.00	75.05	O
ATOM	33987	C VAL B 184	157.299	153.429	-16.428	1.00	38.93	C	ATOM	34037	CB	ASP B 191	163.639	148.927	-31.398	1.00	128.66	C
ATOM	33988	O VAL B 184	156.331	153.008	-17.062	1.00	38.93	O	ATOM	34038	CG	ASP B 191	163.887	150.175	-30.545	1.00	128.66	C
ATOM	33989	CB VAL B 184	158.527	151.285	-16.008	1.00	34.30	C	ATOM	34039	OD1	ASP B 191	163.039	151.091	-30.550	1.00	128.66	O
ATOM	33990	CG1 VAL B 184	159.319	151.642	-17.264	1.00	34.30	C	ATOM	34040	OD2	ASP B 191	164.944	150.249	-29.880	1.00	128.66	O
ATOM	33991	CG2 VAL B 184	159.446	150.553	-15.025	1.00	34.30	C	ATOM	34041	N	SER B 192	160.727	147.912	-29.361	1.00	52.01	N
ATOM	33992	N ILE B 185	157.833	154.635	-16.606	1.00	60.89	N	ATOM	34042	CA	SER B 192	160.528	147.450	-27.983	1.00	52.01	C
ATOM	33993	CA ILE B 185	157.356	155.574	-17.619	1.00	60.89	C	ATOM	34043	C	SER B 192	159.212	146.792	-27.540	1.00	52.01	C
ATOM	33994	C ILE B 185	158.393	155.466	-18.732	1.00	60.89	C	ATOM	34044	O	SER B 192	158.197	146.817	-28.244	1.00	52.01	O
ATOM	33995	O ILE B 185	159.581	155.299	-18.449	1.00	60.89	O	ATOM	34045	CB	SER B 192	160.852	148.595	-27.015	1.00	96.70	C
ATOM	33996	CB ILE B 185	157.379	157.037	-17.099	1.00	53.16	C	ATOM	34046	OG	SER B 192	160.144	149.770	-27.358	1.00	96.70	O
ATOM	33997	CG1 ILE B 185	156.869	157.098	-15.666	1.00	53.16	C	ATOM	34047	N	ASP B 193	159.269	146.209	-26.341	1.00	55.63	N
ATOM	33998	CG2 ILE B 185	156.505	157.917	-17.965	1.00	53.16	C	ATOM	34048	CA	ASP B 193	158.147	145.519	-25.719	1.00	55.63	C
ATOM	33999	CD1 ILE B 185	156.904	158.497	-15.092	1.00	53.16	C	ATOM	34049	C	ASP B 193	157.362	146.474	-24.840	1.00	55.63	C
ATOM	34000	N ALA B 186	157.980	155.561	-19.989	1.00	63.07	N	ATOM	34050	O	ASP B 193	157.764	146.781	-23.719	1.00	55.63	O
ATOM	34001	CA ALA B 186	158.981	155.460	-21.035	1.00	63.07	C	ATOM	34051	CB	ASP B 193	158.647	144.368	-24.855	1.00	93.01	C
ATOM	34002	C ALA B 186	158.604	155.925	-22.425	1.00	63.07	C	ATOM	34052	CG	ASP B 193	157.520	143.519	-24.320	1.00	93.01	C
ATOM	34003	O ALA B 186	157.552	155.564	-22.963	1.00	63.07	O	ATOM	34053	OD1	ASP B 193	156.516	144.090	-23.844	1.00	93.01	O
ATOM	34004	CB ALA B 186	159.487	154.033	-21.115	1.00	52.24	C	ATOM	34054	OD2	ASP B 193	157.641	142.280	-24.373	1.00	93.01	O
ATOM	34005	N LEU B 187	159.483	156.736	-23.005	1.00	70.66	N	ATOM	34055	N	PRO B 194	156.215	146.940	-25.329	1.00	56.16	N
ATOM	34006	CA LEU B 187	159.297	157.204	-24.366	1.00	70.66	C	ATOM	34056	CA	PRO B 194	155.358	147.868	-24.593	1.00	56.16	C
ATOM	34007	C LEU B 187	159.877	156.027	-25.132	1.00	70.66	C	ATOM	34057	C	PRO B 194	154.747	147.290	-23.314	1.00	56.16	C
ATOM	34008	O LEU B 187	161.087	155.876	-25.197	1.00	70.66	O	ATOM	34058	O	PRO B 194	154.421	148.031	-22.381	1.00	56.16	O
ATOM	34009	CB LEU B 187	160.127	158.467	-24.612	1.00	76.47	C	ATOM	34059	CB	PRO B 194	154.299	148.222	-25.622	1.00	50.18	C
ATOM	34010	CG LEU B 187	160.158	159.081	-26.018	1.00	76.47	C	ATOM	34060	CG	PRO B 194	154.169	146.933	-26.396	1.00	50.18	C
ATOM	34011	CD1 LEU B 187	161.273	158.460	-26.827	1.00	76.47	C	ATOM	34061	CD	PRO B 194	155.603	146.559	-26.612	1.00	50.18	C
ATOM	34012	CD2 LEU B 187	158.813	158.891	-26.703	1.00	76.47	C	ATOM	34062	N	ASP B 195	154.589	145.969	-23.277	1.00	58.33	N
ATOM	34013	N ALA B 188	159.023	155.172	-25.682	1.00	54.63	N	ATOM	34063	CA	ASP B 195	154.003	145.299	-22.121	1.00	58.33	C
ATOM	34014	CA ALA B 188	159.508	153.996	-26.395	1.00	54.63	C	ATOM	34064	C	ASP B 195	154.774	145.540	-20.826	1.00	58.33	C
ATOM	34015	C ALA B 188	158.770	153.752	-27.699	1.00	54.63	C	ATOM	34065	O	ASP B 195	154.234	145.378	-19.737	1.00	58.33	O



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ATOM	34066	CB	ASP B 195	153.907	143.794	-22.373	1.00122.11	C	ATOM	34116	O	ILE B 201	156.571	156.851	-26.070	1.00	52.73	O	
ATOM	34067	CG	ASP B 195	153.038	143.457	-23.565	1.00122.11	C	ATOM	34117	CB	ILE B 201	155.557	158.456	-24.096	1.00	69.32	C	
ATOM	34068	OD1	ASP B 195	151.865	143.888	-23.595	1.00122.11	O	ATOM	34118	CG1	ILE B 201	154.917	159.046	-22.841	1.00	69.32	C	
ATOM	34069	OD2	ASP B 195	153.528	142.753	-24.471	1.00122.11	O	ATOM	34119	CG2	ILE B 201	155.631	159.546	-25.156	1.00	69.32	C	
ATOM	34070	N	LEU B 196	156.033	145.935	-20.942	1.00	44.78	N	ATOM	34120	CD1	ILE B 201	155.754	160.137	-22.204	1.00	69.32	C
ATOM	34071	CA	LEU B 196	156.852	146.167	-19.761	1.00	44.78	C	ATOM	34121	N	PRO B 202	154.548	156.181	-26.790	1.00	63.78	N
ATOM	34072	C	LEU B 196	156.819	147.598	-19.262	1.00	44.78	C	ATOM	34122	CA	PRO B 202	155.033	155.650	-28.062	1.00	63.78	C
ATOM	34073	O	LEU B 196	157.343	147.911	-18.189	1.00	44.78	O	ATOM	34123	C	PRO B 202	155.497	156.775	-28.974	1.00	63.78	C
ATOM	34074	CB	LEU B 196	158.288	145.744	-20.051	1.00	62.66	C	ATOM	34124	O	PRO B 202	154.711	157.644	-29.350	1.00	63.78	O
ATOM	34075	CG	LEU B 196	158.398	144.227	-19.977	1.00	62.66	C	ATOM	34125	CB	PRO B 202	153.815	154.912	-28.609	1.00	69.40	C
ATOM	34076	CD1	LEU B 196	159.655	143.721	-20.640	1.00	62.66	C	ATOM	34126	CG	PRO B 202	152.676	155.732	-28.087	1.00	69.40	C
ATOM	34077	CD2	LEU B 196	158.341	143.844	-18.514	1.00	62.66	C	ATOM	34127	CD	PRO B 202	153.094	155.979	-26.660	1.00	69.40	C
ATOM	34078	N	VAL B 197	156.197	148.471	-20.038	1.00	57.30	N	ATOM	34128	N	GLY B 203	156.780	156.755	-29.313	1.00	75.49	N
ATOM	34079	CA	VAL B 197	156.109	149.859	-19.642	1.00	57.30	C	ATOM	34129	CA	GLY B 203	157.337	157.778	-30.174	1.00	75.49	C
ATOM	34080	C	VAL B 197	154.763	150.097	-18.972	1.00	57.30	C	ATOM	34130	C	GLY B 203	158.812	157.529	-30.376	1.00	75.49	C
ATOM	34081	O	VAL B 197	153.710	149.827	-19.555	1.00	57.30	O	ATOM	34131	O	GLY B 203	159.392	156.682	-29.700	1.00	75.49	O
ATOM	34082	CB	VAL B 197	156.226	150.782	-20.847	1.00	55.19	C	ATOM	34132	N	ASN B 204	159.421	158.272	-31.295	1.00	63.27	N
ATOM	34083	CG1	VAL B 197	156.642	152.159	-20.384	1.00	55.19	C	ATOM	34133	CA	ASN B 204	160.846	158.133	-31.605	1.00	63.27	C
ATOM	34084	CG2	VAL B 197	157.212	150.217	-21.841	1.00	55.19	C	ATOM	34134	C	ASN B 204	161.798	158.006	-30.390	1.00	63.27	C
ATOM	34085	N	ASP B 198	154.802	150.590	-17.739	1.00	55.87	N	ATOM	34135	O	ASN B 204	162.052	158.977	-29.688	1.00	63.27	O
ATOM	34086	CA	ASP B 198	153.584	150.857	-17.000	1.00	55.87	C	ATOM	34136	CB	ASN B 204	161.268	159.307	-32.493	1.00	103.38	C
ATOM	34087	C	ASP B 198	152.895	152.064	-17.625	1.00	55.87	C	ATOM	34137	CG	ASN B 204	162.670	159.156	-33.041	1.00	103.38	C
ATOM	34088	O	ASP B 198	151.695	152.029	-17.885	1.00	55.87	O	ATOM	34138	OD1	ASN B 204	163.063	159.877	-33.954	1.00	103.38	O
ATOM	34089	CB	ASP B 198	153.920	151.097	-15.530	1.00	77.64	C	ATOM	34139	ND2	ASN B 204	163.436	158.228	-32.484	1.00	103.38	N
ATOM	34090	CG	ASP B 198	154.659	149.923	-14.912	1.00	77.64	C	ATOM	34140	N	ASP B 205	162.327	156.799	-30.169	1.00	79.01	N
ATOM	34091	OD1	ASP B 198	154.205	148.776	-15.109	1.00	77.64	O	ATOM	34141	CA	ASP B 205	163.254	156.530	-29.062	1.00	79.01	C
ATOM	34092	OD2	ASP B 198	155.688	150.137	-14.232	1.00	77.64	O	ATOM	34142	C	ASP B 205	164.582	157.278	-29.216	1.00	79.01	C
ATOM	34093	N	TYR B 199	153.657	153.125	-17.877	1.00	68.73	N	ATOM	34143	O	ASP B 205	165.232	157.599	-28.228	1.00	79.01	O
ATOM	34094	CA	TYR B 199	153.124	154.330	-18.515	1.00	68.73	C	ATOM	34144	CB	ASP B 205	163.507	155.002	-28.901	1.00	72.12	C
ATOM	34095	C	TYR B 199	153.987	154.623	-19.739	1.00	68.73	C	ATOM	34145	CG	ASP B 205	164.116	154.324	-30.170	1.00	72.12	C
ATOM	34096	O	TYR B 199	155.104	155.136	-19.634	1.00	68.73	O	ATOM	34146	OD1	ASP B 205	163.587	154.512	-31.287	1.00	72.12	O
ATOM	34097	CB	TYR B 199	153.130	155.510	-17.541	1.00	55.64	C	ATOM	34147	OD2	ASP B 205	165.113	153.572	-30.044	1.00	72.12	O
ATOM	34098	CG	TYR B 199	152.274	155.259	-16.323	1.00	55.64	C	ATOM	34148	N	ASP B 206	164.979	157.551	-30.455	1.00	124.67	N
ATOM	34099	CD1	TYR B 199	152.848	154.875	-15.112	1.00	55.64	C	ATOM	34149	CA	ASP B 206	166.216	158.277	-30.726	1.00	124.67	C
ATOM	34100	CD2	TYR B 199	150.882	155.322	-16.402	1.00	55.64	C	ATOM	34150	C	ASP B 206	165.882	159.711	-31.088	1.00	124.67	C
ATOM	34101	CE1	TYR B 199	152.058	154.553	-14.012	1.00	55.64	C	ATOM	34151	O	ASP B 206	164.867	160.243	-30.647	1.00	124.67	O
ATOM	34102	CE2	TYR B 199	150.080	154.998	-15.313	1.00	55.64	C	ATOM	34152	CB	ASP B 206	166.968	157.632	-31.881	1.00	129.41	C
ATOM	34103	CZ	TYR B 199	150.674	154.612	-14.124	1.00	55.64	C	ATOM	34153	CG	ASP B 206	167.513	156.281	-31.522	1.00	129.41	C
ATOM	34104	OH	TYR B 199	149.895	154.251	-13.053	1.00	55.64	O	ATOM	34154	OD1	ASP B 206	168.402	156.220	-30.651	1.00	129.41	O
ATOM	34105	N	ILE B 200	153.449	154.275	-20.901	1.00	66.07	N	ATOM	34155	OD2	ASP B 206	167.049	155.281	-32.102	1.00	129.41	O
ATOM	34106	CA	ILE B 200	154.150	154.431	-22.168	1.00	66.07	C	ATOM	34156	N	ALA B 207	166.736	160.335	-31.892	1.00	92.30	N
ATOM	34107	C	ILE B 200	153.900	155.762	-22.857	1.00	66.07	C	ATOM	34157	CA	ALA B 207	166.519	161.714	-32.325	1.00	92.30	C
ATOM	34108	O	ILE B 200	152.943	156.472	-22.557	1.00	66.07	O	ATOM	34158	C	ALA B 207	166.479	162.704	-31.170	1.00	92.30	O
ATOM	34109	CB	ILE B 200	153.729	153.317	-23.167	1.00	101.75	C	ATOM	34159	O	ALA B 207	165.579	162.667	-30.327	1.00	92.30	C
ATOM	34110	CG1	ILE B 200	153.444	152.021	-22.412	1.00	101.75	C	ATOM	34160	CB	ALA B 207	165.223	161.816	-33.131	1.00	44.55	C
ATOM	34111	CG2	ILE B 200	154.831	153.067	-24.181	1.00	101.75	C	ATOM	34161	N	ILE B 208	167.454	163.604	-31.150	1.00	98.28	N
ATOM	34112	CD1	ILE B 200	152.884	150.907	-23.277	1.00	101.75	C	ATOM	34162	CA	ILE B 208	167.535	164.609	-30.105	1.00	98.28	C
ATOM	34113	N	ILE B 201	154.797	156.081	-23.784	1.00	52.73	N	ATOM	34163	C	ILE B 208	166.268	165.454	-30.124	1.00	98.28	C
ATOM	34114	CA	ILE B 201	154.722	157.267	-24.622	1.00	52.73	C	ATOM	34164	O	ILE B 208	165.692	165.745	-29.079	1.00	98.28	O
ATOM	34115	C	ILE B 201	155.359	156.764	-25.898	1.00	52.73	C	ATOM	34165	CB	ILE B 208	168.775	165.499	-30.306	1.00	76.22	C



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ATOM	34166	CG1 ILE B 208	169.977	164.607	-30.627	1.00	76.22	C	34216	CG1 ILE B 214	158.125	163.059	-26.319	1.00	61.36	C
ATOM	34167	CG2 ILE B 208	169.057	166.304	-29.048	1.00	76.22	C	34217	CG2 ILE B 214	157.939	162.542	-23.889	1.00	61.36	C
ATOM	34168	CD1 ILE B 208	171.328	165.296	-30.572	1.00	76.22	C	34218	CD1 ILE B 214	156.685	163.406	-26.466	1.00	61.36	C
ATOM	34169	N ARG B 209	165.826	165.826	-31.319	1.00	78.75	N	34219	N LEU B 215	160.427	164.959	-23.059	1.00	67.09	N
ATOM	34170	CA ARG B 209	164.621	166.637	-31.473	1.00	78.75	C	34220	CA LEU B 215	161.055	165.189	-21.764	1.00	67.09	C
ATOM	34171	C ARG B 209	163.392	165.967	-30.849	1.00	78.75	C	34221	C LEU B 215	160.810	166.585	-21.218	1.00	67.09	C
ATOM	34172	O ARG B 209	162.703	166.561	-30.012	1.00	78.75	O	34222	O LEU B 215	160.421	166.745	-20.063	1.00	67.09	O
ATOM	34173	CB ARG B 209	164.374	166.922	-32.960	1.00	152.61	C	34223	CB LEU B 215	162.563	164.953	-21.835	1.00	85.90	C
ATOM	34174	CG ARG B 209	163.019	167.534	-33.269	1.00	152.61	C	34224	CG LEU B 215	163.035	163.523	-21.584	1.00	85.90	C
ATOM	34175	CD ARG B 209	162.786	168.835	-32.519	1.00	152.61	C	34225	CD1 LEU B 215	164.545	163.515	-21.360	1.00	85.90	C
ATOM	34176	NE ARG B 209	163.539	169.942	-33.096	1.00	152.61	N	34226	CD2 LEU B 215	162.327	162.961	-20.358	1.00	85.90	C
ATOM	34177	CZ ARG B 209	163.370	170.390	-34.336	1.00	152.61	C	34227	N SER B 216	161.046	167.596	-22.046	1.00	87.34	N
ATOM	34178	NH1 ARG B 209	162.474	169.821	-35.131	1.00	152.61	N	34228	CA SER B 216	160.856	168.978	-21.622	1.00	87.34	C
ATOM	34179	NH2 ARG B 209	164.093	171.409	-34.778	1.00	152.61	N	34229	C SER B 216	159.467	169.188	-21.043	1.00	87.34	C
ATOM	34180	N SER B 210	163.126	164.729	-31.260	1.00	94.54	N	34230	O SER B 216	159.325	169.581	-19.887	1.00	87.34	O
ATOM	34181	CA SER B 210	161.989	163.964	-30.747	1.00	94.54	C	34231	CB SER B 216	161.059	169.934	-22.797	1.00	102.37	C
ATOM	34182	C SER B 210	162.031	163.933	-29.227	1.00	94.54	C	34232	CG SER B 216	160.021	169.791	-23.751	1.00	102.37	O
ATOM	34183	O SER B 210	161.136	164.432	-28.552	1.00	94.54	O	34233	N ARG B 217	158.446	168.919	-21.850	1.00	76.99	N
ATOM	34184	CB SER B 210	162.038	162.538	-31.297	1.00	109.94	C	34234	CA ARG B 217	157.068	169.092	-21.413	1.00	76.99	C
ATOM	34185	OG SER B 210	160.925	161.782	-30.864	1.00	109.94	O	34235	C ARG B 217	156.765	168.337	-20.126	1.00	76.99	C
ATOM	34186	N ILE B 211	163.090	163.341	-28.697	1.00	85.56	N	34236	O ARG B 217	155.938	168.770	-19.325	1.00	76.99	O
ATOM	34187	CA ILE B 211	163.278	163.253	-27.263	1.00	85.56	C	34237	CB ARG B 217	156.104	168.647	-22.511	1.00	69.32	C
ATOM	34188	C ILE B 211	162.957	164.577	-26.587	1.00	85.56	C	34238	CG ARG B 217	156.255	169.422	-23.801	1.00	69.32	C
ATOM	34189	O ILE B 211	161.913	164.718	-25.955	1.00	85.56	O	34239	CD ARG B 217	156.164	170.933	-23.576	1.00	69.32	C
ATOM	34190	CB ILE B 211	164.725	162.863	-26.947	1.00	46.54	C	34240	NE ARG B 217	155.100	171.671	-25.672	1.00	69.32	N
ATOM	34191	CG1 ILE B 211	164.968	161.442	-27.440	1.00	46.54	C	34241	CZ ARG B 217	155.100	171.671	-25.672	1.00	69.32	C
ATOM	34192	CG2 ILE B 211	165.006	163.001	-25.460	1.00	46.54	C	34242	NH1 ARG B 217	153.982	171.028	-25.351	1.00	69.32	N
ATOM	34193	CD1 ILE B 211	166.410	161.032	-27.414	1.00	46.54	C	34243	NH2 ARG B 217	155.180	172.307	-26.834	1.00	69.32	N
ATOM	34194	N GLN B 212	163.860	165.541	-26.740	1.00	82.28	N	34244	N ALA B 218	157.430	167.207	-19.927	1.00	63.16	N
ATOM	34195	CA GLN B 212	163.732	166.872	-26.147	1.00	82.28	C	34245	CA ALA B 218	157.211	166.426	-18.722	1.00	63.16	C
ATOM	34196	C GLN B 212	162.298	167.333	-25.885	1.00	82.28	C	34246	O ALA B 218	157.845	167.139	-17.530	1.00	63.16	C
ATOM	34197	O GLN B 212	161.972	167.757	-24.778	1.00	82.28	O	34247	C ALA B 218	157.396	166.990	-16.398	1.00	63.16	C
ATOM	34198	CB GLN B 212	164.448	167.893	-27.032	1.00	103.32	C	34248	CB ALA B 218	157.801	165.039	-18.886	1.00	94.08	C
ATOM	34199	CG GLN B 212	164.723	169.238	-26.370	1.00	103.32	C	34249	N VAL B 219	158.892	167.914	-17.782	1.00	86.80	N
ATOM	34200	CD GLN B 212	163.484	170.089	-26.220	1.00	103.32	C	34250	CA VAL B 219	159.542	168.637	-16.700	1.00	86.80	C
ATOM	34201	OE1 GLN B 212	162.734	170.291	-27.176	1.00	103.32	O	34251	C VAL B 219	158.817	169.963	-16.499	1.00	86.80	C
ATOM	34202	NE2 GLN B 212	163.266	170.604	-25.016	1.00	103.32	N	34252	O VAL B 219	158.792	170.499	-15.394	1.00	86.80	O
ATOM	34203	N LEU B 213	161.444	167.252	-26.898	1.00	72.90	N	34253	CB VAL B 219	161.029	168.893	-17.001	1.00	72.33	C
ATOM	34204	CA LEU B 213	160.056	167.672	-26.755	1.00	72.90	C	34254	CG1 VAL B 219	161.727	169.424	-15.762	1.00	72.33	C
ATOM	34205	C LEU B 213	159.357	166.981	-25.578	1.00	72.90	C	34255	CG2 VAL B 219	161.690	167.607	-17.455	1.00	72.33	C
ATOM	34206	O LEU B 213	158.943	167.634	-24.619	1.00	72.90	O	34256	N ASP B 220	158.228	170.497	-17.567	1.00	84.58	N
ATOM	34207	CB LEU B 213	159.296	167.374	-28.044	1.00	69.14	C	34257	CA ASP B 220	157.474	171.740	-17.453	1.00	84.58	C
ATOM	34208	CG LEU B 213	157.944	168.061	-28.257	1.00	69.14	C	34258	C ASP B 220	156.310	171.394	-16.530	1.00	84.58	C
ATOM	34209	CD1 LEU B 213	157.293	167.442	-29.477	1.00	69.14	C	34259	O ASP B 220	155.963	172.145	-15.614	1.00	84.58	O
ATOM	34210	CD2 LEU B 213	157.036	167.912	-27.046	1.00	69.14	C	34260	CB ASP B 220	156.920	172.186	-18.814	1.00	98.86	C
ATOM	34211	N ILE B 214	159.212	165.662	-25.669	1.00	60.94	N	34261	CG ASP B 220	158.010	172.568	-19.808	1.00	98.86	C
ATOM	34212	CA ILE B 214	158.558	164.871	-24.631	1.00	60.94	C	34262	OD1 ASP B 220	158.998	173.218	-19.406	1.00	98.86	O
ATOM	34213	C ILE B 214	159.120	165.139	-23.220	1.00	60.94	C	34263	OD2 ASP B 220	157.866	172.235	-21.003	1.00	98.86	O
ATOM	34214	O ILE B 214	158.374	165.495	-22.314	1.00	60.94	O	34264	N LEU B 221	155.735	170.224	-16.784	1.00	62.23	N
ATOM	34215	CB ILE B 214	158.608	163.361	-24.936	1.00	61.36	C	34265	CA LEU B 221	154.602	169.694	-16.031	1.00	62.23	C



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ATOM	34266	C	LEU B 221	154.995	169.235	-14.622	1.00	62.23	C	ATOM	34316	O	GLY B 227	155.854	176.869	-6.441	1.00184.63	
ATOM	34267	O	LEU B 221	154.167	169.223	-13.721	1.00	62.23	O	ATOM	34317	N	GLY B 228	155.528	175.794	-8.391	1.00110.96	
ATOM	34268	CB	LEU B 221	153.982	168.539	-16.822	1.00	61.62	C	ATOM	34318	CA	GLY B 228	156.423	176.676	-9.116	1.00110.96	
ATOM	34269	CG	LEU B 221	152.577	168.035	-16.508	1.00	61.62	C	ATOM	34319	C	GLY B 228	155.864	177.149	-10.444	1.00110.96	
ATOM	34270	CD1	LEU B 221	152.583	167.202	-15.245	1.00	61.62	C	ATOM	34320	O	GLY B 228	154.740	176.804	-10.816	1.00110.96	
ATOM	34271	CD2	LEU B 221	151.649	169.221	-16.397	1.00	61.62	C	ATOM	34321	N	VAL B 229	156.649	177.945	-11.163	1.00155.86	
ATOM	34272	N	ILE B 222	156.245	168.836	-14.426	1.00	66.29	N	ATOM	34322	CA	VAL B 229	156.216	178.458	-12.453	1.00155.86	
ATOM	34273	CA	ILE B 222	156.666	168.428	-13.089	1.00	66.29	C	ATOM	34323	C	VAL B 229	157.102	177.959	-13.590	1.00155.86	
ATOM	34274	C	ILE B 222	156.820	169.717	-12.285	1.00	66.29	C	ATOM	34324	O	VAL B 229	158.330	177.920	-13.478	1.00155.86	
ATOM	34275	O	ILE B 222	156.335	169.809	-11.153	1.00	66.29	O	ATOM	34325	CB	VAL B 229	156.197	179.996	-12.465	1.00186.22	
ATOM	34276	CB	ILE B 222	158.033	167.653	-13.095	1.00	69.72	C	ATOM	34326	CG1	VAL B 229	155.637	180.495	-13.787	1.00186.22	
ATOM	34277	CG1	ILE B 222	157.827	166.220	-13.586	1.00	69.72	C	ATOM	34327	CG2	VAL B 229	155.356	180.510	-11.307	1.00186.22	
ATOM	34278	CG2	ILE B 222	158.638	167.617	-11.690	1.00	69.72	C	ATOM	34328	N	VAL B 230	156.449	177.584	-14.684	1.00151.35	
ATOM	34279	CD1	ILE B 222	159.072	165.358	-13.508	1.00	69.72	C	ATOM	34329	CA	VAL B 230	157.101	177.058	-15.877	1.00151.35	
ATOM	34280	N	ILE B 223	157.498	170.703	-12.884	1.00	86.09	N	ATOM	34330	C	VAL B 230	158.185	177.965	-16.465	1.00151.35	
ATOM	34281	CA	ILE B 223	157.732	172.009	-12.259	1.00	86.09	C	ATOM	34331	O	VAL B 230	158.068	179.188	-16.449	1.00151.35	
ATOM	34282	C	ILE B 223	156.377	172.614	-11.938	1.00	86.09	C	ATOM	34332	CB	VAL B 230	156.044	176.773	-16.968	1.00105.77	
ATOM	34283	O	ILE B 223	156.069	172.917	-10.784	1.00	86.09	O	ATOM	34333	CG1	VAL B 230	156.695	176.147	-18.179	1.00105.77	
ATOM	34284	CB	ILE B 223	158.510	172.963	-13.203	1.00104.83	C	ATOM	34334	CG2	VAL B 230	154.957	175.859	-16.412	1.00105.77		
ATOM	34285	CG1	ILE B 223	160.015	172.811	-12.987	1.00104.83	C	ATOM	34335	N	GLU B 231	159.242	177.345	-16.983	1.00181.02		
ATOM	34286	CG2	ILE B 223	158.124	174.404	-12.933	1.00104.83	C	ATOM	34336	CA	GLU B 231	160.352	178.065	-17.601	1.00181.02		
ATOM	34287	CD1	ILE B 223	160.569	171.482	-13.384	1.00104.83	C	ATOM	34337	C	GLU B 231	160.699	177.380	-18.911	1.00181.02		
ATOM	34288	N	GLN B 224	155.574	172.806	-12.975	1.00	96.29	N	ATOM	34338	O	GLU B 231	160.619	176.159	-19.016	1.00181.02	
ATOM	34289	CA	GLN B 224	154.237	173.311	-12.764	1.00	96.29	C	ATOM	34339	CB	GLU B 231	161.592	178.016	-16.721	1.00185.99	
ATOM	34290	C	GLN B 224	153.659	172.190	-11.928	1.00	96.29	C	ATOM	34340	CG	GLU B 231	161.406	178.507	-15.320	1.00185.99	
ATOM	34291	O	GLN B 224	154.254	171.117	-11.850	1.00	96.29	O	ATOM	34341	CD	GLU B 231	162.649	178.276	-14.499	1.00185.99	
ATOM	34292	CB	GLN B 224	153.479	173.388	-14.080	1.00103.29	C	ATOM	34342	OE1	GLU B 231	163.031	177.098	-14.330	1.00185.99		
ATOM	34293	CG	GLN B 224	151.990	173.512	-13.883	1.00103.29	C	ATOM	34343	OE2	GLU B 231	163.249	179.267	-14.033	1.00185.99		
ATOM	34294	CD	GLN B 224	151.211	173.083	-15.096	1.00103.29	C	ATOM	34344	N	PRO B 232	161.099	178.153	-19.927	1.00155.64		
ATOM	34295	OE1	GLN B 224	151.315	173.689	-16.165	1.00103.29	O	ATOM	34345	CA	PRO B 232	161.453	177.546	-21.213	1.00155.64		
ATOM	34296	NE2	GLN B 224	150.419	172.025	-14.943	1.00103.29	N	ATOM	34346	C	PRO B 232	162.735	176.726	-21.041	1.00155.64		
ATOM	34297	N	ALA B 225	152.516	172.407	-11.301	1.00	89.96	N	ATOM	34347	O	PRO B 232	163.669	177.155	-20.361	1.00155.64	
ATOM	34298	CA	ALA B 225	151.934	171.335	-10.505	1.00	89.96	C	ATOM	34348	CB	PRO B 232	161.637	178.755	-22.118	1.00135.83	
ATOM	34299	C	ALA B 225	152.947	170.854	-9.478	1.00	89.96	C	ATOM	34349	CG	PRO B 232	162.188	179.779	-21.170	1.00135.83	
ATOM	34300	O	ALA B 225	153.309	169.681	-9.458	1.00	89.96	O	ATOM	34350	CD	PRO B 232	161.309	179.609	-19.953	1.00135.83	
ATOM	34301	CB	ALA B 225	151.532	170.173	-11.416	1.00	85.54	C	ATOM	34351	N	SER B 233	162.770	175.548	-21.654	1.00145.88	
ATOM	34302	N	ARG B 226	153.411	171.765	-8.635	1.00119.47	N	ATOM	34352	CA	SER B 233	163.918	174.656	-21.539	1.00145.88		
ATOM	34303	CA	ARG B 226	154.379	171.407	-7.616	1.00119.47	C	ATOM	34353	C	SER B 233	165.159	175.105	-22.297	1.00145.88		
ATOM	34304	C	ARG B 226	154.617	172.609	-6.718	1.00119.47	C	ATOM	34354	O	SER B 233	165.096	175.425	-23.484	1.00145.88		
ATOM	34305	O	ARG B 226	155.150	172.480	-5.617	1.00119.47	O	ATOM	34355	CB	SER B 233	163.534	173.249	-22.004	1.00171.05		
ATOM	34306	CB	ARG B 226	155.683	170.976	-8.277	1.00109.42	C	ATOM	34356	OG	SER B 233	163.129	173.258	-23.362	1.00171.05		
ATOM	34307	CG	ARG B 226	156.648	170.288	-7.349	1.00109.42	C	ATOM	34357	N	PRO B 234	166.312	175.131	-21.611	1.00120.14		
ATOM	34308	CD	ARG B 226	157.925	169.968	-8.086	1.00109.42	C	ATOM	34358	CA	PRO B 234	167.581	175.534	-22.216	1.00120.14		
ATOM	34309	NE	ARG B 226	158.909	169.324	-7.225	1.00109.42	N	ATOM	34359	C	PRO B 234	168.126	174.371	-23.029	1.00120.14		
ATOM	34310	C2	ARG B 226	160.152	169.042	-7.601	1.00109.42	C	ATOM	34360	O	PRO B 234	169.101	174.510	-23.765	1.00120.14		
ATOM	34311	NH1	ARG B 226	160.564	169.349	-8.827	1.00109.42	N	ATOM	34361	CB	PRO B 234	168.452	175.839	-21.005	1.00	94.14	C
ATOM	34312	NH2	ARG B 226	160.986	168.457	-6.751	1.00109.42	N	ATOM	34362	CG	PRO B 234	167.998	174.819	-20.028	1.00	94.14	C
ATOM	34313	N	GLY B 227	154.207	173.778	-7.197	1.00184.63	N	ATOM	34363	CD	PRO B 234	166.486	174.880	-20.169	1.00	94.14	C
ATOM	34314	CA	GLY B 227	154.375	174.993	-6.423	1.00184.63	C	ATOM	34364	N	SER B 235	167.480	173.219	-22.880	1.00120.78	N	
ATOM	34315	C	GLY B 227	155.321	175.969	-7.090	1.00184.63	C	ATOM	34365	CA	SER B 235	167.880	172.007	-23.580	1.00120.78	C	



Table 2: Sheet 345/520

ATOM	34366	C	SER B 235	167.708	172.164	-25.078	1.00120.78	C	ATOM	34416	CG	GLU B 241	175.344	171.573	-30.620	1.00144.54	C
ATOM	34367	O	SER B 235	168.456	171.579	-25.862	1.00120.78	O	ATOM	34417	CD	GLU B 241	175.824	171.184	-29.241	1.00144.54	C
ATOM	34368	CB	SER B 235	167.039	170.820	-23.105	1.00109.18	C	ATOM	34418	OE1	GLU B 241	175.017	170.628	-28.463	1.00144.54	O
ATOM	34369	OG	SER B 235	165.682	170.972	-23.490	1.00109.18	O	ATOM	34419	OE2	GLU B 241	177.012	171.424	-28.939	1.00144.54	O
ATOM	34370	N	TYR B 236	166.716	172.955	-25.472	1.00113.69	N	ATOM	34420	N	ALA B 242	172.632	170.123	-32.278	1.00146.38	N
ATOM	34371	CA	TYR B 236	166.437	173.172	-26.884	1.00113.69	C	ATOM	34421	CA	ALA B 242	172.665	168.777	-32.846	1.00146.38	C
ATOM	34372	C	TYR B 236	167.651	173.719	-27.622	1.00113.69	C	ATOM	34422	C	ALA B 242	172.474	168.846	-34.355	1.00146.38	C
ATOM	34373	O	TYR B 236	167.730	173.654	-28.853	1.00113.69	O	ATOM	34423	O	ALA B 242	173.102	168.101	-35.110	1.00146.38	O
ATOM	34374	CB	TYR B 236	165.252	174.118	-27.049	1.00143.84	C	ATOM	34424	CB	ALA B 242	171.575	167.936	-32.229	1.00110.82	C
ATOM	34375	CG	TYR B 236	164.719	174.152	-28.457	1.00143.84	C	ATOM	34425	N	GLU B 243	171.593	169.745	-34.780	1.00129.23	N
ATOM	34376	CD1	TYR B 236	164.492	172.972	-29.162	1.00143.84	C	ATOM	34426	CA	GLU B 243	171.307	169.943	-36.193	1.00129.23	C
ATOM	34377	CD2	TYR B 236	164.413	175.359	-29.077	1.00143.84	C	ATOM	34427	C	GLU B 243	172.337	170.898	-36.801	1.00129.23	C
ATOM	34378	CE1	TYR B 236	163.970	172.991	-30.448	1.00143.84	C	ATOM	34428	O	GLU B 243	171.941	172.005	-37.224	1.00129.23	O
ATOM	34379	CE2	TYR B 236	163.888	175.394	-30.365	1.00143.84	C	ATOM	34429	CB	GLU B 243	169.900	170.514	-36.359	1.00154.12	C
ATOM	34380	CZ	TYR B 236	163.667	174.207	-31.047	1.00143.84	C	ATOM	34430	CG	GLU B 243	168.815	169.626	-35.788	1.00154.12	C
ATOM	34381	OH	TYR B 236	163.135	174.238	-32.320	1.00143.84	O	ATOM	34431	CD	GLU B 243	167.430	170.219	-35.950	1.00154.12	C
ATOM	34382	N	ALA B 237	168.591	174.266	-26.858	1.00129.16	N	ATOM	34432	OE1	GLU B 243	167.034	170.500	-37.103	1.00154.12	O
ATOM	34383	CA	ALA B 237	169.819	174.802	-27.422	1.00129.16	C	ATOM	34433	OE2	GLU B 243	166.733	170.406	-34.928	1.00154.12	O
ATOM	34384	C	ALA B 237	170.594	173.615	-27.975	1.00129.16	C	TER	34434							
ATOM	34385	O	ALA B 237	171.267	173.721	-29.000	1.00129.16	O	ATOM	34435	N	GLY C 2	204.951	127.212	7.288	1.00 82.82	N
ATOM	34386	CB	ALA B 237	170.631	175.502	-26.336	1.00 81.30	C	ATOM	34436	CA	GLY C 2	205.961	127.908	8.151	1.00 82.82	C
ATOM	34387	N	LEU B 238	170.475	172.483	-27.283	1.00104.83	N	ATOM	34437	C	GLY C 2	206.380	129.243	7.589	1.00 82.82	C
ATOM	34388	CA	LEU B 238	171.148	171.246	-27.671	1.00104.83	C	ATOM	34438	O	GLY C 2	207.282	129.314	6.764	1.00 82.82	O
ATOM	34389	C	LEU B 238	170.547	170.641	-28.933	1.00104.83	C	ATOM	34439	N	ASN C 3	205.721	130.301	8.043	1.00 59.15	N
ATOM	34390	O	LEU B 238	171.253	170.030	-29.739	1.00104.83	O	ATOM	34440	CA	ASN C 3	205.993	131.657	7.576	1.00 59.15	C
ATOM	34391	CB	LEU B 238	171.075	170.231	-26.528	1.00102.36	C	ATOM	34441	C	ASN C 3	205.403	132.689	8.536	1.00 59.15	C
ATOM	34392	CG	LEU B 238	172.130	170.419	-25.437	1.00102.36	C	ATOM	34442	O	ASN C 3	204.941	132.335	9.625	1.00 59.15	O
ATOM	34393	CD1	LEU B 238	171.764	169.619	-24.198	1.00102.36	C	ATOM	34443	CB	ASN C 3	205.421	131.870	6.150	1.00 61.12	C
ATOM	34394	CD2	LEU B 238	173.488	169.992	-25.981	1.00102.36	C	ATOM	34444	CG	ASN C 3	204.165	131.008	5.842	1.00 61.12	C
ATOM	34395	N	VAL B 239	169.240	170.810	-29.092	1.00126.41	N	ATOM	34445	OD1	ASN C 3	203.546	131.142	4.776	1.00 61.12	O
ATOM	34396	CA	VAL B 239	168.550	170.295	-30.261	1.00126.41	C	ATOM	34446	ND2	ASN C 3	203.805	130.125	6.763	1.00 61.12	N
ATOM	34397	C	VAL B 239	169.033	171.061	-31.480	1.00126.41	C	ATOM	34447	N	LYS C 4	205.427	133.962	8.146	1.00 48.42	N
ATOM	34398	O	VAL B 239	169.280	170.474	-32.535	1.00126.41	O	ATOM	34448	CA	LYS C 4	204.871	135.046	8.973	1.00 48.42	C
ATOM	34399	CB	VAL B 239	167.035	170.461	-30.123	1.00 85.62	C	ATOM	34449	C	LYS C 4	205.779	135.489	10.150	1.00 48.42	C
ATOM	34400	CG1	VAL B 239	166.328	169.919	-31.355	1.00 85.62	C	ATOM	34450	O	LYS C 4	205.982	134.723	11.102	1.00 48.42	O
ATOM	34401	CG2	VAL B 239	166.569	169.738	-28.887	1.00 85.62	C	ATOM	34451	CB	LYS C 4	203.492	134.624	9.511	1.00 57.55	C
ATOM	34402	N	GLN B 240	169.168	172.377	-31.331	1.00110.37	N	ATOM	34452	CG	LYS C 4	202.379	134.475	8.463	1.00 57.55	C
ATOM	34403	CA	GLN B 240	169.647	173.223	-32.419	1.00110.37	C	ATOM	34453	CE	LYS C 4	202.043	135.824	7.866	1.00 57.55	C
ATOM	34404	C	GLN B 240	171.060	172.781	-32.784	1.00110.37	C	ATOM	34454	CE	LYS C 4	200.826	135.799	6.937	1.00 57.55	C
ATOM	34405	O	GLN B 240	171.328	172.410	-33.928	1.00110.37	O	ATOM	34455	NZ	LYS C 4	200.603	137.165	6.283	1.00 57.55	N
ATOM	34406	CB	GLN B 240	169.662	174.683	-31.976	1.00150.11	C	ATOM	34456	N	ILE C 5	206.330	136.709	10.087	1.00 63.68	N
ATOM	34407	CG	GLN B 240	168.313	175.189	-31.515	1.00150.11	C	ATOM	34457	CA	ILE C 5	207.183	137.202	11.177	1.00 63.68	C
ATOM	34408	CD	GLN B 240	168.388	176.584	-30.937	1.00150.11	C	ATOM	34458	C	ILE C 5	206.299	137.597	12.321	1.00 63.68	C
ATOM	34409	OE1	GLN B 240	169.093	176.822	-29.954	1.00150.11	O	ATOM	34459	O	ILE C 5	205.126	137.908	12.119	1.00 63.68	O
ATOM	34410	NE2	GLN B 240	167.662	177.518	-31.545	1.00150.11	N	ATOM	34460	CB	ILE C 5	208.008	138.502	10.852	1.00 56.94	C
ATOM	34411	N	GLU B 241	171.951	172.820	-31.793	1.00111.97	N	ATOM	34461	CG1	ILE C 5	207.218	139.436	9.950	1.00 56.94	C
ATOM	34412	CA	GLU B 241	173.350	172.420	-31.955	1.00111.97	C	ATOM	34462	CG2	ILE C 5	209.352	138.157	10.290	1.00 56.94	C
ATOM	34413	C	GLU B 241	173.509	171.059	-32.630	1.00111.97	C	ATOM	34463	CD1	ILE C 5	205.989	140.018	10.597	1.00 56.94	C
ATOM	34414	O	GLU B 241	174.425	170.856	-33.433	1.00111.97	O	ATOM	34464	N	HIS C 6	206.869	137.590	13.521	1.00 55.40	N
ATOM	34415	CB	GLU B 241	174.044	172.365	-30.594	1.00144.54	C	ATOM	34465	CA	HIS C 6	206.135	138.012	14.699	1.00 55.40	C



Table 2: Sheet 346/520

ATOM	34466	C	HIS	C	6	205.701	139.429	14.327	1.00	55.40	C	ATOM	34516	CA	LEU	C	12	210.087	147.359	17.049	1.00	49.83	C
ATOM	34467	O	HIS	C	6	206.519	140.229	13.876	1.00	55.40	O	ATOM	34517	C	LEU	C	12	210.675	148.729	16.714	1.00	49.83	C
ATOM	34468	CB	HIS	C	6	207.071	138.045	15.888	1.00	71.50	C	ATOM	34518	O	LEU	C	12	210.440	149.717	17.414	1.00	49.83	O
ATOM	34469	CG	HIS	C	6	206.374	138.278	17.179	1.00	71.50	C	ATOM	34519	CB	LEU	C	12	211.148	146.430	17.636	1.00	52.39	C
ATOM	34470	ND1	HIS	C	6	206.072	137.258	18.054	1.00	71.50	N	ATOM	34520	CG	LEU	C	12	210.423	145.451	18.565	1.00	52.39	C
ATOM	34471	CD2	HIS	C	6	205.888	139.411	17.732	1.00	71.50	C	ATOM	34521	CD1	LEU	C	12	211.285	144.271	18.980	1.00	52.39	C
ATOM	34472	CE1	HIS	C	6	205.430	137.754	19.095	1.00	71.50	C	ATOM	34522	CD2	LEU	C	12	209.989	146.237	19.781	1.00	52.39	C
ATOM	34473	NE2	HIS	C	6	205.305	139.059	18.924	1.00	71.50	N	ATOM	34523	N	GLY	C	13	211.433	148.813	15.636	1.00	86.94	N
ATOM	34474	N	PRO	C	7	204.412	139.760	14.488	1.00	56.08	N	ATOM	34524	CA	GLY	C	13	211.975	150.111	15.297	1.00	86.94	C
ATOM	34475	CA	PRO	C	7	204.035	141.123	14.106	1.00	56.08	C	ATOM	34525	C	GLY	C	13	210.849	151.120	15.180	1.00	86.94	C
ATOM	34476	C	PRO	C	7	204.633	142.198	14.991	1.00	56.08	C	ATOM	34526	O	GLY	C	13	210.905	152.210	15.747	1.00	86.94	O
ATOM	34477	O	PRO	C	7	204.767	143.346	14.569	1.00	56.08	O	ATOM	34527	N	ILE	C	14	209.810	150.737	14.447	1.00	88.74	N
ATOM	34478	CB	PRO	C	7	202.511	141.086	14.134	1.00	46.12	C	ATOM	34528	CA	ILE	C	14	208.667	151.603	14.234	1.00	88.74	C
ATOM	34479	CG	PRO	C	7	202.214	140.062	15.174	1.00	46.12	C	ATOM	34529	C	ILE	C	14	207.618	151.352	15.305	1.00	88.74	C
ATOM	34480	CD	PRO	C	7	203.246	138.986	14.949	1.00	46.12	C	ATOM	34530	O	ILE	C	14	207.918	150.778	16.348	1.00	88.74	O
ATOM	34481	N	ILE	C	8	205.002	141.835	16.215	1.00	71.51	N	ATOM	34531	CB	ILE	C	14	208.035	151.348	12.860	1.00	132.23	C
ATOM	34482	CA	ILE	C	8	205.612	142.811	17.106	1.00	71.51	C	ATOM	34532	CG1	ILE	C	14	209.083	150.772	11.900	1.00	132.23	C
ATOM	34483	C	ILE	C	8	207.082	142.983	16.726	1.00	71.51	O	ATOM	34533	CG2	ILE	C	14	207.457	152.645	12.315	1.00	132.23	C
ATOM	34484	O	ILE	C	8	207.511	144.078	16.342	1.00	71.51	O	ATOM	34534	CD1	ILE	C	14	210.305	151.650	11.695	1.00	132.23	C
ATOM	34485	CG1	ILE	C	8	205.517	142.374	18.577	1.00	59.51	C	ATOM	34535	N	THR	C	15	206.392	151.781	15.023	1.00	62.12	N
ATOM	34486	CG1	ILE	C	8	204.093	142.596	19.087	1.00	59.51	C	ATOM	34536	CA	THR	C	15	205.245	151.651	15.920	1.00	62.12	C
ATOM	34487	CG2	ILE	C	8	206.529	143.143	19.418	1.00	59.51	C	ATOM	34537	C	THR	C	15	205.236	150.488	16.921	1.00	62.12	C
ATOM	34488	CD1	ILE	C	8	203.869	142.090	20.505	1.00	59.51	C	ATOM	34538	O	THR	C	15	204.377	149.609	16.829	1.00	62.12	O
ATOM	34489	N	GLY	C	9	207.847	141.897	16.833	1.00	67.23	N	ATOM	34539	CB	THR	C	15	203.941	151.565	15.099	1.00	100.75	C
ATOM	34490	CA	GLY	C	9	209.252	141.956	16.484	1.00	67.23	C	ATOM	34540	OG1	THR	C	15	203.916	150.330	14.372	1.00	100.75	O
ATOM	34491	C	GLY	C	9	209.469	142.639	15.144	1.00	67.23	C	ATOM	34541	CG2	THR	C	15	203.854	152.720	14.110	1.00	100.75	C
ATOM	34492	O	GLY	C	9	210.477	143.317	14.922	1.00	67.23	O	ATOM	34542	N	ARG	C	16	206.155	150.494	17.891	1.00	58.38	N
ATOM	34493	N	PHE	C	10	208.508	142.476	14.243	1.00	58.88	N	ATOM	34543	CA	ARG	C	16	206.211	149.418	18.884	1.00	58.38	C
ATOM	34494	CA	PHE	C	10	208.626	143.070	12.926	1.00	58.88	C	ATOM	34544	C	ARG	C	16	207.476	149.402	19.752	1.00	58.38	C
ATOM	34495	C	PHE	C	10	208.574	144.589	12.943	1.00	58.88	C	ATOM	34545	O	ARG	C	16	208.521	148.930	19.317	1.00	58.38	O
ATOM	34496	O	PHE	C	10	209.054	145.235	12.012	1.00	58.88	C	ATOM	34546	CB	ARG	C	16	206.091	148.069	18.182	1.00	80.85	C
ATOM	34497	CB	PHE	C	10	207.549	142.516	11.981	1.00	44.55	O	ATOM	34547	CG	ARG	C	16	205.836	146.927	19.114	1.00	80.85	C
ATOM	34498	CG	PHE	C	10	207.636	143.057	10.565	1.00	44.55	C	ATOM	34548	CD	ARG	C	16	204.428	146.988	19.645	1.00	80.85	C
ATOM	34499	CD1	PHE	C	10	208.844	143.056	9.872	1.00	44.55	C	ATOM	34549	NE	ARG	C	16	204.194	145.909	20.591	1.00	80.85	N
ATOM	34500	CD2	PHE	C	10	206.519	143.589	9.939	1.00	44.55	C	ATOM	34550	C2	ARG	C	16	202.999	145.574	21.055	1.00	80.85	C
ATOM	34501	CE1	PHE	C	10	208.937	143.580	8.589	1.00	44.55	C	ATOM	34551	NH1	ARG	C	16	201.927	146.244	20.650	1.00	80.85	N
ATOM	34502	CE2	PHE	C	10	206.609	144.115	8.652	1.00	44.55	C	ATOM	34552	NH2	ARG	C	16	202.879	144.572	21.919	1.00	80.85	N
ATOM	34503	C2	PHE	C	10	207.824	144.110	7.978	1.00	44.55	C	ATOM	34553	N	ASP	C	17	207.372	149.887	20.988	1.00	65.81	N
ATOM	34504	N	ARG	C	11	208.010	145.180	13.987	1.00	69.74	N	ATOM	34554	CA	ASP	C	17	208.516	149.912	21.901	1.00	65.81	C
ATOM	34505	CA	ARG	C	11	207.956	146.633	14.002	1.00	69.74	C	ATOM	34555	C	ASP	C	17	208.758	148.550	22.527	1.00	65.81	C
ATOM	34506	C	ARG	C	11	208.485	147.340	15.237	1.00	69.74	C	ATOM	34556	O	ASP	C	17	207.895	147.664	22.468	1.00	65.81	O
ATOM	34507	O	ARG	C	11	208.010	148.415	15.592	1.00	69.74	O	ATOM	34557	CB	ASP	C	17	208.301	150.936	23.015	1.00	64.49	C
ATOM	34508	CB	ARG	C	11	206.537	147.109	13.676	1.00	63.96	C	ATOM	34558	CG	ASP	C	17	208.256	152.353	22.497	1.00	164.49	C
ATOM	34509	CG	ARG	C	11	205.425	146.289	14.280	1.00	63.96	C	ATOM	34559	OD1	ASP	C	17	209.206	152.759	21.796	1.00	164.49	O
ATOM	34510	CD	ARG	C	11	204.193	146.380	13.386	1.00	63.96	C	ATOM	34560	OD2	ASP	C	17	207.273	153.063	22.792	1.00	164.49	O
ATOM	34511	NE	ARG	C	11	203.830	145.061	12.881	1.00	63.96	N	ATOM	34561	N	TRP	C	18	209.938	148.396	23.122	1.00	82.04	N
ATOM	34512	C2	ARG	C	11	203.160	144.846	11.757	1.00	63.96	C	ATOM	34562	CA	TRP	C	18	210.331	147.149	23.775	1.00	82.04	C
ATOM	34513	NH1	ARG	C	11	202.767	145.868	11.001	1.00	63.96	N	ATOM	34563	C	TRP	C	18	209.615	147.003	25.114	1.00	82.04	C
ATOM	34514	NH2	ARG	C	11	202.894	143.602	11.386	1.00	63.96	N	ATOM	34564	O	TRP	C	18	208.948	147.929	25.572	1.00	82.04	O
ATOM	34515	N	LEU	C	12	209.486	146.748	15.876	1.00	49.83	N	ATOM	34565	CB	TRP	C	18	211.846	147.122	24.026	1.00	66.25	C



Table 2: Sheet 3477/520

ATOM	34566	CG	TRP	C	18	212.717	146.805	22.833	1.00	66.25	C	ATOM	34616	CA	TYR	C	23	221.206	151.188	28.803	1.00	98.56	C
ATOM	34567	CD1	TRP	C	18	213.508	145.696	22.661	1.00	66.25	C	ATOM	34617	C	TYR	C	23	222.181	150.019	28.719	1.00	98.56	C
ATOM	34568	CD2	TRP	C	18	212.918	147.621	21.677	1.00	66.25	C	ATOM	34618	O	TYR	C	23	221.994	148.987	29.362	1.00	98.56	O
ATOM	34569	NE1	TRP	C	18	214.189	145.778	21.469	1.00	66.25	N	ATOM	34619	CB	TYR	C	23	221.868	152.340	29.575	1.00	200.58	C
ATOM	34570	CE2	TRP	C	18	213.845	146.949	20.846	1.00	66.25	C	ATOM	34620	CG	TYR	C	23	222.139	152.059	31.044	1.00	200.58	C
ATOM	34571	CE3	TRP	C	18	212.407	148.852	21.261	1.00	66.25	C	ATOM	34621	CD1	TYR	C	23	223.071	151.095	31.432	1.00	200.58	C
ATOM	34572	CZ2	TRP	C	18	214.268	147.472	19.629	1.00	66.25	C	ATOM	34622	CD2	TYR	C	23	221.473	152.768	32.045	1.00	200.58	C
ATOM	34573	CZ3	TRP	C	18	212.827	149.369	20.051	1.00	66.25	C	ATOM	34623	CE1	TYR	C	23	223.335	150.843	32.778	1.00	200.58	C
ATOM	34574	CH2	TRP	C	18	213.748	148.680	19.248	1.00	66.25	C	ATOM	34624	CE2	TYR	C	23	221.731	152.523	33.396	1.00	200.58	C
ATOM	34575	N	GLU	C	19	209.763	145.836	25.736	1.00	66.45	N	ATOM	34625	CZ	TYR	C	23	222.663	151.559	33.752	1.00	200.58	C
ATOM	34576	CA	GLU	C	19	209.154	145.563	27.034	1.00	66.45	C	ATOM	34626	OH	TYR	C	23	222.926	151.310	35.079	1.00	200.58	O
ATOM	34577	C	GLU	C	19	210.243	145.567	28.092	1.00	66.45	C	ATOM	34627	N	ALA	C	24	223.229	150.234	27.920	1.00	89.74	N
ATOM	34578	O	GLU	C	19	210.033	145.127	29.215	1.00	66.45	O	ATOM	34628	CA	ALA	C	24	224.307	149.280	27.641	1.00	89.74	C
ATOM	34579	CB	GLU	C	19	208.441	144.210	27.026	1.00	148.10	C	ATOM	34629	C	ALA	C	24	224.586	148.161	28.669	1.00	89.74	C
ATOM	34580	CG	GLU	C	19	207.208	144.168	26.141	1.00	148.10	C	ATOM	34630	O	ALA	C	24	223.744	147.836	29.514	1.00	89.74	O
ATOM	34581	CD	GLU	C	19	206.421	142.884	26.305	1.00	148.10	C	ATOM	34631	CB	ALA	C	24	225.600	150.072	27.357	1.00	48.50	C
ATOM	34582	OE1	GLU	C	19	206.028	142.574	27.450	1.00	148.10	O	ATOM	34632	N	GLY	C	25	225.767	147.548	28.565	1.00	95.37	N
ATOM	34583	OE2	GLU	C	19	206.194	142.187	25.293	1.00	148.10	O	ATOM	34633	CA	GLY	C	25	226.140	146.501	29.506	1.00	95.37	C
ATOM	34584	N	SER	C	20	211.414	146.057	27.701	1.00	87.88	N	ATOM	34634	C	GLY	C	25	226.620	145.180	28.935	1.00	95.37	C
ATOM	34585	CA	SER	C	20	212.582	146.169	28.572	1.00	87.88	C	ATOM	34635	O	GLY	C	25	225.922	144.176	29.036	1.00	95.37	O
ATOM	34586	C	SER	C	20	213.490	147.197	27.924	1.00	87.88	C	ATOM	34636	N	LYS	C	26	227.823	145.165	28.371	1.00	57.72	N
ATOM	34587	O	SER	C	20	214.092	146.932	26.881	1.00	87.88	O	ATOM	34637	CA	LYS	C	26	228.378	143.951	27.771	1.00	57.72	C
ATOM	34588	CB	SER	C	20	213.341	144.840	28.692	1.00	61.29	C	ATOM	34638	C	LYS	C	26	228.894	142.864	28.724	1.00	57.72	C
ATOM	34589	OG	SER	C	20	212.820	144.015	29.724	1.00	61.29	O	ATOM	34639	O	LYS	C	26	229.365	141.817	28.280	1.00	57.72	O
ATOM	34590	N	ARG	C	21	213.580	148.373	28.532	1.00	90.09	N	ATOM	34640	CB	LYS	C	26	229.485	144.323	26.780	1.00	98.84	C
ATOM	34591	CA	ARG	C	21	214.416	149.429	27.990	1.00	90.09	C	ATOM	34641	CG	LYS	C	26	228.984	145.133	25.592	1.00	98.84	C
ATOM	34592	C	ARG	C	21	215.435	149.957	28.989	1.00	90.09	C	ATOM	34642	CD	LYS	C	26	229.979	145.116	24.444	1.00	98.84	C
ATOM	34593	O	ARG	C	21	215.124	150.803	29.827	1.00	90.09	O	ATOM	34643	CE	LYS	C	26	229.399	145.770	23.198	1.00	98.84	C
ATOM	34594	CB	ARG	C	21	213.533	150.560	27.462	1.00	120.53	C	ATOM	34644	NZ	LYS	C	26	228.816	143.103	30.027	1.00	98.84	N
ATOM	34595	CG	ARG	C	21	212.226	150.709	28.211	1.00	120.53	C	ATOM	34645	NZ	LYS	C	27	229.274	142.111	30.992	1.00	79.12	N
ATOM	34596	CD	ARG	C	21	211.168	151.337	27.326	1.00	120.53	C	ATOM	34646	CA	LYS	C	27	229.274	142.111	30.992	1.00	79.12	C
ATOM	34597	NE	ARG	C	21	209.853	151.347	27.961	1.00	120.53	N	ATOM	34647	C	LYS	C	27	228.137	141.722	31.918	1.00	79.12	C
ATOM	34598	CZ	ARG	C	21	208.708	151.515	27.304	1.00	120.53	C	ATOM	34648	O	LYS	C	27	228.240	140.750	32.666	1.00	79.12	O
ATOM	34599	NH1	ARG	C	21	208.713	151.686	25.988	1.00	120.53	N	ATOM	34649	CB	LYS	C	27	230.427	142.658	31.837	1.00	123.94	C
ATOM	34600	NH2	ARG	C	21	207.555	151.504	27.959	1.00	120.53	N	ATOM	34650	CG	LYS	C	27	231.773	142.705	31.148	1.00	123.94	C
ATOM	34601	N	TRP	C	22	216.656	149.431	28.894	1.00	104.23	N	ATOM	34651	CD	LYS	C	27	232.876	142.991	32.160	1.00	123.94	C
ATOM	34602	CA	TRP	C	22	217.752	149.847	29.759	1.00	104.23	C	ATOM	34652	CE	LYS	C	27	234.255	142.901	31.530	1.00	123.94	C
ATOM	34603	C	TRP	C	22	219.120	149.864	29.077	1.00	104.23	C	ATOM	34653	NZ	LYS	C	27	235.324	143.153	32.532	1.00	123.94	N
ATOM	34604	O	TRP	C	22	219.479	148.942	28.349	1.00	104.23	O	ATOM	34654	N	GLN	C	28	227.051	142.484	31.870	1.00	97.30	N
ATOM	34605	CB	TRP	C	22	217.818	148.983	31.017	1.00	80.74	C	ATOM	34655	CA	GLN	C	28	225.913	142.211	32.731	1.00	97.30	C
ATOM	34606	CG	TRP	C	22	217.438	147.558	30.856	1.00	80.74	C	ATOM	34656	C	GLN	C	28	224.626	141.956	31.975	1.00	97.30	C
ATOM	34607	CD1	TRP	C	22	216.205	147.014	31.073	1.00	80.74	C	ATOM	34657	O	GLN	C	28	223.638	141.522	32.568	1.00	97.30	O
ATOM	34608	CD2	TRP	C	22	218.318	146.464	30.574	1.00	80.74	C	ATOM	34658	CB	GLN	C	28	225.694	143.376	33.673	1.00	128.92	C
ATOM	34609	NE1	TRP	C	22	216.263	145.644	30.961	1.00	80.74	N	ATOM	34659	CG	GLN	C	28	226.876	143.694	34.523	1.00	128.92	C
ATOM	34610	CE2	TRP	C	22	217.548	145.278	30.652	1.00	80.74	C	ATOM	34660	CD	GLN	C	28	226.628	144.920	35.345	1.00	128.92	C
ATOM	34611	CE3	TRP	C	22	219.683	146.368	30.263	1.00	80.74	C	ATOM	34661	OE1	GLN	C	28	225.669	144.976	36.114	1.00	128.92	O
ATOM	34612	CZ2	TRP	C	22	218.102	144.004	30.439	1.00	80.74	C	ATOM	34662	NE2	GLN	C	28	227.481	145.922	35.186	1.00	128.92	N
ATOM	34613	CZ3	TRP	C	22	220.234	145.101	30.049	1.00	80.74	C	ATOM	34663	N	TYR	C	29	224.628	142.235	30.675	1.00	81.85	N
ATOM	34614	CH2	TRP	C	22	219.440	143.937	30.137	1.00	80.74	C	ATOM	34664	CA	TYR	C	29	223.436	142.033	29.862	1.00	81.85	C
ATOM	34615	N	TYR	C	23	219.872	150.930	29.354	1.00	98.56	N	ATOM	34665	C	TYR	C	29	222.835	140.662	30.145	1.00	81.85	C



Table 2: Sheet 348/520

ATOM	34666	O	TYR	C	29	221.639	140.548	30.401	1.00	81.85	O	ATOM	34716	CB	LEU	C	34	219.132	135.994	33.957	1.00	37.28	C
ATOM	34667	CB	TYR	C	29	223.777	142.145	28.381	1.00	51.60	C	ATOM	34717	CG	LEU	C	34	218.770	134.509	34.193	1.00	37.28	C
ATOM	34668	CG	TYR	C	29	222.603	142.504	27.502	1.00	51.60	C	ATOM	34718	CD1	LEU	C	34	219.859	133.776	34.977	1.00	37.28	C
ATOM	34669	CD1	TYR	C	29	222.427	143.808	27.037	1.00	51.60	C	ATOM	34719	CD2	LEU	C	34	217.454	134.411	34.928	1.00	37.28	C
ATOM	34670	CD2	TYR	C	29	221.666	141.541	27.138	1.00	51.60	C	ATOM	34720	N	GLU	C	35	217.444	138.425	34.948	1.00	73.32	N
ATOM	34671	CE1	TYR	C	29	221.341	144.142	26.236	1.00	51.60	C	ATOM	34721	CA	GLU	C	35	216.643	139.052	35.993	1.00	73.32	C
ATOM	34672	CE2	TYR	C	29	220.580	141.860	26.334	1.00	51.60	C	ATOM	34722	C	GLU	C	35	215.284	139.447	35.425	1.00	73.32	C
ATOM	34673	CZ	TYR	C	29	219.342	143.453	25.081	1.00	51.60	O	ATOM	34723	O	GLU	C	35	214.252	139.005	35.924	1.00	73.32	O
ATOM	34674	OH	TYR	C	29	223.666	139.625	30.123	1.00	85.07	N	ATOM	34724	CB	GLU	C	35	217.362	140.282	36.550	1.00	112.29	C
ATOM	34675	N	ARG	C	30	223.169	138.278	30.379	1.00	85.07	C	ATOM	34725	CG	GLU	C	35	216.789	140.787	37.859	1.00	112.29	C
ATOM	34676	CA	ARG	C	30	222.794	138.050	31.844	1.00	85.07	C	ATOM	34726	CD	GLU	C	35	217.665	141.834	38.519	1.00	112.29	C
ATOM	34677	C	ARG	C	30	222.569	136.914	32.270	1.00	85.07	C	ATOM	34727	OE1	GLU	C	35	218.852	141.548	38.785	1.00	112.29	O
ATOM	34678	O	ARG	C	30	224.198	137.231	29.950	1.00	92.78	C	ATOM	34728	OE2	GLU	C	35	217.164	142.946	38.776	1.00	112.29	O
ATOM	34679	CB	ARG	C	30	225.331	137.052	30.911	1.00	92.78	C	ATOM	34729	N	ASP	C	36	215.285	140.269	34.378	1.00	73.85	N
ATOM	34680	CG	ARG	C	30	226.110	135.797	30.580	1.00	92.78	C	ATOM	34730	CA	ASP	C	36	214.039	140.689	33.752	1.00	73.85	C
ATOM	34681	NE	ARG	C	30	227.278	135.658	31.444	1.00	92.78	C	ATOM	34731	C	ASP	C	36	213.158	139.467	33.530	1.00	73.85	C
ATOM	34682	CZ	ARG	C	30	228.201	136.603	31.607	1.00	92.78	C	ATOM	34732	O	ASP	C	36	211.929	139.527	33.651	1.00	73.85	O
ATOM	34683	NH1	ARG	C	30	228.096	137.763	30.965	1.00	92.78	N	ATOM	34733	CB	ASP	C	36	214.310	141.370	32.409	1.00	109.90	C
ATOM	34684	NH2	ARG	C	30	229.232	136.390	32.415	1.00	92.78	N	ATOM	34734	CG	ASP	C	36	214.873	142.764	32.566	1.00	109.90	C
ATOM	34685	N	HIS	C	31	222.727	139.132	32.610	1.00	62.08	N	ATOM	34735	OD1	ASP	C	36	215.030	143.462	31.541	1.00	109.90	O
ATOM	34686	CA	HIS	C	31	222.377	139.051	34.027	1.00	62.08	C	ATOM	34736	OD2	ASP	C	36	215.159	143.162	33.714	1.00	109.90	O
ATOM	34687	N	HIS	C	31	221.128	139.882	34.283	1.00	62.08	C	ATOM	34737	N	GLN	C	37	213.798	138.354	33.197	1.00	78.06	N
ATOM	34688	C	HIS	C	31	220.224	139.469	35.009	1.00	62.08	O	ATOM	34738	CA	GLN	C	37	213.079	137.118	32.966	1.00	78.06	C
ATOM	34689	O	HIS	C	31	223.529	139.564	34.888	1.00	73.80	C	ATOM	34739	C	GLN	C	37	212.541	136.649	34.303	1.00	78.06	C
ATOM	34690	CB	HIS	C	31	224.787	138.765	34.753	1.00	73.80	C	ATOM	34740	O	GLN	C	37	211.328	136.596	34.495	1.00	78.06	O
ATOM	34691	CG	HIS	C	31	224.841	137.412	35.016	1.00	73.80	N	ATOM	34741	CB	GLN	C	37	214.009	136.070	32.351	1.00	81.31	C
ATOM	34692	ND1	HIS	C	31	226.043	139.132	34.401	1.00	73.80	C	ATOM	34742	CG	GLN	C	37	213.606	135.626	30.942	1.00	81.31	C
ATOM	34693	CD2	HIS	C	31	226.077	136.980	34.835	1.00	73.80	C	ATOM	34743	CD	GLN	C	37	213.035	136.759	30.091	1.00	81.31	C
ATOM	34694	CE1	HIS	C	31	226.826	138.004	34.462	1.00	73.80	C	ATOM	34744	OE1	GLN	C	37	213.610	137.847	30.002	1.00	81.31	O
ATOM	34695	NE2	HIS	C	31	221.081	141.061	33.685	1.00	76.76	N	ATOM	34745	NE2	GLN	C	37	211.897	136.498	29.454	1.00	81.31	N
ATOM	34696	N	LEU	C	32	219.916	141.893	33.855	1.00	76.76	C	ATOM	34746	CA	ARG	C	38	213.444	136.324	35.225	1.00	79.63	N
ATOM	34697	CA	LEU	C	32	218.784	141.188	33.122	1.00	76.76	C	ATOM	34747	CA	ARG	C	38	213.055	135.878	36.563	1.00	79.63	C
ATOM	34698	O	LEU	C	32	217.644	141.166	33.593	1.00	76.76	O	ATOM	34748	C	ARG	C	38	211.835	136.678	37.006	1.00	79.63	C
ATOM	34699	CB	LEU	C	32	220.154	143.286	33.266	1.00	84.74	C	ATOM	34749	O	ARG	C	38	210.831	136.118	37.456	1.00	79.63	O
ATOM	34700	CG	LEU	C	32	221.328	144.085	33.843	1.00	84.74	C	ATOM	34750	CB	ARG	C	38	214.201	136.112	37.543	1.00	91.45	C
ATOM	34701	CD1	LEU	C	32	221.165	145.554	33.470	1.00	84.74	C	ATOM	34751	CG	ARG	C	38	215.368	135.166	37.377	1.00	91.45	C
ATOM	34702	CD2	LEU	C	32	221.376	143.922	35.356	1.00	84.74	C	ATOM	34752	CD	ARG	C	38	215.139	133.884	38.163	1.00	91.45	C
ATOM	34703	N	LEU	C	33	219.113	140.595	31.975	1.00	85.74	N	ATOM	34753	NE	ARG	C	38	216.269	132.956	38.082	1.00	91.45	N
ATOM	34704	CA	LEU	C	33	218.124	139.878	31.176	1.00	85.74	C	ATOM	34754	CZ	ARG	C	38	217.536	133.280	38.334	1.00	91.45	C
ATOM	34705	C	LEU	C	33	217.570	138.724	31.994	1.00	85.74	C	ATOM	34755	NH1	ARG	C	38	217.858	134.523	38.681	1.00	91.45	N
ATOM	34706	CB	LEU	C	33	216.359	138.617	32.175	1.00	85.74	O	ATOM	34756	NH2	ARG	C	38	218.484	132.353	38.250	1.00	91.45	N
ATOM	34707	O	LEU	C	33	218.751	139.342	29.885	1.00	81.85	C	ATOM	34757	N	ILE	C	39	211.939	137.996	36.862	1.00	60.96	N
ATOM	34708	CB	LEU	C	33	217.836	138.821	28.767	1.00	81.85	C	ATOM	34758	CA	ILE	C	39	210.863	138.906	37.217	1.00	60.96	N
ATOM	34709	CG	LEU	C	33	218.699	138.449	27.586	1.00	81.85	C	ATOM	34759	O	ILE	C	39	209.574	138.410	36.584	1.00	60.96	C
ATOM	34710	CD1	LEU	C	33	217.025	137.611	29.217	1.00	81.85	C	ATOM	34760	CB	ILE	C	39	208.723	137.829	37.268	1.00	60.96	O
ATOM	34711	CD2	LEU	C	33	218.449	137.860	32.491	1.00	75.17	N	ATOM	34761	CG1	ILE	C	39	211.167	140.337	36.713	1.00	62.14	C
ATOM	34712	N	LEU	C	34	217.977	136.743	33.288	1.00	75.17	C	ATOM	34762	CG1	ILE	C	39	212.307	140.930	37.538	1.00	62.14	C
ATOM	34713	CA	LEU	C	34	217.054	137.295	34.364	1.00	75.17	C	ATOM	34763	CG2	ILE	C	39	209.923	141.213	36.783	1.00	62.14	C
ATOM	34714	C	LEU	C	34	216.007	136.714	34.657	1.00	75.17	O	ATOM	34764	CD1	ILE	C	39	212.793	142.266	37.034	1.00	62.14	C
ATOM	34715	O	LEU	C	34							ATOM	34765	N	ARG	C	40	209.448	138.633	35.274	1.00	64.61	N



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ATOM	34766	CA	ARG	C	40	208.273	138.222	34.509	1.00	64.61	C	ATOM	34816	C	GLU	C	46	200.470	136.747	40.556	1.00	136.45	C
ATOM	34767	C	ARG	C	40	207.790	136.842	34.939	1.00	64.61	C	ATOM	34817	O	GLU	C	46	200.496	137.714	41.315	1.00	136.45	O
ATOM	34768	O	ARG	C	40	206.604	136.535	34.862	1.00	64.61	O	ATOM	34818	CB	GLU	C	46	202.150	135.560	42.049	1.00	184.71	C
ATOM	34769	CB	ARG	C	40	208.596	138.198	33.018	1.00	58.56	C	ATOM	34819	CG	GLU	C	46	203.058	134.466	42.345	1.00	184.71	C
ATOM	34770	CG	ARG	C	40	209.051	139.525	32.444	1.00	58.56	C	ATOM	34820	CD	GLU	C	46	202.352	133.339	43.081	1.00	184.71	C
ATOM	34771	CD	ARG	C	40	208.634	139.635	30.991	1.00	58.56	C	ATOM	34821	OE1	GLU	C	46	201.928	133.550	44.238	1.00	184.71	O
ATOM	34772	NE	ARG	C	40	208.867	140.968	30.440	1.00	58.56	N	ATOM	34822	OE2	GLU	C	46	202.225	132.239	42.502	1.00	184.71	O
ATOM	34773	CZ	ARG	C	40	210.071	141.517	30.318	1.00	58.56	C	ATOM	34823	N	LEU	C	47	199.920	136.793	39.350	1.00	59.82	N
ATOM	34774	NH1	ARG	C	40	211.143	140.839	30.702	1.00	58.56	N	ATOM	34824	CA	LEU	C	47	199.294	138.013	38.853	1.00	59.82	C
ATOM	34775	NH2	ARG	C	40	210.205	142.736	29.809	1.00	58.56	N	ATOM	34825	C	LEU	C	47	198.398	137.752	37.625	1.00	59.82	C
ATOM	34776	N	GLY	C	41	208.720	136.009	35.387	1.00	85.37	N	ATOM	34826	O	LEU	C	47	197.870	138.691	37.012	1.00	59.82	O
ATOM	34777	CA	GLY	C	41	208.350	134.684	35.834	1.00	85.37	C	ATOM	34827	CB	LEU	C	47	200.377	139.038	38.508	1.00	69.37	C
ATOM	34778	C	GLY	C	41	207.191	134.777	36.803	1.00	85.37	C	ATOM	34828	CG	LEU	C	47	200.010	140.524	38.544	1.00	69.37	C
ATOM	34779	O	GLY	C	41	206.089	134.318	36.504	1.00	85.37	O	ATOM	34829	CD1	LEU	C	47	199.508	140.906	39.934	1.00	69.37	C
ATOM	34780	N	LEU	C	42	207.440	135.389	37.958	1.00	81.66	N	ATOM	34830	CD2	LEU	C	47	201.236	141.345	38.191	1.00	69.37	C
ATOM	34781	CA	LEU	C	42	206.413	135.549	38.983	1.00	81.66	C	ATOM	34831	N	TYR	C	48	198.217	136.473	37.289	1.00	76.73	N
ATOM	34782	C	LEU	C	42	205.226	136.322	38.450	1.00	81.66	C	ATOM	34832	CA	TYR	C	48	197.396	136.072	36.149	1.00	76.73	C
ATOM	34783	O	LEU	C	42	204.118	135.809	38.398	1.00	81.66	O	ATOM	34833	C	TYR	C	48	195.976	136.637	36.199	1.00	76.73	C
ATOM	34784	CB	LEU	C	42	206.972	136.285	40.204	1.00	89.95	C	ATOM	34834	O	TYR	C	48	195.552	137.388	35.312	1.00	76.73	O
ATOM	34785	CG	LEU	C	42	208.092	135.616	41.003	1.00	89.95	C	ATOM	34835	CB	TYR	C	48	197.343	134.540	36.060	1.00	110.37	C
ATOM	34786	CD1	LEU	C	42	208.439	136.501	42.186	1.00	89.95	C	ATOM	34836	CG	TYR	C	48	196.439	134.015	34.963	1.00	110.37	C
ATOM	34787	CD2	LEU	C	42	207.659	134.228	41.473	1.00	89.95	C	ATOM	34837	CD1	TYR	C	48	196.369	134.651	33.721	1.00	110.37	C
ATOM	34788	N	LEU	C	43	205.464	137.561	38.051	1.00	71.89	N	ATOM	34838	CD2	TYR	C	48	195.657	132.879	35.164	1.00	110.37	C
ATOM	34789	CA	LEU	C	43	204.400	138.405	37.544	1.00	71.89	C	ATOM	34839	CE1	TYR	C	48	195.540	134.174	32.709	1.00	110.37	C
ATOM	34790	C	LEU	C	43	203.447	137.681	36.585	1.00	71.89	C	ATOM	34840	CE2	TYR	C	48	194.825	132.391	34.157	1.00	110.37	C
ATOM	34791	O	LEU	C	43	202.250	137.981	36.541	1.00	71.89	O	ATOM	34841	CZ	TYR	C	48	194.771	133.044	32.935	1.00	110.37	C
ATOM	34792	CB	LEU	C	43	205.004	139.635	36.871	1.00	121.56	C	ATOM	34842	OH	TYR	C	48	193.941	132.574	31.944	1.00	110.37	O
ATOM	34793	CD1	LEU	C	43	206.078	140.340	37.704	1.00	121.56	C	ATOM	34843	N	SER	C	49	195.241	136.258	37.238	1.00	96.75	N
ATOM	34794	CD2	LEU	C	43	206.443	141.657	37.045	1.00	121.56	C	ATOM	34844	CA	SER	C	49	193.873	136.718	37.418	1.00	96.75	C
ATOM	34795	CD2	LEU	C	43	205.570	140.581	39.112	1.00	121.56	C	ATOM	34845	C	SER	C	49	193.875	138.201	37.741	1.00	96.75	C
ATOM	34796	N	GLU	C	44	203.969	136.733	35.813	1.00	93.71	N	ATOM	34846	O	SER	C	49	193.816	138.587	38.901	1.00	96.75	O
ATOM	34797	CA	GLU	C	44	203.130	135.980	34.885	1.00	93.71	C	ATOM	34847	CB	SER	C	49	193.209	135.941	38.552	1.00	123.17	C
ATOM	34798	C	GLU	C	44	202.690	134.695	35.581	1.00	93.71	C	ATOM	34848	OG	SER	C	49	193.975	136.040	39.739	1.00	123.17	O
ATOM	34799	O	GLU	C	44	202.716	133.612	35.000	1.00	93.71	O	ATOM	34849	N	ALA	C	50	193.951	139.025	36.704	1.00	82.91	N
ATOM	34800	CB	GLU	C	44	203.909	135.653	33.609	1.00	159.85	C	ATOM	34850	CA	ALA	C	50	193.967	140.474	36.856	1.00	82.91	C
ATOM	34801	CG	GLU	C	44	204.256	136.871	32.765	1.00	159.85	C	ATOM	34851	C	ALA	C	50	194.132	141.050	35.472	1.00	82.91	C
ATOM	34802	CD	GLU	C	44	205.044	136.512	31.518	1.00	159.85	C	ATOM	34852	O	ALA	C	50	193.918	142.242	35.245	1.00	82.91	O
ATOM	34803	OE1	GLU	C	44	204.591	135.625	30.764	1.00	159.85	O	ATOM	34853	CB	ALA	C	50	195.136	140.909	37.729	1.00	43.16	C
ATOM	34804	OE2	GLU	C	44	206.112	137.120	31.288	1.00	159.85	O	ATOM	34854	N	GLY	C	51	194.533	140.186	34.547	1.00	80.92	N
ATOM	34805	N	LYS	C	45	202.290	134.838	36.839	1.00	93.16	N	ATOM	34855	CA	GLY	C	51	194.729	140.615	33.181	1.00	80.92	C
ATOM	34806	CA	LYS	C	45	201.855	133.721	37.669	1.00	93.16	C	ATOM	34856	C	GLY	C	51	196.139	141.086	32.900	1.00	80.92	C
ATOM	34807	C	LYS	C	45	201.012	134.312	38.777	1.00	93.16	C	ATOM	34857	O	GLY	C	51	196.338	142.163	32.338	1.00	80.92	O
ATOM	34808	O	LYS	C	45	199.783	134.331	38.706	1.00	93.16	O	ATOM	34858	N	LEU	C	52	197.123	140.292	33.308	1.00	83.25	N
ATOM	34809	CB	LYS	C	45	203.061	133.017	38.299	1.00	113.26	C	ATOM	34859	CA	LEU	C	52	198.519	140.629	33.056	1.00	83.25	C
ATOM	34810	CG	LYS	C	45	203.396	131.664	37.715	1.00	113.26	C	ATOM	34860	C	LEU	C	52	198.624	140.805	31.538	1.00	83.25	C
ATOM	34811	CD	LYS	C	45	202.317	130.640	38.028	1.00	113.26	C	ATOM	34861	O	LEU	C	52	198.567	139.827	30.785	1.00	83.25	O
ATOM	34812	CE	LYS	C	45	202.648	129.290	37.402	1.00	113.26	C	ATOM	34862	CB	LEU	C	52	199.422	139.485	33.532	1.00	108.00	C
ATOM	34813	NZ	LYS	C	45	201.583	128.270	37.630	1.00	113.26	N	ATOM	34863	CG	LEU	C	52	199.167	138.095	32.921	1.00	108.00	C
ATOM	34814	N	GLU	C	46	201.708	134.803	39.799	1.00	136.45	N	ATOM	34864	CD1	LEU	C	52	200.120	137.075	33.542	1.00	108.00	C
ATOM	34815	CA	GLU	C	46	201.092	135.418	40.965	1.00	136.45	C	ATOM	34865	CD2	LEU	C	52	197.720	137.668	33.143	1.00	108.00	C



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ATOM	34866	N	ALA C	53	198.759	142.043	31.076	1.00	73.77	N	ATOM	34916	C	ARG C	59	217.746	151.305	35.104	1.00	84.65	C
ATOM	34867	CA	ALA C	53	198.826	142.270	29.639	1.00	73.77	C	ATOM	34917	O	ARG C	59	217.731	152.186	34.235	1.00	84.65	O
ATOM	34868	C	ALA C	53	200.118	142.885	29.128	1.00	73.77	C	ATOM	34918	CB	ARG C	59	217.564	148.865	34.788	1.00	72.98	C
ATOM	34869	O	ALA C	53	200.196	143.265	27.962	1.00	73.77	O	ATOM	34919	CB	ARG C	59	216.855	147.591	35.158	1.00	72.98	C
ATOM	34870	CB	ALA C	53	197.653	143.119	29.199	1.00	34.16	C	ATOM	34920	CD	ARG C	59	217.594	146.415	34.566	1.00	72.98	C
ATOM	34871	N	ARG C	54	201.121	142.988	29.994	1.00	86.49	N	ATOM	34921	NE	ARG C	59	217.004	145.152	34.974	1.00	72.98	N
ATOM	34872	CA	ARG C	54	202.414	143.553	29.619	1.00	86.49	C	ATOM	34922	CZ	ARG C	59	217.051	144.681	36.212	1.00	72.98	C
ATOM	34873	C	ARG C	54	203.205	143.953	30.850	1.00	86.49	C	ATOM	34923	NH1	ARG C	59	217.668	145.375	37.163	1.00	72.98	N
ATOM	34874	O	ARG C	54	202.719	144.696	31.697	1.00	86.49	O	ATOM	34924	NH2	ARG C	59	216.478	143.518	36.498	1.00	72.98	N
ATOM	34875	CB	ARG C	54	202.246	144.791	28.735	1.00	86.49	C	ATOM	34925	N	ALA C	60	218.594	151.287	36.135	1.00	112.64	N
ATOM	34876	CG	ARG C	54	203.524	145.192	28.021	1.00	108.46	C	ATOM	34926	CA	ALA C	60	219.615	152.309	36.352	1.00	112.64	C
ATOM	34877	CD	ARG C	54	203.434	146.592	27.457	1.00	108.46	C	ATOM	34927	C	ALA C	60	220.416	152.044	37.627	1.00	112.64	C
ATOM	34878	NE	ARG C	54	204.578	146.907	26.606	1.00	108.46	N	ATOM	34928	O	ALA C	60	220.192	152.682	38.655	1.00	112.64	O
ATOM	34879	CZ	ARG C	54	204.970	148.143	26.313	1.00	108.46	C	ATOM	34929	CB	ALA C	60	218.974	153.685	36.422	1.00	59.54	C
ATOM	34880	NH1	ARG C	54	204.312	149.185	26.811	1.00	108.46	N	ATOM	34930	N	ALA C	61	221.346	151.096	37.550	1.00	122.37	N
ATOM	34881	NH2	ARG C	54	206.014	148.334	25.519	1.00	108.46	N	ATOM	34931	CA	ALA C	61	222.202	150.738	38.681	1.00	122.37	C
ATOM	34882	CA	VAL C	55	204.433	143.465	30.939	1.00	71.95	C	ATOM	34932	C	ALA C	61	221.432	150.251	39.905	1.00	122.37	C
ATOM	34883	CA	VAL C	55	205.294	143.781	32.065	1.00	71.95	C	ATOM	34933	O	ALA C	61	221.017	151.050	40.742	1.00	122.37	O
ATOM	34884	C	VAL C	55	206.510	144.562	31.583	1.00	71.95	C	ATOM	34934	CB	ALA C	61	223.079	151.928	39.061	1.00	145.00	C
ATOM	34885	O	VAL C	55	207.507	143.964	31.189	1.00	71.95	O	ATOM	34935	N	ASP C	62	221.261	148.938	40.012	1.00	155.72	N
ATOM	34886	CB	VAL C	55	205.777	142.489	32.772	1.00	49.22	C	ATOM	34936	CA	ASP C	62	220.544	148.343	41.135	1.00	155.72	C
ATOM	34887	CG1	VAL C	55	206.802	142.825	33.845	1.00	49.22	C	ATOM	34937	C	ASP C	62	219.239	149.067	41.442	1.00	155.72	C
ATOM	34888	CG2	VAL C	55	204.592	141.750	33.373	1.00	49.22	C	ATOM	34938	O	ASP C	62	218.933	149.359	42.598	1.00	155.72	O
ATOM	34889	N	ASP C	56	206.420	145.891	31.595	1.00	85.25	N	ATOM	34939	CB	ASP C	62	221.431	148.324	42.382	1.00	184.53	C
ATOM	34890	CA	ASP C	56	207.541	146.735	31.180	1.00	85.25	C	ATOM	34940	CG	ASP C	62	222.499	147.252	42.320	1.00	184.53	C
ATOM	34891	C	ASP C	56	208.604	146.714	32.270	1.00	85.25	O	ATOM	34941	OD1	ASP C	62	222.137	146.061	42.222	1.00	184.53	O
ATOM	34892	O	ASP C	56	208.315	146.367	33.414	1.00	85.25	C	ATOM	34942	OD2	ASP C	62	223.698	147.596	42.368	1.00	184.53	O
ATOM	34893	CB	ASP C	56	207.084	148.172	30.956	1.00	113.20	C	ATOM	34943	N	ASN C	63	218.478	149.358	40.394	1.00	189.35	N
ATOM	34894	CB	ASP C	56	206.178	148.306	29.767	1.00	113.20	C	ATOM	34944	CA	ASN C	63	217.193	150.030	40.530	1.00	189.35	C
ATOM	34895	OD1	ASP C	56	205.172	147.572	29.715	1.00	113.20	O	ATOM	34945	C	ASN C	63	216.291	149.586	39.396	1.00	189.35	C
ATOM	34896	OD2	ASP C	56	206.468	149.140	28.885	1.00	113.20	O	ATOM	34946	O	ASN C	63	216.473	149.992	38.249	1.00	189.35	O
ATOM	34897	N	ILE C	57	209.829	147.085	31.916	1.00	88.97	N	ATOM	34947	CB	ASN C	63	217.367	151.547	40.493	1.00	172.71	C
ATOM	34898	CA	ILE C	57	210.921	147.094	32.880	1.00	88.97	C	ATOM	34948	CG	ASN C	63	217.997	152.087	41.756	1.00	172.71	C
ATOM	34899	C	ILE C	57	212.030	148.064	32.494	1.00	88.97	C	ATOM	34949	OD1	ASN C	63	217.505	151.843	42.859	1.00	172.71	O
ATOM	34900	O	ILE C	57	212.555	147.996	31.383	1.00	88.97	O	ATOM	34950	ND2	ASN C	63	219.088	152.829	41.605	1.00	172.71	N
ATOM	34901	CB	ILE C	57	211.555	145.696	33.019	1.00	43.30	C	ATOM	34951	N	VAL C	64	215.318	148.745	39.725	1.00	85.72	N
ATOM	34902	CG1	ILE C	57	210.554	144.715	33.636	1.00	43.30	C	ATOM	34952	CA	VAL C	64	214.396	148.227	38.732	1.00	85.72	C
ATOM	34903	CG2	ILE C	57	212.796	145.776	33.882	1.00	43.30	C	ATOM	34953	C	VAL C	64	213.051	148.933	38.845	1.00	85.72	C
ATOM	34904	CD1	ILE C	57	211.122	143.307	33.904	1.00	43.30	C	ATOM	34954	O	VAL C	64	212.584	149.202	39.947	1.00	85.72	O
ATOM	34905	N	GLU C	58	212.382	148.964	33.413	1.00	67.17	N	ATOM	34955	CB	VAL C	64	214.195	146.714	38.924	1.00	77.38	C
ATOM	34906	CA	GLU C	58	213.460	149.921	33.176	1.00	67.17	C	ATOM	34956	CG1	VAL C	64	214.017	146.040	37.569	1.00	77.38	C
ATOM	34907	C	GLU C	58	214.521	149.711	34.253	1.00	67.17	C	ATOM	34957	CG2	VAL C	64	215.379	146.124	39.673	1.00	77.38	C
ATOM	34908	O	GLU C	58	214.275	149.004	35.233	1.00	67.17	O	ATOM	34958	N	ALA C	65	212.431	149.234	37.707	1.00	111.90	N
ATOM	34909	CB	GLU C	58	212.927	151.352	33.213	1.00	125.32	C	ATOM	34959	CA	ALA C	65	209.976	148.939	37.792	1.00	111.90	C
ATOM	34910	CG	GLU C	58	211.871	151.611	32.157	1.00	125.32	C	ATOM	34960	C	ALA C	65	209.312	148.850	38.825	1.00	111.90	C
ATOM	34911	CD	GLU C	58	211.526	153.079	32.012	1.00	125.32	C	ATOM	34961	O	ALA C	65	211.012	150.776	36.463	1.00	70.45	O
ATOM	34912	OE1	GLU C	58	211.200	153.718	33.035	1.00	125.32	O	ATOM	34962	CB	ALA C	65	209.733	148.214	36.703	1.00	74.56	N
ATOM	34913	OE2	GLU C	58	211.575	153.593	30.873	1.00	125.32	O	ATOM	34963	N	VAL C	66	208.641	147.233	36.626	1.00	74.56	C
ATOM	34914	N	ARG C	59	215.702	150.296	34.071	1.00	84.65	N	ATOM	34964	CA	VAL C	66	207.263	147.875	36.631	1.00	74.56	C
ATOM	34915	CA	ARG C	59	216.772	150.141	35.054	1.00	84.65	C	ATOM	34965	C	VAL C	66						



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ATOM	34966	O	VAL	C	66	206.816	148.393	37.643	1.00	74.56	O	ATOM	35016	CA	PRO	C	73	194.494	146.349	39.205	1.00	91.24	C
ATOM	34967	CB	VAL	C	66	208.685	146.205	37.787	1.00	48.24	C	ATOM	35017	C	PRO	C	73	194.111	146.048	40.645	1.00	91.24	C
ATOM	34968	CG1	VAL	C	66	207.407	145.394	37.797	1.00	48.24	C	ATOM	35018	O	PRO	C	73	194.963	145.710	41.469	1.00	91.24	O
ATOM	34969	CG2	VAL	C	66	209.879	145.271	37.623	1.00	48.24	C	ATOM	35019	CB	PRO	C	73	194.675	147.847	38.947	1.00	57.07	C
ATOM	34970	N	THR	C	67	206.585	147.813	35.495	1.00	101.53	N	ATOM	35020	CG	PRO	C	73	193.348	148.264	38.427	1.00	57.07	C
ATOM	34971	CA	THR	C	67	205.260	148.394	35.372	1.00	101.53	C	ATOM	35021	CD	PRO	C	73	192.994	147.138	37.487	1.00	57.07	C
ATOM	34972	C	THR	C	67	204.262	147.372	34.868	1.00	101.53	C	ATOM	35022	N	GLY	C	74	192.825	146.176	40.944	1.00	116.84	N
ATOM	34973	O	THR	C	67	204.080	147.217	33.664	1.00	101.53	O	ATOM	35023	CA	GLY	C	74	192.376	145.897	42.289	1.00	116.84	C
ATOM	34974	CB	THR	C	67	205.278	149.544	34.395	1.00	65.99	C	ATOM	35024	C	GLY	C	74	192.935	144.566	42.743	1.00	116.84	C
ATOM	34975	OG1	THR	C	67	206.301	150.464	34.784	1.00	65.99	O	ATOM	35025	O	GLY	C	74	193.388	144.420	43.880	1.00	116.84	O
ATOM	34976	CG2	THR	C	67	203.936	150.238	34.368	1.00	65.99	C	ATOM	35026	N	VAL	C	75	192.927	143.594	41.838	1.00	85.88	N
ATOM	34977	N	VAL	C	68	203.612	146.678	35.792	1.00	80.90	N	ATOM	35027	CA	VAL	C	75	193.422	142.262	42.158	1.00	85.88	C
ATOM	34978	CA	VAL	C	68	202.636	145.671	35.423	1.00	80.90	C	ATOM	35028	C	VAL	C	75	194.928	142.286	42.434	1.00	85.88	C
ATOM	34979	C	VAL	C	68	201.310	146.279	34.975	1.00	80.90	C	ATOM	35029	O	VAL	C	75	195.453	141.457	43.186	1.00	85.88	O
ATOM	34980	O	VAL	C	68	200.586	146.863	35.781	1.00	80.90	O	ATOM	35030	CB	VAL	C	75	193.128	141.274	41.005	1.00	71.96	C
ATOM	34981	CB	VAL	C	68	202.357	144.724	36.593	1.00	75.04	C	ATOM	35031	CG1	VAL	C	75	193.082	139.856	41.543	1.00	71.96	C
ATOM	34982	CG1	VAL	C	68	201.203	143.819	36.239	1.00	75.04	C	ATOM	35032	CG2	VAL	C	75	191.813	141.629	40.331	1.00	71.96	C
ATOM	34983	CG2	VAL	C	68	203.595	143.902	36.914	1.00	75.04	C	ATOM	35033	N	VAL	C	76	195.616	143.242	41.820	1.00	122.30	N
ATOM	34984	N	HIS	C	69	200.997	146.141	33.689	1.00	83.64	N	ATOM	35034	CA	VAL	C	76	197.053	143.375	42.007	1.00	122.30	C
ATOM	34985	CA	HIS	C	69	199.740	146.652	33.156	1.00	83.64	C	ATOM	35035	C	VAL	C	76	197.330	144.048	43.343	1.00	122.30	C
ATOM	34986	C	HIS	C	69	198.683	145.574	33.333	1.00	83.64	C	ATOM	35036	O	VAL	C	76	198.010	143.483	44.201	1.00	122.30	O
ATOM	34987	O	HIS	C	69	198.910	144.409	33.000	1.00	83.64	O	ATOM	35037	CB	VAL	C	76	197.699	144.219	40.884	1.00	118.77	C
ATOM	34988	CB	HIS	C	69	199.880	146.996	31.681	1.00	67.81	C	ATOM	35038	CG1	VAL	C	76	199.187	144.371	41.142	1.00	118.77	C
ATOM	34989	CG	HIS	C	69	200.930	148.019	31.405	1.00	67.81	C	ATOM	35039	CG2	VAL	C	76	197.474	143.557	39.539	1.00	118.77	C
ATOM	34990	ND1	HIS	C	69	200.693	149.143	30.643	1.00	67.81	N	ATOM	35040	N	ILE	C	77	196.793	145.253	43.515	1.00	107.66	N
ATOM	34991	CD2	HIS	C	69	202.225	148.093	31.792	1.00	67.81	C	ATOM	35041	CA	ILE	C	77	196.981	146.018	44.743	1.00	107.66	C
ATOM	34992	CE1	HIS	C	69	201.797	149.866	30.574	1.00	67.81	C	ATOM	35042	C	ILE	C	77	196.661	145.206	45.991	1.00	107.66	C
ATOM	34993	NE2	HIS	C	69	202.742	149.251	31.263	1.00	67.81	N	ATOM	35043	O	ILE	C	77	197.524	145.008	46.847	1.00	107.66	O
ATOM	34994	N	VAL	C	70	197.527	145.966	33.854	1.00	96.35	N	ATOM	35044	CB	ILE	C	77	196.099	147.273	44.763	1.00	80.99	C
ATOM	34995	CA	VAL	C	70	196.451	145.019	34.104	1.00	96.35	C	ATOM	35045	CG1	ILE	C	77	196.436	148.171	43.568	1.00	80.99	C
ATOM	34996	C	VAL	C	70	195.060	145.599	33.870	1.00	96.35	C	ATOM	35046	CG2	ILE	C	77	196.302	148.019	46.070	1.00	80.99	C
ATOM	34997	O	VAL	C	70	194.861	146.810	33.925	1.00	96.35	O	ATOM	35047	CD1	ILE	C	77	197.880	148.641	43.528	1.00	80.99	C
ATOM	34998	CB	VAL	C	70	196.530	144.509	35.546	1.00	70.14	C	ATOM	35048	N	GLY	C	78	195.417	144.748	46.094	1.00	136.16	N
ATOM	34999	CG1	VAL	C	70	197.616	143.459	35.672	1.00	70.14	C	ATOM	35049	CA	GLY	C	78	195.007	143.962	47.246	1.00	136.16	C
ATOM	35000	CG2	VAL	C	70	196.847	145.675	36.469	1.00	70.14	C	ATOM	35050	C	GLY	C	78	194.109	144.738	48.190	1.00	136.16	C
ATOM	35001	N	ALA	C	71	194.102	144.716	33.611	1.00	93.54	N	ATOM	35051	O	GLY	C	78	193.909	145.941	48.014	1.00	136.16	O
ATOM	35002	CA	ALA	C	71	192.724	145.118	33.375	1.00	93.54	C	ATOM	35052	N	ARG	C	79	193.568	144.054	49.196	1.00	159.48	N
ATOM	35003	C	ALA	C	71	191.974	145.230	34.703	1.00	93.54	C	ATOM	35053	CA	ARG	C	79	192.684	144.692	50.168	1.00	159.48	C
ATOM	35004	O	ALA	C	71	190.977	145.949	34.802	1.00	93.54	O	ATOM	35054	C	ARG	C	79	193.308	145.943	50.771	1.00	159.48	C
ATOM	35005	CB	ALA	C	71	192.039	144.104	32.475	1.00	112.87	C	ATOM	35055	O	ARG	C	79	194.239	145.864	51.573	1.00	159.48	O
ATOM	35006	N	LYS	C	72	192.463	144.509	35.713	1.00	79.85	N	ATOM	35056	CB	ARG	C	79	192.311	143.703	51.277	1.00	170.16	C
ATOM	35007	CA	LYS	C	72	191.871	144.503	37.054	1.00	79.85	C	ATOM	35057	CD	ARG	C	79	191.324	142.638	50.822	1.00	170.16	C
ATOM	35008	C	LYS	C	72	192.941	144.723	38.133	1.00	79.85	C	ATOM	35058	CG	ARG	C	79	190.959	141.671	51.936	1.00	170.16	C
ATOM	35009	O	LYS	C	72	193.294	143.797	38.875	1.00	79.85	O	ATOM	35059	NE	ARG	C	79	189.933	140.725	51.501	1.00	170.16	N
ATOM	35010	CB	LYS	C	72	191.152	143.174	37.306	1.00	108.36	C	ATOM	35060	C2	ARG	C	79	189.486	139.710	52.233	1.00	170.16	N
ATOM	35011	CG	LYS	C	72	190.055	142.869	36.298	1.00	108.36	C	ATOM	35061	NH1	ARG	C	79	189.972	139.497	53.447	1.00	170.16	N
ATOM	35012	CD	LYS	C	72	189.226	141.664	36.718	1.00	108.36	C	ATOM	35062	NH2	ARG	C	79	188.548	138.906	51.751	1.00	170.16	N
ATOM	35013	CE	LYS	C	72	188.434	141.946	37.994	1.00	108.36	C	ATOM	35063	N	GLY	C	80	192.783	147.098	50.372	1.00	122.81	N
ATOM	35014	NZ	LYS	C	72	187.598	140.786	38.428	1.00	108.36	N	ATOM	35064	CA	GLY	C	80	193.294	148.361	50.866	1.00	122.81	C
ATOM	35015	N	PRO	C	73	193.462	145.961	38.234	1.00	91.24	N	ATOM	35065	C	GLY	C	80	194.658	148.668	50.283	1.00	122.81	C



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ATOM	35066	O	GLY C	80	195.054	149.830	50.184	1.00122.81	O	ATOM	35116	CG2	VAL C	86	201.394	140.642	50.571	1.00123.34	C
ATOM	35067	N	GLY C	81	195.379	147.619	49.896	1.00131.91	N	ATOM	35117	N	LEU C	87	203.928	141.544	47.047	1.00123.74	N
ATOM	35068	CA	GLY C	81	196.701	147.792	49.323	1.00131.91	C	ATOM	35118	CA	LEU C	87	204.680	141.375	45.811	1.00123.74	C
ATOM	35069	C	GLY C	81	197.758	147.036	50.100	1.00131.91	C	ATOM	35119	C	LEU C	87	206.052	141.982	46.031	1.00123.74	C
ATOM	35070	O	GLY C	81	198.796	147.589	50.453	1.00131.91	O	ATOM	35120	O	LEU C	87	207.036	141.264	46.191	1.00123.74	O
ATOM	35071	N	GLU C	82	197.498	145.763	50.364	1.00 97.86	N	ATOM	35121	CB	LEU C	87	203.999	142.096	44.642	1.00 91.45	C
ATOM	35072	CA	GLU C	82	198.436	144.946	51.115	1.00 97.86	C	ATOM	35122	CG	LEU C	87	202.603	141.655	44.192	1.00 91.45	C
ATOM	35073	C	GLU C	82	199.198	143.951	50.248	1.00 97.86	C	ATOM	35123	CD1	LEU C	87	202.170	142.514	43.006	1.00 91.45	C
ATOM	35074	O	GLU C	82	200.320	143.574	50.583	1.00 97.86	O	ATOM	35124	CD2	LEU C	87	202.606	140.174	43.823	1.00 91.45	C
ATOM	35075	CB	GLU C	82	197.703	144.204	52.243	1.00159.92	C	ATOM	35125	N	ARG C	88	206.102	143.311	46.054	1.00 80.66	N
ATOM	35076	CG	GLU C	82	196.655	143.189	51.790	1.00159.92	C	ATOM	35126	CA	ARG C	88	207.350	144.036	46.250	1.00 80.66	C
ATOM	35077	CD	GLU C	82	197.266	141.918	51.223	1.00159.92	C	ATOM	35127	C	ARG C	88	208.363	143.306	47.123	1.00 80.66	C
ATOM	35078	OE1	GLU C	82	198.071	141.272	51.928	1.00159.92	O	ATOM	35128	O	ARG C	88	209.520	143.158	46.730	1.00 80.66	O
ATOM	35079	OE2	GLU C	82	196.939	141.560	50.072	1.00159.92	O	ATOM	35129	CB	ARG C	88	207.063	145.423	46.819	1.00118.81	C
ATOM	35080	N	ARG C	83	198.595	143.525	49.138	1.00112.67	N	ATOM	35130	CG	ARG C	88	206.888	146.468	45.741	1.00118.81	C
ATOM	35081	CA	ARG C	83	199.245	142.565	48.248	1.00112.67	C	ATOM	35131	CD	ARG C	88	205.996	147.601	46.191	1.00118.81	C
ATOM	35082	C	ARG C	83	200.386	143.184	47.464	1.00112.67	C	ATOM	35132	NE	ARG C	88	205.939	148.664	45.190	1.00118.81	N
ATOM	35083	O	ARG C	83	201.461	142.597	47.360	1.00112.67	O	ATOM	35133	CZ	ARG C	88	204.994	149.598	45.142	1.00118.81	C
ATOM	35084	CB	ARG C	83	198.253	141.960	47.259	1.00103.07	C	ATOM	35134	NH1	ARG C	88	204.015	149.601	46.041	1.00118.81	N
ATOM	35085	CG	ARG C	83	198.940	141.016	46.294	1.00103.07	C	ATOM	35135	NH2	ARG C	88	205.028	150.533	44.198	1.00118.81	N
ATOM	35086	CD	ARG C	83	197.985	140.336	45.346	1.00103.07	C	ATOM	35136	N	GLU C	89	207.937	142.838	48.294	1.00119.15	N
ATOM	35087	NE	ARG C	83	198.640	139.205	44.699	1.00103.07	N	ATOM	35137	CA	GLU C	89	208.846	142.126	49.189	1.00119.15	C
ATOM	35088	CZ	ARG C	83	197.997	138.221	44.082	1.00103.07	C	ATOM	35138	C	GLU C	89	209.241	140.757	48.649	1.00119.15	O
ATOM	35089	NH1	ARG C	83	196.671	138.227	44.021	1.00103.07	N	ATOM	35139	O	GLU C	89	210.418	140.496	48.405	1.00119.15	O
ATOM	35090	NH2	ARG C	83	198.679	137.218	43.548	1.00103.07	N	ATOM	35140	CB	GLU C	89	208.228	141.945	50.573	1.00119.87	C
ATOM	35091	N	ILE C	84	200.145	144.362	46.895	1.00 85.90	N	ATOM	35141	CG	GLU C	89	209.063	141.040	51.466	1.00119.87	C
ATOM	35092	CA	ILE C	84	201.171	145.057	46.127	1.00 85.90	C	ATOM	35142	CD	GLU C	89	208.415	140.773	52.803	1.00119.87	C
ATOM	35093	C	ILE C	84	202.392	145.203	47.031	1.00 85.90	C	ATOM	35143	OE1	GLU C	89	207.234	140.368	52.818	1.00119.87	O
ATOM	35094	O	ILE C	84	203.511	145.429	46.566	1.00 85.90	O	ATOM	35144	OE2	GLU C	89	209.091	140.958	53.838	1.00119.87	O
ATOM	35095	CB	ILE C	84	200.672	146.444	45.666	1.00 90.23	C	ATOM	35145	N	GLU C	90	208.257	139.880	48.479	1.00191.50	N
ATOM	35096	CG1	ILE C	84	201.781	147.185	44.919	1.00 90.23	C	ATOM	35146	CA	GLU C	90	208.511	138.536	47.968	1.00191.50	C
ATOM	35097	CG2	ILE C	84	200.184	147.240	46.863	1.00 90.23	C	ATOM	35147	C	GLU C	90	209.293	138.639	46.662	1.00191.50	C
ATOM	35098	CD1	ILE C	84	201.380	148.569	44.449	1.00 90.23	C	ATOM	35148	O	GLU C	90	209.999	137.710	46.264	1.00191.50	O
ATOM	35099	N	ARG C	85	202.152	145.059	48.331	1.00104.83	N	ATOM	35149	CB	GLU C	90	207.181	137.806	47.738	1.00188.27	C
ATOM	35100	CA	ARG C	85	203.193	145.132	49.350	1.00104.83	C	ATOM	35150	CG	GLU C	90	207.319	136.313	47.470	1.00188.27	C
ATOM	35101	C	ARG C	85	203.845	143.749	49.475	1.00104.83	C	ATOM	35151	CD	GLU C	90	207.804	136.003	46.069	1.00188.27	C
ATOM	35102	O	ARG C	85	205.054	143.631	49.679	1.00104.83	O	ATOM	35152	OE1	GLU C	90	208.181	134.840	45.813	1.00188.27	O
ATOM	35103	CB	ARG C	85	202.568	145.574	50.685	1.00170.69	C	ATOM	35153	OE2	GLU C	90	207.798	136.917	45.221	1.00188.27	O
ATOM	35104	CG	ARG C	85	203.060	144.844	51.931	1.00170.69	C	ATOM	35154	N	LEU C	91	209.163	139.791	46.012	1.00 88.08	N
ATOM	35105	CD	ARG C	85	204.537	145.068	52.177	1.00170.69	C	ATOM	35155	CA	LEU C	91	209.828	140.076	44.746	1.00 88.08	C
ATOM	35106	NE	ARG C	85	205.003	144.328	53.343	1.00170.69	N	ATOM	35156	C	LEU C	91	211.316	140.371	44.916	1.00 88.08	C
ATOM	35107	CZ	ARG C	85	206.281	144.204	53.684	1.00170.69	C	ATOM	35157	O	LEU C	91	212.146	139.874	44.156	1.00 88.08	O
ATOM	35108	NH1	ARG C	85	207.225	144.772	52.946	1.00170.69	N	ATOM	35158	CB	LEU C	91	209.123	141.256	44.061	1.00 63.28	C
ATOM	35109	NH2	ARG C	85	206.615	143.515	54.766	1.00170.69	N	ATOM	35159	CG	LEU C	91	209.787	141.926	42.863	1.00 63.28	C
ATOM	35110	N	VAL C	86	203.031	142.706	49.350	1.00102.61	N	ATOM	35160	CD1	LEU C	91	208.744	142.674	42.038	1.00 63.28	C
ATOM	35111	CA	VAL C	86	203.521	141.338	49.429	1.00102.61	C	ATOM	35161	CD2	LEU C	91	210.882	142.855	43.370	1.00 63.28	C
ATOM	35112	C	VAL C	86	204.391	141.079	48.206	1.00102.61	C	ATOM	35162	N	ALA C	92	211.653	141.190	45.905	1.00 94.17	N
ATOM	35113	O	VAL C	86	205.455	140.468	48.307	1.00102.61	O	ATOM	35163	CA	ALA C	92	213.048	141.524	46.154	1.00 94.17	C
ATOM	35114	CB	VAL C	86	202.357	140.323	49.438	1.00123.34	C	ATOM	35164	C	ALA C	92	213.764	140.320	46.756	1.00 94.17	C
ATOM	35115	CG1	VAL C	86	202.901	138.911	49.582	1.00123.34	C	ATOM	35165	O	ALA C	92	214.914	140.420	47.174	1.00 94.17	O



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ATOM	35166	CB	ALA C	92	213.145	142.713	47.085	1.00	72.70	C	ATOM	35216	CB	VAL C	99	213.014	146.222	42.019	1.00	151.89	C
ATOM	35167	N	LYS C	93	213.067	139.186	46.800	1.00	135.08	N	ATOM	35217	CG1	VAL C	99	213.037	144.914	42.793	1.00	151.89	C
ATOM	35168	CA	LYS C	93	213.636	137.945	47.318	1.00	135.08	C	ATOM	35218	CG2	VAL C	99	211.764	146.313	41.152	1.00	151.89	C
ATOM	35169	C	LYS C	93	214.287	137.237	46.132	1.00	135.08	C	ATOM	35219	N	ALA C	100	211.304	148.963	42.541	1.00	107.22	N
ATOM	35170	O	LYS C	93	215.103	136.327	46.294	1.00	135.08	O	ATOM	35220	CA	ALA C	100	209.993	149.584	42.647	1.00	107.22	C
ATOM	35171	CB	LYS C	93	212.542	137.060	47.923	1.00	164.95	C	ATOM	35221	C	ALA C	100	208.927	148.625	42.150	1.00	107.22	C
ATOM	35172	CB	LYS C	93	211.721	137.733	49.014	1.00	164.95	C	ATOM	35222	O	ALA C	100	209.108	147.410	42.189	1.00	107.22	O
ATOM	35173	CD	LYS C	93	212.595	138.242	50.149	1.00	164.95	C	ATOM	35223	CB	ALA C	100	209.959	150.840	41.819	1.00	35.58	C
ATOM	35174	CE	LYS C	93	211.769	138.988	51.184	1.00	164.95	C	ATOM	35224	N	LEU C	101	207.816	149.187	41.680	1.00	93.20	N
ATOM	35175	NZ	LYS C	93	212.620	139.611	52.232	1.00	164.95	N	ATOM	35225	CA	LEU C	101	206.694	148.415	41.147	1.00	93.20	C
ATOM	35176	N	LEU C	94	213.900	137.664	44.934	1.00	116.77	N	ATOM	35226	C	LEU C	101	205.625	149.413	40.758	1.00	93.20	C
ATOM	35177	CA	LEU C	94	214.451	137.124	43.700	1.00	116.77	C	ATOM	35227	O	LEU C	101	205.708	150.581	41.117	1.00	93.20	O
ATOM	35178	C	LEU C	94	215.772	137.836	43.489	1.00	116.77	C	ATOM	35228	CB	LEU C	101	206.115	147.454	42.192	1.00	70.29	C
ATOM	35179	O	LEU C	94	216.802	137.216	43.234	1.00	116.77	O	ATOM	35229	CG	LEU C	101	205.693	146.066	41.693	1.00	70.29	C
ATOM	35180	CB	LEU C	94	213.543	137.444	42.510	1.00	88.77	C	ATOM	35230	CD1	LEU C	101	204.720	145.457	42.690	1.00	70.29	C
ATOM	35181	CG	LEU C	94	212.345	136.564	42.160	1.00	88.77	C	ATOM	35231	CD2	LEU C	101	205.040	146.156	40.325	1.00	70.29	C
ATOM	35182	CD1	LEU C	94	211.531	137.248	41.069	1.00	88.77	C	ATOM	35232	N	ASN C	102	204.615	148.952	40.039	1.00	96.81	N
ATOM	35183	CD2	LEU C	94	212.824	135.197	41.694	1.00	88.77	C	ATOM	35233	CA	ASN C	102	203.545	149.829	39.601	1.00	96.81	C
ATOM	35184	N	THR C	95	215.715	139.157	43.609	1.00	138.77	N	ATOM	35234	C	ASN C	102	202.341	149.031	39.154	1.00	96.81	C
ATOM	35185	CA	THR C	95	216.876	140.007	43.420	1.00	138.77	C	ATOM	35235	O	ASN C	102	202.414	147.811	39.007	1.00	96.81	O
ATOM	35186	C	THR C	95	216.925	141.072	44.496	1.00	138.77	C	ATOM	35236	CB	ASN C	102	204.025	150.701	38.445	1.00	87.57	C
ATOM	35187	O	THR C	95	215.888	141.627	44.863	1.00	138.77	O	ATOM	35237	CG	ASN C	102	205.044	151.717	38.881	1.00	87.57	C
ATOM	35188	CB	THR C	95	216.790	140.738	42.087	1.00	94.18	C	ATOM	35238	OD1	ASN C	102	204.718	152.663	39.597	1.00	87.57	O
ATOM	35189	OG1	THR C	95	215.675	141.644	42.120	1.00	94.18	O	ATOM	35239	ND2	ASN C	102	206.292	151.522	38.472	1.00	87.57	N
ATOM	35190	CG2	THR C	95	216.605	139.738	40.951	1.00	94.18	C	ATOM	35240	N	VAL C	103	201.230	149.727	38.944	1.00	77.16	N
ATOM	35191	N	GLY C	96	218.121	141.355	45.005	1.00	129.86	N	ATOM	35241	CA	VAL C	103	200.016	149.079	38.493	1.00	77.16	C
ATOM	35192	CA	GLY C	96	218.240	142.400	46.002	1.00	129.86	C	ATOM	35242	C	VAL C	103	199.165	150.037	37.681	1.00	77.16	C
ATOM	35193	C	GLY C	96	217.743	143.626	45.267	1.00	129.86	C	ATOM	35243	O	VAL C	103	198.253	150.682	38.196	1.00	77.16	O
ATOM	35194	O	GLY C	96	216.546	143.918	45.266	1.00	129.86	O	ATOM	35244	CB	VAL C	103	199.189	148.525	39.671	1.00	74.76	C
ATOM	35195	N	LYS C	97	218.667	144.337	44.632	1.00	95.28	N	ATOM	35245	CG1	VAL C	103	197.894	147.925	39.152	1.00	74.76	C
ATOM	35196	CA	LYS C	97	218.335	145.510	43.828	1.00	95.28	C	ATOM	35246	CG2	VAL C	103	199.981	147.453	40.409	1.00	74.76	C
ATOM	35197	C	LYS C	97	217.468	146.614	44.440	1.00	95.28	C	ATOM	35247	N	GLN C	104	199.497	150.133	36.400	1.00	89.04	C
ATOM	35198	O	LYS C	97	217.687	147.792	44.156	1.00	95.28	O	ATOM	35248	CA	GLN C	104	198.772	150.973	35.466	1.00	89.04	C
ATOM	35199	CB	LYS C	97	217.666	145.044	42.534	1.00	110.49	C	ATOM	35249	C	GLN C	104	197.685	150.058	34.915	1.00	89.04	C
ATOM	35200	CG	LYS C	97	218.546	144.211	41.630	1.00	110.49	C	ATOM	35250	O	GLN C	104	197.951	148.899	34.599	1.00	89.04	O
ATOM	35201	CD	LYS C	97	219.478	145.091	40.833	1.00	110.49	C	ATOM	35251	CB	GLN C	104	199.708	151.420	34.354	1.00	116.03	C
ATOM	35202	CE	LYS C	97	220.123	144.309	39.715	1.00	110.49	C	ATOM	35252	CG	GLN C	104	199.068	152.276	33.302	1.00	116.03	C
ATOM	35203	NZ	LYS C	97	220.841	145.221	38.795	1.00	110.49	N	ATOM	35253	CD	GLN C	104	200.012	152.541	32.154	1.00	116.03	C
ATOM	35204	N	ASN C	98	216.487	146.247	45.262	1.00	96.47	N	ATOM	35254	OE1	GLN C	104	201.099	153.083	32.349	1.00	116.03	O
ATOM	35205	CA	ASN C	98	215.577	147.232	45.847	1.00	96.47	C	ATOM	35255	NE2	GLN C	104	199.609	152.153	30.946	1.00	116.03	N
ATOM	35206	C	ASN C	98	214.824	147.801	44.648	1.00	96.47	C	ATOM	35256	N	GLU C	105	196.462	150.567	34.811	1.00	109.21	N
ATOM	35207	O	ASN C	98	215.116	148.897	44.156	1.00	96.47	O	ATOM	35257	CA	GLU C	105	195.348	149.759	34.328	1.00	109.21	C
ATOM	35208	CB	ASN C	98	216.354	148.342	46.563	1.00	180.84	C	ATOM	35258	C	GLU C	105	195.169	149.794	32.816	1.00	109.21	C
ATOM	35209	CG	ASN C	98	215.442	149.364	47.218	1.00	180.84	C	ATOM	35259	O	GLU C	105	195.620	150.720	32.138	1.00	109.21	O
ATOM	35210	OD1	ASN C	98	214.633	150.012	46.551	1.00	180.84	O	ATOM	35260	CB	GLU C	105	194.046	150.198	35.003	1.00	170.75	C
ATOM	35211	ND2	ASN C	98	215.569	149.513	48.531	1.00	180.84	N	ATOM	35261	CG	GLU C	105	192.859	149.294	34.705	1.00	170.75	C
ATOM	35212	N	VAL C	99	213.852	147.031	44.176	1.00	107.84	N	ATOM	35262	CD	GLU C	105	191.566	149.802	35.311	1.00	170.75	C
ATOM	35213	CA	VAL C	99	213.080	147.411	43.007	1.00	107.84	C	ATOM	35263	OE1	GLU C	105	191.132	150.914	34.943	1.00	170.75	O
ATOM	35214	C	VAL C	99	211.677	147.924	43.281	1.00	107.84	C	ATOM	35264	OE2	GLU C	105	190.983	149.088	36.155	1.00	170.75	O
ATOM	35215	O	VAL C	99	210.958	147.393	44.125	1.00	107.84	O	ATOM	35265	N	VAL C	106	194.498	148.766	32.304	1.00	90.32	N



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ATOM	35266	CA	VAL C 106	194.223	148.631	30.881	1.00	90.32	C	ATOM	35316	CB	SER C 112	194.564	144.376	25.723	1.00	109.23	C
ATOM	35267	C	VAL C 106	192.861	149.234	30.550	1.00	90.32	C	ATOM	35317	OG	SER C 112	195.798	143.803	26.131	1.00	109.23	O
ATOM	35268	O	VAL C 106	191.821	148.621	30.801	1.00	90.32	O	ATOM	35318	N	ALA C 113	195.251	142.733	22.600	1.00	53.37	N
ATOM	35269	CB	VAL C 106	194.211	147.148	30.466	1.00	128.74	C	ATOM	35319	CA	ALA C 113	195.465	141.424	22.004	1.00	53.37	C
ATOM	35270	CG1	VAL C 106	193.969	147.028	28.970	1.00	128.74	C	ATOM	35320	C	ALA C 113	195.900	140.373	23.031	1.00	53.37	C
ATOM	35271	CG2	VAL C 106	195.522	146.489	30.957	1.00	128.74	C	ATOM	35321	O	ALA C 113	195.317	139.286	23.122	1.00	53.37	O
ATOM	35272	N	GLN C 107	192.866	150.436	29.989	1.00	105.79	N	ATOM	35322	CB	ALA C 113	196.511	141.537	20.906	1.00	51.24	C
ATOM	35273	CA	GLN C 107	191.615	151.082	29.638	1.00	105.79	C	ATOM	35323	N	PRO C 114	196.929	140.691	23.825	1.00	52.05	N
ATOM	35274	C	GLN C 107	190.965	150.357	28.461	1.00	105.79	C	ATOM	35324	CA	PRO C 114	197.407	139.734	24.825	1.00	52.05	C
ATOM	35275	O	GLN C 107	191.170	150.719	27.297	1.00	105.79	O	ATOM	35325	C	PRO C 114	196.274	139.209	25.680	1.00	52.05	C
ATOM	35276	CB	GLN C 107	191.860	152.550	29.294	1.00	156.93	C	ATOM	35326	O	PRO C 114	196.223	138.020	26.000	1.00	52.05	O
ATOM	35277	CG	GLN C 107	192.515	153.336	30.420	1.00	156.93	C	ATOM	35327	CB	PRO C 114	198.403	140.549	25.638	1.00	39.46	C
ATOM	35278	CG	GLN C 107	191.725	153.275	31.714	1.00	156.93	C	ATOM	35328	CG	PRO C 114	198.891	141.590	24.648	1.00	39.46	C
ATOM	35279	OE1	GLN C 107	190.579	153.719	31.776	1.00	156.93	O	ATOM	35329	CD	PRO C 114	197.625	141.985	23.950	1.00	39.46	C
ATOM	35280	NE2	GLN C 107	192.337	152.722	32.755	1.00	156.93	N	ATOM	35330	N	LEU C 115	195.362	140.105	26.048	1.00	66.70	N
ATOM	35281	N	ASN C 108	190.194	149.320	28.789	1.00	94.56	N	ATOM	35331	CA	LEU C 115	194.227	139.735	26.883	1.00	66.70	C
ATOM	35282	CA	ASN C 108	189.472	148.495	27.816	1.00	94.56	C	ATOM	35332	C	LEU C 115	193.218	138.897	26.122	1.00	66.70	C
ATOM	35283	O	ASN C 108	190.288	147.331	27.273	1.00	94.56	O	ATOM	35333	O	LEU C 115	192.822	137.828	26.586	1.00	66.70	O
ATOM	35284	C	ASN C 108	190.957	147.455	26.252	1.00	94.56	C	ATOM	35334	CB	LEU C 115	193.572	140.993	27.450	1.00	72.37	C
ATOM	35285	CB	ASN C 108	188.959	149.345	26.651	1.00	117.03	C	ATOM	35335	CG	LEU C 115	194.459	141.663	28.504	1.00	43.86	C
ATOM	35286	CG	ASN C 108	188.203	148.529	25.628	1.00	117.03	C	ATOM	35336	CD1	LEU C 115	193.870	142.990	28.934	1.00	72.37	C
ATOM	35287	OD1	ASN C 108	187.291	147.771	25.966	1.00	117.03	O	ATOM	35337	CD2	LEU C 115	194.607	140.726	29.693	1.00	72.37	C
ATOM	35288	ND2	ASN C 108	188.573	148.682	24.365	1.00	117.03	N	ATOM	35338	N	VAL C 116	192.816	139.382	24.949	1.00	55.11	N
ATOM	35289	N	PRO C 109	190.231	146.175	27.951	1.00	69.76	N	ATOM	35339	CA	VAL C 116	191.864	138.663	24.104	1.00	55.11	C
ATOM	35290	CA	PRO C 109	190.957	144.967	27.556	1.00	69.76	C	ATOM	35340	C	VAL C 116	192.293	137.207	23.880	1.00	55.11	C
ATOM	35291	C	PRO C 109	190.477	144.357	26.242	1.00	69.76	C	ATOM	35341	O	VAL C 116	191.461	136.291	23.841	1.00	55.11	O
ATOM	35292	O	PRO C 109	191.048	143.380	25.759	1.00	69.76	O	ATOM	35342	CG1	VAL C 116	191.734	139.324	22.731	1.00	43.86	C
ATOM	35293	CB	PRO C 109	190.741	144.033	28.747	1.00	75.45	C	ATOM	35343	CG1	VAL C 116	190.771	138.518	21.871	1.00	43.86	C
ATOM	35294	CG	PRO C 109	189.405	144.426	29.232	1.00	75.45	C	ATOM	35344	CG2	VAL C 116	191.256	140.762	22.886	1.00	43.86	C
ATOM	35295	CD	PRO C 109	189.478	145.933	29.192	1.00	75.45	C	ATOM	35345	N	ALA C 117	193.595	137.003	23.715	1.00	66.09	N
ATOM	35296	N	ASN C 110	189.423	144.925	25.670	1.00	106.33	N	ATOM	35346	CA	ALA C 117	194.114	135.662	23.513	1.00	66.09	C
ATOM	35297	CA	ASN C 110	188.904	144.420	24.408	1.00	106.33	C	ATOM	35347	C	ALA C 117	193.730	134.847	24.732	1.00	66.09	C
ATOM	35298	C	ASN C 110	189.811	144.843	23.266	1.00	106.33	C	ATOM	35348	O	ALA C 117	193.174	133.750	24.614	1.00	66.09	O
ATOM	35299	O	ASN C 110	189.731	144.306	22.163	1.00	106.33	O	ATOM	35349	CB	ALA C 117	195.626	135.698	23.365	1.00	60.55	C
ATOM	35300	CB	ASN C 110	186.461	144.110	24.914	1.00	137.34	C	ATOM	35350	N	GLN C 118	194.024	135.415	25.900	1.00	71.75	N
ATOM	35301	CG	ASN C 110	186.575	143.896	26.118	1.00	137.34	C	ATOM	35351	CA	GLN C 118	193.745	134.784	27.186	1.00	71.75	C
ATOM	35302	OD1	ASN C 110	185.452	143.639	24.195	1.00	137.34	O	ATOM	35352	C	GLN C 118	192.273	134.427	27.394	1.00	71.75	C
ATOM	35303	ND2	ASN C 110	185.452	143.639	24.195	1.00	137.34	N	ATOM	35353	O	GLN C 118	191.956	133.354	27.919	1.00	71.75	O
ATOM	35304	N	LEU C 111	190.673	145.814	23.541	1.00	67.25	N	ATOM	35354	CB	GLN C 118	194.212	135.698	28.318	1.00	92.79	C
ATOM	35305	CA	LEU C 111	191.618	146.288	22.542	1.00	67.25	C	ATOM	35355	CG	GLN C 118	195.716	135.841	28.425	1.00	92.79	C
ATOM	35306	C	LEU C 111	193.048	145.868	22.904	1.00	67.25	C	ATOM	35356	CD	GLN C 118	196.120	136.821	29.501	1.00	92.79	C
ATOM	35307	O	LEU C 111	194.028	146.426	22.399	1.00	67.25	O	ATOM	35357	OE1	GLN C 118	196.008	138.036	29.326	1.00	92.79	O
ATOM	35308	CB	LEU C 111	191.514	147.807	22.390	1.00	49.25	C	ATOM	35358	NE2	GLN C 118	196.579	136.299	30.632	1.00	92.79	N
ATOM	35309	CG	LEU C 111	190.199	148.281	21.761	1.00	49.25	C	ATOM	35359	N	ARG C 119	191.378	135.326	26.996	1.00	78.98	N
ATOM	35310	CD1	LEU C 111	190.295	149.767	21.367	1.00	49.25	C	ATOM	35360	CA	ARG C 119	189.952	135.075	27.149	1.00	78.98	C
ATOM	35311	CD2	LEU C 111	189.901	147.432	20.531	1.00	49.25	C	ATOM	35361	C	ARG C 119	189.552	133.838	26.354	1.00	78.98	C
ATOM	35312	N	SER C 112	193.147	144.873	23.780	1.00	55.46	N	ATOM	35362	O	ARG C 119	188.920	132.918	26.886	1.00	78.98	O
ATOM	35313	CA	SER C 112	194.428	144.343	24.200	1.00	55.46	C	ATOM	35363	CB	ARG C 119	189.141	136.288	26.679	1.00	151.86	C
ATOM	35314	C	SER C 112	194.547	142.904	23.714	1.00	55.46	C	ATOM	35364	CG	ARG C 119	187.629	136.067	26.630	1.00	151.86	C
ATOM	35315	O	SER C 112	194.017	141.973	24.332	1.00	55.46	O	ATOM	35365	CD	ARG C 119	187.092	135.447	27.918	1.00	151.86	C



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ATOM	35366	NE	ARG C 119	185.641	135.261	27.881	1.00151.86	N	ATOM	35416	OE2	GLU C 125	194.366	127.285	30.131	1.00139.92	O
ATOM	35367	C2	ARG C 119	184.963	134.484	28.722	1.00151.86	C	ATOM	35417	N	ARG C 126	187.908	125.746	29.444	1.00 80.75	N
ATOM	35368	NH1	ARG C 119	185.602	133.813	29.672	1.00151.86	N	ATOM	35418	CA	ARG C 126	186.683	125.331	30.125	1.00 80.75	C
ATOM	35369	NH2	ARG C 119	183.645	134.377	28.614	1.00151.86	N	ATOM	35419	C	ARG C 126	186.059	124.239	29.272	1.00 80.75	C
ATOM	35370	N	VAL C 120	189.934	133.818	25.081	1.00 58.06	N	ATOM	35420	O	ARG C 126	186.033	123.072	29.671	1.00 80.75	O
ATOM	35371	CA	VAL C 120	189.603	132.701	24.217	1.00 58.06	C	ATOM	35421	CB	ARG C 126	185.708	126.500	30.270	1.00105.56	C
ATOM	35372	C	VAL C 120	190.277	131.432	24.673	1.00 58.06	C	ATOM	35422	CG	ARG C 126	186.227	127.653	31.115	1.00105.56	C
ATOM	35373	O	VAL C 120	189.690	130.356	24.621	1.00 58.06	O	ATOM	35423	CD	ARG C 126	185.124	128.663	31.367	1.00105.56	C
ATOM	35374	CB	VAL C 120	190.029	132.949	22.784	1.00 42.85	C	ATOM	35424	NE	ARG C 126	185.648	129.999	31.621	1.00105.56	N
ATOM	35375	CG1	VAL C 120	189.731	131.705	21.966	1.00 42.85	C	ATOM	35425	C2	ARG C 126	184.898	131.095	31.683	1.00105.56	C
ATOM	35376	CG2	VAL C 120	189.297	134.161	22.217	1.00 42.85	C	ATOM	35426	NH1	ARG C 126	183.583	131.019	31.511	1.00105.56	N
ATOM	35377	N	ALA C 121	191.522	131.545	25.102	1.00 60.04	N	ATOM	35427	NH2	ARG C 126	185.468	132.273	31.900	1.00105.56	N
ATOM	35378	CA	ALA C 121	192.222	130.360	25.558	1.00 60.04	C	ATOM	35428	N	ARG C 127	185.561	124.631	28.101	1.00 65.93	N
ATOM	35379	C	ALA C 121	191.499	129.871	26.797	1.00 60.04	C	ATOM	35429	CA	ARG C 127	184.976	123.702	27.142	1.00 65.93	C
ATOM	35380	O	ALA C 121	191.397	128.664	27.021	1.00 60.04	O	ATOM	35430	C	ARG C 127	183.963	124.329	26.206	1.00 65.93	C
ATOM	35381	CB	ALA C 121	193.662	130.684	25.877	1.00 56.71	C	ATOM	35431	O	ARG C 127	183.036	123.662	25.762	1.00 65.93	O
ATOM	35382	N	GLU C 122	190.993	130.825	27.585	1.00 85.19	N	ATOM	35432	CB	ARG C 127	184.342	122.518	27.853	1.00 69.98	C
ATOM	35383	CA	GLU C 122	190.258	130.543	28.819	1.00 85.19	C	ATOM	35433	CG	ARG C 127	184.895	121.215	27.369	1.00 69.98	C
ATOM	35384	C	GLU C 122	189.036	129.671	28.560	1.00 85.19	C	ATOM	35434	CD	ARG C 127	184.863	120.155	28.445	1.00 69.98	C
ATOM	35385	O	GLU C 122	188.927	128.558	29.071	1.00 85.19	O	ATOM	35435	NE	ARG C 127	185.688	120.503	29.597	1.00 69.98	N
ATOM	35386	CB	GLU C 122	189.796	131.845	29.471	1.00169.26	C	ATOM	35436	C2	ARG C 127	186.138	119.613	30.477	1.00 69.98	C
ATOM	35387	CG	GLU C 122	190.623	132.283	30.656	1.00169.26	C	ATOM	35437	NH1	ARG C 127	185.841	118.325	30.327	1.00 69.98	N
ATOM	35388	CD	GLU C 122	190.019	133.481	31.360	1.00169.26	C	ATOM	35438	NH2	ARG C 127	186.886	120.005	31.506	1.00 69.98	N
ATOM	35389	OE1	GLU C 122	188.824	133.418	31.724	1.00169.26	O	ATOM	35439	N	PHE C 128	184.153	125.605	25.887	1.00 66.78	N
ATOM	35390	OE2	GLU C 122	190.740	134.483	31.550	1.00169.26	O	ATOM	35440	CA	PHE C 128	183.246	126.317	24.990	1.00 66.78	C
ATOM	35391	N	GLN C 123	188.109	130.197	27.765	1.00 59.73	N	ATOM	35441	C	PHE C 128	183.437	125.953	23.517	1.00 66.78	C
ATOM	35392	CA	GLN C 123	186.898	129.469	27.422	1.00 59.73	C	ATOM	35442	O	PHE C 128	184.422	125.309	23.144	1.00 66.78	O
ATOM	35393	C	GLN C 123	187.267	128.076	26.911	1.00 59.73	C	ATOM	35443	CB	PHE C 128	183.424	127.824	25.177	1.00116.69	C
ATOM	35394	O	GLN C 123	186.752	127.076	27.399	1.00 59.73	O	ATOM	35444	CG	PHE C 128	182.963	128.320	26.514	1.00116.69	C
ATOM	35395	CB	GLN C 123	186.106	130.237	26.359	1.00 88.67	C	ATOM	35445	CD1	PHE C 128	183.365	127.680	27.683	1.00116.69	C
ATOM	35396	CG	GLN C 123	185.814	131.682	26.736	1.00 88.67	C	ATOM	35446	CD2	PHE C 128	182.116	129.417	26.606	1.00116.69	C
ATOM	35397	CD	GLN C 123	184.876	132.368	25.757	1.00 88.67	C	ATOM	35447	CE1	PHE C 128	182.926	128.123	28.921	1.00116.69	C
ATOM	35398	OE1	GLN C 123	183.757	131.907	25.528	1.00 88.67	O	ATOM	35448	CE2	PHE C 128	181.672	129.869	27.843	1.00116.69	C
ATOM	35399	NE2	GLN C 123	185.326	133.476	25.176	1.00 88.67	N	ATOM	35449	C2	PHE C 128	182.078	129.221	29.004	1.00116.69	C
ATOM	35400	N	ILE C 124	188.170	128.008	25.938	1.00 60.79	N	ATOM	35450	N	ALA C 129	182.483	126.356	22.683	1.00 79.67	N
ATOM	35401	CA	ILE C 124	188.578	126.719	25.404	1.00 60.79	C	ATOM	35451	CA	ALA C 129	182.555	126.089	21.252	1.00 79.67	C
ATOM	35402	C	ILE C 124	188.942	125.772	26.546	1.00 60.79	C	ATOM	35452	C	ALA C 129	183.640	126.995	20.688	1.00 79.67	C
ATOM	35403	O	ILE C 124	188.483	124.624	26.580	1.00 60.79	O	ATOM	35453	O	ALA C 129	183.466	128.218	20.637	1.00 79.67	O
ATOM	35404	CB	ILE C 124	189.788	126.856	24.448	1.00 58.22	C	ATOM	35454	CB	ALA C 129	181.221	126.400	20.597	1.00163.39	C
ATOM	35405	CG1	ILE C 124	189.386	127.684	23.228	1.00 58.22	C	ATOM	35455	N	VAL C 130	184.758	126.403	20.271	1.00 48.40	N
ATOM	35406	CG2	ILE C 124	190.276	125.471	24.000	1.00 58.22	C	ATOM	35456	CA	VAL C 130	185.866	127.193	19.742	1.00 48.40	C
ATOM	35407	CD1	ILE C 124	190.514	127.897	22.232	1.00 58.22	C	ATOM	35457	O	VAL C 130	185.399	128.212	18.721	1.00 48.40	C
ATOM	35408	CA	GLU C 125	189.765	126.258	27.476	1.00 71.87	N	ATOM	35458	O	VAL C 130	185.563	129.419	18.918	1.00 48.40	O
ATOM	35409	C	GLU C 125	190.189	125.462	28.623	1.00 71.87	C	ATOM	35459	CB	VAL C 130	186.948	126.306	19.086	1.00 45.54	C
ATOM	35410	C	GLU C 125	188.969	124.940	29.384	1.00 71.87	C	ATOM	35460	CG1	VAL C 130	188.033	127.180	18.465	1.00 45.54	C
ATOM	35411	O	GLU C 125	188.995	123.824	29.912	1.00 71.87	O	ATOM	35461	CG2	VAL C 130	187.560	125.374	20.126	1.00 45.54	C
ATOM	35412	CB	GLU C 125	191.072	126.295	29.552	1.00139.92	C	ATOM	35462	N	ARG C 131	184.805	127.723	17.638	1.00 57.02	N
ATOM	35413	CG	GLU C 125	192.389	126.717	28.929	1.00139.92	C	ATOM	35463	CA	ARG C 131	184.337	128.603	16.580	1.00 57.02	C
ATOM	35414	CD	GLU C 125	193.200	127.624	29.835	1.00139.92	C	ATOM	35464	C	ARG C 131	183.601	129.814	17.146	1.00 57.02	C
ATOM	35415	OE1	GLU C 125	192.674	128.679	30.250	1.00139.92	O	ATOM	35465	O	ARG C 131	183.825	130.951	16.715	1.00 57.02	O



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ATOM	35466	CB	ARG C 131	183.432	127.835	15.622	1.00114.26	C	ATOM	35516	CA	ALA C 137	186.084	137.784	20.579	1.00 54.35	C
ATOM	35467	CG	ARG C 131	183.019	128.654	14.423	1.00114.26	C	ATOM	35517	C	ALA C 137	186.359	138.724	19.412	1.00 54.35	C
ATOM	35468	CD	ARG C 131	182.468	127.780	13.320	1.00114.26	C	ATOM	35518	O	ALA C 137	186.576	139.922	19.601	1.00 54.35	O
ATOM	35469	NE	ARG C 131	183.462	126.813	12.868	1.00114.26	N	ATOM	35519	CB	ALA C 137	187.286	136.882	20.814	1.00 41.66	C
ATOM	35470	CZ	ARG C 131	183.294	125.999	11.834	1.00114.26	C	ATOM	35520	N	VAL C 138	186.356	138.184	18.199	1.00 63.72	N
ATOM	35471	NH1	ARG C 131	182.166	126.033	11.138	1.00114.26	N	ATOM	35521	CA	VAL C 138	186.596	139.035	17.050	1.00 63.72	C
ATOM	35472	NH2	ARG C 131	184.255	125.151	11.499	1.00114.26	N	ATOM	35522	C	VAL C 138	185.601	140.182	17.151	1.00 63.72	C
ATOM	35473	N	ARG C 132	182.722	129.560	18.114	1.00 78.72	N	ATOM	35523	O	VAL C 138	185.953	141.341	16.945	1.00 63.72	O
ATOM	35474	CA	ARG C 132	181.945	130.612	18.770	1.00 78.72	C	ATOM	35524	CB	VAL C 138	186.399	138.275	15.723	1.00 56.64	C
ATOM	35475	C	ARG C 132	182.892	131.601	19.428	1.00 78.72	C	ATOM	35525	CG1	VAL C 138	186.734	139.192	14.536	1.00 56.64	C
ATOM	35476	O	ARG C 132	182.971	132.774	19.046	1.00 78.72	O	ATOM	35526	CG2	VAL C 138	187.290	137.049	15.707	1.00 56.64	C
ATOM	35477	CB	ARG C 132	181.042	129.993	19.838	1.00156.61	C	ATOM	35527	N	GLN C 139	184.361	139.849	17.497	1.00 80.92	N
ATOM	35478	CG	ARG C 132	180.464	130.989	20.826	1.00156.61	C	ATOM	35528	CA	GLN C 139	183.325	140.859	17.647	1.00 80.92	C
ATOM	35479	CD	ARG C 132	179.641	130.282	21.889	1.00156.61	C	ATOM	35529	C	GLN C 139	183.719	141.879	18.708	1.00 80.92	C
ATOM	35480	NE	ARG C 132	178.563	129.495	21.298	1.00156.61	N	ATOM	35530	O	GLN C 139	183.960	143.036	18.390	1.00 80.92	O
ATOM	35481	CZ	ARG C 132	177.571	131.302	20.536	1.00156.61	C	ATOM	35531	CB	GLN C 139	181.989	140.214	18.020	1.00 95.47	C
ATOM	35482	NH1	ARG C 132	176.660	129.208	20.036	1.00156.61	N	ATOM	35532	CG	GLN C 139	180.991	140.180	16.878	1.00 95.47	C
ATOM	35483	NH2	ARG C 132	183.606	131.096	20.426	1.00 74.22	C	ATOM	35533	CD	GLN C 139	180.651	141.569	16.364	1.00 95.47	C
ATOM	35484	N	ALA C 133	184.565	131.877	21.181	1.00 74.22	C	ATOM	35534	OE1	GLN C 139	179.942	141.722	15.368	1.00 95.47	O
ATOM	35485	CA	ALA C 133	185.282	132.857	20.279	1.00 74.22	C	ATOM	35535	NE2	GLN C 139	181.156	142.590	17.046	1.00 95.47	N
ATOM	35486	C	ALA C 133	185.388	134.048	20.586	1.00 74.22	O	ATOM	35536	N	ARG C 140	183.788	141.451	19.966	1.00 72.48	N
ATOM	35487	O	ALA C 133	185.564	130.960	21.824	1.00 51.85	C	ATOM	35537	CA	ARG C 140	184.161	142.350	21.057	1.00 72.48	C
ATOM	35488	CB	ALA C 133	185.776	132.341	19.161	1.00 53.47	N	ATOM	35538	C	ARG C 140	185.242	143.324	20.590	1.00 72.48	C
ATOM	35489	N	IIE C 134	186.498	133.158	18.206	1.00 53.47	C	ATOM	35539	O	ARG C 140	185.010	144.526	20.525	1.00 72.48	O
ATOM	35490	CA	IIE C 134	185.609	134.251	17.609	1.00 53.47	C	ATOM	35540	CB	ARG C 140	184.691	141.557	22.255	1.00 81.27	C
ATOM	35491	C	IIE C 134	185.950	135.436	17.670	1.00 53.47	O	ATOM	35541	CG	ARG C 140	183.775	140.467	22.770	1.00 81.27	C
ATOM	35492	O	IIE C 134	187.065	132.292	17.071	1.00 54.88	C	ATOM	35542	CD	ARG C 140	184.597	139.443	23.533	1.00 81.27	C
ATOM	35493	CB	IIE C 134	187.830	131.106	17.656	1.00 54.88	C	ATOM	35543	NE	ARG C 140	183.866	138.203	23.769	1.00 81.27	N
ATOM	35494	CG1	IIE C 134	188.008	133.110	16.220	1.00 54.88	C	ATOM	35544	CZ	ARG C 140	184.439	137.046	24.100	1.00 81.27	C
ATOM	35495	CG2	IIE C 134	188.403	130.182	16.609	1.00 54.88	C	ATOM	35545	NH1	ARG C 140	185.759	136.971	24.233	1.00 81.27	N
ATOM	35496	CD1	IIE C 134	184.476	133.857	17.035	1.00 65.12	N	ATOM	35546	NH2	ARG C 140	183.696	135.959	24.294	1.00 81.27	N
ATOM	35497	N	LYS C 135	183.568	134.824	16.428	1.00 65.12	C	ATOM	35547	N	VAL C 141	186.417	142.795	20.256	1.00 68.16	N
ATOM	35498	CA	LYS C 135	183.270	135.962	17.396	1.00 65.12	C	ATOM	35548	CA	VAL C 141	187.535	143.621	19.805	1.00 68.16	C
ATOM	35499	C	LYS C 135	183.367	137.144	17.032	1.00 65.12	O	ATOM	35549	C	VAL C 141	187.097	144.604	18.735	1.00 68.16	C
ATOM	35500	O	LYS C 135	182.259	134.151	16.031	1.00 96.45	C	ATOM	35550	O	VAL C 141	187.524	145.759	18.707	1.00 68.16	O
ATOM	35501	CB	LYS C 135	182.378	133.138	14.920	1.00 96.45	C	ATOM	35551	CB	VAL C 141	188.676	142.766	19.215	1.00 51.33	C
ATOM	35502	CG	LYS C 135	181.123	132.286	14.876	1.00 96.45	C	ATOM	35552	CG1	VAL C 141	189.798	143.687	18.707	1.00 51.33	C
ATOM	35503	CD	LYS C 135	181.196	131.217	13.806	1.00 96.45	C	ATOM	35553	CG2	VAL C 141	189.211	141.795	20.272	1.00 51.33	C
ATOM	35504	CE	LYS C 135	180.083	130.232	13.932	1.00 96.45	C	ATOM	35554	N	MET C 142	186.245	144.130	17.843	1.00 71.64	N
ATOM	35505	NZ	LYS C 135	182.912	135.595	18.631	1.00 96.45	N	ATOM	35555	CA	MET C 142	185.751	144.962	16.767	1.00 71.64	C
ATOM	35506	N	GLN C 136	182.583	136.570	19.675	1.00 69.86	C	ATOM	35556	C	MET C 142	184.686	145.872	17.359	1.00 71.64	C
ATOM	35507	CA	GLN C 136	183.729	137.530	19.959	1.00 69.86	C	ATOM	35557	O	MET C 142	185.150	144.075	15.675	1.00 71.64	O
ATOM	35508	C	GLN C 136	183.553	138.745	19.885	1.00 69.86	O	ATOM	35558	CB	MET C 142	185.219	144.667	14.284	1.00 77.24	C
ATOM	35509	O	GLN C 136	182.197	135.856	20.966	1.00 86.27	C	ATOM	35559	CG	MET C 142	186.919	144.952	13.786	1.00 77.24	S
ATOM	35510	CB	GLN C 136	181.095	134.847	20.796	1.00 86.27	C	ATOM	35560	SD	MET C 142	187.141	146.628	14.300	1.00 77.24	C
ATOM	35511	CG	GLN C 136	180.645	134.260	22.117	1.00 86.27	C	ATOM	35561	CE	MET C 142	183.875	145.284	18.232	1.00 83.41	C
ATOM	35512	CD	GLN C 136	181.467	133.867	22.956	1.00 86.27	O	ATOM	35562	N	GLU C 143	182.770	145.950	18.917	1.00 83.41	N
ATOM	35513	OE1	GLN C 136	179.329	134.184	22.309	1.00 86.27	N	ATOM	35563	CA	GLU C 143	183.214	147.203	19.666	1.00 83.41	C
ATOM	35514	NE2	GLN C 136	184.895	136.978	20.295	1.00 54.35	N	ATOM	35564	C	GLU C 143	182.525	148.221	19.649	1.00 83.41	O
ATOM	35515	N	ALA C 137						ATOM	35565	O	GLU C 143					



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ATOM	35566	CB	GLU C 143	182.120	144.954	19.886	1.00159.96	C	ATOM	35616	O	VAL C 151	191.434	133.629	14.495	1.00	53.31	O
ATOM	35567	CG	GLU C 143	180.762	145.348	20.444	1.00159.96	C	ATOM	35617	CB	VAL C 151	190.693	135.230	17.078	1.00	44.05	C
ATOM	35568	CD	GLU C 143	180.101	144.201	21.198	1.00159.96	C	ATOM	35618	CG1	VAL C 151	190.963	134.111	18.097	1.00	44.05	C
ATOM	35569	OE1	GLU C 143	180.685	143.723	22.196	1.00159.96	O	ATOM	35619	CG2	VAL C 151	190.498	136.565	17.776	1.00	44.05	C
ATOM	35570	OE2	GLU C 143	179.000	143.771	20.790	1.00159.96	O	ATOM	35620	N	ILE C 152	193.056	133.234	15.976	1.00	57.48	N
ATOM	35571	N	SER C 144	184.372	147.127	20.311	1.00	63.90	ATOM	35621	CA	ILE C 152	193.390	131.938	15.402	1.00	57.48	C
ATOM	35572	CA	SER C 144	184.896	148.255	21.068	1.00	63.90	ATOM	35622	C	ILE C 152	193.598	130.858	16.453	1.00	57.48	C
ATOM	35573	C	SER C 144	185.947	149.071	20.316	1.00	63.90	ATOM	35623	O	ILE C 152	194.563	130.915	17.219	1.00	57.48	O
ATOM	35574	O	SER C 144	187.060	149.263	20.807	1.00	63.90	ATOM	35624	CB	ILE C 152	194.701	132.038	14.582	1.00	32.72	C
ATOM	35575	CB	SER C 144	185.473	147.769	22.409	1.00	67.03	ATOM	35625	CG1	ILE C 152	194.541	133.042	13.441	1.00	32.72	C
ATOM	35576	OG	SER C 144	186.514	146.828	22.225	1.00	67.03	ATOM	35626	CG2	ILE C 152	195.084	130.671	14.040	1.00	32.72	C
ATOM	35577	N	GLY C 145	185.578	149.568	19.137	1.00115.87	N	ATOM	35627	CD1	ILE C 152	195.840	133.483	12.849	1.00	32.72	C
ATOM	35578	CA	GLY C 145	186.500	150.360	18.341	1.00115.87	C	ATOM	35628	N	VAL C 153	192.711	129.874	16.507	1.00	52.65	N
ATOM	35579	C	GLY C 145	187.262	149.482	17.374	1.00115.87	C	ATOM	35629	CA	VAL C 153	192.893	128.798	17.476	1.00	52.65	C
ATOM	35580	O	GLY C 145	186.661	148.681	16.662	1.00115.87	O	ATOM	35630	C	VAL C 153	193.408	127.648	16.637	1.00	52.65	C
ATOM	35581	N	ALA C 146	188.582	149.631	17.348	1.00	75.90	ATOM	35631	O	VAL C 153	192.922	127.429	15.531	1.00	52.65	O
ATOM	35582	CA	ALA C 146	189.444	148.831	16.472	1.00	75.90	ATOM	35632	CB	VAL C 153	191.568	128.394	18.174	1.00	53.01	C
ATOM	35583	C	ALA C 146	189.130	149.016	14.996	1.00	75.90	ATOM	35633	CG1	VAL C 153	191.806	127.198	19.093	1.00	53.01	C
ATOM	35584	O	ALA C 146	187.984	149.251	14.615	1.00	75.90	ATOM	35634	CG2	VAL C 153	191.022	129.566	18.982	1.00	53.01	C
ATOM	35585	CB	ALA C 146	189.344	147.332	16.836	1.00	61.89	ATOM	35635	N	SER C 154	194.387	126.920	17.157	1.00	62.60	N
ATOM	35586	N	LYS C 147	190.153	148.912	14.159	1.00	61.89	ATOM	35636	CA	SER C 154	194.992	125.824	16.421	1.00	62.60	C
ATOM	35587	CA	LYS C 147	189.942	149.054	12.730	1.00	61.89	ATOM	35637	C	SER C 154	194.529	124.440	16.838	1.00	62.60	C
ATOM	35588	C	LYS C 147	189.996	147.681	12.066	1.00	61.89	ATOM	35638	O	SER C 154	193.442	124.000	16.477	1.00	62.60	O
ATOM	35589	O	LYS C 147	189.729	147.547	10.868	1.00	61.89	ATOM	35639	CB	SER C 154	196.493	125.889	16.588	1.00	97.20	C
ATOM	35590	CB	LYS C 147	190.982	150.000	12.120	1.00	80.60	ATOM	35640	OG	SER C 154	196.803	125.736	17.961	1.00	97.20	O
ATOM	35591	CG	LYS C 147	190.793	151.443	12.543	1.00	80.60	ATOM	35641	N	GLY C 155	195.399	123.759	17.579	1.00	32.26	N
ATOM	35592	CD	LYS C 147	191.395	152.432	11.550	1.00	80.60	ATOM	35642	CA	GLY C 155	195.162	122.411	18.075	1.00	32.26	C
ATOM	35593	CE	LYS C 147	192.923	152.361	11.503	1.00	80.60	ATOM	35643	C	GLY C 155	194.021	121.509	17.610	1.00	32.26	C
ATOM	35594	NZ	LYS C 147	193.541	153.445	10.662	1.00	80.60	ATOM	35644	N	ARG C 155	193.453	121.666	16.514	1.00	32.26	O
ATOM	35595	N	GLY C 148	190.328	146.667	12.862	1.00	50.17	ATOM	35645	O	ARG C 156	193.710	120.538	18.480	1.00	52.15	N
ATOM	35596	CA	GLY C 148	190.407	145.313	12.359	1.00	50.17	ATOM	35646	CA	ARG C 156	192.647	119.550	18.265	1.00	52.15	C
ATOM	35597	C	GLY C 148	190.801	144.372	13.482	1.00	50.17	ATOM	35647	C	ARG C 156	191.313	120.181	18.592	1.00	52.15	C
ATOM	35598	O	GLY C 148	191.399	144.802	14.468	1.00	50.17	ATOM	35648	O	ARG C 156	190.644	119.757	19.528	1.00	52.15	O
ATOM	35599	N	ALA C 149	190.474	143.092	13.346	1.00	48.23	ATOM	35649	CB	ARG C 156	192.842	118.346	19.184	1.00	54.67	C
ATOM	35600	CA	ALA C 149	190.814	142.123	14.373	1.00	48.23	ATOM	35650	CG	ARG C 156	194.168	117.656	19.011	1.00	54.67	C
ATOM	35601	C	ALA C 149	190.859	140.731	13.756	1.00	48.23	ATOM	35651	CD	ARG C 156	194.373	116.558	20.033	1.00	54.67	C
ATOM	35602	O	ALA C 149	190.206	140.489	12.736	1.00	48.23	ATOM	35652	NE	ARG C 156	193.273	115.606	20.009	1.00	54.67	N
ATOM	35603	CB	ALA C 149	189.788	142.175	15.469	1.00	52.58	ATOM	35653	CZ	ARG C 156	193.275	114.438	20.645	1.00	54.67	C
ATOM	35604	N	LYS C 150	191.619	139.823	14.372	1.00	48.43	ATOM	35654	NH1	ARG C 156	194.324	114.061	21.370	1.00	54.67	N
ATOM	35605	CA	LYS C 150	191.750	138.461	13.870	1.00	48.43	ATOM	35655	NH2	ARG C 156	192.223	113.640	20.547	1.00	54.67	N
ATOM	35606	C	LYS C 150	192.195	137.492	14.966	1.00	48.43	ATOM	35656	N	ILE C 157	190.923	121.187	17.821	1.00	49.53	N
ATOM	35607	O	LYS C 150	193.125	137.781	15.722	1.00	48.43	ATOM	35657	CA	ILE C 157	189.662	121.865	18.081	1.00	49.53	C
ATOM	35608	CB	LYS C 150	192.749	138.448	12.719	1.00	89.12	ATOM	35658	C	ILE C 157	188.510	120.940	18.449	1.00	49.53	C
ATOM	35609	CG	LYS C 150	193.077	137.077	12.178	1.00	89.12	ATOM	35659	O	ILE C 157	188.133	120.053	17.683	1.00	49.53	O
ATOM	35610	CD	LYS C 150	194.004	137.213	10.993	1.00	89.12	ATOM	35660	CB	ILE C 157	189.237	122.725	16.893	1.00	56.68	C
ATOM	35611	CE	LYS C 150	194.454	135.867	10.496	1.00	89.12	ATOM	35661	CG1	ILE C 157	190.232	123.867	16.720	1.00	56.68	C
ATOM	35612	NZ	LYS C 150	195.320	136.011	9.298	1.00	89.12	ATOM	35662	CG2	ILE C 157	187.856	123.286	17.123	1.00	56.68	C
ATOM	35613	N	VAL C 151	191.538	136.338	15.050	1.00	53.31	ATOM	35663	CD1	ILE C 157	189.931	124.766	15.557	1.00	56.68	C
ATOM	35614	CA	VAL C 151	191.854	135.347	16.077	1.00	53.31	ATOM	35664	N	GLY C 158	187.964	121.165	19.643	1.00	74.40	N
ATOM	35615	C	VAL C 151	192.106	133.992	15.443	1.00	53.31	ATOM	35665	CA	GLY C 158	186.844	120.378	20.125	1.00	74.40	C



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ATOM	35666	C	GLY C 158	187.197	118.981	20.587	1.00	74.40	C	ATOM	35716	OG1	THR C 165	195.087	125.189	12.344	1.00	68.44	O
ATOM	35667	O	GLY C 158	186.329	118.112	20.659	1.00	74.40	O	ATOM	35717	CG2	THR C 165	194.307	127.469	12.260	1.00	68.44	C
ATOM	35668	N	GLY C 159	188.468	118.759	20.902	1.00	64.52	N	ATOM	35718	N	GLU C 166	190.887	127.030	13.451	1.00	43.60	N
ATOM	35669	CA	GLY C 159	188.892	117.447	21.358	1.00	64.52	C	ATOM	35719	CA	GLU C 166	189.748	127.908	13.211	1.00	43.60	C
ATOM	35670	C	GLY C 159	189.014	116.461	20.217	1.00	64.52	C	ATOM	35720	C	GLU C 166	190.242	129.333	12.995	1.00	43.60	C
ATOM	35671	O	GLY C 159	189.289	115.278	20.431	1.00	64.52	O	ATOM	35721	O	GLU C 166	191.120	129.826	13.714	1.00	43.60	O
ATOM	35672	N	ALA C 160	188.808	116.957	19.000	1.00	76.75	N	ATOM	35722	CB	GLU C 166	188.754	127.866	14.378	1.00	114.08	C
ATOM	35673	CA	ALA C 160	188.901	116.134	17.806	1.00	76.75	C	ATOM	35723	CG	GLU C 166	187.905	126.600	14.465	1.00	114.08	C
ATOM	35674	C	ALA C 160	190.274	115.461	17.728	1.00	76.75	C	ATOM	35724	CD	GLU C 166	187.111	126.317	13.205	1.00	114.08	C
ATOM	35675	O	ALA C 160	191.240	115.927	18.333	1.00	76.75	O	ATOM	35725	OE1	GLU C 166	186.264	127.154	12.826	1.00	114.08	O
ATOM	35676	CB	ALA C 160	188.669	116.995	16.584	1.00	57.91	C	ATOM	35726	OE2	GLU C 166	187.334	125.252	12.592	1.00	114.08	O
ATOM	35677	N	GLU C 161	190.365	114.365	16.986	1.00	75.74	N	ATOM	35727	N	TRP C 167	189.640	129.987	12.010	1.00	67.92	N
ATOM	35678	CA	GLU C 161	191.635	113.667	16.861	1.00	75.74	C	ATOM	35728	CA	TRP C 167	189.984	131.335	11.577	1.00	67.92	C
ATOM	35679	C	GLU C 161	192.501	114.282	15.769	1.00	75.74	C	ATOM	35729	C	TRP C 167	189.283	132.465	12.314	1.00	67.92	C
ATOM	35680	O	GLU C 161	193.722	114.236	15.845	1.00	75.74	O	ATOM	35730	O	TRP C 167	189.373	132.559	13.524	1.00	67.92	O
ATOM	35681	CB	GLU C 161	191.400	112.188	16.563	1.00	190.58	C	ATOM	35731	CB	TRP C 167	189.640	131.439	10.109	1.00	91.98	C
ATOM	35682	CG	GLU C 161	192.668	111.360	16.572	1.00	190.58	C	ATOM	35732	CG	TRP C 167	190.713	131.946	9.293	1.00	91.98	C
ATOM	35683	CD	GLU C 161	192.394	109.878	16.445	1.00	190.58	C	ATOM	35733	CD1	TRP C 167	191.815	131.277	8.895	1.00	91.98	C
ATOM	35684	OE1	GLU C 161	193.367	109.094	16.425	1.00	190.58	O	ATOM	35734	CD2	TRP C 167	190.786	133.245	8.720	1.00	91.98	C
ATOM	35685	OE2	GLU C 161	191.206	109.495	16.366	1.00	190.58	O	ATOM	35735	NE1	TRP C 167	192.580	132.078	8.096	1.00	91.98	N
ATOM	35686	N	GLN C 162	191.873	114.869	14.757	1.00	67.18	N	ATOM	35736	CE2	TRP C 167	191.968	133.298	7.972	1.00	91.98	C
ATOM	35687	CA	GLN C 162	192.621	115.477	13.661	1.00	67.18	C	ATOM	35737	CE3	TRP C 167	189.961	134.373	8.766	1.00	91.98	C
ATOM	35688	C	GLN C 162	192.741	116.973	13.879	1.00	67.18	C	ATOM	35738	C22	TRP C 167	192.355	134.440	7.268	1.00	91.98	C
ATOM	35689	O	GLN C 162	191.773	117.699	13.685	1.00	67.18	O	ATOM	35739	C23	TRP C 167	190.340	135.506	8.069	1.00	91.98	C
ATOM	35690	CB	GLN C 162	191.915	115.219	12.331	1.00	112.88	C	ATOM	35740	CH2	TRP C 167	191.528	135.532	7.328	1.00	91.98	C
ATOM	35691	CG	GLN C 162	192.756	115.547	11.112	1.00	112.88	C	ATOM	35741	N	ALA C 168	188.606	133.326	11.548	1.00	46.56	N
ATOM	35692	CD	GLN C 162	193.892	114.560	10.913	1.00	112.88	C	ATOM	35742	CA	ALA C 168	187.829	134.485	12.035	1.00	46.56	C
ATOM	35693	OE1	GLN C 162	193.663	113.367	10.699	1.00	112.88	O	ATOM	35743	C	ALA C 168	188.556	135.809	12.110	1.00	46.56	C
ATOM	35694	NE2	GLN C 162	195.126	115.052	10.984	1.00	112.88	N	ATOM	35744	O	ALA C 168	189.529	135.945	12.848	1.00	46.56	O
ATOM	35695	N	ALA C 163	193.926	117.431	14.274	1.00	44.24	N	ATOM	35745	CB	ALA C 168	187.209	134.194	13.394	1.00	44.30	C
ATOM	35696	CA	ALA C 163	194.150	118.854	14.521	1.00	44.24	C	ATOM	35746	N	ALA C 169	188.056	136.793	11.369	1.00	55.18	N
ATOM	35697	C	ALA C 163	193.693	119.711	13.340	1.00	44.24	C	ATOM	35747	CA	ALA C 169	188.653	138.121	11.365	1.00	55.18	C
ATOM	35698	O	ALA C 163	193.826	119.319	12.182	1.00	44.24	O	ATOM	35748	C	ALA C 169	187.716	139.149	10.744	1.00	55.18	C
ATOM	35699	CB	ALA C 163	195.619	119.103	14.814	1.00	99.18	C	ATOM	35749	O	ALA C 169	186.895	138.804	9.895	1.00	55.18	O
ATOM	35700	N	ARG C 164	193.147	120.883	13.642	1.00	51.12	N	ATOM	35750	CB	ALA C 169	189.947	138.092	10.613	1.00	63.08	C
ATOM	35701	CA	ARG C 164	192.653	121.795	12.616	1.00	51.12	C	ATOM	35751	N	GLN C 170	187.843	140.407	11.175	1.00	36.09	N
ATOM	35702	C	ARG C 164	193.074	123.194	13.025	1.00	51.12	C	ATOM	35752	CA	GLN C 170	187.018	141.512	10.675	1.00	36.09	C
ATOM	35703	O	ARG C 164	193.980	123.361	13.833	1.00	51.12	O	ATOM	35753	C	GLN C 170	187.881	142.737	10.404	1.00	36.09	C
ATOM	35704	CB	ARG C 164	191.121	121.730	12.522	1.00	76.58	C	ATOM	35754	O	GLN C 170	189.009	142.834	10.902	1.00	36.09	O
ATOM	35705	CG	ARG C 164	190.554	120.329	12.711	1.00	76.58	C	ATOM	35755	CB	GLN C 170	185.930	141.884	11.684	1.00	109.94	C
ATOM	35706	CD	ARG C 164	189.057	120.205	12.411	1.00	76.58	C	ATOM	35756	CG	GLN C 170	184.760	140.924	11.742	1.00	109.94	C
ATOM	35707	NE	ARG C 164	188.181	120.936	13.327	1.00	76.58	N	ATOM	35757	CD	GLN C 170	183.702	141.368	12.738	1.00	109.94	C
ATOM	35708	CZ	ARG C 164	187.829	122.206	13.166	1.00	76.58	C	ATOM	35758	OE1	GLN C 170	183.168	142.476	12.641	1.00	109.94	O
ATOM	35709	NH1	ARG C 164	188.283	122.898	12.125	1.00	76.58	N	ATOM	35759	NE2	GLN C 170	183.392	140.503	13.701	1.00	109.94	N
ATOM	35710	NH2	ARG C 164	187.006	122.776	14.035	1.00	76.58	N	ATOM	35760	N	GLY C 171	187.342	143.667	9.617	1.00	53.48	N
ATOM	35711	N	THR C 165	192.402	124.197	12.481	1.00	65.54	N	ATOM	35761	CA	GLY C 171	188.073	144.874	9.280	1.00	53.48	C
ATOM	35712	CA	THR C 165	192.730	125.574	12.791	1.00	65.54	C	ATOM	35762	C	GLY C 171	189.401	144.574	8.608	1.00	53.48	C
ATOM	35713	C	THR C 165	191.549	126.469	12.440	1.00	65.54	C	ATOM	35763	O	GLY C 171	189.518	143.603	7.864	1.00	53.48	O
ATOM	35714	O	THR C 165	191.234	126.635	11.265	1.00	65.54	O	ATOM	35764	N	ARG C 172	190.411	145.397	8.867	1.00	65.60	N
ATOM	35715	CB	THR C 165	193.969	126.012	11.985	1.00	68.44	C	ATOM	35765	CA	ARG C 172	191.717	145.187	8.266	1.00	65.60	C



Table 2: Sheet 359/520

ATOM	35766	C	ARG C 172	192.740	144.739	9.288	1.00	65.60	C	ATOM	35816	C	LEU C 178	204.824	149.326	9.047	1.00	93.05	C
ATOM	35767	O	ARG C 172	192.720	145.181	10.434	1.00	65.60	O	ATOM	35817	O	LEU C 178	205.677	150.190	8.937	1.00	93.05	O
ATOM	35768	CB	ARG C 172	192.209	146.467	7.615	1.00	70.82	C	ATOM	35818	CB	LEU C 178	206.432	147.866	7.819	1.00	54.16	C
ATOM	35769	CG	ARG C 172	191.193	147.127	6.727	1.00	70.82	C	ATOM	35819	CG	LEU C 178	207.717	148.055	8.602	1.00	54.16	C
ATOM	35770	CD	ARG C 172	191.848	148.209	5.900	1.00	70.82	C	ATOM	35820	CD1	LEU C 178	207.898	146.940	9.615	1.00	54.16	C
ATOM	35771	NE	ARG C 172	193.032	148.744	6.570	1.00	70.82	N	ATOM	35821	CD2	LEU C 178	208.857	148.068	7.601	1.00	54.16	C
ATOM	35772	C2	ARG C 172	193.817	149.701	6.077	1.00	70.82	C	ATOM	35822	N	ARG C 179	203.705	149.511	9.729	1.00	85.44	N
ATOM	35773	NH1	ARG C 172	193.549	150.248	4.895	1.00	70.82	N	ATOM	35823	CA	ARG C 179	203.421	150.790	10.361	1.00	85.44	N
ATOM	35774	NH2	ARG C 172	194.884	150.101	6.762	1.00	70.82	N	ATOM	35824	C	ARG C 179	201.991	150.819	10.876	1.00	85.44	C
ATOM	35775	CA	VAL C 173	193.628	143.848	8.861	1.00	65.62	N	ATOM	35825	O	ARG C 179	201.608	151.718	11.614	1.00	85.44	O
ATOM	35776	N	VAL C 173	194.715	143.335	9.691	1.00	65.62	C	ATOM	35826	CB	ARG C 179	203.646	151.924	9.349	1.00	83.19	C
ATOM	35777	C	VAL C 173	195.877	143.183	8.718	1.00	65.62	C	ATOM	35827	CG	ARG C 179	202.604	153.024	9.343	1.00	83.19	C
ATOM	35778	O	VAL C 173	196.294	142.074	8.396	1.00	65.62	O	ATOM	35828	CD	ARG C 179	201.314	152.571	8.684	1.00	83.19	C
ATOM	35779	CB	VAL C 173	194.371	141.962	10.290	1.00	52.59	C	ATOM	35829	NE	ARG C 179	201.289	152.811	7.242	1.00	83.19	N
ATOM	35780	CG1	VAL C 173	195.461	141.522	11.277	1.00	52.59	C	ATOM	35830	C2	ARG C 179	201.146	154.009	6.677	1.00	83.19	C
ATOM	35781	CG2	VAL C 173	193.021	142.027	10.963	1.00	52.59	C	ATOM	35831	NH1	ARG C 179	201.013	155.097	7.426	1.00	83.19	N
ATOM	35782	N	PRO C 174	196.397	144.312	8.222	1.00	67.85	N	ATOM	35832	NH2	ARG C 179	201.123	154.121	5.355	1.00	83.19	N
ATOM	35783	CA	PRO C 174	197.504	144.378	7.266	1.00	67.85	C	ATOM	35833	N	ALA C 180	201.206	149.829	10.477	1.00	88.68	N
ATOM	35784	C	PRO C 174	198.904	144.053	7.792	1.00	67.85	C	ATOM	35834	CA	ALA C 180	199.816	149.726	10.879	1.00	88.68	C
ATOM	35785	O	PRO C 174	199.738	144.942	7.937	1.00	67.85	O	ATOM	35835	C	ALA C 180	199.598	149.830	12.387	1.00	88.68	C
ATOM	35786	CB	PRO C 174	197.391	145.803	6.739	1.00	58.43	C	ATOM	35836	O	ALA C 180	198.632	150.462	12.845	1.00	88.68	O
ATOM	35787	CG	PRO C 174	196.941	146.559	7.955	1.00	58.43	C	ATOM	35837	CB	ALA C 180	199.240	148.415	10.371	1.00	89.11	C
ATOM	35788	CD	PRO C 174	195.878	145.662	8.517	1.00	58.43	C	ATOM	35838	N	ASN C 181	200.497	149.223	13.158	1.00	73.01	N
ATOM	35789	N	LEU C 175	199.167	142.773	8.040	1.00	52.15	N	ATOM	35839	CA	ASN C 181	200.376	149.208	14.618	1.00	73.01	C
ATOM	35790	CA	LEU C 175	200.463	142.336	8.559	1.00	52.15	C	ATOM	35840	C	ASN C 181	199.315	148.189	14.940	1.00	73.01	C
ATOM	35791	C	LEU C 175	201.694	142.815	7.780	1.00	52.15	C	ATOM	35841	O	ASN C 181	198.155	148.514	15.179	1.00	73.01	O
ATOM	35792	O	LEU C 175	202.793	142.878	8.328	1.00	52.15	O	ATOM	35842	CB	ASN C 181	199.946	150.560	15.204	1.00	68.59	C
ATOM	35793	CB	LEU C 175	200.502	140.815	8.642	1.00	42.70	C	ATOM	35843	CG	ASN C 181	199.633	150.472	16.702	1.00	68.59	C
ATOM	35794	CG	LEU C 175	199.382	140.147	9.434	1.00	42.70	C	ATOM	35844	OD1	ASN C 181	200.181	149.626	17.420	1.00	68.59	O
ATOM	35795	CD1	LEU C 175	199.695	138.662	9.584	1.00	42.70	C	ATOM	35845	ND2	ASN C 181	198.761	151.354	17.179	1.00	68.59	N
ATOM	35796	CD2	LEU C 175	199.247	140.793	10.811	1.00	42.70	C	ATOM	35846	N	ILE C 182	199.740	146.942	14.942	1.00	66.45	N
ATOM	35797	N	HIS C 176	201.517	143.148	6.507	1.00	58.21	N	ATOM	35847	CA	ILE C 182	198.850	145.843	15.202	1.00	66.45	C
ATOM	35798	CA	HIS C 176	202.639	143.599	5.692	1.00	58.21	C	ATOM	35848	C	ILE C 182	199.259	145.158	16.494	1.00	66.45	C
ATOM	35799	C	HIS C 176	202.945	145.077	5.880	1.00	58.21	C	ATOM	35849	O	ILE C 182	200.376	144.669	16.605	1.00	66.45	O
ATOM	35800	O	HIS C 176	204.114	145.471	5.955	1.00	58.21	O	ATOM	35850	CB	ILE C 182	198.937	144.862	14.029	1.00	51.03	C
ATOM	35801	CB	HIS C 176	202.368	143.333	4.206	1.00	58.54	C	ATOM	35851	CG1	ILE C 182	198.568	145.608	12.737	1.00	51.03	C
ATOM	35802	CG	HIS C 176	202.788	141.973	3.740	1.00	58.54	C	ATOM	35852	CG2	ILE C 182	198.105	143.625	14.319	1.00	51.03	C
ATOM	35803	ND1	HIS C 176	202.277	140.809	4.272	1.00	58.54	N	ATOM	35853	CD1	ILE C 182	198.516	144.743	11.489	1.00	51.03	C
ATOM	35804	CD2	HIS C 176	203.641	141.594	2.761	1.00	58.54	C	ATOM	35854	N	ASP C 183	198.381	145.128	17.487	1.00	49.63	N
ATOM	35805	CE1	HIS C 176	202.790	139.772	3.639	1.00	58.54	C	ATOM	35855	CA	ASP C 183	198.764	144.460	18.719	1.00	49.63	C
ATOM	35806	NE2	HIS C 176	203.621	140.221	2.716	1.00	58.54	N	ATOM	35856	C	ASP C 183	198.644	142.951	18.541	1.00	49.63	C
ATOM	35807	N	THR C 177	201.897	145.897	5.928	1.00	66.37	N	ATOM	35857	O	ASP C 183	197.643	142.433	18.035	1.00	49.63	O
ATOM	35808	CA	THR C 177	202.075	147.331	6.105	1.00	66.37	C	ATOM	35858	CB	ASP C 183	197.909	144.919	19.905	1.00	78.95	C
ATOM	35809	C	THR C 177	202.790	147.566	7.437	1.00	66.37	C	ATOM	35859	CG	ASP C 183	198.478	144.458	21.250	1.00	78.95	C
ATOM	35810	O	THR C 177	202.206	147.534	8.517	1.00	66.37	O	ATOM	35860	OD1	ASP C 183	197.811	144.685	22.284	1.00	78.95	O
ATOM	35811	CB	THR C 177	200.729	148.080	6.050	1.00	64.60	C	ATOM	35861	OD2	ASP C 183	199.589	143.872	21.274	1.00	78.95	O
ATOM	35812	CG1	THR C 177	200.962	149.484	6.182	1.00	64.60	O	ATOM	35862	N	TYR C 184	199.681	142.246	18.960	1.00	62.65	N
ATOM	35813	CG2	THR C 177	199.822	147.628	7.156	1.00	64.60	C	ATOM	35863	CA	TYR C 184	199.693	140.809	18.843	1.00	62.65	C
ATOM	35814	N	LEU C 178	204.094	147.758	7.308	1.00	93.05	N	ATOM	35864	C	TYR C 184	199.638	140.160	20.212	1.00	62.65	C
ATOM	35815	CA	LEU C 178	205.026	147.971	8.401	1.00	93.05	C	ATOM	35865	O	TYR C 184	200.152	140.697	21.190	1.00	62.65	O



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ATOM	35866	CB	TYR C 184	200.955	140.365	18.123	1.00	58.14	C	ATOM	35916	NH1	ARG C 190	201.303	123.933	32.820	1.00	146.53	N
ATOM	35867	CG	TYR C 184	201.103	138.867	18.054	1.00	58.14	C	ATOM	35917	NH2	ARG C 190	202.736	124.764	31.232	1.00	146.53	N
ATOM	35868	CD1	TYR C 184	200.318	138.105	17.184	1.00	58.14	C	ATOM	35918	N	THR C 191	194.770	121.286	28.019	1.00	54.55	N
ATOM	35869	CD2	TYR C 184	202.012	138.209	18.875	1.00	58.14	C	ATOM	35919	CA	THR C 191	193.485	120.624	27.937	1.00	54.55	C
ATOM	35870	CE1	TYR C 184	200.440	136.718	17.141	1.00	58.14	C	ATOM	35920	C	THR C 191	193.558	119.152	28.288	1.00	54.55	C
ATOM	35871	CE2	TYR C 184	202.143	136.831	18.841	1.00	58.14	C	ATOM	35921	O	THR C 191	194.620	118.557	28.242	1.00	54.55	O
ATOM	35872	CB	TYR C 184	201.358	136.087	17.977	1.00	58.14	C	ATOM	35922	CB	THR C 191	192.964	120.759	26.515	1.00	56.30	C
ATOM	35873	OH	TYR C 184	201.497	134.715	17.963	1.00	58.14	O	ATOM	35923	OG1	THR C 191	192.307	122.021	26.367	1.00	56.30	O
ATOM	35874	N	GLY C 185	199.013	138.996	20.272	1.00	59.46	N	ATOM	35924	CG2	THR C 191	192.034	119.648	26.181	1.00	56.30	C
ATOM	35875	CA	GLY C 185	198.915	138.283	21.524	1.00	59.46	C	ATOM	35925	N	THR C 192	192.422	118.557	28.623	1.00	73.23	N
ATOM	35876	C	GLY C 185	198.721	136.802	21.283	1.00	59.46	C	ATOM	35926	CA	THR C 192	192.394	117.145	28.963	1.00	73.23	C
ATOM	35877	O	GLY C 185	198.023	136.402	20.353	1.00	59.46	O	ATOM	35927	C	THR C 192	192.970	116.325	27.820	1.00	73.23	C
ATOM	35878	N	PHE C 186	199.344	135.990	22.125	1.00	55.07	N	ATOM	35928	O	THR C 192	193.399	115.194	28.018	1.00	73.23	O
ATOM	35879	CA	PHE C 186	199.244	134.547	22.019	1.00	55.07	C	ATOM	35929	CB	THR C 192	190.967	116.651	29.184	1.00	104.70	C
ATOM	35880	C	PHE C 186	198.874	133.980	23.374	1.00	55.07	C	ATOM	35930	OG1	THR C 192	190.209	117.667	29.845	1.00	104.70	C
ATOM	35881	O	PHE C 186	199.274	134.512	24.409	1.00	55.07	O	ATOM	35931	CG2	THR C 192	190.972	115.389	30.036	1.00	104.70	C
ATOM	35882	CB	PHE C 186	200.583	133.946	21.583	1.00	49.49	C	ATOM	35932	N	TYR C 193	192.986	116.900	26.623	1.00	87.70	N
ATOM	35883	CG	PHE C 186	200.673	132.453	21.776	1.00	49.49	C	ATOM	35933	CA	TYR C 193	193.474	116.179	25.457	1.00	87.70	C
ATOM	35884	CD1	PHE C 186	199.939	131.586	20.975	1.00	49.49	C	ATOM	35934	C	TYR C 193	194.610	116.835	24.661	1.00	87.70	C
ATOM	35885	CD2	PHE C 186	201.498	131.918	22.750	1.00	49.49	C	ATOM	35935	O	TYR C 193	194.825	116.485	23.500	1.00	87.70	O
ATOM	35886	CE1	PHE C 186	200.035	130.200	22.145	1.00	49.49	C	ATOM	35936	CB	TYR C 193	192.292	115.920	24.528	1.00	78.12	C
ATOM	35887	CE2	PHE C 186	201.600	130.538	22.926	1.00	49.49	C	ATOM	35937	CG	TYR C 193	191.568	117.188	24.132	1.00	78.12	C
ATOM	35888	CZ	PHE C 186	200.871	129.679	22.124	1.00	49.49	C	ATOM	35938	CD1	TYR C 193	192.163	118.116	23.277	1.00	78.12	C
ATOM	35889	N	ALA C 187	198.124	132.889	23.364	1.00	55.06	N	ATOM	35939	CD2	TYR C 193	190.304	117.477	24.638	1.00	78.12	C
ATOM	35890	CA	ALA C 187	197.722	132.253	24.599	1.00	55.06	C	ATOM	35940	CE1	TYR C 193	191.519	119.303	22.937	1.00	78.12	C
ATOM	35891	O	ALA C 187	197.725	130.749	24.412	1.00	55.06	C	ATOM	35941	CE2	TYR C 193	189.650	118.662	24.305	1.00	78.12	C
ATOM	35892	CB	ALA C 187	196.338	132.730	25.000	1.00	56.10	C	ATOM	35942	CZ	TYR C 193	190.264	119.570	23.455	1.00	78.12	C
ATOM	35893	N	LEU C 188	198.289	130.053	25.389	1.00	57.97	N	ATOM	35943	OH	TYR C 193	189.625	120.745	23.125	1.00	78.12	O
ATOM	35894	CA	LEU C 188	198.352	128.603	25.375	1.00	57.97	C	ATOM	35944	N	GLY C 194	195.333	117.777	25.260	1.00	77.36	N
ATOM	35895	C	LEU C 188	196.959	128.091	25.685	1.00	57.97	C	ATOM	35945	CA	GLY C 194	196.416	118.422	24.536	1.00	77.36	C
ATOM	35896	O	LEU C 188	195.981	128.818	25.524	1.00	57.97	O	ATOM	35946	C	GLY C 194	196.301	119.930	24.424	1.00	77.36	C
ATOM	35897	CB	LEU C 188	199.312	128.144	26.452	1.00	40.81	C	ATOM	35947	O	GLY C 194	195.261	120.511	24.727	1.00	77.36	O
ATOM	35898	CG	LEU C 188	200.393	127.158	26.054	1.00	40.81	C	ATOM	35948	N	VAL C 195	197.374	120.562	23.963	1.00	61.84	N
ATOM	35899	CD1	LEU C 188	199.920	125.743	26.301	1.00	40.81	C	ATOM	35949	CA	VAL C 195	197.425	122.011	23.828	1.00	61.84	C
ATOM	35900	CD2	LEU C 188	200.758	127.403	24.604	1.00	40.81	C	ATOM	35950	C	VAL C 195	196.710	122.593	22.603	1.00	61.84	C
ATOM	35901	N	ALA C 189	196.855	126.847	26.134	1.00	65.32	N	ATOM	35951	O	VAL C 195	196.452	121.895	21.623	1.00	61.84	O
ATOM	35902	CA	ALA C 189	195.525	123.977	25.906	1.00	65.32	C	ATOM	35952	CB	VAL C 195	198.881	122.492	23.782	1.00	55.21	C
ATOM	35903	C	ALA C 189	195.552	126.273	26.478	1.00	65.32	C	ATOM	35953	CG1	VAL C 195	198.930	124.004	23.902	1.00	55.21	C
ATOM	35904	O	ALA C 189	195.723	124.812	26.781	1.00	65.32	O	ATOM	35954	CG2	VAL C 195	199.680	121.826	24.876	1.00	55.21	C
ATOM	35905	CB	ALA C 189	194.542	126.444	25.325	1.00	13.94	C	ATOM	35955	N	LEU C 196	196.410	123.888	22.683	1.00	47.47	N
ATOM	35906	N	ARG C 190	196.117	124.504	28.011	1.00	80.24	N	ATOM	35956	CA	LEU C 196	195.744	124.647	21.630	1.00	47.47	C
ATOM	35907	CA	ARG C 190	196.296	123.118	28.412	1.00	80.24	C	ATOM	35957	C	LEU C 196	196.347	126.055	21.662	1.00	47.47	C
ATOM	35908	C	ARG C 190	194.894	122.523	28.479	1.00	80.24	C	ATOM	35958	O	LEU C 196	196.270	126.749	22.683	1.00	47.47	O
ATOM	35909	O	ARG C 190	193.945	123.174	28.919	1.00	80.24	O	ATOM	35959	CB	LEU C 196	194.248	124.771	21.918	1.00	58.40	C
ATOM	35910	N	ARG C 190	197.043	123.055	29.745	1.00	146.53	C	ATOM	35960	CG	LEU C 196	193.173	123.730	21.596	1.00	58.40	C
ATOM	35911	CB	ARG C 190	197.043	123.055	29.745	1.00	146.53	C	ATOM	35961	CD1	LEU C 196	192.809	123.827	20.128	1.00	58.40	C
ATOM	35912	CG	ARG C 190	198.443	123.646	29.611	1.00	146.53	C	ATOM	35962	CD2	LEU C 196	193.623	122.338	21.998	1.00	58.40	C
ATOM	35913	CD	ARG C 190	199.259	123.624	30.887	1.00	146.53	C	ATOM	35963	N	GLY C 197	196.944	126.486	20.558	1.00	56.21	N
ATOM	35914	NE	ARG C 190	200.601	124.149	30.638	1.00	146.53	N	ATOM	35964	CA	GLY C 197	197.523	127.815	20.538	1.00	56.21	C
ATOM	35915	CZ	ARG C 190	201.545	124.283	31.564	1.00	146.53	C	ATOM	35965	C	GLY C 197	196.427	128.803	20.229	1.00	56.21	C



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ATOM	35966	O	GLY C 197	195.475	128.459	19.538	1.00	56.21	O	ATOM	36016	CE1 PHE C 203	196.224	149.176	11.364	1.00	41.40	C
ATOM	35967	N	VAL C 198	196.532	130.023	20.731	1.00	58.18	N	ATOM	36017	CE2 PHE C 203	194.163	149.015	10.119	1.00	41.40	C
ATOM	35968	CA	VAL C 198	195.499	131.004	20.453	1.00	58.18	C	ATOM	36018	CZ PHE C 203	195.413	149.600	10.306	1.00	41.40	C
ATOM	35969	C	VAL C 198	196.129	132.331	20.102	1.00	58.18	C	ATOM	36019	N LEU C 204	194.870	148.813	15.324	1.00	81.39	N
ATOM	35970	CB	VAL C 198	196.778	132.959	20.942	1.00	58.18	O	ATOM	36020	CA LEU C 204	194.541	150.116	15.904	1.00	81.39	C
ATOM	35971	O	VAL C 198	194.605	131.194	21.656	1.00	45.88	C	ATOM	36021	C LEU C 204	195.131	151.187	15.001	1.00	81.39	C
ATOM	35972	CG1	VAL C 198	193.362	131.960	21.257	1.00	45.88	C	ATOM	36022	O LEU C 204	196.282	151.070	14.579	1.00	81.39	O
ATOM	35973	CG2	VAL C 198	194.246	129.853	22.228	1.00	45.88	C	ATOM	36023	CB LEU C 204	195.188	150.258	17.276	1.00	48.91	C
ATOM	35974	N	LYS C 199	195.930	132.772	18.867	1.00	60.78	N	ATOM	36024	CG LEU C 204	195.291	148.983	18.115	1.00	48.91	C
ATOM	35975	CA	LYS C 199	196.530	134.018	18.438	1.00	60.78	C	ATOM	36025	CD1 LEU C 204	196.384	149.148	19.154	1.00	48.91	C
ATOM	35976	C	LYS C 199	195.521	135.132	18.228	1.00	60.78	C	ATOM	36026	CD2 LEU C 204	193.945	148.665	18.765	1.00	48.91	C
ATOM	35977	O	LYS C 199	194.443	134.911	17.670	1.00	60.78	C	ATOM	36027	N GLY C 205	194.361	152.229	14.712	1.00	98.19	N
ATOM	35978	CB	LYS C 199	197.343	133.778	17.165	1.00	80.50	C	ATOM	36028	CA GLY C 205	194.866	153.301	13.869	1.00	98.19	C
ATOM	35979	CG	LYS C 199	198.474	132.780	17.363	1.00	80.50	C	ATOM	36029	C GLY C 205	195.875	152.856	12.820	1.00	98.19	C
ATOM	35980	CD	LYS C 199	199.216	132.510	16.074	1.00	80.50	C	ATOM	36030	O GLY C 205	195.774	151.755	12.289	1.00	98.19	O
ATOM	35981	CE	LYS C 199	200.239	131.411	16.280	1.00	80.50	C	ATOM	36031	N GLU C 206	196.856	153.699	12.515	1.00	126.27	N
ATOM	35982	NZ	LYS C 199	200.971	131.087	15.030	1.00	80.50	N	ATOM	36032	CA GLU C 206	197.840	153.328	11.514	1.00	126.27	C
ATOM	35983	N	ALA C 200	195.880	136.336	18.671	1.00	51.61	N	ATOM	36033	C GLU C 206	199.151	154.096	11.597	1.00	126.27	C
ATOM	35984	CA	ALA C 200	194.994	137.478	18.550	1.00	51.61	C	ATOM	36034	O GLU C 206	200.140	153.566	12.094	1.00	126.27	O
ATOM	35985	C	ALA C 200	195.693	138.656	17.895	1.00	51.61	C	ATOM	36035	CB GLU C 206	197.239	153.477	10.111	1.00	93.50	C
ATOM	35986	O	ALA C 200	196.797	139.029	18.284	1.00	51.61	O	ATOM	36036	CG GLU C 206	198.077	152.858	8.994	1.00	93.50	C
ATOM	35987	CB	ALA C 200	194.483	137.869	19.925	1.00	64.63	C	ATOM	36037	CD GLU C 206	197.380	152.861	7.633	1.00	93.50	C
ATOM	35988	N	TYR C 201	195.041	139.240	16.899	1.00	52.17	N	ATOM	36038	OE1 GLU C 206	197.989	152.387	6.647	1.00	93.50	O
ATOM	35989	CA	TYR C 201	195.584	140.382	16.184	1.00	52.17	C	ATOM	36039	OE2 GLU C 206	196.227	153.333	7.542	1.00	93.50	O
ATOM	35990	C	TYR C 201	194.613	141.541	16.300	1.00	52.17	C	ATOM	36040	N VAL C 207	199.162	155.342	11.129	1.00	93.98	N
ATOM	35991	O	TYR C 201	193.424	141.405	15.970	1.00	52.17	O	ATOM	36041	CA VAL C 207	200.391	156.147	11.114	1.00	93.98	C
ATOM	35992	CB	TYR C 201	195.752	140.068	14.697	1.00	84.42	C	ATOM	36042	C VAL C 207	201.315	155.975	12.328	1.00	93.98	C
ATOM	35993	CG	TYR C 201	196.782	139.026	14.379	1.00	84.42	C	ATOM	36043	O VAL C 207	200.849	155.549	13.408	1.00	93.98	O
ATOM	35994	CD1	TYR C 201	196.650	137.729	14.851	1.00	84.42	C	ATOM	36044	CB VAL C 207	200.070	157.656	10.945	1.00	116.67	C
ATOM	35995	CD2	TYR C 201	197.884	139.337	13.595	1.00	84.42	C	ATOM	36045	CG1 VAL C 207	201.354	158.446	10.721	1.00	116.67	C
ATOM	35996	CE1	TYR C 201	197.585	136.768	14.552	1.00	84.42	C	ATOM	36046	CG2 VAL C 207	199.124	157.859	9.773	1.00	116.67	C
ATOM	35997	CE2	TYR C 201	198.827	138.388	13.290	1.00	84.42	C	ATOM	36047	VAL C 207						
ATOM	35998	CZ	TYR C 201	198.673	137.100	13.769	1.00	84.42	C	ATOM	36048	N GLY D 2	149.929	94.048	31.931	1.00	61.34	N
ATOM	35999	OH	TYR C 201	199.603	136.131	13.455	1.00	40.67	O	ATOM	36049	CA GLY D 2	149.184	95.038	32.764	1.00	61.34	C
ATOM	36000	N	ILE C 202	195.098	142.692	16.747	1.00	54.95	N	ATOM	36050	C GLY D 2	149.754	96.440	32.651	1.00	61.34	C
ATOM	36001	CA	ILE C 202	194.212	143.830	16.858	1.00	54.95	C	ATOM	36051	O GLY D 2	150.866	96.620	32.149	1.00	61.34	O
ATOM	36002	C	ILE C 202	194.784	143.021	16.136	1.00	54.95	C	ATOM	36052	N ARG D 3	148.996	97.430	33.120	1.00	66.41	N
ATOM	36003	O	ILE C 202	195.863	145.498	16.451	1.00	54.95	O	ATOM	36053	CA ARG D 3	149.414	98.826	33.069	1.00	66.41	C
ATOM	36004	CB	ILE C 202	193.943	144.176	18.319	1.00	59.82	C	ATOM	36054	C ARG D 3	150.817	99.105	33.625	1.00	66.41	C
ATOM	36005	CG1	ILE C 202	193.247	142.991	18.988	1.00	59.82	C	ATOM	36055	O ARG D 3	151.270	98.459	34.569	1.00	66.41	O
ATOM	36006	CG2	ILE C 202	193.070	145.422	18.405	1.00	59.82	C	ATOM	36056	CB ARG D 3	148.373	99.701	33.771	1.00	183.11	O
ATOM	36007	CD1	ILE C 202	193.004	143.161	20.455	1.00	59.82	C	ATOM	36057	CG ARG D 3	147.135	99.915	32.916	1.00	183.11	C
ATOM	36008	N	PHE C 203	194.052	145.497	15.149	1.00	67.33	N	ATOM	36058	CD ARG D 3	147.526	100.616	31.619	1.00	183.11	C
ATOM	36009	CA	PHE C 203	194.513	146.625	14.382	1.00	67.33	C	ATOM	36059	DE ARG D 3	146.846	100.089	30.438	1.00	183.11	N
ATOM	36010	C	PHE C 203	193.961	147.907	14.968	1.00	67.33	C	ATOM	36060	CZ ARG D 3	145.561	100.270	30.154	1.00	183.11	C
ATOM	36011	O	PHE C 203	192.748	148.063	15.096	1.00	67.33	O	ATOM	36061	NH1 ARG D 3	144.782	100.970	30.966	1.00	183.11	N
ATOM	36012	CB	PHE C 203	194.075	146.469	12.930	1.00	41.40	C	ATOM	36062	NH2 ARG D 3	145.059	99.755	29.042	1.00	183.11	N
ATOM	36013	CG	PHE C 203	194.528	147.580	12.039	1.00	41.40	C	ATOM	36063	N TYR D 4	151.481	100.084	33.016	1.00	91.41	N
ATOM	36014	CD1	PHE C 203	195.778	148.171	12.222	1.00	41.40	C	ATOM	36064	CA TYR D 4	152.845	100.499	33.344	1.00	91.41	C
ATOM	36015	CD2	PHE C 203	193.728	148.011	10.986	1.00	41.40	C	ATOM	36065	C TYR D 4	153.519	100.035	34.626	1.00	91.41	C



Table 2: Sheet 362/520

ATOM	36066	O	TYR	D	4	154.280	99.062	34.612	1.00	91.41	O	ATOM	36116	NH1	ARG	D	10	162.320	106.718	32.940	1.00	55.75	N
ATOM	36067	CB	TYR	D	4	152.964	102.024	33.270	1.00	61.37	C	ATOM	36117	NH2	ARG	D	10	164.201	106.223	34.183	1.00	55.75	N
ATOM	36068	CG	TYR	D	4	154.336	102.556	33.655	1.00	61.37	C	ATOM	36118	N	LEU	D	11	158.313	110.188	34.166	1.00	58.37	N
ATOM	36069	CD1	TYR	D	4	155.489	102.091	33.032	1.00	61.37	C	ATOM	36119	CA	LEU	D	11	157.645	110.320	32.885	1.00	58.37	C
ATOM	36070	CD2	TYR	D	4	154.479	103.491	34.675	1.00	61.37	C	ATOM	36120	C	LEU	D	11	157.354	111.805	32.803	1.00	58.37	C
ATOM	36071	CE1	TYR	D	4	156.747	102.538	33.425	1.00	61.37	C	ATOM	36121	O	LEU	D	11	157.506	112.424	31.746	1.00	58.37	O
ATOM	36072	CE2	TYR	D	4	155.730	103.942	35.071	1.00	61.37	C	ATOM	36122	CB	LEU	D	11	156.334	109.552	32.879	1.00	44.96	C
ATOM	36073	CZ	TYR	D	4	156.858	103.461	34.448	1.00	61.37	C	ATOM	36123	CG	LEU	D	11	156.439	108.052	33.134	1.00	44.96	C
ATOM	36074	OH	TYR	D	4	158.097	103.878	34.876	1.00	61.37	O	ATOM	36124	CD1	LEU	D	11	155.043	107.476	33.304	1.00	44.96	C
ATOM	36075	N	ILE	D	5	153.258	100.742	35.723	1.00	105.02	N	ATOM	36125	CD2	LEU	D	11	157.146	107.378	31.986	1.00	44.96	C
ATOM	36076	CA	ILE	D	5	153.900	100.450	37.003	1.00	105.02	C	ATOM	36126	N	CYS	D	12	156.935	112.374	33.936	1.00	53.89	N
ATOM	36077	C	ILE	D	5	155.335	100.936	36.859	1.00	105.02	C	ATOM	36127	CA	CYS	D	12	156.649	113.802	34.014	1.00	53.89	C
ATOM	36078	O	ILE	D	5	155.900	100.898	35.769	1.00	105.02	O	ATOM	36128	C	CYS	D	12	157.900	114.489	33.473	1.00	53.89	C
ATOM	36079	CB	ILE	D	5	153.954	98.949	37.315	1.00	54.98	C	ATOM	36129	O	CYS	D	12	157.834	115.269	32.522	1.00	53.89	O
ATOM	36080	CG1	ILE	D	5	152.558	98.425	37.599	1.00	54.98	C	ATOM	36130	CB	CYS	D	12	156.426	114.251	35.470	1.00	75.00	C
ATOM	36081	CG2	ILE	D	5	154.863	98.696	38.512	1.00	54.98	C	ATOM	36131	SG	CYS	D	12	154.878	113.778	36.346	1.00	75.00	S
ATOM	36082	CD1	ILE	D	5	152.548	96.945	37.900	1.00	54.98	C	ATOM	36132	N	ARG	D	13	159.046	114.167	34.071	1.00	56.85	N
ATOM	36083	N	GLY	D	6	155.932	101.385	37.952	1.00	44.79	N	ATOM	36133	CA	ARG	D	13	160.313	114.764	33.664	1.00	56.85	C
ATOM	36084	CA	GLY	D	6	157.294	101.869	37.867	1.00	44.79	C	ATOM	36134	C	ARG	D	13	160.640	114.631	32.185	1.00	56.85	C
ATOM	36085	O	GLY	D	6	157.361	103.350	38.161	1.00	44.79	C	ATOM	36135	O	ARG	D	13	161.032	115.611	31.547	1.00	56.85	O
ATOM	36086	C	GLY	D	6	156.343	104.052	38.107	1.00	44.79	O	ATOM	36136	CB	ARG	D	13	161.466	114.200	34.496	1.00	56.14	C
ATOM	36087	N	PRO	D	7	158.549	103.864	38.476	1.00	50.31	N	ATOM	36137	CG	ARG	D	13	161.469	114.702	35.935	1.00	56.14	C
ATOM	36088	CA	PRO	D	7	158.644	105.292	38.770	1.00	50.31	C	ATOM	36138	CD	ARG	D	13	162.869	114.701	36.527	1.00	56.14	C
ATOM	36089	C	PRO	D	7	157.839	106.143	37.788	1.00	50.31	C	ATOM	36139	NE	ARG	D	13	163.361	113.360	36.789	1.00	56.14	N
ATOM	36090	O	PRO	D	7	158.017	106.052	36.569	1.00	50.31	O	ATOM	36140	CZ	ARG	D	13	164.646	113.023	36.769	1.00	56.14	C
ATOM	36091	CB	PRO	D	7	160.152	105.558	38.717	1.00	57.06	C	ATOM	36141	NH1	ARG	D	13	165.578	113.927	36.496	1.00	56.14	N
ATOM	36092	CG	PRO	D	7	160.674	104.459	37.845	1.00	57.06	C	ATOM	36142	NH2	ARG	D	13	165.003	111.775	37.021	1.00	56.14	N
ATOM	36093	CD	PRO	D	7	159.880	103.273	38.298	1.00	57.06	C	ATOM	36143	N	ARG	D	14	160.491	113.427	37.642	1.00	49.49	N
ATOM	36094	N	VAL	D	8	156.944	106.960	38.337	1.00	59.08	N	ATOM	36144	CA	ARG	D	14	160.761	113.186	30.223	1.00	49.49	C
ATOM	36095	CA	VAL	D	8	156.087	107.822	37.542	1.00	59.08	C	ATOM	36145	C	ARG	D	14	159.774	113.929	29.336	1.00	49.49	C
ATOM	36096	C	VAL	D	8	156.589	109.254	37.416	1.00	59.08	C	ATOM	36146	O	ARG	D	14	160.151	114.523	28.324	1.00	49.49	O
ATOM	36097	O	VAL	D	8	156.631	109.786	36.312	1.00	59.08	O	ATOM	36147	CB	ARG	D	14	160.656	111.694	29.898	1.00	54.12	C
ATOM	36098	CB	VAL	D	8	154.664	107.870	38.114	1.00	82.11	C	ATOM	36148	CG	ARG	D	14	160.419	111.395	28.406	1.00	54.12	C
ATOM	36099	CG1	VAL	D	8	153.675	107.449	37.056	1.00	82.11	C	ATOM	36149	CD	ARG	D	14	161.646	111.722	27.586	1.00	54.12	C
ATOM	36100	CG2	VAL	D	8	154.557	106.970	39.326	1.00	82.11	C	ATOM	36150	NE	ARG	D	14	162.791	110.967	28.079	1.00	54.12	N
ATOM	36101	N	CYS	D	9	156.954	109.892	38.527	1.00	169.90	N	ATOM	36151	CZ	ARG	D	14	164.042	111.174	27.697	1.00	54.12	C
ATOM	36102	CA	CYS	D	9	157.422	111.273	38.445	1.00	169.90	C	ATOM	36152	NH1	ARG	D	14	164.315	112.120	26.809	1.00	54.12	N
ATOM	36103	C	CYS	D	9	158.742	111.384	37.662	1.00	169.90	C	ATOM	36153	NH2	ARG	D	14	165.018	110.433	28.203	1.00	54.12	N
ATOM	36104	O	CYS	D	9	159.570	112.246	37.938	1.00	169.90	O	ATOM	36154	N	GLU	D	15	158.503	113.877	29.717	1.00	62.60	N
ATOM	36105	CB	CYS	D	9	157.527	111.913	39.855	1.00	41.72	C	ATOM	36155	CA	GLU	D	15	157.456	114.522	28.945	1.00	62.60	C
ATOM	36106	SG	CYS	D	9	156.173	113.127	40.243	1.00	41.72	S	ATOM	36156	C	GLU	D	15	157.515	116.032	29.050	1.00	62.60	C
ATOM	36107	N	ARG	D	10	158.913	110.500	36.677	1.00	82.50	N	ATOM	36157	O	GLU	D	15	156.771	116.736	28.371	1.00	62.60	O
ATOM	36108	CA	ARG	D	10	160.089	110.476	35.788	1.00	82.50	C	ATOM	36158	CB	GLU	D	15	156.089	114.016	29.399	1.00	77.67	C
ATOM	36109	C	ARG	D	10	159.551	110.639	34.370	1.00	82.50	C	ATOM	36159	CG	GLU	D	15	155.279	113.458	28.256	1.00	77.67	C
ATOM	36110	O	ARG	D	10	160.255	111.115	33.479	1.00	82.50	O	ATOM	36160	CD	GLU	D	15	156.057	112.429	27.458	1.00	77.67	C
ATOM	36111	CB	ARG	D	10	160.846	109.143	35.861	1.00	55.75	C	ATOM	36161	OE1	GLU	D	15	156.217	111.282	27.937	1.00	77.67	O
ATOM	36112	CG	ARG	D	10	160.337	108.092	34.875	1.00	55.75	C	ATOM	36162	OE2	GLU	D	15	156.521	112.781	26.354	1.00	77.67	O
ATOM	36113	CD	ARG	D	10	160.727	106.658	35.269	1.00	55.75	C	ATOM	36163	N	GLY	D	16	158.413	116.525	29.895	1.00	55.74	N
ATOM	36114	NE	ARG	D	10	162.169	106.420	35.226	1.00	55.75	N	ATOM	36164	CA	GLY	D	16	158.543	117.955	30.078	1.00	55.74	C
ATOM	36115	CZ	ARG	D	10	162.898	106.454	34.116	1.00	55.75	C	ATOM	36165	C	GLY	D	16	157.407	118.474	30.933	1.00	55.74	C



Table 2: Sheet 363/520

ATOM	36166	O	GLY	D	16	157.604	118.870	32.069	1.00	55.74	O	ATOM	36216	CG	LYS	D	22	152.070	109.932	42.253	1.00	39.27	C
ATOM	36167	N	VAL	D	17	156.204	118.467	30.383	1.00	52.47	N	ATOM	36217	CD	LYS	D	22	153.366	110.170	43.002	1.00	39.27	C
ATOM	36168	CA	VAL	D	17	155.037	118.930	31.106	1.00	52.47	C	ATOM	36218	CE	LYS	D	22	154.378	109.092	42.647	1.00	39.27	C
ATOM	36169	C	VAL	D	17	154.916	118.166	32.419	1.00	52.47	C	ATOM	36219	NZ	LYS	D	22	155.690	109.277	43.344	1.00	39.27	N
ATOM	36170	O	VAL	D	17	155.575	117.144	32.640	1.00	52.47	O	ATOM	36220	N	GLY	D	23	148.519	111.861	43.588	1.00	86.88	N
ATOM	36171	CB	VAL	D	17	153.748	118.709	30.279	1.00	86.96	C	ATOM	36221	CA	GLY	D	23	147.641	112.838	44.178	1.00	86.88	C
ATOM	36172	CG1	VAL	D	17	152.551	119.286	31.007	1.00	86.96	C	ATOM	36222	C	GLY	D	23	148.366	113.938	44.913	1.00	86.88	C
ATOM	36173	CG2	VAL	D	17	153.894	119.352	28.911	1.00	86.96	C	ATOM	36223	O	GLY	D	23	149.163	114.680	44.340	1.00	86.88	O
ATOM	36174	N	LYS	D	18	154.061	118.683	33.288	1.00	66.11	N	ATOM	36224	N	GLU	D	24	148.070	114.027	46.200	1.00	74.48	N
ATOM	36175	CA	LYS	D	18	153.803	118.095	34.587	1.00	66.11	C	ATOM	36225	CA	GLU	D	24	148.638	115.025	47.088	1.00	74.48	C
ATOM	36176	C	LYS	D	18	152.526	117.256	34.467	1.00	66.11	C	ATOM	36226	C	GLU	D	24	150.048	115.495	46.737	1.00	74.48	C
ATOM	36177	O	LYS	D	18	151.440	117.790	34.247	1.00	66.11	O	ATOM	36227	O	GLU	D	24	150.297	116.698	46.641	1.00	74.48	O
ATOM	36178	CB	LYS	D	18	153.626	119.230	35.599	1.00	89.54	C	ATOM	36228	CB	GLU	D	24	148.610	114.483	48.517	1.00	163.94	C
ATOM	36179	CG	LYS	D	18	153.515	118.842	37.063	1.00	89.54	C	ATOM	36229	CG	GLU	D	24	149.012	115.474	49.585	1.00	163.94	C
ATOM	36180	CD	LYS	D	18	153.358	120.114	37.897	1.00	89.54	C	ATOM	36230	CD	GLU	D	24	148.842	114.904	50.977	1.00	163.94	C
ATOM	36181	CE	LYS	D	18	153.001	119.835	39.347	1.00	89.54	C	ATOM	36231	OE1	GLU	D	24	147.699	114.536	51.326	1.00	163.94	O
ATOM	36182	NZ	LYS	D	18	152.602	121.076	40.081	1.00	89.54	N	ATOM	36232	OE2	GLU	D	24	149.845	114.819	51.719	1.00	163.94	O
ATOM	36183	N	LEU	D	19	152.669	115.941	34.565	1.00	116.71	N	ATOM	36233	N	ARG	D	25	150.965	114.554	46.524	1.00	83.13	N
ATOM	36184	CA	LEU	D	19	151.522	115.045	34.503	1.00	116.71	C	ATOM	36234	CA	ARG	D	25	152.351	114.916	46.232	1.00	83.13	C
ATOM	36185	C	LEU	D	19	151.188	114.769	35.954	1.00	116.71	C	ATOM	36235	C	ARG	D	25	152.616	115.751	44.992	1.00	83.13	C
ATOM	36186	O	LEU	D	19	152.093	114.700	36.793	1.00	116.71	O	ATOM	36236	O	ARG	D	25	153.345	116.741	45.069	1.00	83.13	O
ATOM	36187	CB	LEU	D	19	151.897	113.735	33.825	1.00	72.73	C	ATOM	36237	CB	ARG	D	25	153.258	113.683	46.171	1.00	60.60	C
ATOM	36188	CG	LEU	D	19	152.555	113.847	32.452	1.00	72.73	C	ATOM	36238	CG	ARG	D	25	154.726	114.081	46.024	1.00	60.60	C
ATOM	36189	CD1	LEU	D	19	153.005	112.467	32.008	1.00	72.73	C	ATOM	36239	CD	ARG	D	25	155.698	112.931	46.156	1.00	60.60	C
ATOM	36190	CD2	LEU	D	19	151.581	114.457	31.456	1.00	72.73	C	ATOM	36240	NE	ARG	D	25	156.823	113.328	46.996	1.00	60.60	N
ATOM	36191	N	TYR	D	20	149.910	114.616	36.274	1.00	67.05	N	ATOM	36241	CZ	ARG	D	25	157.970	112.666	47.079	1.00	60.60	C
ATOM	36192	CA	TYR	D	20	149.559	114.349	37.666	1.00	67.05	C	ATOM	36242	NH1	ARG	D	25	158.160	111.569	46.367	1.00	60.60	N
ATOM	36193	C	TYR	D	20	149.262	112.867	37.876	1.00	67.05	C	ATOM	36243	NH2	ARG	D	25	158.928	113.096	47.883	1.00	60.60	N
ATOM	36194	O	TYR	D	20	148.112	112.462	38.060	1.00	67.05	O	ATOM	36244	N	CYS	D	26	152.059	115.356	43.850	1.00	113.95	N
ATOM	36195	CB	TYR	D	20	148.373	115.216	38.095	1.00	73.70	C	ATOM	36245	CA	CYS	D	26	152.293	116.113	42.628	1.00	113.95	C
ATOM	36196	CG	TYR	D	20	148.683	116.694	38.061	1.00	73.70	C	ATOM	36246	C	CYS	D	26	151.703	117.530	42.760	1.00	113.95	C
ATOM	36197	CD1	TYR	D	20	148.358	117.470	36.952	1.00	73.70	C	ATOM	36247	O	CYS	D	26	151.379	118.189	41.775	1.00	113.95	O
ATOM	36198	CD2	TYR	D	20	149.349	117.309	39.121	1.00	73.70	C	ATOM	36248	CB	CYS	D	26	151.766	115.330	41.393	1.00	53.44	C
ATOM	36199	CE1	TYR	D	20	148.689	118.828	36.895	1.00	73.70	C	ATOM	36249	SG	CYS	D	26	153.016	114.161	40.674	1.00	53.44	S
ATOM	36200	CE2	TYR	D	20	149.689	118.664	39.078	1.00	73.70	C	ATOM	36250	N	TYR	D	27	151.593	117.978	44.014	1.00	64.78	N
ATOM	36201	CZ	TYR	D	20	149.356	119.420	37.962	1.00	73.70	C	ATOM	36251	CA	TYR	D	27	151.106	119.315	44.400	1.00	64.78	C
ATOM	36202	OH	TYR	D	20	149.689	120.760	37.911	1.00	73.70	O	ATOM	36252	C	TYR	D	27	152.049	119.878	45.456	1.00	64.78	C
ATOM	36203	N	LEU	D	21	150.320	112.061	37.855	1.00	59.31	N	ATOM	36253	O	TYR	D	27	152.188	121.090	45.599	1.00	64.78	O
ATOM	36204	CA	LEU	D	21	150.195	110.618	38.006	1.00	59.31	C	ATOM	36254	CB	TYR	D	27	149.706	119.273	45.011	1.00	58.85	C
ATOM	36205	C	LEU	D	21	150.157	110.183	39.473	1.00	59.31	C	ATOM	36255	CG	TYR	D	27	148.604	119.031	44.022	1.00	58.85	C
ATOM	36206	O	LEU	D	21	150.377	109.012	39.809	1.00	59.31	O	ATOM	36256	CD1	TYR	D	27	148.215	117.739	43.695	1.00	58.85	C
ATOM	36207	CB	LEU	D	21	151.347	109.940	37.255	1.00	49.66	C	ATOM	36257	CD2	TYR	D	27	147.980	120.091	43.378	1.00	58.85	C
ATOM	36208	CG	LEU	D	21	151.597	110.534	35.860	1.00	49.66	C	ATOM	36258	CE1	TYR	D	27	147.240	117.570	42.754	1.00	58.85	C
ATOM	36209	CD1	LEU	D	21	152.777	109.833	35.198	1.00	49.66	C	ATOM	36259	CE2	TYR	D	27	147.004	119.870	42.436	1.00	58.85	C
ATOM	36210	CD2	LEU	D	21	150.351	110.402	35.008	1.00	49.66	C	ATOM	36260	CZ	TYR	D	27	146.641	118.574	42.130	1.00	58.85	C
ATOM	36211	N	LYS	D	22	149.875	111.151	40.336	1.00	108.29	N	ATOM	36261	OH	TYR	D	27	145.678	118.331	41.184	1.00	58.85	O
ATOM	36212	CA	LYS	D	22	149.772	110.930	41.768	1.00	108.29	C	ATOM	36262	N	SER	D	28	152.675	118.983	46.213	1.00	72.86	N
ATOM	36213	C	LYS	D	22	148.851	111.987	42.315	1.00	108.29	C	ATOM	36263	CA	SER	D	28	153.619	119.383	47.243	1.00	72.86	C
ATOM	36214	O	LYS	D	22	148.462	112.917	41.608	1.00	108.29	O	ATOM	36264	C	SER	D	28	154.813	119.978	46.527	1.00	72.86	C
ATOM	36215	CB	LYS	D	22	151.122	111.080	42.453	1.00	39.27	C	ATOM	36265	O	SER	D	28	154.921	119.879	45.310	1.00	72.86	O



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ATOM	36266	CB	SER D	28	154.071	118.167	48.058	1.00193.60	C	ATOM	36316	CB	ARG D	35	163.451	118.841	42.553	1.00	93.37	C	
ATOM	36267	OG	SER D	28	152.972	117.516	48.670	1.00193.60	O	ATOM	36317	CG	ARG D	35	162.511	118.769	43.729	1.00	93.37	C	
ATOM	36268	N	PRO D	29	155.704	120.657	47.256	1.00	80.83	N	ATOM	36318	CD	ARG D	35	163.054	117.844	44.780	1.00	93.37	C
ATOM	36269	CA	PRO D	29	156.824	121.173	46.476	1.00	80.83	C	ATOM	36319	NE	ARG D	35	162.387	118.043	46.056	1.00	93.37	N
ATOM	36270	C	PRO D	29	157.788	120.008	46.312	1.00	80.83	C	ATOM	36320	CZ	ARG D	35	162.929	117.728	47.223	1.00	93.37	C
ATOM	36271	O	PRO D	29	158.912	120.041	46.798	1.00	80.83	O	ATOM	36321	NH1	ARG D	35	164.144	117.204	47.265	1.00	93.37	N
ATOM	36272	CB	PRO D	29	157.373	122.292	47.358	1.00	66.26	C	ATOM	36322	NH2	ARG D	35	162.260	117.939	48.346	1.00	93.37	N
ATOM	36273	CG	PRO D	29	157.077	121.810	48.734	1.00	66.26	C	ATOM	36323	N	ARG D	36	164.014	118.979	39.698	1.00	59.31	N
ATOM	36274	CD	PRO D	29	155.670	121.265	48.598	1.00	66.26	C	ATOM	36324	CA	ARG D	36	164.822	118.804	38.495	1.00	59.31	C
ATOM	36275	N	LYS D	30	157.325	118.957	45.644	1.00100.24	N	ATOM	36325	C	ARG D	36	163.861	118.577	37.331	1.00	59.31	C	
ATOM	36276	CA	LYS D	30	158.161	117.791	45.424	1.00100.24	C	ATOM	36326	O	ARG D	36	163.582	117.443	36.961	1.00	59.31	O	
ATOM	36277	C	LYS D	30	158.167	117.278	43.982	1.00100.24	C	ATOM	36327	CB	ARG D	36	165.724	117.590	38.662	1.00	64.81	C	
ATOM	36278	O	LYS D	30	159.197	117.370	43.318	1.00100.24	O	ATOM	36328	CG	ARG D	36	165.864	117.189	40.101	1.00	64.81	C	
ATOM	36279	CB	LYS D	30	157.767	116.696	46.410	1.00	83.08	C	ATOM	36329	CD	ARG D	36	165.641	115.712	40.267	1.00	64.81	C
ATOM	36280	CG	LYS D	30	157.972	117.142	47.852	1.00	83.08	C	ATOM	36330	NE	ARG D	36	166.873	114.974	40.040	1.00	64.81	N
ATOM	36281	CD	LYS D	30	157.697	116.034	48.858	1.00	83.08	C	ATOM	36331	CZ	ARG D	36	166.962	113.651	40.082	1.00	64.81	C
ATOM	36282	CE	LYS D	30	157.904	116.530	50.289	1.00	83.08	C	ATOM	36332	NH1	ARG D	36	165.886	112.914	40.336	1.00	64.81	N
ATOM	36283	NZ	LYS D	30	157.613	115.505	51.337	1.00	83.08	N	ATOM	36333	NH2	ARG D	36	168.136	113.064	39.895	1.00	64.81	N
ATOM	36284	N	CYS D	31	157.036	116.769	43.491	1.00145.98	N	ATOM	36334	N	PRO D	37	163.338	119.661	36.745	1.00	75.12	N	
ATOM	36285	CA	CYS D	31	156.948	116.237	42.121	1.00145.98	C	ATOM	36335	CA	PRO D	37	162.402	119.554	35.630	1.00	75.12	C	
ATOM	36286	C	CYS D	31	158.084	116.738	41.237	1.00145.98	C	ATOM	36336	C	PRO D	37	163.068	119.164	34.318	1.00	75.12	C	
ATOM	36287	O	CYS D	31	157.907	117.692	40.486	1.00145.98	O	ATOM	36337	O	PRO D	37	162.916	119.843	33.301	1.00	75.12	O	
ATOM	36288	CB	CYS D	31	155.608	116.608	41.481	1.00	48.60	C	ATOM	36338	CB	PRO D	37	161.783	120.941	35.584	1.00	66.51	C
ATOM	36289	SG	CYS D	31	155.309	115.909	39.864	1.00	48.60	S	ATOM	36339	CG	PRO D	37	162.943	121.799	35.917	1.00	66.51	C
ATOM	36290	N	ALA D	32	159.241	116.080	41.366	1.00	66.14	N	ATOM	36340	CD	PRO D	37	163.588	121.073	37.078	1.00	66.51	C
ATOM	36291	CA	ALA D	32	160.482	116.358	40.640	1.00	66.14	C	ATOM	36341	N	TYR D	38	163.818	118.071	34.348	1.00	86.59	N
ATOM	36292	C	ALA D	32	160.492	117.536	39.676	1.00	66.14	C	ATOM	36342	CA	TYR D	38	164.482	117.577	33.156	1.00	86.59	C
ATOM	36293	O	ALA D	32	161.479	118.260	39.611	1.00	66.14	O	ATOM	36343	C	TYR D	38	164.389	116.070	33.119	1.00	86.59	C
ATOM	36294	CB	ALA D	32	160.943	115.100	39.914	1.00184.12	C	ATOM	36344	O	TYR D	38	164.250	115.424	34.153	1.00	86.59	O	
ATOM	36295	N	MET D	33	159.423	117.722	38.908	1.00	78.72	N	ATOM	36345	CB	TYR D	38	165.944	118.026	33.110	1.00	64.62	C
ATOM	36296	CA	MET D	33	159.366	118.843	37.982	1.00	78.72	C	ATOM	36346	CG	TYR D	38	166.752	117.782	34.359	1.00	64.62	C
ATOM	36297	C	MET D	33	159.598	120.135	38.757	1.00	78.72	C	ATOM	36347	CD1	TYR D	38	167.161	116.502	34.716	1.00	64.62	C
ATOM	36298	O	MET D	33	159.902	121.179	38.180	1.00	78.72	O	ATOM	36348	CD2	TYR D	38	167.151	118.847	35.161	1.00	64.62	C
ATOM	36299	CB	MET D	33	158.008	118.894	37.274	1.00	72.94	C	ATOM	36349	CE1	TYR D	38	167.957	116.290	35.842	1.00	64.62	C
ATOM	36300	CG	MET D	33	157.790	117.799	36.244	1.00	72.94	C	ATOM	36350	CE2	TYR D	38	167.942	118.647	36.286	1.00	64.62	C
ATOM	36301	SD	MET D	33	159.230	117.546	35.196	1.00	72.94	S	ATOM	36351	CZ	TYR D	38	168.344	117.369	36.623	1.00	64.62	C
ATOM	36302	CE	MET D	33	159.276	119.091	34.319	1.00	72.94	C	ATOM	36352	OH	TYR D	38	169.129	117.180	37.740	1.00	64.62	O
ATOM	36303	N	GLU D	34	159.449	120.049	40.075	1.00	68.08	N	ATOM	36353	N	PRO D	39	164.462	115.487	31.919	1.00	64.69	N
ATOM	36304	CA	GLU D	34	159.654	121.192	40.955	1.00	68.08	C	ATOM	36354	CA	PRO D	39	164.379	114.034	31.740	1.00	64.69	C
ATOM	36305	C	GLU D	34	161.127	121.262	41.366	1.00	68.08	C	ATOM	36355	O	PRO D	39	165.335	113.224	32.617	1.00	64.69	O
ATOM	36306	O	GLU D	34	161.636	122.327	41.717	1.00	68.08	O	ATOM	36356	O	PRO D	39	166.395	113.695	33.022	1.00	64.69	O
ATOM	36307	CB	GLU D	34	158.783	121.067	42.207	1.00	92.86	C	ATOM	36357	CB	PRO D	39	164.648	113.860	30.252	1.00	75.36	C
ATOM	36308	CG	GLU D	34	157.282	121.123	41.963	1.00	92.86	C	ATOM	36358	CG	PRO D	39	165.538	115.040	29.934	1.00	75.36	C
ATOM	36309	CD	GLU D	34	156.812	122.477	41.472	1.00	92.86	C	ATOM	36359	CD	PRO D	39	164.852	116.150	30.665	1.00	75.36	C
ATOM	36310	OE1	GLU D	34	157.220	123.495	42.065	1.00	92.86	O	ATOM	36360	N	PRO D	40	164.958	111.981	32.916	1.00	51.18	N
ATOM	36311	OE2	GLU D	34	156.025	122.523	40.504	1.00	92.86	O	ATOM	36361	CA	PRO D	40	165.732	111.059	33.742	1.00	51.18	C
ATOM	36312	N	ARG D	35	161.812	120.126	41.309	1.00	70.79	N	ATOM	36362	C	PRO D	40	166.974	110.516	33.039	1.00	51.18	C
ATOM	36313	CA	ARG D	35	163.215	120.068	41.690	1.00	70.79	C	ATOM	36363	O	PRO D	40	167.138	110.683	31.827	1.00	51.18	O
ATOM	36314	C	ARG D	35	164.140	120.034	40.488	1.00	70.79	C	ATOM	36364	CB	PRO D	40	164.724	109.963	34.041	1.00	44.74	C
ATOM	36315	O	ARG D	35	164.954	120.931	40.287	1.00	70.79	O	ATOM	36365	CG	PRO D	40	163.972	109.879	32.776	1.00	44.74	C



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ATOM	36366	CD	PRO	D	40	163.731	111.330	32.423	1.00	44.74	C	ATOM	36416	CB	ARG	D	47	172.594	121.243	24.769	1.00147.02	C
ATOM	36367	N	GLY	D	41	167.844	109.867	33.812	1.00	52.31	N	ATOM	36417	CG	ARG	D	47	171.915	121.728	23.500	1.00147.02	C
ATOM	36368	CA	GLY	D	41	169.051	109.291	33.255	1.00	52.31	C	ATOM	36418	CD	ARG	D	47	172.907	121.776	22.348	1.00147.02	C
ATOM	36369	C	GLY	D	41	170.277	110.183	33.298	1.00	52.31	C	ATOM	36419	NE	ARG	D	47	172.236	121.756	21.051	1.00147.02	N
ATOM	36370	O	GLY	D	41	170.217	111.341	33.710	1.00	52.31	O	ATOM	36420	C2	ARG	D	47	172.858	121.590	19.889	1.00147.02	C
ATOM	36371	N	GLN	D	42	171.390	109.620	32.845	1.00	54.60	N	ATOM	36421	NH1	ARG	D	47	174.174	121.429	19.856	1.00147.02	N
ATOM	36372	CA	GLN	D	42	172.689	110.276	32.808	1.00	54.60	C	ATOM	36422	NH2	ARG	D	47	172.163	121.579	18.759	1.00147.02	N
ATOM	36373	C	GLN	D	42	172.783	111.594	32.035	1.00	54.60	C	ATOM	36423	N	ALA	D	48	169.648	119.912	24.480	1.00 90.45	N
ATOM	36374	O	GLN	D	42	173.387	112.554	32.520	1.00	54.60	O	ATOM	36424	CA	ALA	D	48	168.749	119.086	23.680	1.00 90.45	C
ATOM	36375	CB	GLN	D	42	173.709	109.277	32.263	1.00	79.85	C	ATOM	36425	C	ALA	D	48	168.770	119.493	22.208	1.00 90.45	C
ATOM	36376	CG	GLN	D	42	175.085	109.815	31.993	1.00	79.85	C	ATOM	36426	O	ALA	D	48	168.676	120.678	21.888	1.00 90.45	O
ATOM	36377	CD	GLN	D	42	176.030	108.722	31.515	1.00	79.85	C	ATOM	36427	CB	ALA	D	48	167.335	119.190	24.222	1.00104.64	C
ATOM	36378	OE1	GLN	D	42	177.141	108.997	31.056	1.00	79.85	O	ATOM	36428	N	ARG	D	49	168.901	118.512	21.317	1.00 70.18	N
ATOM	36379	NE2	GLN	D	42	175.595	107.471	31.629	1.00	79.85	N	ATOM	36429	CA	ARG	D	49	168.911	118.786	19.884	1.00 70.18	C
ATOM	36380	N	HIS	D	43	172.183	111.660	30.850	1.00	82.00	N	ATOM	36430	C	ARG	D	49	167.485	119.018	19.396	1.00 70.18	C
ATOM	36381	CA	HIS	D	43	172.264	112.872	30.027	1.00	82.00	C	ATOM	36431	O	ARG	D	49	166.534	118.479	19.966	1.00 70.18	O
ATOM	36382	C	HIS	D	43	171.102	113.846	30.184	1.00	82.00	C	ATOM	36432	CB	ARG	D	49	169.504	117.613	19.112	1.00157.85	C
ATOM	36383	O	HIS	D	43	170.936	114.761	29.375	1.00	82.00	O	ATOM	36433	CG	ARG	D	49	170.964	117.360	19.364	1.00157.85	C
ATOM	36384	CB	HIS	D	43	172.366	112.482	28.556	1.00	62.34	C	ATOM	36434	CD	ARG	D	49	171.428	116.220	18.489	1.00157.85	C
ATOM	36385	CG	HIS	D	43	173.243	111.302	28.310	1.00	62.34	C	ATOM	36435	NE	ARG	D	49	172.838	115.911	18.685	1.00157.85	N
ATOM	36386	ND1	HIS	D	43	174.617	111.383	28.322	1.00	62.34	N	ATOM	36436	C2	ARG	D	49	173.472	114.917	18.071	1.00157.85	C
ATOM	36387	CD2	HIS	D	43	172.940	110.004	28.072	1.00	62.34	C	ATOM	36437	NH1	ARG	D	49	172.814	114.138	17.222	1.00157.85	N
ATOM	36388	CE1	HIS	D	43	175.125	110.184	28.101	1.00	62.34	C	ATOM	36438	NH2	ARG	D	49	174.761	114.702	18.302	1.00157.85	N
ATOM	36389	NE2	HIS	D	43	174.129	109.330	27.946	1.00	62.34	N	ATOM	36439	N	ARG	D	50	167.340	119.817	18.343	1.00 70.13	N
ATOM	36390	N	GLY	D	44	170.300	113.656	31.219	1.00	90.56	N	ATOM	36440	CA	ARG	D	50	166.027	120.098	17.774	1.00 70.13	C
ATOM	36391	CA	GLY	D	44	169.162	114.532	31.416	1.00	90.56	C	ATOM	36441	C	ARG	D	50	165.349	118.753	17.525	1.00 70.13	C
ATOM	36392	C	GLY	D	44	169.419	116.028	31.351	1.00	90.56	C	ATOM	36442	O	ARG	D	50	165.897	117.887	16.845	1.00 70.13	O
ATOM	36393	O	GLY	D	44	168.531	116.797	30.974	1.00	90.56	O	ATOM	36443	CB	ARG	D	50	166.178	120.873	16.463	1.00131.08	C
ATOM	36394	N	GLN	D	45	170.633	116.450	31.687	1.00	86.06	N	ATOM	36444	CG	ARG	D	50	164.863	121.238	15.802	1.00131.08	C
ATOM	36395	CA	GLN	D	45	170.944	117.872	31.709	1.00	86.06	C	ATOM	36445	CD	ARG	D	50	164.567	120.363	14.586	1.00131.08	C
ATOM	36396	C	GLN	D	45	171.689	118.480	30.518	1.00	86.06	C	ATOM	36446	NE	ARG	D	50	165.402	120.698	13.433	1.00131.08	N
ATOM	36397	O	GLN	D	45	171.721	119.703	30.373	1.00	86.06	O	ATOM	36447	C2	ARG	D	50	165.227	120.196	12.213	1.00131.08	C
ATOM	36398	CB	GLN	D	45	171.672	118.188	33.015	1.00	80.50	C	ATOM	36448	NH1	ARG	D	50	164.246	119.333	11.983	1.00131.08	N
ATOM	36399	CG	GLN	D	45	170.841	117.818	34.237	1.00	80.50	C	ATOM	36449	NH2	ARG	D	50	166.029	120.558	11.221	1.00131.08	N
ATOM	36400	CD	GLN	D	45	171.586	117.999	35.540	1.00	80.50	C	ATOM	36450	N	PRO	D	51	164.148	118.551	18.080	1.00 54.15	N
ATOM	36401	OE1	GLN	D	45	171.799	119.113	35.903	1.00	80.50	O	ATOM	36451	CA	PRO	D	51	163.487	117.267	17.861	1.00 54.15	C
ATOM	36402	NE2	GLN	D	45	171.799	116.898	36.257	1.00	80.50	N	ATOM	36452	C	PRO	D	51	163.007	117.128	16.438	1.00 54.15	C
ATOM	36403	N	LYS	D	46	172.283	117.649	29.666	1.00	68.17	N	ATOM	36453	O	PRO	D	51	162.644	118.121	15.809	1.00 54.15	O
ATOM	36404	CA	LYS	D	46	172.991	118.163	28.497	1.00	68.17	C	ATOM	36454	CB	PRO	D	51	162.315	117.306	18.841	1.00 60.62	C
ATOM	36405	C	LYS	D	46	172.002	118.850	27.548	1.00	68.17	C	ATOM	36455	CG	PRO	D	51	162.742	118.308	19.868	1.00 60.62	C
ATOM	36406	O	LYS	D	46	170.793	118.621	27.626	1.00	68.17	O	ATOM	36456	CD	PRO	D	51	163.384	119.369	19.030	1.00 60.62	C
ATOM	36407	CB	LYS	D	46	173.702	117.027	27.769	1.00	81.28	C	ATOM	36457	N	SER	D	52	163.006	115.894	15.941	1.00 44.52	N
ATOM	36408	CG	LYS	D	46	174.685	116.276	28.644	1.00	81.28	C	ATOM	36458	CA	SER	D	52	162.522	115.595	14.592	1.00 44.52	C
ATOM	36409	CD	LYS	D	46	175.350	115.138	27.889	1.00	81.28	C	ATOM	36459	O	SER	D	52	160.985	115.605	14.618	1.00 44.52	C
ATOM	36410	CE	LYS	D	46	176.270	114.353	28.795	1.00	81.28	C	ATOM	36460	O	SER	D	52	160.379	115.438	15.678	1.00 44.52	O
ATOM	36411	N2	LYS	D	46	176.902	113.226	28.070	1.00	81.28	N	ATOM	36461	CB	SER	D	52	163.008	114.212	14.149	1.00 55.60	C
ATOM	36412	N	ARG	D	47	172.520	119.696	26.663	1.00	75.81	N	ATOM	36462	OG	SER	D	52	162.445	113.183	14.950	1.00 55.60	O
ATOM	36413	CA	ARG	D	47	171.695	120.420	25.697	1.00	75.81	C	ATOM	36463	N	ASP	D	53	158.899	115.814	13.396	1.00 58.63	N
ATOM	36414	C	ARG	D	47	170.839	119.462	24.867	1.00	75.81	C	ATOM	36464	CA	ASP	D	53	158.899	115.814	13.396	1.00 58.63	C
ATOM	36415	O	ARG	D	47	171.255	118.338	24.575	1.00	75.81	O	ATOM	36465	C	ASP	D	53	158.354	114.572	14.089	1.00 58.63	C



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ATOM	36466	O	ASP D	53	157.308	114.625	14.738	1.00	58.63	O	ATOM	36516	C	ARG D	59	154.739	113.121	22.878	1.00	56.81	C
ATOM	36467	CB	ASP D	53	158.420	115.825	11.944	1.00	98.88	C	ATOM	36517	O	ARG D	59	154.160	112.763	23.907	1.00	56.81	O
ATOM	36468	CG	ASP D	53	158.723	117.125	11.241	1.00	98.88	C	ATOM	36518	CB	ARG D	59	157.086	113.891	22.862	1.00	54.55	C
ATOM	36469	OD1	ASP D	53	159.890	117.566	11.308	1.00	98.88	O	ATOM	36519	CG	ARG D	59	158.573	113.713	22.636	1.00	54.55	C
ATOM	36470	OD2	ASP D	53	157.798	117.695	10.618	1.00	98.88	O	ATOM	36520	CD	ARG D	59	159.114	112.390	23.112	1.00	54.55	C
ATOM	36471	N	TYR D	54	159.071	113.457	13.944	1.00	41.24	N	ATOM	36521	NE	ARG D	59	158.551	111.959	24.375	1.00	54.55	N
ATOM	36472	CA	TYR D	54	158.663	112.201	14.566	1.00	41.24	C	ATOM	36522	CZ	ARG D	59	158.669	110.719	24.830	1.00	54.55	C
ATOM	36473	C	TYR D	54	158.640	112.394	16.071	1.00	41.24	C	ATOM	36523	NH1	ARG D	59	159.335	109.812	24.121	1.00	54.55	N
ATOM	36474	O	TYR D	54	157.601	112.249	16.710	1.00	41.24	O	ATOM	36524	NH2	ARG D	59	158.090	110.376	25.971	1.00	54.55	N
ATOM	36475	CB	TYR D	54	159.641	111.074	14.225	1.00	44.60	C	ATOM	36525	N	GLU D	60	154.155	113.898	21.973	1.00	55.79	N
ATOM	36476	CG	TYR D	54	159.193	109.742	14.768	1.00	44.60	C	ATOM	36526	CA	GLU D	60	152.804	114.361	22.207	1.00	55.79	C
ATOM	36477	CD1	TYR D	54	158.032	109.144	14.298	1.00	44.60	C	ATOM	36527	O	GLU D	60	151.901	113.191	22.530	1.00	55.79	C
ATOM	36478	CD2	TYR D	54	159.876	109.119	15.815	1.00	44.60	C	ATOM	36528	C	GLU D	60	151.203	113.221	23.543	1.00	55.79	C
ATOM	36479	CE1	TYR D	54	157.552	107.964	14.862	1.00	44.60	C	ATOM	36529	CB	GLU D	60	152.266	115.139	21.013	1.00	81.71	C
ATOM	36480	CE2	TYR D	54	159.408	107.938	16.390	1.00	44.60	C	ATOM	36530	CG	GLU D	60	151.222	116.177	21.414	1.00	81.71	C
ATOM	36481	CZ	TYR D	54	158.241	107.367	15.909	1.00	44.60	C	ATOM	36531	CD	GLU D	60	151.773	117.244	22.361	1.00	81.71	C
ATOM	36482	OH	TYR D	54	157.728	106.212	16.479	1.00	44.60	O	ATOM	36532	OE1	GLU D	60	152.321	116.894	23.425	1.00	81.71	O
ATOM	36483	N	ALA D	55	159.803	112.730	16.623	1.00	40.18	N	ATOM	36533	OE2	GLU D	60	151.652	118.443	22.046	1.00	81.71	O
ATOM	36484	CA	ALA D	55	159.956	112.959	18.056	1.00	40.18	C	ATOM	36534	N	LYS D	61	151.910	112.155	21.690	1.00	44.65	N
ATOM	36485	C	ALA D	55	158.212	113.497	19.592	1.00	40.18	C	ATOM	36535	CA	LYS D	61	151.081	110.984	21.963	1.00	44.65	C
ATOM	36486	O	ALA D	55	161.267	113.652	18.329	1.00	47.86	C	ATOM	36536	C	LYS D	61	151.449	110.451	23.334	1.00	44.65	C
ATOM	36487	CB	ALA D	55	158.537	114.894	17.873	1.00	50.59	N	ATOM	36537	O	LYS D	61	150.604	110.373	24.202	1.00	44.65	O
ATOM	36488	N	VAL D	56	157.471	115.773	18.288	1.00	50.59	C	ATOM	36538	CB	LYS D	61	151.311	109.878	20.949	1.00	58.08	C
ATOM	36489	CA	VAL D	56	156.182	114.984	18.416	1.00	50.59	C	ATOM	36539	CG	LYS D	61	150.551	108.611	21.315	1.00	58.08	C
ATOM	36490	C	VAL D	56	155.644	114.856	19.518	1.00	50.59	O	ATOM	36540	CD	LYS D	61	150.947	107.436	20.440	1.00	58.08	C
ATOM	36491	O	VAL D	56	157.296	116.921	17.295	1.00	38.55	C	ATOM	36541	CE	LYS D	61	152.198	106.745	20.948	1.00	58.08	C
ATOM	36492	CB	VAL D	56	156.071	117.731	17.647	1.00	38.55	C	ATOM	36542	NZ	LYS D	61	151.933	106.011	22.214	1.00	58.08	N
ATOM	36493	CG1	VAL D	56	158.518	117.801	17.338	1.00	38.55	C	ATOM	36543	N	GLN D	62	152.714	110.086	23.530	1.00	52.16	N
ATOM	36494	CG2	VAL D	56	155.690	114.450	17.301	1.00	51.91	N	ATOM	36544	CA	GLN D	62	153.170	109.569	24.823	1.00	52.16	C
ATOM	36495	N	ARG D	57	154.465	113.665	17.331	1.00	51.91	C	ATOM	36545	C	GLN D	62	152.555	110.323	25.991	1.00	52.16	C
ATOM	36496	CA	ARG D	57	154.568	112.524	18.344	1.00	51.91	C	ATOM	36546	O	GLN D	62	152.006	109.731	26.912	1.00	52.16	O
ATOM	36497	C	ARG D	57	153.618	112.246	19.068	1.00	51.91	O	ATOM	36547	CB	GLN D	62	154.691	109.654	24.923	1.00	62.66	C
ATOM	36498	O	ARG D	57	154.148	113.079	15.952	1.00	57.20	C	ATOM	36548	CG	GLN D	62	155.377	108.703	23.991	1.00	62.66	C
ATOM	36499	CB	ARG D	57	153.432	114.010	14.978	1.00	57.20	C	ATOM	36549	CD	GLN D	62	154.883	107.280	24.169	1.00	62.66	C
ATOM	36500	CG	ARG D	57	154.342	115.103	14.496	1.00	57.20	C	ATOM	36550	OE1	GLN D	62	155.288	106.578	25.089	1.00	62.66	O
ATOM	36501	CD	ARG D	57	153.718	115.926	13.468	1.00	57.20	N	ATOM	36551	NE2	GLN D	62	153.989	106.857	23.294	1.00	62.66	N
ATOM	36502	NE	ARG D	57	154.196	117.109	13.090	1.00	57.20	C	ATOM	36552	N	LYS D	63	152.661	111.641	25.944	1.00	57.54	N
ATOM	36503	C2	ARG D	57	155.298	117.592	13.656	1.00	57.20	N	ATOM	36553	CA	LYS D	63	152.106	112.499	26.974	1.00	57.54	C
ATOM	36504	NH1	ARG D	57	153.567	117.820	12.163	1.00	57.20	N	ATOM	36554	C	LYS D	63	150.605	112.206	27.163	1.00	57.54	C
ATOM	36505	NH2	ARG D	57	155.715	111.860	18.402	1.00	49.04	N	ATOM	36555	O	LYS D	63	150.202	111.624	28.169	1.00	57.54	O
ATOM	36506	N	LEU D	58	155.873	110.763	19.347	1.00	49.04	C	ATOM	36556	CB	LYS D	63	152.318	113.954	26.563	1.00	52.38	C
ATOM	36507	CA	LEU D	58	155.550	111.250	20.751	1.00	49.04	C	ATOM	36557	CG	LYS D	63	151.992	114.963	27.623	1.00	52.38	C
ATOM	36508	C	LEU D	58	154.562	110.816	21.356	1.00	49.04	O	ATOM	36558	CD	LYS D	63	152.047	116.350	27.045	1.00	52.38	C
ATOM	36509	O	LEU D	58	157.303	110.210	19.334	1.00	45.54	C	ATOM	36559	CE	LYS D	63	153.409	116.659	26.469	1.00	52.38	C
ATOM	36510	CB	LEU D	58	157.424	108.733	19.746	1.00	45.54	C	ATOM	36560	NZ	LYS D	63	153.377	117.981	25.776	1.00	52.38	N
ATOM	36511	CG	LEU D	58	158.880	108.358	19.850	1.00	45.54	C	ATOM	36561	N	LEU D	64	149.787	112.596	26.187	1.00	46.62	N
ATOM	36512	CD1	LEU D	58	156.736	108.472	21.061	1.00	45.54	C	ATOM	36562	CA	LEU D	64	148.341	112.378	26.255	1.00	46.62	C
ATOM	36513	CD2	LEU D	58	156.383	112.151	21.264	1.00	56.81	N	ATOM	36563	C	LEU D	64	148.018	110.999	26.797	1.00	46.62	C
ATOM	36514	N	ARG D	59	156.184	112.686	22.604	1.00	56.81	C	ATOM	36564	O	LEU D	64	147.178	110.859	27.675	1.00	46.62	O
ATOM	36515	CA	ARG D	59							ATOM	36565	CB	LEU D	64	147.702	112.559	24.866	1.00	39.94	C



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ATOM	36566	CG	LEU D	64	146.176	112.606	24.696	1.00	39.94	C	ATOM	36616	CA	ILE D	70	146.349	103.375	29.473	1.00	56.40	C
ATOM	36567	CD1	LEU D	64	145.624	111.224	24.628	1.00	39.94	C	ATOM	36617	C	ILE D	70	147.421	102.804	28.517	1.00	56.40	C
ATOM	36568	CD2	LEU D	64	145.538	113.346	25.846	1.00	39.94	C	ATOM	36618	O	ILE D	70	148.328	103.522	28.091	1.00	56.40	O
ATOM	36569	N	ARG D	65	148.707	109.986	26.292	1.00	57.10	N	ATOM	36619	CB	ILE D	70	145.087	103.879	28.723	1.00	66.10	C
ATOM	36570	CA	ARG D	65	148.477	108.613	26.723	1.00	57.10	C	ATOM	36620	CG1	ILE D	70	144.446	102.763	27.927	1.00	66.10	C
ATOM	36571	C	ARG D	65	148.871	108.289	28.161	1.00	57.10	C	ATOM	36621	CG2	ILE D	70	145.447	105.010	27.795	1.00	66.10	C
ATOM	36572	O	ARG D	65	148.115	107.645	28.884	1.00	57.10	O	ATOM	36622	CD1	ILE D	70	143.299	103.268	27.090	1.00	66.10	C
ATOM	36573	CB	ARG D	65	149.176	107.637	25.768	1.00	62.88	C	ATOM	36623	N	SER D	71	147.341	101.514	28.202	1.00	61.16	N
ATOM	36574	CG	ARG D	65	149.464	106.274	26.364	1.00	62.88	C	ATOM	36624	CA	SER D	71	148.334	100.886	27.324	1.00	61.16	C
ATOM	36575	CD	ARG D	65	149.602	105.218	25.292	1.00	62.88	C	ATOM	36625	C	SER D	71	148.300	101.465	25.923	1.00	61.16	C
ATOM	36576	NE	ARG D	65	150.508	104.147	25.698	1.00	62.88	N	ATOM	36626	O	SER D	71	147.419	102.261	25.598	1.00	61.16	O
ATOM	36577	CZ	ARG D	65	151.836	104.223	25.627	1.00	62.88	C	ATOM	36627	CB	SER D	71	148.083	99.387	27.211	1.00	57.37	C
ATOM	36578	NH1	ARG D	65	152.415	105.319	25.163	1.00	62.88	N	ATOM	36628	OG	SER D	71	146.936	99.142	26.411	1.00	57.37	O
ATOM	36579	NH2	ARG D	65	152.591	103.206	26.020	1.00	62.88	N	ATOM	36629	N	GLU D	72	149.252	101.054	25.086	1.00	41.62	N
ATOM	36580	N	ARG D	66	150.049	108.719	28.583	1.00	60.70	N	ATOM	36630	CA	GLU D	72	149.274	101.538	23.718	1.00	41.62	C
ATOM	36581	CA	ARG D	66	150.485	108.424	29.940	1.00	60.70	C	ATOM	36631	C	GLU D	72	148.194	100.817	22.940	1.00	41.62	C
ATOM	36582	C	ARG D	66	149.636	109.116	30.996	1.00	60.70	C	ATOM	36632	O	GLU D	72	147.550	101.388	22.072	1.00	41.62	O
ATOM	36583	O	ARG D	66	149.634	108.726	32.163	1.00	60.70	O	ATOM	36633	CB	GLU D	72	150.627	101.298	23.060	1.00	64.49	C
ATOM	36584	CB	ARG D	66	151.953	108.793	30.093	1.00	59.30	C	ATOM	36634	CG	GLU D	72	150.644	101.709	21.589	1.00	64.49	C
ATOM	36585	CG	ARG D	66	152.831	107.858	29.309	1.00	59.30	C	ATOM	36635	CD	GLU D	72	150.270	103.172	21.355	1.00	64.49	C
ATOM	36586	CD	ARG D	66	154.240	108.357	29.192	1.00	59.30	C	ATOM	36636	OE1	GLU D	72	150.063	103.562	20.184	1.00	64.49	O
ATOM	36587	NE	ARG D	66	155.152	107.275	28.840	1.00	59.30	N	ATOM	36637	OE2	GLU D	72	150.192	103.938	22.335	1.00	64.49	O
ATOM	36588	CZ	ARG D	66	156.445	107.448	28.584	1.00	59.30	C	ATOM	36638	N	ARG D	73	147.990	99.553	23.269	1.00	52.13	N
ATOM	36589	NH1	ARG D	66	156.981	108.665	28.634	1.00	59.30	N	ATOM	36639	CA	ARG D	73	146.980	98.749	22.599	1.00	52.13	C
ATOM	36590	NH2	ARG D	66	157.207	106.400	28.296	1.00	59.30	N	ATOM	36640	C	ARG D	73	145.625	99.419	22.744	1.00	52.13	C
ATOM	36591	N	ILE D	67	148.899	110.136	30.583	1.00	58.83	N	ATOM	36641	O	ARG D	73	145.009	99.815	21.763	1.00	52.13	O
ATOM	36592	CA	ILE D	67	148.047	110.853	31.508	1.00	58.83	C	ATOM	36642	CB	ARG D	73	146.922	97.359	23.226	1.00	105.71	C
ATOM	36593	C	ILE D	67	146.935	109.937	31.987	1.00	58.83	C	ATOM	36643	CG	ARG D	73	146.075	96.366	22.472	1.00	105.71	C
ATOM	36594	O	ILE D	67	146.629	109.884	33.178	1.00	58.83	O	ATOM	36644	CD	ARG D	73	146.790	95.877	21.232	1.00	105.71	C
ATOM	36595	CB	ILE D	67	147.454	112.096	30.841	1.00	57.59	C	ATOM	36645	NE	ARG D	73	146.436	94.490	20.940	1.00	105.71	N
ATOM	36596	CG1	ILE D	67	148.497	113.211	30.855	1.00	57.59	C	ATOM	36646	CZ	ARG D	73	147.006	93.750	19.995	1.00	105.71	C
ATOM	36597	CG2	ILE D	67	146.185	112.527	31.544	1.00	57.59	C	ATOM	36647	NH1	ARG D	73	147.966	94.264	19.237	1.00	105.71	N
ATOM	36598	CD1	ILE D	67	148.024	114.485	30.200	1.00	57.59	C	ATOM	36648	NH2	ARG D	73	146.624	92.492	19.817	1.00	105.71	N
ATOM	36599	N	TYR D	68	146.332	109.210	31.056	1.00	56.16	N	ATOM	36649	N	GLN D	74	145.164	99.547	23.979	1.00	48.70	N
ATOM	36600	CA	TYR D	68	145.263	108.292	31.407	1.00	56.16	C	ATOM	36650	CA	GLN D	74	143.876	100.160	24.220	1.00	48.70	C
ATOM	36601	C	TYR D	68	145.851	106.915	31.703	1.00	56.16	C	ATOM	36651	C	GLN D	74	143.848	101.572	23.669	1.00	48.70	C
ATOM	36602	O	TYR D	68	145.128	105.922	31.817	1.00	56.16	O	ATOM	36652	O	GLN D	74	142.927	101.942	22.945	1.00	48.70	O
ATOM	36603	CB	TYR D	68	144.253	108.218	30.268	1.00	51.96	C	ATOM	36653	CB	GLN D	74	143.566	100.183	25.711	1.00	54.79	C
ATOM	36604	CG	TYR D	68	143.624	109.552	29.975	1.00	51.96	C	ATOM	36654	CG	GLN D	74	143.297	98.826	26.312	1.00	54.79	C
ATOM	36605	CD1	TYR D	68	144.378	110.593	29.453	1.00	51.96	C	ATOM	36655	CD	GLN D	74	142.413	98.928	27.535	1.00	54.79	C
ATOM	36606	CD2	TYR D	68	142.288	109.798	30.277	1.00	51.96	C	ATOM	36656	OE1	GLN D	74	142.765	99.582	28.514	1.00	54.79	O
ATOM	36607	CE1	TYR D	68	143.824	111.846	29.244	1.00	51.96	C	ATOM	36657	NE2	GLN D	74	141.249	98.290	27.482	1.00	54.79	N
ATOM	36608	CE2	TYR D	68	141.726	111.046	30.075	1.00	51.96	C	ATOM	36658	CA	PHE D	75	144.864	102.359	24.006	1.00	49.60	N
ATOM	36609	CZ	TYR D	68	142.503	112.067	29.561	1.00	51.96	C	ATOM	36659	N	PHE D	75	144.939	103.740	23.536	1.00	49.60	C
ATOM	36610	OH	TYR D	68	141.976	113.324	29.393	1.00	51.96	O	ATOM	36660	C	PHE D	75	144.725	103.821	22.029	1.00	49.60	C
ATOM	36611	N	GLY D	69	147.175	106.872	31.825	1.00	52.22	N	ATOM	36661	O	PHE D	75	143.990	104.671	21.533	1.00	49.60	O
ATOM	36612	CA	GLY D	69	147.870	105.630	32.114	1.00	52.22	C	ATOM	36662	CB	PHE D	75	146.299	104.342	23.875	1.00	56.22	C
ATOM	36613	C	GLY D	69	147.272	104.389	31.482	1.00	52.22	C	ATOM	36663	CG	PHE D	75	146.399	105.804	23.585	1.00	56.22	C
ATOM	36614	O	GLY D	69	147.127	103.358	32.131	1.00	52.22	O	ATOM	36664	CD1	PHE D	75	145.899	106.735	24.482	1.00	56.22	C
ATOM	36615	N	ILE D	70	146.933	104.486	30.207	1.00	56.40	N	ATOM	36665	CD2	PHE D	75	147.002	106.253	22.416	1.00	56.22	C



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ATOM	36666	CE1	PHE	D	75	146.001	108.090	24.224	1.00	56.22	C	ATOM	36716	N	GLU	D	81	138.576	104.198	16.984	1.00	51.18	N
ATOM	36667	CE2	PHE	D	75	147.108	107.607	22.148	1.00	56.22	C	ATOM	36717	CA	GLU	D	81	137.127	104.334	17.107	1.00	51.18	C
ATOM	36668	CZ	PHE	D	75	146.606	108.528	23.058	1.00	56.22	C	ATOM	36718	O	GLU	D	81	136.776	105.800	16.924	1.00	51.18	C
ATOM	36669	N	ARG	D	76	145.377	102.924	21.304	1.00	48.00	N	ATOM	36719	C	GLU	D	81	135.929	106.163	16.117	1.00	51.18	O
ATOM	36670	CA	ARG	D	76	145.268	102.900	19.855	1.00	48.00	C	ATOM	36720	CB	GLU	D	81	136.647	103.861	18.478	1.00	71.09	C
ATOM	36671	O	ARG	D	76	143.853	102.555	19.392	1.00	48.00	C	ATOM	36721	CG	GLU	D	81	135.147	104.015	18.671	1.00	71.09	C
ATOM	36672	CB	ARG	D	76	143.282	103.256	18.560	1.00	48.00	O	ATOM	36722	CD	GLU	D	81	134.645	103.375	19.959	1.00	71.09	C
ATOM	36673	CG	ARG	D	76	146.263	101.894	19.278	1.00	92.47	C	ATOM	36723	OE1	GLU	D	81	133.418	103.452	20.223	1.00	71.09	O
ATOM	36674	CD	ARG	D	76	146.312	101.879	17.773	1.00	92.47	C	ATOM	36724	OE2	GLU	D	81	135.474	102.793	20.697	1.00	71.09	O
ATOM	36675	NE	ARG	D	76	146.756	103.220	17.252	1.00	92.47	C	ATOM	36725	N	ALA	D	82	137.447	106.643	17.688	1.00	50.21	N
ATOM	36676	CD	ARG	D	76	146.776	103.253	15.795	1.00	92.47	C	ATOM	36726	CA	ALA	D	82	137.213	108.062	17.606	1.00	50.21	C
ATOM	36677	CZ	ARG	D	76	147.551	102.484	15.038	1.00	92.47	C	ATOM	36727	O	ALA	D	82	137.352	108.478	16.154	1.00	50.21	C
ATOM	36678	NH1	ARG	D	76	148.380	101.611	15.598	1.00	92.47	N	ATOM	36728	O	ALA	D	82	136.560	109.265	15.647	1.00	50.21	O
ATOM	36679	NH2	ARG	D	76	147.498	102.596	13.719	1.00	92.47	N	ATOM	36729	CB	ALA	D	82	138.223	108.802	18.469	1.00	47.15	C
ATOM	36680	N	ASN	D	77	143.288	101.479	19.929	1.00	42.77	N	ATOM	36730	N	SER	D	83	138.356	107.921	15.485	1.00	57.27	N
ATOM	36681	CA	ASN	D	77	141.952	101.063	19.536	1.00	42.77	C	ATOM	36731	CA	SER	D	83	138.635	108.247	14.089	1.00	57.27	C
ATOM	36682	C	ASN	D	77	140.976	102.212	19.704	1.00	42.77	C	ATOM	36732	C	SER	D	83	137.495	107.903	13.165	1.00	57.27	C
ATOM	36683	O	ASN	D	77	140.187	102.516	18.794	1.00	42.77	O	ATOM	36733	CB	SER	D	83	137.254	108.598	12.182	1.00	57.27	O
ATOM	36684	CB	ASN	D	77	141.486	99.883	20.379	1.00	74.04	C	ATOM	36734	OG	SER	D	83	139.870	107.495	13.593	1.00	62.87	C
ATOM	36685	OD1	ASN	D	77	142.360	98.676	20.207	1.00	74.04	C	ATOM	36735	OG	SER	D	83	140.995	107.710	14.425	1.00	62.87	O
ATOM	36686	ND2	ASN	D	77	142.743	98.334	19.091	1.00	74.04	O	ATOM	36736	N	LYS	D	84	136.795	106.824	13.492	1.00	42.47	N
ATOM	36687	N	LEU	D	78	142.675	98.011	21.308	1.00	74.04	N	ATOM	36737	CA	LYS	D	84	135.711	106.325	12.665	1.00	42.47	C
ATOM	36688	CA	LEU	D	78	141.023	102.843	20.876	1.00	47.60	N	ATOM	36738	C	LYS	D	84	134.362	107.002	12.852	1.00	42.47	C
ATOM	36689	C	LEU	D	78	140.143	103.959	21.158	1.00	47.60	C	ATOM	36739	O	LYS	D	84	133.545	106.988	11.935	1.00	42.47	O
ATOM	36690	O	LEU	D	78	140.301	104.971	20.055	1.00	47.60	C	ATOM	36740	CB	LYS	D	84	135.580	104.824	12.888	1.00	77.96	C
ATOM	36691	CB	LEU	D	78	139.320	105.399	19.454	1.00	47.60	O	ATOM	36741	CD	LYS	D	84	134.729	104.109	11.882	1.00	77.96	C
ATOM	36692	CG	LEU	D	78	140.496	104.602	22.484	1.00	32.75	C	ATOM	36742	CE	LYS	D	84	134.689	102.634	12.210	1.00	77.96	C
ATOM	36693	CD1	LEU	D	78	139.487	104.375	23.605	1.00	32.75	C	ATOM	36743	NZ	LYS	D	84	133.714	101.897	11.317	1.00	77.96	C
ATOM	36694	CD2	LEU	D	78	138.076	104.712	23.124	1.00	32.75	C	ATOM	36744	NZ	LYS	D	84	133.501	100.507	11.803	1.00	77.96	N
ATOM	36695	N	PHE	D	79	141.099	105.254	24.797	1.00	40.39	N	ATOM	36745	N	LYS	D	85	134.129	107.604	14.018	1.00	56.64	N
ATOM	36696	CA	PHE	D	79	141.545	105.343	19.779	1.00	40.39	C	ATOM	36746	CA	LYS	D	85	132.851	108.263	14.296	1.00	56.64	C
ATOM	36697	C	PHE	D	79	141.806	106.307	18.723	1.00	40.39	C	ATOM	36747	O	LYS	D	85	132.712	109.612	13.584	1.00	56.64	C
ATOM	36698	O	PHE	D	79	141.099	105.933	17.424	1.00	40.39	C	ATOM	36748	O	LYS	D	85	133.682	110.139	13.032	1.00	56.64	C
ATOM	36699	CB	PHE	D	79	140.402	106.751	16.831	1.00	40.39	O	ATOM	36749	CB	LYS	D	85	132.684	108.502	15.798	1.00	70.51	C
ATOM	36700	CG	PHE	D	79	143.296	106.425	18.431	1.00	48.00	C	ATOM	36750	CG	LYS	D	85	133.142	107.379	16.688	1.00	70.51	C
ATOM	36701	CD1	PHE	D	79	143.594	107.358	17.305	1.00	48.00	C	ATOM	36751	CD	LYS	D	85	132.803	107.679	18.137	1.00	70.51	C
ATOM	36702	CD2	PHE	D	79	143.631	108.732	17.518	1.00	48.00	C	ATOM	36752	CE	LYS	D	85	131.306	107.588	18.384	1.00	70.51	C
ATOM	36703	CE1	PHE	D	79	143.781	106.872	16.018	1.00	48.00	C	ATOM	36753	NZ	LYS	D	85	130.805	106.178	18.346	1.00	70.51	N
ATOM	36704	CE2	PHE	D	79	143.850	109.611	16.458	1.00	48.00	C	ATOM	36754	N	LYS	D	86	131.496	110.164	13.610	1.00	66.16	N
ATOM	36705	CZ	PHE	D	79	143.999	107.736	14.953	1.00	48.00	C	ATOM	36755	CA	LYS	D	86	131.216	111.466	13.005	1.00	66.16	C
ATOM	36706	N	GLU	D	80	144.035	109.107	15.169	1.00	48.00	C	ATOM	36756	C	LYS	D	86	131.813	112.485	13.959	1.00	66.16	C
ATOM	36707	CA	GLU	D	80	141.292	104.696	16.983	1.00	42.93	N	ATOM	36757	O	LYS	D	86	131.860	112.254	15.169	1.00	66.16	O
ATOM	36708	C	GLU	D	80	140.677	104.230	15.753	1.00	42.93	C	ATOM	36758	CB	LYS	D	86	129.703	111.729	12.910	1.00	65.55	C
ATOM	36709	O	GLU	D	80	139.163	104.371	15.804	1.00	42.93	C	ATOM	36759	CG	LYS	D	86	128.879	110.673	12.170	1.00	65.55	C
ATOM	36710	CB	GLU	D	80	138.531	104.641	14.787	1.00	42.93	O	ATOM	36760	CD	LYS	D	86	128.864	110.876	10.652	1.00	65.55	C
ATOM	36711	CG	GLU	D	80	141.074	102.781	15.485	1.00	93.55	C	ATOM	36761	CE	LYS	D	86	128.375	109.613	9.920	1.00	65.55	C
ATOM	36712	CD	GLU	D	80	142.583	102.587	15.395	1.00	93.55	C	ATOM	36762	NZ	LYS	D	86	128.332	109.740	8.421	1.00	65.55	N
ATOM	36713	OE1	GLU	D	80	143.210	103.357	14.239	1.00	93.55	O	ATOM	36763	N	GLY	D	87	132.277	113.609	13.432	1.00	81.19	N
ATOM	36714	OE2	GLU	D	80	144.459	103.410	14.163	1.00	93.55	O	ATOM	36764	CA	GLY	D	87	132.823	114.626	14.311	1.00	81.19	C
ATOM	36715		GLU	D	80	142.455	103.901	13.402	1.00	93.55	O	ATOM	36765	C	GLY	D	87	134.315	114.589	14.533	1.00	81.19	C



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ATOM	36766	O	GLY D	87	134.925	113.522	14.590	1.00	81.19	O	ATOM	36816	CD2	LEU D	94	142.075	114.380	24.842	1.00	47.78	C
ATOM	36767	N	VAL D	88	134.886	115.782	14.577	1.00	58.18	N	ATOM	36817	N	GLY D	95	137.071	112.680	24.276	1.00	54.56	N
ATOM	36768	CA	VAL D	88	136.314	115.963	14.878	1.00	58.18	C	ATOM	36818	CA	GLY D	95	135.828	112.322	24.934	1.00	54.56	C
ATOM	36769	C	VAL D	88	136.958	114.878	15.718	1.00	58.18	C	ATOM	36819	C	GLY D	95	135.781	110.875	25.387	1.00	54.56	C
ATOM	36770	O	VAL D	88	136.697	114.749	16.911	1.00	58.18	O	ATOM	36820	O	GLY D	95	135.345	110.575	26.497	1.00	54.56	O
ATOM	36771	CB	VAL D	88	136.609	117.318	15.521	1.00	53.29	C	ATOM	36821	N	LEU D	96	136.237	109.972	24.527	1.00	52.40	N
ATOM	36772	CG1	VAL D	88	138.120	117.481	15.721	1.00	53.29	C	ATOM	36822	CA	LEU D	96	136.231	108.552	24.842	1.00	52.40	C
ATOM	36773	CG2	VAL D	88	136.061	118.417	14.644	1.00	53.29	C	ATOM	36823	C	LEU D	96	137.180	108.204	25.969	1.00	52.40	C
ATOM	36774	N	THR D	89	137.819	114.104	15.079	1.00	56.75	N	ATOM	36824	O	LEU D	96	136.841	107.407	26.843	1.00	52.40	O
ATOM	36775	CA	THR D	89	138.492	113.022	15.759	1.00	56.75	C	ATOM	36825	CB	LEU D	96	136.555	107.744	23.587	1.00	40.91	C
ATOM	36776	C	THR D	89	139.167	113.484	17.043	1.00	56.75	C	ATOM	36826	CG	LEU D	96	135.311	107.369	22.766	1.00	40.91	C
ATOM	36777	O	THR D	89	138.997	112.873	18.098	1.00	56.75	O	ATOM	36827	CD1	LEU D	96	134.246	108.480	22.823	1.00	40.91	C
ATOM	36778	CB	THR D	89	139.523	112.405	14.838	1.00	54.03	C	ATOM	36828	CD2	LEU D	96	135.733	107.089	21.337	1.00	40.91	C
ATOM	36779	OG1	THR D	89	138.883	112.062	13.608	1.00	54.03	O	ATOM	36829	N	LEU D	97	138.367	108.795	25.952	1.00	54.09	N
ATOM	36780	CG2	THR D	89	140.122	111.167	15.465	1.00	54.03	C	ATOM	36830	CA	LEU D	97	139.340	108.544	27.005	1.00	54.09	C
ATOM	36781	N	GLY D	90	139.927	114.568	16.954	1.00	52.69	N	ATOM	36831	C	LEU D	97	138.912	108.421	29.358	1.00	54.09	C
ATOM	36782	CA	GLY D	90	140.617	115.072	18.126	1.00	52.69	C	ATOM	36832	O	LEU D	97	138.758	109.048	28.316	1.00	54.09	O
ATOM	36783	C	GLY D	90	139.732	115.156	19.353	1.00	52.69	C	ATOM	36833	CB	LEU D	97	138.912	108.421	29.358	1.00	54.09	C
ATOM	36784	O	GLY D	90	140.031	114.556	20.383	1.00	52.69	O	ATOM	36834	CG	LEU D	97	140.641	109.294	26.732	1.00	49.77	C
ATOM	36785	N	SER D	91	138.640	115.907	19.253	1.00	61.95	N	ATOM	36835	CD1	LEU D	97	141.652	108.758	25.731	1.00	49.77	C
ATOM	36786	CA	SER D	91	137.742	116.042	20.384	1.00	61.95	C	ATOM	36836	CD2	LEU D	97	142.401	109.926	25.119	1.00	49.77	C
ATOM	36787	C	SER D	91	137.250	114.656	20.780	1.00	61.95	C	ATOM	36837	N	GLU D	98	142.606	107.814	26.422	1.00	49.77	C
ATOM	36788	O	SER D	91	137.539	114.181	21.880	1.00	61.95	O	ATOM	36838	CA	GLU D	98	138.085	110.190	28.246	1.00	62.24	N
ATOM	36789	CB	SER D	91	136.555	116.934	20.025	1.00	128.97	C	ATOM	36839	C	GLU D	98	137.489	110.813	29.416	1.00	62.24	C
ATOM	36790	OG	SER D	91	135.726	116.305	19.067	1.00	128.97	O	ATOM	36840	O	GLU D	98	136.266	110.042	29.931	1.00	62.24	C
ATOM	36791	N	VAL D	92	136.526	114.009	19.872	1.00	52.10	N	ATOM	36841	CB	GLU D	98	135.791	110.283	31.039	1.00	62.24	O
ATOM	36792	CA	VAL D	92	135.981	112.680	20.114	1.00	52.10	C	ATOM	36842	CG	GLU D	98	137.104	112.250	29.067	1.00	54.14	C
ATOM	36793	C	VAL D	92	136.917	111.757	20.862	1.00	52.10	C	ATOM	36843	CD	GLU D	98	137.152	113.205	30.232	1.00	54.14	C
ATOM	36794	O	VAL D	92	136.510	111.096	21.824	1.00	52.10	O	ATOM	36844	OE1	GLU D	98	138.559	113.407	30.762	1.00	54.14	C
ATOM	36795	CB	VAL D	92	135.607	111.971	18.811	1.00	31.61	C	ATOM	36845	OE2	GLU D	98	139.456	113.736	29.962	1.00	54.14	O
ATOM	36796	CG1	VAL D	92	135.200	110.546	19.099	1.00	31.61	C	ATOM	36846	N	SER D	99	138.767	113.245	31.983	1.00	54.14	O
ATOM	36797	CG2	VAL D	92	134.461	112.694	18.148	1.00	31.61	C	ATOM	36847	CA	SER D	99	135.762	109.117	29.124	1.00	40.31	N
ATOM	36798	N	PHE D	93	138.162	111.690	20.410	1.00	46.80	N	ATOM	36848	C	SER D	99	134.614	108.320	29.512	1.00	40.31	C
ATOM	36799	CA	PHE D	93	139.130	110.831	21.060	1.00	46.80	C	ATOM	36849	O	SER D	99	135.017	107.001	30.179	1.00	40.31	C
ATOM	36800	C	PHE D	93	139.236	111.210	22.529	1.00	46.80	C	ATOM	36850	CB	SER D	99	134.154	106.163	30.490	1.00	40.31	O
ATOM	36801	O	PHE D	93	139.197	110.351	23.404	1.00	46.80	O	ATOM	36851	OG	SER D	99	133.739	108.006	28.300	1.00	42.84	C
ATOM	36802	CB	PHE D	93	140.496	110.970	20.410	1.00	42.58	C	ATOM	36852	N	ARG D	100	133.202	109.173	27.719	1.00	42.84	O
ATOM	36803	CG	PHE D	93	141.521	110.035	20.969	1.00	42.58	C	ATOM	36853	CA	ARG D	100	136.311	106.780	30.381	1.00	52.04	N
ATOM	36804	CD1	PHE D	93	142.841	110.441	21.122	1.00	42.58	C	ATOM	36854	C	ARG D	100	136.715	105.546	31.042	1.00	52.04	C
ATOM	36805	CD2	PHE D	93	141.175	108.730	21.310	1.00	42.58	C	ATOM	36855	O	ARG D	100	136.238	105.636	32.480	1.00	52.04	C
ATOM	36806	CE1	PHE D	93	143.810	109.564	21.605	1.00	42.58	C	ATOM	36856	CB	ARG D	100	136.321	106.699	33.100	1.00	52.04	O
ATOM	36807	CE2	PHE D	93	142.130	107.848	21.790	1.00	42.58	C	ATOM	36857	CG	ARG D	100	138.232	105.370	31.026	1.00	59.99	C
ATOM	36808	CZ	PHE D	93	143.460	108.267	21.939	1.00	42.58	C	ATOM	36858	CD	ARG D	100	138.791	104.873	29.720	1.00	59.99	C
ATOM	36809	N	LEU D	94	139.378	112.500	22.799	1.00	49.43	N	ATOM	36859	NE	ARG D	100	140.299	104.864	29.776	1.00	59.99	C
ATOM	36810	CA	LEU D	94	139.479	112.951	24.171	1.00	49.43	C	ATOM	36860	CZ	ARG D	100	140.840	103.802	30.623	1.00	59.99	N
ATOM	36811	C	LEU D	94	138.218	112.558	24.926	1.00	49.43	C	ATOM	36861	NH1	ARG D	100	140.991	102.544	30.222	1.00	59.99	N
ATOM	36812	O	LEU D	94	138.279	112.128	26.072	1.00	49.43	O	ATOM	36862	NH2	ARG D	100	140.638	102.198	28.985	1.00	59.99	C
ATOM	36813	CB	LEU D	94	139.686	114.458	24.208	1.00	47.78	C	ATOM	36863	N	LEU D	101	141.496	101.634	31.050	1.00	59.99	N
ATOM	36814	CG	LEU D	94	141.097	114.895	23.804	1.00	47.78	C	ATOM	36864	CA	LEU D	101	135.732	104.529	33.010	1.00	56.46	N
ATOM	36815	CD1	LEU D	94	141.188	116.411	23.701	1.00	47.78	C	ATOM	36865	C	LEU D	101	135.264	104.518	34.387	1.00	56.46	C



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ATOM	36866	O	LEU D 101	136.128	105.926	36.098	1.00	56.46	O	ATOM	36916	O	ARG D 107	136.161	114.658	39.599	1.00	81.39	O
ATOM	36867	CB	LEU D 101	134.828	103.118	34.814	1.00	48.57	C	ATOM	36917	CB	ARG D 107	136.461	113.143	36.814	1.00	67.61	C
ATOM	36868	CG	LEU D 101	134.361	102.998	36.262	1.00	48.57	C	ATOM	36918	CG	ARG D 107	137.316	113.164	35.560	1.00	67.61	C
ATOM	36869	CD1	LEU D 101	133.262	104.005	36.534	1.00	48.57	C	ATOM	36919	CD	ARG D 107	138.065	114.477	35.402	1.00	67.61	C
ATOM	36870	CD2	LEU D 101	133.862	101.590	36.503	1.00	48.57	C	ATOM	36920	NE	ARG D 107	138.823	114.512	34.156	1.00	67.61	N
ATOM	36871	N	ASP D 102	137.533	104.393	35.260	1.00	47.71	N	ATOM	36921	C2	ARG D 107	139.701	115.457	33.840	1.00	67.61	C
ATOM	36872	CA	ASP D 102	138.594	104.832	36.154	1.00	47.71	C	ATOM	36922	NH1	ARG D 107	139.932	116.452	34.682	1.00	67.61	N
ATOM	36873	C	ASP D 102	138.758	106.361	36.145	1.00	47.71	C	ATOM	36923	NH2	ARG D 107	140.361	115.398	32.691	1.00	67.61	N
ATOM	36874	O	ASP D 102	138.846	106.977	37.212	1.00	47.71	O	ATOM	36924	N	LEU D 108	135.609	112.501	39.868	1.00	56.00	N
ATOM	36875	CB	ASP D 102	139.945	104.126	35.862	1.00	86.52	C	ATOM	36925	CA	LEU D 108	134.677	112.800	40.950	1.00	56.00	C
ATOM	36876	CG	ASP D 102	140.371	104.184	34.394	1.00	86.52	C	ATOM	36926	C	LEU D 108	135.325	112.922	42.326	1.00	56.00	C
ATOM	36877	OD1	ASP D 102	140.111	105.196	33.711	1.00	86.52	O	ATOM	36927	O	LEU D 108	134.655	113.186	43.316	1.00	56.00	O
ATOM	36878	OD2	ASP D 102	141.003	103.208	33.932	1.00	86.52	O	ATOM	36928	CB	LEU D 108	133.556	111.763	40.975	1.00	46.02	C
ATOM	36879	N	ASN D 103	138.766	106.971	34.958	1.00	48.15	N	ATOM	36929	CG	LEU D 108	132.677	111.928	39.736	1.00	46.02	C
ATOM	36880	CA	ASN D 103	138.912	108.419	34.844	1.00	48.15	C	ATOM	36930	CD1	LEU D 108	131.524	110.956	39.790	1.00	46.02	C
ATOM	36881	C	ASN D 103	137.792	109.163	35.566	1.00	48.15	C	ATOM	36931	CD2	LEU D 108	132.171	113.362	39.654	1.00	46.02	C
ATOM	36882	O	ASN D 103	138.055	110.061	36.368	1.00	48.15	O	ATOM	36932	N	GLY D 109	136.635	112.741	42.383	1.00	62.86	N
ATOM	36883	CB	ASN D 103	138.913	108.844	33.384	1.00	52.81	C	ATOM	36933	CA	GLY D 109	137.323	112.865	43.645	1.00	62.86	C
ATOM	36884	CG	ASN D 103	139.130	110.345	33.210	1.00	52.81	C	ATOM	36934	C	GLY D 109	137.274	111.640	44.526	1.00	62.86	C
ATOM	36885	OD1	ASN D 103	140.237	110.870	33.440	1.00	52.81	O	ATOM	36935	O	GLY D 109	137.767	111.684	45.650	1.00	62.86	O
ATOM	36886	ND2	ASN D 103	138.071	111.046	32.804	1.00	52.81	N	ATOM	36936	N	PHE D 110	136.690	110.544	44.052	1.00	58.43	N
ATOM	36887	N	VAL D 104	136.544	108.803	35.274	1.00	41.74	N	ATOM	36937	CA	PHE D 110	136.642	109.340	44.877	1.00	58.43	C
ATOM	36888	CA	VAL D 104	135.408	109.449	35.919	1.00	41.74	C	ATOM	36938	C	PHE D 110	138.062	108.849	45.078	1.00	58.43	C
ATOM	36889	C	VAL D 104	135.491	109.317	37.437	1.00	41.74	C	ATOM	36939	O	PHE D 110	138.376	108.175	46.065	1.00	58.43	O
ATOM	36890	O	VAL D 104	135.180	110.254	38.171	1.00	41.74	O	ATOM	36940	CB	PHE D 110	135.802	108.252	44.214	1.00	57.17	C
ATOM	36891	CB	VAL D 104	134.080	108.858	35.439	1.00	37.78	C	ATOM	36941	CG	PHE D 110	134.389	108.658	43.959	1.00	57.17	C
ATOM	36892	CG1	VAL D 104	132.932	109.545	36.145	1.00	37.78	C	ATOM	36942	CD1	PHE D 110	133.809	109.689	44.687	1.00	57.17	C
ATOM	36893	CG2	VAL D 104	133.946	109.045	33.942	1.00	37.78	C	ATOM	36943	CD2	PHE D 110	133.638	108.018	42.987	1.00	57.17	C
ATOM	36894	N	VAL D 105	135.903	108.161	37.929	1.00	45.59	N	ATOM	36944	CE1	PHE D 110	132.494	110.083	44.444	1.00	57.17	C
ATOM	36895	CA	VAL D 105	136.019	108.031	39.363	1.00	45.59	C	ATOM	36945	CE2	PHE D 110	132.324	108.399	42.734	1.00	57.17	C
ATOM	36896	C	VAL D 105	137.094	109.003	39.835	1.00	45.59	C	ATOM	36946	C2	PHE D 110	131.749	109.434	43.462	1.00	57.17	C
ATOM	36897	O	VAL D 105	136.983	109.597	40.907	1.00	45.59	O	ATOM	36947	N	ALA D 111	138.920	109.201	44.126	1.00	55.72	N
ATOM	36898	CB	VAL D 105	136.372	106.596	39.767	1.00	51.67	C	ATOM	36948	CA	ALA D 111	140.319	108.821	44.192	1.00	55.72	C
ATOM	36899	CG1	VAL D 105	137.069	106.572	41.127	1.00	51.67	C	ATOM	36949	C	ALA D 111	141.206	110.035	44.040	1.00	55.72	C
ATOM	36900	CG2	VAL D 105	135.098	105.784	39.832	1.00	51.67	C	ATOM	36950	O	ALA D 111	140.857	111.010	43.377	1.00	55.72	O
ATOM	36901	N	TYR D 106	138.137	109.175	39.034	1.00	56.70	N	ATOM	36951	CB	ALA D 111	140.635	107.829	43.130	1.00	30.60	C
ATOM	36902	CA	TYR D 106	139.201	110.102	39.400	1.00	56.70	C	ATOM	36952	N	VAL D 112	142.363	109.959	44.668	1.00	55.71	N
ATOM	36903	C	TYR D 106	138.667	111.527	39.332	1.00	56.70	C	ATOM	36953	CA	VAL D 112	143.338	111.026	44.640	1.00	55.71	C
ATOM	36904	O	TYR D 106	139.022	112.374	40.153	1.00	56.70	O	ATOM	36954	C	VAL D 112	144.038	111.118	43.271	1.00	55.71	C
ATOM	36905	CB	TYR D 106	140.383	109.972	38.444	1.00	57.54	C	ATOM	36955	O	VAL D 112	144.283	112.209	42.757	1.00	55.71	O
ATOM	36906	CG	TYR D 106	141.347	111.137	38.511	1.00	57.54	C	ATOM	36956	CB	VAL D 112	144.357	110.779	45.743	1.00	56.54	C
ATOM	36907	CD1	TYR D 106	142.304	111.216	39.524	1.00	57.54	C	ATOM	36957	CG1	VAL D 112	145.362	111.876	47.785	1.00	56.54	C
ATOM	36908	CD2	TYR D 106	141.279	112.176	37.581	1.00	57.54	C	ATOM	36958	CG2	VAL D 112	143.640	110.679	47.065	1.00	56.54	C
ATOM	36909	CE1	TYR D 106	143.168	112.297	39.612	1.00	57.54	C	ATOM	36959	N	SER D 113	144.348	109.967	42.682	1.00	53.19	N
ATOM	36910	CE2	TYR D 106	142.133	113.262	37.660	1.00	57.54	C	ATOM	36960	CA	SER D 113	145.008	109.923	41.383	1.00	53.19	C
ATOM	36911	C2	TYR D 106	143.077	113.319	38.680	1.00	57.54	C	ATOM	36961	C	SER D 113	144.285	108.929	40.477	1.00	53.19	C
ATOM	36912	OH	TYR D 106	143.920	114.407	38.780	1.00	57.54	O	ATOM	36962	O	SER D 113	143.420	108.184	40.931	1.00	53.19	O
ATOM	36913	N	ARG D 107	137.824	111.783	38.337	1.00	81.39	N	ATOM	36963	CB	SER D 113	146.448	109.466	41.546	1.00	113.99	C
ATOM	36914	CA	ARG D 107	137.230	113.097	38.139	1.00	81.39	C	ATOM	36964	OG	SER D 113	146.458	108.086	41.859	1.00	27.72	O
ATOM	36915	C	ARG D 107	136.283	113.481	39.272	1.00	81.39	C	ATOM	36965	N	ARG D 114	144.647	108.918	39.196	1.00	57.11	N



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ATOM	36966	CA	ARG D 114	144.027	108.000	38.245	1.00	57.11	C	ATOM	37016	CB	GLN D 119	143.585	100.319	42.924	1.00	57.39	C
ATOM	36967	C	ARG D 114	144.388	106.551	38.575	1.00	57.11	C	ATOM	37017	CG	GLN D 119	143.631	99.123	43.840	1.00	57.39	C
ATOM	36968	O	ARG D 114	143.565	105.645	38.422	1.00	57.11	O	ATOM	37018	CD	GLN D 119	144.803	99.147	44.776	1.00	57.39	C
ATOM	36969	CB	ARG D 114	144.464	108.331	36.814	1.00	49.16	C	ATOM	37019	OE1	GLN D 119	144.772	99.787	45.823	1.00	57.39	O
ATOM	36970	CG	ARG D 114	143.908	109.633	36.275	1.00	49.16	C	ATOM	37020	NE2	GLN D 119	145.860	98.434	44.399	1.00	57.39	N
ATOM	36971	CD	ARG D 114	143.310	109.422	34.889	1.00	49.16	C	ATOM	37021	N	LEU D 120	140.543	101.353	42.765	1.00	56.75	N
ATOM	36972	NE	ARG D 114	142.687	110.624	34.343	1.00	49.16	N	ATOM	37022	CA	LEU D 120	139.253	101.400	43.429	1.00	56.75	C
ATOM	36973	CZ	ARG D 114	143.305	111.795	34.239	1.00	49.16	C	ATOM	37023	C	LEU D 120	138.264	100.581	42.610	1.00	56.75	C
ATOM	36974	NH1	ARG D 114	144.566	111.923	34.648	1.00	49.16	N	ATOM	37024	O	LEU D 120	137.593	99.694	43.129	1.00	56.75	O
ATOM	36975	NH2	ARG D 114	142.661	112.835	33.717	1.00	49.16	N	ATOM	37025	CB	LEU D 120	138.768	102.847	43.577	1.00	50.86	C
ATOM	36976	N	ARG D 115	145.619	106.328	39.021	1.00	69.35	N	ATOM	37026	CG	LEU D 120	139.430	103.578	44.753	1.00	50.86	C
ATOM	36977	CA	ARG D 115	146.039	104.979	39.374	1.00	69.35	C	ATOM	37027	CD1	LEU D 120	138.906	105.005	44.869	1.00	50.86	C
ATOM	36978	C	ARG D 115	145.144	104.490	40.494	1.00	69.35	C	ATOM	37028	CD2	LEU D 120	139.152	102.804	46.038	1.00	50.86	C
ATOM	36979	O	ARG D 115	144.533	103.423	40.398	1.00	69.35	O	ATOM	37029	N	VAL D 121	138.200	100.864	41.318	1.00	65.61	N
ATOM	36980	CB	ARG D 115	147.495	104.957	39.839	1.00	99.22	C	ATOM	37030	CA	VAL D 121	137.289	100.155	40.443	1.00	65.61	C
ATOM	36981	CG	ARG D 115	148.524	105.090	38.729	1.00	99.22	C	ATOM	37031	C	VAL D 121	137.570	98.667	40.455	1.00	65.61	C
ATOM	36982	CD	ARG D 115	149.912	104.866	39.290	1.00	99.22	C	ATOM	37032	O	VAL D 121	136.648	97.856	40.533	1.00	65.61	O
ATOM	36983	NE	ARG D 115	150.926	104.771	38.248	1.00	99.22	N	ATOM	37033	CB	VAL D 121	137.400	100.669	39.006	1.00	40.72	C
ATOM	36984	CZ	ARG D 115	152.151	104.289	38.442	1.00	99.22	C	ATOM	37034	CG1	VAL D 121	136.491	99.864	38.090	1.00	40.72	C
ATOM	36985	NH1	ARG D 115	152.521	103.855	39.639	1.00	99.22	N	ATOM	37035	CG2	VAL D 121	137.025	102.146	38.968	1.00	40.72	C
ATOM	36986	NH2	ARG D 115	153.014	104.241	37.438	1.00	99.22	N	ATOM	37036	N	ARG D 122	138.847	98.315	40.381	1.00	54.06	N
ATOM	36987	N	GLN D 116	145.063	105.288	41.554	1.00	59.76	C	ATOM	37037	CA	ARG D 122	139.263	96.921	40.366	1.00	54.06	C
ATOM	36988	CA	GLN D 116	144.239	104.954	42.707	1.00	59.76	C	ATOM	37038	C	ARG D 122	138.817	96.141	41.593	1.00	54.06	C
ATOM	36989	O	GLN D 116	142.809	104.692	42.259	1.00	59.76	C	ATOM	37039	O	ARG D 122	138.413	94.982	41.485	1.00	54.06	O
ATOM	36990	CB	GLN D 116	142.135	103.804	42.774	1.00	59.76	O	ATOM	37040	CB	ARG D 122	140.775	96.845	40.237	1.00	65.89	C
ATOM	36991	CG	GLN D 116	144.265	106.098	43.719	1.00	64.45	C	ATOM	37041	CG	ARG D 122	141.245	96.565	38.835	1.00	65.89	C
ATOM	36992	CD	GLN D 116	143.640	105.760	45.064	1.00	64.45	C	ATOM	37042	CD	ARG D 122	141.093	95.085	38.492	1.00	65.89	C
ATOM	36993	OE1	GLN D 116	143.674	106.930	46.019	1.00	64.45	C	ATOM	37043	NE	ARG D 122	139.790	94.730	37.940	1.00	65.89	N
ATOM	36994	NE2	GLN D 116	142.917	107.887	45.874	1.00	64.45	O	ATOM	37044	CZ	ARG D 122	139.461	93.496	37.569	1.00	65.89	C
ATOM	36995	N	ALA D 117	144.567	106.864	46.996	1.00	64.45	N	ATOM	37045	NH1	ARG D 122	140.335	92.509	37.701	1.00	65.89	N
ATOM	36996	CA	ALA D 117	142.346	105.470	41.295	1.00	49.44	N	ATOM	37046	NH2	ARG D 122	138.272	93.249	37.036	1.00	65.89	N
ATOM	36997	C	ALA D 117	140.997	105.293	40.790	1.00	49.44	C	ATOM	37047	N	HIS D 123	138.897	96.768	42.761	1.00	53.98	C
ATOM	36998	O	ALA D 117	140.902	103.901	40.192	1.00	49.44	C	ATOM	37048	CA	HIS D 123	138.486	96.115	43.993	1.00	53.98	C
ATOM	36999	CB	ALA D 117	139.951	103.164	40.458	1.00	49.44	O	ATOM	37049	O	HIS D 123	137.011	96.360	44.278	1.00	53.98	C
ATOM	37000	CB	ALA D 117	140.680	106.343	39.730	1.00	42.55	C	ATOM	37050	C	HIS D 123	136.602	96.456	45.428	1.00	53.98	O
ATOM	37001	N	ARG D 118	141.899	103.537	39.391	1.00	57.86	N	ATOM	37051	CB	HIS D 123	139.323	96.616	45.157	1.00	67.30	C
ATOM	37002	CA	ARG D 118	141.898	102.226	38.766	1.00	57.86	C	ATOM	37052	CG	HIS D 123	140.780	96.332	45.013	1.00	67.30	C
ATOM	37003	C	ARG D 118	141.733	101.151	39.830	1.00	57.86	C	ATOM	37053	ND1	HIS D 123	141.264	95.094	44.655	1.00	67.30	N
ATOM	37004	O	ARG D 118	140.847	100.305	39.737	1.00	57.86	O	ATOM	37054	CD2	HIS D 123	141.866	97.106	45.241	1.00	67.30	C
ATOM	37005	CB	ARG D 118	143.197	101.980	37.990	1.00	54.49	C	ATOM	37055	CE1	HIS D 123	142.585	95.114	44.675	1.00	67.30	C
ATOM	37006	CG	ARG D 118	143.081	100.858	36.951	1.00	54.49	C	ATOM	37056	NE2	HIS D 123	142.976	96.325	45.030	1.00	67.30	C
ATOM	37007	CD	ARG D 118	144.435	100.365	36.470	1.00	54.49	C	ATOM	37057	N	GLY D 124	136.222	96.480	43.218	1.00	64.12	N
ATOM	37008	NE	ARG D 118	144.305	99.389	35.390	1.00	54.49	N	ATOM	37058	CA	GLY D 124	134.789	96.686	43.350	1.00	64.12	C
ATOM	37009	CZ	ARG D 118	144.072	99.705	34.120	1.00	54.49	C	ATOM	37059	O	GLY D 124	134.269	97.727	44.323	1.00	64.12	C
ATOM	37010	NH1	ARG D 118	143.959	98.755	33.204	1.00	54.49	N	ATOM	37060	C	GLY D 124	133.148	97.604	44.808	1.00	64.12	O
ATOM	37011	NH2	ARG D 118	143.969	100.977	33.762	1.00	54.49	N	ATOM	37061	N	HIS D 125	135.058	98.753	44.614	1.00	58.58	N
ATOM	37012	N	GLN D 119	142.572	100.191	40.856	1.00	61.41	N	ATOM	37062	CA	HIS D 125	134.611	99.798	45.525	1.00	58.58	C
ATOM	37013	CA	GLN D 119	142.476	100.179	41.893	1.00	61.41	C	ATOM	37063	C	HIS D 125	133.708	100.797	44.798	1.00	58.58	C
ATOM	37014	C	GLN D 119	141.147	100.182	42.612	1.00	61.41	C	ATOM	37064	O	HIS D 125	133.094	101.651	45.427	1.00	58.58	O
ATOM	37015	O	GLN D 119	140.677	99.132	43.044	1.00	61.41	O	ATOM	37065	CB	HIS D 125	135.809	100.551	46.109	1.00	58.28	C



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ATOM	37066	CG	HIS D 125	136.715	99.703	46.941	1.00	58.28	C	ATOM	37116	N	ARG D 132	127.667	96.870	40.536	1.00	58.84	N
ATOM	37067	ND1	HIS D 125	136.257	98.915	47.974	1.00	58.28	N	ATOM	37117	CA	ARG D 132	129.052	97.289	40.687	1.00	58.84	C
ATOM	37068	CD2	HIS D 125	138.059	99.541	46.914	1.00	58.28	C	ATOM	37118	C	ARG D 132	129.827	96.881	39.447	1.00	58.84	C
ATOM	37069	CE1	HIS D 125	137.280	98.303	48.547	1.00	58.28	C	ATOM	37119	O	ARG D 132	129.567	95.838	38.855	1.00	58.84	O
ATOM	37070	NE2	HIS D 125	138.386	98.566	47.923	1.00	58.28	N	ATOM	37120	CB	ARG D 132	129.707	96.653	41.914	1.00	94.08	C
ATOM	37071	N	ILE D 126	133.628	100.691	43.476	1.00	47.44	N	ATOM	37121	CG	ARG D 132	130.202	95.237	41.705	1.00	94.08	C
ATOM	37072	CA	ILE D 126	132.817	101.618	42.689	1.00	47.44	C	ATOM	37122	CD	ARG D 132	131.221	94.845	42.773	1.00	94.08	C
ATOM	37073	C	ILE D 126	131.599	100.966	42.065	1.00	47.44	C	ATOM	37123	NE	ARG D 132	131.472	93.406	42.777	1.00	94.08	N
ATOM	37074	O	ILE D 126	131.639	99.798	41.697	1.00	47.44	O	ATOM	37124	CZ	ARG D 132	130.588	92.494	43.171	1.00	94.08	C
ATOM	37075	CB	ILE D 126	133.651	102.259	41.543	1.00	36.47	C	ATOM	37125	NH1	ARG D 132	129.391	92.865	43.607	1.00	94.08	N
ATOM	37076	CG2	ILE D 126	134.765	103.149	42.132	1.00	36.47	C	ATOM	37126	NH2	ARG D 132	130.888	91.205	43.105	1.00	94.08	N
ATOM	37077	CG1	ILE D 126	132.737	103.035	40.595	1.00	36.47	C	ATOM	37127	N	VAL D 133	130.775	97.718	39.052	1.00	52.74	N
ATOM	37078	CD1	ILE D 126	134.287	104.436	42.797	1.00	36.47	C	ATOM	37128	CA	VAL D 133	131.601	97.447	37.891	1.00	52.74	C
ATOM	37079	N	THR D 127	130.526	101.739	41.931	1.00	56.41	N	ATOM	37129	C	VAL D 133	133.062	97.535	38.322	1.00	52.74	C
ATOM	37080	CA	THR D 127	129.285	101.250	41.342	1.00	56.41	C	ATOM	37130	O	VAL D 133	133.434	98.407	39.105	1.00	52.74	O
ATOM	37081	C	THR D 127	128.755	102.155	40.222	1.00	56.41	C	ATOM	37131	CB	VAL D 133	131.313	98.464	36.800	1.00	41.37	C
ATOM	37082	O	THR D 127	128.889	103.376	40.273	1.00	56.41	O	ATOM	37132	CG1	VAL D 133	132.102	98.131	35.575	1.00	41.37	C
ATOM	37083	CB	THR D 127	128.184	101.103	42.411	1.00	71.36	C	ATOM	37133	CG2	VAL D 133	129.823	98.469	36.489	1.00	41.37	C
ATOM	37084	OG1	THR D 127	126.918	101.460	41.844	1.00	71.36	O	ATOM	37134	N	ASP D 134	133.892	96.626	37.832	1.00	68.70	N
ATOM	37085	CG2	THR D 127	128.462	102.004	43.595	1.00	71.36	C	ATOM	37135	CA	ASP D 134	135.298	96.633	38.210	1.00	68.70	C
ATOM	37086	N	VAL D 128	128.148	101.538	39.212	1.00	49.30	N	ATOM	37136	C	ASP D 134	136.206	96.619	36.997	1.00	68.70	C
ATOM	37087	CA	VAL D 128	127.581	102.262	38.085	1.00	49.30	C	ATOM	37137	O	ASP D 134	137.294	96.043	37.042	1.00	68.70	O
ATOM	37088	C	VAL D 128	126.084	101.936	37.976	1.00	49.30	C	ATOM	37138	CB	ASP D 134	135.609	95.414	39.063	1.00	76.94	C
ATOM	37089	O	VAL D 128	125.697	100.841	37.558	1.00	49.30	O	ATOM	37139	CG	ASP D 134	135.308	94.131	38.339	1.00	76.94	C
ATOM	37090	CB	VAL D 128	128.303	101.881	36.774	1.00	48.55	C	ATOM	37140	OD1	ASP D 134	134.172	93.998	37.864	1.00	76.94	O
ATOM	37091	CG1	VAL D 128	127.720	102.645	35.602	1.00	48.55	C	ATOM	37141	OD2	ASP D 134	136.191	93.261	38.235	1.00	76.94	O
ATOM	37092	CG2	VAL D 128	129.781	102.187	36.899	1.00	48.55	C	ATOM	37142	N	LEU D 135	135.763	97.252	35.917	1.00	54.36	N
ATOM	37093	N	ASN D 129	125.251	102.896	38.373	1.00	67.61	N	ATOM	37143	CA	LEU D 135	136.546	97.297	34.688	1.00	54.36	C
ATOM	37094	CA	ASN D 129	123.801	102.741	38.335	1.00	67.61	C	ATOM	37144	C	LEU D 135	137.019	98.719	34.452	1.00	54.36	C
ATOM	37095	C	ASN D 129	123.340	101.576	39.181	1.00	67.61	C	ATOM	37145	O	LEU D 135	136.275	99.567	33.965	1.00	54.36	O
ATOM	37096	O	ASN D 129	122.388	100.881	38.823	1.00	67.61	O	ATOM	37146	CB	LEU D 135	135.681	96.817	33.530	1.00	43.36	C
ATOM	37097	CB	ASN D 129	123.319	102.523	36.905	1.00	59.03	C	ATOM	37147	CG	LEU D 135	134.891	95.576	33.943	1.00	43.36	C
ATOM	37098	CG	ASN D 129	123.725	103.639	35.985	1.00	59.03	C	ATOM	37148	CD1	LEU D 135	133.834	95.289	32.918	1.00	43.36	C
ATOM	37099	OD1	ASN D 129	123.901	104.789	36.414	1.00	59.03	O	ATOM	37149	CD2	LEU D 135	135.832	94.392	34.113	1.00	43.36	C
ATOM	37100	ND2	ASN D 129	123.864	103.321	34.704	1.00	59.03	N	ATOM	37150	N	PRO D 136	138.270	99.002	34.799	1.00	47.07	N
ATOM	37101	N	GLY D 130	124.010	101.365	40.307	1.00	69.65	N	ATOM	37151	CA	PRO D 136	138.789	100.351	34.608	1.00	47.07	C
ATOM	37102	CA	GLY D 130	123.648	100.259	41.170	1.00	69.65	C	ATOM	37152	C	PRO D 136	138.512	100.886	33.220	1.00	47.07	C
ATOM	37103	C	GLY D 130	124.652	99.137	41.012	1.00	69.65	C	ATOM	37153	O	PRO D 136	138.480	102.093	33.015	1.00	47.07	O
ATOM	37104	O	GLY D 130	125.601	99.050	41.785	1.00	69.65	O	ATOM	37154	CB	PRO D 136	140.283	100.186	34.860	1.00	79.91	C
ATOM	37105	N	ARG D 131	124.456	98.279	40.011	1.00	77.33	N	ATOM	37155	CG	PRO D 136	140.326	99.089	35.853	1.00	79.91	C
ATOM	37106	CA	ARG D 131	125.375	97.170	39.773	1.00	77.33	C	ATOM	37156	CD	PRO D 136	139.321	98.106	35.295	1.00	79.91	C
ATOM	37107	C	ARG D 131	126.803	97.673	39.923	1.00	77.33	C	ATOM	37157	N	SER D 137	138.303	99.988	32.267	1.00	47.81	N
ATOM	37108	O	ARG D 131	127.116	98.790	39.505	1.00	77.33	O	ATOM	37158	CA	SER D 137	138.072	100.392	30.892	1.00	47.81	C
ATOM	37109	CB	ARG D 131	125.182	96.610	38.357	1.00	139.92	C	ATOM	37159	C	SER D 137	136.600	100.562	30.558	1.00	47.81	C
ATOM	37110	CG	ARG D 131	124.160	95.485	38.232	1.00	139.92	C	ATOM	37160	O	SER D 137	136.253	100.934	29.442	1.00	47.81	O
ATOM	37111	CD	ARG D 131	122.767	95.905	38.673	1.00	139.92	C	ATOM	37161	CB	SER D 137	138.711	99.372	29.950	1.00	58.67	C
ATOM	37112	NE	ARG D 131	121.753	94.933	38.266	1.00	139.92	N	ATOM	37162	OG	SER D 137	138.152	98.084	30.157	1.00	58.67	O
ATOM	37113	CZ	ARG D 131	120.458	95.026	38.558	1.00	139.92	C	ATOM	37163	N	TYR D 138	135.731	100.301	31.520	1.00	51.60	N
ATOM	37114	NH1	ARG D 131	120.004	96.049	39.270	1.00	139.92	N	ATOM	37164	CA	TYR D 138	134.298	100.436	31.284	1.00	51.60	C
ATOM	37115	NH2	ARG D 131	119.612	94.099	38.127	1.00	139.92	N	ATOM	37165	C	TYR D 138	134.976	101.845	30.772	1.00	51.60	C



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ATOM	37166	O	TYR D 138	134.519	102.838	31.276	1.00	51.60	O	ATOM	37216	CA	ASP D 144	125.090	107.143	34.569	1.00	50.81	C
ATOM	37167	CB	TYR D 138	133.541	100.167	32.586	1.00	58.25	C	ATOM	37217	C	ASP D 144	125.452	107.791	35.895	1.00	50.81	C
ATOM	37168	CG	TYR D 138	132.047	100.321	32.475	1.00	58.25	C	ATOM	37218	O	ASP D 144	126.114	108.828	35.926	1.00	50.81	C
ATOM	37169	CD1	TYR D 138	131.230	99.224	32.231	1.00	58.25	C	ATOM	37219	CB	ASP D 144	126.285	106.317	34.096	1.00	76.70	C
ATOM	37170	CD2	TYR D 138	131.451	101.570	32.611	1.00	58.25	C	ATOM	37220	OD1	ASP D 144	125.995	105.538	32.831	1.00	76.70	C
ATOM	37171	CE1	TYR D 138	129.855	99.370	32.128	1.00	58.25	C	ATOM	37221	OD2	ASP D 144	124.882	104.982	32.711	1.00	76.70	O
ATOM	37172	CE2	TYR D 138	130.080	101.728	32.506	1.00	58.25	C	ATOM	37222	N	GLU D 145	126.889	105.466	31.960	1.00	76.70	N
ATOM	37173	CZ	TYR D 138	129.287	100.628	32.266	1.00	58.25	C	ATOM	37223	CA	GLU D 145	125.307	107.639	38.332	1.00	47.51	C
ATOM	37174	OH	TYR D 138	127.926	100.794	32.156	1.00	58.25	O	ATOM	37224	C	GLU D 145	126.458	106.763	38.787	1.00	47.51	C
ATOM	37175	N	ARG D 139	133.094	101.951	29.783	1.00	44.03	N	ATOM	37225	O	GLU D 145	126.374	105.540	38.724	1.00	47.51	O
ATOM	37176	CA	ARG D 139	132.763	103.274	29.256	1.00	44.03	C	ATOM	37226	C	GLU D 145	124.119	107.447	39.270	1.00	170.90	C
ATOM	37177	C	ARG D 139	131.506	103.876	29.835	1.00	44.03	O	ATOM	37227	CB	GLU D 145	122.950	108.364	38.998	1.00	170.90	C
ATOM	37178	O	ARG D 139	130.396	103.434	29.540	1.00	44.03	O	ATOM	37228	CG	GLU D 145	121.899	108.277	40.082	1.00	170.90	C
ATOM	37179	CB	ARG D 139	132.621	103.251	27.736	1.00	44.41	C	ATOM	37229	CD	GLU D 145	121.356	107.174	40.298	1.00	170.90	C
ATOM	37180	CG	ARG D 139	132.242	104.596	27.151	1.00	44.41	C	ATOM	37230	OE1	GLU D 145	121.619	109.312	40.721	1.00	170.90	O
ATOM	37181	CD	ARG D 139	132.141	104.545	25.641	1.00	44.41	C	ATOM	37231	OE2	GLU D 145	127.534	107.384	39.239	1.00	67.13	N
ATOM	37182	NE	ARG D 139	133.441	104.340	25.007	1.00	44.41	N	ATOM	37232	N	ILE D 146	128.705	106.639	39.666	1.00	67.13	C
ATOM	37183	CZ	ARG D 139	133.595	104.001	23.727	1.00	44.41	C	ATOM	37233	CA	ILE D 146	128.968	106.848	41.151	1.00	67.13	C
ATOM	37184	NH1	ARG D 139	132.525	103.833	22.956	1.00	44.41	N	ATOM	37234	C	ILE D 146	129.569	107.845	41.551	1.00	67.13	O
ATOM	37185	NH2	ARG D 139	134.808	103.820	23.216	1.00	44.41	N	ATOM	37235	O	ILE D 146	129.906	107.073	38.816	1.00	68.23	C
ATOM	37186	N	VAL D 140	131.692	104.902	30.652	1.00	53.29	N	ATOM	37236	CB	ILE D 146	129.590	106.755	37.355	1.00	68.23	C
ATOM	37187	CA	VAL D 140	130.584	105.608	31.270	1.00	53.29	C	ATOM	37237	CG1	ILE D 146	131.178	106.381	39.279	1.00	68.23	C
ATOM	37188	C	VAL D 140	129.840	106.404	30.193	1.00	53.29	C	ATOM	37238	CG2	ILE D 146	130.448	107.475	36.370	1.00	68.23	C
ATOM	37189	O	VAL D 140	130.466	107.084	29.377	1.00	53.29	O	ATOM	37239	CD1	ILE D 146	128.515	105.894	41.963	1.00	58.03	N
ATOM	37190	CB	VAL D 140	131.122	106.580	32.326	1.00	65.30	C	ATOM	37240	CA	ALA D 147	128.663	105.985	43.410	1.00	58.03	C
ATOM	37191	CG1	VAL D 140	129.998	107.386	32.932	1.00	65.30	C	ATOM	37241	N	ALA D 147	129.707	105.062	44.010	1.00	58.03	C
ATOM	37192	CG2	VAL D 140	131.873	105.806	33.391	1.00	65.30	C	ATOM	37242	C	ALA D 147	130.271	104.211	43.334	1.00	58.03	O
ATOM	37193	N	ARG D 141	128.515	106.304	30.165	1.00	48.47	N	ATOM	37243	O	ALA D 147	127.319	105.735	44.078	1.00	52.34	N
ATOM	37194	CA	ARG D 141	127.727	107.063	29.196	1.00	48.47	C	ATOM	37244	CB	ALA D 147	129.955	105.257	45.298	1.00	52.34	C
ATOM	37195	C	ARG D 141	126.974	108.186	29.912	1.00	48.47	C	ATOM	37245	N	VAL D 148	130.901	104.452	46.045	1.00	52.34	C
ATOM	37196	O	ARG D 141	126.831	108.167	31.133	1.00	48.47	O	ATOM	37246	CA	VAL D 148	130.096	103.297	46.648	1.00	52.34	C
ATOM	37197	CB	ARG D 141	126.716	106.169	28.493	1.00	100.42	C	ATOM	37247	C	VAL D 148	128.904	103.443	46.945	1.00	52.34	O
ATOM	37198	CG	ARG D 141	127.320	105.087	27.641	1.00	100.42	C	ATOM	37248	O	VAL D 148	131.548	105.286	47.167	1.00	47.25	C
ATOM	37199	CD	ARG D 141	126.207	104.360	26.934	1.00	100.42	C	ATOM	37249	CB	VAL D 148	132.650	104.507	47.837	1.00	47.25	C
ATOM	37200	NE	ARG D 141	125.125	104.082	27.869	1.00	100.42	N	ATOM	37250	CG1	VAL D 148	132.095	106.584	46.588	1.00	47.25	C
ATOM	37201	CZ	ARG D 141	123.932	103.619	27.520	1.00	100.42	C	ATOM	37251	CG2	VAL D 148	130.743	102.148	46.813	1.00	74.03	N
ATOM	37202	NH1	ARG D 141	123.659	103.377	26.243	1.00	100.42	N	ATOM	37252	N	ALA D 149	130.098	100.956	47.359	1.00	74.03	C
ATOM	37203	NH2	ARG D 141	123.007	103.411	28.450	1.00	100.42	N	ATOM	37253	CA	ALA D 149	129.571	101.148	48.777	1.00	74.03	C
ATOM	37204	N	PRO D 142	126.487	109.187	29.166	1.00	60.03	N	ATOM	37254	C	ALA D 149	130.304	101.578	49.666	1.00	74.03	O
ATOM	37205	CA	PRO D 142	125.754	110.281	29.811	1.00	60.03	C	ATOM	37255	O	ALA D 149	131.078	99.793	47.330	1.00	68.13	C
ATOM	37206	C	PRO D 142	124.485	109.792	30.516	1.00	60.03	C	ATOM	37256	CB	ALA D 149	128.300	100.820	48.988	1.00	70.33	N
ATOM	37207	O	PRO D 142	123.644	109.112	29.926	1.00	60.03	O	ATOM	37257	N	GLU D 150	127.698	100.950	50.306	1.00	70.33	C
ATOM	37208	CB	PRO D 142	125.447	111.217	28.649	1.00	66.47	C	ATOM	37258	CA	GLU D 150	128.712	100.345	51.256	1.00	70.33	C
ATOM	37209	CG	PRO D 142	126.619	111.006	27.745	1.00	66.47	C	ATOM	37259	C	GLU D 150	129.206	101.005	52.168	1.00	70.33	O
ATOM	37210	CD	PRO D 142	126.756	109.506	27.755	1.00	66.47	C	ATOM	37260	O	GLU D 150	126.391	100.162	50.383	1.00	179.45	C
ATOM	37211	N	GLY D 143	124.355	110.141	31.787	1.00	65.20	N	ATOM	37261	CB	GLU D 150	125.461	100.395	49.209	1.00	179.45	C
ATOM	37212	CA	GLY D 143	123.192	109.724	32.537	1.00	65.20	C	ATOM	37262	CG	GLU D 150	126.089	99.985	47.891	1.00	179.45	C
ATOM	37213	C	GLY D 143	123.564	108.797	33.672	1.00	65.20	O	ATOM	37263	CD	GLU D 150	126.461	98.801	47.750	1.00	179.45	O
ATOM	37214	O	GLY D 143	122.863	108.740	34.673	1.00	65.20	C	ATOM	37264	OE1	GLU D 150	126.220	100.850	46.999	1.00	179.45	O
ATOM	37215	N	ASP D 144	124.675	108.083	33.538	1.00	50.81	N	ATOM	37265	OE2	GLU D 150						



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ATOM	37266	N	LYS D 151	129.051	99.089	51.001	1.00	57.61	N	ATOM	37316	OE2	GLU D 156	142.394	106.086	59.033	1.00	140.64	O
ATOM	37267	CA	LYS D 151	130.008	98.377	51.827	1.00	57.61	C	ATOM	37317	N	LEU D 157	140.211	105.596	53.524	1.00	67.80	N
ATOM	37268	C	LYS D 151	131.309	99.151	51.996	1.00	57.61	C	ATOM	37318	CA	LEU D 157	140.636	106.269	52.299	1.00	67.80	C
ATOM	37269	O	LYS D 151	131.898	99.164	53.074	1.00	57.61	O	ATOM	37319	C	LEU D 157	139.471	106.979	51.614	1.00	67.80	C
ATOM	37270	CB	LYS D 151	130.312	97.008	51.214	1.00	101.81	C	ATOM	37320	O	LEU D 157	139.552	108.167	51.312	1.00	67.80	O
ATOM	37271	CG	LYS D 151	129.110	96.086	51.103	1.00	101.81	C	ATOM	37321	CB	LEU D 157	141.254	105.245	51.341	1.00	86.71	C
ATOM	37272	CD	LYS D 151	128.073	96.630	50.133	1.00	101.81	C	ATOM	37322	CG	LEU D 157	141.950	105.706	50.059	1.00	86.71	C
ATOM	37273	CE	LYS D 151	126.812	95.780	50.139	1.00	101.81	C	ATOM	37323	CD1	LEU D 157	142.596	104.502	49.394	1.00	86.71	C
ATOM	37274	NZ	LYS D 151	125.749	96.360	49.270	1.00	101.81	N	ATOM	37324	CD2	LEU D 157	140.962	106.361	49.118	1.00	86.71	C
ATOM	37275	N	SER D 152	131.749	99.810	50.931	1.00	70.49	N	ATOM	37325	N	ILE D 158	138.390	106.253	51.363	1.00	73.79	N
ATOM	37276	CA	SER D 152	133.011	100.544	50.957	1.00	70.49	C	ATOM	37326	CA	ILE D 158	137.247	106.862	50.710	1.00	73.79	C
ATOM	37277	C	SER D 152	132.940	101.961	51.509	1.00	70.49	C	ATOM	37327	C	ILE D 158	136.660	107.966	51.566	1.00	73.79	C
ATOM	37278	O	SER D 152	133.977	102.558	51.814	1.00	70.49	O	ATOM	37328	O	ILE D 158	136.105	108.935	51.040	1.00	73.79	O
ATOM	37279	CB	SER D 152	133.602	100.593	49.545	1.00	76.33	C	ATOM	37329	CB	ILE D 158	136.185	105.817	50.358	1.00	57.67	C
ATOM	37280	OG	SER D 152	133.671	99.301	48.967	1.00	76.33	O	ATOM	37330	CG1	ILE D 158	136.726	104.952	49.220	1.00	57.67	C
ATOM	37281	N	ARG D 153	131.729	102.499	51.642	1.00	74.44	N	ATOM	37331	CG2	ILE D 158	134.884	106.489	49.939	1.00	57.67	C
ATOM	37282	CA	ARG D 153	131.561	103.871	52.123	1.00	74.44	C	ATOM	37332	CD1	ILE D 158	135.742	103.981	48.659	1.00	57.67	C
ATOM	37283	C	ARG D 153	132.224	104.161	53.465	1.00	74.44	C	ATOM	37333	N	ARG D 159	136.786	107.827	52.884	1.00	63.18	N
ATOM	37284	O	ARG D 153	132.294	105.311	53.891	1.00	74.44	O	ATOM	37334	CA	ARG D 159	136.299	108.865	53.788	1.00	63.18	C
ATOM	37285	CB	ARG D 153	130.074	104.238	52.190	1.00	119.23	C	ATOM	37335	C	ARG D 159	137.193	110.078	53.570	1.00	63.18	C
ATOM	37286	CG	ARG D 153	129.659	105.259	51.140	1.00	119.23	C	ATOM	37336	O	ARG D 159	136.733	111.140	53.146	1.00	63.18	O
ATOM	37287	CD	ARG D 153	128.306	105.874	51.442	1.00	119.23	C	ATOM	37337	CB	ARG D 159	136.399	108.408	55.243	1.00	154.31	C
ATOM	37288	NE	ARG D 153	127.213	104.956	51.143	1.00	119.23	N	ATOM	37338	CG	ARG D 159	135.366	107.377	55.646	1.00	154.31	C
ATOM	37289	CZ	ARG D 153	126.760	104.704	49.918	1.00	119.23	C	ATOM	37339	CD	ARG D 159	135.537	106.995	57.102	1.00	154.31	C
ATOM	37290	NH1	ARG D 153	127.303	105.307	48.865	1.00	119.23	N	ATOM	37340	CE	ARG D 159	134.456	106.136	57.572	1.00	154.31	N
ATOM	37291	NH2	ARG D 153	125.761	103.846	49.743	1.00	119.23	N	ATOM	37341	NZ	ARG D 159	134.405	105.602	58.787	1.00	154.31	C
ATOM	37292	N	ASN D 154	132.728	103.123	54.122	1.00	80.41	N	ATOM	37342	NH1	ARG D 159	135.378	105.838	59.656	1.00	154.31	N
ATOM	37293	CA	ASN D 154	133.365	103.293	55.419	1.00	80.41	C	ATOM	37343	NH2	ARG D 159	133.379	104.835	59.135	1.00	154.31	N
ATOM	37294	C	ASN D 154	134.870	103.192	55.349	1.00	80.41	C	ATOM	37344	N	GLN D 160	138.481	109.893	53.843	1.00	69.02	N
ATOM	37295	O	ASN D 154	135.553	103.315	56.363	1.00	80.41	O	ATOM	37345	CA	GLN D 160	139.477	110.942	53.679	1.00	69.02	C
ATOM	37296	CB	ASN D 154	132.832	102.254	56.399	1.00	122.27	C	ATOM	37346	C	GLN D 160	139.314	111.684	52.363	1.00	69.02	C
ATOM	37297	CG	ASN D 154	131.355	102.409	56.645	1.00	122.27	C	ATOM	37347	O	GLN D 160	139.347	112.912	52.336	1.00	69.02	O
ATOM	37298	OD1	ASN D 154	130.899	103.462	57.093	1.00	122.27	O	ATOM	37348	CB	GLN D 160	140.887	110.353	53.746	1.00	117.46	C
ATOM	37299	ND2	ASN D 154	130.591	101.364	56.346	1.00	122.27	N	ATOM	37349	CG	GLN D 160	141.275	109.813	55.110	1.00	117.46	C
ATOM	37300	N	LEU D 155	135.394	102.972	54.153	1.00	84.31	N	ATOM	37350	CD	GLN D 160	142.677	109.235	55.127	1.00	117.46	C
ATOM	37301	CA	LEU D 155	136.834	102.851	53.993	1.00	84.31	C	ATOM	37351	OE1	GLN D 160	143.628	109.874	54.677	1.00	117.46	O
ATOM	37302	C	LEU D 155	137.515	104.179	54.282	1.00	84.31	C	ATOM	37352	NE2	GLN D 160	142.814	108.023	55.654	1.00	117.46	N
ATOM	37303	O	LEU D 155	137.225	105.200	53.646	1.00	84.31	O	ATOM	37353	N	ASN D 161	139.130	110.940	51.275	1.00	77.77	N
ATOM	37304	CB	LEU D 155	137.158	102.359	52.585	1.00	94.13	C	ATOM	37354	CA	ASN D 161	138.985	111.548	49.956	1.00	77.77	C
ATOM	37305	CG	LEU D 155	136.513	100.993	52.331	1.00	94.13	C	ATOM	37355	C	ASN D 161	137.715	112.355	49.776	1.00	77.77	C
ATOM	37306	CD1	LEU D 155	136.641	100.599	50.876	1.00	94.13	C	ATOM	37356	O	ASN D 161	137.772	113.551	49.503	1.00	77.77	O
ATOM	37307	CD2	LEU D 155	137.170	99.964	53.235	1.00	94.13	C	ATOM	37357	CB	ASN D 161	139.044	110.490	48.853	1.00	66.37	C
ATOM	37308	N	GLU D 156	138.406	104.153	55.268	1.00	69.21	N	ATOM	37358	CG	ASN D 161	140.431	109.921	48.657	1.00	66.37	C
ATOM	37309	CA	GLU D 156	139.145	105.338	55.682	1.00	69.21	C	ATOM	37359	OD1	ASN D 161	141.383	110.316	49.334	1.00	66.37	O
ATOM	37310	C	GLU D 156	139.513	106.204	54.480	1.00	69.21	C	ATOM	37360	ND2	ASN D 161	140.554	108.983	47.722	1.00	66.37	N
ATOM	37311	O	GLU D 156	139.164	107.384	54.419	1.00	69.21	O	ATOM	37361	N	LEU D 162	136.563	111.712	49.916	1.00	76.71	N
ATOM	37312	CB	GLU D 156	140.406	104.918	56.435	1.00	140.64	C	ATOM	37362	CA	LEU D 162	135.328	112.444	49.725	1.00	76.71	C
ATOM	37313	CG	GLU D 156	141.217	106.071	56.972	1.00	140.64	C	ATOM	37363	C	LEU D 162	135.163	113.569	50.735	1.00	76.71	C
ATOM	37314	CD	GLU D 156	142.335	105.611	57.880	1.00	140.64	C	ATOM	37364	O	LEU D 162	134.297	114.434	50.571	1.00	76.71	O
ATOM	37315	OE1	GLU D 156	143.153	104.775	57.442	1.00	140.64	O	ATOM	37365	CR	LEU D 162	134.126	111.505	49.752	1.00	11.81	C



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ATOM	37366	CG	LEU D 162	133.359	111.581	48.427	1.00	81.81	C	ATOM	37416	CA	LYS D 169	134.083	121.972	42.344	1.00	105.10	C
ATOM	37367	CD1	LEU D 162	132.229	110.596	48.422	1.00	81.81	C	ATOM	37417	C	LYS D 169	134.328	120.747	41.462	1.00	105.10	C
ATOM	37368	CD2	LEU D 162	132.823	112.985	48.212	1.00	81.81	C	ATOM	37418	O	LYS D 169	135.248	119.974	41.716	1.00	105.10	O
ATOM	37369	N	GLU D 163	135.992	113.567	51.777	1.00	92.56	N	ATOM	37419	CB	LYS D 169	134.206	123.241	41.497	1.00	98.13	C
ATOM	37370	CA	GLU D 163	135.934	114.633	52.771	1.00	92.56	C	ATOM	37420	CG	LYS D 169	133.662	124.499	42.150	1.00	98.13	C
ATOM	37371	C	GLU D 163	136.547	115.871	52.125	1.00	92.56	C	ATOM	37421	CD	LYS D 169	133.686	125.675	41.171	1.00	98.13	C
ATOM	37372	O	GLU D 163	135.913	116.923	52.026	1.00	92.56	O	ATOM	37422	CE	LYS D 169	132.900	126.879	41.695	1.00	98.13	C
ATOM	37373	CB	GLU D 163	136.728	114.261	54.026	1.00	116.29	C	ATOM	37423	NZ	LYS D 169	132.889	128.024	40.737	1.00	98.13	N
ATOM	37374	CG	GLU D 163	136.944	115.426	55.002	1.00	116.29	C	ATOM	37424	N	VAL D 170	133.517	120.566	40.425	1.00	72.92	N
ATOM	37375	CD	GLU D 163	135.645	116.011	55.553	1.00	116.29	C	ATOM	37425	CA	VAL D 170	133.687	119.419	39.535	1.00	72.92	C
ATOM	37376	OE1	GLU D 163	135.708	117.047	56.251	1.00	116.29	O	ATOM	37426	C	VAL D 170	133.389	119.782	38.080	1.00	72.92	C
ATOM	37377	OE2	GLU D 163	134.566	115.437	55.297	1.00	116.29	O	ATOM	37427	O	VAL D 170	132.553	120.643	37.809	1.00	72.92	C
ATOM	37378	N	ALA D 164	137.788	115.731	51.677	1.00	78.69	N	ATOM	37428	CB	VAL D 170	132.780	118.241	39.986	1.00	69.31	C
ATOM	37379	CA	ALA D 164	138.489	116.822	51.023	1.00	78.69	C	ATOM	37429	CG1	VAL D 170	131.872	117.786	38.844	1.00	69.31	C
ATOM	37380	C	ALA D 164	137.677	117.316	49.828	1.00	78.69	C	ATOM	37430	CG2	VAL D 170	133.640	117.093	40.482	1.00	69.31	C
ATOM	37381	O	ALA D 164	137.926	118.400	49.301	1.00	78.69	O	ATOM	37431	N	GLY D 171	134.073	119.118	37.151	1.00	48.07	N
ATOM	37382	CB	ALA D 164	139.853	116.349	50.560	1.00	40.09	C	ATOM	37432	CA	GLY D 171	133.880	119.393	35.735	1.00	48.07	C
ATOM	37383	N	MET D 165	136.708	116.517	49.396	1.00	64.73	N	ATOM	37433	C	GLY D 171	132.447	119.679	35.326	1.00	48.07	C
ATOM	37384	CA	MET D 165	135.881	116.901	48.263	1.00	64.73	C	ATOM	37434	O	GLY D 171	131.530	119.030	35.809	1.00	48.07	O
ATOM	37385	C	MET D 165	134.857	117.951	48.629	1.00	64.73	C	ATOM	37435	N	PRO D 172	132.221	120.645	34.427	1.00	52.44	N
ATOM	37386	O	MET D 165	134.313	118.617	47.749	1.00	64.73	O	ATOM	37436	CA	PRO D 172	130.876	121.011	33.959	1.00	52.44	C
ATOM	37387	CB	MET D 165	135.179	115.686	47.652	1.00	87.46	C	ATOM	37437	C	PRO D 172	130.097	119.896	33.263	1.00	52.44	C
ATOM	37388	CG	MET D 165	135.964	115.062	46.511	1.00	87.46	C	ATOM	37438	O	PRO D 172	128.932	120.087	32.886	1.00	52.44	O
ATOM	37389	SD	MET D 165	136.591	116.329	45.371	1.00	87.46	S	ATOM	37439	CB	PRO D 172	131.144	122.194	33.030	1.00	50.85	C
ATOM	37390	CE	MET D 165	135.163	116.638	44.352	1.00	87.46	C	ATOM	37440	CD	PRO D 172	132.521	121.898	32.508	1.00	50.85	C
ATOM	37391	N	LYS D 166	134.579	118.086	49.925	1.00	97.15	N	ATOM	37441	CD	PRO D 172	133.248	121.452	33.751	1.00	50.85	C
ATOM	37392	CA	LYS D 166	133.641	119.099	50.395	1.00	97.15	C	ATOM	37442	N	TRP D 173	130.743	118.745	33.080	1.00	59.64	N
ATOM	37393	C	LYS D 166	134.292	120.428	50.032	1.00	97.15	C	ATOM	37443	CA	TRP D 173	130.099	117.597	32.438	1.00	59.64	C
ATOM	37394	O	LYS D 166	135.365	120.756	50.536	1.00	97.15	O	ATOM	37444	C	TRP D 173	129.776	116.572	33.530	1.00	59.64	C
ATOM	37395	CB	LYS D 166	133.468	119.015	51.912	1.00	106.61	C	ATOM	37445	O	TRP D 173	129.189	115.519	33.274	1.00	59.64	O
ATOM	37396	CG	LYS D 166	132.752	117.774	52.410	1.00	106.61	C	ATOM	37446	CB	TRP D 173	131.020	116.998	31.340	1.00	48.67	C
ATOM	37397	CD	LYS D 166	132.749	117.735	53.936	1.00	106.61	C	ATOM	37447	CG	TRP D 173	132.292	116.304	31.828	1.00	48.67	C
ATOM	37398	CE	LYS D 166	131.991	116.529	54.473	1.00	106.61	C	ATOM	37448	CD1	TRP D 173	132.436	114.981	32.149	1.00	48.67	C
ATOM	37399	NZ	LYS D 166	132.081	116.444	55.959	1.00	106.61	N	ATOM	37449	CD2	TRP D 173	133.554	116.920	32.108	1.00	48.67	C
ATOM	37400	N	GLY D 167	133.652	121.186	49.149	1.00	114.08	N	ATOM	37450	NE1	TRP D 173	133.705	114.741	32.620	1.00	48.67	C
ATOM	37401	CA	GLY D 167	134.218	122.454	48.732	1.00	114.08	C	ATOM	37451	CE2	TRP D 173	134.410	115.915	32.604	1.00	48.67	C
ATOM	37402	C	GLY D 167	134.614	122.391	47.270	1.00	114.08	C	ATOM	37452	CE3	TRP D 173	134.044	118.224	31.987	1.00	48.67	C
ATOM	37403	O	GLY D 167	134.062	123.123	46.448	1.00	114.08	O	ATOM	37453	CZ2	TRP D 173	135.733	116.177	32.983	1.00	48.67	C
ATOM	37404	N	ARG D 168	135.562	121.510	46.944	1.00	71.05	N	ATOM	37454	CZ3	TRP D 173	135.364	118.487	32.361	1.00	48.67	C
ATOM	37405	CA	ARG D 168	136.037	121.336	45.567	1.00	71.05	C	ATOM	37455	CH2	TRP D 173	136.191	117.466	32.853	1.00	48.67	C
ATOM	37406	C	ARG D 168	134.900	121.275	44.541	1.00	71.05	C	ATOM	37456	N	LEU D 174	130.152	116.922	34.756	1.00	66.13	N
ATOM	37407	O	ARG D 168	133.893	120.599	44.761	1.00	71.05	O	ATOM	37457	CA	LEU D 174	129.933	116.083	35.925	1.00	66.13	C
ATOM	37408	CB	ARG D 168	136.853	120.045	45.438	1.00	109.37	C	ATOM	37458	C	LEU D 174	129.115	116.802	36.994	1.00	66.13	C
ATOM	37409	CG	ARG D 168	138.230	120.033	46.091	1.00	109.37	C	ATOM	37459	O	LEU D 174	128.830	117.997	36.888	1.00	66.13	O
ATOM	37410	CD	ARG D 168	138.930	118.730	45.698	1.00	109.37	C	ATOM	37460	CB	LEU D 174	131.268	115.700	36.548	1.00	41.97	C
ATOM	37411	NE	ARG D 168	140.264	118.573	46.271	1.00	109.37	N	ATOM	37461	CG	LEU D 174	132.297	115.082	35.625	1.00	41.97	C
ATOM	37412	CZ	ARG D 168	141.001	117.470	46.142	1.00	109.37	C	ATOM	37462	CD1	LEU D 174	133.604	114.860	36.382	1.00	41.97	C
ATOM	37413	NH1	ARG D 168	140.529	116.433	45.462	1.00	109.37	N	ATOM	37463	CD2	LEU D 174	131.740	113.777	35.100	1.00	41.97	C
ATOM	37414	NH2	ARG D 168	142.206	117.393	46.698	1.00	109.37	N	ATOM	37464	N	SER D 175	128.757	116.054	38.032	1.00	71.44	N
ATOM	37415	N	LYS D 169	135.075	121.972	43.418	1.00	105.10	N	ATOM	37465	CA	SER D 175	128.005	116.572	39.167	1.00	71.44	C



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ATOM	37466	C	SER D 175	128.278	115.620	40.315	1.00	71.44	C	ATOM	37516	C	LYS D 182	127.881	110.802	43.464	1.00	69.28	C
ATOM	37467	O	SER D 175	128.096	114.412	40.181	1.00	71.44	O	ATOM	37517	O	LYS D 182	128.267	111.895	43.881	1.00	69.28	O
ATOM	37468	CB	SER D 175	126.509	116.607	38.865	1.00	68.39	C	ATOM	37518	CB	LYS D 182	125.791	109.910	44.355	1.00	81.13	C
ATOM	37469	OG	SER D 175	125.983	115.303	38.736	1.00	68.39	O	ATOM	37519	OG	LYS D 182	124.990	108.949	45.168	1.00	81.13	C
ATOM	37470	N	LEU D 176	128.738	116.156	41.434	1.00	87.93	N	ATOM	37520	CD	LYS D 182	123.527	109.186	44.850	1.00	81.13	C
ATOM	37471	CA	LEU D 176	129.040	115.323	42.586	1.00	87.93	C	ATOM	37521	CE	LYS D 182	122.631	108.074	45.360	1.00	81.13	C
ATOM	37472	C	LEU D 176	128.116	115.591	43.758	1.00	87.93	C	ATOM	37522	NZ	LYS D 182	121.224	108.254	44.881	1.00	81.13	N
ATOM	37473	O	LEU D 176	127.730	116.730	44.018	1.00	87.93	O	ATOM	37523	N	GLY D 183	127.914	110.460	42.181	1.00	71.68	N
ATOM	37474	CB	LEU D 176	130.482	115.543	43.039	1.00	44.00	C	ATOM	37524	CA	GLY D 183	128.411	111.374	41.169	1.00	71.68	C
ATOM	37475	CG	LEU D 176	130.921	114.790	44.302	1.00	44.00	C	ATOM	37525	C	GLY D 183	127.612	111.062	39.929	1.00	71.68	C
ATOM	37476	CD1	LEU D 176	130.793	113.290	44.072	1.00	44.00	C	ATOM	37526	O	GLY D 183	127.140	109.935	39.798	1.00	71.68	O
ATOM	37477	CD2	LEU D 176	132.362	115.139	44.656	1.00	44.00	C	ATOM	37527	N	LYS D 184	127.433	112.024	39.028	1.00	67.42	N
ATOM	37478	N	ASP D 177	127.758	114.528	44.464	1.00	83.05	N	ATOM	37528	CA	LYS D 184	126.667	111.742	37.820	1.00	67.42	C
ATOM	37479	CA	ASP D 177	126.908	114.642	45.634	1.00	83.05	C	ATOM	37529	C	LYS D 184	127.323	112.259	36.549	1.00	67.42	C
ATOM	37480	C	ASP D 177	127.730	114.128	46.803	1.00	83.05	C	ATOM	37530	O	LYS D 184	127.780	113.395	36.491	1.00	67.42	O
ATOM	37481	O	ASP D 177	127.537	113.007	47.266	1.00	83.05	O	ATOM	37531	CB	LYS D 184	125.260	112.311	37.940	1.00	79.78	C
ATOM	37482	CB	ASP D 177	125.645	113.808	45.458	1.00	123.62	C	ATOM	37532	CG	LYS D 184	124.234	111.499	37.187	1.00	79.78	C
ATOM	37483	CG	ASP D 177	124.824	113.744	46.716	1.00	123.62	O	ATOM	37533	CD	LYS D 184	122.838	112.024	37.430	1.00	79.78	C
ATOM	37484	OD1	ASP D 177	125.035	112.808	47.513	1.00	123.62	O	ATOM	37534	CE	LYS D 184	121.814	111.246	36.621	1.00	79.78	C
ATOM	37485	OD2	ASP D 177	123.983	114.641	46.920	1.00	123.62	O	ATOM	37535	NZ	LYS D 184	120.457	111.868	36.695	1.00	79.78	N
ATOM	37486	N	VAL D 178	128.665	114.954	47.262	1.00	66.89	N	ATOM	37536	N	PHE D 185	127.364	111.404	35.532	1.00	52.42	N
ATOM	37487	CA	VAL D 178	129.539	114.579	48.360	1.00	66.89	C	ATOM	37537	CA	PHE D 185	127.968	111.730	34.240	1.00	52.42	C
ATOM	37488	C	VAL D 178	128.714	113.930	49.456	1.00	66.89	C	ATOM	37538	C	PHE D 185	126.916	112.437	33.388	1.00	52.42	C
ATOM	37489	O	VAL D 178	129.195	113.059	50.182	1.00	66.89	O	ATOM	37539	O	PHE D 185	126.070	111.804	32.757	1.00	52.42	O
ATOM	37490	CB	VAL D 178	130.270	115.803	48.933	1.00	63.54	C	ATOM	37540	CB	PHE D 185	128.437	110.440	33.545	1.00	49.61	C
ATOM	37491	CG1	VAL D 178	131.328	115.357	49.936	1.00	63.54	C	ATOM	37541	CG	PHE D 185	129.469	110.657	32.483	1.00	49.61	C
ATOM	37492	CG2	VAL D 178	130.908	116.594	47.815	1.00	63.54	C	ATOM	37542	CD1	PHE D 185	130.734	111.126	32.814	1.00	49.61	C
ATOM	37493	N	GLU D 179	127.459	114.357	49.558	1.00	80.33	N	ATOM	37543	CD2	PHE D 185	129.182	110.387	31.154	1.00	49.61	C
ATOM	37494	CA	GLU D 179	126.535	113.825	50.552	1.00	80.33	C	ATOM	37544	CE1	PHE D 185	131.709	111.324	31.831	1.00	49.61	C
ATOM	37495	C	GLU D 179	126.548	112.297	50.566	1.00	80.33	C	ATOM	37545	CE2	PHE D 185	130.147	110.582	30.168	1.00	49.61	C
ATOM	37496	O	GLU D 179	127.212	111.677	51.396	1.00	80.33	O	ATOM	37546	CZ	PHE D 185	131.416	111.053	30.510	1.00	49.61	C
ATOM	37497	CB	GLU D 179	125.114	114.308	50.249	1.00	193.52	C	ATOM	37547	N	LEU D 186	126.993	113.760	33.374	1.00	44.93	N
ATOM	37498	CG	GLU D 179	124.971	115.813	50.151	1.00	193.52	C	ATOM	37548	CA	LEU D 186	126.054	114.593	32.644	1.00	44.93	C
ATOM	37499	CD	GLU D 179	125.245	116.503	51.467	1.00	193.52	C	ATOM	37549	C	LEU D 186	126.183	114.538	31.126	1.00	44.93	C
ATOM	37500	OE1	GLU D 179	126.362	116.345	52.000	1.00	193.52	O	ATOM	37550	O	LEU D 186	125.199	114.321	30.429	1.00	44.93	O
ATOM	37501	OE2	GLU D 179	124.341	117.204	51.969	1.00	193.52	O	ATOM	37551	CB	LEU D 186	126.197	116.041	33.134	1.00	46.66	C
ATOM	37502	N	GLY D 180	125.808	111.706	49.632	1.00	100.77	N	ATOM	37552	CG	LEU D 186	126.088	116.213	34.659	1.00	46.66	C
ATOM	37503	CA	GLY D 180	125.707	110.261	49.548	1.00	100.77	C	ATOM	37553	CD1	LEU D 186	126.675	117.523	35.112	1.00	46.66	C
ATOM	37504	C	GLY D 180	126.814	109.597	48.766	1.00	100.77	C	ATOM	37554	CD2	LEU D 186	124.646	116.137	35.048	1.00	46.66	C
ATOM	37505	O	GLY D 180	126.691	108.437	48.367	1.00	100.77	O	ATOM	37555	N	ARG D 187	127.389	114.727	30.609	1.00	65.24	N
ATOM	37506	N	MET D 181	127.901	103.329	48.552	1.00	71.16	N	ATOM	37556	CA	ARG D 187	127.588	114.724	29.163	1.00	65.24	C
ATOM	37507	CA	MET D 181	129.030	109.795	47.813	1.00	71.16	C	ATOM	37557	C	ARG D 187	129.059	114.489	28.834	1.00	65.24	C
ATOM	37508	C	MET D 181	128.562	109.258	46.458	1.00	71.16	C	ATOM	37558	O	ARG D 187	129.927	114.591	29.711	1.00	65.24	O
ATOM	37509	O	MET D 181	128.847	108.123	46.086	1.00	71.16	O	ATOM	37559	CB	ARG D 187	127.187	116.082	28.605	1.00	62.78	C
ATOM	37510	CB	MET D 181	129.700	108.697	48.637	1.00	73.68	C	ATOM	37560	CG	ARG D 187	128.142	117.179	29.084	1.00	62.78	C
ATOM	37511	CG	MET D 181	129.998	109.137	50.066	1.00	73.68	C	ATOM	37561	CD	ARG D 187	127.659	118.584	28.789	1.00	62.78	C
ATOM	37512	SD	MET D 181	131.026	108.000	51.030	1.00	73.68	S	ATOM	37562	NE	ARG D 187	128.550	119.589	29.367	1.00	62.78	N
ATOM	37513	CE	MET D 181	132.531	108.940	51.267	1.00	73.68	C	ATOM	37563	CZ	ARG D 187	129.720	119.938	28.843	1.00	62.78	C
ATOM	37514	N	LYS D 182	127.816	110.092	45.741	1.00	69.28	N	ATOM	37564	NH1	ARG D 187	130.138	119.367	27.724	1.00	62.78	N
ATOM	37515	CA	LYS D 182	127.305	109.768	44.418	1.00	69.28	C	ATOM	37565	NH2	ARG D 187	130.479	120.048	29.440	1.00	62.78	N



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ATOM	37566	N	LEU D 188	129.342	114.193	27.569	1.00	54.04	N	ATOM	37616	OD2	ASP D 193	133.215	120.352	27.596	1.00	77.96	O
ATOM	37567	CA	LEU D 188	130.724	113.988	27.138	1.00	54.04	C	ATOM	37617	N	LEU D 194	138.203	120.259	28.741	1.00	60.50	N
ATOM	37568	C	LEU D 188	131.476	115.305	27.177	1.00	54.04	C	ATOM	37618	CA	LEU D 194	139.484	119.702	29.163	1.00	60.50	C
ATOM	37569	O	LEU D 188	131.077	116.270	26.529	1.00	54.04	O	ATOM	37619	C	LEU D 194	140.605	120.722	29.023	1.00	60.50	C
ATOM	37570	CB	LEU D 188	130.764	113.463	25.712	1.00	43.72	C	ATOM	37620	O	LEU D 194	140.556	121.603	28.163	1.00	60.50	O
ATOM	37571	CG	LEU D 188	130.291	112.033	25.537	1.00	43.72	C	ATOM	37621	CB	LEU D 194	139.831	118.468	28.320	1.00	51.90	C
ATOM	37572	CD1	LEU D 188	130.057	111.758	24.071	1.00	43.72	C	ATOM	37622	CG	LEU D 194	139.103	117.155	28.581	1.00	51.90	C
ATOM	37573	CD2	LEU D 188	131.332	111.087	26.135	1.00	43.72	C	ATOM	37623	CD1	LEU D 194	139.481	116.651	28.954	1.00	51.90	C
ATOM	37574	N	PRO D 189	132.574	115.369	27.935	1.00	53.68	N	ATOM	37624	CD2	LEU D 194	137.603	117.348	28.493	1.00	51.90	C
ATOM	37575	CA	PRO D 189	133.328	116.624	27.994	1.00	53.68	C	ATOM	37625	N	ALA D 195	141.618	120.597	29.868	1.00	67.60	N
ATOM	37576	C	PRO D 189	133.823	116.986	26.609	1.00	53.68	C	ATOM	37626	CA	ALA D 195	142.758	121.497	29.817	1.00	67.60	C
ATOM	37577	O	PRO D 189	134.062	116.108	25.778	1.00	53.68	O	ATOM	37627	C	ALA D 195	144.022	120.657	29.872	1.00	67.60	C
ATOM	37578	CB	PRO D 189	134.473	116.298	28.947	1.00	44.14	C	ATOM	37628	O	ALA D 195	144.903	120.886	30.701	1.00	67.60	O
ATOM	37579	CG	PRO D 189	134.686	114.851	28.717	1.00	44.14	C	ATOM	37629	CB	ALA D 195	142.719	122.452	30.981	1.00	44.44	C
ATOM	37580	CD	PRO D 189	133.272	114.306	28.668	1.00	44.14	C	ATOM	37630	N	LEU D 196	144.102	119.673	28.987	1.00	53.13	N
ATOM	37581	N	ASP D 190	133.964	118.280	26.356	1.00	77.94	N	ATOM	37631	CA	LEU D 196	145.250	118.792	28.940	1.00	53.13	C
ATOM	37582	CA	ASP D 190	134.434	118.759	25.061	1.00	77.94	C	ATOM	37632	C	LEU D 196	146.371	119.477	28.191	1.00	53.13	C
ATOM	37583	C	ASP D 190	135.905	119.143	25.223	1.00	77.94	C	ATOM	37633	O	LEU D 196	146.122	120.202	27.234	1.00	53.13	O
ATOM	37584	O	ASP D 190	136.431	119.140	26.336	1.00	77.94	O	ATOM	37634	CB	LEU D 196	144.865	117.510	28.217	1.00	69.15	C
ATOM	37585	CB	ASP D 190	133.607	119.974	24.631	1.00	153.66	C	ATOM	37635	CG	LEU D 196	143.663	116.799	28.835	1.00	69.15	C
ATOM	37586	CG	ASP D 190	133.577	120.159	23.130	1.00	153.66	C	ATOM	37636	CD1	LEU D 196	143.071	115.799	27.859	1.00	69.15	C
ATOM	37587	OD1	ASP D 190	134.652	120.356	22.524	1.00	153.66	O	ATOM	37637	CD2	LEU D 196	144.103	116.124	30.121	1.00	69.15	C
ATOM	37588	OD2	ASP D 190	132.472	120.105	22.553	1.00	153.66	O	ATOM	37638	N	PRO D 197	147.623	119.278	28.628	1.00	60.97	N
ATOM	37589	N	ARG D 191	136.569	119.476	24.122	1.00	56.31	N	ATOM	37639	CA	PRO D 197	148.792	119.882	27.974	1.00	60.97	C
ATOM	37590	CA	ARG D 191	137.972	119.848	24.194	1.00	56.31	C	ATOM	37640	C	PRO D 197	149.062	119.091	26.701	1.00	60.97	C
ATOM	37591	C	ARG D 191	138.135	121.110	25.010	1.00	56.31	C	ATOM	37641	O	PRO D 197	150.183	118.661	26.434	1.00	60.97	O
ATOM	37592	O	ARG D 191	139.154	121.287	25.682	1.00	56.31	O	ATOM	37642	CB	PRO D 197	149.897	119.691	29.006	1.00	40.52	C
ATOM	37593	CB	ARG D 191	138.565	120.051	22.799	1.00	80.10	C	ATOM	37643	CG	PRO D 197	149.530	118.388	29.619	1.00	40.52	C
ATOM	37594	CD	ARG D 191	140.040	120.415	22.827	1.00	80.10	C	ATOM	37644	CD	PRO D 197	148.029	118.530	29.829	1.00	40.52	C
ATOM	37595	CG	ARG D 191	140.738	119.716	23.989	1.00	80.10	C	ATOM	37645	N	VAL D 198	148.014	118.907	25.916	1.00	54.64	N
ATOM	37596	NE	ARG D 191	142.187	119.892	23.999	1.00	80.10	C	ATOM	37646	CA	VAL D 198	148.119	118.121	24.710	1.00	54.64	C
ATOM	37597	CZ	ARG D 191	142.937	119.819	25.097	1.00	80.10	C	ATOM	37647	C	VAL D 198	147.660	118.827	23.459	1.00	54.64	O
ATOM	37598	NH1	ARG D 191	142.373	119.585	26.275	1.00	80.10	N	ATOM	37648	O	VAL D 198	146.689	119.578	23.471	1.00	54.64	O
ATOM	37599	NH2	ARG D 191	144.254	119.963	25.019	1.00	80.10	N	ATOM	37649	CB	VAL D 198	147.310	116.822	24.860	1.00	53.11	C
ATOM	37600	N	GLU D 192	137.128	121.982	24.954	1.00	77.13	N	ATOM	37650	CG1	VAL D 198	147.217	116.093	23.529	1.00	53.11	C
ATOM	37601	CA	GLU D 192	137.159	123.232	25.702	1.00	77.13	C	ATOM	37651	CG2	VAL D 198	147.959	115.946	25.906	1.00	53.11	C
ATOM	37602	C	GLU D 192	137.046	122.954	27.195	1.00	77.13	C	ATOM	37652	N	GLN D 199	148.379	118.552	22.380	1.00	61.01	N
ATOM	37603	O	GLU D 192	137.610	123.687	28.006	1.00	77.13	O	ATOM	37653	CA	GLN D 199	148.093	119.091	21.066	1.00	61.01	C
ATOM	37604	CB	GLU D 192	136.027	124.160	25.260	1.00	131.08	C	ATOM	37654	C	GLN D 199	147.479	117.932	20.268	1.00	61.01	C
ATOM	37605	CG	GLU D 192	136.295	124.928	23.968	1.00	131.08	C	ATOM	37655	O	GLN D 199	148.165	117.269	19.497	1.00	61.01	O
ATOM	37606	CD	GLU D 192	136.364	124.036	22.744	1.00	131.08	C	ATOM	37656	CB	GLN D 199	149.402	119.551	20.425	1.00	113.24	C
ATOM	37607	OE1	GLU D 192	137.293	123.208	22.663	1.00	131.08	O	ATOM	37657	CG	GLN D 199	149.271	119.856	18.975	1.00	113.24	C
ATOM	37608	OE2	GLU D 192	135.486	124.161	21.861	1.00	131.08	O	ATOM	37658	CD	GLN D 199	148.116	120.766	18.727	1.00	82.46	C
ATOM	37609	N	ASP D 193	136.329	121.887	27.550	1.00	65.71	N	ATOM	37659	OE1	GLN D 199	148.239	121.980	18.840	1.00	82.46	O
ATOM	37610	CA	ASP D 193	136.139	121.496	28.948	1.00	65.71	C	ATOM	37660	NE2	GLN D 199	146.965	120.185	18.412	1.00	82.46	N
ATOM	37611	C	ASP D 193	137.445	120.995	29.546	1.00	65.71	C	ATOM	37661	N	GLU D 200	146.193	117.670	20.459	1.00	64.11	N
ATOM	37612	O	ASP D 193	137.750	121.259	30.709	1.00	65.71	O	ATOM	37662	CA	GLU D 200	145.560	116.563	19.751	1.00	64.11	C
ATOM	37613	CB	ASP D 193	135.091	120.384	29.054	1.00	77.96	C	ATOM	37663	C	GLU D 200	145.060	116.512	18.251	1.00	64.11	C
ATOM	37614	CG	ASP D 193	133.706	120.837	28.636	1.00	77.96	C	ATOM	37664	O	GLU D 200	145.906	115.422	17.672	1.00	64.11	O
ATOM	37615	OD1	ASP D 193	133.108	121.678	29.343	1.00	77.96	O	ATOM	37665	CB	GLU D 200	144.044	116.501	19.965	1.00	87.13	C



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ATOM	37666	CG	GLU D 200	143.376	117.865	19.536	1.00	87.13	C	ATOM	37716	CD1	PHE D 206	153.623	109.456	16.732	1.00	34.26	C
ATOM	37667	CD	GLU D 200	142.802	118.640	20.704	1.00	87.13	C	ATOM	37717	CD2	PHE D 206	151.632	108.134	16.844	1.00	34.26	C
ATOM	37668	OE1	GLU D 200	143.563	118.983	21.634	1.00	87.13	O	ATOM	37718	CE1	PHE D 206	154.384	108.366	17.165	1.00	34.26	C
ATOM	37669	OE2	GLU D 200	141.583	118.906	20.686	1.00	87.13	O	ATOM	37719	CE2	PHE D 206	152.373	107.039	17.275	1.00	34.26	C
ATOM	37670	N	ASN D 201	146.064	117.671	17.617	1.00	51.43	N	ATOM	37720	CZ	PHE D 206	153.754	107.154	17.438	1.00	34.26	C
ATOM	37671	CA	ASN D 201	146.357	117.693	16.179	1.00	51.43	C	ATOM	37721	N	TYR D 207	149.486	109.170	14.004	1.00	51.35	N
ATOM	37672	C	ASN D 201	147.603	116.844	15.921	1.00	51.43	C	ATOM	37722	CA	TYR D 207	148.913	107.943	13.508	1.00	51.35	C
ATOM	37673	O	ASN D 201	147.658	116.081	14.957	1.00	51.43	O	ATOM	37723	C	TYR D 207	148.685	108.011	12.016	1.00	51.35	C
ATOM	37674	CB	ASN D 201	146.596	119.125	15.684	1.00	80.11	C	ATOM	37724	O	TYR D 207	148.346	107.002	11.397	1.00	51.35	O
ATOM	37675	CG	ASN D 201	146.121	119.344	14.243	1.00	80.11	C	ATOM	37725	CB	TYR D 207	147.613	107.639	14.256	1.00	50.90	C
ATOM	37676	OD1	ASN D 201	144.922	119.256	13.951	1.00	80.11	O	ATOM	37726	CG	TYR D 207	147.867	107.171	15.665	1.00	50.90	C
ATOM	37677	ND2	ASN D 201	147.059	119.638	13.342	1.00	80.11	N	ATOM	37727	CD1	TYR D 207	147.056	107.574	16.714	1.00	50.90	C
ATOM	37678	N	LEU D 202	148.595	116.971	16.799	1.00	56.92	N	ATOM	37728	CD2	TYR D 207	148.949	106.344	15.954	1.00	50.90	C
ATOM	37679	CA	LEU D 202	149.828	116.207	16.676	1.00	56.92	C	ATOM	37729	CE1	TYR D 207	147.324	107.167	18.029	1.00	50.90	C
ATOM	37680	C	LEU D 202	149.629	114.720	16.853	1.00	56.92	C	ATOM	37730	CE2	TYR D 207	149.222	105.931	17.260	1.00	50.90	C
ATOM	37681	O	LEU D 202	150.289	113.922	16.192	1.00	56.92	O	ATOM	37731	CZ	TYR D 207	148.410	106.348	18.288	1.00	50.90	C
ATOM	37682	CB	LEU D 202	150.843	116.661	17.703	1.00	48.85	C	ATOM	37732	OH	TYR D 207	148.696	105.959	19.572	1.00	50.90	O
ATOM	37683	CG	LEU D 202	151.462	118.013	17.406	1.00	48.85	C	ATOM	37733	N	SER D 208	148.872	109.198	11.438	1.00	57.82	N
ATOM	37684	CD1	LEU D 202	152.576	118.272	18.412	1.00	48.85	C	ATOM	37734	CA	SER D 208	148.719	109.380	9.996	1.00	57.82	C
ATOM	37685	CD2	LEU D 202	151.995	118.032	15.979	1.00	48.85	C	ATOM	37735	C	SER D 208	149.814	108.552	9.343	1.00	57.82	C
ATOM	37686	N	VAL D 203	148.737	114.334	17.758	1.00	49.71	N	ATOM	37736	O	SER D 208	149.538	107.691	8.505	1.00	57.82	O
ATOM	37687	CA	VAL D 203	148.508	112.918	17.983	1.00	49.71	C	ATOM	37737	CB	SER D 208	148.887	110.848	9.608	1.00	57.82	C
ATOM	37688	C	VAL D 203	147.830	112.311	16.772	1.00	49.71	C	ATOM	37738	OG	SER D 208	147.800	111.619	10.075	1.00	57.82	C
ATOM	37689	O	VAL D 203	148.172	111.210	16.343	1.00	49.71	O	ATOM	37739	N	ARG D 209	151.054	108.817	9.747	1.00	103.15	N
ATOM	37690	CB	VAL D 203	147.651	112.669	19.235	1.00	44.85	C	ATOM	37740	CA	ARG D 209	152.217	108.100	9.237	1.00	103.15	C
ATOM	37691	CG1	VAL D 203	147.291	111.201	19.330	1.00	44.85	C	ATOM	37741	C	ARG D 209	151.931	106.605	9.215	1.00	103.15	C
ATOM	37692	CG2	VAL D 203	148.430	113.076	20.479	1.00	44.85	C	ATOM	37742	O	ARG D 209	152.102	105.991	8.136	1.00	103.15	O
ATOM	37693	N	ILE D 204	146.872	113.036	16.211	1.00	47.02	N	ATOM	37743	CB	ARG D 209	153.433	108.380	10.125	1.00	97.98	C
ATOM	37694	CA	ILE D 204	146.167	112.542	15.045	1.00	47.02	C	ATOM	37744	CG	ARG D 209	154.539	107.343	10.039	1.00	97.98	C
ATOM	37695	C	ILE D 204	147.171	112.324	13.931	1.00	47.02	C	ATOM	37745	CD	ARG D 209	155.589	107.588	11.104	1.00	97.98	C
ATOM	37696	O	ILE D 204	147.080	111.358	13.184	1.00	47.02	O	ATOM	37746	NE	ARG D 209	156.772	108.247	10.565	1.00	97.98	N
ATOM	37697	CB	ILE D 204	145.115	113.542	14.587	1.00	64.70	C	ATOM	37747	CZ	ARG D 209	157.688	107.636	9.821	1.00	97.98	C
ATOM	37698	CG1	ILE D 204	144.024	113.642	15.650	1.00	64.70	C	ATOM	37748	NH1	ARG D 209	157.553	106.349	9.529	1.00	97.98	N
ATOM	37699	CG2	ILE D 204	144.553	113.130	13.237	1.00	64.70	C	ATOM	37749	NH2	ARG D 209	158.737	108.308	9.370	1.00	97.98	N
ATOM	37700	CD1	ILE D 204	143.030	114.768	15.405	1.00	64.70	C	ATOM	37750	OXT	ARG D 209	151.541	106.070	10.282	1.00	85.77	O
ATOM	37701	N	GLU D 205	148.138	113.227	13.838	1.00	50.90	N	TER	37751	ARG	D 209						
ATOM	37702	CA	GLU D 205	149.159	113.149	12.810	1.00	50.90	C	ATOM	37752	N	ASP E 5	155.118	137.341	16.048	1.00	125.40	N
ATOM	37703	C	GLU D 205	150.089	111.982	13.045	1.00	50.90	C	ATOM	37753	CA	ASP E 5	154.876	137.571	14.595	1.00	125.40	C
ATOM	37704	O	GLU D 205	150.532	111.332	12.106	1.00	50.90	O	ATOM	37754	C	ASP E 5	155.123	136.307	13.763	1.00	125.40	C
ATOM	37705	CB	GLU D 205	149.973	114.435	12.779	1.00	81.50	C	ATOM	37755	O	ASP E 5	154.355	135.345	13.847	1.00	125.40	O
ATOM	37706	CG	GLU D 205	149.220	115.618	12.235	1.00	81.50	C	ATOM	37756	CB	ASP E 5	155.763	138.717	14.094	1.00	167.56	C
ATOM	37707	CD	GLU D 205	150.069	116.864	12.215	1.00	81.50	C	ATOM	37757	CG	ASP E 5	157.236	138.482	14.371	1.00	167.56	C
ATOM	37708	OE1	GLU D 205	149.614	117.888	11.651	1.00	81.50	O	ATOM	37758	OD1	ASP E 5	157.597	138.303	15.553	1.00	167.56	O
ATOM	37709	OE2	GLU D 205	151.191	116.813	12.769	1.00	81.50	O	ATOM	37759	OD2	ASP E 5	158.031	138.477	13.407	1.00	167.56	O
ATOM	37710	N	PHE D 206	150.392	111.718	14.304	1.00	51.94	N	ATOM	37760	N	PHE E 6	156.189	136.317	12.962	1.00	67.41	N
ATOM	37711	CA	PHE D 206	151.295	110.630	14.633	1.00	51.94	C	ATOM	37761	CA	PHE E 6	156.539	135.184	12.107	1.00	67.41	C
ATOM	37712	C	PHE D 206	150.796	109.312	14.084	1.00	51.94	C	ATOM	37762	C	PHE E 6	157.259	134.083	12.876	1.00	67.41	C
ATOM	37713	O	PHE D 206	151.576	108.435	13.751	1.00	51.94	O	ATOM	37763	O	PHE E 6	157.969	134.342	13.846	1.00	67.41	O
ATOM	37714	CB	PHE D 206	151.442	110.515	16.143	1.00	34.26	C	ATOM	37764	CB	PHE E 6	157.443	135.642	10.956	1.00	62.81	C
ATOM	37715	CG	PHE D 206	152.248	109.345	16.574	1.00	34.26	C	ATOM	37765	CG	PHE E 6	156.731	136.404	9.860	1.00	62.81	C



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ATOM	37766	CD1 PHE E	6	157.469	137.082	8.889	1.00	62.81	C	ATOM	37816	C	LEU E	12	167.839	122.045	5.107	1.00	42.05	C
ATOM	37767	CD2 PHE E	6	155.343	136.421	9.775	1.00	62.81	C	ATOM	37817	O	LEU E	12	167.803	123.149	4.566	1.00	42.05	O
ATOM	37768	CE1 PHE E	6	156.838	137.761	7.851	1.00	62.81	C	ATOM	37818	CB	LEU E	12	166.340	120.315	4.152	1.00	48.94	C
ATOM	37769	CE2 PHE E	6	154.700	137.098	8.741	1.00	62.81	C	ATOM	37819	CG	LEU E	12	166.554	120.755	2.696	1.00	48.94	C
ATOM	37770	CZ PHE E	6	155.450	137.770	7.776	1.00	62.81	C	ATOM	37820	CD1	LEU E	12	165.746	121.985	2.471	1.00	48.94	C
ATOM	37771	N GLU E	7	157.067	132.848	12.434	1.00	60.53	N	ATOM	37821	CD2	LEU E	12	168.018	121.011	2.373	1.00	48.94	C
ATOM	37772	CA GLU E	7	157.717	131.703	13.047	1.00	60.53	C	ATOM	37822	N	ILE E	13	168.962	121.479	5.536	1.00	53.81	N
ATOM	37773	C GLU E	7	158.633	131.124	11.978	1.00	60.53	C	ATOM	37823	CA	ILE E	13	170.258	122.103	5.302	1.00	53.81	C
ATOM	37774	O GLU E	7	158.308	131.172	10.792	1.00	60.53	O	ATOM	37824	C	ILE E	13	171.189	121.036	4.761	1.00	53.81	C
ATOM	37775	CB GLU E	7	156.684	130.666	13.475	1.00	60.53	C	ATOM	37825	O	ILE E	13	171.301	119.955	5.338	1.00	53.81	O
ATOM	37776	CG GLU E	7	157.290	129.359	13.948	1.00	60.53	C	ATOM	37826	CB	ILE E	13	170.880	122.702	6.573	1.00	71.30	C
ATOM	37777	CD GLU E	7	156.249	128.411	14.504	1.00	60.53	C	ATOM	37827	CG1	ILE E	13	170.927	121.650	7.672	1.00	71.30	C
ATOM	37778	OE1 GLU E	7	156.592	127.241	14.789	1.00	60.53	O	ATOM	37828	CG2	ILE E	13	170.104	123.933	6.992	1.00	71.30	C
ATOM	37779	OE2 GLU E	7	155.086	128.845	14.659	1.00	60.53	O	ATOM	37829	CD1	ILE E	13	171.617	122.130	8.908	1.00	71.30	C
ATOM	37780	N GLU E	8	159.778	130.593	12.386	1.00	69.41	N	ATOM	37830	N	ARG E	14	171.832	121.338	3.635	1.00	46.64	N
ATOM	37781	CA GLU E	8	160.713	130.033	11.425	1.00	69.41	C	ATOM	37831	CA	ARG E	14	172.758	120.403	3.007	1.00	46.64	C
ATOM	37782	C GLU E	8	160.947	128.539	11.589	1.00	69.41	C	ATOM	37832	C	ARG E	14	174.166	120.966	2.989	1.00	46.64	C
ATOM	37783	O GLU E	8	161.300	128.071	12.673	1.00	69.41	O	ATOM	37833	O	ARG E	14	174.353	122.181	3.068	1.00	46.64	O
ATOM	37784	CB GLU E	8	162.063	130.752	11.513	1.00	63.58	C	ATOM	37834	CB	ARG E	14	172.301	120.094	1.591	1.00	39.20	C
ATOM	37785	CG GLU E	8	162.111	132.102	10.827	1.00	63.58	C	ATOM	37835	CG	ARG E	14	172.268	121.271	0.679	1.00	39.20	C
ATOM	37786	CD GLU E	8	163.495	132.735	10.875	1.00	63.58	C	ATOM	37836	CD	ARG E	14	171.608	120.821	-0.573	1.00	39.20	C
ATOM	37787	OE1 GLU E	8	164.479	132.065	10.488	1.00	63.58	O	ATOM	37837	NE	ARG E	14	171.678	121.808	-1.634	1.00	39.20	N
ATOM	37788	OE2 GLU E	8	163.601	133.908	11.291	1.00	63.58	O	ATOM	37838	CZ	ARG E	14	171.203	121.580	-2.855	1.00	39.20	C
ATOM	37789	N LYS E	9	160.732	127.787	10.514	1.00	63.58	N	ATOM	37839	NH1	ARG E	14	170.635	120.404	-3.117	1.00	39.20	N
ATOM	37790	CA LYS E	9	160.986	126.359	10.539	1.00	63.58	C	ATOM	37840	NH2	ARG E	14	171.311	122.505	-3.812	1.00	39.20	N
ATOM	37791	C LYS E	9	162.121	126.099	9.558	1.00	63.58	C	ATOM	37841	N	ARG E	15	175.158	120.089	2.863	1.00	59.21	N
ATOM	37792	O LYS E	9	162.155	126.651	8.449	1.00	63.58	O	ATOM	37842	CA	ARG E	15	176.531	120.554	2.894	1.00	59.21	C
ATOM	37793	CB LYS E	9	159.744	125.556	10.149	1.00	63.58	C	ATOM	37843	C	ARG E	15	177.176	120.989	1.611	1.00	59.21	C
ATOM	37794	CG LYS E	9	158.596	125.728	11.126	1.00	63.58	C	ATOM	37844	O	ARG E	15	178.032	121.838	1.665	1.00	59.21	O
ATOM	37795	CD LYS E	9	157.550	124.620	11.025	1.00	63.58	C	ATOM	37845	CB	ARG E	15	177.437	119.545	3.589	1.00	58.12	C
ATOM	37796	CE LYS E	9	157.984	123.356	11.758	1.00	63.58	C	ATOM	37846	CG	ARG E	15	178.679	120.197	4.178	1.00	58.12	C
ATOM	37797	NZ LYS E	9	156.921	122.305	11.733	1.00	63.58	N	ATOM	37847	CD	ARG E	15	179.827	120.216	3.199	1.00	58.12	C
ATOM	37798	N MET E	10	163.062	125.271	9.989	1.00	56.29	N	ATOM	37848	NE	ARG E	15	180.491	118.915	3.149	1.00	58.12	N
ATOM	37799	CA MET E	10	164.222	124.912	9.186	1.00	56.29	C	ATOM	37849	CZ	ARG E	15	181.224	118.414	4.142	1.00	58.12	C
ATOM	37800	C MET E	10	163.912	123.631	8.394	1.00	56.29	C	ATOM	37850	NH1	ARG E	15	181.393	119.105	5.258	1.00	58.12	N
ATOM	37801	O MET E	10	164.053	122.532	8.921	1.00	56.29	O	ATOM	37851	NH2	ARG E	15	181.778	117.220	4.028	1.00	58.12	N
ATOM	37802	CB MET E	10	165.406	124.705	10.134	1.00	56.29	C	ATOM	37852	N	THR E	16	176.809	120.424	0.468	1.00	38.47	N
ATOM	37803	CG MET E	10	166.757	125.049	9.564	1.00	56.29	C	ATOM	37853	CA	THR E	16	177.390	120.857	-0.831	1.00	38.47	C
ATOM	37804	SD MET E	10	167.327	123.778	8.464	1.00	56.29	S	ATOM	37854	C	THR E	16	178.915	121.149	-0.994	1.00	38.47	C
ATOM	37805	CE MET E	10	167.681	122.473	9.641	1.00	56.29	C	ATOM	37855	O	THR E	16	179.563	121.732	-0.133	1.00	38.47	O
ATOM	37806	N ILE E	11	163.485	123.784	7.139	1.00	54.29	N	ATOM	37856	CB	THR E	16	176.637	122.118	-1.392	1.00	56.42	C
ATOM	37807	CA ILE E	11	163.139	122.655	6.257	1.00	54.29	C	ATOM	37857	OG1	THR E	16	177.429	122.728	-2.416	1.00	56.42	O
ATOM	37808	C ILE E	11	164.260	121.634	6.020	1.00	54.29	C	ATOM	37858	CG2	THR E	16	176.401	123.162	-0.305	1.00	56.42	C
ATOM	37809	O ILE E	11	164.063	120.426	6.195	1.00	54.29	O	ATOM	37859	N	ALA E	17	179.485	120.772	-2.132	1.00	56.42	N
ATOM	37810	CB ILE E	11	162.680	123.141	4.873	1.00	64.82	C	ATOM	37860	CA	ALA E	17	180.903	121.033	-2.328	1.00	125.52	C
ATOM	37811	CG1 ILE E	11	161.382	123.919	4.993	1.00	64.82	C	ATOM	37861	C	ALA E	17	181.299	121.607	-3.659	1.00	125.52	C
ATOM	37812	CG2 ILE E	11	162.437	121.948	3.967	1.00	64.82	C	ATOM	37862	O	ALA E	17	180.475	122.052	-4.448	1.00	125.52	O
ATOM	37813	CD1 ILE E	11	160.249	123.068	5.433	1.00	64.82	C	ATOM	37863	CB	ALA E	17	181.690	119.805	-2.097	1.00	22.57	C
ATOM	37814	N LEU E	12	165.415	122.117	5.570	1.00	42.05	N	ATOM	37864	N	ARG E	18	182.600	121.534	-3.893	1.00	54.47	N
ATOM	37815	CA LEU E	12	166.569	121.254	5.346	1.00	42.05	C	ATOM	37865	CA	ARG E	18	183.221	122.079	-5.094	1.00	54.47	C



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ATOM	37866	C	ARG E	18	184.713	121.783	-4.990	1.00	54.47	C	ATOM	37916	N	ARG E	25	186.076	122.641	-1.231	1.00	54.54	N
ATOM	37867	O	ARG E	18	185.391	122.313	-4.116	1.00	54.47	O	ATOM	37917	CA	ARG E	25	185.637	123.883	-0.598	1.00	54.54	C
ATOM	37868	CB	ARG E	18	182.990	123.587	-5.171	1.00	77.89	C	ATOM	37918	O	ARG E	25	184.144	123.786	-0.327	1.00	54.54	C
ATOM	37869	CG	ARG E	18	183.959	124.330	-6.043	1.00	77.89	C	ATOM	37919	C	ARG E	25	183.331	123.986	-1.231	1.00	54.54	O
ATOM	37870	CD	ARG E	18	183.678	125.813	-5.980	1.00	77.89	C	ATOM	37920	CB	ARG E	25	185.909	125.057	-1.524	1.00	66.74	C
ATOM	37871	NE	ARG E	18	183.281	126.213	-4.632	1.00	77.89	N	ATOM	37921	CG	ARG E	25	185.630	126.408	-0.924	1.00	66.74	C
ATOM	37872	CZ	ARG E	18	183.121	127.474	-4.241	1.00	77.89	C	ATOM	37922	CD	ARG E	25	186.006	127.476	-1.926	1.00	66.74	C
ATOM	37873	NH1	ARG E	18	183.332	128.464	-5.100	1.00	77.89	N	ATOM	37923	NE	ARG E	25	186.428	128.736	-1.315	1.00	66.74	N
ATOM	37874	NH2	ARG E	18	182.739	127.745	-2.997	1.00	77.89	N	ATOM	37924	CZ	ARG E	25	187.458	128.884	-0.480	1.00	66.74	N
ATOM	37875	N	MET E	19	185.211	120.929	-5.882	1.00	50.11	N	ATOM	37925	NH1	ARG E	25	188.200	127.846	-0.126	1.00	66.74	N
ATOM	37876	CA	MET E	19	186.621	120.540	-5.903	1.00	50.11	C	ATOM	37926	NH2	ARG E	25	187.757	130.087	-0.005	1.00	66.74	N
ATOM	37877	C	MET E	19	187.522	121.686	-6.249	1.00	50.11	C	ATOM	37927	N	PHE E	26	183.783	123.493	0.918	1.00	46.32	N
ATOM	37878	O	MET E	19	187.169	122.542	-7.041	1.00	50.11	O	ATOM	37928	CA	PHE E	26	182.382	123.345	1.272	1.00	46.32	C
ATOM	37879	CB	MET E	19	186.859	119.436	-6.920	1.00	53.79	C	ATOM	37929	C	PHE E	26	181.593	124.638	1.400	1.00	46.32	C
ATOM	37880	CG	MET E	19	186.717	118.071	-6.336	1.00	53.79	C	ATOM	37930	O	PHE E	26	182.157	125.716	1.598	1.00	46.32	O
ATOM	37881	SD	MET E	19	188.061	117.750	-5.207	1.00	53.79	S	ATOM	37931	CB	PHE E	26	182.269	122.575	2.565	1.00	41.18	C
ATOM	37882	CE	MET E	19	188.570	116.084	-5.818	1.00	53.79	C	ATOM	37932	CG	PHE E	26	183.028	121.297	2.563	1.00	41.18	C
ATOM	37883	N	GLN E	20	188.702	121.696	-5.658	1.00	53.85	N	ATOM	37933	CD1	PHE E	26	184.073	121.099	3.448	1.00	41.18	C
ATOM	37884	CA	GLN E	20	189.646	122.751	-5.947	1.00	53.85	C	ATOM	37934	CD2	PHE E	26	182.676	120.269	1.701	1.00	41.18	C
ATOM	37885	C	GLN E	20	191.055	122.224	-5.826	1.00	53.85	C	ATOM	37935	CE1	PHE E	26	184.752	119.893	3.482	1.00	41.18	C
ATOM	37886	O	GLN E	20	191.328	121.330	-5.024	1.00	53.85	O	ATOM	37936	CE2	PHE E	26	183.353	119.051	1.726	1.00	41.18	C
ATOM	37887	CB	GLN E	20	189.442	123.914	-4.990	1.00	53.84	C	ATOM	37937	CZ	PHE E	26	184.390	118.864	2.620	1.00	41.18	C
ATOM	37888	CG	GLN E	20	188.075	124.555	-5.086	1.00	53.84	C	ATOM	37938	N	ARG E	27	180.275	124.511	1.269	1.00	52.30	N
ATOM	37889	CD	GLN E	20	188.011	125.886	-4.366	1.00	53.84	C	ATOM	37939	CA	ARG E	27	179.352	125.631	1.383	1.00	52.30	C
ATOM	37890	OE1	GLN E	20	188.333	125.977	-3.179	1.00	53.84	O	ATOM	37940	O	ARG E	27	178.079	125.059	1.992	1.00	52.30	C
ATOM	37891	NE2	GLN E	20	187.597	126.929	-5.080	1.00	53.84	N	ATOM	37941	O	ARG E	27	177.917	123.849	2.030	1.00	52.30	O
ATOM	37892	N	ALA E	21	191.949	122.755	-6.647	1.00	91.11	N	ATOM	37942	CB	ARG E	27	179.050	126.230	0.018	1.00	97.93	C
ATOM	37893	CA	ALA E	21	193.336	122.337	-6.584	1.00	91.11	C	ATOM	37943	CG	ARG E	27	178.034	127.326	0.111	1.00	97.93	C
ATOM	37894	C	ALA E	21	193.721	122.654	-5.165	1.00	91.11	C	ATOM	37944	CD	ARG E	27	177.685	127.864	-1.230	1.00	97.93	C
ATOM	37895	O	ALA E	21	193.969	123.801	-4.835	1.00	91.11	O	ATOM	37945	NE	ARG E	27	178.825	128.519	-1.844	1.00	97.93	N
ATOM	37896	CB	ALA E	21	194.166	123.151	-7.528	1.00	62.21	C	ATOM	37946	CZ	ARG E	27	177.773	129.131	-3.021	1.00	97.93	C
ATOM	37897	N	GLY E	22	193.749	121.655	-4.309	1.00	48.56	N	ATOM	37947	NH1	ARG E	27	177.630	129.167	-3.697	1.00	97.93	N
ATOM	37898	CA	GLY E	22	194.092	121.945	-2.939	1.00	48.56	C	ATOM	37948	NH2	ARG E	27	179.863	129.695	-3.532	1.00	97.93	N
ATOM	37899	C	GLY E	22	193.123	121.333	-1.958	1.00	48.56	C	ATOM	37949	N	PHE E	28	177.170	125.898	2.482	1.00	58.02	N
ATOM	37900	O	GLY E	22	193.463	121.131	-0.787	1.00	48.56	O	ATOM	37950	CA	PHE E	28	175.954	125.342	3.070	1.00	58.02	C
ATOM	37901	N	GLY E	23	191.917	121.028	-2.424	1.00	62.54	N	ATOM	37951	C	PHE E	28	174.665	125.890	2.544	1.00	58.02	C
ATOM	37902	CA	GLY E	23	190.936	120.422	-1.543	1.00	62.54	C	ATOM	37952	O	PHE E	28	174.527	127.084	2.307	1.00	58.02	O
ATOM	37903	C	GLY E	23	189.508	120.782	-1.887	1.00	62.54	C	ATOM	37953	CB	PHE E	28	175.963	125.489	4.585	1.00	37.26	C
ATOM	37904	O	GLY E	23	189.258	121.563	-2.809	1.00	62.54	O	ATOM	37954	CD1	PHE E	28	177.049	124.705	5.254	1.00	37.26	C
ATOM	37905	N	ARG E	24	188.565	120.207	-1.146	1.00	55.90	N	ATOM	37955	CD2	PHE E	28	178.361	125.174	5.257	1.00	37.26	C
ATOM	37906	CA	ARG E	24	187.154	120.476	-1.377	1.00	55.90	C	ATOM	37956	CD2	PHE E	28	176.769	123.481	5.853	1.00	37.26	C
ATOM	37907	C	ARG E	24	186.769	121.711	-0.578	1.00	55.90	C	ATOM	37957	CE1	PHE E	28	179.365	124.425	5.846	1.00	37.26	C
ATOM	37908	O	ARG E	24	187.115	121.824	0.599	1.00	55.90	O	ATOM	37958	CE2	PHE E	28	177.764	122.733	6.440	1.00	37.26	C
ATOM	37909	CB	ARG E	24	186.321	119.272	-0.942	1.00	59.01	C	ATOM	37959	CZ	PHE E	28	179.062	123.198	6.440	1.00	37.26	C
ATOM	37910	CG	ARG E	24	186.747	117.992	-1.628	1.00	59.01	C	ATOM	37960	N	GLY E	29	173.713	124.982	2.380	1.00	53.61	N
ATOM	37911	CD	ARG E	24	186.002	116.766	-1.126	1.00	59.01	C	ATOM	37961	CA	GLY E	29	172.404	125.348	1.878	1.00	53.61	C
ATOM	37912	NE	ARG E	24	186.748	115.559	-1.457	1.00	59.01	N	ATOM	37962	C	GLY E	29	171.334	125.090	2.914	1.00	53.61	C
ATOM	37913	CZ	ARG E	24	187.006	115.170	-2.698	1.00	59.01	C	ATOM	37963	O	GLY E	29	171.293	124.024	3.531	1.00	53.61	O
ATOM	37914	NH1	ARG E	24	186.567	115.884	-3.718	1.00	59.01	N	ATOM	37964	N	ALA E	30	170.464	126.076	3.093	1.00	30.33	N
ATOM	37915	NH2	ARG E	24	187.739	114.093	-2.926	1.00	59.01	N	ATOM	37965	CA	ALA E	30	169.395	125.994	4.073	1.00	30.33	C



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ATOM	37966	C	ALA	E	30	168.079	126.477	3.491	1.00	30.33	C	ATOM	38016	CD	ARG	E	37	151.400	128.963	13.776	1.00	56.39	C
ATOM	37967	O	ALA	E	30	168.022	127.530	2.848	1.00	30.33	O	ATOM	38017	NE	ARG	E	37	152.522	128.063	14.039	1.00	56.39	N
ATOM	37968	CB	ALA	E	30	169.762	126.831	5.291	1.00	25.26	C	ATOM	38018	C2	ARG	E	37	152.574	126.785	13.669	1.00	56.39	C
ATOM	37969	N	LEU	E	31	167.033	125.682	3.698	1.00	58.82	N	ATOM	38019	NH1	ARG	E	37	151.566	126.237	13.001	1.00	56.39	N
ATOM	37970	CA	LEU	E	31	165.692	126.035	3.248	1.00	58.82	C	ATOM	38020	NH2	ARG	E	37	153.627	126.043	13.996	1.00	56.39	N
ATOM	37971	C	LEU	E	31	164.985	126.506	4.494	1.00	58.82	C	ATOM	38021	N	GLN	E	38	148.547	132.564	9.808	1.00	58.29	N
ATOM	37972	O	LEU	E	31	165.021	125.837	5.527	1.00	58.82	O	ATOM	38022	CA	GLN	E	38	147.374	133.382	9.568	1.00	58.29	C
ATOM	37973	CB	LEU	E	31	164.932	124.835	2.698	1.00	29.97	C	ATOM	38023	C	GLN	E	38	147.085	133.468	8.085	1.00	58.29	C
ATOM	37974	CG	LEU	E	31	164.586	124.888	1.215	1.00	29.97	C	ATOM	38024	O	GLN	E	38	146.168	134.170	7.677	1.00	58.29	O
ATOM	37975	CD1	LEU	E	31	163.548	123.813	0.898	1.00	29.97	C	ATOM	38025	CB	GLN	E	38	147.605	134.795	10.095	1.00	82.08	C
ATOM	37976	CD2	LEU	E	31	164.048	126.272	0.874	1.00	29.97	C	ATOM	38026	CG	GLN	E	38	146.523	135.299	11.012	1.00	82.08	C
ATOM	37977	N	VAL	E	32	164.336	127.655	4.400	1.00	39.89	N	ATOM	38027	CD	GLN	E	38	146.341	134.394	12.203	1.00	82.08	C
ATOM	37978	CA	VAL	E	32	163.653	128.193	5.554	1.00	39.89	C	ATOM	38028	OE1	GLN	E	38	147.308	134.031	12.872	1.00	82.08	O
ATOM	37979	C	VAL	E	32	162.229	128.626	5.272	1.00	39.89	C	ATOM	38029	NE2	GLN	E	38	145.095	134.023	12.481	1.00	82.08	N
ATOM	37980	O	VAL	E	32	161.946	129.297	4.271	1.00	39.89	O	ATOM	38030	N	GLY	E	39	147.869	132.769	7.274	1.00	50.93	N
ATOM	37981	CB	VAL	E	32	164.464	129.355	6.122	1.00	39.83	C	ATOM	38031	CA	GLY	E	39	147.656	132.816	5.836	1.00	50.93	C
ATOM	37982	CG1	VAL	E	32	163.629	130.170	7.076	1.00	39.83	C	ATOM	38032	C	GLY	E	39	148.796	133.549	5.155	1.00	50.93	C
ATOM	37983	CG2	VAL	E	32	165.684	128.793	6.832	1.00	39.83	C	ATOM	38033	O	GLY	E	39	148.690	133.959	3.998	1.00	50.93	O
ATOM	37984	N	VAL	E	33	161.324	128.203	6.153	1.00	48.25	N	ATOM	38034	N	ARG	E	40	149.890	133.717	5.897	1.00	52.52	N
ATOM	37985	CA	VAL	E	33	159.919	128.572	6.020	1.00	48.25	C	ATOM	38035	CA	ARG	E	40	151.091	134.386	5.411	1.00	52.52	C
ATOM	37986	C	VAL	E	33	159.592	129.564	7.121	1.00	48.25	C	ATOM	38036	C	ARG	E	40	152.250	133.378	5.461	1.00	52.52	C
ATOM	37987	O	VAL	E	33	159.939	129.373	8.282	1.00	48.25	O	ATOM	38037	O	ARG	E	40	152.637	132.924	6.544	1.00	52.52	O
ATOM	37988	CB	VAL	E	33	158.982	127.366	6.141	1.00	63.19	C	ATOM	38038	CB	ARG	E	40	151.407	135.586	6.309	1.00	96.26	C
ATOM	37989	CG1	VAL	E	33	157.552	127.819	5.957	1.00	63.19	C	ATOM	38039	CG	ARG	E	40	150.333	136.660	6.322	1.00	96.26	C
ATOM	37990	CG2	VAL	E	33	159.317	126.346	5.094	1.00	63.19	C	ATOM	38040	NE	ARG	E	40	150.411	137.515	5.075	1.00	96.26	C
ATOM	37991	N	VAL	E	34	158.930	130.636	6.735	1.00	51.76	N	ATOM	38041	CD	ARG	E	40	151.600	138.364	5.092	1.00	96.26	N
ATOM	37992	CA	VAL	E	34	158.576	131.673	7.669	1.00	51.76	C	ATOM	38042	CZ	ARG	E	40	152.106	138.984	4.027	1.00	96.26	C
ATOM	37993	C	VAL	E	34	157.092	131.931	7.506	1.00	51.76	C	ATOM	38043	NH1	ARG	E	40	151.532	138.854	2.835	1.00	96.26	N
ATOM	37994	O	VAL	E	34	156.635	132.219	6.394	1.00	61.51	O	ATOM	38044	NH2	ARG	E	40	152.788	133.011	4.296	1.00	46.23	N
ATOM	37995	CB	VAL	E	34	159.353	132.955	7.347	1.00	61.51	C	ATOM	38045	N	VAL	E	41	153.908	132.063	4.251	1.00	46.23	N
ATOM	37996	CG1	VAL	E	34	158.927	134.064	8.263	1.00	61.51	C	ATOM	38046	CA	VAL	E	41	155.049	132.541	3.373	1.00	46.23	C
ATOM	37997	CG2	VAL	E	34	160.829	132.707	7.487	1.00	61.51	C	ATOM	38047	C	VAL	E	41	154.841	133.201	2.345	1.00	46.23	C
ATOM	37998	N	GLY	E	35	156.341	131.824	8.600	1.00	65.08	N	ATOM	38048	O	VAL	E	41	153.507	130.690	3.704	1.00	53.12	C
ATOM	37999	CA	GLY	E	35	154.911	132.056	8.525	1.00	65.08	C	ATOM	38049	CB	VAL	E	41	154.278	129.622	4.432	1.00	53.12	C
ATOM	38000	C	GLY	E	35	154.324	132.603	9.807	1.00	65.08	C	ATOM	38050	CG1	VAL	E	41	156.259	132.171	3.775	1.00	58.56	N
ATOM	38001	O	GLY	E	35	155.003	132.638	10.828	1.00	65.08	O	ATOM	38051	CG2	VAL	E	41	157.434	132.563	3.026	1.00	58.56	C
ATOM	38002	N	ASP	E	36	153.065	133.035	9.751	1.00	81.41	N	ATOM	38052	N	GLY	E	42	158.486	131.477	2.940	1.00	58.56	C
ATOM	38003	CA	ASP	E	36	152.369	133.573	10.921	1.00	81.41	C	ATOM	38053	CA	GLY	E	42	158.810	130.811	3.938	1.00	58.56	O
ATOM	38004	C	ASP	E	36	151.198	132.679	11.317	1.00	81.41	C	ATOM	38054	O	GLY	E	42	159.017	131.303	1.730	1.00	56.02	N
ATOM	38005	O	ASP	E	36	150.560	132.889	12.343	1.00	81.41	O	ATOM	38055	C	GLY	E	42	160.051	130.307	1.475	1.00	56.02	C
ATOM	38006	CB	ASP	E	36	151.851	134.984	10.637	1.00	66.60	C	ATOM	38056	N	LEU	E	43	161.360	131.965	1.087	1.00	56.02	C
ATOM	38007	CG	ASP	E	36	150.774	135.011	9.569	1.00	66.60	C	ATOM	38057	CA	LEU	E	43	161.411	131.812	0.198	1.00	56.02	O
ATOM	38008	OD1	ASP	E	36	150.435	133.932	9.037	1.00	66.60	O	ATOM	38058	C	LEU	E	43	159.636	129.363	0.351	1.00	34.43	C
ATOM	38009	OD2	ASP	E	36	150.267	136.116	9.260	1.00	66.60	O	ATOM	38059	CB	LEU	E	43	160.080	127.918	0.571	1.00	34.43	C
ATOM	38010	N	ARG	E	37	150.920	131.683	10.489	1.00	58.64	N	ATOM	38060	CG	LEU	E	43	160.294	127.266	-0.784	1.00	34.43	C
ATOM	38011	CA	ARG	E	37	149.832	130.755	10.739	1.00	58.64	C	ATOM	38061	CG	LEU	E	43	161.345	127.873	1.424	1.00	34.43	C
ATOM	38012	C	ARG	E	37	148.515	131.491	10.589	1.00	58.64	C	ATOM	38062	CD1	LEU	E	43	162.424	130.554	1.751	1.00	43.77	N
ATOM	38013	O	ARG	E	37	147.498	131.094	11.145	1.00	58.64	O	ATOM	38063	CD2	LEU	E	43	163.719	131.123	1.460	1.00	43.77	C
ATOM	38014	CB	ARG	E	37	149.971	130.166	12.138	1.00	56.39	C	ATOM	38064	N	GLY	E	44						
ATOM	38015	CG	ARG	E	37	151.231	129.337	12.323	1.00	56.39	C	ATOM	38065	CA	GLY	E	44						



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ATOM	38066	C	GLY E	44	164.803	130.066	1.434	1.00	43.77	C	ATOM	38116	O	VAL E	51	173.731	128.612	8.164	1.00	45.52	O
ATOM	38067	O	GLY E	44	164.840	129.146	2.263	1.00	43.77	O	ATOM	38117	CB	VAL E	51	175.333	125.872	9.413	1.00	51.20	C
ATOM	38068	N	PHE E	45	165.698	130.198	0.467	1.00	61.06	N	ATOM	38118	CG1	VAL E	51	173.878	125.752	9.774	1.00	51.20	C
ATOM	38069	CA	PHE E	45	166.788	129.256	0.333	1.00	61.06	C	ATOM	38119	CG2	VAL E	51	175.818	124.579	8.801	1.00	51.20	C
ATOM	38070	C	PHE E	45	168.069	130.043	0.179	1.00	61.06	C	ATOM	38120	N	PRO E	52	175.002	128.812	10.018	1.00	56.60	N
ATOM	38071	O	PHE E	45	168.299	130.636	-0.867	1.00	61.06	O	ATOM	38121	CA	PRO E	52	174.266	129.957	10.546	1.00	56.60	C
ATOM	38072	CB	PHE E	45	166.562	128.398	-0.894	1.00	56.03	C	ATOM	38122	C	PRO E	52	174.073	131.026	9.503	1.00	56.60	C
ATOM	38073	CG	PHE E	45	167.549	127.306	-1.039	1.00	56.03	C	ATOM	38123	O	PRO E	52	172.946	131.395	9.184	1.00	56.60	O
ATOM	38074	CD1	PHE E	45	167.716	126.380	-0.026	1.00	56.03	C	ATOM	38124	CB	PRO E	52	175.152	130.423	11.674	1.00	37.79	C
ATOM	38075	CD2	PHE E	45	168.309	127.194	-2.187	1.00	56.03	C	ATOM	38125	CG	PRO E	52	175.664	129.143	12.204	1.00	37.79	C
ATOM	38076	CE1	PHE E	45	168.632	125.351	-0.156	1.00	56.03	C	ATOM	38126	CD	PRO E	52	176.088	128.448	10.941	1.00	37.79	C
ATOM	38077	CE2	PHE E	45	169.222	126.172	-2.324	1.00	56.03	C	ATOM	38127	N	LEU E	53	175.180	131.522	8.968	1.00	43.74	N
ATOM	38078	CZ	PHE E	45	169.386	125.246	-1.307	1.00	56.03	C	ATOM	38128	CA	LEU E	53	175.109	132.557	7.948	1.00	43.74	C
ATOM	38079	N	GLY E	46	168.899	130.045	1.216	1.00	39.32	N	ATOM	38129	C	LEU E	53	174.078	132.193	6.877	1.00	43.74	C
ATOM	38080	CA	GLY E	46	170.140	130.801	1.163	1.00	39.32	C	ATOM	38130	O	LEU E	53	173.333	133.059	6.403	1.00	43.74	O
ATOM	38081	C	GLY E	46	171.388	130.015	1.510	1.00	39.32	C	ATOM	38131	CB	LEU E	53	176.485	132.751	7.318	1.00	78.27	C
ATOM	38082	O	GLY E	47	171.393	129.202	2.441	1.00	39.32	O	ATOM	38132	CG	LEU E	53	177.512	133.386	8.252	1.00	78.27	C
ATOM	38083	N	LYS E	47	172.459	130.262	0.764	1.00	50.78	N	ATOM	38133	CD1	LEU E	53	178.920	133.184	7.712	1.00	78.27	C
ATOM	38084	CA	LYS E	47	173.702	129.551	1.007	1.00	50.78	C	ATOM	38134	CD2	LEU E	53	177.197	134.856	8.397	1.00	78.27	C
ATOM	38085	C	LYS E	47	174.767	130.481	1.524	1.00	50.78	C	ATOM	38135	N	ALA E	54	174.034	130.908	6.518	1.00	48.77	N
ATOM	38086	O	LYS E	47	174.708	131.689	1.308	1.00	50.78	O	ATOM	38136	CA	ALA E	54	173.105	130.407	5.504	1.00	48.77	C
ATOM	38087	CB	LYS E	47	174.211	128.893	-0.265	1.00	49.95	C	ATOM	38137	C	ALA E	54	171.698	130.520	6.019	1.00	48.77	C
ATOM	38088	CG	LYS E	47	173.166	128.162	-1.036	1.00	49.95	C	ATOM	38138	O	ALA E	54	170.862	131.186	5.413	1.00	48.77	O
ATOM	38089	CD	LYS E	47	172.405	129.119	-1.887	1.00	49.95	C	ATOM	38139	CB	ALA E	54	173.406	128.957	5.174	1.00	57.28	C
ATOM	38090	CE	LYS E	47	171.385	128.395	-2.696	1.00	49.95	C	ATOM	38140	N	VAL E	55	171.447	129.856	7.142	1.00	39.70	N
ATOM	38091	NZ	LYS E	47	170.708	129.325	-3.632	1.00	49.95	N	ATOM	38141	CA	VAL E	55	170.133	129.869	7.782	1.00	39.70	C
ATOM	38092	N	ALA E	48	175.750	129.900	2.198	1.00	40.39	N	ATOM	38142	C	VAL E	55	169.582	131.285	7.935	1.00	39.70	C
ATOM	38093	CA	ALA E	48	176.851	130.659	2.762	1.00	40.39	C	ATOM	38143	O	VAL E	55	168.404	131.539	7.663	1.00	39.70	O
ATOM	38094	C	ALA E	48	177.891	129.688	3.286	1.00	40.39	C	ATOM	38144	CB	VAL E	55	170.203	129.243	9.165	1.00	42.37	C
ATOM	38095	O	ALA E	48	177.611	128.493	3.442	1.00	40.39	O	ATOM	38145	CG1	VAL E	55	168.854	129.312	9.821	1.00	42.37	C
ATOM	38096	CB	ALA E	48	176.350	131.546	3.894	1.00	50.45	C	ATOM	38146	CG2	VAL E	55	170.681	127.806	9.049	1.00	42.37	C
ATOM	38097	N	PRO E	49	179.118	130.182	3.526	1.00	42.24	N	ATOM	38147	N	GLN E	56	170.437	132.205	8.378	1.00	35.50	N
ATOM	38098	CA	PRO E	49	180.226	129.373	4.038	1.00	42.24	C	ATOM	38148	CA	GLN E	56	170.010	133.577	8.545	1.00	35.50	C
ATOM	38099	C	PRO E	49	179.956	128.672	5.360	1.00	42.24	C	ATOM	38149	C	GLN E	56	169.662	134.145	7.200	1.00	35.50	C
ATOM	38100	O	PRO E	49	180.454	127.575	5.584	1.00	42.24	O	ATOM	38150	O	GLN E	56	168.557	134.635	6.997	1.00	35.50	O
ATOM	38101	CB	PRO E	49	181.388	130.361	4.114	1.00	41.63	C	ATOM	38151	CB	GLN E	56	171.083	134.406	9.238	1.00	116.53	C
ATOM	38102	CG	PRO E	49	180.778	131.722	3.794	1.00	41.63	C	ATOM	38152	CG	GLN E	56	170.582	134.911	10.575	1.00	116.53	C
ATOM	38103	CD	PRO E	49	179.631	131.412	2.908	1.00	41.63	C	ATOM	38153	CD	GLN E	56	169.702	133.875	11.282	1.00	116.53	C
ATOM	38104	N	GLU E	50	179.167	129.288	6.236	1.00	58.44	N	ATOM	38154	OE1	GLN E	56	170.184	132.821	11.709	1.00	116.53	O
ATOM	38105	CA	GLU E	50	178.832	128.661	7.515	1.00	58.44	C	ATOM	38155	NE2	GLN E	56	168.403	134.166	11.389	1.00	116.53	N
ATOM	38106	C	GLU E	50	177.339	128.422	7.600	1.00	58.44	C	ATOM	38156	N	LYS E	57	170.585	134.054	6.258	1.00	51.09	N
ATOM	38107	O	GLU E	50	176.550	129.197	7.067	1.00	58.44	O	ATOM	38157	CA	LYS E	57	170.316	134.567	4.924	1.00	51.09	C
ATOM	38108	CB	GLU E	50	179.257	129.545	8.667	1.00	107.06	C	ATOM	38158	C	LYS E	57	169.018	133.943	4.411	1.00	51.09	C
ATOM	38109	CG	GLU E	50	180.734	129.656	8.811	1.00	107.06	C	ATOM	38159	O	LYS E	57	168.240	134.596	3.728	1.00	51.09	O
ATOM	38110	CD	GLU E	50	181.105	130.730	9.786	1.00	107.06	C	ATOM	38160	CB	LYS E	57	171.478	134.226	3.991	1.00	68.98	C
ATOM	38111	OE1	GLU E	50	180.876	131.915	9.466	1.00	107.06	O	ATOM	38161	CG	LYS E	57	171.418	134.917	2.645	1.00	68.98	C
ATOM	38112	OE2	GLU E	50	181.614	130.390	10.874	1.00	107.06	O	ATOM	38162	CD	LYS E	57	172.637	134.575	1.799	1.00	68.98	C
ATOM	38113	N	VAL E	51	176.950	127.350	8.277	1.00	45.52	N	ATOM	38163	CE	LYS E	57	173.926	135.045	2.456	1.00	68.98	C
ATOM	38114	CA	VAL E	51	175.534	127.024	8.417	1.00	45.52	C	ATOM	38164	NZ	LYS E	57	175.134	134.578	1.724	1.00	68.98	N
ATOM	38115	C	VAL E	51	174.678	128.219	8.857	1.00	45.52	C	ATOM	38165	N	ALA E	58	168.780	132.683	4.767	1.00	41.91	N



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ATOM	38166	CA	ALA	E	58	167.578	131.972	4.332	1.00	41.91	C	ATOM	38216	C	ARG	E	64	160.329	138.012	0.017	1.00	67.85	C
ATOM	38167	C	ALA	E	58	166.285	132.632	4.840	1.00	41.91	C	ATOM	38217	O	ARG	E	64	160.184	138.558	-1.077	1.00	67.85	O
ATOM	38168	O	ALA	E	58	165.401	132.989	4.042	1.00	41.91	O	ATOM	38218	CB	ARG	E	64	162.546	138.969	0.597	1.00	67.85	O
ATOM	38169	CB	ALA	E	58	167.645	130.522	4.790	1.00	91.91	C	ATOM	38219	CG	ARG	E	64	163.503	139.497	1.646	1.00	121.17	C
ATOM	38170	N	GLY	E	59	166.174	132.778	6.167	1.00	43.91	N	ATOM	38220	CD	ARG	E	64	163.230	140.945	1.942	1.00	121.17	C
ATOM	38171	CA	GLY	E	59	165.002	133.414	6.737	1.00	43.91	C	ATOM	38221	NE	ARG	E	64	163.984	141.412	3.096	1.00	121.17	N
ATOM	38172	C	GLY	E	59	164.800	134.777	6.096	1.00	43.91	C	ATOM	38222	CZ	ARG	E	64	164.031	142.682	3.484	1.00	121.17	C
ATOM	38173	O	GLY	E	59	163.691	135.146	5.703	1.00	43.91	O	ATOM	38223	NH1	ARG	E	64	163.369	143.608	2.801	1.00	121.17	N
ATOM	38174	N	TYR	E	60	165.889	135.530	5.986	1.00	39.57	N	ATOM	38224	NH2	ARG	E	64	164.727	143.025	4.558	1.00	121.17	N
ATOM	38175	CA	TYR	E	60	165.853	136.846	5.375	1.00	39.57	C	ATOM	38225	N	ASN	E	65	159.811	136.823	0.302	1.00	91.55	N
ATOM	38176	C	TYR	E	60	165.166	136.736	4.016	1.00	39.57	C	ATOM	38226	CA	ASN	E	65	159.025	136.069	-0.672	1.00	91.55	C
ATOM	38177	O	TYR	E	60	164.218	137.466	3.728	1.00	39.57	O	ATOM	38227	C	ASN	E	65	157.808	135.444	0.002	1.00	91.55	C
ATOM	38178	CB	TYR	E	60	167.278	137.377	5.182	1.00	64.18	C	ATOM	38228	O	ASN	E	65	157.778	134.246	0.283	1.00	91.55	O
ATOM	38179	CG	TYR	E	60	167.324	138.730	4.511	1.00	64.18	C	ATOM	38229	CB	ASN	E	65	159.904	134.986	-1.306	1.00	93.60	C
ATOM	38180	CD1	TYR	E	60	167.237	139.902	5.259	1.00	64.18	C	ATOM	38230	CG	ASN	E	65	159.107	133.974	-2.094	1.00	93.60	C
ATOM	38181	CD2	TYR	E	60	167.369	138.838	3.122	1.00	64.18	C	ATOM	38231	OD1	ASN	E	65	158.218	134.332	-2.869	1.00	93.60	O
ATOM	38182	CE1	TYR	E	60	167.184	141.142	4.645	1.00	64.18	C	ATOM	38232	ND2	ASN	E	65	159.426	132.697	-1.907	1.00	93.60	N
ATOM	38183	CE2	TYR	E	60	167.316	140.072	2.494	1.00	64.18	C	ATOM	38233	N	MET	E	66	156.798	136.269	0.253	1.00	68.10	N
ATOM	38184	CZ	TYR	E	60	167.218	141.222	3.262	1.00	64.18	C	ATOM	38234	CA	MET	E	66	155.594	135.808	0.923	1.00	68.10	C
ATOM	38185	OH	TYR	E	60	167.108	142.450	2.648	1.00	64.18	O	ATOM	38235	C	MET	E	66	154.471	135.525	-0.047	1.00	68.10	C
ATOM	38186	N	TYR	E	61	165.672	135.824	3.183	1.00	51.43	N	ATOM	38236	O	MET	E	66	154.394	136.134	-1.115	1.00	68.10	O
ATOM	38187	CA	TYR	E	61	165.148	135.587	1.842	1.00	51.43	C	ATOM	38237	CB	MET	E	66	155.105	136.864	1.904	1.00	56.82	C
ATOM	38188	C	TYR	E	61	163.671	135.224	1.900	1.00	51.43	C	ATOM	38238	CG	MET	E	66	156.137	137.355	2.879	1.00	56.82	C
ATOM	38189	O	TYR	E	61	162.866	135.735	1.119	1.00	51.43	O	ATOM	38239	SD	MET	E	66	156.488	136.182	4.182	1.00	56.82	S
ATOM	38190	CB	TYR	E	61	165.930	134.454	1.172	1.00	86.13	C	ATOM	38240	CE	MET	E	66	154.886	136.048	4.994	1.00	56.82	C
ATOM	38191	CG	TYR	E	61	167.244	134.869	0.548	1.00	86.13	C	ATOM	38241	N	VAL	E	67	153.601	134.593	0.340	1.00	52.68	N
ATOM	38192	CD1	TYR	E	61	168.050	135.828	1.145	1.00	86.13	C	ATOM	38242	CA	VAL	E	67	152.433	134.240	-0.455	1.00	52.68	C
ATOM	38193	CD2	TYR	E	61	167.680	134.299	-0.646	1.00	86.13	C	ATOM	38243	O	VAL	E	67	151.258	134.424	0.488	1.00	52.68	C
ATOM	38194	CE1	TYR	E	61	169.257	136.219	0.569	1.00	86.13	C	ATOM	38244	C	VAL	E	67	151.377	134.164	1.693	1.00	52.68	O
ATOM	38195	CE2	TYR	E	61	168.886	134.683	-1.230	1.00	86.13	C	ATOM	38245	CB	VAL	E	67	152.473	132.776	-0.945	1.00	75.73	C
ATOM	38196	CZ	TYR	E	61	169.668	135.646	-0.614	1.00	86.13	C	ATOM	38246	CG1	VAL	E	67	151.127	132.383	-1.536	1.00	75.73	C
ATOM	38197	OH	TYR	E	61	170.848	136.052	-1.186	1.00	86.13	O	ATOM	38247	CG2	VAL	E	67	153.541	132.615	-2.004	1.00	75.73	C
ATOM	38198	N	ALA	E	62	163.325	134.336	2.831	1.00	51.31	N	ATOM	38248	N	GLU	E	68	150.137	134.891	-0.058	1.00	58.14	N
ATOM	38199	CA	ALA	E	62	161.945	133.889	3.002	1.00	51.31	C	ATOM	38249	CA	GLU	E	68	148.930	135.122	0.724	1.00	58.14	C
ATOM	38200	C	ALA	E	62	160.994	135.058	3.227	1.00	51.31	C	ATOM	38250	C	GLU	E	68	147.960	133.949	0.554	1.00	58.14	C
ATOM	38201	O	ALA	E	62	159.977	135.187	2.545	1.00	51.31	O	ATOM	38251	O	GLU	E	68	147.080	133.983	-0.305	1.00	58.14	O
ATOM	38202	CB	ALA	E	62	161.857	132.924	4.168	1.00	40.65	C	ATOM	38252	CB	GLU	E	68	148.264	136.420	0.267	1.00	158.68	C
ATOM	38203	N	ARG	E	63	161.327	135.903	4.196	1.00	52.03	N	ATOM	38253	CG	GLU	E	68	147.348	137.031	1.301	1.00	158.68	C
ATOM	38204	CA	ARG	E	63	160.515	137.066	4.513	1.00	52.03	C	ATOM	38254	CD	GLU	E	68	148.096	137.423	2.555	1.00	158.68	C
ATOM	38205	C	ARG	E	63	160.309	137.959	3.293	1.00	52.03	C	ATOM	38255	OE1	GLU	E	68	149.004	138.274	2.456	1.00	158.68	O
ATOM	38206	O	ARG	E	63	159.335	138.695	3.221	1.00	52.03	O	ATOM	38256	OE2	GLU	E	68	147.784	136.879	3.637	1.00	158.68	O
ATOM	38207	CB	ARG	E	63	161.177	137.864	5.626	1.00	82.66	C	ATOM	38257	N	VAL	E	69	148.121	132.914	1.373	1.00	47.77	N
ATOM	38208	CG	ARG	E	63	160.201	138.388	6.639	1.00	82.66	C	ATOM	38258	CA	VAL	E	69	147.265	131.728	1.300	1.00	47.77	C
ATOM	38209	CD	ARG	E	63	160.809	138.319	8.021	1.00	82.66	C	ATOM	38259	O	VAL	E	69	145.811	131.982	1.681	1.00	47.77	O
ATOM	38210	NE	ARG	E	63	161.584	137.095	8.196	1.00	82.66	N	ATOM	38260	O	VAL	E	69	145.522	132.361	2.810	1.00	47.77	O
ATOM	38211	CZ	ARG	E	63	162.041	136.659	9.366	1.00	82.66	C	ATOM	38261	CB	VAL	E	69	147.781	130.610	2.219	1.00	48.42	C
ATOM	38212	NH1	ARG	E	63	161.794	137.346	10.475	1.00	82.66	N	ATOM	38262	CG1	VAL	E	69	146.820	129.419	2.181	1.00	48.42	C
ATOM	38213	NH2	ARG	E	63	162.758	135.542	9.427	1.00	82.66	N	ATOM	38263	CG2	VAL	E	69	149.184	130.202	1.796	1.00	48.42	C
ATOM	38214	N	ARG	E	64	161.216	137.874	2.327	1.00	67.85	N	ATOM	38264	N	PRO	E	70	144.877	131.758	0.744	1.00	50.01	N
ATOM	38215	CA	ARG	E	64	161.138	138.689	1.118	1.00	67.85	C	ATOM	38265	CA	PRO	E	70	143.452	131.966	1.004	1.00	50.01	C



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ATOM	38266	C	PRO E	70	142.882	130.882	1.902	1.00	50.01	C	ATOM	38316	CA	PRO E	77	139.508	126.544	-1.259	1.00	44.25	C
ATOM	38267	O	PRO E	70	142.039	130.107	1.451	1.00	50.01	O	ATOM	38317	O	PRO E	77	139.197	125.429	-2.236	1.00	44.25	C
ATOM	38268	CB	PRO E	70	142.829	131.906	-0.388	1.00	74.30	C	ATOM	38318	O	PRO E	77	138.034	125.232	-2.587	1.00	44.25	O
ATOM	38269	CG	PRO E	70	143.936	132.329	-1.276	1.00	74.30	C	ATOM	38319	CB	PRO E	77	139.888	127.844	-1.969	1.00	35.72	C
ATOM	38270	CD	PRO E	70	145.109	131.586	-0.697	1.00	74.30	C	ATOM	38320	CG	PRO E	77	141.362	127.992	-1.700	1.00	35.72	C
ATOM	38271	N	LEU E	71	143.324	130.818	3.159	1.00	57.50	N	ATOM	38321	CD	PRO E	77	141.462	127.539	-0.285	1.00	35.72	C
ATOM	38272	CA	LEU E	71	142.817	129.805	4.084	1.00	57.50	C	ATOM	38322	N	HIS E	78	140.213	124.701	-2.686	1.00	48.15	N
ATOM	38273	C	LEU E	71	141.294	129.815	4.105	1.00	57.50	C	ATOM	38323	CA	HIS E	78	139.984	123.616	-3.642	1.00	48.15	C
ATOM	38274	O	LEU E	71	140.658	130.732	3.591	1.00	57.50	O	ATOM	38324	C	HIS E	78	141.261	122.814	-3.833	1.00	48.15	C
ATOM	38275	CB	LEU E	71	143.382	130.019	5.488	1.00	60.51	C	ATOM	38325	O	HIS E	78	142.257	123.079	-3.179	1.00	48.15	O
ATOM	38276	CG	LEU E	71	144.859	129.614	5.597	1.00	60.51	C	ATOM	38326	CB	HIS E	78	139.536	124.197	-4.983	1.00	47.64	C
ATOM	38277	CD1	LEU E	71	145.410	129.997	6.957	1.00	60.51	C	ATOM	38327	CG	HIS E	78	140.526	125.141	-5.575	1.00	47.64	C
ATOM	38278	CD2	LEU E	71	144.999	128.119	5.364	1.00	60.51	C	ATOM	38328	ND1	HIS E	78	141.723	124.717	-6.110	1.00	47.64	N
ATOM	38279	N	GLN E	72	140.696	128.796	4.698	1.00	57.57	N	ATOM	38329	CD2	HIS E	78	140.550	126.493	-5.622	1.00	47.64	C
ATOM	38280	CA	GLN E	72	139.247	128.718	4.686	1.00	57.57	C	ATOM	38330	CE1	HIS E	78	142.446	125.769	-6.453	1.00	47.64	C
ATOM	38281	C	GLN E	72	138.758	127.628	5.623	1.00	57.57	C	ATOM	38331	NE2	HIS E	78	141.758	126.859	-6.167	1.00	47.64	N
ATOM	38282	O	GLN E	72	138.427	126.529	5.199	1.00	57.57	O	ATOM	38332	N	GLU E	79	141.237	121.842	-4.736	1.00	52.92	N
ATOM	38283	CB	GLN E	72	138.795	128.421	3.261	1.00	60.99	C	ATOM	38333	CA	GLU E	79	142.412	121.016	-4.980	1.00	52.92	C
ATOM	38284	CG	GLN E	72	137.325	128.476	3.041	1.00	60.99	C	ATOM	38334	C	GLU E	79	143.217	121.544	-6.148	1.00	52.92	C
ATOM	38285	CD	GLN E	72	136.950	127.927	1.588	1.00	60.99	C	ATOM	38335	O	GLU E	79	142.652	122.095	-7.090	1.00	52.92	O
ATOM	38286	OE1	GLN E	72	136.717	126.729	1.550	1.00	60.99	O	ATOM	38336	CB	GLU E	79	142.013	119.568	-5.283	1.00	91.14	C
ATOM	38287	NE2	GLN E	72	136.909	128.793	0.670	1.00	60.99	N	ATOM	38337	CG	GLU E	79	140.532	119.239	-5.117	1.00	91.14	C
ATOM	38288	N	ASN E	73	138.714	127.955	6.905	1.00	68.99	N	ATOM	38338	CD	GLU E	79	139.626	119.995	-6.087	1.00	91.14	C
ATOM	38289	CA	ASN E	73	138.269	127.021	7.921	1.00	68.99	C	ATOM	38339	OE1	GLU E	79	138.995	120.994	-5.669	1.00	91.14	O
ATOM	38290	C	ASN E	73	139.336	125.961	8.092	1.00	68.99	C	ATOM	38340	OE2	GLU E	79	139.544	119.593	-7.270	1.00	91.14	O
ATOM	38291	O	ASN E	73	139.057	124.766	8.069	1.00	68.99	O	ATOM	38341	N	ILE E	80	144.539	121.392	-6.062	1.00	53.47	N
ATOM	38292	CB	ASN E	73	136.943	126.376	7.519	1.00	100.66	C	ATOM	38342	CA	ILE E	80	145.458	121.782	-7.131	1.00	53.47	C
ATOM	38293	CG	ASN E	73	136.274	125.666	8.673	1.00	100.66	C	ATOM	38343	C	ILE E	80	146.575	120.768	-7.163	1.00	53.47	C
ATOM	38294	OD1	ASN E	73	135.323	124.905	8.482	1.00	100.66	O	ATOM	38344	O	ILE E	80	146.781	120.024	-6.202	1.00	53.47	O
ATOM	38295	N	GLY E	74	136.763	125.914	9.886	1.00	50.58	N	ATOM	38345	CB	ILE E	80	146.155	123.155	-6.921	1.00	55.81	C
ATOM	38296	CA	GLY E	74	140.569	126.418	8.261	1.00	50.58	C	ATOM	38346	CG1	ILE E	80	146.213	123.481	-5.445	1.00	55.81	C
ATOM	38297	C	GLY E	74	141.683	125.507	8.443	1.00	50.58	C	ATOM	38347	CG2	ILE E	80	145.518	124.221	-7.769	1.00	55.81	C
ATOM	38298	O	GLY E	74	142.159	124.796	7.187	1.00	50.58	C	ATOM	38348	CD1	ILE E	80	147.166	122.608	-4.736	1.00	55.81	C
ATOM	38299	N	THR E	75	143.241	124.207	7.197	1.00	50.58	O	ATOM	38349	N	GLU E	81	147.289	120.754	-8.283	1.00	48.07	N
ATOM	38300	CA	THR E	75	141.368	124.851	6.111	1.00	43.99	N	ATOM	38350	CA	GLU E	81	148.439	119.888	-8.486	1.00	48.07	C
ATOM	38301	C	THR E	75	141.741	124.180	4.871	1.00	43.99	C	ATOM	38351	C	GLU E	81	149.388	120.802	-9.219	1.00	48.07	C
ATOM	38302	O	THR E	75	141.880	125.100	3.662	1.00	43.99	C	ATOM	38352	O	GLU E	81	149.019	121.366	-10.238	1.00	48.07	O
ATOM	38303	CB	THR E	75	141.928	126.312	3.785	1.00	43.99	O	ATOM	38353	CB	GLU E	81	148.087	118.695	-9.376	1.00	166.53	C
ATOM	38304	CB	THR E	75	140.750	123.052	4.516	1.00	42.90	C	ATOM	38354	CG	GLU E	81	147.116	117.706	-8.760	1.00	166.53	C
ATOM	38305	OG1	THR E	75	141.412	122.080	3.693	1.00	42.90	C	ATOM	38355	CD	GLU E	81	146.870	116.502	-9.653	1.00	166.53	C
ATOM	38306	CG2	THR E	75	139.558	123.604	3.753	1.00	42.90	C	ATOM	38356	OE1	GLU E	81	147.855	115.830	-10.026	1.00	166.53	O
ATOM	38307	N	ILE E	76	141.931	124.498	2.486	1.00	50.20	N	ATOM	38357	OE2	GLU E	81	145.696	116.225	-9.980	1.00	166.53	O
ATOM	38308	CA	ILE E	76	142.114	125.240	1.264	1.00	50.20	C	ATOM	38358	N	VAL E	82	150.595	120.983	-8.700	1.00	45.41	N
ATOM	38309	C	ILE E	76	140.924	125.198	0.296	1.00	50.20	C	ATOM	38359	CA	VAL E	82	151.564	121.848	-9.364	1.00	45.41	C
ATOM	38310	O	ILE E	76	140.309	124.154	0.076	1.00	50.20	O	ATOM	38360	C	VAL E	82	152.825	121.081	-9.663	1.00	45.41	O
ATOM	38311	CB	ILE E	76	143.398	124.738	0.601	1.00	80.76	C	ATOM	38361	O	VAL E	82	153.327	120.352	-8.813	1.00	45.41	C
ATOM	38312	CG1	ILE E	76	144.579	125.162	1.471	1.00	80.76	C	ATOM	38362	CB	VAL E	82	151.946	123.058	-8.495	1.00	41.75	C
ATOM	38313	CG2	ILE E	76	143.522	125.256	-0.803	1.00	80.76	C	ATOM	38363	CG1	VAL E	82	153.321	123.555	-8.885	1.00	41.75	C
ATOM	38314	CD1	ILE E	76	145.922	124.987	0.826	1.00	80.76	C	ATOM	38364	CG2	VAL E	82	150.940	124.178	-8.684	1.00	41.75	C
ATOM	38315	N	PRO E	77	140.603	126.348	-0.309	1.00	44.25	N	ATOM	38365	N	GLU E	83	153.347	121.249	-10.867	1.00	54.81	N



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ATOM	38366	CA	GLU E	83	154.573	120.563	-11.252	1.00	54.81	C	ATOM	38416	CD1	ILE E	89	152.476	118.610	-2.526	1.00	40.10	C
ATOM	38367	C	GLU E	83	155.723	121.549	-11.361	1.00	54.81	C	ATOM	38417	N	VAL E	90	150.571	117.587	-4.902	1.00	50.68	N
ATOM	38368	O	GLU E	83	155.706	122.441	-12.201	1.00	54.81	O	ATOM	38418	CA	VAL E	90	149.127	117.612	-4.976	1.00	50.68	C
ATOM	38369	CB	GLU E	83	154.379	119.846	-12.589	1.00	109.81	C	ATOM	38419	C	VAL E	90	148.524	117.965	-3.640	1.00	50.68	C
ATOM	38370	CG	GLU E	83	153.613	118.541	-12.487	1.00	109.81	C	ATOM	38420	O	VAL E	90	148.832	117.334	-2.620	1.00	50.68	O
ATOM	38371	CD	GLU E	83	153.318	117.913	-13.841	1.00	109.81	C	ATOM	38421	CB	VAL E	90	148.553	116.270	-5.385	1.00	33.01	C
ATOM	38372	OE1	GLU E	83	154.221	117.899	-14.705	1.00	109.81	O	ATOM	38422	CG1	VAL E	90	147.050	116.399	-6.594	1.00	33.01	C
ATOM	38373	OE2	GLU E	83	152.186	117.419	-14.039	1.00	109.81	O	ATOM	38423	CG2	VAL E	90	149.178	115.808	-5.507	1.00	33.01	C
ATOM	38374	N	PHE E	84	156.713	121.407	-10.494	1.00	38.55	N	ATOM	38424	N	LEU E	91	147.659	118.973	-3.656	1.00	45.30	N
ATOM	38375	CA	PHE E	84	157.886	122.276	-10.536	1.00	38.55	C	ATOM	38425	CA	LEU E	91	146.989	119.418	-2.448	1.00	45.30	C
ATOM	38376	C	PHE E	84	159.029	121.349	-10.868	1.00	38.55	C	ATOM	38426	C	LEU E	91	145.486	119.207	-2.589	1.00	45.30	C
ATOM	38377	O	PHE E	84	159.330	120.439	-10.090	1.00	38.55	O	ATOM	38427	O	LEU E	91	144.889	119.531	-3.618	1.00	45.30	O
ATOM	38378	CB	PHE E	84	158.177	122.921	-9.185	1.00	50.29	C	ATOM	38428	CB	LEU E	91	147.291	120.890	-2.199	1.00	37.32	C
ATOM	38379	CG	PHE E	84	159.319	123.890	-9.221	1.00	50.29	C	ATOM	38429	CG	LEU E	91	148.773	121.269	-2.175	1.00	37.32	C
ATOM	38380	CD1	PHE E	84	159.109	125.225	-9.545	1.00	50.29	C	ATOM	38430	CD1	LEU E	91	148.870	122.788	-2.150	1.00	37.32	C
ATOM	38381	CD2	PHE E	84	160.610	123.472	-8.957	1.00	50.29	C	ATOM	38431	CD2	LEU E	91	149.471	120.649	-0.958	1.00	37.32	C
ATOM	38382	CE1	PHE E	84	160.171	126.134	-9.606	1.00	50.29	C	ATOM	38432	N	LYS E	92	144.881	118.656	-1.545	1.00	45.38	N
ATOM	38383	CE2	PHE E	84	161.674	124.377	-9.017	1.00	50.29	C	ATOM	38433	CA	LYS E	92	143.455	118.381	-1.545	1.00	45.38	C
ATOM	38384	CZ	PHE E	84	161.445	125.711	-9.344	1.00	50.29	C	ATOM	38434	C	LYS E	92	142.867	118.894	-0.232	1.00	45.38	C
ATOM	38385	N	GLY E	85	159.661	121.573	-12.018	1.00	48.66	N	ATOM	38435	O	LYS E	92	143.407	118.632	0.852	1.00	45.38	O
ATOM	38386	CA	GLY E	85	160.755	120.718	-12.428	1.00	48.66	C	ATOM	38436	CB	LYS E	92	143.255	116.882	-1.662	1.00	72.77	C
ATOM	38387	C	GLY E	85	160.193	119.336	-12.659	1.00	48.66	C	ATOM	38437	CG	LYS E	92	141.927	116.443	-2.199	1.00	72.77	C
ATOM	38388	O	GLY E	85	159.148	119.188	-13.293	1.00	48.66	O	ATOM	38438	CD	LYS E	92	141.965	114.937	-2.340	1.00	72.77	C
ATOM	38389	N	ALA E	86	160.872	118.319	-12.142	1.00	45.11	N	ATOM	38439	CE	LYS E	92	140.736	114.391	-3.013	1.00	72.77	C
ATOM	38390	CA	ALA E	86	160.405	116.951	-12.301	1.00	45.11	C	ATOM	38440	NZ	LYS E	92	140.822	112.910	-3.050	1.00	72.77	N
ATOM	38391	C	ALA E	86	159.534	116.586	-11.106	1.00	45.11	C	ATOM	38441	N	PRO E	93	141.752	119.640	-0.309	1.00	49.66	N
ATOM	38392	O	ALA E	86	159.091	115.444	-10.967	1.00	45.11	O	ATOM	38442	CA	PRO E	93	141.140	120.164	0.918	1.00	49.66	C
ATOM	38393	CB	ALA E	86	161.591	116.012	-12.389	1.00	83.96	C	ATOM	38443	C	PRO E	93	140.528	119.056	1.764	1.00	49.66	C
ATOM	38394	N	SER E	87	159.289	117.577	-10.254	1.00	41.79	N	ATOM	38444	O	PRO E	93	140.142	118.015	1.239	1.00	49.66	O
ATOM	38395	CA	SER E	87	158.504	117.393	-9.043	1.00	41.79	C	ATOM	38445	CB	PRO E	93	140.113	121.171	0.391	1.00	25.58	C
ATOM	38396	C	SER E	87	157.054	117.843	-9.167	1.00	41.79	C	ATOM	38446	CG	PRO E	93	139.706	120.595	-0.924	1.00	25.58	C
ATOM	38397	O	SER E	87	156.747	118.916	-9.705	1.00	41.79	O	ATOM	38447	CD	PRO E	93	141.003	120.067	-1.508	1.00	25.58	C
ATOM	38398	CB	SER E	87	159.173	118.138	-7.895	1.00	48.84	C	ATOM	38448	N	ALA E	94	140.454	119.276	3.073	1.00	58.26	N
ATOM	38399	OG	SER E	87	160.531	117.751	-7.780	1.00	48.84	O	ATOM	38449	CA	ALA E	94	139.896	118.272	3.974	1.00	58.26	C
ATOM	38400	N	LYS E	88	156.161	117.008	-8.655	1.00	44.55	N	ATOM	38450	C	ALA E	94	139.118	118.861	5.142	1.00	58.26	C
ATOM	38401	CA	LYS E	88	154.742	117.297	-8.691	1.00	44.55	C	ATOM	38451	O	ALA E	94	139.375	119.991	5.581	1.00	58.26	O
ATOM	38402	C	LYS E	88	154.240	117.263	-7.256	1.00	44.55	C	ATOM	38452	CB	ALA E	94	141.008	117.372	4.512	1.00	22.94	C
ATOM	38403	O	LYS E	88	154.668	116.433	-6.457	1.00	44.55	O	ATOM	38453	N	ALA E	95	138.177	118.073	5.656	1.00	53.14	N
ATOM	38404	CB	LYS E	88	154.034	116.243	-9.526	1.00	61.69	C	ATOM	38454	CA	ALA E	95	137.363	118.497	6.782	1.00	53.14	C
ATOM	38405	CG	LYS E	88	152.621	116.580	-9.918	1.00	61.69	C	ATOM	38455	C	ALA E	95	138.174	118.486	8.069	1.00	53.14	C
ATOM	38406	CD	LYS E	88	152.104	115.515	-10.880	1.00	61.69	C	ATOM	38456	O	ALA E	95	139.249	117.894	8.130	1.00	53.14	O
ATOM	38407	CE	LYS E	88	150.663	115.764	-11.297	1.00	61.69	C	ATOM	38457	CB	ALA E	95	136.185	117.595	6.915	1.00	34.00	C
ATOM	38408	NZ	LYS E	88	150.041	114.540	-11.897	1.00	61.69	N	ATOM	38458	N	PRO E	96	137.666	119.145	9.118	1.00	53.67	N
ATOM	38409	N	ILE E	89	153.352	118.189	-6.916	1.00	43.32	N	ATOM	38459	CA	PRO E	96	138.320	119.233	10.427	1.00	53.67	C
ATOM	38410	CA	ILE E	89	152.790	118.241	-5.570	1.00	43.32	C	ATOM	38460	C	PRO E	96	138.559	117.882	11.075	1.00	53.67	C
ATOM	38411	C	ILE E	89	151.284	118.328	-5.731	1.00	43.32	C	ATOM	38461	O	PRO E	96	137.769	116.958	10.903	1.00	53.67	O
ATOM	38412	O	ILE E	89	150.775	119.017	-6.615	1.00	43.32	O	ATOM	38462	CB	PRO E	96	137.349	120.071	11.237	1.00	44.51	C
ATOM	38413	CB	ILE E	89	153.358	119.473	-4.758	1.00	40.10	C	ATOM	38463	CG	PRO E	96	136.750	120.943	10.208	1.00	44.51	C
ATOM	38414	CG1	ILE E	89	153.660	119.064	-3.306	1.00	40.10	C	ATOM	38464	CD	PRO E	96	136.461	119.982	9.095	1.00	44.51	C
ATOM	38415	CG2	ILE E	89	152.406	120.651	-4.807	1.00	40.10	C	ATOM	38465	N	GLY E	97	139.642	117.776	11.832	1.00	61.12	N



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ATOM	38466	CA	GLY E 97	139.945	116.523	12.492	1.00	61.12	C	ATOM	38516	N	PRO E 106	156.235	119.843	2.340	1.00	46.60	N
ATOM	38467	C	GLY E 97	140.899	115.666	11.686	1.00	61.12	C	ATOM	38517	CA	PRO E 106	154.953	120.528	2.159	1.00	46.60	C
ATOM	38468	O	GLY E 97	141.408	114.655	12.184	1.00	61.12	O	ATOM	38518	C	PRO E 106	154.316	120.876	3.511	1.00	46.60	C
ATOM	38469	N	THR E 98	141.150	116.077	10.445	1.00	44.14	N	ATOM	38519	O	PRO E 106	153.665	121.916	3.660	1.00	46.60	O
ATOM	38470	CA	THR E 98	142.041	115.344	9.551	1.00	44.14	C	ATOM	38520	CB	PRO E 106	154.119	119.508	1.388	1.00	49.94	C
ATOM	38471	C	THR E 98	143.520	115.549	9.878	1.00	44.14	C	ATOM	38521	CG	PRO E 106	155.117	118.734	0.666	1.00	49.94	C
ATOM	38472	O	THR E 98	144.294	114.589	9.900	1.00	44.14	O	ATOM	38522	CD	PRO E 106	156.210	118.532	1.686	1.00	49.94	C
ATOM	38473	CB	THR E 98	141.825	115.760	8.083	1.00	45.78	C	ATOM	38523	N	ARG E 107	154.507	119.993	4.487	1.00	53.71	N
ATOM	38474	CG1	THR E 98	140.462	115.530	7.702	1.00	45.78	O	ATOM	38524	CA	ARG E 107	153.948	120.197	5.811	1.00	53.71	C
ATOM	38475	CG2	THR E 98	142.734	114.961	7.178	1.00	45.78	C	ATOM	38525	C	ARG E 107	154.411	121.502	6.410	1.00	53.71	C
ATOM	38476	N	GLY E 99	143.902	116.800	10.124	1.00	50.77	N	ATOM	38526	O	ARG E 107	153.639	122.454	6.501	1.00	53.71	O
ATOM	38477	CA	GLY E 99	145.288	117.132	10.417	1.00	50.77	C	ATOM	38527	CB	ARG E 107	154.331	119.057	6.744	1.00	72.03	C
ATOM	38478	C	GLY E 99	146.036	117.509	9.145	1.00	50.77	C	ATOM	38528	CG	ARG E 107	154.280	119.447	8.203	1.00	72.03	C
ATOM	38479	O	GLY E 99	145.451	117.507	8.053	1.00	50.77	O	ATOM	38529	CD	ARG E 107	154.506	118.261	9.089	1.00	72.03	C
ATOM	38480	N	VAL E 100	147.315	117.854	9.262	1.00	49.08	N	ATOM	38530	NE	ARG E 107	153.340	117.388	9.093	1.00	72.03	N
ATOM	38481	CA	VAL E 100	148.091	118.184	8.064	1.00	49.08	C	ATOM	38531	CZ	ARG E 107	153.413	116.061	9.065	1.00	72.03	C
ATOM	38482	C	VAL E 100	148.779	116.904	7.620	1.00	49.08	C	ATOM	38532	NH1	ARG E 107	154.605	115.462	9.026	1.00	72.03	N
ATOM	38483	O	VAL E 100	149.806	116.522	8.181	1.00	49.08	O	ATOM	38533	NH2	ARG E 107	152.297	115.334	9.074	1.00	72.03	N
ATOM	38484	CB	VAL E 100	149.174	119.227	8.334	1.00	50.91	C	ATOM	38534	N	ALA E 108	155.669	121.546	6.825	1.00	41.60	N
ATOM	38485	CG1	VAL E 100	149.730	119.719	7.015	1.00	50.91	C	ATOM	38535	CA	ALA E 108	156.208	122.752	7.425	1.00	41.60	C
ATOM	38486	CG2	VAL E 100	148.609	120.378	9.149	1.00	50.91	C	ATOM	38536	C	ALA E 108	155.659	123.975	6.715	1.00	41.60	C
ATOM	38487	N	ILE E 101	148.200	116.233	6.629	1.00	49.01	N	ATOM	38537	O	ALA E 108	155.206	124.903	7.364	1.00	41.60	O
ATOM	38488	CA	ILE E 101	148.739	114.968	6.128	1.00	49.01	C	ATOM	38538	CB	ALA E 108	157.710	122.740	7.362	1.00	35.08	C
ATOM	38489	C	ILE E 101	149.651	115.171	4.926	1.00	49.01	C	ATOM	38539	N	ILE E 109	155.689	123.985	5.388	1.00	41.23	N
ATOM	38490	O	ILE E 101	149.215	115.204	3.770	1.00	49.01	O	ATOM	38540	CA	ILE E 109	155.147	125.120	4.649	1.00	41.23	C
ATOM	38491	CB	ILE E 101	147.598	114.014	5.765	1.00	66.41	C	ATOM	38541	O	ILE E 109	153.667	125.294	4.974	1.00	41.23	C
ATOM	38492	CG1	ILE E 101	146.850	113.645	7.041	1.00	66.41	C	ATOM	38542	C	ILE E 109	153.284	126.367	5.389	1.00	41.23	O
ATOM	38493	CG2	ILE E 101	148.138	112.779	5.074	1.00	66.41	C	ATOM	38543	CB	ILE E 109	153.244	124.938	3.128	1.00	39.18	C
ATOM	38494	CD1	ILE E 101	145.765	112.638	6.829	1.00	66.41	C	ATOM	38544	CG1	ILE E 109	156.765	124.958	2.744	1.00	39.18	C
ATOM	38495	N	ALA E 102	150.937	115.288	5.207	1.00	42.95	N	ATOM	38545	CG2	ILE E 109	154.490	126.021	2.395	1.00	39.18	C
ATOM	38496	CA	ALA E 102	151.871	115.534	4.145	1.00	42.95	C	ATOM	38546	CD1	ILE E 109	157.022	124.764	1.255	1.00	39.18	C
ATOM	38497	C	ALA E 102	153.284	115.282	4.617	1.00	42.95	C	ATOM	38547	N	LEU E 110	152.883	124.236	4.792	1.00	45.03	N
ATOM	38498	O	ALA E 102	153.538	115.187	5.820	1.00	42.95	O	ATOM	38548	CA	LEU E 110	151.444	124.274	5.072	1.00	45.03	C
ATOM	38499	CB	ALA E 102	151.729	116.976	3.693	1.00	41.01	C	ATOM	38549	C	LEU E 110	151.072	124.661	6.516	1.00	45.03	C
ATOM	38500	N	GLY E 103	154.197	115.183	3.652	1.00	54.27	N	ATOM	38550	O	LEU E 110	150.083	125.355	6.741	1.00	45.03	O
ATOM	38501	CA	GLY E 103	155.593	114.981	3.973	1.00	54.27	C	ATOM	38551	CB	LEU E 110	150.817	122.921	4.723	1.00	26.03	C
ATOM	38502	C	GLY E 103	156.152	116.270	4.553	1.00	54.27	C	ATOM	38552	CG	LEU E 110	150.765	122.625	3.230	1.00	26.03	C
ATOM	38503	O	GLY E 103	155.599	117.347	4.334	1.00	54.27	O	ATOM	38553	CD1	LEU E 110	150.288	121.202	3.029	1.00	26.03	C
ATOM	38504	N	ALA E 104	157.257	116.153	5.281	1.00	41.08	N	ATOM	38554	CD2	LEU E 110	149.854	123.610	2.534	1.00	26.03	C
ATOM	38505	CA	ALA E 104	157.906	117.280	5.925	1.00	41.08	C	ATOM	38555	N	GLU E 111	151.851	124.210	7.490	1.00	56.78	N
ATOM	38506	C	ALA E 104	157.938	118.586	5.155	1.00	41.08	C	ATOM	38556	CA	GLU E 111	151.567	124.542	8.879	1.00	56.78	C
ATOM	38507	O	ALA E 104	157.498	119.618	5.666	1.00	41.08	O	ATOM	38557	C	GLU E 111	151.727	126.042	9.117	1.00	56.78	C
ATOM	38508	CB	ALA E 104	159.302	116.902	6.305	1.00	42.18	C	ATOM	38558	O	GLU E 111	150.792	126.710	9.574	1.00	56.78	O
ATOM	38509	N	VAL E 105	158.457	118.574	3.935	1.00	50.40	N	ATOM	38559	CB	GLU E 111	152.487	123.756	9.809	1.00	101.12	C
ATOM	38510	CA	VAL E 105	158.540	119.823	3.194	1.00	50.40	C	ATOM	38560	CG	GLU E 111	152.356	122.259	9.625	1.00	101.12	C
ATOM	38511	C	VAL E 105	157.197	120.507	2.987	1.00	50.40	C	ATOM	38561	CD	GLU E 111	153.237	121.461	10.565	1.00	101.12	C
ATOM	38512	O	VAL E 105	157.014	121.638	3.423	1.00	50.40	O	ATOM	38562	OE1	GLU E 111	154.478	121.640	10.532	1.00	101.12	O
ATOM	38513	CB	VAL E 105	159.268	119.631	1.857	1.00	40.63	C	ATOM	38563	OE2	GLU E 111	152.681	120.646	11.335	1.00	101.12	O
ATOM	38514	CG1	VAL E 105	159.280	120.932	1.067	1.00	40.63	C	ATOM	38564	N	LEU E 112	152.903	126.577	8.803	1.00	41.52	N
ATOM	38515	CG2	VAL E 105	160.692	119.195	2.132	1.00	40.63	C	ATOM	38565	CA	LEU E 112	153.138	128.002	9.986	1.00	41.52	C



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ATOM	38566	C	LEU E 112	152.194	128.791	8.098	1.00	41.52	C	ATOM	38616	CG	LEU E 119	143.141	114.697	2.513	1.00	45.34	C
ATOM	38567	O	LEU E 112	151.993	129.984	8.296	1.00	41.52	O	ATOM	38617	CD1	LEU E 119	142.101	113.883	1.768	1.00	45.34	C
ATOM	38568	CB	LEU E 112	154.575	128.378	8.635	1.00	42.94	C	ATOM	38618	CD2	LEU E 119	143.767	113.870	3.636	1.00	45.34	C
ATOM	38569	CG	LEU E 112	155.721	127.733	9.406	1.00	42.94	C	ATOM	38619	N	THR E 120	147.614	115.685	1.185	1.00	47.49	N
ATOM	38570	CD1	LEU E 112	156.840	128.744	9.453	1.00	42.94	C	ATOM	38620	CA	THR E 120	148.747	115.939	0.297	1.00	47.49	C
ATOM	38571	CD2	LEU E 112	155.319	127.360	10.815	1.00	42.94	C	ATOM	38621	O	THR E 120	149.347	114.710	-0.369	1.00	47.49	C
ATOM	38572	N	ALA E 113	151.625	128.129	7.102	1.00	50.32	N	ATOM	38622	C	THR E 120	149.101	113.585	0.046	1.00	47.49	O
ATOM	38573	CA	ALA E 113	150.694	128.805	6.218	1.00	50.32	C	ATOM	38623	CB	THR E 120	149.859	116.627	1.097	1.00	47.73	C
ATOM	38574	C	ALA E 113	149.405	129.023	6.996	1.00	50.32	C	ATOM	38624	OG1	THR E 120	149.867	118.016	0.775	1.00	47.73	O
ATOM	38575	O	ALA E 113	148.544	129.800	6.595	1.00	50.32	O	ATOM	38625	CG2	THR E 120	151.231	116.004	0.814	1.00	47.73	C
ATOM	38576	CB	ALA E 113	150.425	127.950	4.992	1.00	114.98	C	ATOM	38626	N	LYS E 121	150.147	114.935	-1.406	1.00	42.87	N
ATOM	38577	N	GLY E 114	149.281	128.329	8.121	1.00	53.08	N	ATOM	38627	CA	LYS E 121	150.826	113.832	-2.077	1.00	42.87	C
ATOM	38578	CA	GLY E 114	148.080	128.443	8.918	1.00	53.08	C	ATOM	38628	C	LYS E 121	151.920	114.283	-3.024	1.00	42.87	C
ATOM	38579	C	GLY E 114	147.094	127.360	8.523	1.00	53.08	C	ATOM	38629	O	LYS E 121	151.668	114.998	-3.991	1.00	42.87	O
ATOM	38580	O	GLY E 114	145.947	127.366	8.957	1.00	53.08	O	ATOM	38630	CB	LYS E 121	149.835	112.954	-2.834	1.00	33.95	C
ATOM	38581	N	VAL E 115	147.533	126.435	7.678	1.00	55.23	N	ATOM	38631	CG	LYS E 121	150.483	111.758	-3.477	1.00	33.95	C
ATOM	38582	CA	VAL E 115	146.674	125.338	7.260	1.00	55.23	C	ATOM	38632	CD	LYS E 121	151.426	111.062	-2.506	1.00	33.95	C
ATOM	38583	C	VAL E 115	146.592	124.360	8.416	1.00	55.23	C	ATOM	38633	CE	LYS E 121	152.132	109.894	-3.179	1.00	33.95	C
ATOM	38584	O	VAL E 115	147.569	124.139	9.121	1.00	55.23	O	ATOM	38634	NZ	LYS E 121	153.243	109.338	-2.367	1.00	33.95	N
ATOM	38585	CB	VAL E 115	147.238	124.585	6.056	1.00	31.81	C	ATOM	38635	CA	GLU E 122	153.146	113.872	-2.723	1.00	44.45	N
ATOM	38586	CG1	VAL E 115	146.429	123.347	5.844	1.00	31.81	C	ATOM	38636	N	GLU E 122	154.286	114.205	-3.560	1.00	44.45	C
ATOM	38587	CG2	VAL E 115	147.203	125.456	4.808	1.00	31.81	C	ATOM	38637	C	GLU E 122	154.386	113.180	-4.671	1.00	44.45	C
ATOM	38588	N	THR E 116	145.439	123.746	8.606	1.00	56.28	N	ATOM	38638	O	GLU E 122	154.309	111.971	-4.440	1.00	44.45	O
ATOM	38589	CA	THR E 116	145.310	122.837	9.723	1.00	56.28	C	ATOM	38639	CB	GLU E 122	155.574	114.183	-2.753	1.00	58.33	C
ATOM	38590	O	THR E 116	144.773	121.446	9.360	1.00	56.28	C	ATOM	38640	CG	GLU E 122	155.868	115.462	-2.039	1.00	58.33	C
ATOM	38591	O	THR E 116	144.924	120.492	10.136	1.00	56.28	O	ATOM	38641	CD	GLU E 122	156.960	115.296	-1.013	1.00	58.33	C
ATOM	38592	CB	THR E 116	144.421	123.464	10.769	1.00	54.61	C	ATOM	38642	OE1	GLU E 122	158.049	114.781	-1.365	1.00	58.33	O
ATOM	38593	OG1	THR E 116	144.727	122.905	12.048	1.00	54.61	O	ATOM	38643	OE2	GLU E 122	156.729	115.683	0.153	1.00	58.33	O
ATOM	38594	CG2	THR E 116	142.964	123.221	10.422	1.00	54.61	C	ATOM	38644	N	LEU E 123	154.550	113.665	-5.888	1.00	43.07	N
ATOM	38595	N	ASP E 117	144.149	121.338	8.187	1.00	54.09	N	ATOM	38645	CA	LEU E 123	154.673	112.779	-7.019	1.00	43.07	C
ATOM	38596	CA	ASP E 117	143.606	120.075	7.708	1.00	54.09	C	ATOM	38646	C	LEU E 123	155.873	113.185	-7.861	1.00	43.07	C
ATOM	38597	C	ASP E 117	143.697	119.986	6.186	1.00	54.09	C	ATOM	38647	O	LEU E 123	156.332	114.322	-7.796	1.00	43.07	O
ATOM	38598	O	ASP E 117	142.917	120.639	5.483	1.00	54.09	O	ATOM	38648	CB	LEU E 123	153.389	112.826	-7.827	1.00	40.73	C
ATOM	38599	CB	ASP E 117	142.144	119.934	8.136	1.00	107.50	C	ATOM	38649	CG	LEU E 123	152.226	112.315	-6.983	1.00	40.73	C
ATOM	38600	CG	ASP E 117	141.969	119.955	9.644	1.00	107.50	C	ATOM	38650	CD1	LEU E 123	150.943	112.491	-7.759	1.00	40.73	C
ATOM	38601	OD1	ASP E 117	142.417	119.005	10.318	1.00	107.50	O	ATOM	38651	CD2	LEU E 123	152.449	110.853	-6.595	1.00	40.73	C
ATOM	38602	OD2	ASP E 117	141.383	120.926	10.160	1.00	107.50	O	ATOM	38652	N	GLY E 124	156.391	112.250	-8.642	1.00	39.82	N
ATOM	38603	N	ILE E 118	144.661	119.203	5.683	1.00	50.79	N	ATOM	38653	CA	GLY E 124	157.546	112.559	-9.459	1.00	39.82	C
ATOM	38604	CA	ILE E 118	144.838	118.991	4.236	1.00	50.79	C	ATOM	38654	C	GLY E 124	158.800	112.727	-8.623	1.00	39.82	C
ATOM	38605	C	ILE E 118	145.308	117.585	3.880	1.00	50.79	C	ATOM	38655	O	GLY E 124	158.945	112.104	-7.569	1.00	39.82	O
ATOM	38606	O	ILE E 118	145.958	116.898	4.678	1.00	50.79	O	ATOM	38656	N	SER E 125	159.720	113.563	-9.087	1.00	46.67	N
ATOM	38607	CB	ILE E 118	145.893	119.906	3.587	1.00	66.17	C	ATOM	38657	CA	SER E 125	160.946	113.783	-8.339	1.00	46.67	C
ATOM	38608	CG1	ILE E 118	145.513	121.362	3.697	1.00	66.17	C	ATOM	38658	C	SER E 125	160.646	114.310	-6.946	1.00	46.67	C
ATOM	38609	CG2	ILE E 118	145.944	119.649	2.093	1.00	66.17	C	ATOM	38659	O	SER E 125	159.955	115.318	-6.783	1.00	46.67	O
ATOM	38610	CD1	ILE E 118	146.462	122.251	2.895	1.00	66.17	C	ATOM	38660	CB	SER E 125	161.836	114.787	-9.054	1.00	44.99	C
ATOM	38611	N	LEU E 119	144.965	117.177	2.662	1.00	41.63	N	ATOM	38661	OG	SER E 125	162.881	115.191	-8.193	1.00	44.99	O
ATOM	38612	CA	LEU E 119	145.386	115.898	2.111	1.00	41.63	C	ATOM	38662	N	ARG E 126	161.163	113.641	-5.933	1.00	45.31	N
ATOM	38613	C	LEU E 119	146.417	116.245	1.028	1.00	41.63	C	ATOM	38663	CA	ARG E 126	160.924	114.119	-4.597	1.00	45.31	C
ATOM	38614	O	LEU E 119	146.132	117.004	0.085	1.00	41.63	O	ATOM	38664	C	ARG E 126	162.057	114.958	-4.052	1.00	45.31	C
ATOM	38615	CB	LEU E 119	144.201	115.149	1.508	1.00	45.34	C	ATOM	38665	O	ARG E 126	162.477	114.811	-2.910	1.00	45.31	O



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ATOM	38666	CB	ARG E 126	160.613	112.953	-3.687	1.00	53.91	C	ATOM	38716	CB	ALA E 132	160.155	123.681	-0.854	1.00	19.22	C
ATOM	38667	CG	ARG E 126	159.281	112.452	-4.039	1.00	53.91	C	ATOM	38717	N	TYR E 133	159.329	124.493	-3.676	1.00	46.08	N
ATOM	38668	CD	ARG E 126	158.812	111.380	-3.149	1.00	53.91	C	ATOM	38718	CA	TYR E 133	158.983	125.505	-4.670	1.00	46.08	C
ATOM	38669	NE	ARG E 126	157.630	110.818	-3.775	1.00	53.91	N	ATOM	38719	C	TYR E 133	157.607	125.224	-5.260	1.00	46.08	C
ATOM	38670	CZ	ARG E 126	157.009	109.743	-3.330	1.00	53.91	C	ATOM	38720	O	TYR E 133	156.809	126.137	-5.485	1.00	46.08	O
ATOM	38671	NH1	ARG E 126	157.484	109.135	-2.249	1.00	53.91	N	ATOM	38721	CB	TYR E 133	160.010	125.533	-5.804	1.00	88.40	C
ATOM	38672	NH2	ARG E 126	155.929	109.283	-3.958	1.00	53.91	N	ATOM	38722	CG	TYR E 133	161.341	126.165	-5.465	1.00	88.40	C
ATOM	38673	N	ASN E 127	162.552	115.861	-4.874	1.00	46.48	N	ATOM	38723	CD1	TYR E 133	162.440	125.978	-6.301	1.00	88.40	C
ATOM	38674	CA	ASN E 127	163.616	116.715	-4.410	1.00	46.48	C	ATOM	38724	CD2	TYR E 133	161.513	126.941	-4.314	1.00	88.40	C
ATOM	38675	C	ASN E 127	163.034	117.737	-3.430	1.00	46.48	C	ATOM	38725	CE1	TYR E 133	163.682	126.536	-6.009	1.00	88.40	C
ATOM	38676	O	ASN E 127	162.199	118.563	-3.807	1.00	46.48	O	ATOM	38726	CE2	TYR E 133	162.755	127.509	-4.006	1.00	88.40	C
ATOM	38677	CB	ASN E 127	164.262	117.426	-5.583	1.00	46.48	C	ATOM	38727	CZ	TYR E 133	163.838	127.297	-4.863	1.00	88.40	C
ATOM	38678	CG	ASN E 127	165.370	118.315	-5.146	1.00	75.76	C	ATOM	38728	OH	TYR E 133	165.087	127.815	-4.589	1.00	88.40	O
ATOM	38679	OD1	ASN E 127	165.138	119.332	-4.493	1.00	75.76	O	ATOM	38729	N	ALA E 134	157.334	123.956	-5.525	1.00	42.06	N
ATOM	38680	ND2	ASN E 127	166.596	117.933	-5.473	1.00	75.76	N	ATOM	38730	CA	ALA E 134	156.056	123.588	-6.089	1.00	42.06	C
ATOM	38681	N	PRO E 128	163.468	117.700	-2.160	1.00	43.15	N	ATOM	38731	O	ALA E 134	154.932	123.826	-5.081	1.00	42.06	O
ATOM	38682	CA	PRO E 128	162.916	118.669	-1.217	1.00	43.15	C	ATOM	38732	O	ALA E 134	153.866	124.314	-5.457	1.00	42.06	O
ATOM	38683	C	PRO E 128	162.864	120.078	-1.769	1.00	43.15	C	ATOM	38733	CB	ALA E 134	156.082	122.137	-6.524	1.00	44.87	C
ATOM	38684	O	PRO E 128	161.801	120.695	-1.784	1.00	43.15	O	ATOM	38734	N	THR E 135	155.148	123.484	-3.810	1.00	42.85	N
ATOM	38685	CB	PRO E 128	163.819	118.530	0.016	1.00	38.40	C	ATOM	38735	CA	THR E 135	154.102	123.714	-2.822	1.00	42.85	C
ATOM	38686	CG	PRO E 128	165.058	117.922	-0.509	1.00	38.40	C	ATOM	38736	C	THR E 135	153.729	125.198	-2.854	1.00	42.85	C
ATOM	38687	CD	PRO E 128	164.570	116.949	-1.543	1.00	38.75	C	ATOM	38737	O	THR E 135	152.548	125.552	-2.963	1.00	42.85	O
ATOM	38688	N	ILE E 129	163.988	120.591	-2.251	1.00	38.75	N	ATOM	38738	CB	THR E 135	154.552	123.345	-1.411	1.00	57.59	C
ATOM	38689	CA	ILE E 129	163.980	121.946	-2.782	1.00	38.75	C	ATOM	38739	OG1	THR E 135	154.707	121.928	-1.318	1.00	57.59	O
ATOM	38690	O	ILE E 129	162.908	122.174	-3.834	1.00	38.75	C	ATOM	38740	CG2	THR E 135	153.519	123.776	-0.400	1.00	57.59	C
ATOM	38691	C	ILE E 129	162.115	123.099	-3.712	1.00	38.75	O	ATOM	38741	N	MET E 136	154.743	126.060	-2.769	1.00	44.10	N
ATOM	38692	CB	ILE E 129	165.325	122.321	-3.365	1.00	47.57	C	ATOM	38742	CA	MET E 136	154.540	127.508	-2.816	1.00	44.10	C
ATOM	38693	CG1	ILE E 129	166.360	122.361	-2.243	1.00	47.57	C	ATOM	38743	C	MET E 136	153.756	127.882	-4.065	1.00	44.10	C
ATOM	38694	CG2	ILE E 129	165.228	123.663	-4.066	1.00	47.57	C	ATOM	38744	O	MET E 136	152.744	128.568	-3.995	1.00	44.10	O
ATOM	38695	CD1	ILE E 129	167.725	122.819	-2.689	1.00	47.57	C	ATOM	38745	CB	MET E 136	155.881	128.233	-2.838	1.00	57.81	C
ATOM	38696	N	ASN E 130	162.856	121.338	-4.860	1.00	45.47	N	ATOM	38746	CG	MET E 136	156.616	128.184	-1.532	1.00	57.81	C
ATOM	38697	CA	ASN E 130	161.845	121.537	-5.886	1.00	45.47	C	ATOM	38747	SD	MET E 136	155.659	128.994	-0.240	1.00	57.81	S
ATOM	38698	C	ASN E 130	160.422	121.240	-5.420	1.00	45.47	C	ATOM	38748	CE	MET E 136	156.164	130.696	-0.440	1.00	57.81	C
ATOM	38699	O	ASN E 130	159.457	121.735	-6.003	1.00	45.47	O	ATOM	38749	N	GLU E 137	154.229	127.424	-5.215	1.00	49.10	N
ATOM	38700	CB	ASN E 130	162.178	120.708	-7.118	1.00	52.55	C	ATOM	38750	CA	GLU E 137	153.561	127.724	-6.467	1.00	49.10	C
ATOM	38701	CG	ASN E 130	163.492	121.100	-7.723	1.00	52.55	C	ATOM	38751	O	GLU E 137	152.106	127.324	-6.399	1.00	49.10	O
ATOM	38702	OD1	ASN E 130	163.722	122.269	-8.025	1.00	52.55	O	ATOM	38752	O	GLU E 137	151.242	127.988	-6.954	1.00	49.10	O
ATOM	38703	ND2	ASN E 130	164.372	120.129	-7.900	1.00	52.55	N	ATOM	38753	CB	GLU E 137	154.229	126.982	-7.617	1.00	70.27	C
ATOM	38704	N	ILE E 131	160.280	120.425	-4.383	1.00	47.91	N	ATOM	38754	CG	GLU E 137	154.767	127.921	-8.655	1.00	70.27	C
ATOM	38705	CA	ILE E 131	158.950	120.119	-3.868	1.00	47.91	C	ATOM	38755	CD	GLU E 137	153.765	128.993	-9.006	1.00	70.27	C
ATOM	38706	C	ILE E 131	158.444	121.360	-3.142	1.00	47.91	C	ATOM	38756	OE1	GLU E 137	152.667	128.636	-9.472	1.00	70.27	O
ATOM	38707	O	ILE E 131	157.278	121.745	-3.277	1.00	47.91	O	ATOM	38757	OE2	GLU E 137	154.073	130.187	-8.810	1.00	70.27	O
ATOM	38708	CB	ILE E 131	158.989	118.923	-2.891	1.00	41.95	C	ATOM	38758	N	ALA E 138	151.836	126.225	-5.712	1.00	45.43	N
ATOM	38709	CG1	ILE E 131	158.980	117.616	-3.678	1.00	41.95	C	ATOM	38759	CA	ALA E 138	150.481	125.746	-5.596	1.00	45.43	C
ATOM	38710	CG2	ILE E 131	157.818	118.975	-1.929	1.00	41.95	C	ATOM	38760	C	ALA E 138	149.703	126.702	-4.721	1.00	45.43	C
ATOM	38711	CD1	ILE E 131	157.696	117.375	-4.431	1.00	41.95	C	ATOM	38761	O	ALA E 138	148.700	127.259	-5.148	1.00	45.43	O
ATOM	38712	N	ALA E 132	159.332	121.990	-2.378	1.00	46.40	N	ATOM	38762	CB	ALA E 138	150.481	124.382	-5.009	1.00	26.70	C
ATOM	38713	CA	ALA E 132	158.981	123.196	-1.650	1.00	46.40	C	ATOM	38763	N	LEU E 139	150.160	126.900	-3.495	1.00	46.19	N
ATOM	38714	C	ALA E 132	158.543	124.269	-2.629	1.00	46.40	C	ATOM	38764	CA	LEU E 139	149.474	127.822	-2.613	1.00	46.19	C
ATOM	38715	O	ALA E 132	157.504	124.881	-2.441	1.00	46.40	O	ATOM	38765	C	LEU E 139	149.134	129.116	-3.349	1.00	46.19	C



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ATOM	38766	O	LEU E 139	148.097	129.709	-3.096	1.00	46.19	O	ATOM	38816	CG2	THR E 144	136.969	133.024	-2.252	1.00	65.33	C
ATOM	38767	CB	LEU E 139	150.337	128.131	-1.398	1.00	32.94	C	ATOM	38817	N	LYS E 145	135.924	131.532	-4.516	1.00	54.08	N
ATOM	38768	CG	LEU E 139	150.546	126.972	-0.418	1.00	32.94	C	ATOM	38818	CA	LYS E 145	134.762	131.729	-5.376	1.00	54.08	C
ATOM	38769	CD1	LEU E 139	151.549	127.395	0.624	1.00	32.94	C	ATOM	38819	C	LYS E 145	134.715	133.218	-5.714	1.00	54.08	C
ATOM	38770	CD2	LEU E 139	149.233	126.575	0.255	1.00	32.94	C	ATOM	38820	O	LYS E 145	134.419	133.621	-6.845	1.00	54.08	O
ATOM	38771	N	ARG E 140	149.991	129.541	-4.273	1.00	44.81	N	ATOM	38821	CB	LYS E 145	133.487	131.303	-4.650	1.00	100112.19	C
ATOM	38772	CA	ARG E 140	149.757	130.771	-5.030	1.00	44.81	C	ATOM	38822	CG	LYS E 145	132.237	131.317	-5.519	1.00	100112.19	C
ATOM	38773	C	ARG E 140	148.601	130.749	-5.992	1.00	44.81	C	ATOM	38823	CD	LYS E 145	131.014	130.985	-4.676	1.00	100112.19	C
ATOM	38774	O	ARG E 140	147.911	131.743	-6.148	1.00	44.81	O	ATOM	38824	CE	LYS E 145	129.715	131.114	-5.454	1.00	100112.19	C
ATOM	38775	CB	ARG E 140	150.966	131.155	-5.859	1.00	53.25	C	ATOM	38825	NZ	LYS E 145	128.543	130.811	-4.579	1.00	100112.19	N
ATOM	38776	CG	ARG E 140	151.998	131.926	-5.130	1.00	53.25	C	ATOM	38826	N	ALA E 146	135.038	134.027	-4.715	1.00	54.53	N
ATOM	38777	CD	ARG E 140	152.775	132.799	-6.094	1.00	53.25	C	ATOM	38827	CA	ALA E 146	135.064	135.464	-4.874	1.00	54.53	C
ATOM	38778	NE	ARG E 140	153.985	133.250	-5.434	1.00	53.25	N	ATOM	38828	C	ALA E 146	135.457	136.421	-7.043	1.00	54.53	O
ATOM	38779	CZ	ARG E 140	155.058	132.488	-5.267	1.00	53.25	C	ATOM	38829	O	ALA E 146	135.636	136.090	-3.629	1.00	32.18	C
ATOM	38780	NH1	ARG E 140	155.070	131.241	-5.737	1.00	53.25	N	ATOM	38830	CB	ALA E 146	137.194	135.411	-6.020	1.00	44.18	N
ATOM	38781	NH2	ARG E 140	156.095	132.957	-4.582	1.00	47.51	N	ATOM	38831	N	ASP E 147	137.153	135.670	-7.084	1.00	44.18	C
ATOM	38782	N	GLN E 141	148.406	129.634	-6.673	1.00	47.51	C	ATOM	38832	CA	ASP E 147	137.722	135.938	-9.424	1.00	44.18	O
ATOM	38783	CA	GLN E 141	147.336	129.555	-7.654	1.00	47.51	C	ATOM	38833	C	ASP E 147	139.466	134.958	-6.789	1.00	64.82	C
ATOM	38784	C	GLN E 141	145.984	129.307	-7.011	1.00	47.51	C	ATOM	38834	O	ASP E 147	139.979	135.242	-5.403	1.00	64.82	O
ATOM	38785	O	GLN E 141	144.964	129.200	-7.696	1.00	47.51	C	ATOM	38835	CB	ASP E 147	140.096	136.431	-5.035	1.00	64.82	O
ATOM	38786	CB	GLN E 141	147.666	128.473	-8.669	1.00	51.51	C	ATOM	38836	CG	ASP E 147	137.149	133.981	-8.470	1.00	48.01	N
ATOM	38787	CG	GLN E 141	149.145	128.399	-8.937	1.00	51.51	C	ATOM	38837	OD1	ASP E 147	140.271	134.270	-4.683	1.00	64.82	O
ATOM	38788	CD	GLN E 141	149.464	127.883	-10.311	1.00	51.51	C	ATOM	38838	OD2	ASP E 147	136.643	133.410	-9.704	1.00	48.01	C
ATOM	38789	OE1	GLN E 141	148.760	127.021	-10.845	1.00	51.51	O	ATOM	38839	N	VAL E 148	135.501	134.251	-10.250	1.00	48.01	C
ATOM	38790	NE2	GLN E 141	150.541	128.397	-10.897	1.00	42.36	N	ATOM	38840	CA	VAL E 148	135.440	134.538	-11.462	1.00	48.01	O
ATOM	38791	N	LEU E 142	145.986	129.221	-5.686	1.00	42.36	N	ATOM	38841	C	VAL E 148	136.151	131.976	-9.472	1.00	71.30	C
ATOM	38792	CA	LEU E 142	144.753	129.025	-4.947	1.00	42.36	C	ATOM	38842	O	VAL E 148	135.701	131.356	-10.787	1.00	71.30	C
ATOM	38793	C	LEU E 142	143.810	130.201	-5.184	1.00	42.36	C	ATOM	38843	CB	VAL E 148	137.261	131.159	-8.833	1.00	61.26	N
ATOM	38794	O	LEU E 142	144.221	131.363	-5.131	1.00	33.28	C	ATOM	38844	CG1	VAL E 148	134.598	134.642	-9.349	1.00	61.26	C
ATOM	38795	CB	LEU E 142	145.052	128.903	-3.459	1.00	33.28	C	ATOM	38845	CG2	VAL E 149	133.447	135.457	-9.722	1.00	61.26	C
ATOM	38796	CG	LEU E 142	145.589	127.527	-3.102	1.00	33.28	C	ATOM	38846	N	GLU E 149	133.982	136.765	-10.279	1.00	61.26	C
ATOM	38797	CD1	LEU E 142	145.930	127.456	-1.629	1.00	33.28	C	ATOM	38847	CA	GLU E 149	133.598	137.203	-11.361	1.00	61.26	O
ATOM	38798	CD2	LEU E 142	144.538	126.509	-3.479	1.00	33.28	C	ATOM	38848	C	GLU E 149	132.564	135.736	-8.504	1.00	100200.58	C
ATOM	38799	N	ARG E 143	142.546	129.881	-5.443	1.00	46.75	N	ATOM	38849	O	GLU E 149	131.292	136.503	-8.837	1.00	100200.58	C
ATOM	38800	CA	ARG E 143	141.524	130.880	-5.701	1.00	46.75	C	ATOM	38850	CB	GLU E 149	130.483	136.863	-7.607	1.00	100200.58	C
ATOM	38801	C	ARG E 143	140.277	130.655	-4.858	1.00	46.75	C	ATOM	38851	CG	GLU E 149	130.982	137.646	-7.771	1.00	100200.58	O
ATOM	38802	O	ARG E 143	140.011	129.549	-4.381	1.00	50.44	C	ATOM	38852	CD	GLU E 149	129.347	136.361	-7.476	1.00	42.82	N
ATOM	38803	CB	ARG E 143	141.127	130.866	-7.176	1.00	50.44	C	ATOM	38853	OE1	GLU E 149	135.518	138.625	-9.913	1.00	42.82	C
ATOM	38804	CG	ARG E 143	142.220	131.325	-8.127	1.00	50.44	C	ATOM	38854	OE2	GLU E 150	136.970	139.418	-12.139	1.00	42.82	O
ATOM	38805	CD	ARG E 143	142.667	132.713	-7.773	1.00	50.44	C	ATOM	38855	N	ARG E 150	136.637	138.956	-8.921	1.00	100124.52	C
ATOM	38806	NE	ARG E 143	144.095	132.757	-7.491	1.00	50.44	N	ATOM	38856	CA	ARG E 150	136.565	140.348	-8.343	1.00	100124.52	C
ATOM	38807	CZ	ARG E 143	145.027	132.967	-8.410	1.00	50.44	C	ATOM	38857	C	ARG E 150	136.941	141.401	-9.369	1.00	100124.52	C
ATOM	38808	NH1	ARG E 143	144.673	133.151	-9.677	1.00	50.44	N	ATOM	38858	O	ARG E 150	137.006	143.258	-7.744	1.00	100124.52	N
ATOM	38809	NH2	ARG E 143	146.304	133.004	-8.057	1.00	50.44	N	ATOM	38859	CB	ARG E 150	137.765	142.545	-6.920	1.00	100124.52	C
ATOM	38810	N	THR E 144	139.508	131.728	-4.703	1.00	44.67	N	ATOM	38860	CG	ARG E 150	136.636	144.485	-7.401	1.00	100124.52	N
ATOM	38811	CA	THR E 144	138.275	131.731	-3.939	1.00	44.67	C	ATOM	38861	CD	ARG E 150						
ATOM	38812	C	THR E 144	137.126	131.963	-4.895	1.00	44.67	C	ATOM	38862	CE	ARG E 150						
ATOM	38813	O	THR E 144	137.329	132.520	-5.974	1.00	44.67	O	ATOM	38863	NZ	ARG E 150						
ATOM	38814	CB	THR E 144	138.313	132.852	-2.936	1.00	65.33	C	ATOM	38864	NH1	ARG E 150						
ATOM	38815	OG1	THR E 144	139.323	132.553	-1.974	1.00	65.33	O	ATOM	38865	NH2	ARG E 150						



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ATOM	38866	N	LEU E 151	136.715	137.366	-11.618	1.00	54.41	N	38916	NH1 ARG F	2	160.846	111.477	-76.451	1.00	98.99	N
ATOM	38867	CA	LEU E 151	137.330	137.133	-12.917	1.00	54.41	C	38917	NH2 ARG F	2	158.628	111.059	-76.065	1.00	98.99	N
ATOM	38868	C	LEU E 151	136.343	136.955	-14.044	1.00	54.41	C	38918	N ARG F	3	161.268	117.570	-81.931	1.00	83.07	N
ATOM	38869	O	LEU E 151	136.627	137.334	-15.177	1.00	54.41	O	38919	CA ARG F	3	162.295	118.368	-82.602	1.00	83.07	C
ATOM	38870	CB	LEU E 151	138.228	135.903	-12.854	1.00	43.47	C	38920	C ARG F	3	163.695	118.059	-82.060	1.00	83.07	C
ATOM	38871	CG	LEU E 151	139.702	136.109	-12.535	1.00	43.47	C	38921	O ARG F	3	163.991	118.319	-80.889	1.00	83.07	O
ATOM	38872	CD1	LEU E 151	140.312	134.806	-12.108	1.00	43.47	C	38922	CB ARG F	3	162.046	119.858	-82.394	1.00	115.66	C
ATOM	38873	CD2	LEU E 151	140.400	136.641	-13.757	1.00	43.47	C	38923	CG ARG F	3	161.185	120.537	-83.419	1.00	115.66	C
ATOM	38874	N	ARG E 152	135.186	136.376	-13.747	1.00	69.07	N	38924	CD ARG F	3	161.231	122.024	-83.153	1.00	115.66	C
ATOM	38875	CA	ARG E 152	134.197	136.162	-14.789	1.00	69.07	C	38925	NE ARG F	3	160.406	122.799	-84.070	1.00	115.66	N
ATOM	38876	C	ARG E 152	133.016	137.133	-14.778	1.00	69.07	C	38926	C2 ARG F	3	160.250	124.117	-83.985	1.00	115.66	C
ATOM	38877	O	ARG E 152	132.014	136.886	-15.447	1.00	69.07	O	38927	NH1 ARG F	3	160.867	124.796	-83.025	1.00	115.66	N
ATOM	38878	CB	ARG E 152	133.669	134.746	-14.711	1.00	71.95	C	38928	NH2 ARG F	3	159.477	124.758	-84.855	1.00	115.66	N
ATOM	38879	CG	ARG E 152	134.723	133.708	-14.495	1.00	71.95	C	38929	N TYR F	4	164.561	117.524	-82.914	1.00	80.92	C
ATOM	38880	CD	ARG E 152	134.083	132.354	-14.622	1.00	71.95	C	38930	CA TYR F	4	165.923	117.212	-82.510	1.00	80.92	C
ATOM	38881	NE	ARG E 152	134.795	131.337	-13.869	1.00	71.95	N	38931	C TYR F	4	166.925	118.075	-83.258	1.00	80.92	C
ATOM	38882	C2	ARG E 152	134.257	130.180	-13.504	1.00	71.95	C	38932	O TYR F	4	166.598	118.711	-84.250	1.00	80.92	O
ATOM	38883	NH1	ARG E 152	132.996	129.896	-13.827	1.00	71.95	N	38933	CB TYR F	4	166.235	115.744	-82.778	1.00	76.49	C
ATOM	38884	NH2	ARG E 152	134.979	129.307	-12.814	1.00	71.95	N	38934	CG TYR F	4	165.381	114.796	-81.984	1.00	76.49	C
ATOM	38885	N	LYS E 153	133.124	138.224	-14.023	1.00	103.46	N	38935	CD1 TYR F	4	165.581	114.621	-80.618	1.00	76.49	C
ATOM	38886	CA	LYS E 153	132.055	139.222	-13.962	1.00	103.46	C	38936	CD2 TYR F	4	164.353	114.088	-82.596	1.00	76.49	C
ATOM	38887	C	LYS E 153	131.859	139.850	-15.341	1.00	103.46	C	38937	CE1 TYR F	4	164.772	113.757	-79.881	1.00	76.49	C
ATOM	38888	O	LYS E 153	132.195	139.246	-16.361	1.00	103.46	O	38938	CE2 TYR F	4	163.539	113.228	-81.872	1.00	76.49	C
ATOM	38889	CB	LYS E 153	132.405	140.321	-12.954	1.00	134.08	C	38939	C2 TYR F	4	163.752	113.066	-80.518	1.00	76.49	C
ATOM	38890	CG	LYS E 153	132.038	140.023	-11.503	1.00	134.08	C	38940	OH TYR F	4	162.941	112.204	-79.817	1.00	76.49	O
ATOM	38891	CD	LYS E 153	130.727	140.700	-11.104	1.00	134.08	C	38941	N GLU F	5	168.148	118.102	-82.754	1.00	81.79	N
ATOM	38892	CE	LYS E 153	130.451	140.563	-9.608	1.00	134.08	C	38942	CA GLU F	5	169.218	118.846	-83.381	1.00	81.79	C
ATOM	38893	N2	LYS E 153	129.244	141.333	-9.182	1.00	134.08	N	38943	C GLU F	5	170.343	117.853	-83.554	1.00	81.79	C
ATOM	38894	N	GLY E 154	131.308	141.062	-15.363	1.00	142.63	N	38944	O GLU F	5	170.870	117.320	-82.579	1.00	81.79	O
ATOM	38895	CA	GLY E 154	131.088	141.769	-16.615	1.00	142.63	C	38945	CB GLU F	5	169.656	120.012	-82.505	1.00	70.99	C
ATOM	38896	C	GLY E 154	130.362	140.986	-17.693	1.00	142.63	C	38946	CG GLU F	5	168.667	121.151	-82.525	1.00	70.99	C
ATOM	38897	O	GLY E 154	129.965	139.831	-17.434	1.00	142.63	O	38947	CD GLU F	5	169.154	122.373	-81.767	1.00	70.99	C
TER	38898		GLY E 154							38948	OE1 GLU F	5	170.322	122.776	-81.961	1.00	70.99	C
ATOM	38899	N	MET F 1	155.915	112.914	-82.714	1.00	153.03	N	38949	OE2 GLU F	5	168.361	122.942	-80.983	1.00	70.99	O
ATOM	38900	CA	MET F 1	157.387	113.063	-82.886	1.00	153.03	C	38950	N VAL F	6	170.689	117.575	-84.802	1.00	76.86	N
ATOM	38901	C	MET F 1	157.920	114.231	-82.068	1.00	153.03	C	38951	CA VAL F	6	171.750	116.633	-85.076	1.00	76.86	C
ATOM	38902	O	MET F 1	157.197	114.812	-81.259	1.00	153.03	O	38952	C VAL F	6	173.029	117.359	-85.433	1.00	76.86	C
ATOM	38903	CB	MET F 1	157.719	113.273	-84.357	1.00	142.88	C	38953	O VAL F	6	173.092	118.059	-86.438	1.00	76.86	O
ATOM	38904	CG	MET F 1	157.139	112.214	-85.264	1.00	142.88	C	38954	CB VAL F	6	171.380	115.714	-86.229	1.00	61.62	C
ATOM	38905	SD	MET F 1	157.748	112.414	-86.930	1.00	142.88	S	38955	CG1 VAL F	6	172.388	114.576	-86.331	1.00	61.62	C
ATOM	38906	CE	MET F 1	157.258	114.110	-87.251	1.00	142.88	C	38956	CG2 VAL F	6	169.979	115.190	-86.026	1.00	61.62	C
ATOM	38907	N	ARG F 2	159.184	114.582	-82.285	1.00	81.82	N	38957	N ASN F	7	174.041	117.205	-84.590	1.00	76.76	N
ATOM	38908	CA	ARG F 2	159.803	115.671	-81.540	1.00	81.82	C	38958	CA ASN F	7	175.331	117.824	-84.836	1.00	76.76	C
ATOM	38909	C	ARG F 2	160.864	116.381	-82.377	1.00	81.82	C	38959	C ASN F	7	176.233	116.745	-85.391	1.00	76.76	C
ATOM	38910	O	ARG F 2	161.299	115.857	-83.402	1.00	81.82	O	38960	O ASN F	7	176.201	115.600	-84.930	1.00	76.76	O
ATOM	38911	CB	ARG F 2	160.445	115.118	-80.255	1.00	98.99	C	38961	CB ASN F	7	175.923	118.359	-83.539	1.00	71.04	C
ATOM	38912	CG	ARG F 2	159.486	114.343	-79.354	1.00	98.99	C	38962	CG ASN F	7	175.262	119.633	-83.086	1.00	71.04	C
ATOM	38913	CD	ARG F 2	160.190	113.601	-78.226	1.00	98.99	C	38963	OD1 ASN F	7	175.588	120.726	-83.562	1.00	71.04	O
ATOM	38914	NE	ARG F 2	159.241	112.762	-77.495	1.00	98.99	N	38964	ND2 ASN F	7	174.316	119.506	-82.167	1.00	71.04	N
ATOM	38915	C2	ARG F 2	159.573	111.771	-76.668	1.00	98.99	C	38965	N ILE F	8	177.019	117.096	-86.399	1.00	88.57	N



Table 2: Sheet 391/520

ATOM	38966	CA	ILE F	8	177.937	116.136	-86.983	1.00	88.57	C	ATOM	39016	CG	LEU F	14	186.146	114.462	-95.929	1.00	65.21	C
ATOM	38967	C	ILE F	8	179.240	116.810	-87.340	1.00	88.57	C	ATOM	39017	CD1	LEU F	14	184.701	114.035	-95.716	1.00	65.21	C
ATOM	38968	O	ILE F	8	179.255	117.895	-87.917	1.00	88.57	O	ATOM	39018	CD2	LEU F	14	186.995	113.259	-96.319	1.00	65.21	C
ATOM	38969	CB	ILE F	8	177.364	115.487	-88.240	1.00	57.70	C	ATOM	39019	N	ASP F	15	187.746	116.256	-99.907	1.00	105.14	N
ATOM	38970	CG1	ILE F	8	176.077	114.737	-87.891	1.00	57.70	C	ATOM	39020	CA	ASP F	15	187.662	117.041	-101.131	1.00	105.14	C
ATOM	38971	CG2	ILE F	8	178.385	114.534	-88.819	1.00	57.70	C	ATOM	39021	C	ASP F	15	186.184	117.182	-101.459	1.00	105.14	C
ATOM	38972	CD1	ILE F	8	175.279	114.252	-89.085	1.00	57.70	C	ATOM	39022	O	ASP F	15	185.376	116.346	-101.053	1.00	105.14	O
ATOM	38973	N	VAL F	9	180.336	116.164	-86.974	1.00	95.58	N	ATOM	39023	CB	ASP F	15	188.394	116.343	-102.281	1.00	133.95	C
ATOM	38974	CA	VAL F	9	181.647	116.698	-87.265	1.00	95.58	C	ATOM	39024	CG	ASP F	15	187.930	114.917	-102.492	1.00	133.95	C
ATOM	38975	C	VAL F	9	182.412	115.613	-87.997	1.00	95.58	C	ATOM	39025	OD1	ASP F	15	186.709	114.699	-102.620	1.00	133.95	O
ATOM	38976	O	VAL F	9	182.543	114.491	-87.498	1.00	95.58	O	ATOM	39026	OD2	ASP F	15	188.792	114.015	-102.538	1.00	133.95	O
ATOM	38977	CB	VAL F	9	182.394	117.061	-85.980	1.00	68.02	C	ATOM	39027	N	GLN F	16	185.833	118.233	-102.194	1.00	110.15	N
ATOM	38978	CG1	VAL F	9	183.636	117.865	-86.318	1.00	68.02	C	ATOM	39028	CA	GLN F	16	184.439	118.487	-102.541	1.00	110.15	C
ATOM	38979	CG2	VAL F	9	181.487	117.844	-85.061	1.00	68.02	C	ATOM	39029	C	GLN F	16	183.654	117.231	-102.915	1.00	110.15	C
ATOM	38980	N	LEU F	10	182.903	115.933	-89.189	1.00	80.83	N	ATOM	39030	O	GLN F	16	182.439	117.170	-102.723	1.00	110.15	O
ATOM	38981	CA	LEU F	10	183.646	114.941	-89.950	1.00	80.83	C	ATOM	39031	CB	GLN F	16	184.349	119.510	-103.673	1.00	160.38	C
ATOM	38982	C	LEU F	10	184.988	115.422	-90.459	1.00	80.83	C	ATOM	39032	CG	GLN F	16	182.928	119.972	-103.927	1.00	160.38	C
ATOM	38983	O	LEU F	10	185.349	116.597	-90.321	1.00	80.83	O	ATOM	39033	CD	GLN F	16	182.215	120.337	-102.638	1.00	160.38	C
ATOM	38984	CB	LEU F	10	182.802	114.410	-91.115	1.00	75.98	C	ATOM	39034	OE1	GLN F	16	182.651	121.225	-101.906	1.00	160.38	O
ATOM	38985	CG	LEU F	10	181.720	115.332	-91.676	1.00	75.98	C	ATOM	39035	NE2	GLN F	16	181.116	119.646	-102.350	1.00	160.38	N
ATOM	38986	CD1	LEU F	10	182.342	116.609	-92.215	1.00	75.98	C	ATOM	39036	N	SER F	17	184.347	116.233	-103.449	1.00	95.71	N
ATOM	38987	CD2	LEU F	10	180.957	114.593	-92.756	1.00	75.98	C	ATOM	39037	CA	SER F	17	183.701	114.985	-103.831	1.00	95.71	C
ATOM	38988	N	ASN F	11	185.721	114.482	-91.040	1.00	87.23	N	ATOM	39038	C	SER F	17	183.373	114.195	-102.570	1.00	95.71	C
ATOM	38989	CA	ASN F	11	187.043	114.732	-91.578	1.00	87.23	C	ATOM	39039	O	SER F	17	182.220	113.843	-102.325	1.00	95.71	O
ATOM	38990	C	ASN F	11	187.137	116.060	-92.321	1.00	87.23	C	ATOM	39040	CB	SER F	17	184.628	114.162	-104.724	1.00	117.32	C
ATOM	38991	O	ASN F	11	186.442	116.281	-93.309	1.00	87.23	O	ATOM	39041	OG	SER F	17	185.052	114.917	-105.843	1.00	117.32	O
ATOM	38992	CB	ASN F	11	187.426	113.600	-92.513	1.00	83.36	C	ATOM	39042	N	GLN F	18	184.406	113.925	-101.777	1.00	110.89	N
ATOM	38993	CG	ASN F	11	188.902	113.531	-92.741	1.00	83.36	C	ATOM	39043	CA	GLN F	18	184.277	113.184	-100.526	1.00	110.89	C
ATOM	38994	OD1	ASN F	11	189.551	114.545	-93.016	1.00	83.36	O	ATOM	39044	C	GLN F	18	182.400	113.208	-99.026	1.00	110.89	C
ATOM	38995	ND2	ASN F	11	189.455	112.331	-92.629	1.00	83.36	N	ATOM	39045	O	GLN F	18	183.275	113.860	-99.597	1.00	110.89	O
ATOM	38996	N	PRO F	12	188.014	116.959	-91.859	1.00	80.31	N	ATOM	39046	CB	GLN F	18	185.639	113.106	-99.833	1.00	124.06	C
ATOM	38997	CA	PRO F	12	188.208	118.274	-92.470	1.00	80.31	C	ATOM	39047	CG	GLN F	18	186.690	112.306	-100.592	1.00	124.06	C
ATOM	38998	C	PRO F	12	189.075	118.210	-93.727	1.00	80.31	C	ATOM	39048	CD	GLN F	18	188.098	112.548	-100.074	1.00	124.06	C
ATOM	38999	O	PRO F	12	189.272	119.217	-94.412	1.00	80.31	O	ATOM	39049	OE1	GLN F	18	189.021	111.789	-100.370	1.00	124.06	O
ATOM	39000	CB	PRO F	12	188.876	119.060	-91.351	1.00	53.37	C	ATOM	39050	NE2	GLN F	18	188.272	113.618	-99.307	1.00	124.06	N
ATOM	39001	CG	PRO F	12	189.778	118.042	-90.764	1.00	53.37	C	ATOM	39051	N	LEU F	19	183.423	115.174	-99.453	1.00	94.07	N
ATOM	39002	CD	PRO F	12	188.902	116.793	-90.697	1.00	53.37	C	ATOM	39052	CA	LEU F	19	182.552	115.975	-98.602	1.00	94.07	C
ATOM	39003	N	ASN F	13	189.590	117.021	-94.026	1.00	99.84	N	ATOM	39053	C	LEU F	19	181.092	115.853	-99.019	1.00	94.07	C
ATOM	39004	CA	ASN F	13	190.448	116.829	-95.188	1.00	99.84	C	ATOM	39054	O	LEU F	19	180.219	115.597	-98.189	1.00	94.07	O
ATOM	39005	C	ASN F	13	189.699	116.217	-96.358	1.00	99.84	C	ATOM	39055	CB	LEU F	19	182.986	117.442	-98.652	1.00	80.54	C
ATOM	39006	O	ASN F	13	190.297	115.538	-97.192	1.00	99.84	O	ATOM	39056	CG	LEU F	19	182.147	118.481	-97.901	1.00	80.54	C
ATOM	39007	CB	ASN F	13	191.606	115.911	-94.828	1.00	92.83	C	ATOM	39057	CD1	LEU F	19	182.955	119.763	-97.801	1.00	80.54	C
ATOM	39008	CG	ASN F	13	192.161	116.198	-93.464	1.00	92.83	C	ATOM	39058	CD2	LEU F	19	180.814	118.738	-98.610	1.00	80.54	C
ATOM	39009	OD1	ASN F	13	192.486	117.339	-93.149	1.00	92.83	C	ATOM	39059	N	ALA F	20	180.826	116.054	-100.304	1.00	89.67	N
ATOM	39010	ND2	ASN F	13	192.279	115.163	-92.642	1.00	92.83	N	ATOM	39060	CA	ALA F	20	179.468	115.958	-100.819	1.00	89.67	C
ATOM	39011	N	LEU F	14	188.395	116.445	-96.428	1.00	88.20	N	ATOM	39061	C	ALA F	20	178.975	114.510	-100.766	1.00	89.67	C
ATOM	39012	CA	LEU F	14	187.618	115.881	-97.515	1.00	88.20	C	ATOM	39062	O	ALA F	20	177.773	114.255	-100.797	1.00	89.67	O
ATOM	39013	C	LEU F	14	187.534	116.811	-98.717	1.00	88.20	C	ATOM	39063	CB	ALA F	20	179.419	116.481	-102.244	1.00	140.92	C
ATOM	39014	O	LEU F	14	187.299	118.010	-98.569	1.00	88.20	O	ATOM	39064	N	LEU F	21	179.908	113.567	-100.681	1.00	102.94	N
ATOM	39015	CB	LEU F	14	186.211	115.529	-97.026	1.00	65.21	C	ATOM	39065	CA	LEU F	21	179.563	112.151	-100.614	1.00	102.94	C



Table 2: Sheet 392/520

ATOM	39066	C	LEU F	21	178.979	111.776	-99.260	1.00102.94	C	ATOM	39116	CA	GLN F	27	170.783	112.599	-96.116	1.00	85.91	C	
ATOM	39067	O	LEU F	21	177.926	111.141	-99.183	1.00102.94	O	ATOM	39117	C	GLN F	27	169.930	111.343	-96.220	1.00	85.91	C	
ATOM	39068	CB	LEU F	21	180.797	111.284	-100.874	1.00	67.62	C	ATOM	39118	O	GLN F	27	168.785	111.335	-95.773	1.00	85.91	O
ATOM	39069	CG	LEU F	21	180.712	109.817	-100.428	1.00	67.62	C	ATOM	39119	CB	GLN F	27	170.856	113.290	-97.475	1.00	122.29	C
ATOM	39070	CD1	LEU F	21	179.532	109.135	-101.090	1.00	67.62	C	ATOM	39120	CG	GLN F	27	171.441	114.682	-97.405	1.00	122.29	C
ATOM	39071	CD2	LEU F	21	182.011	109.099	-100.769	1.00	67.62	C	ATOM	39121	CD	GLN F	27	170.590	115.624	-96.584	1.00	122.29	C
ATOM	39072	N	GLU F	22	179.674	112.157	-98.193	1.00115.98	N	ATOM	39122	OE1	GLN F	27	171.002	116.744	-96.283	1.00	122.29	O	
ATOM	39073	CA	GLU F	22	177.881	112.522	-96.847	1.00115.98	C	ATOM	39123	NE2	GLN F	27	169.389	115.179	-96.224	1.00	122.29	N	
ATOM	39074	C	GLU F	22	177.002	111.949	-95.929	1.00115.98	C	ATOM	39124	N	ARG F	28	170.474	110.287	-96.816	1.00	86.35	N	
ATOM	39075	O	GLU F	22	177.002	111.949	-95.929	1.00115.98	O	ATOM	39125	CA	ARG F	28	169.724	109.044	-96.928	1.00	86.35	C	
ATOM	39076	CB	GLU F	22	180.262	112.282	-95.820	1.00115.36	C	ATOM	39126	C	ARG F	28	169.453	108.521	-95.524	1.00	86.35	C	
ATOM	39077	CG	GLU F	22	181.632	111.659	-96.053	1.00115.36	C	ATOM	39127	O	ARG F	28	168.353	108.055	-95.220	1.00	86.35	O	
ATOM	39078	CD	GLU F	22	181.623	110.138	-95.944	1.00115.36	C	ATOM	39128	CB	ARG F	28	170.503	107.993	-97.718	1.00	143.24	C	
ATOM	39079	OE1	GLU F	22	180.716	109.494	-96.513	1.00115.36	O	ATOM	39129	CG	ARG F	28	170.332	108.072	-99.222	1.00	143.24	C	
ATOM	39080	OE2	GLU F	22	182.534	109.579	-95.298	1.00115.36	O	ATOM	39130	CD	ARG F	28	170.724	106.744	-99.851	1.00	143.24	C	
ATOM	39081	N	LYS F	23	177.731	113.741	-97.084	1.00	82.78	N	ATOM	39131	NE	ARG F	28	170.594	106.741	-101.304	1.00	143.24	N
ATOM	39082	CA	LYS F	23	176.499	114.493	-96.905	1.00	82.78	C	ATOM	39132	CZ	ARG F	28	171.365	107.444	-102.127	1.00	143.24	C
ATOM	39083	C	LYS F	23	175.347	113.791	-97.600	1.00	82.78	C	ATOM	39133	NH1	ARG F	28	172.332	108.212	-101.642	1.00	143.24	N
ATOM	39084	O	LYS F	23	174.181	114.089	-97.345	1.00	82.78	O	ATOM	39134	NH2	ARG F	28	171.173	107.375	-103.438	1.00	143.24	N
ATOM	39085	CB	LYS F	23	176.650	115.906	-97.460	1.00	72.73	C	ATOM	39135	N	ALA F	29	170.466	108.606	-94.666	1.00	107.56	N
ATOM	39086	CG	LYS F	23	177.661	116.744	-96.715	1.00	72.73	C	ATOM	39136	CA	ALA F	29	170.343	108.149	-93.288	1.00	107.56	C
ATOM	39087	CD	LYS F	23	177.599	118.193	-97.154	1.00	72.73	C	ATOM	39137	C	ALA F	29	169.138	108.818	-92.645	1.00	107.56	C
ATOM	39088	CE	LYS F	23	176.216	118.789	-96.911	1.00	72.73	C	ATOM	39138	O	ALA F	29	168.184	108.150	-92.246	1.00	107.56	O
ATOM	39089	NZ	LYS F	23	176.149	120.221	-97.325	1.00	72.73	N	ATOM	39139	CB	ALA F	29	171.604	108.488	-92.518	1.00	94.15	C
ATOM	39090	N	GLU F	24	175.683	112.861	-98.487	1.00	90.98	N	ATOM	39140	N	LEU F	30	169.191	110.142	-92.547	1.00	71.79	N
ATOM	39091	CA	GLU F	24	174.681	112.100	-99.219	1.00	90.98	C	ATOM	39141	CA	LEU F	30	168.090	110.893	-91.968	1.00	71.79	C
ATOM	39092	C	GLU F	24	174.230	110.947	-98.338	1.00	90.98	C	ATOM	39142	C	LEU F	30	166.797	110.360	-92.564	1.00	71.79	C
ATOM	39093	O	GLU F	24	173.033	110.727	-98.153	1.00	90.98	O	ATOM	39143	O	LEU F	30	165.893	109.939	-91.847	1.00	71.79	O
ATOM	39094	CB	GLU F	24	175.268	111.563	-100.526	1.00189.85	C	ATOM	39144	CB	LEU F	30	168.235	112.382	-92.285	1.00	64.91	C	
ATOM	39095	CG	GLU F	24	174.288	110.756	-101.358	1.00189.85	C	ATOM	39145	CG	LEU F	30	169.396	113.090	-91.587	1.00	64.91	C	
ATOM	39096	CD	GLU F	24	173.021	111.527	-101.670	1.00189.85	C	ATOM	39146	CD1	LEU F	30	169.509	114.528	-92.061	1.00	64.91	C	
ATOM	39097	OE1	GLU F	24	173.124	112.628	-102.251	1.00189.85	O	ATOM	39147	CD2	LEU F	30	169.173	113.047	-90.074	1.00	64.91	C	
ATOM	39098	OE2	GLU F	24	171.923	111.034	-101.335	1.00189.85	O	ATOM	39148	N	GLU F	31	166.729	110.364	-93.889	1.00	86.73	N	
ATOM	39099	N	ILE F	25	175.197	110.217	-97.790	1.00100.80	N	ATOM	39149	CA	GLU F	31	165.557	109.879	-94.596	1.00	86.73	C	
ATOM	39100	CA	ILE F	25	174.904	109.090	-96.910	1.00100.80	C	ATOM	39150	C	GLU F	31	165.095	108.513	-94.101	1.00	86.73	C	
ATOM	39101	C	ILE F	25	174.121	109.592	-95.697	1.00100.80	C	ATOM	39151	O	GLU F	31	164.018	108.390	-93.516	1.00	86.73	O	
ATOM	39102	O	ILE F	25	173.231	108.907	-95.186	1.00100.80	O	ATOM	39152	CB	GLU F	31	165.847	109.803	-96.098	1.00	200.58	C	
ATOM	39103	CG1	ILE F	25	176.201	108.412	-96.432	1.00100.74	C	ATOM	39153	CG	GLU F	31	165.879	111.151	-96.791	1.00	200.58	C	
ATOM	39104	CG2	ILE F	25	177.031	107.984	-97.641	1.00100.74	C	ATOM	39154	CD	GLU F	31	164.515	111.806	-96.831	1.00	200.58	C	
ATOM	39105	CG2	ILE F	25	175.870	107.207	-95.568	1.00100.74	C	ATOM	39155	OE1	GLU F	31	163.605	111.245	-97.479	1.00	200.58	O	
ATOM	39106	CD1	ILE F	25	178.320	107.290	-97.287	1.00100.74	C	ATOM	39156	OE2	GLU F	31	164.350	112.878	-96.212	1.00	200.58	O	
ATOM	39107	N	ILE F	26	174.467	110.793	-95.242	1.00	85.44	N	ATOM	39157	N	ASN F	32	165.914	107.492	-94.337	1.00	90.86	N
ATOM	39108	CA	ILE F	26	173.795	111.416	-94.114	1.00	85.44	C	ATOM	39158	CA	ASN F	32	165.581	106.131	-93.938	1.00	90.86	C
ATOM	39109	C	ILE F	26	172.337	111.652	-94.487	1.00	85.44	C	ATOM	39159	C	ASN F	32	165.132	106.003	-92.490	1.00	90.86	C
ATOM	39110	O	ILE F	26	171.426	111.254	-93.759	1.00	85.44	O	ATOM	39160	O	ASN F	32	164.719	104.926	-92.062	1.00	90.86	O
ATOM	39111	CB	ILE F	26	174.442	112.770	-93.766	1.00	66.55	C	ATOM	39161	CB	ASN F	32	166.768	105.202	-94.193	1.00	152.26	C
ATOM	39112	CG1	ILE F	26	175.797	112.541	-93.088	1.00	66.55	C	ATOM	39162	CG	ASN F	32	167.048	105.010	-95.671	1.00	152.26	C
ATOM	39113	CG2	ILE F	26	173.504	113.591	-92.891	1.00	66.55	C	ATOM	39163	OD1	ASN F	32	167.956	104.272	-96.052	1.00	152.26	O
ATOM	39114	CD1	ILE F	26	176.521	113.817	-92.709	1.00	66.55	C	ATOM	39164	ND2	ASN F	32	166.265	105.676	-96.513	1.00	152.26	N
ATOM	39115	N	GLN F	27	172.127	112.305	-95.628	1.00	85.91	N	ATOM	39165	N	TYR F	33	165.217	107.096	-91.737	1.00	93.78	N



ATOM	39166	CA	TYR	F	33	164.803	107.096	-90.338	1.00	93.78	C	39216	O	LYS	F	39	168.149	122.329	-90.509	1.00	90.04	O
ATOM	39167	C	TYR	F	33	163.750	108.160	-90.055	1.00	93.78	C	39217	CB	LYS	F	39	166.270	125.076	-90.884	1.00	127.47	C
ATOM	39168	O	TYR	F	33	163.710	108.732	-88.970	1.00	93.78	O	39218	CG	LYS	F	39	166.900	125.258	-89.523	1.00	127.47	C
ATOM	39169	CB	TYR	F	33	166.012	107.304	-89.416	1.00	75.69	C	39219	CD	LYS	F	39	166.815	126.720	-89.116	1.00	127.47	C
ATOM	39170	CG	TYR	F	33	166.895	106.082	-89.277	1.00	75.69	C	39220	CE	LYS	F	39	167.488	126.971	-87.778	1.00	127.47	C
ATOM	39171	CD1	TYR	F	33	168.128	106.007	-89.921	1.00	75.69	C	39221	NZ	LYS	F	39	167.462	128.410	-87.383	1.00	127.47	C
ATOM	39172	CD2	TYR	F	33	166.481	104.988	-88.522	1.00	75.69	C	39222	N	VAL	F	40	168.893	123.841	-92.000	1.00	88.13	N
ATOM	39173	CE1	TYR	F	33	168.929	104.868	-89.816	1.00	75.69	C	39223	CA	VAL	F	40	170.277	123.419	-91.854	1.00	88.13	C
ATOM	39174	CE2	TYR	F	33	167.268	103.849	-88.411	1.00	75.69	C	39224	C	VAL	F	40	171.293	124.549	-91.822	1.00	88.13	C
ATOM	39175	CZ	TYR	F	33	168.488	103.795	-89.060	1.00	75.69	C	39225	O	VAL	F	40	171.091	125.601	-92.420	1.00	88.13	O
ATOM	39176	OH	TYR	F	33	169.259	102.663	-88.957	1.00	75.69	O	39226	CB	VAL	F	40	170.674	122.464	-92.994	1.00	97.90	C
ATOM	39177	N	GLY	F	34	162.904	108.426	-91.042	1.00	79.76	N	39227	CG1	VAL	F	40	170.553	123.178	-94.315	1.00	97.90	C
ATOM	39178	CA	GLY	F	34	161.841	109.403	-90.884	1.00	79.76	C	39228	CG2	VAL	F	40	172.094	121.966	-92.796	1.00	97.90	C
ATOM	39179	C	GLY	F	34	162.236	110.780	-90.382	1.00	79.76	C	39229	N	GLU	F	41	172.383	124.305	-91.100	1.00	87.29	N
ATOM	39180	O	GLY	F	34	161.395	111.504	-89.850	1.00	79.76	O	39230	CA	GLU	F	41	173.491	125.240	-90.976	1.00	87.29	C
ATOM	39181	N	ALA	F	35	163.499	111.156	-90.549	1.00	103.83	N	39231	C	GLU	F	41	174.737	124.412	-91.237	1.00	87.29	C
ATOM	39182	CA	ALA	F	35	163.954	112.469	-90.099	1.00	103.83	C	39232	O	GLU	F	41	174.775	123.228	-90.908	1.00	87.29	O
ATOM	39183	C	ALA	F	35	163.661	113.534	-91.148	1.00	103.83	C	39233	CB	GLU	F	41	173.549	125.841	-89.574	1.00	109.33	C
ATOM	39184	O	ALA	F	35	164.235	113.526	-92.235	1.00	103.83	O	39234	CG	GLU	F	41	172.430	126.817	-89.283	1.00	109.33	C
ATOM	39185	CB	ALA	F	35	165.443	112.433	-89.797	1.00	97.82	C	39235	CD	GLU	F	41	172.605	127.525	-87.953	1.00	109.33	C
ATOM	39186	N	ARG	F	36	162.767	114.454	-90.817	1.00	67.65	N	39236	OE1	GLU	F	41	173.702	128.078	-87.720	1.00	109.33	O
ATOM	39187	CA	ARG	F	36	162.398	115.524	-91.733	1.00	67.65	C	39237	OE2	GLU	F	41	171.646	127.535	-87.147	1.00	109.33	O
ATOM	39188	C	ARG	F	36	163.159	116.814	-91.413	1.00	67.65	C	39238	N	GLU	F	42	175.748	125.022	-91.840	1.00	140.93	N
ATOM	39189	O	ARG	F	36	162.850	117.497	-90.434	1.00	67.65	O	39239	CA	GLU	F	42	176.980	124.310	-92.141	1.00	140.93	C
ATOM	39190	CB	ARG	F	36	160.886	115.758	-91.646	1.00	114.15	C	39240	C	GLU	F	42	178.152	125.256	-91.951	1.00	140.93	C
ATOM	39191	CG	ARG	F	36	160.409	117.118	-92.118	1.00	114.15	C	39241	O	GLU	F	42	178.598	125.902	-92.897	1.00	140.93	O
ATOM	39192	CD	ARG	F	36	158.932	117.299	-91.803	1.00	114.15	N	39242	CB	GLU	F	42	176.937	123.798	-93.581	1.00	120.95	C
ATOM	39193	CE	ARG	F	36	158.497	118.684	-91.965	1.00	114.15	N	39243	CG	GLU	F	42	178.091	122.899	-93.974	1.00	120.95	C
ATOM	39194	CZ	ARG	F	36	158.965	119.701	-91.247	1.00	114.15	C	39244	CD	GLU	F	42	177.903	122.295	-95.355	1.00	120.95	C
ATOM	39195	NH1	ARG	F	36	159.884	119.486	-90.316	1.00	114.15	N	39245	OE1	GLU	F	42	178.760	121.494	-95.785	1.00	120.95	O
ATOM	39196	NH2	ARG	F	36	158.515	120.933	-91.457	1.00	114.15	N	39246	OE2	GLU	F	42	176.894	122.619	-96.015	1.00	120.95	O
ATOM	39197	N	VAL	F	37	164.140	117.154	-92.247	1.00	65.36	N	39247	N	LEU	F	43	178.644	125.335	-90.718	1.00	88.83	N
ATOM	39198	CA	VAL	F	37	164.945	118.361	-92.032	1.00	65.36	C	39248	CA	LEU	F	43	179.753	126.220	-90.387	1.00	88.83	C
ATOM	39199	C	VAL	F	37	164.179	119.684	-92.075	1.00	65.36	C	39249	C	LEU	F	43	181.045	125.814	-91.095	1.00	88.83	C
ATOM	39200	O	VAL	F	37	163.708	120.092	-93.136	1.00	65.36	O	39250	O	LEU	F	43	181.924	126.649	-91.338	1.00	88.83	O
ATOM	39201	CB	VAL	F	37	166.074	118.476	-93.071	1.00	62.25	C	39251	CB	LEU	F	43	179.973	126.240	-88.871	1.00	98.18	C
ATOM	39202	CG1	VAL	F	37	166.900	119.733	-92.788	1.00	62.25	C	39252	CG	LEU	F	43	178.782	126.607	-87.975	1.00	98.18	C
ATOM	39203	CG2	VAL	F	37	166.949	117.219	-93.051	1.00	62.25	C	39253	CD1	LEU	F	43	178.213	127.948	-88.399	1.00	98.18	C
ATOM	39204	N	GLU	F	38	164.079	120.360	-90.930	1.00	90.52	N	39254	CD2	LEU	F	43	177.717	125.518	-88.052	1.00	98.18	C
ATOM	39205	CA	GLU	F	38	163.390	121.651	-90.851	1.00	90.52	C	39255	N	GLY	F	44	181.156	124.532	-91.427	1.00	86.28	N
ATOM	39206	C	GLU	F	38	164.275	122.779	-91.382	1.00	90.52	C	39256	CA	GLY	F	44	182.345	124.065	-92.111	1.00	86.28	C
ATOM	39207	O	GLU	F	38	163.983	121.979	-89.410	1.00	90.52	O	39257	C	GLY	F	44	183.526	123.834	-91.192	1.00	86.28	C
ATOM	39208	CB	GLU	F	38	161.918	121.071	-88.821	1.00	103.26	C	39258	O	GLY	F	44	183.358	123.406	-90.053	1.00	86.28	O
ATOM	39209	CG	GLU	F	38	161.233	121.693	-87.616	1.00	103.26	C	39259	N	LEU	F	45	184.729	124.114	-91.683	1.00	96.40	N
ATOM	39210	CD	GLU	F	38	161.436	120.995	-86.953	1.00	103.26	O	39260	CA	LEU	F	45	185.927	123.920	-90.879	1.00	96.40	C
ATOM	39211	OE1	GLU	F	38	161.485	122.884	-87.337	1.00	103.26	O	39261	C	LEU	F	45	186.019	124.879	-89.708	1.00	96.40	C
ATOM	39212	OE2	GLU	F	38	161.485	122.884	-87.337	1.00	103.26	O	39262	C	LEU	F	45	185.834	126.085	-89.866	1.00	96.40	O
ATOM	39213	N	LYS	F	39	165.566	122.715	-91.077	1.00	90.04	N	39263	CB	LEU	F	45	187.191	124.082	-91.727	1.00	88.92	C
ATOM	39214	CA	LYS	F	39	166.507	123.718	-91.557	1.00	90.04	C	39264	CG	LEU	F	45	187.529	122.999	-92.749	1.00	88.92	C
ATOM	39215	C	LYS	F	39	167.929	123.238	-91.310	1.00	90.04	C	39265	CD1	LEU	F	45	189.008	123.094	-93.094	1.00	88.92	C



Table 2: Sheet 394/520

ATOM	39266	CD2	LEU F	45	187.228	121.627	-92.180	1.00	88.92	C	ATOM	39316	C	PRO F	51	191.408	116.122	-81.354	1.00	54.68	C
ATOM	39267	N	ARG F	46	186.312	124.334	-88.531	1.00	94.29	N	ATOM	39317	O	PRO F	51	191.040	115.755	-80.238	1.00	54.68	O
ATOM	39268	CA	ARG F	46	186.469	125.142	-87.330	1.00	94.29	C	ATOM	39318	CB	PRO F	51	193.899	116.453	-81.484	1.00	78.83	C
ATOM	39269	C	ARG F	46	187.590	124.575	-86.480	1.00	94.29	C	ATOM	39319	CG	PRO F	51	194.206	116.403	-80.022	1.00	78.83	C
ATOM	39270	O	ARG F	46	187.884	123.376	-86.537	1.00	94.29	O	ATOM	39320	CD	PRO F	51	193.841	117.799	-79.597	1.00	78.83	C
ATOM	39271	CB	ARG F	46	185.168	125.197	-86.531	1.00	134.27	C	ATOM	39321	N	ILE F	52	190.847	115.709	-82.485	1.00	73.08	N
ATOM	39272	CG	ARG F	46	184.056	125.938	-87.251	1.00	134.27	C	ATOM	39322	CA	ILE F	52	189.797	114.698	-82.528	1.00	73.08	C
ATOM	39273	CD	ARG F	46	182.976	126.367	-86.288	1.00	134.27	C	ATOM	39323	O	ILE F	52	190.220	113.833	-83.702	1.00	73.08	C
ATOM	39274	NE	ARG F	46	183.481	127.325	-85.312	1.00	134.27	N	ATOM	39324	C	ILE F	52	190.188	114.274	-84.853	1.00	73.08	O
ATOM	39275	C2	ARG F	46	182.762	127.821	-84.310	1.00	134.27	C	ATOM	39325	CB	ILE F	52	188.390	115.291	-82.808	1.00	61.45	C
ATOM	39276	NH1	ARG F	46	181.498	127.448	-84.145	1.00	134.27	N	ATOM	39326	CG1	ILE F	52	187.916	116.115	-81.611	1.00	61.45	C
ATOM	39277	NH2	ARG F	46	183.306	128.695	-83.475	1.00	102.69	N	ATOM	39327	CG2	ILE F	52	187.396	114.162	-83.081	1.00	61.45	C
ATOM	39278	N	ARG F	47	188.219	125.450	-85.703	1.00	102.69	N	ATOM	39328	CD1	ILE F	52	186.494	116.631	-81.745	1.00	61.45	C
ATOM	39279	CA	ARG F	47	189.331	125.061	-84.847	1.00	102.69	C	ATOM	39329	N	ALA F	53	190.640	112.609	-83.404	1.00	93.68	N
ATOM	39280	C	ARG F	47	188.843	124.310	-83.611	1.00	102.69	C	ATOM	39330	CA	ALA F	53	191.102	111.700	-84.438	1.00	93.68	C
ATOM	39281	O	ARG F	47	188.151	124.885	-82.769	1.00	102.69	O	ATOM	39331	C	ALA F	53	192.387	112.285	-85.016	1.00	93.68	C
ATOM	39282	CB	ARG F	47	190.105	126.306	-84.407	1.00	200.58	C	ATOM	39332	O	ALA F	53	192.508	112.481	-86.224	1.00	93.68	O
ATOM	39283	CG	ARG F	47	190.174	127.416	-85.453	1.00	200.58	C	ATOM	39333	CB	ALA F	53	190.043	111.557	-85.526	1.00	47.98	C
ATOM	39284	CD	ARG F	47	190.824	126.951	-86.751	1.00	200.58	C	ATOM	39334	N	LYS F	54	193.337	112.575	-84.131	1.00	82.28	N
ATOM	39285	NE	ARG F	47	191.315	127.860	-88.998	1.00	200.58	N	ATOM	39335	CA	LYS F	54	194.635	113.140	-84.508	1.00	82.28	C
ATOM	39286	C2	ARG F	47	191.748	128.675	-89.408	1.00	200.58	N	ATOM	39336	C	LYS F	54	195.409	115.336	-85.105	1.00	82.28	O
ATOM	39287	NH1	ARG F	47	191.320	128.888	-89.837	1.00	200.58	N	ATOM	39337	O	LYS F	54	195.389	112.181	-85.434	1.00	103.87	C
ATOM	39288	NH2	ARG F	47	189.194	123.031	-83.499	1.00	70.34	N	ATOM	39338	CB	LYS F	54	195.124	110.706	-85.179	1.00	103.87	C
ATOM	39289	N	LEU F	48	188.789	122.252	-82.333	1.00	70.34	C	ATOM	39339	CG	LYS F	54	195.419	110.311	-83.751	1.00	103.87	C
ATOM	39290	CA	LEU F	48	189.580	122.706	-81.112	1.00	70.34	C	ATOM	39340	CD	LYS F	54	195.064	108.853	-83.515	1.00	103.87	C
ATOM	39291	C	LEU F	48	190.670	123.278	-81.239	1.00	70.34	O	ATOM	39341	CE	LYS F	54	195.264	108.467	-82.091	1.00	103.87	N
ATOM	39292	O	LEU F	48	189.035	120.765	-82.556	1.00	51.15	C	ATOM	39342	NZ	LYS F	54	193.394	114.719	-85.873	1.00	75.10	N
ATOM	39293	CB	LEU F	48	188.285	120.119	-83.719	1.00	51.15	C	ATOM	39343	N	ASP F	55	193.152	115.963	-86.592	1.00	75.10	C
ATOM	39294	CD	LEU F	48	188.513	118.601	-83.716	1.00	51.15	C	ATOM	39344	CA	ASP F	55	192.926	117.167	-85.666	1.00	75.10	C
ATOM	39295	CD1	LEU F	48	186.802	120.436	-83.594	1.00	51.15	C	ATOM	39345	C	ASP F	55	192.168	117.084	-84.700	1.00	75.10	O
ATOM	39296	CD2	LEU F	48	189.027	122.455	-79.929	1.00	68.33	N	ATOM	39346	O	ASP F	55	191.937	115.779	-87.498	1.00	106.35	C
ATOM	39297	N	ALA F	49	189.683	122.846	-78.685	1.00	68.33	C	ATOM	39347	CB	ASP F	55	192.023	116.603	-88.753	1.00	106.35	C
ATOM	39298	CA	ALA F	49	190.788	121.848	-78.387	1.00	68.33	C	ATOM	39348	CG	ASP F	55	192.091	117.847	-88.649	1.00	106.35	O
ATOM	39299	C	ALA F	49	191.732	122.123	-77.648	1.00	68.33	C	ATOM	39349	OD1	ASP F	55	192.025	115.998	-89.845	1.00	106.35	O
ATOM	39300	O	ALA F	49	188.671	122.866	-77.546	1.00	117.70	C	ATOM	39350	OD2	ASP F	55	193.587	118.303	-85.951	1.00	71.35	N
ATOM	39301	CB	ALA F	49	190.656	120.683	-78.995	1.00	49.24	N	ATOM	39351	N	PRO F	56	193.466	119.531	-85.158	1.00	71.35	C
ATOM	39302	N	TYR F	50	191.607	119.612	-78.806	1.00	49.24	C	ATOM	39352	CA	PRO F	56	192.310	120.430	-85.608	1.00	71.35	C
ATOM	39303	CA	TYR F	50	191.502	118.682	-80.002	1.00	49.24	C	ATOM	39353	C	PRO F	56	192.143	121.548	-85.105	1.00	71.35	O
ATOM	39304	C	TYR F	50	190.432	118.532	-80.595	1.00	49.24	O	ATOM	39354	O	PRO F	56	194.813	120.199	-85.371	1.00	98.08	C
ATOM	39305	O	TYR F	50	191.281	118.833	-77.525	1.00	49.26	C	ATOM	39355	CB	PRO F	56	195.081	119.889	-86.789	1.00	98.08	C
ATOM	39306	CB	TYR F	50	189.856	118.301	-77.464	1.00	49.26	C	ATOM	39356	CG	PRO F	56	194.721	118.413	-86.885	1.00	98.08	C
ATOM	39307	CG	TYR F	50	188.809	119.086	-76.965	1.00	49.26	C	ATOM	39357	CD	PRO F	56	191.518	119.941	-86.558	1.00	70.89	N
ATOM	39308	CD1	TYR F	50	189.553	117.018	-77.922	1.00	49.26	C	ATOM	39358	N	GLN F	57	190.383	120.703	-87.071	1.00	70.89	C
ATOM	39309	CD2	TYR F	50	187.497	118.603	-76.922	1.00	49.26	C	ATOM	39359	CA	GLN F	57	189.164	119.808	-87.269	1.00	70.89	C
ATOM	39310	CE1	TYR F	50	188.241	116.522	-77.885	1.00	49.26	C	ATOM	39360	C	GLN F	57	189.246	118.578	-87.166	1.00	70.89	O
ATOM	39311	CE2	TYR F	50	187.221	117.319	-77.384	1.00	49.26	C	ATOM	39361	O	GLN F	57	190.741	121.356	-88.409	1.00	134.42	C
ATOM	39312	C2	TYR F	50	185.933	116.825	-77.352	1.00	49.26	O	ATOM	39362	CB	GLN F	57	192.035	122.153	-88.399	1.00	134.42	C
ATOM	39313	OH	TYR F	50	192.608	118.029	-80.362	1.00	54.68	H	ATOM	39363	CG	GLN F	57	192.349	122.772	-89.747	1.00	134.42	C
ATOM	39314	N	PRO F	51	192.537	117.128	-81.505	1.00	54.68	C	ATOM	39364	CD	GLN F	57	193.424	123.330	-89.950	1.00	134.42	O
ATOM	39315	CA	PRO F	51							ATOM	39365	OE1	GLN F	57						



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ATOM	39366	NE2	GLN	F	57	191.407	122.670	-90.676	1.00134.42	N	ATOM	39416	N	TYR	F	63	171.931	119.625	-88.616	1.00	82.17	N	
ATOM	39367	N	GLY	F	58	188.032	120.436	-87.563	1.00	70.53	N	ATOM	39417	CA	TYR	F	63	170.617	119.414	-89.202	1.00	82.17	C
ATOM	39368	CA	GLY	F	58	186.818	119.680	-87.779	1.00	70.53	C	ATOM	39418	C	TYR	F	63	169.521	119.397	-88.142	1.00	82.17	C
ATOM	39369	C	GLY	F	58	185.858	120.396	-88.702	1.00	70.53	C	ATOM	39419	O	TYR	F	63	169.483	118.493	-87.306	1.00	82.17	O
ATOM	39370	O	GLY	F	58	185.811	121.627	-88.725	1.00	70.53	O	ATOM	39420	CB	TYR	F	63	170.571	118.082	-89.949	1.00	120.02	C
ATOM	39371	N	TYR	F	59	185.104	119.619	-89.473	1.00	75.88	N	ATOM	39421	CG	TYR	F	63	171.618	117.920	-91.016	1.00	120.02	C
ATOM	39372	CA	TYR	F	59	184.115	120.157	-90.400	1.00	75.88	C	ATOM	39422	CD1	TYR	F	63	171.659	118.772	-92.115	1.00	120.02	C
ATOM	39373	C	TYR	F	59	182.739	119.879	-89.794	1.00	75.88	C	ATOM	39423	CD2	TYR	F	63	172.556	116.895	-90.940	1.00	120.02	C
ATOM	39374	O	TYR	F	59	182.246	118.744	-89.840	1.00	75.88	O	ATOM	39424	CE1	TYR	F	63	172.610	118.604	-93.117	1.00	120.02	C
ATOM	39375	CB	TYR	F	59	184.232	119.461	-91.754	1.00	90.96	C	ATOM	39425	CE2	TYR	F	63	173.510	116.718	-91.933	1.00	120.02	C
ATOM	39376	CG	TYR	F	59	183.443	120.137	-92.845	1.00	90.96	C	ATOM	39426	CZ	TYR	F	63	173.532	117.573	-93.019	1.00	120.02	C
ATOM	39377	CD1	TYR	F	59	183.822	121.386	-93.324	1.00	90.96	C	ATOM	39427	OH	TYR	F	63	174.467	117.387	-94.011	1.00	120.02	O
ATOM	39378	CD2	TYR	F	59	182.309	119.539	-93.386	1.00	90.96	C	ATOM	39428	N	GLN	F	64	168.637	120.390	-88.161	1.00	83.79	N
ATOM	39379	CE1	TYR	F	59	183.095	122.021	-94.311	1.00	90.96	C	ATOM	39429	CA	GLN	F	64	167.525	120.396	-87.214	1.00	83.79	C
ATOM	39380	CE2	TYR	F	59	181.573	120.169	-94.375	1.00	90.96	C	ATOM	39430	C	GLN	F	64	166.394	119.569	-87.818	1.00	83.79	C
ATOM	39381	CZ	TYR	F	59	181.972	121.410	-94.834	1.00	90.96	C	ATOM	39431	O	GLN	F	64	165.731	120.011	-88.747	1.00	83.79	O
ATOM	39382	OH	TYR	F	59	181.254	122.043	-95.821	1.00	90.96	O	ATOM	39432	CB	GLN	F	64	167.000	121.802	-86.955	1.00	78.66	C
ATOM	39383	N	PHE	F	60	182.129	120.921	-89.233	1.00	79.78	N	ATOM	39433	CG	GLN	F	64	165.673	121.753	-86.225	1.00	78.66	C
ATOM	39384	CA	PHE	F	60	180.833	120.813	-88.570	1.00	79.78	C	ATOM	39434	CD	GLN	F	64	165.198	123.102	-85.757	1.00	78.66	C
ATOM	39385	C	PHE	F	60	179.599	120.989	-89.446	1.00	79.78	C	ATOM	39435	OE1	GLN	F	64	165.933	123.838	-85.096	1.00	78.66	O
ATOM	39386	O	PHE	F	60	179.630	121.667	-90.467	1.00	79.78	O	ATOM	39436	NE2	GLN	F	64	163.952	123.434	-86.083	1.00	78.66	N
ATOM	39387	CB	PHE	F	60	180.742	121.825	-87.425	1.00	92.22	C	ATOM	39437	N	VAL	F	65	166.171	118.372	-87.292	1.00	80.67	N
ATOM	39388	CG	PHE	F	60	181.786	121.648	-86.368	1.00	92.22	C	ATOM	39438	CA	VAL	F	65	165.120	117.516	-87.822	1.00	80.67	C
ATOM	39389	CD1	PHE	F	60	183.102	122.033	-86.597	1.00	92.22	C	ATOM	39439	C	VAL	F	65	163.885	117.467	-86.944	1.00	80.67	C
ATOM	39390	CD2	PHE	F	60	181.452	121.113	-85.133	1.00	92.22	C	ATOM	39440	O	VAL	F	65	163.774	118.170	-85.945	1.00	80.67	O
ATOM	39391	CE1	PHE	F	60	184.072	121.889	-85.608	1.00	92.22	C	ATOM	39441	CB	VAL	F	65	165.601	116.059	-87.998	1.00	80.82	C
ATOM	39392	CE2	PHE	F	60	182.410	120.964	-84.138	1.00	92.22	C	ATOM	39442	CG1	VAL	F	65	166.832	116.018	-88.873	1.00	80.82	C
ATOM	39393	CZ	PHE	F	60	183.724	121.353	-84.376	1.00	92.22	C	ATOM	39443	CG2	VAL	F	65	165.881	115.441	-86.642	1.00	80.82	C
ATOM	39394	N	LEU	F	61	178.504	120.382	-89.002	1.00113.18	N	ATOM	39444	N	GLU	F	66	162.957	116.620	-87.361	1.00	79.62	N	
ATOM	39395	CA	LEU	F	61	177.222	120.461	-89.684	1.00113.18	C	ATOM	39445	CA	GLU	F	66	161.711	116.369	-86.666	1.00	79.62	C	
ATOM	39396	C	LEU	F	61	176.185	120.960	-88.675	1.00113.18	C	ATOM	39446	C	GLU	F	66	161.478	114.915	-87.035	1.00	79.62	C	
ATOM	39397	O	LEU	F	61	176.536	121.698	-87.751	1.00113.18	O	ATOM	39447	O	GLU	F	66	161.213	114.601	-88.189	1.00	79.62	O	
ATOM	39398	CB	LEU	F	61	176.836	119.084	-90.230	1.00	95.55	C	ATOM	39448	CB	GLU	F	66	160.592	117.255	-87.207	1.00	79.62	C
ATOM	39399	CG	LEU	F	61	177.706	118.605	-91.398	1.00	95.55	C	ATOM	39449	CG	GLU	F	66	159.248	116.989	-86.556	1.00	143.33	C
ATOM	39400	CD1	LEU	F	61	177.365	117.170	-91.743	1.00	95.55	C	ATOM	39450	CD	GLU	F	66	158.229	118.070	-86.851	1.00	143.33	C
ATOM	39401	CD2	LEU	F	61	177.489	119.509	-92.602	1.00	95.55	C	ATOM	39451	OE1	GLU	F	66	158.442	119.221	-86.410	1.00	143.33	O
ATOM	39402	N	TRP	F	62	174.923	120.566	-88.849	1.00	86.14	N	ATOM	39452	OE2	GLU	F	66	157.218	117.770	-87.524	1.00	143.33	O
ATOM	39403	CA	TRP	F	62	173.843	120.981	-87.948	1.00	86.14	C	ATOM	39453	N	MET	F	67	161.606	114.020	-86.065	1.00	70.66	N
ATOM	39404	C	TRP	F	62	172.464	120.837	-88.590	1.00	86.14	C	ATOM	39454	CA	MET	F	67	161.449	112.600	-86.343	1.00	70.66	C
ATOM	39405	O	TRP	F	62	171.883	121.816	-89.048	1.00	86.14	O	ATOM	39455	C	MET	F	67	160.839	111.862	-85.166	1.00	70.66	C
ATOM	39406	CB	TRP	F	62	174.021	122.442	-87.526	1.00	94.88	C	ATOM	39456	O	MET	F	67	160.540	112.461	-84.132	1.00	70.66	O
ATOM	39407	CG	TRP	F	62	173.147	122.858	-86.381	1.00	94.88	C	ATOM	39457	CB	MET	F	67	162.818	111.999	-86.652	1.00	79.47	C
ATOM	39408	CD1	TRP	F	62	173.364	122.619	-85.054	1.00	94.88	C	ATOM	39458	CG	MET	F	67	163.801	112.168	-85.505	1.00	79.47	C
ATOM	39409	CD2	TRP	F	62	171.927	123.606	-86.458	1.00	94.88	C	ATOM	39459	SD	MET	F	67	165.381	111.399	-85.808	1.00	79.47	S
ATOM	39410	NE1	TRP	F	62	172.362	123.178	-84.300	1.00	94.88	N	ATOM	39460	CE	MET	F	67	164.983	109.670	-85.499	1.00	79.47	C
ATOM	39411	CE2	TRP	F	62	171.466	123.790	-85.137	1.00	94.88	C	ATOM	39461	N	PRO	F	68	160.647	110.543	-85.312	1.00	78.07	N
ATOM	39412	CE3	TRP	F	62	171.178	124.141	-87.517	1.00	94.88	C	ATOM	39462	CA	PRO	F	68	160.074	109.714	-84.250	1.00	78.07	C
ATOM	39413	CZ2	TRP	F	62	170.288	124.489	-84.844	1.00	94.88	C	ATOM	39463	C	PRO	F	68	161.106	109.490	-83.147	1.00	78.07	C
ATOM	39414	CZ3	TRP	F	62	170.008	124.835	-87.226	1.00	94.88	C	ATOM	39464	O	PRO	F	68	162.232	109.058	-83.415	1.00	78.07	O
ATOM	39415	CH2	TRP	F	62	169.576	125.002	-85.900	1.00	94.88	C	ATOM	39465	CB	PRO	F	68	159.727	108.413	-84.972	1.00	71.74	C



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ATOM	39466	CG	PRO F	68	159.550	108.840	-86.398	1.00	71.74	C	ATOM	39516	CG	ASP F	74	167.181	102.439	-83.400	1.00	172.61	C
ATOM	39467	CD	GLU F	68	160.696	109.790	-86.573	1.00	71.74	C	ATOM	39517	OD1	ASP F	74	166.805	102.935	-82.316	1.00	172.61	O
ATOM	39468	N	GLU F	69	160.719	109.789	-81.912	1.00	71.97	N	ATOM	39518	OD2	ASP F	74	167.103	101.220	-83.659	1.00	172.61	O
ATOM	39469	CA	GLU F	69	161.602	109.624	-80.767	1.00	71.97	C	ATOM	39519	N	LEU F	75	169.015	106.165	-85.243	1.00	65.98	N
ATOM	39470	C	GLU F	69	162.084	108.181	-80.683	1.00	71.97	C	ATOM	39520	CA	LEU F	75	169.474	107.072	-86.282	1.00	65.98	C
ATOM	39471	O	GLU F	69	163.254	107.915	-80.397	1.00	71.97	O	ATOM	39521	C	LEU F	75	170.973	107.307	-86.134	1.00	65.98	C
ATOM	39472	CB	GLU F	69	160.865	109.998	-79.484	1.00	123.91	C	ATOM	39522	O	LEU F	75	171.726	107.207	-87.105	1.00	65.98	O
ATOM	39473	CG	GLU F	69	159.621	110.834	-79.719	1.00	123.91	C	ATOM	39523	CB	LEU F	75	168.720	108.408	-86.190	1.00	80.47	C
ATOM	39474	CD	GLU F	69	158.423	109.995	-80.111	1.00	123.91	C	ATOM	39524	CG	LEU F	75	169.046	109.584	-87.123	1.00	80.47	C
ATOM	39475	OE1	GLU F	69	158.520	109.228	-81.091	1.00	123.91	O	ATOM	39525	CD1	LEU F	75	170.379	110.205	-86.770	1.00	80.47	C
ATOM	39476	OE2	GLU F	69	157.379	110.104	-79.436	1.00	123.91	O	ATOM	39526	CD2	LEU F	75	169.053	109.102	-88.554	1.00	80.47	C
ATOM	39477	N	ASP F	70	161.175	107.253	-80.954	1.00	75.17	N	ATOM	39527	N	ALA F	76	171.412	107.616	-84.919	1.00	71.09	N
ATOM	39478	CA	ASP F	70	161.487	105.833	-80.903	1.00	75.17	C	ATOM	39528	CA	ALA F	76	172.829	107.873	-84.689	1.00	71.09	C
ATOM	39479	C	ASP F	70	162.602	105.413	-81.857	1.00	75.17	C	ATOM	39529	C	ALA F	76	173.670	106.601	-84.760	1.00	71.09	C
ATOM	39480	O	ASP F	70	162.882	104.218	-81.990	1.00	75.17	O	ATOM	39530	O	ALA F	76	174.844	106.660	-85.112	1.00	71.09	O
ATOM	39481	CB	ASP F	70	160.231	105.020	-81.209	1.00	147.22	C	ATOM	39531	CB	ALA F	76	173.031	108.571	-83.350	1.00	62.55	C
ATOM	39482	CG	ASP F	70	159.670	105.324	-82.579	1.00	147.22	C	ATOM	39532	N	ARG F	77	173.079	105.457	-84.425	1.00	75.87	N
ATOM	39483	OD1	ASP F	70	159.444	106.516	-82.871	1.00	147.22	C	ATOM	39533	CA	ARG F	77	173.811	104.199	-84.492	1.00	75.87	C
ATOM	39484	OD2	ASP F	70	159.453	104.374	-83.360	1.00	147.22	O	ATOM	39534	C	ARG F	77	174.452	104.202	-85.866	1.00	75.87	C
ATOM	39485	N	ARG F	71	163.247	106.371	-82.519	1.00	81.78	N	ATOM	39535	O	ARG F	77	175.635	103.902	-86.015	1.00	75.87	O
ATOM	39486	CA	ARG F	71	164.315	106.016	-83.447	1.00	81.78	C	ATOM	39536	CB	ARG F	77	172.865	102.999	-84.397	1.00	199.68	C
ATOM	39487	C	ARG F	71	165.517	106.944	-83.461	1.00	81.78	C	ATOM	39537	CD	ARG F	77	172.079	102.987	-83.107	1.00	199.68	C
ATOM	39488	O	ARG F	71	166.449	106.736	-84.230	1.00	81.78	O	ATOM	39538	CG	ARG F	77	171.150	101.680	-83.158	1.00	199.68	C
ATOM	39489	CB	ARG F	71	163.758	105.877	-84.867	1.00	141.42	C	ATOM	39539	NE	ARG F	77	170.301	101.577	-81.973	1.00	199.68	N
ATOM	39490	CG	ARG F	71	162.780	104.724	-85.018	1.00	141.42	C	ATOM	39540	CZ	ARG F	77	169.372	100.641	-81.796	1.00	199.68	C
ATOM	39491	CD	ARG F	71	162.667	104.255	-86.454	1.00	141.42	C	ATOM	39541	NH1	ARG F	77	169.167	99.720	-82.729	1.00	199.68	N
ATOM	39492	NE	ARG F	71	162.183	105.301	-87.345	1.00	141.42	C	ATOM	39542	NH2	ARG F	77	168.647	100.623	-80.684	1.00	199.68	N
ATOM	39493	CZ	ARG F	71	162.019	105.142	-88.654	1.00	141.42	N	ATOM	39543	N	GLU F	78	173.650	104.581	-86.861	1.00	96.25	N
ATOM	39494	NH1	ARG F	71	162.301	103.976	-89.220	1.00	141.42	N	ATOM	39544	CA	GLU F	78	174.062	104.637	-88.264	1.00	96.25	C
ATOM	39495	NH2	ARG F	71	161.577	106.148	-89.396	1.00	141.42	N	ATOM	39545	C	GLU F	78	175.061	105.749	-88.575	1.00	96.25	C
ATOM	39496	N	VAL F	72	165.510	107.959	-82.609	1.00	66.79	N	ATOM	39546	O	GLU F	78	176.135	105.492	-89.114	1.00	96.25	O
ATOM	39497	CA	VAL F	72	166.630	108.885	-82.561	1.00	66.79	C	ATOM	39547	CB	GLU F	78	172.825	104.808	-89.152	1.00	105.55	C
ATOM	39498	C	VAL F	72	167.914	108.109	-82.284	1.00	66.79	C	ATOM	39548	CG	GLU F	78	173.081	104.648	-90.645	1.00	105.55	C
ATOM	39499	O	VAL F	72	168.925	108.283	-82.966	1.00	66.79	O	ATOM	39549	CD	GLU F	78	173.200	103.194	-91.078	1.00	105.55	C
ATOM	39500	CB	VAL F	72	166.439	109.921	-81.456	1.00	76.49	C	ATOM	39550	OE1	GLU F	78	172.244	102.423	-90.851	1.00	105.55	O
ATOM	39501	CG1	VAL F	72	167.421	111.057	-81.634	1.00	76.49	C	ATOM	39551	OE2	GLU F	78	174.244	102.823	-91.652	1.00	105.55	O
ATOM	39502	CG2	VAL F	72	165.028	110.428	-81.476	1.00	76.49	C	ATOM	39552	N	LEU F	79	174.705	106.984	-88.241	1.00	65.98	N
ATOM	39503	N	ASN F	73	167.875	107.245	-81.277	1.00	80.79	N	ATOM	39553	CA	LEU F	79	175.584	108.120	-88.507	1.00	65.98	C
ATOM	39504	CA	ASN F	73	169.047	106.451	-80.932	1.00	80.79	C	ATOM	39554	C	LEU F	79	177.034	107.927	-88.051	1.00	65.98	C
ATOM	39505	C	ASN F	73	169.542	105.677	-82.146	1.00	80.79	C	ATOM	39555	O	LEU F	79	177.970	108.336	-88.739	1.00	65.98	O
ATOM	39506	O	ASN F	73	170.706	105.793	-82.517	1.00	80.79	O	ATOM	39556	CB	LEU F	79	175.041	109.397	-87.854	1.00	53.26	C
ATOM	39507	CB	ASN F	73	168.721	105.494	-79.778	1.00	72.07	C	ATOM	39557	CG	LEU F	79	173.621	109.863	-88.157	1.00	53.26	C
ATOM	39508	CG	ASN F	73	169.279	105.975	-78.446	1.00	72.07	C	ATOM	39558	CD1	LEU F	79	173.538	111.391	-88.009	1.00	53.26	C
ATOM	39509	OD1	ASN F	73	170.368	105.565	-78.032	1.00	72.07	O	ATOM	39559	CD2	LEU F	79	173.255	109.455	-89.568	1.00	53.26	C
ATOM	39510	ND2	ASN F	73	168.545	106.861	-77.780	1.00	72.07	N	ATOM	39560	N	ARG F	80	177.228	107.314	-86.892	1.00	93.63	N
ATOM	39511	N	ASP F	74	168.651	104.907	-82.768	1.00	86.96	N	ATOM	39561	CA	ARG F	80	178.577	107.126	-86.380	1.00	93.63	C
ATOM	39512	CA	ASP F	74	168.992	104.111	-83.949	1.00	86.96	C	ATOM	39562	C	ARG F	80	179.392	106.125	-87.203	1.00	93.63	C
ATOM	39513	C	ASP F	74	169.556	104.963	-85.080	1.00	86.96	C	ATOM	39563	O	ARG F	80	180.622	106.069	-87.062	1.00	93.63	O
ATOM	39514	O	ASP F	74	170.458	104.537	-85.794	1.00	86.96	O	ATOM	39564	CB	ARG F	80	178.523	106.676	-84.916	1.00	61.62	C
ATOM	39515	CB	ASP F	74	167.760	103.360	-84.449	1.00	172.61	C	ATOM	39565	CG	ARG F	80	177.724	107.583	-83.984	1.00	61.62	C



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ATOM	39566	CD	ARG F	80	177.545	106.892	-82.624	1.00	61.62	C	ATOM	39616	O	ARG F	86	183.920	112.184	-83.826	1.00	80.06	O
ATOM	39567	NE	ARG F	80	176.494	107.494	-81.808	1.00	61.62	N	ATOM	39617	CB	ARG F	86	185.429	111.926	-86.219	1.00	102.09	C
ATOM	39568	CZ	ARG F	80	176.511	108.752	-81.384	1.00	61.62	C	ATOM	39618	CG	ARG F	86	185.636	113.286	-86.862	1.00	102.09	C
ATOM	39569	NH1	ARG F	80	177.537	109.541	-81.701	1.00	61.62	N	ATOM	39619	CD	ARG F	86	187.100	113.511	-87.250	1.00	102.09	C
ATOM	39570	NH2	ARG F	80	175.500	109.220	-80.655	1.00	61.62	N	ATOM	39620	NE	ARG F	86	187.546	112.570	-88.276	1.00	102.09	N
ATOM	39571	N	ILE F	81	178.709	105.349	-88.043	1.00	81.01	N	ATOM	39621	CZ	ARG F	86	188.663	112.704	-88.984	1.00	102.09	C
ATOM	39572	CA	ILE F	81	179.367	104.339	-88.880	1.00	81.01	C	ATOM	39622	NH1	ARG F	86	189.461	113.745	-88.784	1.00	102.09	N
ATOM	39573	C	ILE F	81	180.373	104.898	-89.893	1.00	81.01	C	ATOM	39623	NH2	ARG F	86	188.976	111.797	-89.901	1.00	102.09	N
ATOM	39574	O	ILE F	81	181.423	104.295	-90.134	1.00	81.01	O	ATOM	39624	N	ARG F	87	182.022	112.452	-85.014	1.00	87.83	N
ATOM	39575	CB	ILE F	81	178.336	103.506	-89.650	1.00	76.01	C	ATOM	39625	CA	ARG F	87	181.261	113.037	-83.911	1.00	87.83	C
ATOM	39576	CG1	ILE F	81	177.317	102.925	-88.676	1.00	76.01	C	ATOM	39626	C	ARG F	87	179.803	113.274	-84.263	1.00	87.83	C
ATOM	39577	CG2	ILE F	81	179.030	102.375	-90.381	1.00	76.01	C	ATOM	39627	O	ARG F	87	179.497	114.027	-85.186	1.00	87.83	O
ATOM	39578	CD1	ILE F	81	176.160	102.245	-89.350	1.00	76.01	C	ATOM	39628	CB	ARG F	87	181.873	114.368	-83.489	1.00	63.74	C
ATOM	39579	N	ARG F	82	180.044	106.038	-90.492	1.00	125.31	N	ATOM	39629	CG	ARG F	87	182.965	114.260	-82.441	1.00	63.74	C
ATOM	39580	CA	ARG F	82	180.925	106.673	-91.465	1.00	125.31	C	ATOM	39630	CD	ARG F	87	182.442	113.950	-81.037	1.00	63.74	C
ATOM	39581	C	ARG F	82	182.303	106.894	-90.849	1.00	125.31	C	ATOM	39631	NE	ARG F	87	183.450	114.360	-80.062	1.00	63.74	N
ATOM	39582	O	ARG F	82	182.420	107.479	-89.772	1.00	125.31	O	ATOM	39632	CZ	ARG F	87	184.589	113.709	-79.841	1.00	63.74	C
ATOM	39583	CB	ARG F	82	180.336	108.014	-91.911	1.00	117.85	C	ATOM	39633	NH1	ARG F	87	184.863	112.592	-80.510	1.00	63.74	N
ATOM	39584	CG	ARG F	82	179.108	107.906	-92.815	1.00	117.85	C	ATOM	39634	NH2	ARG F	87	185.481	114.209	-78.995	1.00	63.74	N
ATOM	39585	CD	ARG F	82	180.274	106.343	-94.328	1.00	117.85	C	ATOM	39635	N	VAL F	88	178.909	112.642	-83.512	1.00	81.81	N
ATOM	39586	NE	ARG F	82	181.012	105.991	-95.375	1.00	117.85	C	ATOM	39636	CA	VAL F	88	177.478	112.797	-83.738	1.00	81.81	C
ATOM	39587	CZ	ARG F	82	181.090	106.784	-96.435	1.00	117.85	C	ATOM	39637	C	VAL F	88	176.741	113.010	-82.430	1.00	81.81	C
ATOM	39588	NH1	ARG F	82	181.680	104.847	-95.359	1.00	117.85	N	ATOM	39638	O	VAL F	88	176.697	112.110	-81.591	1.00	81.81	O
ATOM	39589	NH2	ARG F	82	183.340	106.420	-91.534	1.00	76.44	N	ATOM	39639	CB	VAL F	88	176.874	111.559	-84.389	1.00	72.31	C
ATOM	39590	N	ASP F	83	184.713	106.558	-91.057	1.00	76.44	C	ATOM	39640	CG1	VAL F	88	175.385	111.765	-84.597	1.00	72.31	C
ATOM	39591	CA	ASP F	83	185.163	108.013	-90.949	1.00	76.44	C	ATOM	39641	CG2	VAL F	88	177.575	111.275	-85.694	1.00	72.31	C
ATOM	39592	C	ASP F	83	186.042	108.337	-90.151	1.00	76.44	O	ATOM	39642	N	MET F	89	176.154	114.193	-82.261	1.00	70.33	N
ATOM	39593	O	ASP F	83	185.673	105.793	-91.973	1.00	189.90	C	ATOM	39643	CA	MET F	89	175.406	114.509	-81.048	1.00	70.33	C
ATOM	39594	CB	ASP F	83	185.501	104.290	-91.873	1.00	189.90	C	ATOM	39644	C	MET F	89	173.801	116.112	-81.846	1.00	70.33	O
ATOM	39595	CG	ASP F	83	186.239	103.559	-92.568	1.00	189.90	O	ATOM	39645	O	MET F	89	176.152	115.570	-80.239	1.00	82.31	C
ATOM	39596	OD1	ASP F	83	184.630	103.840	-91.099	1.00	189.90	O	ATOM	39646	CB	MET F	89	175.603	115.780	-78.841	1.00	82.31	C
ATOM	39597	OD2	ASN F	84	184.570	108.891	-91.749	1.00	90.80	N	ATOM	39647	CG	MET F	89	176.583	116.965	-77.895	1.00	82.31	S
ATOM	39598	N	ASN F	84	184.945	110.296	-91.701	1.00	90.80	C	ATOM	39648	SD	MET F	89	175.655	118.469	-78.191	1.00	82.31	C
ATOM	39599	CA	ASN F	84	184.109	111.053	-90.694	1.00	90.80	C	ATOM	39649	CE	MET F	89	172.996	114.151	-81.105	1.00	90.30	N
ATOM	39600	C	ASN F	84	184.497	112.128	-90.231	1.00	90.80	O	ATOM	39650	N	VAL F	90	171.602	114.518	-81.348	1.00	90.30	C
ATOM	39601	O	ASN F	84	185.892	110.442	-94.016	1.00	96.01	C	ATOM	39651	CA	VAL F	90	170.984	115.049	-80.054	1.00	90.30	C
ATOM	39602	CB	ASN F	84	187.064	110.790	-93.859	1.00	96.01	O	ATOM	39652	C	VAL F	90	170.857	114.323	-79.067	1.00	90.30	C
ATOM	39603	CG	ASN F	84	185.510	109.617	-94.981	1.00	96.01	C	ATOM	39653	O	VAL F	90	170.770	113.320	-81.812	1.00	69.45	O
ATOM	39604	OD1	ASN F	84	182.952	110.492	-90.365	1.00	99.77	N	ATOM	39654	CB	VAL F	90	169.396	113.797	-82.234	1.00	69.45	C
ATOM	39605	ND2	ASN F	84	182.077	111.093	-89.372	1.00	99.77	C	ATOM	39655	CG1	VAL F	90	171.476	112.594	-82.943	1.00	69.45	C
ATOM	39606	N	VAL F	85	182.729	110.746	-88.046	1.00	99.77	C	ATOM	39656	CG2	VAL F	90	170.585	116.312	-80.072	1.00	68.91	N
ATOM	39607	CA	VAL F	85	182.730	109.584	-87.632	1.00	99.77	O	ATOM	39657	N	VAL F	91	170.020	116.960	-78.899	1.00	68.91	C
ATOM	39608	C	VAL F	85	180.665	110.480	-89.422	1.00	78.34	C	ATOM	39658	CA	VAL F	91	168.566	117.374	-79.087	1.00	68.91	C
ATOM	39610	CB	VAL F	85	179.934	110.755	-88.125	1.00	78.34	C	ATOM	39659	C	VAL F	91	168.171	117.772	-80.174	1.00	68.91	O
ATOM	39611	CG1	VAL F	85	179.889	111.068	-90.591	1.00	78.34	C	ATOM	39660	O	VAL F	91	170.868	118.204	-78.556	1.00	67.90	C
ATOM	39612	CG2	VAL F	85	183.296	111.744	-87.383	1.00	80.06	N	ATOM	39661	CB	VAL F	91	170.145	119.115	-77.584	1.00	67.90	C
ATOM	39613	N	ARG F	86	183.963	111.483	-86.120	1.00	80.06	C	ATOM	39662	CG1	VAL F	91	172.188	117.756	-77.980	1.00	67.90	C
ATOM	39614	CA	ARG F	86	183.295	112.084	-84.884	1.00	80.06	C	ATOM	39663	CG2	VAL F	91	167.766	117.272	-78.029	1.00	78.65	N
ATOM	39615	C	ARG F	86							ATOM	39665	CA	LYS F	92	166.370	117.688	-78.106	1.00	78.65	C



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ATOM	39666	C	LYS F	92	166.347	119.198	-78.267	1.00	78.65	C	ATOM	39716	CA	LEU F	98	168.121	134.180	-72.546	1.00	97.58	C
ATOM	39667	O	LYS F	92	167.114	119.905	-77.615	1.00	78.65	O	ATOM	39717	C	LEU F	98	168.798	134.407	-71.210	1.00	97.58	C
ATOM	39668	CB	LYS F	92	165.621	117.354	-76.824	1.00	91.51	C	ATOM	39718	O	LEU F	98	168.740	133.566	-70.321	1.00	97.58	O
ATOM	39669	CG	LYS F	92	165.074	115.960	-76.730	1.00	91.51	C	ATOM	39719	CB	LEU F	98	167.162	135.335	-72.813	1.00	113.95	C
ATOM	39670	CD	LYS F	92	163.707	116.032	-76.074	1.00	91.51	C	ATOM	39720	CG	LEU F	98	166.649	135.458	-74.242	1.00	113.95	C
ATOM	39671	CE	LYS F	92	163.313	114.727	-75.409	1.00	91.51	C	ATOM	39721	CD1	LEU F	98	165.713	136.656	-74.353	1.00	113.95	C
ATOM	39672	NZ	LYS F	92	164.128	114.475	-74.191	1.00	91.51	N	ATOM	39722	CD2	LEU F	98	167.839	135.603	-75.176	1.00	113.95	C
ATOM	39673	N	SER F	93	165.477	119.706	-79.128	1.00	64.10	N	ATOM	39723	N	ALA F	99	169.432	135.560	-71.071	1.00	83.82	N
ATOM	39674	CA	SER F	93	165.398	121.149	-79.288	1.00	64.10	C	ATOM	39724	CA	ALA F	99	170.123	135.901	-69.841	1.00	83.82	C
ATOM	39675	C	SER F	93	164.933	121.701	-77.942	1.00	64.10	C	ATOM	39725	C	ALA F	99	170.804	137.230	-70.070	1.00	83.82	C
ATOM	39676	O	SER F	93	164.258	121.006	-77.190	1.00	64.10	O	ATOM	39726	O	ALA F	99	171.302	137.490	-71.168	1.00	83.82	O
ATOM	39677	CB	SER F	93	164.393	121.509	-80.381	1.00	58.18	C	ATOM	39727	CB	ALA F	99	171.158	134.839	-69.512	1.00	94.40	C
ATOM	39678	OG	SER F	93	165.307	122.936	-77.628	1.00	58.18	N	ATOM	39728	N	ASN F	100	170.829	138.080	-69.051	1.00	142.26	N
ATOM	39679	N	GLN F	94	164.903	123.561	-76.369	1.00	58.18	C	ATOM	39729	CA	ASN F	100	171.479	139.369	-69.211	1.00	142.26	C
ATOM	39680	CA	GLN F	94	164.814	125.075	-76.582	1.00	58.18	C	ATOM	39730	C	ASN F	100	170.909	139.951	-70.505	1.00	142.26	C
ATOM	39681	C	GLN F	94	165.658	125.652	-77.266	1.00	58.18	O	ATOM	39731	O	ASN F	100	171.608	140.611	-71.273	1.00	142.26	O
ATOM	39682	O	GLN F	94	165.935	123.257	-75.284	1.00	140.49	C	ATOM	39732	CB	ASN F	100	172.989	139.145	-69.330	1.00	119.38	C
ATOM	39683	CB	GLN F	94	166.481	121.844	-75.347	1.00	140.49	C	ATOM	39733	CG	ASN F	100	173.778	140.423	-69.260	1.00	119.38	C
ATOM	39684	CG	GLN F	94	167.675	121.628	-74.443	1.00	140.49	C	ATOM	39734	OD1	ASN F	100	173.697	141.263	-70.152	1.00	119.38	O
ATOM	39685	CD	GLN F	94	168.398	120.639	-74.580	1.00	140.49	C	ATOM	39735	ND2	ASN F	100	174.551	140.580	-68.194	1.00	119.38	N
ATOM	39686	OE1	GLN F	94	167.886	122.547	-73.507	1.00	140.49	N	ATOM	39736	N	ALA F	101	169.627	139.674	-70.735	1.00	139.96	N
ATOM	39687	NE2	GLN F	94	163.794	125.720	-76.017	1.00	75.04	N	ATOM	39737	CA	ALA F	101	168.919	140.123	-71.929	1.00	139.96	C
ATOM	39688	N	GLU F	95	163.659	127.167	-76.164	1.00	75.04	C	ATOM	39738	C	ALA F	101	167.929	141.244	-71.646	1.00	139.96	C
ATOM	39689	CA	GLU F	95	164.914	127.831	-75.609	1.00	75.04	C	ATOM	39739	O	ALA F	101	167.909	141.740	-70.502	1.00	139.96	O
ATOM	39690	C	GLU F	95	165.368	127.513	-74.509	1.00	75.04	O	ATOM	39740	CB	ALA F	101	168.193	138.948	-72.567	1.00	112.09	C
ATOM	39691	O	GLU F	95	162.431	127.678	-75.410	1.00	189.53	C	ATOM	39741	OXF	ALA F	101	167.184	141.611	-72.580	1.00	155.65	O
ATOM	39692	CB	GLU F	95	161.110	127.307	-76.055	1.00	189.53	C	TER	39742	ALA F	101							
ATOM	39693	CG	GLU F	95	160.955	125.813	-76.240	1.00	189.53	C	ATOM	39743	N	ALA G	2	216.562	135.942	-21.224	1.00	55.39	N
ATOM	39694	CD	GLU F	95	161.020	125.077	-75.232	1.00	189.53	C	ATOM	39744	CA	ALA G	2	216.100	137.099	-22.051	1.00	55.39	C
ATOM	39695	OE1	GLU F	95	160.770	125.374	-77.395	1.00	189.53	O	ATOM	39745	C	ALA G	2	214.724	136.909	-22.693	1.00	55.39	C
ATOM	39696	OE2	GLU F	95	165.500	128.761	-76.365	1.00	64.16	N	ATOM	39746	O	ALA G	2	214.596	137.043	-23.905	1.00	55.39	O
ATOM	39697	N	PRO F	96	166.706	129.419	-75.867	1.00	64.16	C	ATOM	39747	CB	ALA G	2	217.134	137.400	-23.146	1.00	73.64	C
ATOM	39698	CA	PRO F	96	166.439	130.107	-74.535	1.00	64.16	C	ATOM	39748	N	ARG G	3	213.695	136.603	-21.902	1.00	63.71	N
ATOM	39699	C	PRO F	96	165.445	130.806	-74.374	1.00	64.16	C	ATOM	39749	CA	ARG G	3	212.357	136.438	-22.478	1.00	63.71	C
ATOM	39700	O	PRO F	96	167.032	130.412	-76.974	1.00	79.83	C	ATOM	39750	C	ARG G	3	211.781	137.795	-22.854	1.00	63.71	C
ATOM	39701	CB	PRO F	96	165.682	130.810	-77.444	1.00	79.83	C	ATOM	39751	O	ARG G	3	211.331	137.981	-23.971	1.00	63.71	O
ATOM	39702	CG	PRO F	96	164.976	129.467	-77.543	1.00	79.83	C	ATOM	39752	CB	ARG G	3	211.391	135.738	-21.505	1.00	38.01	C
ATOM	39703	CD	PRO F	96	167.324	129.894	-73.574	1.00	68.99	N	ATOM	39753	CG	ARG G	3	211.287	134.215	-21.638	1.00	38.01	C
ATOM	39704	N	PHE F	97	167.184	130.503	-72.262	1.00	68.99	C	ATOM	39754	CD	ARG G	3	210.212	133.658	-20.695	1.00	38.01	C
ATOM	39705	CA	PHE F	97	168.024	131.773	-72.222	1.00	68.99	C	ATOM	39755	NE	ARG G	3	210.384	132.231	-20.405	1.00	38.01	C
ATOM	39706	C	PHE F	97	169.215	131.726	-71.904	1.00	68.99	O	ATOM	39756	CZ	ARG G	3	210.365	131.267	-21.325	1.00	38.01	C
ATOM	39707	O	PHE F	97	167.676	129.538	-71.188	1.00	72.37	C	ATOM	39757	NH1	ARG G	3	210.175	131.575	-22.608	1.00	38.01	N
ATOM	39708	CB	PHE F	97	167.355	129.972	-69.796	1.00	72.37	C	ATOM	39758	NH2	ARG G	3	210.556	130.000	-20.969	1.00	38.01	N
ATOM	39709	CG	PHE F	97	166.144	129.626	-69.212	1.00	72.37	C	ATOM	39759	N	ARG G	4	211.809	138.743	-21.923	1.00	84.26	N
ATOM	39710	CD1	PHE F	97	168.256	130.744	-69.074	1.00	72.37	C	ATOM	39760	CA	ARG G	4	211.274	140.078	-22.168	1.00	84.26	C
ATOM	39711	CD2	PHE F	97	165.833	130.039	-67.928	1.00	72.37	C	ATOM	39761	C	ARG G	4	212.030	140.920	-23.199	1.00	84.26	C
ATOM	39712	CE1	PHE F	97	167.960	131.167	-67.791	1.00	72.37	C	ATOM	39762	O	ARG G	4	211.930	140.679	-24.400	1.00	84.26	O
ATOM	39713	CE2	PHE F	97	166.744	130.813	-67.214	1.00	72.37	C	ATOM	39763	CB	ARG G	4	211.193	140.854	-20.860	1.00	78.33	C
ATOM	39714	CZ	PHE F	97	167.412	132.905	-72.556	1.00	97.58	N	ATOM	39764	CG	ARG G	4	210.242	140.255	-19.851	1.00	78.33	C
ATOM	39715	N	LEU F	98							ATOM	39765	CD	ARG G	4	210.167	141.125	-18.612	1.00	78.33	C



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ATOM	39766	NE	ARG	G	4	209.154	140.661	-17.671	1.00	78.33	N	ATOM	39816	O	ARG	G	10	229.025	146.826	-24.572	1.00	79.32	O
ATOM	39767	C2	ARG	G	4	207.852	140.624	-17.939	1.00	78.33	C	ATOM	39817	CB	ARG	G	10	228.042	145.752	-21.976	1.00	63.73	C
ATOM	39768	NH1	ARG	G	4	207.413	141.027	-19.125	1.00	78.33	N	ATOM	39818	CG	ARG	G	10	227.229	145.167	-20.845	1.00	63.73	C
ATOM	39769	NH2	ARG	G	4	206.992	140.181	-17.027	1.00	78.33	N	ATOM	39819	CD	ARG	G	10	228.123	144.321	-19.954	1.00	63.73	C
ATOM	39770	N	ARG	G	5	212.783	141.910	-22.718	1.00	92.79	N	ATOM	39820	NE	ARG	G	10	227.386	143.670	-18.875	1.00	63.73	N
ATOM	39771	CA	ARG	G	5	213.538	142.826	-23.579	1.00	92.79	C	ATOM	39821	C2	ARG	G	10	226.970	144.291	-17.779	1.00	63.73	C
ATOM	39772	C	ARG	G	5	214.513	142.147	-24.528	1.00	92.79	C	ATOM	39822	NH1	ARG	G	10	227.222	145.582	-17.613	1.00	63.73	N
ATOM	39773	O	ARG	G	5	214.674	140.927	-24.504	1.00	92.79	O	ATOM	39823	NH2	ARG	G	10	226.303	143.623	-16.849	1.00	63.73	N
ATOM	39774	CB	ARG	G	5	214.308	143.845	-22.728	1.00	168.92	C	ATOM	39824	N	GLN	G	11	228.270	148.737	-23.673	1.00	86.04	N
ATOM	39775	CG	ARG	G	5	213.449	144.666	-21.772	1.00	168.92	C	ATOM	39825	CA	GLN	G	11	229.200	149.574	-24.426	1.00	86.04	N
ATOM	39776	CD	ARG	G	5	213.110	143.889	-20.507	1.00	168.92	C	ATOM	39826	C	GLN	G	11	230.369	149.913	-23.524	1.00	86.04	C
ATOM	39777	NE	ARG	G	5	212.239	144.649	-19.615	1.00	168.92	N	ATOM	39827	O	GLN	G	11	230.214	150.663	-22.566	1.00	86.04	O
ATOM	39778	C2	ARG	G	5	211.917	144.269	-18.383	1.00	168.92	C	ATOM	39828	CB	GLN	G	11	228.515	150.857	-24.890	1.00	86.04	O
ATOM	39779	NH1	ARG	G	5	212.396	143.135	-17.891	1.00	168.92	N	ATOM	39829	CG	GLN	G	11	228.258	150.893	-26.384	1.00	101.17	C
ATOM	39780	NH2	ARG	G	5	211.113	145.021	-17.644	1.00	168.92	N	ATOM	39830	CD	GLN	G	11	227.465	149.694	-26.868	1.00	101.17	C
ATOM	39781	N	ARG	G	6	215.171	142.954	-25.356	1.00	75.47	N	ATOM	39831	OE1	GLN	G	11	226.288	149.546	-26.549	1.00	101.17	O
ATOM	39782	CA	ARG	G	6	216.129	142.435	-26.320	1.00	75.47	C	ATOM	39832	NE2	GLN	G	11	228.113	148.827	-27.636	1.00	101.17	N
ATOM	39783	C	ARG	G	6	217.580	142.703	-25.901	1.00	75.47	C	ATOM	39833	N	LEU	G	12	231.540	149.369	-23.835	1.00	77.14	N
ATOM	39784	O	ARG	G	6	218.402	143.122	-26.720	1.00	75.47	O	ATOM	39834	CA	LEU	G	12	232.721	149.593	-23.007	1.00	77.14	C
ATOM	39785	CB	ARG	G	6	215.858	143.044	-27.698	1.00	175.79	C	ATOM	39835	C	LEU	G	12	233.594	150.765	-23.414	1.00	77.14	C
ATOM	39786	CG	ARG	G	6	216.543	142.323	-28.848	1.00	175.79	C	ATOM	39836	O	LEU	G	12	233.647	151.132	-24.585	1.00	77.14	O
ATOM	39787	CD	ARG	G	6	216.211	142.981	-30.178	1.00	175.79	C	ATOM	39837	CB	LEU	G	12	233.554	148.312	-22.950	1.00	56.70	C
ATOM	39788	NE	ARG	G	6	216.807	142.276	-31.308	1.00	175.79	N	ATOM	39838	CG	LEU	G	12	233.113	147.242	-23.947	1.00	56.70	C
ATOM	39789	C2	ARG	G	6	216.714	142.677	-32.572	1.00	175.79	C	ATOM	39839	CD1	LEU	G	12	233.379	147.751	-25.363	1.00	56.70	C
ATOM	39790	NH1	ARG	G	6	216.048	143.784	-32.871	1.00	175.79	N	ATOM	39840	CD2	LEU	G	12	233.852	145.941	-23.685	1.00	56.70	C
ATOM	39791	NH2	ARG	G	6	217.286	141.972	-33.538	1.00	175.79	N	ATOM	39841	N	GLN	G	13	234.278	151.339	-22.423	1.00	79.62	N
ATOM	39792	N	ALA	G	7	217.878	142.439	-24.628	1.00	113.88	N	ATOM	39842	CA	GLN	G	13	235.165	152.488	-22.606	1.00	79.62	C
ATOM	39793	CA	ALA	G	7	219.209	142.626	-24.026	1.00	113.88	C	ATOM	39843	C	GLN	G	13	236.347	152.162	-23.515	1.00	79.62	C
ATOM	39794	C	ALA	G	7	220.117	143.661	-24.693	1.00	113.88	C	ATOM	39844	O	GLN	G	13	237.051	151.180	-23.299	1.00	79.62	O
ATOM	39795	O	ALA	G	7	220.532	143.503	-25.842	1.00	113.88	O	ATOM	39845	CB	GLN	G	13	235.688	152.955	-21.245	1.00	117.64	C
ATOM	39796	CB	ALA	G	7	219.941	141.275	-23.933	1.00	66.74	C	ATOM	39846	CG	GLN	G	13	234.600	153.141	-20.197	1.00	117.64	C
ATOM	39797	N	GLU	G	8	220.434	144.719	-23.954	1.00	101.96	N	ATOM	39847	CD	GLN	G	13	233.651	154.280	-20.525	1.00	117.64	C
ATOM	39798	CA	GLU	G	8	221.298	145.771	-24.466	1.00	101.96	C	ATOM	39848	OE1	GLN	G	13	234.029	155.451	-20.477	1.00	117.64	O
ATOM	39799	C	GLU	G	8	222.763	145.341	-24.477	1.00	101.96	C	ATOM	39849	NE2	GLN	G	13	232.411	153.940	-20.863	1.00	117.64	N
ATOM	39800	O	GLU	G	8	223.230	144.640	-23.578	1.00	101.96	O	ATOM	39850	N	PRO	G	14	236.593	153.000	-24.534	1.00	67.50	N
ATOM	39801	CG	GLU	G	8	221.127	147.054	-23.642	1.00	200.58	C	ATOM	39851	CA	PRO	G	14	237.691	152.811	-25.490	1.00	67.50	C
ATOM	39802	CD	GLU	G	8	220.501	146.870	-22.261	1.00	200.58	C	ATOM	39852	C	PRO	G	14	239.073	152.619	-24.868	1.00	67.50	C
ATOM	39803	OE1	GLU	G	8	221.362	146.057	-21.314	1.00	200.58	C	ATOM	39853	O	PRO	G	14	239.312	152.997	-23.725	1.00	67.50	O
ATOM	39804	OE2	GLU	G	8	221.527	144.841	-21.546	1.00	200.58	O	ATOM	39854	CB	PRO	G	14	237.614	154.066	-26.354	1.00	81.28	C
ATOM	39805	N	VAL	G	9	221.875	146.639	-20.334	1.00	200.58	O	ATOM	39855	CG	PRO	G	14	237.066	155.086	-25.407	1.00	81.28	C
ATOM	39806	CA	VAL	G	9	223.483	145.768	-25.509	1.00	70.81	N	ATOM	39856	CD	PRO	G	14	235.964	154.316	-24.730	1.00	81.28	C
ATOM	39807	C	VAL	G	9	224.889	145.431	-25.661	1.00	70.81	C	ATOM	39857	N	ASP	G	15	239.973	152.028	-25.649	1.00	80.82	N
ATOM	39808	CA	VAL	G	9	225.739	146.366	-24.815	1.00	70.81	C	ATOM	39858	CA	ASP	G	15	241.351	151.745	-25.247	1.00	80.82	C
ATOM	39809	O	VAL	G	9	225.762	147.570	-25.050	1.00	70.81	O	ATOM	39859	C	ASP	G	15	242.066	152.988	-24.711	1.00	80.82	C
ATOM	39810	CB	VAL	G	9	225.311	145.562	-27.134	1.00	64.30	C	ATOM	39860	O	ASP	G	15	241.815	154.098	-25.174	1.00	80.82	O
ATOM	39811	CG1	VAL	G	9	226.602	144.813	-27.379	1.00	64.30	C	ATOM	39861	CB	ASP	G	15	242.105	151.167	-26.457	1.00	96.76	C
ATOM	39812	CG2	VAL	G	9	224.203	145.042	-28.033	1.00	64.30	C	ATOM	39862	CG	ASP	G	15	243.532	150.774	-26.135	1.00	96.76	C
ATOM	39813	N	ARG	G	10	226.430	145.816	-23.823	1.00	79.32	N	ATOM	39863	OD1	ASP	G	15	244.425	151.636	-26.215	1.00	96.76	O
ATOM	39814	CA	ARG	G	10	227.274	146.632	-22.960	1.00	79.32	C	ATOM	39864	OD2	ASP	G	15	243.769	149.600	-25.798	1.00	96.76	O
ATOM	39815	C	ARG	G	10	228.271	147.415	-23.805	1.00	79.32	C	ATOM	39865	N	LEU	G	16	242.946	152.803	-23.729	1.00	97.68	N



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ATOM	39866	CA	LEU G	16	243.694	153.923	-23.152	1.00	97.68	C	ATOM	39916	CG	LEU G	22	238.157	144.924	-32.161	1.00	56.49	C
ATOM	39867	C	LEU G	16	245.002	154.180	-23.895	1.00	97.68	C	ATOM	39917	CD1	LEU G	22	236.946	144.035	-31.950	1.00	56.49	C
ATOM	39868	O	LEU G	16	245.938	154.757	-23.343	1.00	97.68	C	ATOM	39918	CD2	LEU G	22	238.496	145.015	-33.637	1.00	56.49	C
ATOM	39869	CB	LEU G	16	244.003	153.665	-21.677	1.00	102.05	C	ATOM	39919	N	VAL G	23	239.708	146.967	-28.937	1.00	69.45	N
ATOM	39870	CG	LEU G	16	242.870	153.928	-20.688	1.00	102.05	C	ATOM	39920	CA	VAL G	23	240.901	146.628	-28.178	1.00	69.45	C
ATOM	39871	CD1	LEU G	16	242.409	155.362	-20.844	1.00	102.05	C	ATOM	39921	C	VAL G	23	240.442	146.255	-26.767	1.00	69.45	C
ATOM	39872	CD2	LEU G	16	241.720	152.967	-20.936	1.00	102.05	C	ATOM	39922	O	VAL G	23	240.727	145.158	-26.280	1.00	69.45	O
ATOM	39873	N	VAL G	17	245.058	153.748	-25.149	1.00	76.89	N	ATOM	39923	CB	VAL G	23	241.906	147.805	-28.124	1.00	46.38	C
ATOM	39874	CA	VAL G	17	246.243	153.921	-25.974	1.00	76.89	C	ATOM	39924	CG1	VAL G	23	243.152	147.374	-27.380	1.00	46.38	C
ATOM	39875	C	VAL G	17	245.857	154.169	-27.424	1.00	76.89	C	ATOM	39925	CG2	VAL G	23	242.275	148.245	-29.531	1.00	46.38	C
ATOM	39876	O	VAL G	17	246.501	154.947	-28.121	1.00	76.89	O	ATOM	39926	N	THR G	24	239.714	147.160	-26.120	1.00	57.08	N
ATOM	39877	CB	VAL G	17	247.147	152.683	-25.922	1.00	53.72	C	ATOM	39927	CA	THR G	24	239.200	146.880	-24.783	1.00	57.08	C
ATOM	39878	CG1	VAL G	17	248.290	152.850	-26.905	1.00	53.72	C	ATOM	39928	C	THR G	24	238.563	145.495	-24.847	1.00	57.08	C
ATOM	39879	CG2	VAL G	17	247.688	152.490	-24.516	1.00	53.72	C	ATOM	39929	O	THR G	24	238.798	144.638	-23.989	1.00	57.08	O
ATOM	39880	N	TYR G	18	244.812	153.495	-27.882	1.00	79.30	N	ATOM	39930	CB	THR G	24	238.116	147.898	-24.366	1.00	53.96	O
ATOM	39881	CA	TYR G	18	244.353	153.667	-29.247	1.00	79.30	C	ATOM	39931	OG1	THR G	24	238.583	149.230	-24.632	1.00	53.96	O
ATOM	39882	C	TYR G	18	242.946	154.224	-29.211	1.00	79.30	C	ATOM	39932	CG2	THR G	24	237.796	147.756	-22.873	1.00	53.96	C
ATOM	39883	O	TYR G	18	242.364	154.530	-30.248	1.00	79.30	O	ATOM	39933	N	ALA G	25	237.765	145.293	-25.890	1.00	49.46	N
ATOM	39884	CB	TYR G	18	244.377	152.337	-29.998	1.00	88.25	C	ATOM	39934	CA	ALA G	25	237.089	144.028	-26.124	1.00	49.46	C
ATOM	39885	CG	TYR G	18	245.721	151.656	-29.943	1.00	88.25	C	ATOM	39935	C	ALA G	25	238.090	142.883	-26.130	1.00	49.46	C
ATOM	39886	CD1	TYR G	18	246.147	151.012	-28.784	1.00	88.25	C	ATOM	39936	O	ALA G	25	237.963	141.928	-25.357	1.00	49.46	O
ATOM	39887	CD2	TYR G	18	246.587	151.693	-31.031	1.00	88.25	C	ATOM	39937	CB	ALA G	25	236.369	144.072	-27.444	1.00	25.19	C
ATOM	39888	CE1	TYR G	18	247.397	150.424	-28.709	1.00	88.25	C	ATOM	39938	N	PHE G	26	239.088	142.984	-27.006	1.00	49.66	N
ATOM	39889	CE2	TYR G	18	247.844	151.110	-30.965	1.00	88.25	C	ATOM	39939	CA	PHE G	26	240.106	141.948	-27.108	1.00	49.66	C
ATOM	39890	CZ	TYR G	18	248.241	150.479	-29.799	1.00	88.25	C	ATOM	39940	C	PHE G	26	240.881	141.823	-25.801	1.00	49.66	C
ATOM	39891	OH	GLY G	19	249.489	149.911	-29.711	1.00	88.25	O	ATOM	39941	O	PHE G	26	241.266	140.721	-25.397	1.00	49.66	O
ATOM	39892	N	GLY G	19	242.408	154.360	-28.003	1.00	79.51	N	ATOM	39942	CB	PHE G	26	241.068	142.263	-28.251	1.00	61.46	C
ATOM	39893	CA	GLY G	19	241.069	154.893	-27.843	1.00	79.51	C	ATOM	39943	CG	PHE G	26	242.044	141.159	-28.539	1.00	61.46	C
ATOM	39894	C	GLY G	19	240.058	154.122	-28.660	1.00	79.51	C	ATOM	39944	CD1	PHE G	26	241.601	139.927	-28.991	1.00	61.46	C
ATOM	39895	O	GLY G	19	239.080	154.689	-29.145	1.00	79.51	O	ATOM	39945	CD2	PHE G	26	243.404	141.351	-28.351	1.00	61.46	C
ATOM	39896	N	ASP G	20	240.298	152.823	-28.815	1.00	89.63	N	ATOM	39946	CE1	PHE G	26	242.501	138.901	-29.251	1.00	61.46	C
ATOM	39897	CA	ASP G	20	239.405	151.972	-29.583	1.00	89.63	C	ATOM	39947	CE2	PHE G	26	244.314	140.331	-28.609	1.00	61.46	C
ATOM	39898	C	ASP G	20	238.711	150.968	-28.673	1.00	89.63	C	ATOM	39948	CZ	PHE G	26	243.863	139.106	-29.059	1.00	61.46	C
ATOM	39899	O	ASP G	20	239.266	150.558	-27.659	1.00	89.63	O	ATOM	39949	N	ILE G	27	241.099	142.955	-25.137	1.00	61.40	N
ATOM	39900	CB	ASP G	20	240.190	151.248	-30.669	1.00	147.43	C	ATOM	39950	CA	ILE G	27	241.837	142.957	-23.883	1.00	61.40	C
ATOM	39901	CG	ASP G	20	239.302	150.440	-31.569	1.00	147.43	C	ATOM	39951	C	ILE G	27	241.093	142.145	-22.831	1.00	61.40	C
ATOM	39902	OD1	ASP G	20	238.872	149.348	-31.147	1.00	147.43	O	ATOM	39952	O	ILE G	27	241.695	141.338	-22.110	1.00	61.40	O
ATOM	39903	OD2	ASP G	20	239.018	150.906	-32.690	1.00	147.43	O	ATOM	39953	CB	ILE G	27	242.063	144.390	-23.370	1.00	60.27	C
ATOM	39904	N	VAL G	21	237.499	150.568	-29.040	1.00	83.44	N	ATOM	39954	CG1	ILE G	27	242.847	145.189	-24.413	1.00	60.27	C
ATOM	39905	CA	VAL G	21	236.732	149.631	-28.226	1.00	83.44	C	ATOM	39955	CG2	ILE G	27	242.864	144.365	-22.084	1.00	60.27	C
ATOM	39906	C	VAL G	21	237.036	148.161	-28.487	1.00	83.44	C	ATOM	39956	CD1	ILE G	27	243.060	146.640	-22.047	1.00	60.27	C
ATOM	39907	O	VAL G	21	236.983	147.341	-27.568	1.00	83.44	O	ATOM	39957	N	ASN G	28	239.782	142.347	-22.753	1.00	78.80	N
ATOM	39908	CB	VAL G	21	235.235	149.835	-28.428	1.00	62.65	C	ATOM	39958	CA	ASN G	28	238.971	141.614	-21.791	1.00	78.80	C
ATOM	39909	CG1	VAL G	21	234.888	151.301	-28.248	1.00	62.65	C	ATOM	39959	O	ASN G	28	239.074	140.123	-22.027	1.00	78.80	C
ATOM	39910	CG2	VAL G	21	234.833	149.343	-29.804	1.00	62.65	C	ATOM	39960	C	ASN G	28	239.312	139.355	-21.098	1.00	78.80	O
ATOM	39911	N	LEU G	22	237.330	147.826	-29.740	1.00	76.03	N	ATOM	39961	CB	ASN G	28	237.511	142.029	-21.889	1.00	51.73	C
ATOM	39912	CA	LEU G	22	237.642	146.449	-30.101	1.00	76.03	C	ATOM	39962	CG	ASN G	28	237.296	143.454	-21.472	1.00	51.73	C
ATOM	39913	C	LEU G	22	238.883	146.005	-29.335	1.00	76.03	C	ATOM	39963	OD1	ASN G	28	238.067	143.995	-20.678	1.00	51.73	O
ATOM	39914	O	LEU G	22	239.095	144.814	-29.107	1.00	76.03	O	ATOM	39964	ND2	ASN G	28	236.236	144.074	-21.906	1.00	51.73	N
ATOM	39915	CB	LEU G	22	237.884	146.330	-31.609	1.00	56.49	C	ATOM	39965	N	LYS G	29	238.890	139.719	-23.278	1.00	64.50	N



Table 2: Sheet 401/520

ATOM	39966	CA	LYS G	29	238.963	138.315	-23.637	1.00	64.50	C	ATOM	40016	O	LYS G	35	244.168	141.568	-15.778	1.00	48.63	O
ATOM	39967	C	LYS G	29	240.269	137.666	-23.200	1.00	64.50	C	ATOM	40017	CB	LYS G	35	244.238	139.965	-13.622	1.00	41.19	C
ATOM	39968	O	LYS G	29	240.326	136.453	-22.988	1.00	64.50	O	ATOM	40018	CG	LYS G	35	243.966	138.854	-12.635	1.00	41.19	C
ATOM	39969	CB	LYS G	29	238.765	138.153	-25.139	1.00	74.22	C	ATOM	40019	CD	LYS G	35	245.171	137.968	-12.411	1.00	41.19	C
ATOM	39970	CG	LYS G	29	237.309	138.076	-25.543	1.00	74.22	C	ATOM	40020	CE	LYS G	35	246.141	138.594	-11.428	1.00	41.19	C
ATOM	39971	CD	LYS G	29	236.649	136.888	-24.870	1.00	74.22	C	ATOM	40021	NZ	LYS G	35	247.181	137.617	-10.988	1.00	41.19	N
ATOM	39972	CE	LYS G	29	235.261	136.636	-25.412	1.00	74.22	C	ATOM	40022	CA	LYS G	36	242.351	142.752	-15.166	1.00	73.90	N
ATOM	39973	NZ	LYS G	29	234.661	135.440	-24.753	1.00	74.22	N	ATOM	40023	CA	LYS G	36	242.346	143.600	-16.350	1.00	73.90	C
ATOM	39974	N	ILE G	30	241.316	138.470	-23.057	1.00	45.85	N	ATOM	40024	C	LYS G	36	243.645	144.354	-16.571	1.00	73.90	C
ATOM	39975	CA	ILE G	30	242.603	137.940	-22.627	1.00	45.85	C	ATOM	40025	O	LYS G	36	243.821	144.968	-17.616	1.00	73.90	O
ATOM	39976	C	ILE G	30	242.585	137.844	-20.108	1.00	45.85	C	ATOM	40026	CB	LYS G	36	241.195	144.601	-16.271	1.00	91.55	C
ATOM	39977	O	ILE G	30	243.046	136.857	-21.527	1.00	45.85	O	ATOM	40027	CG	LYS G	36	240.897	145.322	-17.566	1.00	91.55	C
ATOM	39978	CB	ILE G	30	243.778	138.859	-23.065	1.00	42.10	C	ATOM	40028	CD	LYS G	36	239.874	146.412	-17.319	1.00	91.55	C
ATOM	39979	CG1	ILE G	30	243.867	138.888	-24.597	1.00	42.10	C	ATOM	40029	CE	LYS G	36	239.404	147.039	-18.615	1.00	91.55	C
ATOM	39980	CG2	ILE G	30	245.088	138.370	-22.440	1.00	42.10	C	ATOM	40030	NZ	LYS G	36	238.656	146.055	-19.436	1.00	91.55	N
ATOM	39981	CD1	ILE G	30	244.800	139.932	-25.146	1.00	42.10	C	ATOM	40031	N	ASN G	37	244.554	144.315	-15.603	1.00	58.36	N
ATOM	39982	N	MET G	31	242.039	138.879	-20.476	1.00	45.77	N	ATOM	40032	CA	ASN G	37	245.819	145.032	-15.739	1.00	58.36	C
ATOM	39983	CA	MET G	31	241.953	138.944	-19.022	1.00	45.77	C	ATOM	40033	C	ASN G	37	246.820	144.158	-16.462	1.00	58.36	C
ATOM	39984	C	MET G	31	241.291	137.727	-18.424	1.00	45.77	C	ATOM	40034	O	ASN G	37	247.375	144.553	-17.493	1.00	58.36	O
ATOM	39985	O	MET G	31	240.378	137.153	-19.010	1.00	45.77	O	ATOM	40035	CB	ASN G	37	246.353	145.440	-14.360	1.00	68.21	C
ATOM	39986	CB	MET G	31	241.167	140.181	-18.585	1.00	47.89	C	ATOM	40036	CG	ASN G	37	247.455	146.487	-14.442	1.00	68.21	C
ATOM	39987	CG	MET G	31	240.594	140.062	-17.178	1.00	47.89	C	ATOM	40037	OD1	ASN G	37	248.634	146.164	-14.309	1.00	68.21	O
ATOM	39988	SD	MET G	31	239.774	141.546	-16.551	1.00	47.89	S	ATOM	40038	ND2	ASN G	37	247.074	147.746	-14.669	1.00	68.21	N
ATOM	39989	CE	MET G	31	238.583	141.964	-17.909	1.00	47.89	C	ATOM	40039	N	LEU G	38	247.050	142.968	-15.914	1.00	57.16	N
ATOM	39990	N	ARG G	32	241.756	137.334	-17.247	1.00	64.05	N	ATOM	40040	CA	LEU G	38	247.960	142.010	-16.528	1.00	57.16	C
ATOM	39991	CA	ARG G	32	241.172	136.208	-16.538	1.00	64.05	C	ATOM	40041	C	LEU G	38	247.460	141.745	-17.948	1.00	57.16	C
ATOM	39992	C	ARG G	32	241.206	136.547	-15.057	1.00	64.05	C	ATOM	40042	O	LEU G	38	248.240	141.587	-18.881	1.00	57.16	O
ATOM	39993	O	ARG G	32	242.110	137.239	-14.600	1.00	64.05	O	ATOM	40043	CB	LEU G	38	247.984	140.721	-15.708	1.00	51.70	C
ATOM	39994	CB	ARG G	32	241.934	134.920	-16.840	1.00	90.92	C	ATOM	40044	CG	LEU G	38	248.232	139.383	-16.405	1.00	51.70	C
ATOM	39995	CG	ARG G	32	243.404	134.980	-16.564	1.00	90.92	C	ATOM	40045	CD1	LEU G	38	249.419	139.482	-17.346	1.00	51.70	C
ATOM	39996	CD	ARG G	32	244.082	133.709	-17.048	1.00	90.92	C	ATOM	40046	CD2	LEU G	38	248.462	138.305	-15.344	1.00	51.70	C
ATOM	39997	NE	ARG G	32	244.086	133.604	-18.505	1.00	90.92	N	ATOM	40047	N	ALA G	39	246.145	141.715	-18.109	1.00	66.75	N
ATOM	39998	CZ	ARG G	32	244.602	132.579	-19.177	1.00	90.92	C	ATOM	40048	CA	ALA G	39	245.577	141.496	-19.421	1.00	66.75	C
ATOM	39999	NH1	ARG G	32	245.152	131.568	-18.521	1.00	90.92	N	ATOM	40049	C	ALA G	39	245.994	142.654	-20.304	1.00	66.75	C
ATOM	40000	NH2	ARG G	32	244.574	132.567	-20.503	1.00	90.92	N	ATOM	40050	O	ALA G	39	246.396	142.454	-21.446	1.00	66.75	O
ATOM	40001	N	ASP G	33	240.205	136.077	-14.319	1.00	51.38	N	ATOM	40051	CB	ALA G	39	244.074	141.430	-19.336	1.00	114.52	C
ATOM	40002	CA	ASP G	33	240.083	136.348	-12.888	1.00	51.38	C	ATOM	40052	N	ALA G	40	245.910	143.864	-19.758	1.00	61.89	N
ATOM	40003	C	ASP G	33	240.083	137.861	-12.623	1.00	51.38	C	ATOM	40053	CA	ALA G	40	246.258	145.078	-20.494	1.00	61.89	C
ATOM	40004	O	ASP G	33	240.600	138.332	-11.616	1.00	51.38	O	ATOM	40054	C	ALA G	40	247.697	145.060	-20.993	1.00	61.89	C
ATOM	40005	CB	ASP G	33	241.210	135.663	-12.107	1.00	59.08	C	ATOM	40055	O	ALA G	40	247.975	145.461	-22.126	1.00	61.89	O
ATOM	40006	CG	ASP G	33	241.318	134.173	-12.418	1.00	59.08	C	ATOM	40056	CB	ALA G	40	246.022	146.293	-19.627	1.00	60.32	C
ATOM	40007	OD1	ASP G	33	240.278	133.551	-12.697	1.00	59.08	O	ATOM	40057	N	ARG G	41	248.617	144.609	-20.149	1.00	78.64	N
ATOM	40008	OD2	ASP G	33	242.433	133.611	-12.371	1.00	59.08	O	ATOM	40058	CA	ARG G	41	250.007	144.529	-20.568	1.00	78.64	C
ATOM	40009	N	GLY G	34	239.508	138.621	-13.547	1.00	55.76	N	ATOM	40059	C	ARG G	41	250.111	143.576	-21.745	1.00	78.64	C
ATOM	40010	CA	GLY G	34	239.429	140.060	-13.370	1.00	55.76	C	ATOM	40060	O	ARG G	41	250.316	143.999	-22.882	1.00	78.64	O
ATOM	40011	C	GLY G	34	240.725	140.838	-13.212	1.00	55.76	C	ATOM	40061	CB	ARG G	41	250.881	144.009	-19.443	1.00	109.34	C
ATOM	40012	O	GLY G	34	240.736	141.902	-12.591	1.00	55.76	O	ATOM	40062	CG	ARG G	41	251.162	145.021	-18.397	1.00	109.34	C
ATOM	40013	N	LYS G	35	241.812	140.317	-13.774	1.00	48.63	N	ATOM	40063	CD	ARG G	41	251.935	144.397	-17.279	1.00	109.34	C
ATOM	40014	CA	LYS G	35	243.106	140.986	-13.709	1.00	48.63	C	ATOM	40064	NE	ARG G	41	252.336	145.410	-16.319	1.00	109.34	N
ATOM	40015	C	LYS G	35	243.255	141.798	-14.983	1.00	48.63	C	ATOM	40065	CZ	ARG G	41	252.810	145.143	-15.112	1.00	109.34	C



Table 2: Sheet 402/520

ATOM	40066	NH1	ARG	G	41	252.941	143.885	-14.710	1.00109.34	N	ATOM	40116	CB	CYS	G	47	250.682	146.564	-29.367	1.00	70.82	C	
ATOM	40067	NH2	ARG	G	41	253.150	146.140	-14.310	1.00109.34	N	ATOM	40117	SG	CYS	G	47	248.929	146.237	-29.507	1.00	70.82	S	
ATOM	40068	N	ILE	G	42	249.955	142.286	-21.458	1.00	65.02	N	ATOM	40118	N	LYS	G	48	253.835	145.902	-29.391	1.00	87.65	N
ATOM	40069	CA	ILE	G	42	250.037	141.245	-22.470	1.00	65.02	C	ATOM	40119	CA	LYS	G	48	255.195	146.345	-29.674	1.00	87.65	C
ATOM	40070	C	ILE	G	42	249.688	141.741	-23.866	1.00	65.02	C	ATOM	40120	C	LYS	G	48	255.889	145.274	-30.502	1.00	87.65	C
ATOM	40071	O	ILE	G	42	250.404	141.449	-24.822	1.00	65.02	O	ATOM	40121	O	LYS	G	48	256.491	145.568	-31.531	1.00	87.65	O
ATOM	40072	CB	ILE	G	42	249.127	140.049	-22.115	1.00	46.72	C	ATOM	40122	CB	LYS	G	48	255.956	146.582	-28.372	1.00	84.46	C
ATOM	40073	CG1	ILE	G	42	249.546	139.482	-20.754	1.00	46.72	C	ATOM	40123	CG	LYS	G	48	255.211	147.514	-27.442	1.00	84.46	C
ATOM	40074	CG2	ILE	G	42	249.236	138.965	-23.192	1.00	46.72	C	ATOM	40124	CD	LYS	G	48	255.984	147.864	-26.176	1.00	84.46	C
ATOM	40075	CD1	ILE	G	42	248.938	138.125	-20.403	1.00	46.72	C	ATOM	40125	CE	LYS	G	48	255.118	148.724	-25.238	1.00	84.46	C
ATOM	40076	N	PHE	G	43	248.602	142.500	-23.988	1.00	67.08	N	ATOM	40126	NZ	LYS	G	48	254.528	149.946	-25.894	1.00	84.46	N
ATOM	40077	CA	PHE	G	43	248.212	143.012	-25.292	1.00	67.08	C	ATOM	40127	N	ILE	G	49	255.788	144.027	-30.056	1.00	60.42	N
ATOM	40078	C	PHE	G	43	249.172	144.065	-25.803	1.00	67.08	C	ATOM	40128	CA	ILE	G	49	256.393	142.911	-30.767	1.00	60.42	C
ATOM	40079	O	PHE	G	43	249.777	143.906	-26.863	1.00	67.08	O	ATOM	40129	C	ILE	G	49	255.877	142.887	-32.192	1.00	60.42	C
ATOM	40080	CB	PHE	G	43	246.824	143.629	-25.265	1.00	53.21	C	ATOM	40130	O	ILE	G	49	256.581	142.481	-33.110	1.00	60.42	C
ATOM	40081	CG	PHE	G	43	246.388	144.144	-26.602	1.00	53.21	C	ATOM	40131	CB	ILE	G	49	256.022	141.567	-30.131	1.00	49.71	C
ATOM	40082	CD1	PHE	G	43	246.137	143.266	-27.645	1.00	53.21	C	ATOM	40132	CG1	ILE	G	49	256.398	141.569	-28.648	1.00	49.71	C
ATOM	40083	CD2	PHE	G	43	246.277	145.502	-26.837	1.00	53.21	C	ATOM	40133	CG2	ILE	G	49	256.715	140.436	-30.885	1.00	49.71	C
ATOM	40084	CE1	PHE	G	43	245.781	143.736	-28.904	1.00	53.21	C	ATOM	40134	CD1	ILE	G	49	255.909	140.355	-27.881	1.00	49.71	C
ATOM	40085	CE2	PHE	G	43	245.923	145.976	-28.095	1.00	53.21	C	ATOM	40135	N	ILE	G	50	254.633	143.310	-32.373	1.00	70.33	N
ATOM	40086	CZ	PHE	G	43	245.675	145.092	-29.127	1.00	53.21	C	ATOM	40136	CA	ILE	G	50	254.041	143.314	-33.697	1.00	70.33	C
ATOM	40087	N	TYR	G	44	249.288	145.155	-25.055	1.00	70.07	N	ATOM	40137	C	ILE	G	50	254.747	144.274	-35.769	1.00	70.33	C
ATOM	40088	CA	TYR	G	44	250.175	146.244	-25.435	1.00	70.07	C	ATOM	40138	O	ILE	G	50	252.514	143.540	-33.621	1.00	73.65	C
ATOM	40089	C	TYR	G	44	251.590	145.755	-25.764	1.00	70.07	C	ATOM	40139	CB	ILE	G	50	251.852	142.298	-33.017	1.00	73.65	C
ATOM	40090	O	TYR	G	44	252.186	146.196	-26.750	1.00	70.07	O	ATOM	40140	CG1	ILE	G	50	251.943	143.839	-35.010	1.00	73.65	C
ATOM	40091	CB	TYR	G	44	250.207	147.289	-24.323	1.00	54.88	C	ATOM	40141	CG2	ILE	G	50	250.362	142.426	-32.811	1.00	73.65	C
ATOM	40092	CG	TYR	G	44	248.893	148.020	-24.144	1.00	54.88	C	ATOM	40142	CD1	ILE	G	50	255.179	145.436	-33.883	1.00	109.31	N
ATOM	40093	CD1	TYR	G	44	248.369	148.245	-22.868	1.00	54.88	C	ATOM	40143	N	GLN	G	51	255.819	146.547	-34.575	1.00	109.31	C
ATOM	40094	CD2	TYR	G	44	248.170	148.489	-22.248	1.00	54.88	C	ATOM	40144	CA	GLN	G	51	257.339	146.455	-34.578	1.00	109.31	C
ATOM	40095	CE1	TYR	G	44	247.161	148.910	-22.691	1.00	54.88	C	ATOM	40145	C	GLN	G	51	258.025	147.387	-34.984	1.00	109.31	O
ATOM	40096	CE2	TYR	G	44	246.952	149.162	-25.079	1.00	54.88	C	ATOM	40146	O	GLN	G	51	255.378	147.869	-33.961	1.00	118.47	C
ATOM	40097	CZ	TYR	G	44	246.457	149.363	-23.794	1.00	54.88	C	ATOM	40147	CB	GLN	G	51	255.957	149.078	-34.642	1.00	118.47	C
ATOM	40098	OH	TYR	G	44	245.248	149.993	-23.600	1.00	54.88	O	ATOM	40148	CG	GLN	G	51	255.297	150.344	-34.182	1.00	118.47	C
ATOM	40099	N	ASP	G	45	252.129	144.849	-24.950	1.00	64.68	N	ATOM	40149	CD	GLN	G	51	254.158	150.627	-34.546	1.00	118.47	C
ATOM	40100	CA	ASP	G	45	253.454	144.314	-25.226	1.00	64.68	C	ATOM	40150	OE1	GLN	G	51	256.000	151.114	-33.361	1.00	118.47	O
ATOM	40101	C	ASP	G	45	253.423	143.688	-26.611	1.00	64.68	C	ATOM	40151	NE2	GLN	G	51	257.864	145.333	-34.105	1.00	83.85	N
ATOM	40102	O	ASP	G	45	254.256	143.992	-27.463	1.00	64.68	O	ATOM	40152	N	GLU	G	52	259.300	145.110	-34.110	1.00	83.85	N
ATOM	40103	CB	ASP	G	45	253.846	143.253	-24.208	1.00	75.94	C	ATOM	40153	CA	GLU	G	52	259.541	144.040	-35.154	1.00	83.85	C
ATOM	40104	CG	ASP	G	45	254.066	143.827	-22.835	1.00	75.94	C	ATOM	40154	C	GLU	G	52	259.802	144.623	-32.753	1.00	83.85	O
ATOM	40105	OD1	ASP	G	45	254.189	145.066	-22.724	1.00	75.94	O	ATOM	40155	O	GLU	G	52	260.306	144.237	-36.090	1.00	83.85	O
ATOM	40106	OD2	ASP	G	45	254.127	143.038	-21.866	1.00	75.94	O	ATOM	40156	CB	GLU	G	52	259.802	144.623	-32.753	1.00	191.38	C
ATOM	40107	N	ALA	G	46	252.454	142.810	-26.834	1.00	75.04	N	ATOM	40157	CG	GLU	G	52	260.007	145.724	-31.737	1.00	191.38	C
ATOM	40108	CA	ALA	G	46	252.317	142.163	-28.126	1.00	75.04	C	ATOM	40158	CD	GLU	G	52	260.905	145.288	-30.598	1.00	191.38	C
ATOM	40109	C	ALA	G	46	252.288	143.237	-29.204	1.00	75.04	C	ATOM	40159	OE1	GLU	G	52	262.081	144.957	-30.865	1.00	191.38	O
ATOM	40110	O	ALA	G	46	252.887	143.076	-30.263	1.00	75.04	O	ATOM	40160	OE2	GLU	G	52	260.440	145.271	-29.439	1.00	191.38	O
ATOM	40111	CB	ALA	G	46	251.040	141.344	-28.170	1.00	76.56	C	ATOM	40161	N	LYS	G	53	258.862	142.910	-34.995	1.00	114.33	N
ATOM	40112	N	CYS	G	47	251.599	144.339	-28.933	1.00	64.96	N	ATOM	40162	CA	LYS	G	53	258.994	141.803	-35.931	1.00	114.33	C
ATOM	40113	CA	CYS	G	47	251.518	145.415	-29.909	1.00	64.96	C	ATOM	40163	C	LYS	G	53	258.180	142.091	-37.188	1.00	114.33	C
ATOM	40114	C	CYS	G	47	252.886	145.922	-30.326	1.00	64.96	C	ATOM	40164	O	LYS	G	53	257.907	141.200	-37.990	1.00	114.33	O
ATOM	40115	O	CYS	G	47	253.077	146.323	-31.478	1.00	64.96	O	ATOM	40165	CN	LYS	G	53	258.546	140.500	-35.259	1.00	122.77	C



Table 2: Sheet 403/520

ATOM	40166	CG	LYS	G	53	259.383	140.176	-34.021	1.00122.77	C	ATOM	40216	C	LYS	G	60	246.200	146.584	-38.244	1.00	72.36	C
ATOM	40167	CD	LYS	G	53	258.964	138.887	-33.329	1.00122.77	C	ATOM	40217	O	LYS	G	60	245.440	145.972	-38.994	1.00	72.36	O
ATOM	40168	CE	LYS	G	53	259.839	138.622	-32.101	1.00122.77	C	ATOM	40218	CB	LYS	G	60	246.616	148.901	-39.102	1.00140.73	C	
ATOM	40169	NZ	LYS	G	53	259.504	137.342	-31.407	1.00122.77	N	ATOM	40219	CG	LYS	G	60	245.911	148.705	-40.439	1.00140.73	C	
ATOM	40170	N	THR	G	54	257.811	143.359	-37.341	1.00106.34	N	ATOM	40220	CD	LYS	G	60	246.523	149.554	-41.541	1.00140.73	C	
ATOM	40171	CA	THR	G	54	257.043	143.848	-38.485	1.00106.34	C	ATOM	40221	CE	LYS	G	60	245.838	149.295	-42.880	1.00140.73	C	
ATOM	40172	C	THR	G	54	257.164	145.366	-38.469	1.00106.34	C	ATOM	40222	NZ	LYS	G	60	246.444	150.086	-43.991	1.00140.73	N	
ATOM	40173	O	THR	G	54	257.341	145.968	-37.410	1.00106.34	O	ATOM	40223	N	VAL	G	61	247.229	145.999	-37.640	1.00	72.54	N
ATOM	40174	CB	THR	G	54	255.543	143.487	-38.383	1.00138.25	C	ATOM	40224	CA	VAL	G	61	247.473	144.571	-37.821	1.00	72.54	C
ATOM	40175	OG1	THR	G	54	255.387	142.065	-38.368	1.00138.25	O	ATOM	40225	C	VAL	G	61	246.396	143.846	-37.026	1.00	72.54	C
ATOM	40176	CG2	THR	G	54	254.772	144.059	-39.566	1.00138.25	C	ATOM	40226	O	VAL	G	61	245.883	142.808	-37.445	1.00	72.54	O
ATOM	40177	N	GLY	G	55	257.069	145.991	-39.634	1.00	90.00	ATOM	40227	CB	VAL	G	61	248.855	144.138	-37.273	1.00	67.13	C
ATOM	40178	CA	GLY	G	55	257.180	147.433	-39.670	1.00	90.00	ATOM	40228	CG1	VAL	G	61	249.027	142.633	-37.443	1.00	67.13	C
ATOM	40179	C	GLY	G	55	255.830	148.091	-39.502	1.00	90.00	ATOM	40229	CG2	VAL	G	61	249.968	144.892	-37.981	1.00	67.13	C
ATOM	40180	O	GLY	G	55	255.743	149.269	-39.147	1.00	90.00	ATOM	40230	N	PHE	G	62	246.066	144.409	-35.869	1.00	73.64	N
ATOM	40181	N	GLN	G	56	254.775	147.316	-39.743	1.00	83.42	ATOM	40231	CA	PHE	G	62	245.043	143.844	-35.001	1.00	73.64	C
ATOM	40182	CA	GLN	G	56	253.401	147.804	-39.657	1.00	83.42	ATOM	40232	C	PHE	G	62	243.743	143.814	-35.784	1.00	73.64	C
ATOM	40183	O	GLN	G	56	252.998	148.318	-38.283	1.00	83.42	ATOM	40233	O	PHE	G	62	243.127	142.760	-35.939	1.00	73.64	O
ATOM	40184	C	GLN	G	56	253.598	147.956	-37.268	1.00	83.42	ATOM	40234	CB	PHE	G	62	244.882	144.708	-33.740	1.00	56.86	C
ATOM	40185	CB	GLN	G	56	252.443	146.697	-40.081	1.00138.75	C	ATOM	40235	CG	PHE	G	62	243.696	144.341	-32.895	1.00	56.86	C
ATOM	40186	CG	GLN	G	56	252.795	146.084	-41.414	1.00138.75	C	ATOM	40236	CD1	PHE	G	62	243.623	143.104	-32.270	1.00	56.86	C
ATOM	40187	CD	GLN	G	56	251.861	144.964	-41.796	1.00138.75	C	ATOM	40237	CD2	PHE	G	62	242.636	145.226	-32.747	1.00	56.86	C
ATOM	40188	OE1	GLN	G	56	250.676	145.187	-42.039	1.00138.75	O	ATOM	40238	CE1	PHE	G	62	242.508	142.758	-31.513	1.00	56.86	C
ATOM	40189	NE2	GLN	G	56	252.388	143.745	-41.847	1.00138.75	N	ATOM	40239	CE2	PHE	G	62	241.524	144.888	-31.994	1.00	56.86	C
ATOM	40190	N	GLU	G	57	251.981	149.179	-38.270	1.00107.38	N	ATOM	40240	CZ	PHE	G	62	241.458	143.653	-31.377	1.00	56.86	C
ATOM	40191	CA	GLU	G	57	251.455	149.742	-37.032	1.00107.38	C	ATOM	40241	N	LYS	G	63	243.339	144.979	-36.283	1.00	77.67	N
ATOM	40192	C	GLU	G	57	250.756	148.607	-36.315	1.00107.38	C	ATOM	40242	CA	LYS	G	63	242.112	145.095	-37.061	1.00	77.67	C
ATOM	40193	O	GLU	G	57	250.154	147.737	-36.946	1.00107.38	O	ATOM	40243	C	LYS	G	63	242.084	144.011	-38.130	1.00	77.67	C
ATOM	40194	CB	GLU	G	57	250.438	150.846	-37.317	1.00145.71	C	ATOM	40244	O	LYS	G	63	241.061	143.357	-38.342	1.00	77.67	O
ATOM	40195	CG	GLU	G	57	251.005	152.056	-38.015	1.00145.71	C	ATOM	40245	CB	LYS	G	63	242.040	146.457	-37.748	1.00106.64	C	
ATOM	40196	CD	GLU	G	57	249.942	153.090	-38.319	1.00145.71	C	ATOM	40246	CG	LYS	G	63	242.293	147.655	-36.848	1.00106.64	C	
ATOM	40197	OE1	GLU	G	57	249.021	152.782	-39.105	1.00145.71	O	ATOM	40247	CD	LYS	G	63	241.109	147.990	-35.963	1.00106.64	C	
ATOM	40198	OE2	GLU	G	57	250.025	154.208	-37.769	1.00145.71	O	ATOM	40248	CE	LYS	G	63	241.359	149.296	-35.227	1.00106.64	C	
ATOM	40199	N	PRO	G	58	250.808	148.601	-34.983	1.00	62.69	ATOM	40249	NZ	LYS	G	63	240.192	149.708	-34.419	1.00106.64	C	
ATOM	40200	CA	PRO	G	58	250.131	147.493	-34.308	1.00	62.69	ATOM	40250	N	GLN	G	64	243.217	143.820	-38.801	1.00	74.77	N
ATOM	40201	C	PRO	G	58	248.619	147.473	-34.583	1.00	62.69	ATOM	40251	CA	GLN	G	64	243.307	142.827	-39.856	1.00	74.77	C
ATOM	40202	O	PRO	G	58	248.103	146.559	-35.230	1.00	62.69	ATOM	40252	C	GLN	G	64	242.997	141.422	-39.349	1.00	74.77	C
ATOM	40203	CB	PRO	G	58	250.465	147.741	-32.841	1.00	91.69	ATOM	40253	O	GLN	G	64	242.167	140.723	-39.929	1.00	74.77	O
ATOM	40204	CG	PRO	G	58	250.467	149.249	-32.770	1.00	91.69	ATOM	40254	CB	GLN	G	64	244.691	142.858	-40.498	1.00120.67	C	
ATOM	40205	CD	PRO	G	58	251.214	149.647	-34.028	1.00	91.69	ATOM	40255	CG	GLN	G	64	244.708	142.251	-41.886	1.00120.67	C	
ATOM	40206	N	LEU	G	59	247.930	148.508	-34.109	1.00	83.52	ATOM	40256	CD	GLN	G	64	243.662	142.876	-42.789	1.00120.67	C	
ATOM	40207	CA	LEU	G	59	246.483	148.617	-34.242	1.00	83.52	ATOM	40257	OE1	GLN	G	64	243.631	144.093	-42.962	1.00120.67	O	
ATOM	40208	C	LEU	G	59	245.865	148.201	-35.573	1.00	83.52	ATOM	40258	NE2	GLN	G	64	242.798	142.046	-43.368	1.00120.67	N	
ATOM	40209	O	LEU	G	59	244.760	147.661	-35.592	1.00	83.52	ATOM	40259	N	ALA	G	65	243.657	141.008	-38.271	1.00	77.76	N
ATOM	40210	CB	LEU	G	59	246.031	150.037	-33.902	1.00	72.29	ATOM	40260	CA	ALA	G	65	243.422	139.679	-37.706	1.00	77.76	C
ATOM	40211	CG	LEU	G	59	244.512	150.236	-33.909	1.00	72.29	ATOM	40261	C	ALA	G	65	241.920	139.477	-37.537	1.00	77.76	C
ATOM	40212	CD1	LEU	G	59	243.852	149.316	-32.895	1.00	72.29	ATOM	40262	O	ALA	G	65	241.327	138.575	-38.129	1.00	77.76	O
ATOM	40213	CD2	LEU	G	59	244.194	151.681	-33.588	1.00	72.29	ATOM	40263	CB	ALA	G	65	244.123	139.549	-36.359	1.00	85.80	C
ATOM	40214	N	LYS	G	60	246.552	148.448	-36.683	1.00	72.36	ATOM	40264	N	VAL	G	66	241.316	140.335	-36.724	1.00	74.37	N
ATOM	40215	CA	LYS	G	60	245.996	148.072	-37.975	1.00	72.36	ATOM	40265	CA	VAL	G	66	239.884	140.291	-36.471	1.00	74.37	C



Table 2: Sheet 404/520

ATOM	40266	C	VAL	G	66	239.106	140.058	-37.759	1.00	74.37	C	ATOM	40316	CG	ARG	G	72	231.542	134.506	-44.318	1.00	146.20	C
ATOM	40267	O	VAL	G	66	238.438	139.039	-37.922	1.00	74.37	O	ATOM	40317	CD	ARG	G	72	231.988	135.263	-45.547	1.00	146.20	C
ATOM	40268	CB	VAL	G	66	239.398	141.614	-35.858	1.00	58.73	C	ATOM	40318	NE	ARG	G	72	233.184	134.659	-46.125	1.00	146.20	N
ATOM	40269	CG1	VAL	G	66	237.887	141.631	-35.790	1.00	58.73	C	ATOM	40319	CZ	ARG	G	72	234.364	134.604	-45.514	1.00	146.20	C
ATOM	40270	CG2	VAL	G	66	240.007	141.798	-34.477	1.00	58.73	C	ATOM	40320	NH1	ARG	G	72	234.513	135.122	-44.300	1.00	146.20	N
ATOM	40271	N	GLU	G	67	239.201	141.016	-38.673	1.00	72.37	N	ATOM	40321	NH2	ARG	G	72	235.396	134.023	-46.112	1.00	146.20	N
ATOM	40272	CA	GLU	G	67	238.496	140.935	-39.941	1.00	72.37	C	ATOM	40322	N	MET	G	73	229.290	132.496	-42.007	1.00	55.24	N
ATOM	40273	C	GLU	G	67	238.674	139.612	-40.683	1.00	72.37	C	ATOM	40323	CA	MET	G	73	228.225	131.506	-41.919	1.00	55.24	C
ATOM	40274	O	GLU	G	67	237.825	139.242	-41.491	1.00	72.37	O	ATOM	40324	C	MET	G	73	228.605	130.520	-40.827	1.00	55.24	C
ATOM	40275	CB	GLU	G	67	238.925	142.082	-40.849	1.00	113.26	C	ATOM	40325	O	MET	G	73	229.788	130.227	-40.636	1.00	55.24	O
ATOM	40276	CG	GLU	G	67	238.172	142.123	-42.165	1.00	113.26	C	ATOM	40326	CB	MET	G	73	228.066	130.748	-43.233	1.00	70.38	C
ATOM	40277	CD	GLU	G	67	236.698	142.432	-41.986	1.00	113.26	C	ATOM	40327	CG	MET	G	73	227.631	131.590	-44.413	1.00	70.38	C
ATOM	40278	OE1	GLU	G	67	235.963	142.424	-42.998	1.00	113.26	O	ATOM	40328	SD	MET	G	73	225.935	132.163	-44.305	1.00	70.38	S
ATOM	40279	OE2	GLU	G	67	236.279	142.689	-40.835	1.00	113.26	O	ATOM	40329	CE	MET	G	73	225.024	130.626	-44.551	1.00	70.38	C
ATOM	40280	N	ASN	G	68	239.762	138.895	-40.415	1.00	72.17	N	ATOM	40330	N	GLU	G	74	227.614	130.021	-40.097	1.00	55.69	N
ATOM	40281	CA	ASN	G	68	240.004	137.628	-41.102	1.00	72.17	C	ATOM	40331	CA	GLU	G	74	227.877	129.038	-39.051	1.00	55.69	C
ATOM	40282	C	ASN	G	68	239.489	136.403	-40.360	1.00	72.17	C	ATOM	40332	C	GLU	G	74	226.698	128.087	-39.062	1.00	55.69	C
ATOM	40283	O	ASN	G	68	239.311	135.336	-40.953	1.00	72.17	O	ATOM	40333	O	GLU	G	74	225.675	128.376	-39.681	1.00	55.69	O
ATOM	40284	CB	ASN	G	68	241.496	137.437	-41.373	1.00	80.79	C	ATOM	40334	CB	GLU	G	74	228.007	129.709	-37.684	1.00	84.34	C
ATOM	40285	CG	ASN	G	68	242.045	138.457	-42.332	1.00	80.79	C	ATOM	40335	CG	GLU	G	74	226.699	130.179	-37.087	1.00	84.34	C
ATOM	40286	OD1	ASN	G	68	241.510	138.649	-43.422	1.00	80.79	O	ATOM	40336	CD	GLU	G	74	226.892	130.923	-35.784	1.00	84.34	C
ATOM	40287	ND2	ASN	G	68	243.128	139.117	-41.938	1.00	80.79	N	ATOM	40337	OE1	GLU	G	74	227.554	130.382	-34.868	1.00	84.34	O
ATOM	40288	N	VAL	G	69	239.257	136.555	-39.063	1.00	66.56	N	ATOM	40338	OE2	GLU	G	74	226.373	132.053	-35.678	1.00	84.34	O
ATOM	40289	CA	VAL	G	69	238.783	135.452	-38.244	1.00	66.56	C	ATOM	40339	N	VAL	G	75	226.830	126.959	-38.382	1.00	61.61	N
ATOM	40290	C	VAL	G	69	237.264	135.386	-38.190	1.00	66.56	C	ATOM	40340	CA	VAL	G	75	225.749	125.987	-38.356	1.00	61.61	C
ATOM	40291	O	VAL	G	69	236.695	134.380	-37.782	1.00	66.56	O	ATOM	40341	C	VAL	G	75	225.146	125.800	-36.970	1.00	61.61	C
ATOM	40292	CB	VAL	G	69	239.327	135.586	-36.821	1.00	64.40	C	ATOM	40342	O	VAL	G	75	225.844	125.439	-36.024	1.00	61.61	O
ATOM	40293	CG1	VAL	G	69	238.871	134.419	-35.971	1.00	64.40	C	ATOM	40343	CB	VAL	G	75	226.224	124.617	-38.862	1.00	69.86	C
ATOM	40294	CG2	VAL	G	69	240.835	135.663	-36.864	1.00	64.40	C	ATOM	40344	CG1	VAL	G	75	225.306	124.141	-39.960	1.00	69.86	C
ATOM	40295	N	LYS	G	70	236.610	136.458	-38.614	1.00	62.46	N	ATOM	40345	CG2	VAL	G	75	227.650	124.706	-39.368	1.00	69.86	C
ATOM	40296	CA	LYS	G	70	235.154	136.523	-38.592	1.00	62.46	C	ATOM	40346	N	ARG	G	76	223.843	126.053	-36.864	1.00	69.86	C
ATOM	40297	C	LYS	G	70	234.474	135.537	-39.533	1.00	62.46	C	ATOM	40347	CA	ARG	G	76	223.099	125.905	-35.615	1.00	73.71	C
ATOM	40298	O	LYS	G	70	234.638	135.611	-40.749	1.00	62.46	O	ATOM	40348	C	ARG	G	76	222.248	124.648	-35.731	1.00	73.71	C
ATOM	40299	CB	LYS	G	70	234.691	137.938	-38.939	1.00	48.94	C	ATOM	40349	O	ARG	G	76	221.504	124.496	-36.697	1.00	73.71	O
ATOM	40300	CG	LYS	G	70	235.124	139.002	-37.962	1.00	48.94	C	ATOM	40350	CB	ARG	G	76	222.179	127.104	-35.392	1.00	136.31	C
ATOM	40301	CD	LYS	G	70	234.549	140.337	-38.368	1.00	48.94	C	ATOM	40351	CG	ARG	G	76	222.834	128.343	-34.808	1.00	136.31	C
ATOM	40302	CE	LYS	G	70	234.742	141.364	-37.271	1.00	48.94	C	ATOM	40352	CD	ARG	G	76	221.831	129.495	-34.817	1.00	136.31	C
ATOM	40303	N2	LYS	G	70	234.339	142.730	-37.716	1.00	48.94	N	ATOM	40353	NE	ARG	G	76	222.128	130.540	-33.839	1.00	136.31	N
ATOM	40304	N	PRO	G	71	233.699	134.592	-38.991	1.00	64.41	N	ATOM	40354	CZ	ARG	G	76	221.392	131.638	-33.673	1.00	136.31	C
ATOM	40305	CA	PRO	G	71	233.015	133.623	-39.841	1.00	64.41	C	ATOM	40355	NH1	ARG	G	76	220.316	131.838	-34.425	1.00	136.31	N
ATOM	40306	C	PRO	G	71	231.746	134.288	-40.346	1.00	64.41	C	ATOM	40356	NH2	ARG	G	76	221.726	132.531	-32.748	1.00	136.31	N
ATOM	40307	O	PRO	G	71	231.072	134.969	-39.581	1.00	64.41	O	ATOM	40357	N	SER	G	77	222.355	123.754	-34.750	1.00	123.17	N
ATOM	40308	CB	PRO	G	71	232.727	132.475	-38.886	1.00	49.53	C	ATOM	40358	CA	SER	G	77	221.586	122.509	-34.752	1.00	123.17	C
ATOM	40309	CG	PRO	G	71	232.404	133.207	-37.614	1.00	49.53	C	ATOM	40359	C	SER	G	77	220.091	122.805	-34.633	1.00	123.17	C
ATOM	40310	CD	PRO	G	71	233.486	134.275	-37.556	1.00	49.53	C	ATOM	40360	O	SER	G	77	219.709	123.864	-34.140	1.00	123.17	O
ATOM	40311	N	ARG	G	72	231.424	134.117	-41.623	1.00	84.11	N	ATOM	40361	CB	SER	G	77	222.032	121.614	-33.594	1.00	119.63	C
ATOM	40312	CA	ARG	G	72	230.217	134.731	-42.164	1.00	84.11	C	ATOM	40362	OG	SER	G	77	221.387	120.354	-33.650	1.00	119.63	O
ATOM	40313	C	ARG	G	72	229.019	133.788	-42.133	1.00	84.11	C	ATOM	40363	N	ARG	G	78	219.248	121.873	-35.079	1.00	97.89	N
ATOM	40314	O	ARG	G	72	227.871	134.220	-42.215	1.00	84.11	O	ATOM	40364	CA	ARG	G	78	217.797	122.073	-35.022	1.00	97.89	C
ATOM	40315	CB	ARG	G	72	230.470	135.251	-43.590	1.00	146.20	C	ATOM	40365	C	ARG	G	78	216.962	120.823	-35.281	1.00	97.89	C



Table 2: Sheet 405/520

ATOM	40366	O	ARG	G	78	217.018	120.259	-36.371	1.00	97.89	O	ATOM	40416	O	TYR	G	85	220.238	121.084	-38.119	1.00	96.56	O
ATOM	40367	CB	ARG	G	78	217.382	123.138	-36.034	1.00128.17	C		ATOM	40417	CB	TYR	G	85	219.032	119.044	-39.901	1.00122.08	C	
ATOM	40368	CG	ARG	G	78	215.885	123.318	-36.151	1.00128.17	C		ATOM	40418	CG	TYR	G	85	218.198	117.855	-40.341	1.00122.08	C	
ATOM	40369	CD	ARG	G	78	215.528	124.254	-37.283	1.00128.17	C		ATOM	40419	CD1	TYR	G	85	217.216	118.002	-41.321	1.00122.08	C	
ATOM	40370	NE	ARG	G	78	214.082	124.368	-37.438	1.00128.17	N		ATOM	40420	CD2	TYR	G	85	218.400	116.585	-39.800	1.00122.08	C	
ATOM	40371	CZ	ARG	G	78	213.486	125.043	-38.415	1.00128.17	C		ATOM	40421	CE1	TYR	G	85	216.458	116.920	-41.754	1.00122.08	C	
ATOM	40372	NH1	ARG	G	78	214.213	125.668	-39.331	1.00128.17	N		ATOM	40422	CE2	TYR	G	85	217.645	115.491	-40.228	1.00122.08	C	
ATOM	40373	NH2	ARG	G	78	212.163	125.090	-38.479	1.00128.17	N		ATOM	40423	CZ	TYR	G	85	216.677	115.667	-41.206	1.00122.08	C	
ATOM	40374	N	ARG	G	79	216.171	120.406	-34.293	1.00105.45	N		ATOM	40424	OH	TYR	G	85	215.934	114.593	-41.645	1.00122.08	O	
ATOM	40375	CA	ARG	G	79	215.310	119.232	-34.450	1.00105.45	C		ATOM	40425	N	GLN	G	86	222.123	119.958	-38.636	1.00122.08	C	
ATOM	40376	C	ARG	G	79	214.264	119.482	-35.533	1.00105.45	C		ATOM	40426	CA	GLN	G	86	223.003	121.115	-38.468	1.00122.08	C	
ATOM	40377	O	ARG	G	79	213.451	120.399	-35.417	1.00105.45	O		ATOM	40427	C	GLN	G	86	222.561	122.092	-39.553	1.00122.08	C	
ATOM	40378	CB	ARG	G	79	214.583	118.898	-33.142	1.00189.47	C		ATOM	40428	O	GLN	G	86	222.701	121.813	-40.737	1.00122.08	C	
ATOM	40379	CG	ARG	G	79	215.407	118.138	-32.125	1.00189.47	C		ATOM	40429	CB	GLN	G	86	224.463	120.719	-38.692	1.00143.34	C	
ATOM	40380	CD	ARG	G	79	214.541	117.613	-30.990	1.00189.47	C		ATOM	40430	CG	GLN	G	86	225.022	119.764	-37.657	1.00143.34	C	
ATOM	40381	NE	ARG	G	79	215.321	116.847	-30.019	1.00189.47	N		ATOM	40431	CD	GLN	G	86	225.072	120.369	-36.267	1.00143.34	C	
ATOM	40382	CZ	ARG	G	79	214.798	116.171	-29.000	1.00189.47	C		ATOM	40432	OE1	GLN	G	86	225.577	119.751	-35.330	1.00143.34	O	
ATOM	40383	NH1	ARG	G	79	213.485	116.161	-28.810	1.00189.47	N		ATOM	40433	NE2	GLN	G	86	224.548	121.581	-36.125	1.00143.34	N	
ATOM	40384	NH2	ARG	G	79	215.588	115.504	-28.168	1.00189.47	N		ATOM	40434	N	VAL	G	87	222.029	123.238	-39.152	1.00143.34	N	
ATOM	40385	N	VAL	G	80	214.286	118.670	-36.584	1.00141.92	N		ATOM	40435	CA	VAL	G	87	221.530	124.200	-40.119	1.00143.34	N	
ATOM	40386	CA	VAL	G	80	213.323	118.817	-37.669	1.00141.92	C		ATOM	40436	C	VAL	G	87	222.383	125.439	-40.359	1.00143.34	C	
ATOM	40387	C	VAL	G	80	212.706	117.460	-37.985	1.00141.92	C		ATOM	40437	O	VAL	G	87	222.677	126.206	-39.445	1.00143.34	O	
ATOM	40388	O	VAL	G	80	213.396	116.543	-38.435	1.00141.92	O		ATOM	40438	CB	VAL	G	87	220.102	124.645	-39.742	1.00143.34	C	
ATOM	40389	CB	VAL	G	80	213.990	119.389	-38.948	1.00104.70	C		ATOM	40439	CG1	VAL	G	87	219.576	125.638	-40.766	1.00143.34	C	
ATOM	40390	CG1	VAL	G	80	212.941	119.650	-40.017	1.00104.70	C		ATOM	40440	CG2	VAL	G	87	219.196	123.427	-39.663	1.00143.34	C	
ATOM	40391	CG2	VAL	G	80	214.722	120.675	-38.618	1.00104.70	C		ATOM	40441	N	PRO	G	88	222.778	125.654	-41.620	1.00143.34	N	
ATOM	40392	N	GLY	G	81	211.405	117.337	-37.732	1.00160.36	N		ATOM	40442	CA	PRO	G	88	223.598	126.796	-42.010	1.00143.34	C	
ATOM	40393	CA	GLY	G	81	210.709	116.088	-37.987	1.00160.36	C		ATOM	40443	C	PRO	G	88	222.794	128.067	-41.932	1.00143.34	C	
ATOM	40394	C	GLY	G	81	211.152	114.990	-37.040	1.00160.36	C		ATOM	40444	O	PRO	G	88	221.587	128.045	-42.146	1.00143.34	O	
ATOM	40395	O	GLY	G	81	210.413	114.035	-36.784	1.00160.36	O		ATOM	40445	CB	PRO	G	88	223.970	126.467	-43.446	1.00143.34	C	
ATOM	40396	N	GLY	G	82	212.366	115.132	-36.517	1.00176.53	N		ATOM	40446	CG	PRO	G	88	222.738	125.788	-43.939	1.00143.34	C	
ATOM	40397	CA	GLY	G	82	212.905	114.151	-35.597	1.00176.53	C		ATOM	40447	CD	PRO	G	88	222.420	124.847	-42.800	1.00143.34	C	
ATOM	40398	C	GLY	G	82	214.389	114.347	-35.356	1.00176.53	C		ATOM	40448	N	MET	G	89	223.467	129.170	-41.624	1.00143.34	C	
ATOM	40399	O	GLY	G	82	214.807	114.664	-34.243	1.00176.53	C		ATOM	40449	CA	MET	G	89	222.819	130.471	-41.551	1.00143.34	C	
ATOM	40400	N	ALA	G	83	215.187	114.169	-36.405	1.00171.66	N		ATOM	40450	C	MET	G	89	223.799	131.585	-41.261	1.00143.34	C	
ATOM	40401	CA	ALA	G	83	216.635	114.312	-36.304	1.00171.66	C		ATOM	40451	O	MET	G	89	224.843	131.355	-40.653	1.00143.34	O	
ATOM	40402	C	ALA	G	83	217.089	115.766	-36.207	1.00171.66	C		ATOM	40452	CB	MET	G	89	221.695	130.459	-40.520	1.00143.34	C	
ATOM	40403	O	ALA	G	83	216.394	116.678	-36.658	1.00171.66	O		ATOM	40453	CG	MET	G	89	221.990	129.702	-39.257	1.00143.34	C	
ATOM	40404	CB	ALA	G	83	217.304	113.638	-37.497	1.00151.75	C		ATOM	40454	SD	MET	G	89	220.421	129.330	-38.478	1.00143.34	C	
ATOM	40405	N	ASN	G	84	218.263	115.965	-35.614	1.00122.01	N		ATOM	40455	CE	MET	G	89	220.015	130.922	-37.768	1.00143.34	S	
ATOM	40406	CA	ASN	G	84	218.843	117.294	-35.447	1.00122.01	C		ATOM	40456	N	GLU	G	90	223.461	132.786	-41.725	1.00143.34	C	
ATOM	40407	C	ASN	G	84	219.781	117.655	-36.586	1.00122.01	C		ATOM	40457	CA	GLU	G	90	224.308	133.956	-41.548	1.00143.34	C	
ATOM	40408	O	ASN	G	84	220.963	117.310	-36.574	1.00122.01	O		ATOM	40458	C	GLU	G	90	224.694	134.194	-40.094	1.00143.34	C	
ATOM	40409	CB	ASN	G	84	219.592	117.375	-34.125	1.00136.79	C		ATOM	40459	O	GLU	G	90	223.999	133.763	-39.170	1.00143.34	C	
ATOM	40410	CG	ASN	G	84	218.661	117.466	-32.952	1.00136.79	C		ATOM	40460	CB	GLU	G	90	223.608	135.200	-42.087	1.00143.34	C	
ATOM	40411	OD1	ASN	G	84	217.947	118.454	-32.800	1.00136.79	O		ATOM	40461	CG	GLU	G	90	223.381	135.186	-43.580	1.00143.34	C	
ATOM	40412	ND2	ASN	G	84	218.649	116.433	-32.117	1.00136.79	N		ATOM	40462	CD	GLU	G	90	222.686	136.441	-44.066	1.00143.34	C	
ATOM	40413	N	TYR	G	85	219.236	118.367	-37.564	1.00136.79	N		ATOM	40463	OE1	GLU	G	90	222.518	136.591	-45.295	1.00143.34	C	
ATOM	40414	CA	TYR	G	85	219.990	118.785	-38.733	1.00136.79	C		ATOM	40464	OE2	GLU	G	90	222.305	137.279	-43.219	1.00143.34	O	
ATOM	40415	C	TYR	G	85	220.802	120.049	-38.472	1.00136.79	C		ATOM	40465	N	VAL	G	91	225.814	134.879	-39.899	1.00143.34	N	



ATOM	40466	CA	VAL	G	91	226.295	135.197	-38.566	1.00	55.90	C	ATOM	40516	N	GLN	G	97	231.953	139.325	-34.465	1.00	50.35	N
ATOM	40467	C	VAL	G	91	226.174	136.700	-38.399	1.00	55.90	C	ATOM	40517	CA	GLN	G	97	233.065	139.860	-33.692	1.00	50.35	C
ATOM	40468	O	VAL	G	91	226.730	137.460	-39.187	1.00	55.90	C	ATOM	40518	C	GLN	G	97	233.332	139.026	-32.437	1.00	50.35	C
ATOM	40469	CB	VAL	G	91	227.759	134.796	-38.405	1.00	57.94	C	ATOM	40519	O	GLN	G	97	234.490	138.733	-32.117	1.00	50.35	O
ATOM	40470	CG1	VAL	G	91	228.230	135.116	-36.998	1.00	57.94	C	ATOM	40520	CB	GLN	G	97	232.788	141.301	-33.292	1.00	71.22	C
ATOM	40471	CG2	VAL	G	91	227.923	133.319	-38.714	1.00	57.94	C	ATOM	40521	CG	GLN	G	97	233.810	141.873	-32.341	1.00	71.22	C
ATOM	40472	N	SER	G	92	225.442	137.134	-37.382	1.00	68.57	N	ATOM	40522	CD	GLN	G	97	233.416	143.250	-31.846	1.00	71.22	C
ATOM	40473	CA	SER	G	92	225.250	139.562	-37.148	1.00	68.57	C	ATOM	40523	OE1	GLN	G	97	233.439	144.227	-32.606	1.00	71.22	O
ATOM	40474	C	SER	G	92	226.561	139.277	-36.874	1.00	68.57	C	ATOM	40524	NE2	GLN	G	97	233.034	143.335	-30.566	1.00	71.22	N
ATOM	40475	O	SER	G	92	227.424	138.761	-36.163	1.00	68.57	C	ATOM	40525	N	SER	G	98	232.267	138.643	-31.730	1.00	62.78	N
ATOM	40476	CB	SER	G	92	224.335	138.784	-35.954	1.00	80.34	C	ATOM	40526	CA	SER	G	98	232.411	137.845	-30.506	1.00	62.78	C
ATOM	40477	OG	SER	G	92	224.996	138.421	-34.755	1.00	80.34	O	ATOM	40527	C	SER	G	98	233.238	136.606	-30.782	1.00	62.78	O
ATOM	40478	N	PRO	G	93	226.724	140.486	-37.428	1.00	56.53	N	ATOM	40528	O	SER	G	98	234.171	136.289	-30.038	1.00	62.78	O
ATOM	40479	CA	PRO	G	93	227.954	141.244	-37.206	1.00	56.53	C	ATOM	40529	CB	SER	G	98	231.049	137.406	-29.961	1.00	74.50	C
ATOM	40480	C	PRO	G	93	228.347	141.307	-35.733	1.00	56.53	C	ATOM	40530	OG	SER	G	98	230.234	138.506	-29.610	1.00	74.50	C
ATOM	40481	O	PRO	G	93	229.525	141.427	-35.410	1.00	56.53	O	ATOM	40531	N	LEU	G	99	232.877	135.911	-31.857	1.00	53.38	N
ATOM	40482	CB	PRO	G	93	227.630	142.622	-37.795	1.00	61.24	C	ATOM	40532	CA	LEU	G	99	233.564	134.690	-32.265	1.00	53.38	C
ATOM	40483	CG	PRO	G	93	226.133	142.676	-37.796	1.00	61.24	C	ATOM	40533	C	LEU	G	99	235.005	134.956	-32.682	1.00	53.38	C
ATOM	40484	CD	PRO	G	93	225.760	141.278	-38.203	1.00	61.24	C	ATOM	40534	O	LEU	G	99	235.908	134.177	-32.367	1.00	53.38	O
ATOM	40485	N	ARG	G	94	227.370	141.224	-34.840	1.00	55.87	N	ATOM	40535	CB	LEU	G	99	232.812	134.036	-33.419	1.00	72.28	C
ATOM	40486	CA	ARG	G	94	227.672	141.262	-33.414	1.00	55.87	C	ATOM	40536	CG	LEU	G	99	231.433	133.508	-33.041	1.00	72.28	C
ATOM	40487	C	ARG	G	94	228.419	139.991	-33.017	1.00	55.87	C	ATOM	40537	CD1	LEU	G	99	230.649	133.150	-34.293	1.00	72.28	C
ATOM	40488	O	ARG	G	94	229.516	140.042	-32.453	1.00	55.87	O	ATOM	40538	CD2	LEU	G	99	231.601	132.307	-32.127	1.00	72.28	C
ATOM	40489	CB	ARG	G	94	226.378	141.383	-32.602	1.00	64.02	C	ATOM	40539	N	ALA	G	100	235.216	136.060	-33.391	1.00	54.15	N
ATOM	40490	CG	ARG	G	94	226.490	140.932	-31.146	1.00	64.02	C	ATOM	40540	CA	ALA	G	100	236.550	136.421	-33.840	1.00	54.15	C
ATOM	40491	CD	ARG	G	94	227.224	141.914	-30.260	1.00	64.02	C	ATOM	40541	C	ALA	G	100	237.532	136.590	-32.670	1.00	54.15	C
ATOM	40492	NE	ARG	G	94	227.592	141.294	-28.986	1.00	64.02	N	ATOM	40542	O	ALA	G	100	238.516	135.849	-32.574	1.00	54.15	O
ATOM	40493	CZ	ARG	G	94	228.293	141.895	-28.025	1.00	64.02	C	ATOM	40543	CB	ALA	G	100	236.485	137.695	-34.658	1.00	37.58	C
ATOM	40494	NH1	ARG	G	94	228.702	143.146	-28.175	1.00	64.02	N	ATOM	40544	N	LEU	G	101	237.262	137.546	-31.778	1.00	54.00	N
ATOM	40495	NH2	ARG	G	94	228.628	141.235	-26.926	1.00	64.02	N	ATOM	40545	CA	LEU	G	101	238.154	137.793	-30.644	1.00	54.00	C
ATOM	40496	N	ARG	G	95	227.816	138.849	-33.325	1.00	58.54	N	ATOM	40546	C	LEU	G	101	238.320	136.564	-29.754	1.00	54.00	C
ATOM	40497	CA	ARG	G	95	228.399	137.554	-33.001	1.00	58.54	C	ATOM	40547	O	LEU	G	101	239.408	136.297	-29.234	1.00	54.00	O
ATOM	40498	C	ARG	G	95	229.696	137.327	-33.788	1.00	58.54	C	ATOM	40548	CB	LEU	G	101	237.658	138.965	-29.793	1.00	47.24	C
ATOM	40499	O	ARG	G	95	230.656	136.721	-33.292	1.00	58.54	O	ATOM	40549	CG	LEU	G	101	237.001	140.157	-30.499	1.00	47.24	C
ATOM	40500	CB	ARG	G	95	227.380	136.458	-33.319	1.00	49.70	C	ATOM	40550	CD1	LEU	G	101	236.964	141.349	-29.543	1.00	47.24	C
ATOM	40501	CG	ARG	G	95	227.822	135.075	-32.940	1.00	49.70	C	ATOM	40551	CD2	LEU	G	101	237.761	140.523	-31.757	1.00	47.24	C
ATOM	40502	CD	ARG	G	95	226.757	134.058	-33.230	1.00	49.70	C	ATOM	40552	N	ARG	G	102	237.248	135.808	-29.567	1.00	60.32	N
ATOM	40503	NE	ARG	G	95	227.277	132.721	-32.993	1.00	49.70	C	ATOM	40553	CA	ARG	G	102	237.359	134.628	-28.737	1.00	60.32	C
ATOM	40504	CZ	ARG	G	95	227.720	132.303	-31.816	1.00	49.70	C	ATOM	40554	C	ARG	G	102	238.352	133.675	-29.387	1.00	60.32	C
ATOM	40505	NH1	ARG	G	95	227.695	133.120	-30.769	1.00	49.70	N	ATOM	40555	O	ARG	G	102	239.297	133.210	-28.745	1.00	60.32	O
ATOM	40506	NH2	ARG	G	95	228.205	131.074	-31.687	1.00	49.70	N	ATOM	40556	CB	ARG	G	102	236.005	133.942	-28.589	1.00	50.92	C
ATOM	40507	N	GLN	G	96	229.704	137.820	-35.023	1.00	54.39	N	ATOM	40557	CG	ARG	G	102	236.078	132.673	-27.755	1.00	50.92	C
ATOM	40508	CA	GLN	G	96	229.855	137.704	-35.903	1.00	54.39	C	ATOM	40558	CD	ARG	G	102	234.714	132.077	-27.573	1.00	50.92	C
ATOM	40509	C	GLN	G	96	232.084	138.194	-35.146	1.00	54.39	C	ATOM	40559	NE	ARG	G	102	233.804	133.093	-27.080	1.00	50.92	N
ATOM	40510	O	GLN	G	96	233.133	137.554	-35.165	1.00	54.39	O	ATOM	40560	CZ	ARG	G	102	232.539	133.193	-27.458	1.00	50.92	N
ATOM	40511	CB	GLN	G	96	230.620	138.553	-37.144	1.00	68.86	C	ATOM	40561	NH1	ARG	G	102	232.047	132.325	-28.330	1.00	50.92	N
ATOM	40512	CG	GLN	G	96	230.932	137.866	-38.455	1.00	68.86	C	ATOM	40562	NH2	ARG	G	102	231.781	134.175	-26.986	1.00	50.92	N
ATOM	40513	CD	GLN	G	96	230.315	136.598	-39.634	1.00	68.86	C	ATOM	40563	N	TRP	G	103	230.136	133.390	-20.670	1.00	53.93	N
ATOM	40514	OE1	GLN	G	96	230.497	139.809	-39.795	1.00	68.86	O	ATOM	40564	CA	TRP	G	103	238.997	132.495	-31.414	1.00	53.93	C
ATOM	40515	NE2	GLN	G	96	229.576	137.867	-40.462	1.00	68.86	N	ATOM	40565	C	TRP	G	103	240.416	132.955	-31.429	1.00	53.93	C



Table 2: Sheet 407/520

ATOM	40566	O	TRP	G	103	241.367	132.150	-31.283	1.00	53.93	O	ATOM	40616	CG	ASN	G	109	246.083	131.747	-24.432	1.00	70.21	C
ATOM	40567	CB	TRP	G	103	238.494	132.346	-32.844	1.00	59.74	C	ATOM	40617	OD1	ASN	G	109	247.089	132.085	-23.809	1.00	70.21	O
ATOM	40568	CG	TRP	G	103	237.243	131.544	-32.958	1.00	59.74	C	ATOM	40618	ND2	ASN	G	109	245.045	132.554	-24.618	1.00	70.21	N
ATOM	40569	CD1	TRP	G	103	236.765	130.640	-32.056	1.00	59.74	C	ATOM	40619	N	GLN	G	110	247.110	128.435	-27.797	1.00	68.05	N
ATOM	40570	CD2	TRP	G	103	236.337	131.522	-34.070	1.00	59.74	C	ATOM	40620	CA	GLN	G	110	247.324	127.070	-28.248	1.00	68.05	C
ATOM	40571	NE1	TRP	G	103	235.618	130.056	-32.536	1.00	59.74	N	ATOM	40621	C	GLN	G	110	248.762	127.012	-28.741	1.00	68.05	C
ATOM	40572	CE2	TRP	G	103	235.333	130.578	-33.771	1.00	59.74	C	ATOM	40622	O	GLN	G	110	249.394	125.955	-28.750	1.00	68.05	O
ATOM	40573	CE3	TRP	G	103	236.278	132.208	-35.291	1.00	59.74	C	ATOM	40623	CB	GLN	G	110	246.348	126.704	-29.367	1.00	133.39	C
ATOM	40574	C22	TRP	G	103	234.278	130.300	-34.649	1.00	59.74	C	ATOM	40624	CG	GLN	G	110	244.916	126.580	-28.887	1.00	133.39	C
ATOM	40575	C23	TRP	G	103	235.227	131.930	-36.167	1.00	59.74	C	ATOM	40625	CD	GLN	G	110	244.766	125.587	-27.743	1.00	133.39	C
ATOM	40576	CH2	TRP	G	103	234.242	130.984	-35.839	1.00	59.74	C	ATOM	40626	OE1	GLN	G	110	243.708	125.496	-27.120	1.00	133.39	O
ATOM	40577	N	LEU	G	104	240.659	134.248	-31.621	1.00	58.63	N	ATOM	40627	NE2	GLN	G	110	245.823	124.835	-27.466	1.00	133.39	N
ATOM	40578	CA	LEU	G	104	242.016	134.743	-31.619	1.00	58.63	C	ATOM	40628	N	ARG	G	111	249.277	128.178	-29.121	1.00	70.73	N
ATOM	40579	C	LEU	G	104	242.667	134.289	-30.323	1.00	58.63	C	ATOM	40629	CA	ARG	G	111	250.640	128.301	-29.606	1.00	70.73	C
ATOM	40580	O	LEU	G	104	243.582	133.473	-30.336	1.00	58.63	O	ATOM	40630	C	ARG	G	111	251.646	127.786	-28.602	1.00	70.73	C
ATOM	40581	CB	LEU	G	104	242.027	136.265	-31.736	1.00	45.02	C	ATOM	40631	O	ARG	G	111	251.334	127.581	-27.431	1.00	70.73	O
ATOM	40582	CG	LEU	G	104	241.675	136.721	-33.159	1.00	45.02	C	ATOM	40632	CB	ARG	G	111	250.941	129.747	-29.939	1.00	67.81	C
ATOM	40583	CD1	LEU	G	104	241.675	138.233	-33.272	1.00	45.02	C	ATOM	40633	CG	ARG	G	111	250.387	130.148	-31.268	1.00	67.81	C
ATOM	40584	CD2	LEU	G	104	242.686	136.118	-34.120	1.00	45.02	C	ATOM	40634	CD	ARG	G	111	250.229	131.636	-31.369	1.00	67.81	C
ATOM	40585	N	VAL	G	105	242.168	134.779	-29.197	1.00	49.41	N	ATOM	40635	NE	ARG	G	111	250.196	132.040	-32.766	1.00	67.81	N
ATOM	40586	CA	VAL	G	105	242.736	134.409	-27.905	1.00	49.41	C	ATOM	40636	CZ	ARG	G	111	251.235	131.943	-33.590	1.00	67.81	C
ATOM	40587	C	VAL	G	105	242.925	132.914	-27.704	1.00	49.41	C	ATOM	40637	NH1	ARG	G	111	252.399	131.458	-33.156	1.00	67.81	N
ATOM	40588	O	VAL	G	105	243.987	132.474	-27.270	1.00	49.41	O	ATOM	40638	NH2	ARG	G	111	251.102	132.324	-34.855	1.00	59.96	N
ATOM	40589	CB	VAL	G	105	241.883	134.936	-26.746	1.00	39.62	C	ATOM	40639	N	PRO	G	112	252.879	127.558	-29.058	1.00	59.96	N
ATOM	40590	CG1	VAL	G	105	242.528	134.540	-25.425	1.00	39.62	C	ATOM	40640	CA	PRO	G	112	253.930	127.050	-28.181	1.00	59.96	C
ATOM	40591	CG2	VAL	G	105	241.740	136.458	-26.850	1.00	39.62	C	ATOM	40641	C	PRO	G	112	254.839	128.052	-27.479	1.00	59.96	C
ATOM	40592	N	GLN	G	106	241.892	132.137	-28.007	1.00	51.78	N	ATOM	40642	O	PRO	G	112	255.369	127.731	-26.412	1.00	59.96	O
ATOM	40593	CA	GLN	G	106	241.971	130.691	-27.842	1.00	51.78	C	ATOM	40643	CB	PRO	G	112	254.701	126.127	-29.095	1.00	37.73	C
ATOM	40594	C	GLN	G	106	243.108	130.098	-28.667	1.00	51.78	C	ATOM	40644	CG	PRO	G	112	254.640	126.855	-30.399	1.00	37.73	C
ATOM	40595	O	GLN	G	106	243.878	129.272	-28.184	1.00	51.78	O	ATOM	40645	CD	PRO	G	112	253.219	127.334	-30.474	1.00	37.73	C
ATOM	40596	CB	GLN	G	106	240.648	130.041	-28.240	1.00	107.59	C	ATOM	40646	N	GLU	G	113	255.050	129.238	-28.055	1.00	52.58	N
ATOM	40597	CG	GLN	G	106	239.524	130.297	-27.261	1.00	107.59	C	ATOM	40647	CA	GLU	G	113	255.914	130.206	-27.385	1.00	52.58	C
ATOM	40598	CD	GLN	G	106	238.228	129.638	-27.677	1.00	107.59	C	ATOM	40648	C	GLU	G	113	255.512	130.258	-25.905	1.00	52.58	C
ATOM	40599	OE1	GLN	G	106	237.256	129.636	-26.925	1.00	107.59	O	ATOM	40649	O	GLU	G	113	254.325	130.300	-25.584	1.00	52.58	O
ATOM	40600	NE2	GLN	G	106	238.202	129.077	-28.881	1.00	107.59	N	ATOM	40650	CB	GLU	G	113	255.803	131.594	-28.023	1.00	77.00	C
ATOM	40601	N	ALA	G	107	243.209	130.527	-29.918	1.00	73.29	N	ATOM	40651	CG	GLU	G	113	254.532	131.842	-28.792	1.00	77.00	C
ATOM	40602	CA	ALA	G	107	244.249	130.040	-30.804	1.00	73.29	C	ATOM	40652	CD	GLU	G	113	254.560	131.229	-30.170	1.00	77.00	C
ATOM	40603	C	ALA	G	107	245.622	130.458	-30.283	1.00	73.29	C	ATOM	40653	OE1	GLU	G	113	255.194	131.814	-31.070	1.00	77.00	O
ATOM	40604	O	ALA	G	107	246.558	129.659	-30.261	1.00	73.29	O	ATOM	40654	OE2	GLU	G	113	253.954	130.156	-30.350	1.00	77.00	O
ATOM	40605	CB	ALA	G	107	244.023	130.586	-32.193	1.00	51.66	C	ATOM	40655	N	ARG	G	114	256.501	130.223	-25.013	1.00	60.86	N
ATOM	40606	N	ALA	G	108	245.731	131.714	-29.864	1.00	44.60	N	ATOM	40656	CA	ARG	G	114	256.256	130.236	-23.573	1.00	60.86	C
ATOM	40607	CA	ALA	G	108	246.983	132.254	-29.331	1.00	44.60	C	ATOM	40657	C	ARG	G	114	255.603	131.532	-23.067	1.00	60.86	C
ATOM	40608	C	ALA	G	108	247.506	131.390	-28.198	1.00	44.60	C	ATOM	40658	O	ARG	G	114	254.696	131.492	-22.234	1.00	60.86	O
ATOM	40609	O	ALA	G	108	248.690	131.063	-28.142	1.00	44.60	O	ATOM	40659	CB	ARG	G	114	257.562	130.036	-22.797	1.00	57.05	C
ATOM	40610	CB	ALA	G	108	246.767	133.680	-28.827	1.00	21.15	C	ATOM	40660	CG	ARG	G	114	258.499	128.896	-23.203	1.00	57.05	C
ATOM	40611	N	ASN	G	109	246.611	131.024	-27.293	1.00	44.72	N	ATOM	40661	CD	ARG	G	114	259.694	128.983	-22.247	1.00	57.05	C
ATOM	40612	CA	ASN	G	109	246.997	130.210	-26.164	1.00	44.72	C	ATOM	40662	NE	ARG	G	114	260.816	128.056	-22.419	1.00	57.05	N
ATOM	40613	C	ASN	G	109	247.182	128.746	-26.507	1.00	44.72	C	ATOM	40663	CZ	ARG	G	114	260.706	126.741	-22.570	1.00	57.05	C
ATOM	40614	O	ASN	G	109	247.390	127.909	-25.619	1.00	44.72	O	ATOM	40664	NH1	ARG	G	114	259.511	126.163	-22.606	1.00	57.05	N
ATOM	40615	CB	ASN	G	109	245.993	130.386	-25.046	1.00	70.21	C	ATOM	40665	NH2	ARG	G	114	261.796	125.990	-22.606	1.00	57.05	N



Table 2: Sheet 408/520

ATOM	40666	N	ARG	G	115	256.074	132.677	-23.557	1.00	57.57	N	ATOM	40716	O	ALA	G	121	251.208	138.656	-33.518	1.00	65.41	O
ATOM	40667	CA	ARG	G	115	255.545	133.972	-23.128	1.00	57.57	C	ATOM	40717	CB	ALA	G	121	252.898	139.572	-30.764	1.00	92.62	C
ATOM	40668	C	ARG	G	115	254.192	134.300	-23.746	1.00	57.57	C	ATOM	40718	N	HIS	G	122	252.090	137.031	-32.242	1.00	66.92	N
ATOM	40669	O	ARG	G	115	254.008	134.226	-24.963	1.00	57.57	O	ATOM	40719	CA	HIS	G	122	252.214	136.114	-33.358	1.00	66.92	C
ATOM	40670	CB	ARG	G	115	256.542	135.083	-23.452	1.00	145.90	C	ATOM	40720	C	HIS	G	122	250.870	135.743	-33.979	1.00	66.92	C
ATOM	40671	CG	ARG	G	115	257.858	134.946	-22.711	1.00	145.90	C	ATOM	40721	O	HIS	G	122	250.589	136.146	-35.107	1.00	66.92	O
ATOM	40672	CD	ARG	G	115	258.746	136.156	-22.922	1.00	145.90	C	ATOM	40722	CB	HIS	G	122	252.995	134.875	-32.925	1.00	88.97	C
ATOM	40673	NE	ARG	G	115	258.057	137.394	-22.571	1.00	145.90	N	ATOM	40723	CG	HIS	G	122	254.457	135.138	-32.732	1.00	88.97	C
ATOM	40674	CZ	ARG	G	115	258.664	138.560	-22.377	1.00	145.90	C	ATOM	40724	ND1	HIS	G	122	255.345	134.167	-32.322	1.00	88.97	N
ATOM	40675	NH1	ARG	G	115	259.982	138.652	-22.497	1.00	145.90	N	ATOM	40725	CD2	HIS	G	122	255.189	136.264	-32.911	1.00	88.97	C
ATOM	40676	NH2	ARG	G	115	257.953	139.637	-22.066	1.00	145.90	N	ATOM	40726	CE1	HIS	G	122	256.560	134.684	-32.258	1.00	88.97	C
ATOM	40677	N	ALA	G	116	253.248	134.669	-22.889	1.00	60.74	N	ATOM	40727	NE2	HIS	G	122	256.492	135.955	-32.611	1.00	88.97	N
ATOM	40678	CA	ALA	G	116	251.897	135.000	-23.314	1.00	60.74	C	ATOM	40728	N	GLU	G	123	250.035	135.005	-33.248	1.00	56.83	N
ATOM	40679	C	ALA	G	116	251.844	136.054	-24.414	1.00	60.74	C	ATOM	40729	CA	GLU	G	123	248.722	134.599	-33.755	1.00	56.83	C
ATOM	40680	O	ALA	G	116	251.298	135.813	-25.494	1.00	60.74	O	ATOM	40730	C	GLU	G	123	248.029	135.731	-34.521	1.00	56.83	C
ATOM	40681	CB	ALA	G	116	251.089	135.464	-22.116	1.00	76.62	C	ATOM	40731	O	GLU	G	123	247.394	135.496	-35.553	1.00	56.83	O
ATOM	40682	N	ALA	G	117	252.405	137.225	-24.135	1.00	71.60	N	ATOM	40732	CB	GLU	G	123	247.818	134.120	-32.605	1.00	52.39	C
ATOM	40683	CA	ALA	G	117	252.389	138.313	-25.104	1.00	71.60	C	ATOM	40733	CG	GLU	G	123	246.449	133.592	-33.060	1.00	52.39	C
ATOM	40684	C	ALA	G	117	252.902	137.886	-26.475	1.00	71.60	C	ATOM	40734	CD	GLU	G	123	246.542	132.351	-33.949	1.00	52.39	C
ATOM	40685	O	ALA	G	117	252.383	138.319	-27.504	1.00	71.60	O	ATOM	40735	OE1	GLU	G	123	245.677	132.185	-34.843	1.00	52.39	O
ATOM	40686	CB	ALA	G	117	253.201	139.480	-24.584	1.00	55.82	C	ATOM	40736	OE2	GLU	G	123	247.469	131.532	-33.755	1.00	52.39	O
ATOM	40687	N	VAL	G	118	253.920	137.038	-26.494	1.00	65.06	N	ATOM	40737	N	LEU	G	124	248.151	136.956	-34.022	1.00	53.51	N
ATOM	40688	CA	VAL	G	118	254.466	136.579	-27.761	1.00	65.06	C	ATOM	40738	CA	LEU	G	124	247.527	138.085	-34.696	1.00	53.51	C
ATOM	40689	C	VAL	G	118	253.376	135.873	-28.552	1.00	65.06	C	ATOM	40739	C	LEU	G	124	248.155	138.282	-36.071	1.00	53.51	C
ATOM	40690	O	VAL	G	118	253.126	136.208	-29.713	1.00	65.06	O	ATOM	40740	O	LEU	G	124	247.457	138.334	-37.092	1.00	53.51	O
ATOM	40691	CB	VAL	G	118	255.629	135.589	-27.557	1.00	55.12	C	ATOM	40741	CB	LEU	G	124	247.700	139.357	-33.876	1.00	48.15	C
ATOM	40692	CG1	VAL	G	118	256.121	135.086	-28.908	1.00	55.12	C	ATOM	40742	CG	LEU	G	124	246.839	139.516	-32.632	1.00	48.15	C
ATOM	40693	CG2	VAL	G	118	256.759	136.257	-26.776	1.00	55.12	C	ATOM	40743	CD1	LEU	G	124	247.466	140.552	-31.722	1.00	48.15	C
ATOM	40694	N	ARG	G	119	252.732	134.896	-27.911	1.00	56.82	N	ATOM	40744	CD2	LEU	G	124	245.429	139.911	-33.037	1.00	48.15	C
ATOM	40695	CA	ARG	G	119	251.666	134.119	-28.537	1.00	56.82	C	ATOM	40745	N	MET	G	125	249.479	138.400	-36.092	1.00	72.21	N
ATOM	40696	C	ARG	G	119	250.599	134.982	-29.188	1.00	56.82	C	ATOM	40746	CA	MET	G	125	250.194	138.583	-37.343	1.00	72.21	C
ATOM	40697	O	ARG	G	119	250.124	134.663	-30.273	1.00	56.82	O	ATOM	40747	C	MET	G	125	249.804	137.461	-38.302	1.00	72.21	C
ATOM	40698	CB	ARG	G	119	250.997	133.199	-27.517	1.00	55.93	C	ATOM	40748	O	MET	G	125	249.506	137.719	-39.460	1.00	72.21	O
ATOM	40699	CG	ARG	G	119	251.856	132.055	-27.037	1.00	55.93	C	ATOM	40749	CB	MET	G	125	251.701	138.597	-37.079	1.00	81.04	C
ATOM	40700	CD	ARG	G	119	251.016	131.045	-26.291	1.00	55.93	C	ATOM	40750	CG	MET	G	125	252.112	139.656	-36.051	1.00	81.04	C
ATOM	40701	NE	ARG	G	119	250.405	131.632	-25.101	1.00	55.93	N	ATOM	40751	SD	MET	G	125	253.891	139.836	-35.761	1.00	81.04	S
ATOM	40702	C2	ARG	G	119	251.010	131.746	-23.920	1.00	55.93	C	ATOM	40752	CE	MET	G	125	254.326	138.169	-35.296	1.00	81.04	C
ATOM	40703	NH1	ARG	G	119	252.249	131.306	-23.749	1.00	55.93	N	ATOM	40753	N	ASP	G	126	249.789	136.221	-37.811	1.00	60.67	N
ATOM	40704	NH2	ARG	G	119	250.381	132.320	-22.908	1.00	55.93	N	ATOM	40754	CA	ASP	G	126	249.402	135.057	-38.618	1.00	60.67	C
ATOM	40705	N	ILE	G	120	250.211	136.069	-28.534	1.00	52.98	N	ATOM	40755	C	ASP	G	126	247.988	135.229	-39.168	1.00	60.67	C
ATOM	40706	CA	ILE	G	120	249.190	136.933	-29.104	1.00	52.98	C	ATOM	40756	O	ASP	G	126	247.684	134.824	-40.295	1.00	60.67	O
ATOM	40707	C	ILE	G	120	249.721	137.736	-30.289	1.00	52.98	C	ATOM	40757	CB	ASP	G	126	249.432	133.783	-37.771	1.00	94.29	C
ATOM	40708	O	ILE	G	120	249.075	137.804	-31.345	1.00	52.98	O	ATOM	40758	CG	ASP	G	126	250.821	133.217	-37.613	1.00	94.29	C
ATOM	40709	CB	ILE	G	120	248.625	137.876	-28.041	1.00	61.31	C	ATOM	40759	OD1	ASP	G	126	251.740	133.977	-37.246	1.00	94.29	O
ATOM	40710	CG1	ILE	G	120	247.895	137.047	-26.995	1.00	61.31	C	ATOM	40760	OD2	ASP	G	126	250.995	132.004	-37.847	1.00	94.29	O
ATOM	40711	CG2	ILE	G	120	247.671	138.896	-28.668	1.00	61.31	C	ATOM	40761	N	ALA	G	127	247.125	135.819	-38.349	1.00	70.32	N
ATOM	40712	CD1	ILE	G	120	247.370	137.860	-25.853	1.00	61.31	C	ATOM	40762	CA	ALA	G	127	245.739	136.046	-38.720	1.00	70.32	C
ATOM	40713	N	ILE	G	121	250.895	138.339	-30.116	1.00	65.41	N	ATOM	40763	C	ALA	G	127	245.657	137.039	-39.860	1.00	70.32	C
ATOM	40714	CA	ALA	G	121	251.510	139.123	-31.181	1.00	65.41	C	ATOM	40764	O	ALA	G	127	244.890	136.851	-40.798	1.00	70.32	O
ATOM	40715	C	ALA	G	121	251.595	138.248	-32.422	1.00	65.41	C	ATOM	40765	CB	ALA	G	127	244.961	136.558	-37.525	1.00	131.12	C



Table 2: Sheet 409/520

ATOM	40766	N	ALA G 128	246.441	138.106	-39.773	1.00	66.07	N	ATOM	40816	O	LYS G 136	239.319	126.758	-39.643	1.00	60.73	O
ATOM	40767	CA	ALA G 128	246.447	139.116	-40.824	1.00	66.07	C	ATOM	40817	CB	LYS G 136	242.536	126.662	-38.601	1.00	79.94	C
ATOM	40768	C	ALA G 128	246.931	138.446	-42.111	1.00	66.07	C	ATOM	40818	CG	LYS G 136	242.362	125.168	-38.870	1.00	79.94	C
ATOM	40769	O	ALA G 128	246.439	138.731	-43.209	1.00	66.07	O	ATOM	40819	CD	LYS G 136	241.036	124.614	-38.329	1.00	79.94	C
ATOM	40770	CB	ALA G 128	247.373	140.268	-40.436	1.00	54.12	C	ATOM	40820	CE	LYS G 136	240.874	124.855	-36.820	1.00	79.94	C
ATOM	40771	N	GLU G 129	247.895	137.543	-41.951	1.00	75.87	N	ATOM	40821	NZ	LYS G 136	239.606	124.284	-36.255	1.00	79.94	N
ATOM	40772	CA	GLU G 129	248.466	136.792	-43.059	1.00	75.87	C	ATOM	40822	N	LYS G 137	239.804	127.712	-37.665	1.00	61.20	N
ATOM	40773	C	GLU G 129	247.391	135.894	-43.651	1.00	75.87	C	ATOM	40823	CA	LYS G 137	238.462	127.527	-37.123	1.00	61.20	C
ATOM	40774	O	GLU G 129	247.176	135.876	-44.860	1.00	75.87	O	ATOM	40824	C	LYS G 137	237.483	128.317	-37.976	1.00	61.20	C
ATOM	40775	CB	GLU G 129	249.626	135.926	-42.562	1.00	159.58	C	ATOM	40825	O	LYS G 137	236.502	127.775	-38.495	1.00	61.20	O
ATOM	40776	CG	GLU G 129	250.857	136.702	-42.132	1.00	159.58	C	ATOM	40826	CB	LYS G 137	238.407	128.002	-35.667	1.00	98.55	C
ATOM	40777	CD	GLU G 129	251.676	137.175	-43.311	1.00	159.58	C	ATOM	40827	CG	LYS G 137	239.390	127.250	-34.778	1.00	98.55	C
ATOM	40778	OE1	GLU G 129	252.257	136.317	-44.008	1.00	159.58	O	ATOM	40828	CD	LYS G 137	239.445	127.758	-33.336	1.00	98.55	C
ATOM	40779	OE2	GLU G 129	251.736	138.399	-43.544	1.00	159.58	O	ATOM	40829	CE	LYS G 137	240.412	126.905	-32.515	1.00	98.55	C
ATOM	40780	N	GLY G 130	246.713	135.156	-42.782	1.00	53.51	N	ATOM	40830	NZ	LYS G 137	240.450	127.301	-31.093	1.00	98.55	N
ATOM	40781	CA	GLY G 130	245.675	134.253	-43.229	1.00	53.51	C	ATOM	40831	N	LYS G 138	237.759	129.601	-38.137	1.00	59.33	N
ATOM	40782	C	GLY G 130	246.019	132.847	-42.780	1.00	53.51	C	ATOM	40832	CA	LYS G 138	236.892	130.441	-38.939	1.00	59.33	C
ATOM	40783	O	GLY G 130	245.792	131.874	-43.501	1.00	53.51	O	ATOM	40833	C	LYS G 138	236.479	129.686	-40.194	1.00	59.33	C
ATOM	40784	N	LYS G 131	246.582	132.736	-41.584	1.00	74.07	N	ATOM	40834	O	LYS G 138	235.299	129.510	-40.468	1.00	59.33	O
ATOM	40785	CA	LYS G 131	246.948	131.439	-41.051	1.00	74.07	C	ATOM	40835	CB	LYS G 138	237.619	131.728	-39.316	1.00	54.26	C
ATOM	40786	C	LYS G 131	246.751	131.383	-39.542	1.00	74.07	C	ATOM	40836	CG	LYS G 138	236.818	132.664	-40.201	1.00	54.26	C
ATOM	40787	O	LYS G 131	246.232	132.323	-38.937	1.00	74.07	O	ATOM	40837	CD	LYS G 138	236.983	132.351	-41.673	1.00	54.26	C
ATOM	40788	CB	LYS G 131	248.394	131.123	-41.427	1.00	105.07	C	ATOM	40838	CE	LYS G 138	236.530	133.548	-42.505	1.00	54.26	C
ATOM	40789	CG	LYS G 131	249.303	132.330	-41.413	1.00	105.07	C	ATOM	40839	NZ	LYS G 138	236.771	133.383	-43.968	1.00	54.26	N
ATOM	40790	CD	LYS G 131	250.655	132.008	-42.028	1.00	105.07	C	ATOM	40840	N	GLU G 139	237.466	129.212	-40.938	1.00	69.03	N
ATOM	40791	CE	LYS G 131	251.547	133.239	-42.054	1.00	105.07	C	ATOM	40841	CA	GLU G 139	237.201	128.499	-42.174	1.00	69.03	C
ATOM	40792	NZ	LYS G 131	252.858	132.977	-42.700	1.00	105.07	N	ATOM	40842	C	GLU G 139	236.659	127.094	-41.956	1.00	69.03	C
ATOM	40793	N	GLY G 132	247.157	130.278	-38.932	1.00	79.03	N	ATOM	40843	O	GLU G 139	235.849	126.605	-42.749	1.00	69.03	O
ATOM	40794	CA	GLY G 132	246.987	130.141	-37.498	1.00	79.03	C	ATOM	40844	CB	GLU G 139	238.472	128.476	-43.020	1.00	100.57	C
ATOM	40795	C	GLY G 132	245.651	129.505	-37.172	1.00	79.03	C	ATOM	40845	CG	GLU G 139	239.062	129.867	-43.172	1.00	100.57	C
ATOM	40796	O	GLY G 132	244.723	129.540	-37.984	1.00	79.03	O	ATOM	40846	CD	GLU G 139	240.067	129.978	-44.293	1.00	100.57	C
ATOM	40797	N	GLY G 133	245.551	128.930	-35.978	1.00	81.18	N	ATOM	40847	OE1	GLU G 139	241.099	129.273	-44.248	1.00	100.57	O
ATOM	40798	CA	GLY G 133	244.322	128.270	-35.564	1.00	81.18	C	ATOM	40848	OE2	GLU G 139	239.817	130.783	-45.217	1.00	100.57	O
ATOM	40799	O	GLY G 133	243.062	129.102	-35.705	1.00	81.18	C	ATOM	40849	N	ASP G 140	237.095	126.443	-40.883	1.00	68.70	N
ATOM	40800	C	GLY G 133	241.999	128.581	-36.047	1.00	81.18	O	ATOM	40850	CA	ASP G 140	236.610	125.099	-40.587	1.00	68.70	C
ATOM	40801	N	ALA G 134	243.182	130.395	-35.428	1.00	59.00	N	ATOM	40851	C	ASP G 140	235.100	125.218	-40.404	1.00	68.70	C
ATOM	40802	CA	ALA G 134	242.052	131.300	-35.529	1.00	59.00	C	ATOM	40852	O	ASP G 140	234.328	124.366	-40.846	1.00	68.70	O
ATOM	40803	C	ALA G 134	241.390	131.079	-36.872	1.00	59.00	C	ATOM	40853	CB	ASP G 140	237.250	124.569	-39.303	1.00	140.78	C
ATOM	40804	O	ALA G 134	240.299	130.520	-36.957	1.00	59.00	O	ATOM	40854	CG	ASP G 140	237.945	123.237	-39.505	1.00	140.78	C
ATOM	40805	CB	ALA G 134	242.527	132.734	-35.414	1.00	67.05	C	ATOM	40855	OD1	ASP G 140	239.006	123.210	-40.167	1.00	140.78	O
ATOM	40806	N	VAL G 135	242.078	131.510	-37.924	1.00	63.08	N	ATOM	40856	OD2	ASP G 140	237.424	122.217	-39.005	1.00	140.78	O
ATOM	40807	CA	VAL G 135	241.577	131.383	-39.285	1.00	63.08	C	ATOM	40857	N	VAL G 141	234.698	126.301	-39.748	1.00	67.82	N
ATOM	40808	C	VAL G 135	241.171	129.954	-39.635	1.00	63.08	C	ATOM	40858	CA	VAL G 141	233.300	126.593	-39.497	1.00	67.82	C
ATOM	40809	O	VAL G 135	240.218	129.744	-40.380	1.00	63.08	O	ATOM	40859	C	VAL G 141	232.582	126.829	-40.810	1.00	67.82	C
ATOM	40810	CB	VAL G 135	242.624	131.876	-40.284	1.00	86.15	C	ATOM	40860	O	VAL G 141	231.716	126.053	-41.193	1.00	67.82	O
ATOM	40811	CG1	VAL G 135	242.055	131.856	-41.685	1.00	86.15	C	ATOM	40861	CB	VAL G 141	233.158	127.845	-38.634	1.00	43.16	C
ATOM	40812	CG2	VAL G 135	243.053	133.278	-39.907	1.00	86.15	C	ATOM	40862	CG1	VAL G 141	231.756	128.423	-38.778	1.00	43.16	C
ATOM	40813	N	LYS G 136	241.894	128.974	-39.102	1.00	60.73	N	ATOM	40863	CG2	VAL G 141	233.466	127.501	-37.187	1.00	43.16	C
ATOM	40814	CA	LYS G 136	241.565	127.576	-39.355	1.00	60.73	C	ATOM	40864	N	GLU G 142	232.936	127.913	-41.492	1.00	53.99	N
ATOM	40815	C	LYS G 136	240.123	127.314	-38.896	1.00	60.73	C	ATOM	40865	CA	GLU G 142	232.323	128.232	-42.772	1.00	53.99	C



Table 2: Sheet 410/520

ATOM	40866	C	GLU G 142	232.247	126.979	-43.652	1.00	53.99	C	ATOM	40916	CG	ASN G 148	225.914	120.253	-42.389	1.00	73.81	C
ATOM	40867	O	GLU G 142	231.272	126.776	-44.385	1.00	53.99	O	ATOM	40917	OD1	ASN G 148	225.607	119.075	-42.547	1.00	73.81	O
ATOM	40868	CB	GLU G 142	233.125	129.323	-43.478	1.00	73.59	C	ATOM	40918	ND2	ASN G 148	226.864	120.636	-41.554	1.00	73.81	N
ATOM	40869	CD	GLU G 142	233.025	130.678	-42.814	1.00	73.59	C	ATOM	40919	N	ARG G 149	224.635	122.473	-46.541	1.00	87.37	N
ATOM	40870	CD	GLU G 142	233.784	131.768	-43.556	1.00	73.59	C	ATOM	40920	CA	ARG G 149	223.765	123.271	-47.390	1.00	87.37	C
ATOM	40871	OE1	GLU G 142	233.573	132.957	-43.236	1.00	73.59	O	ATOM	40921	C	ARG G 149	222.326	122.763	-47.461	1.00	87.37	C
ATOM	40872	OE2	GLU G 142	234.594	131.443	-44.451	1.00	73.59	O	ATOM	40922	O	ARG G 149	221.415	123.421	-46.977	1.00	87.37	O
ATOM	40873	N	ARG G 143	233.277	126.138	-43.579	1.00	60.61	N	ATOM	40923	CB	ARG G 149	224.351	123.316	-48.796	1.00	115.23	O
ATOM	40874	CA	ARG G 143	233.302	124.910	-44.363	1.00	60.61	C	ATOM	40924	CG	ARG G 149	224.830	124.674	-49.236	1.00	115.23	C
ATOM	40875	C	ARG G 143	232.209	123.987	-43.843	1.00	60.61	C	ATOM	40925	CD	ARG G 149	223.673	125.523	-49.679	1.00	115.23	C
ATOM	40876	O	ARG G 143	231.472	123.394	-44.618	1.00	60.61	O	ATOM	40926	NE	ARG G 149	224.048	126.348	-50.820	1.00	115.23	N
ATOM	40877	CB	ARG G 143	234.660	124.225	-44.243	1.00	137.62	C	ATOM	40927	CZ	ARG G 149	223.180	127.008	-51.580	1.00	115.23	C
ATOM	40878	CG	ARG G 143	234.764	122.928	-45.018	1.00	137.62	C	ATOM	40928	NH1	ARG G 149	221.880	126.941	-51.318	1.00	115.23	N
ATOM	40879	CD	ARG G 143	235.171	121.791	-44.100	1.00	137.62	C	ATOM	40929	NH2	ARG G 149	223.614	127.724	-52.609	1.00	115.23	N
ATOM	40880	NE	ARG G 143	236.441	122.065	-43.434	1.00	137.62	C	ATOM	40930	N	ALA G 150	222.125	121.600	-48.073	1.00	77.09	N
ATOM	40881	CZ	ARG G 143	236.969	121.294	-42.489	1.00	137.62	C	ATOM	40931	CA	ALA G 150	220.795	121.005	-48.221	1.00	77.09	C
ATOM	40882	NH1	ARG G 143	236.337	120.197	-42.094	1.00	137.62	N	ATOM	40932	C	ALA G 150	219.835	121.345	-47.079	1.00	77.09	C
ATOM	40883	NH2	ARG G 143	238.131	121.620	-41.940	1.00	137.62	N	ATOM	40933	O	ALA G 150	218.670	121.670	-47.309	1.00	77.09	O
ATOM	40884	N	MET G 144	232.116	123.875	-42.521	1.00	72.52	N	ATOM	40934	CB	ALA G 150	220.920	119.490	-48.359	1.00	99.08	C
ATOM	40885	CA	MET G 144	231.109	123.038	-41.872	1.00	72.52	C	ATOM	40935	N	TYR G 151	220.338	121.275	-45.852	1.00	87.13	N
ATOM	40886	C	MET G 144	229.741	123.462	-42.388	1.00	72.52	C	ATOM	40936	CA	TYR G 151	219.551	121.559	-44.658	1.00	87.13	C
ATOM	40887	O	MET G 144	228.911	122.633	-42.744	1.00	72.52	O	ATOM	40937	C	TYR G 151	219.479	123.046	-44.374	1.00	87.13	C
ATOM	40888	CB	MET G 144	231.173	123.224	-40.354	1.00	136.91	C	ATOM	40938	O	TYR G 151	219.606	123.475	-43.231	1.00	87.13	O
ATOM	40889	CG	MET G 144	231.305	121.930	-39.584	1.00	136.91	C	ATOM	40939	CB	TYR G 151	220.190	120.867	-43.473	1.00	92.12	C
ATOM	40890	SD	MET G 144	229.984	120.774	-39.984	1.00	136.91	S	ATOM	40940	CD1	TYR G 151	221.407	118.712	-43.040	1.00	92.12	C
ATOM	40891	CE	MET G 144	228.829	121.084	-38.634	1.00	136.91	C	ATOM	40941	CD2	TYR G 151	219.482	118.662	-44.456	1.00	92.12	C
ATOM	40892	N	ALA G 145	229.504	124.767	-42.409	1.00	76.89	N	ATOM	40942	CE1	TYR G 151	221.559	117.340	-43.181	1.00	92.12	C
ATOM	40893	CA	ALA G 145	228.250	125.292	-42.926	1.00	76.89	C	ATOM	40943	CE2	TYR G 151	219.623	117.289	-44.603	1.00	92.12	C
ATOM	40894	C	ALA G 145	228.487	125.176	-44.409	1.00	76.89	O	ATOM	40944	CZ	TYR G 151	220.664	116.634	-43.960	1.00	92.12	C
ATOM	40895	O	ALA G 145	229.624	124.948	-44.817	1.00	76.89	O	ATOM	40945	OH	TYR G 151	220.805	115.271	-44.080	1.00	92.12	O
ATOM	40896	CB	ALA G 145	228.081	126.755	-42.533	1.00	81.92	C	ATOM	40946	N	ALA G 152	219.266	123.833	-45.415	1.00	80.43	N
ATOM	40897	N	GLU G 146	227.450	125.325	-45.222	1.00	83.59	N	ATOM	40947	CA	ALA G 152	219.209	125.275	-45.260	1.00	80.43	C
ATOM	40898	CA	GLU G 146	227.642	125.225	-46.668	1.00	83.59	C	ATOM	40948	C	ALA G 152	217.847	125.868	-45.549	1.00	80.43	C
ATOM	40899	C	GLU G 146	228.008	123.780	-47.027	1.00	83.59	O	ATOM	40949	O	ALA G 152	217.651	127.069	-45.363	1.00	80.43	O
ATOM	40900	O	GLU G 146	227.922	123.368	-48.176	1.00	83.59	O	ATOM	40950	CB	ALA G 152	220.246	125.933	-46.149	1.00	74.09	C
ATOM	40901	CB	GLU G 146	228.760	126.177	-47.118	1.00	182.82	C	ATOM	40951	N	HIS G 153	216.908	125.057	-46.027	1.00	114.00	N
ATOM	40902	CG	GLU G 146	228.521	126.910	-48.439	1.00	182.82	C	ATOM	40952	CA	HIS G 153	215.585	125.595	-46.286	1.00	114.00	C
ATOM	40903	CD	GLU G 146	228.567	126.005	-49.658	1.00	182.82	C	ATOM	40953	C	HIS G 153	214.839	125.643	-44.964	1.00	114.00	C
ATOM	40904	OE1	GLU G 146	227.647	125.182	-49.834	1.00	182.82	O	ATOM	40954	O	HIS G 153	213.612	125.623	-44.914	1.00	114.00	O
ATOM	40905	OE2	GLU G 146	229.528	126.120	-50.446	1.00	182.82	O	ATOM	40955	CB	HIS G 153	214.827	124.773	-47.333	1.00	80.79	C
ATOM	40906	N	ALA G 147	228.443	123.019	-46.034	1.00	81.37	N	ATOM	40956	CB	HIS G 153	214.753	123.310	-47.034	1.00	80.79	C
ATOM	40907	CA	ALA G 147	228.766	121.622	-46.250	1.00	81.37	C	ATOM	40957	CG	HIS G 153	215.872	122.515	-46.919	1.00	80.79	N
ATOM	40908	C	ALA G 147	227.476	120.927	-45.862	1.00	81.37	C	ATOM	40958	ND1	HIS G 153	213.689	122.487	-46.876	1.00	80.79	C
ATOM	40909	O	ALA G 147	227.247	119.775	-46.214	1.00	81.37	O	ATOM	40959	CD2	HIS G 153	215.500	121.265	-46.705	1.00	80.79	C
ATOM	40910	CB	ALA G 147	226.646	121.182	-45.338	1.00	99.78	C	ATOM	40960	CE1	HIS G 153	214.180	121.221	-46.675	1.00	80.79	N
ATOM	40911	N	ASN G 148	226.646	121.657	-45.116	1.00	94.13	N	ATOM	40961	NE2	HIS G 153	215.624	125.697	-43.892	1.00	111.38	N
ATOM	40912	CA	ASN G 148	225.346	121.180	-44.660	1.00	94.13	C	ATOM	40962	CA	TYR G 154	215.122	125.810	-42.529	1.00	111.38	C
ATOM	40913	C	ASN G 148	224.278	121.996	-45.359	1.00	94.13	C	ATOM	40963	N	TYR G 154	215.647	127.175	-42.097	1.00	111.38	C
ATOM	40914	O	ASN G 148	223.182	122.192	-44.845	1.00	94.13	O	ATOM	40964	C	TYR G 154	215.913	127.407	-40.921	1.00	111.38	O
ATOM	40915	CB	ASN G 148	225.210	121.343	-43.151	1.00	73.81	C	ATOM	40965	O	TYR G 154						



Table 2: Sheet 411/520

ATOM	40966	CB	TYR G 154	215.727	124.739	-41.620	1.00	93.55	C	ATOM	41016	CD2	LEU H	2	141.335	119.427	-37.387	1.00	55.90	C
ATOM	40967	CG	TYR G 154	215.492	123.301	-42.043	1.00	93.55	C	ATOM	41017	N	THR H	3	140.325	114.775	-36.450	1.00	57.40	N
ATOM	40968	CD1	TYR G 154	216.083	122.252	-41.338	1.00	93.55	C	ATOM	41018	CA	THR H	3	139.838	113.592	-35.784	1.00	57.40	C
ATOM	40969	CD2	TYR G 154	214.697	122.982	-43.146	1.00	93.55	C	ATOM	41019	C	THR H	3	138.799	114.000	-34.738	1.00	57.40	C
ATOM	40970	CE1	TYR G 154	215.896	120.927	-41.717	1.00	93.55	C	ATOM	41020	O	THR H	3	137.738	113.389	-34.645	1.00	57.40	O
ATOM	40971	CE2	TYR G 154	214.503	121.653	-43.532	1.00	93.55	C	ATOM	41021	CB	THR H	3	141.006	112.800	-35.138	1.00	55.74	C
ATOM	40972	CE3	TYR G 154	215.110	120.632	-42.812	1.00	93.55	C	ATOM	41022	OG1	THR H	3	141.671	113.601	-34.161	1.00	55.74	O
ATOM	40973	OH	TYR G 154	214.953	119.318	-43.191	1.00	93.55	C	ATOM	41023	CG2	THR H	3	142.024	112.424	-36.189	1.00	55.74	C
ATOM	40974	N	ARG G 155	215.811	128.051	-43.089	1.00	146.04	N	ATOM	41024	N	ASP H	4	139.084	115.047	-33.970	1.00	40.99	N
ATOM	40975	CA	ARG G 155	216.314	129.418	-42.931	1.00	146.04	C	ATOM	41025	CA	ASP H	4	138.147	115.497	-32.954	1.00	40.99	C
ATOM	40976	C	ARG G 155	216.488	129.918	-41.509	1.00	146.04	C	ATOM	41026	C	ASP H	4	138.024	117.007	-32.873	1.00	40.99	C
ATOM	40977	O	ARG G 155	217.539	130.467	-41.169	1.00	146.04	O	ATOM	41027	O	ASP H	4	138.797	117.669	-32.187	1.00	40.99	O
ATOM	40978	CB	ARG G 155	215.423	130.394	-43.704	1.00	179.71	C	ATOM	41028	CB	ASP H	4	138.530	114.955	-31.583	1.00	72.74	C
ATOM	40979	CG	ARG G 155	215.777	130.508	-45.177	1.00	179.71	C	ATOM	41029	CG	ASP H	4	137.720	115.592	-30.466	1.00	72.74	C
ATOM	40980	CD	ARG G 155	217.180	131.068	-45.342	1.00	179.71	C	ATOM	41030	OD1	ASP H	4	136.606	116.095	-30.744	1.00	72.74	O
ATOM	40981	NE	ARG G 155	217.582	131.159	-46.740	1.00	179.71	N	ATOM	41031	OD2	ASP H	4	138.186	115.582	-29.310	1.00	72.74	O
ATOM	40982	CZ	ARG G 155	218.743	131.661	-47.147	1.00	179.71	C	ATOM	41032	N	PRO H	5	137.017	117.566	-33.557	1.00	48.46	N
ATOM	40983	NH1	ARG G 155	219.615	132.118	-46.257	1.00	179.71	N	ATOM	41033	CA	PRO H	5	136.676	118.988	-33.651	1.00	48.46	C
ATOM	40984	NH2	ARG G 155	219.035	131.707	-48.440	1.00	179.71	N	ATOM	41034	C	PRO H	5	136.462	119.709	-32.329	1.00	48.46	C
ATOM	40985	N	TRP G 156	215.451	129.754	-40.692	1.00	167.26	N	ATOM	41035	O	PRO H	5	136.828	120.874	-32.188	1.00	48.46	O
ATOM	40986	CA	TRP G 156	215.385	131.689	-39.184	1.00	167.26	C	ATOM	41036	CB	PRO H	5	135.419	118.971	-34.499	1.00	34.82	C
ATOM	40987	C	TRP G 156	215.422	132.365	-40.235	1.00	167.26	O	ATOM	41037	CG	PRO H	5	135.659	117.805	-35.406	1.00	34.82	C
ATOM	40988	O	TRP G 156	216.822	129.723	-38.683	1.00	142.59	C	ATOM	41038	CD	PRO H	5	136.140	116.775	-34.433	1.00	34.82	C
ATOM	40989	CB	TRP G 156	216.733	129.331	-37.270	1.00	142.59	C	ATOM	41039	N	ILE H	6	135.848	119.034	-31.367	1.00	48.71	N
ATOM	40990	CG	TRP G 156	216.144	130.025	-36.261	1.00	142.59	C	ATOM	41040	CA	ILE H	6	135.618	119.655	-30.072	1.00	48.71	C
ATOM	40991	CD1	TRP G 156	217.304	128.162	-36.683	1.00	142.59	C	ATOM	41041	C	ILE H	6	136.968	119.911	-29.421	1.00	48.71	C
ATOM	40992	CD2	TRP G 156	216.316	129.360	-35.071	1.00	142.59	N	ATOM	41042	O	ILE H	6	137.253	121.013	-28.948	1.00	40.61	O
ATOM	40993	NE1	TRP G 156	217.025	128.212	-35.303	1.00	142.59	C	ATOM	41043	CB	ILE H	6	134.767	118.748	-29.145	1.00	30.61	C
ATOM	40994	CE2	TRP G 156	218.029	127.077	-37.191	1.00	142.59	C	ATOM	41044	CG1	ILE H	6	133.400	118.503	-29.781	1.00	30.61	C
ATOM	40995	CE3	TRP G 156	217.446	127.215	-34.419	1.00	142.59	C	ATOM	41045	CG2	ILE H	6	134.607	119.402	-27.762	1.00	30.61	C
ATOM	40996	CZ2	TRP G 156	218.448	126.087	-36.314	1.00	142.59	C	ATOM	41046	CD1	ILE H	6	132.633	119.764	-30.066	1.00	30.61	C
ATOM	40997	CZ3	TRP G 156	218.154	126.164	-34.941	1.00	142.59	C	ATOM	41047	N	ALA H	7	137.798	118.878	-29.401	1.00	55.15	N
ATOM	40998	CH2	TRP G 156	215.275	132.182	-38.042	1.00	142.59	O	ATOM	41048	CA	ALA H	7	139.117	119.000	-28.821	1.00	55.15	C
ATOM	40999	OXT	TRP G 156	142.542	115.718	-41.801	1.00	112.78	N	ATOM	41049	C	ALA H	7	139.854	120.093	-29.581	1.00	55.15	C
TER	41000	TRP G 156								ATOM	41050	O	ALA H	7	140.598	120.882	-29.002	1.00	55.15	O
ATOM	41001	N	MET H	1	141.143	115.945	-41.334	1.00	112.78	ATOM	41051	CB	ALA H	7	139.855	117.693	-28.941	1.00	25.92	C
ATOM	41002	CA	MET H	1	141.179	116.073	-39.824	1.00	112.78	ATOM	41052	N	ASP H	8	139.645	120.144	-30.888	1.00	49.41	N
ATOM	41003	C	MET H	1	142.155	115.673	-39.188	1.00	112.78	ATOM	41053	CA	ASP H	8	140.307	121.165	-31.673	1.00	49.41	C
ATOM	41004	O	MET H	1	140.257	114.760	-41.722	1.00	117.42	ATOM	41054	C	ASP H	8	139.975	122.544	-31.117	1.00	49.41	C
ATOM	41005	CB	MET H	1	138.779	114.946	-41.417	1.00	117.42	ATOM	41055	O	ASP H	8	140.862	123.275	-30.689	1.00	49.41	O
ATOM	41006	CG	MET H	1	137.864	113.381	-41.439	1.00	117.42	ATOM	41056	CB	ASP H	8	139.880	121.087	-33.128	1.00	55.84	C
ATOM	41007	SD	MET H	1	137.975	112.913	-43.198	1.00	117.42	ATOM	41057	CG	ASP H	8	140.531	122.150	-33.963	1.00	55.84	C
ATOM	41008	CE	MET H	1	140.125	116.635	-39.245	1.00	55.93	ATOM	41058	OD1	ASP H	8	141.773	122.243	-33.926	1.00	55.84	O
ATOM	41009	N	LEU H	2	140.086	116.779	-37.796	1.00	55.93	ATOM	41059	OD2	ASP H	8	139.808	122.893	-34.650	1.00	55.84	O
ATOM	41010	CA	LEU H	2	139.486	115.541	-37.130	1.00	55.93	ATOM	41060	CA	MET H	9	138.691	122.885	-31.115	1.00	53.51	N
ATOM	41011	C	LEU H	2	138.292	115.274	-37.236	1.00	55.93	ATOM	41061	N	MET H	9	138.236	124.169	-30.613	1.00	53.51	C
ATOM	41012	O	LEU H	2	139.289	118.023	-37.390	1.00	55.90	ATOM	41062	C	MET H	9	138.738	124.500	-29.209	1.00	53.51	C
ATOM	41013	CB	LEU H	2	139.860	119.392	-37.764	1.00	55.90	ATOM	41063	O	MET H	9	139.102	125.644	-28.921	1.00	53.51	O
ATOM	41014	CG	LEU H	2	139.084	120.514	-37.039	1.00	55.90	ATOM	41064	CB	MET H	9	136.716	124.216	-30.608	1.00	47.98	C
ATOM	41015	CD1	LEU H	2						ATOM	41065	CG	MET H	9	136.153	125.388	-29.811	1.00	47.98	C



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ATOM	41066	SD	MET H	9	134.357	125.408	-29.789	1.00	47.98	S	ATOM	41116	O	ASN H	15	147.258	130.688	-27.276	1.00	51.63	O
ATOM	41067	CE	MET H	9	134.030	124.185	-28.528	1.00	47.98	C	ATOM	41117	CB	ASN H	15	146.780	127.847	-28.856	1.00	49.15	C
ATOM	41068	N	LEU H	10	138.753	123.512	-28.328	1.00	38.66	N	ATOM	41118	CG	ASN H	15	147.177	126.376	-28.820	1.00	49.15	C
ATOM	41069	CA	LEU H	10	139.188	123.772	-26.970	1.00	38.66	C	ATOM	41119	OD1	ASN H	15	147.924	125.930	-27.949	1.00	49.15	O
ATOM	41070	C	LEU H	10	140.636	124.183	-26.967	1.00	38.66	C	ATOM	41120	ND2	ASN H	15	146.690	125.621	-29.798	1.00	49.15	N
ATOM	41071	O	LEU H	10	141.072	124.992	-26.117	1.00	38.66	O	ATOM	41121	N	ALA H	16	145.184	130.406	-28.108	1.00	36.52	N
ATOM	41072	CB	LEU H	10	139.006	122.527	-26.113	1.00	44.09	C	ATOM	41122	CA	ALA H	16	144.949	131.842	-28.289	1.00	36.52	C
ATOM	41073	CG	LEU H	10	137.554	122.076	-25.998	1.00	44.09	C	ATOM	41123	C	ALA H	16	145.031	132.615	-26.983	1.00	36.52	C
ATOM	41074	CD1	LEU H	10	137.526	120.619	-25.646	1.00	44.09	C	ATOM	41124	O	ALA H	16	145.596	133.701	-26.941	1.00	36.52	O
ATOM	41075	CD2	LEU H	10	136.809	122.920	-24.959	1.00	44.09	C	ATOM	41125	CB	ALA H	16	143.578	132.085	-28.951	1.00	15.49	C
ATOM	41076	N	THR H	11	141.382	123.623	-27.906	1.00	49.39	N	ATOM	41126	N	THR H	17	144.470	132.064	-25.915	1.00	43.08	N
ATOM	41077	CA	THR H	11	142.801	123.894	-27.994	1.00	49.39	C	ATOM	41127	CA	THR H	17	144.505	132.770	-24.644	1.00	43.08	C
ATOM	41078	C	THR H	11	143.082	125.244	-28.635	1.00	49.39	C	ATOM	41128	C	THR H	17	145.882	132.805	-23.992	1.00	43.08	C
ATOM	41079	O	THR H	11	143.966	125.972	-28.174	1.00	49.39	O	ATOM	41129	O	THR H	17	146.153	133.670	-23.153	1.00	43.08	O
ATOM	41080	CB	THR H	11	143.505	122.739	-28.733	1.00	44.25	C	ATOM	41130	CB	THR H	17	143.523	132.169	-23.640	1.00	48.69	C
ATOM	41081	CG1	THR H	11	143.346	121.538	-27.961	1.00	44.25	O	ATOM	41131	CG1	THR H	17	143.982	130.877	-23.218	1.00	48.69	O
ATOM	41082	CG2	THR H	11	144.990	123.023	-28.904	1.00	44.25	C	ATOM	41132	CG2	THR H	17	142.166	132.045	-24.276	1.00	48.69	C
ATOM	41083	N	ARG H	12	142.328	125.590	-29.678	1.00	39.79	N	ATOM	41133	N	ARG H	18	146.750	131.868	-24.365	1.00	50.97	N
ATOM	41084	CA	ARG H	12	142.501	126.882	-30.327	1.00	39.79	C	ATOM	41134	CA	ARG H	18	148.084	131.821	-23.790	1.00	50.97	C
ATOM	41085	C	ARG H	12	142.327	127.914	-29.225	1.00	39.79	C	ATOM	41135	C	ARG H	18	148.956	132.914	-24.369	1.00	50.97	C
ATOM	41086	O	ARG H	12	143.153	128.813	-29.065	1.00	39.79	O	ATOM	41136	O	ARG H	18	150.004	133.233	-23.817	1.00	50.97	O
ATOM	41087	CB	ARG H	12	141.445	127.107	-31.395	1.00	44.15	C	ATOM	41137	CB	ARG H	18	148.713	130.448	-24.008	1.00	81.33	C
ATOM	41088	CG	ARG H	12	141.436	126.072	-32.489	1.00	44.15	C	ATOM	41138	CG	ARG H	18	148.619	129.561	-22.790	1.00	81.33	C
ATOM	41089	CD	ARG H	12	140.950	126.696	-33.788	1.00	44.15	C	ATOM	41139	CD	ARG H	18	147.196	129.507	-22.289	1.00	81.33	C
ATOM	41090	NE	ARG H	12	140.823	125.718	-34.858	1.00	44.15	N	ATOM	41140	NE	ARG H	18	147.114	129.072	-20.899	1.00	81.33	N
ATOM	41091	C2	ARG H	12	140.994	126.001	-36.144	1.00	44.15	C	ATOM	41141	C2	ARG H	18	146.000	129.108	-20.172	1.00	81.33	C
ATOM	41092	NH1	ARG H	12	141.298	127.231	-36.527	1.00	44.15	N	ATOM	41142	NH1	ARG H	18	144.866	129.556	-20.704	1.00	81.33	N
ATOM	41093	NH2	ARG H	12	140.878	125.053	-37.055	1.00	44.15	N	ATOM	41143	NH2	ARG H	18	146.020	128.713	-18.906	1.00	81.33	N
ATOM	41094	N	ILE H	13	141.251	127.765	-28.453	1.00	39.05	N	ATOM	41144	N	VAL H	19	148.524	133.489	-25.484	1.00	58.37	N
ATOM	41095	CA	ILE H	13	140.985	128.671	-27.349	1.00	39.05	C	ATOM	41145	CA	VAL H	19	149.259	134.580	-26.104	1.00	58.37	C
ATOM	41096	C	ILE H	13	142.162	128.615	-26.392	1.00	39.05	C	ATOM	41146	C	VAL H	19	148.391	135.829	-26.060	1.00	58.37	C
ATOM	41097	O	ILE H	13	142.727	129.650	-26.034	1.00	39.05	O	ATOM	41147	O	VAL H	19	148.718	136.859	-26.648	1.00	58.37	O
ATOM	41098	CB	ILE H	13	139.672	128.293	-26.630	1.00	23.82	C	ATOM	41148	CB	VAL H	19	149.629	134.274	-27.557	1.00	36.46	C
ATOM	41099	CG1	ILE H	13	138.504	128.570	-27.581	1.00	23.82	C	ATOM	41149	CG1	VAL H	19	150.753	133.285	-27.595	1.00	36.46	C
ATOM	41100	CG2	ILE H	13	139.502	129.085	-25.328	1.00	23.82	C	ATOM	41150	CG2	VAL H	19	148.440	133.743	-28.296	1.00	36.46	C
ATOM	41101	CD1	ILE H	13	137.292	127.682	-27.381	1.00	23.82	C	ATOM	41151	N	TYR H	20	147.260	135.712	-25.378	1.00	44.25	N
ATOM	41102	N	ARG H	14	142.570	127.417	-25.999	1.00	42.31	N	ATOM	41152	CA	TYR H	20	146.361	136.831	-25.207	1.00	44.25	C
ATOM	41103	CA	ARG H	14	143.698	127.335	-25.081	1.00	42.31	C	ATOM	41153	C	TYR H	20	145.671	137.426	-26.420	1.00	44.25	C
ATOM	41104	O	ARG H	14	144.916	128.081	-25.631	1.00	42.31	O	ATOM	41154	O	TYR H	20	145.452	138.634	-26.455	1.00	44.25	O
ATOM	41105	CB	ARG H	14	145.489	128.926	-24.942	1.00	42.31	C	ATOM	41155	CB	TYR H	20	147.113	137.919	-24.478	1.00	38.79	C
ATOM	41106	CG	ARG H	14	144.090	125.886	-24.788	1.00	35.05	C	ATOM	41156	CG	TYR H	20	147.583	137.447	-23.145	1.00	38.79	C
ATOM	41107	CG	ARG H	14	145.026	125.795	-23.599	1.00	35.05	C	ATOM	41157	CD1	TYR H	20	146.821	137.678	-22.007	1.00	38.79	C
ATOM	41108	CD	ARG H	14	145.561	124.389	-23.347	1.00	35.05	C	ATOM	41158	CD2	TYR H	20	148.777	136.749	-23.016	1.00	38.79	C
ATOM	41109	NE	ARG H	14	144.508	123.395	-23.329	1.00	35.05	C	ATOM	41159	CE1	TYR H	20	147.230	137.230	-20.766	1.00	38.79	C
ATOM	41110	C2	ARG H	14	144.169	122.657	-24.384	1.00	35.05	N	ATOM	41160	CE2	TYR H	20	149.208	136.297	-21.778	1.00	38.79	C
ATOM	41111	NH1	ARG H	14	144.812	122.798	-25.536	1.00	35.05	N	ATOM	41161	C2	TYR H	20	148.423	136.544	-20.653	1.00	38.79	C
ATOM	41112	NH2	ARG H	14	143.166	121.787	-24.299	1.00	35.05	N	ATOM	41162	OH	TYR H	20	148.825	136.117	-19.409	1.00	38.79	O
ATOM	41113	N	ASN H	15	145.304	127.780	-26.870	1.00	51.63	N	ATOM	41163	N	LYS H	21	145.322	136.606	-27.407	1.00	35.66	N
ATOM	41114	CA	ASN H	15	146.468	128.427	-27.471	1.00	51.63	C	ATOM	41164	CA	LYS H	21	144.613	137.125	-28.571	1.00	35.66	C
ATOM	41115	C	ASN H	15	146.330	129.946	-27.608	1.00	51.63	C	ATOM	41165	C	LYS H	21	143.336	137.772	-28.049	1.00	35.66	C



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ATOM	41166	O	LYS H	21	142.978	137.581	-26.897	1.00	35.66	O	ATOM	41216	N	ALA H	28	132.910	126.537	-37.739	1.00	60.91	N
ATOM	41167	CB	LYS H	21	144.243	135.995	-29.538	1.00	58.35	C	ATOM	41217	CA	ALA H	28	131.543	126.440	-37.233	1.00	60.91	C
ATOM	41168	CG	LYS H	21	145.418	135.261	-30.143	1.00	58.35	C	ATOM	41218	O	ALA H	28	130.877	125.068	-37.297	1.00	60.91	C
ATOM	41169	CD	LYS H	21	146.613	136.195	-30.296	1.00	58.35	C	ATOM	41219	C	ALA H	28	130.996	124.349	-38.285	1.00	60.91	O
ATOM	41170	CE	LYS H	21	147.620	135.684	-31.305	1.00	58.35	C	ATOM	41220	CB	ALA H	28	130.672	127.466	-37.945	1.00	119.08	C
ATOM	41171	NZ	LYS H	21	147.006	135.702	-32.657	1.00	58.35	N	ATOM	41221	N	SER H	29	130.180	124.728	-36.215	1.00	40.03	N
ATOM	41172	N	GLU H	22	142.650	138.550	-28.873	1.00	56.79	N	ATOM	41222	CA	SER H	29	129.423	123.482	-36.067	1.00	40.03	C
ATOM	41173	CA	GLU H	22	141.405	139.149	-28.430	1.00	56.79	C	ATOM	41223	C	SER H	29	128.414	123.740	-34.938	1.00	40.03	C
ATOM	41174	C	GLU H	22	140.291	138.242	-28.964	1.00	56.79	C	ATOM	41224	O	SER H	29	128.774	124.331	-33.930	1.00	40.03	C
ATOM	41175	O	GLU H	22	139.436	137.773	-28.221	1.00	56.79	O	ATOM	41225	CB	SER H	29	130.333	122.320	-35.668	1.00	60.14	C
ATOM	41176	CB	GLU H	22	141.259	140.563	-28.982	1.00	116.42	C	ATOM	41226	OG	SER H	29	130.318	122.105	-34.262	1.00	60.14	O
ATOM	41177	CG	GLU H	22	140.074	141.300	-28.396	1.00	116.42	C	ATOM	41227	N	ARG H	30	127.164	123.312	-35.138	1.00	38.24	N
ATOM	41178	CD	GLU H	22	139.887	142.683	-28.980	1.00	116.42	C	ATOM	41228	CA	ARG H	30	126.112	123.511	-34.134	1.00	38.24	C
ATOM	41179	OE1	GLU H	22	139.638	142.782	-30.202	1.00	116.42	O	ATOM	41229	C	ARG H	30	126.618	123.133	-32.744	1.00	38.24	C
ATOM	41180	OE2	GLU H	22	139.985	143.670	-28.215	1.00	116.42	O	ATOM	41230	O	ARG H	30	126.649	123.957	-31.832	1.00	38.24	O
ATOM	41181	N	SER H	23	140.323	137.983	-30.264	1.00	44.70	N	ATOM	41231	CB	ARG H	30	124.874	122.673	-34.475	1.00	141.13	C
ATOM	41182	CA	SER H	23	139.350	137.125	-30.920	1.00	44.70	C	ATOM	41232	CD	ARG H	30	124.017	123.216	-35.619	1.00	141.13	C
ATOM	41183	C	SER H	23	140.049	135.797	-31.189	1.00	44.70	C	ATOM	41233	CD	ARG H	30	123.303	124.512	-35.237	1.00	141.13	C
ATOM	41184	O	SER H	23	141.107	135.535	-30.629	1.00	44.70	O	ATOM	41234	NE	ARG H	30	121.576	126.022	-36.163	1.00	141.13	C
ATOM	41185	CB	SER H	23	138.919	137.757	-32.242	1.00	109.39	C	ATOM	41235	CZ	ARG H	30	121.663	126.816	-35.104	1.00	141.13	N
ATOM	41186	OG	SER H	23	138.181	136.845	-33.031	1.00	109.39	O	ATOM	41236	NH1	ARG H	30	120.724	126.318	-37.135	1.00	141.13	N
ATOM	41187	N	THR H	24	139.459	134.970	-32.045	1.00	60.12	N	ATOM	41237	NH2	ARG H	30	127.033	121.881	-32.601	1.00	33.61	N
ATOM	41188	CA	THR H	24	140.024	133.673	-32.418	1.00	60.12	C	ATOM	41238	N	PHE H	31	127.543	121.372	-31.340	1.00	33.61	C
ATOM	41189	C	THR H	24	138.954	132.842	-33.105	1.00	60.12	C	ATOM	41239	CA	PHE H	31	128.576	122.327	-30.760	1.00	33.61	C
ATOM	41190	O	THR H	24	137.860	132.673	-32.575	1.00	60.12	O	ATOM	41240	O	PHE H	31	128.526	122.663	-29.570	1.00	33.61	O
ATOM	41191	CB	THR H	24	140.537	132.905	-31.206	1.00	51.27	C	ATOM	41241	O	PHE H	31	128.146	119.982	-31.563	1.00	43.99	C
ATOM	41192	OG1	THR H	24	140.925	131.585	-31.601	1.00	51.27	C	ATOM	41242	CB	PHE H	31	128.570	119.293	-30.309	1.00	43.99	C
ATOM	41193	CG2	THR H	24	139.472	132.826	-30.163	1.00	51.27	C	ATOM	41243	CG	PHE H	31	127.916	119.534	-29.108	1.00	43.99	C
ATOM	41194	N	ASP H	25	139.278	132.320	-34.283	1.00	58.37	N	ATOM	41244	CD1	PHE H	31	129.602	118.381	-30.330	1.00	43.99	C
ATOM	41195	CA	ASP H	25	138.325	131.546	-35.060	1.00	58.37	C	ATOM	41245	CD2	PHE H	31	128.291	118.869	-29.942	1.00	43.99	C
ATOM	41196	C	ASP H	25	138.438	130.044	-34.976	1.00	58.37	C	ATOM	41246	CE1	PHE H	31	129.981	117.715	-29.176	1.00	43.99	C
ATOM	41197	O	ASP H	25	139.533	129.477	-34.936	1.00	58.37	O	ATOM	41247	CE2	PHE H	31	129.323	117.961	-27.979	1.00	43.99	C
ATOM	41198	CB	ASP H	25	138.410	131.948	-36.520	1.00	69.84	C	ATOM	41248	CZ	PHE H	31	129.509	122.773	-31.599	1.00	35.40	N
ATOM	41199	CG	ASP H	25	138.180	133.410	-36.713	1.00	69.84	C	ATOM	41249	N	LYS H	32	130.533	123.703	-31.131	1.00	35.40	C
ATOM	41200	OD1	ASP H	25	138.072	134.118	-35.689	1.00	69.84	O	ATOM	41250	CA	LYS H	32	129.854	124.939	-30.556	1.00	35.40	O
ATOM	41201	OD2	ASP H	25	138.113	133.853	-37.881	1.00	69.84	O	ATOM	41251	C	LYS H	32	130.149	125.360	-29.430	1.00	35.40	C
ATOM	41202	N	VAL H	26	137.272	129.410	-34.969	1.00	43.68	N	ATOM	41252	O	LYS H	32	131.477	124.102	-32.272	1.00	49.36	C
ATOM	41203	CA	VAL H	26	137.162	127.968	-34.914	1.00	43.68	C	ATOM	41253	CB	LYS H	32	132.636	123.136	-32.517	1.00	49.36	C
ATOM	41204	C	VAL H	26	136.040	127.633	-35.895	1.00	43.68	C	ATOM	41254	CG	LYS H	32	133.331	123.475	-33.831	1.00	49.36	C
ATOM	41205	O	VAL H	26	134.986	128.257	-35.852	1.00	43.68	O	ATOM	41255	CD	LYS H	32	134.345	122.411	-34.247	1.00	49.36	C
ATOM	41206	CB	VAL H	26	136.834	127.474	-33.458	1.00	33.16	C	ATOM	41256	CE	LYS H	32	134.757	122.525	-35.687	1.00	49.36	N
ATOM	41207	CG1	VAL H	26	136.406	128.636	-32.589	1.00	33.16	C	ATOM	41257	N2	LYS H	32	128.925	125.502	-31.327	1.00	49.73	N
ATOM	41208	CG2	VAL H	26	135.733	126.438	-33.481	1.00	33.16	C	ATOM	41258	N	GLU H	33	128.201	126.691	-30.897	1.00	49.73	C
ATOM	41209	N	PRO H	27	136.277	126.672	-36.787	1.00	52.17	N	ATOM	41259	CA	GLU H	33	127.501	126.432	-29.560	1.00	49.73	C
ATOM	41210	CA	PRO H	27	135.311	126.225	-37.791	1.00	52.17	C	ATOM	41260	O	GLU H	33	127.441	127.321	-28.701	1.00	49.73	O
ATOM	41211	C	PRO H	27	133.960	125.971	-37.140	1.00	52.17	C	ATOM	41261	C	GLU H	33	127.201	127.108	-31.972	1.00	57.17	C
ATOM	41212	O	PRO H	27	133.878	125.263	-36.131	1.00	52.17	O	ATOM	41262	CB	GLU H	33	126.705	128.531	-31.828	1.00	57.17	C
ATOM	41213	CB	PRO H	27	135.944	124.947	-38.320	1.00	54.38	C	ATOM	41263	CG	GLU H	33	125.862	129.007	-33.020	1.00	57.17	C
ATOM	41214	CG	PRO H	27	137.395	125.244	-38.239	1.00	54.38	C	ATOM	41264	CD	GLU H	33	125.332	128.150	-33.786	1.00	57.17	O
ATOM	41215	CD	PRO H	27	137.514	125.877	-36.874	1.00	54.38	C	ATOM	41265	OE1	GLU H	33						



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ATOM	41266	OE2	GLU	H	33	125.722	130.249	-33.172	1.00	57.17	O	ATOM	41316	CG	LEU	H	39	133.412	127.830	-23.299	1.00	47.39	C
ATOM	41267	N	GLU	H	34	127.000	125.209	-29.374	1.00	49.59	N	ATOM	41317	CD1	LEU	H	39	134.047	127.532	-21.954	1.00	47.39	C
ATOM	41268	CA	GLU	H	34	126.325	124.835	-28.127	1.00	49.59	C	ATOM	41318	CD2	LEU	H	39	132.586	126.661	-23.759	1.00	47.39	C
ATOM	41269	C	GLU	H	34	127.288	124.966	-26.950	1.00	49.59	C	ATOM	41319	N	ALA	H	40	130.287	131.168	-22.653	1.00	48.33	N
ATOM	41270	O	GLU	H	34	126.988	125.645	-25.970	1.00	49.59	O	ATOM	41320	CA	ALA	H	40	129.900	132.557	-22.487	1.00	48.33	C
ATOM	41271	CB	GLU	H	34	125.796	123.401	-28.202	1.00	106.41	C	ATOM	41321	C	ALA	H	40	129.113	132.740	-21.199	1.00	48.33	C
ATOM	41272	CG	GLU	H	34	124.670	123.213	-29.204	1.00	106.41	C	ATOM	41322	O	ALA	H	40	129.537	133.465	-20.301	1.00	48.33	O
ATOM	41273	CD	GLU	H	34	123.442	124.055	-28.886	1.00	106.41	C	ATOM	41323	CB	ALA	H	40	129.082	132.991	-23.650	1.00	46.08	C
ATOM	41274	OE1	GLU	H	34	122.511	124.077	-29.722	1.00	106.41	O	ATOM	41324	N	ARG	H	41	127.959	132.081	-21.120	1.00	37.07	N
ATOM	41275	OE2	GLU	H	34	123.404	124.688	-27.806	1.00	106.41	O	ATOM	41325	CA	ARG	H	41	127.100	132.149	-19.944	1.00	37.07	C
ATOM	41276	N	ILE	H	35	128.445	124.316	-27.058	1.00	44.09	N	ATOM	41326	C	ARG	H	41	127.908	132.015	-18.662	1.00	37.07	C
ATOM	41277	CA	ILE	H	35	129.479	124.368	-26.028	1.00	44.09	C	ATOM	41327	O	ARG	H	41	127.685	132.737	-17.698	1.00	37.07	O
ATOM	41278	C	ILE	H	35	129.836	125.835	-25.746	1.00	44.09	C	ATOM	41328	CB	ARG	H	41	126.064	131.033	-20.001	1.00	60.01	C
ATOM	41279	O	ILE	H	35	129.855	126.291	-24.590	1.00	44.09	O	ATOM	41329	CG	ARG	H	41	125.033	131.075	-18.894	1.00	60.01	C
ATOM	41280	CB	ILE	H	35	130.734	123.600	-26.514	1.00	36.84	C	ATOM	41330	CD	ARG	H	41	124.202	129.812	-18.920	1.00	60.01	C
ATOM	41281	CG1	ILE	H	35	130.369	122.131	-26.715	1.00	36.84	C	ATOM	41331	NE	ARG	H	41	123.599	129.563	-20.229	1.00	60.01	N
ATOM	41282	CG2	ILE	H	35	131.882	123.739	-25.524	1.00	36.84	C	ATOM	41332	CZ	ARG	H	41	123.620	128.379	-20.841	1.00	60.01	C
ATOM	41283	CD1	ILE	H	35	131.350	121.372	-27.562	1.00	36.84	C	ATOM	41333	NH1	ARG	H	41	124.221	127.342	-20.261	1.00	60.01	N
ATOM	41284	N	LEU	H	36	130.100	126.578	-26.814	1.00	41.72	N	ATOM	41334	NH2	ARG	H	41	123.035	128.222	-22.024	1.00	60.01	N
ATOM	41285	CA	LEU	H	36	130.446	127.985	-26.678	1.00	41.72	C	ATOM	41335	N	GLU	H	42	128.853	131.085	-18.648	1.00	48.24	N
ATOM	41286	C	LEU	H	36	129.425	128.756	-25.839	1.00	41.72	C	ATOM	41336	CA	GLU	H	42	129.668	130.881	-17.463	1.00	48.24	C
ATOM	41287	O	LEU	H	36	129.804	129.531	-24.948	1.00	41.72	O	ATOM	41337	C	GLU	H	42	130.711	131.975	-17.278	1.00	48.24	C
ATOM	41288	CB	LEU	H	36	130.606	128.618	-28.062	1.00	37.88	C	ATOM	41338	O	GLU	H	42	131.483	131.949	-16.321	1.00	48.24	O
ATOM	41289	CG	LEU	H	36	131.854	128.135	-28.829	1.00	37.88	C	ATOM	41339	CB	GLU	H	42	130.335	129.513	-17.525	1.00	93.28	C
ATOM	41290	CD1	LEU	H	36	131.771	128.612	-30.291	1.00	37.88	C	ATOM	41340	CG	GLU	H	42	129.341	128.384	-17.492	1.00	93.28	C
ATOM	41291	CD2	LEU	H	36	133.140	128.633	-28.130	1.00	37.88	C	ATOM	41341	CD	GLU	H	42	128.341	128.552	-16.369	1.00	93.28	C
ATOM	41292	N	ARG	H	37	128.134	128.535	-26.099	1.00	43.41	N	ATOM	41342	OE1	GLU	H	42	128.781	128.768	-15.217	1.00	93.28	O
ATOM	41293	CA	ARG	H	37	127.117	129.235	-25.327	1.00	43.41	C	ATOM	41343	OE2	GLU	H	42	127.119	128.470	-16.640	1.00	93.28	O
ATOM	41294	C	ARG	H	37	127.333	129.058	-23.821	1.00	43.41	C	ATOM	41344	N	GLY	H	43	130.732	132.928	-18.203	1.00	58.83	N
ATOM	41295	O	ARG	H	37	127.125	129.993	-23.044	1.00	43.41	O	ATOM	41345	CA	GLY	H	43	131.665	134.037	-18.115	1.00	58.83	C
ATOM	41296	CB	ARG	H	37	125.713	128.770	-25.680	1.00	105.09	C	ATOM	41346	C	GLY	H	43	133.116	133.692	-18.378	1.00	58.83	C
ATOM	41297	CG	ARG	H	37	124.684	129.721	-25.100	1.00	105.09	C	ATOM	41347	O	GLY	H	43	134.018	134.349	-17.852	1.00	58.83	O
ATOM	41298	CD	ARG	H	37	123.308	129.128	-25.040	1.00	105.09	C	ATOM	41348	N	PHE	H	44	133.349	132.661	-19.186	1.00	54.36	N
ATOM	41299	NE	ARG	H	37	122.925	128.559	-26.315	1.00	105.09	C	ATOM	41349	CA	PHE	H	44	134.707	132.250	-19.508	1.00	54.36	C
ATOM	41300	CZ	ARG	H	37	121.702	128.138	-26.584	1.00	105.09	C	ATOM	41350	C	PHE	H	44	135.196	132.984	-20.734	1.00	54.36	C
ATOM	41301	NH1	ARG	H	37	120.755	128.237	-25.662	1.00	105.09	N	ATOM	41351	O	PHE	H	44	136.386	133.126	-20.945	1.00	54.36	O
ATOM	41302	NH2	ARG	H	37	121.435	127.604	-27.765	1.00	105.09	N	ATOM	41352	CB	PHE	H	44	134.769	130.735	-19.724	1.00	32.73	C
ATOM	41303	N	ILE	H	38	127.742	127.864	-23.400	1.00	45.73	N	ATOM	41353	CB	PHE	H	44	134.813	129.951	-18.446	1.00	32.73	C
ATOM	41304	CA	ILE	H	38	127.981	127.653	-21.986	1.00	45.73	C	ATOM	41354	CD1	PHE	H	44	135.904	130.062	-17.587	1.00	32.73	C
ATOM	41305	C	ILE	H	38	129.193	128.483	-21.600	1.00	45.73	C	ATOM	41355	CD2	PHE	H	44	133.771	129.103	-18.096	1.00	32.73	C
ATOM	41306	O	ILE	H	38	129.162	129.213	-20.599	1.00	45.73	O	ATOM	41356	CE1	PHE	H	44	135.963	129.339	-16.398	1.00	32.73	C
ATOM	41307	CB	ILE	H	38	128.286	126.181	-21.636	1.00	54.79	C	ATOM	41357	CE2	PHE	H	44	133.817	128.372	-16.909	1.00	32.73	C
ATOM	41308	CG1	ILE	H	38	127.063	125.317	-21.882	1.00	54.79	C	ATOM	41358	CZ	PHE	H	44	134.922	128.494	-16.060	1.00	32.73	C
ATOM	41309	CG2	ILE	H	38	128.654	126.058	-20.165	1.00	54.79	C	ATOM	41359	N	ILE	H	45	134.269	133.457	-21.546	1.00	43.59	N
ATOM	41310	CD1	ILE	H	38	126.688	125.250	-23.315	1.00	54.79	C	ATOM	41360	CA	ILE	H	45	134.639	134.196	-22.738	1.00	43.59	C
ATOM	41311	N	LEU	H	39	130.261	128.379	-22.390	1.00	54.68	N	ATOM	41361	C	ILE	H	45	133.756	135.428	-22.807	1.00	43.59	C
ATOM	41312	CA	LEU	H	39	131.464	129.132	-22.068	1.00	54.68	C	ATOM	41362	O	ILE	H	45	132.766	135.519	-22.096	1.00	43.59	O
ATOM	41313	C	LEU	H	39	131.116	130.589	-21.794	1.00	54.68	C	ATOM	41363	CB	ILE	H	45	134.445	133.337	-23.993	1.00	32.28	C
ATOM	41314	O	LEU	H	39	131.583	131.176	-20.818	1.00	54.68	O	ATOM	41364	CG1	ILE	H	45	132.971	132.973	-24.170	1.00	32.28	C
ATOM	41315	CB	LEU	H	39	132.502	129.055	-23.198	1.00	47.39	C	ATOM	41365	CG2	ILE	H	45	135.270	132.066	-23.865	1.00	32.28	C



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ATOM	41366	CD1	ILE H	45	132.724	131.960	-25.275	1.00	32.28	C	ATOM	41416	CB	VAL H	51	132.689	135.493	-38.391	1.00	59.05	C
ATOM	41367	N	LYS H	46	134.110	136.402	-23.627	1.00	73.52	N	ATOM	41417	CG1	VAL H	51	133.390	136.400	-39.357	1.00	59.05	C
ATOM	41368	CA	LYS H	46	133.259	137.573	-23.707	1.00	73.52	C	ATOM	41418	CG2	VAL H	51	132.357	136.241	-37.116	1.00	59.05	C
ATOM	41369	C	LYS H	46	132.007	137.182	-24.461	1.00	73.52	C	ATOM	41419	N	ASP H	52	131.975	134.776	-41.387	1.00	57.75	N
ATOM	41370	O	LYS H	46	130.949	137.762	-24.266	1.00	73.52	O	ATOM	41420	CA	ASP H	52	132.370	134.033	-42.582	1.00	57.75	C
ATOM	41371	CB	LYS H	46	133.952	138.720	-24.442	1.00	57.88	C	ATOM	41421	C	ASP H	52	133.830	134.319	-42.925	1.00	57.75	C
ATOM	41372	CG	LYS H	46	134.996	139.452	-23.633	1.00	57.88	C	ATOM	41422	O	ASP H	52	134.283	135.463	-42.884	1.00	57.75	O
ATOM	41373	CD	LYS H	46	135.251	140.809	-24.255	1.00	57.88	C	ATOM	41423	CB	ASP H	52	131.473	134.367	-43.781	1.00	83.42	C
ATOM	41374	CE	LYS H	46	136.271	141.612	-23.476	1.00	57.88	C	ATOM	41424	CG	ASP H	52	130.209	133.511	-43.827	1.00	83.42	C
ATOM	41375	NZ	LYS H	46	137.619	140.986	-23.548	1.00	57.88	N	ATOM	41425	OD1	ASP H	52	129.238	133.820	-43.105	1.00	83.42	O
ATOM	41376	N	GLY H	47	132.133	136.175	-25.312	1.00	45.31	N	ATOM	41426	OD2	ASP H	52	130.188	132.514	-44.580	1.00	83.42	O
ATOM	41377	CA	GLY H	47	131.011	135.742	-26.117	1.00	45.31	C	ATOM	41427	N	VAL H	53	134.572	133.263	-43.237	1.00	62.58	N
ATOM	41378	C	GLY H	47	131.556	135.282	-27.452	1.00	45.31	C	ATOM	41428	CA	VAL H	53	135.978	133.386	-43.591	1.00	62.58	C
ATOM	41379	O	GLY H	47	132.763	135.088	-27.591	1.00	45.31	O	ATOM	41429	C	VAL H	53	136.231	132.591	-44.850	1.00	62.58	C
ATOM	41380	N	TYR H	48	130.695	135.115	-28.444	1.00	48.77	N	ATOM	41430	O	VAL H	53	135.883	131.415	-44.921	1.00	62.58	O
ATOM	41381	CA	TYR H	48	131.163	134.654	-29.738	1.00	48.77	C	ATOM	41431	CB	VAL H	53	136.881	132.826	-42.500	1.00	58.49	C
ATOM	41382	C	TYR H	48	130.204	135.125	-30.807	1.00	48.77	C	ATOM	41432	CG1	VAL H	53	138.315	132.899	-42.950	1.00	58.49	C
ATOM	41383	O	TYR H	48	129.155	135.665	-30.486	1.00	48.77	O	ATOM	41433	CG2	VAL H	53	136.691	133.601	-41.219	1.00	58.49	C
ATOM	41384	CB	TYR H	48	131.199	133.139	-29.736	1.00	57.22	C	ATOM	41434	N	ASP H	54	136.841	133.231	-45.841	1.00	94.79	N
ATOM	41385	CG	TYR H	48	129.835	132.518	-29.874	1.00	57.22	C	ATOM	41435	CA	ASP H	54	137.135	132.565	-47.102	1.00	94.79	C
ATOM	41386	CD1	TYR H	48	129.314	132.221	-31.132	1.00	57.22	C	ATOM	41436	C	ASP H	54	135.865	131.901	-47.628	1.00	94.79	C
ATOM	41387	CD2	TYR H	48	129.055	132.241	-28.751	1.00	57.22	C	ATOM	41437	O	ASP H	54	135.920	130.910	-48.363	1.00	94.79	O
ATOM	41388	CE1	TYR H	48	128.051	131.661	-31.275	1.00	57.22	C	ATOM	41438	CB	ASP H	54	138.232	131.515	-46.902	1.00	200.58	C
ATOM	41389	CE2	TYR H	48	127.784	131.683	-28.877	1.00	57.22	C	ATOM	41439	CG	ASP H	54	138.598	130.797	-48.189	1.00	200.58	C
ATOM	41390	CZ	TYR H	48	127.288	131.395	-30.145	1.00	57.22	C	ATOM	41440	OD1	ASP H	54	139.038	131.470	-49.146	1.00	200.58	O
ATOM	41391	OH	TYR H	48	126.028	130.856	-30.236	1.00	57.22	O	ATOM	41441	OD2	ASP H	54	138.443	129.559	-48.244	1.00	200.58	O
ATOM	41392	N	GLU H	49	130.541	134.922	-32.074	1.00	44.58	N	ATOM	41442	N	GLY H	55	134.720	132.447	-47.232	1.00	67.79	N
ATOM	41393	CA	GLU H	49	129.640	135.337	-33.137	1.00	44.58	C	ATOM	41443	CA	GLY H	55	133.451	131.905	-47.684	1.00	67.79	C
ATOM	41394	C	GLU H	49	129.935	134.577	-34.409	1.00	44.58	C	ATOM	41444	C	GLY H	55	132.903	130.782	-46.826	1.00	67.79	C
ATOM	41395	O	GLU H	49	131.087	134.282	-34.699	1.00	44.58	O	ATOM	41445	O	GLY H	55	131.804	130.274	-47.078	1.00	67.79	O
ATOM	41396	CB	GLU H	49	129.751	136.838	-33.401	1.00	30.47	C	ATOM	41446	N	LYS H	56	133.668	130.395	-45.810	1.00	68.89	N
ATOM	41397	CG	GLU H	49	131.063	137.263	-34.006	1.00	30.47	C	ATOM	41447	CA	LYS H	56	133.258	129.327	-44.916	1.00	68.89	C
ATOM	41398	CD	GLU H	49	130.974	138.618	-34.678	1.00	30.47	C	ATOM	41448	C	LYS H	56	132.932	129.855	-43.524	1.00	68.89	C
ATOM	41399	OE1	GLU H	49	131.689	139.549	-34.246	1.00	30.47	O	ATOM	41449	O	LYS H	56	133.513	130.833	-43.061	1.00	68.89	O
ATOM	41400	OE2	GLU H	49	130.184	138.752	-35.635	1.00	30.47	O	ATOM	41450	CB	LYS H	56	134.350	128.259	-44.836	1.00	83.75	C
ATOM	41401	N	ARG H	50	128.887	134.234	-35.153	1.00	51.00	N	ATOM	41451	CG	LYS H	56	134.398	127.337	-46.041	1.00	83.75	C
ATOM	41402	CA	ARG H	50	129.051	133.519	-36.409	1.00	51.00	C	ATOM	41452	CD	LYS H	56	134.668	128.103	-47.315	1.00	83.75	C
ATOM	41403	C	ARG H	50	129.667	134.493	-37.390	1.00	51.00	C	ATOM	41453	CE	LYS H	56	134.559	127.217	-48.541	1.00	83.75	C
ATOM	41404	O	ARG H	50	129.191	135.610	-37.533	1.00	51.00	O	ATOM	41454	NZ	LYS H	56	134.765	128.026	-49.777	1.00	83.75	N
ATOM	41405	CB	ARG H	50	127.702	133.060	-36.934	1.00	60.24	C	ATOM	41455	N	PRO H	57	131.989	129.202	-42.839	1.00	49.92	N
ATOM	41406	CG	ARG H	50	127.040	132.040	-36.062	1.00	60.24	C	ATOM	41456	CA	PRO H	57	131.505	129.523	-41.492	1.00	49.92	C
ATOM	41407	CD	ARG H	50	125.647	131.742	-36.543	1.00	60.24	C	ATOM	41457	C	PRO H	57	132.427	129.213	-40.317	1.00	49.92	C
ATOM	41408	NE	ARG H	50	125.187	130.459	-36.037	1.00	60.24	C	ATOM	41458	O	PRO H	57	132.825	128.072	-40.116	1.00	49.92	O
ATOM	41409	CZ	ARG H	50	123.993	129.939	-36.300	1.00	60.24	N	ATOM	41459	CB	PRO H	57	130.222	128.723	-41.405	1.00	34.30	C
ATOM	41410	NH1	ARG H	50	123.134	130.602	-37.064	1.00	60.24	N	ATOM	41460	CG	PRO H	57	130.566	127.508	-42.206	1.00	34.30	C
ATOM	41411	NH2	ARG H	50	123.662	128.750	-35.803	1.00	60.24	N	ATOM	41461	CD	PRO H	57	131.217	128.090	-43.417	1.00	34.30	C
ATOM	41412	N	VAL H	51	130.722	134.071	-38.072	1.00	52.99	N	ATOM	41462	N	TYR H	58	132.744	130.241	-39.537	1.00	38.57	N
ATOM	41413	CA	VAL H	51	131.402	134.938	-39.023	1.00	52.99	C	ATOM	41463	CA	TYR H	58	133.585	130.104	-38.353	1.00	38.57	C
ATOM	41414	C	VAL H	51	131.765	134.126	-40.250	1.00	52.99	C	ATOM	41464	C	TYR H	58	132.867	130.672	-37.157	1.00	38.57	C
ATOM	41415	O	VAL H	51	131.836	132.910	-40.176	1.00	52.99	O	ATOM	41465	O	TYR H	58	131.701	131.044	-37.247	1.00	38.57	O



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ATOM	41466	CB	TYR H	58	134.907	130.846	-38.517	1.00	65.34	C	ATOM	41516	CB	LEU H	63	139.829	135.402	-25.486	1.00	43.52	C
ATOM	41467	CG	TYR H	58	135.826	130.140	-39.455	1.00	65.34	C	ATOM	41517	CG	LEU H	63	139.987	134.051	-26.153	1.00	43.52	C
ATOM	41468	CD1	TYR H	58	135.608	130.190	-40.826	1.00	65.34	C	ATOM	41518	CD1	LEU H	63	138.826	133.732	-27.069	1.00	43.52	C
ATOM	41469	CD2	TYR H	58	136.855	129.337	-38.975	1.00	65.34	C	ATOM	41519	CD2	LEU H	63	141.296	134.090	-26.898	1.00	43.52	C
ATOM	41470	CE1	TYR H	58	136.377	129.461	-41.693	1.00	65.34	C	ATOM	41520	N	LYS H	64	138.725	136.645	-22.971	1.00	52.07	N
ATOM	41471	CE2	TYR H	58	137.630	128.598	-39.836	1.00	65.34	C	ATOM	41521	CA	LYS H	64	138.795	137.653	-21.924	1.00	52.07	C
ATOM	41472	CZ	TYR H	58	137.383	128.664	-41.196	1.00	65.34	C	ATOM	41522	C	LYS H	64	139.781	137.224	-20.852	1.00	52.07	C
ATOM	41473	OH	TYR H	58	138.125	127.915	-42.077	1.00	65.34	O	ATOM	41523	O	LYS H	64	139.905	136.040	-20.556	1.00	52.07	O
ATOM	41474	N	LEU H	59	133.569	130.743	-36.035	1.00	47.85	N	ATOM	41524	CB	LYS H	64	137.398	137.914	-21.337	1.00	48.35	C
ATOM	41475	CA	LEU H	59	132.981	131.292	-34.832	1.00	47.85	C	ATOM	41525	CG	LYS H	64	136.957	137.064	-20.160	1.00	48.35	C
ATOM	41476	C	LEU H	59	133.999	132.163	-34.105	1.00	47.85	C	ATOM	41526	CD	LYS H	64	135.473	137.325	-19.888	1.00	48.35	C
ATOM	41477	O	LEU H	59	134.908	131.645	-33.467	1.00	47.85	O	ATOM	41527	CE	LYS H	64	135.111	137.171	-18.425	1.00	48.35	C
ATOM	41478	CB	LEU H	59	132.501	130.157	-33.926	1.00	41.36	C	ATOM	41528	NZ	LYS H	64	133.679	137.480	-18.210	1.00	48.35	N
ATOM	41479	CG	LEU H	59	131.338	129.303	-34.453	1.00	41.36	C	ATOM	41529	N	TYR H	65	140.480	138.199	-20.281	1.00	46.87	N
ATOM	41480	CD1	LEU H	59	131.241	128.014	-33.657	1.00	41.36	C	ATOM	41530	CA	TYR H	65	141.501	137.935	-19.282	1.00	46.87	C
ATOM	41481	CD2	LEU H	59	130.031	130.074	-34.358	1.00	41.36	C	ATOM	41531	C	TYR H	65	141.318	138.801	-18.068	1.00	46.87	C
ATOM	41482	N	ARG H	60	133.872	133.484	-34.224	1.00	40.23	N	ATOM	41532	O	TYR H	65	140.461	139.672	-18.052	1.00	46.87	O
ATOM	41483	CA	ARG H	60	134.790	134.374	-33.534	1.00	40.23	C	ATOM	41533	CB	TYR H	65	142.882	138.223	-19.874	1.00	34.35	C
ATOM	41484	C	ARG H	60	134.552	134.116	-32.075	1.00	40.23	C	ATOM	41534	CG	TYR H	65	143.059	137.652	-21.255	1.00	34.35	C
ATOM	41485	CB	ARG H	60	133.423	134.223	-31.609	1.00	40.23	O	ATOM	41535	CD1	TYR H	65	142.542	138.311	-22.364	1.00	34.35	C
ATOM	41486	CB	ARG H	60	134.471	135.845	-33.784	1.00	77.82	C	ATOM	41536	CD2	TYR H	65	143.671	136.414	-21.448	1.00	34.35	C
ATOM	41487	CG	ARG H	60	134.936	136.384	-35.091	1.00	77.82	C	ATOM	41537	CE1	TYR H	65	142.613	137.766	-23.630	1.00	34.35	C
ATOM	41488	CD	ARG H	60	136.428	136.560	-35.130	1.00	77.82	C	ATOM	41538	CE2	TYR H	65	143.753	135.851	-22.720	1.00	34.35	C
ATOM	41489	NE	ARG H	60	136.863	136.602	-36.517	1.00	77.82	N	ATOM	41539	CZ	TYR H	65	143.215	136.543	-23.809	1.00	34.35	C
ATOM	41490	CZ	ARG H	60	136.379	137.455	-37.409	1.00	77.82	C	ATOM	41540	OH	TYR H	65	143.269	136.009	-25.074	1.00	34.35	O
ATOM	41491	NH1	ARG H	60	135.458	138.336	-37.041	1.00	77.82	N	ATOM	41541	N	GLY H	66	142.142	138.564	-17.054	1.00	59.93	N
ATOM	41492	NH2	ARG H	60	136.787	137.407	-38.670	1.00	77.82	N	ATOM	41542	CA	GLY H	66	142.068	139.363	-15.849	1.00	59.93	C
ATOM	41493	N	VAL H	61	135.596	133.763	-31.349	1.00	41.07	N	ATOM	41543	C	GLY H	66	142.716	140.712	-16.106	1.00	59.93	C
ATOM	41494	CA	VAL H	61	135.437	133.547	-29.934	1.00	41.07	C	ATOM	41544	O	GLY H	66	142.948	141.087	-17.256	1.00	59.93	O
ATOM	41495	C	VAL H	61	136.142	134.703	-29.242	1.00	41.07	C	ATOM	41545	N	PRO H	67	143.013	141.478	-15.059	1.00	60.50	N
ATOM	41496	O	VAL H	61	137.370	134.804	-29.266	1.00	41.07	O	ATOM	41546	CA	PRO H	67	143.636	142.777	-15.281	1.00	60.50	C
ATOM	41497	CB	VAL H	61	136.052	132.206	-29.505	1.00	23.54	C	ATOM	41547	C	PRO H	67	145.160	142.668	-15.303	1.00	60.50	C
ATOM	41498	CG1	VAL H	61	136.000	132.067	-27.967	1.00	23.54	C	ATOM	41548	O	PRO H	67	145.711	141.614	-14.959	1.00	60.50	O
ATOM	41499	CG2	VAL H	61	135.309	131.056	-30.199	1.00	23.54	C	ATOM	41549	CB	PRO H	67	143.123	143.582	-14.101	1.00	37.44	C
ATOM	41500	N	TYR H	62	135.362	135.599	-28.654	1.00	37.71	N	ATOM	41550	CG	PRO H	67	143.125	142.582	-13.019	1.00	37.44	C
ATOM	41501	CA	TYR H	62	135.940	136.737	-27.954	1.00	37.71	C	ATOM	41551	CD	PRO H	67	142.515	141.373	-13.678	1.00	37.44	C
ATOM	41502	C	TYR H	62	136.443	136.346	-26.570	1.00	37.71	C	ATOM	41552	N	ARG H	68	145.824	143.752	-15.716	1.00	43.56	N
ATOM	41503	O	TYR H	62	135.668	136.144	-25.641	1.00	37.71	O	ATOM	41553	CA	ARG H	68	147.286	143.812	-15.776	1.00	43.56	C
ATOM	41504	CB	TYR H	62	134.910	137.856	-27.885	1.00	41.13	C	ATOM	41554	C	ARG H	68	147.819	143.574	-14.375	1.00	43.56	C
ATOM	41505	CG	TYR H	62	134.655	138.411	-29.262	1.00	41.13	C	ATOM	41555	O	ARG H	68	147.147	143.918	-13.403	1.00	43.56	O
ATOM	41506	CD1	TYR H	62	135.447	139.434	-29.776	1.00	41.13	C	ATOM	41556	CB	ARG H	68	147.734	145.182	-16.267	1.00	73.76	C
ATOM	41507	CD2	TYR H	62	133.696	137.847	-30.093	1.00	41.13	C	ATOM	41557	CG	ARG H	68	149.232	145.335	-16.439	1.00	73.76	C
ATOM	41508	CE1	TYR H	62	135.295	139.876	-31.079	1.00	41.13	C	ATOM	41558	CD	ARG H	68	149.504	146.580	-17.254	1.00	73.76	C
ATOM	41509	CE2	TYR H	62	133.542	138.283	-31.396	1.00	41.13	C	ATOM	41559	NE	ARG H	68	150.844	146.638	-17.833	1.00	73.76	N
ATOM	41510	CZ	TYR H	62	134.347	139.295	-31.883	1.00	41.13	C	ATOM	41560	CZ	ARG H	68	151.961	146.799	-17.135	1.00	73.76	C
ATOM	41511	OH	TYR H	62	134.226	139.700	-33.190	1.00	41.13	O	ATOM	41561	NH1	ARG H	68	151.912	146.910	-15.813	1.00	73.76	N
ATOM	41512	N	LEU H	63	137.760	136.220	-26.459	1.00	43.85	N	ATOM	41562	NH2	ARG H	68	153.123	146.895	-17.766	1.00	73.76	N
ATOM	41513	CA	LEU H	63	138.404	135.837	-25.214	1.00	43.85	C	ATOM	41563	N	ARG H	69	149.014	142.992	-14.263	1.00	48.65	N
ATOM	41514	C	LEU H	63	138.432	136.973	-24.228	1.00	43.85	C	ATOM	41564	CA	ARG H	69	149.577	142.692	-12.952	1.00	48.65	C
ATOM	41515	O	LEU H	63	138.207	138.127	-24.603	1.00	43.85	O	ATOM	41565	C	ARG H	69	150.794	143.532	-12.562	1.00	48.65	C



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ATOM	41566	O	ARG H	69	151.188	144.445	-13.290	1.00	48.65	O	ATOM	41616	NE	ARG H	75	153.334	136.454	-19.701	1.00	56.28	N
ATOM	41567	CB	ARG H	69	149.910	141.205	-12.872	1.00	109.40	C	ATOM	41617	C2	ARG H	75	153.823	135.304	-20.140	1.00	56.28	C
ATOM	41568	CG	ARG H	69	148.727	140.302	-13.205	1.00	109.40	C	ATOM	41618	NH1	ARG H	75	153.508	134.875	-21.358	1.00	56.28	N
ATOM	41569	CD	ARG H	69	149.041	138.867	-12.864	1.00	109.40	C	ATOM	41619	NH2	ARG H	75	154.623	134.586	-19.366	1.00	56.28	N
ATOM	41570	NE	ARG H	69	150.355	138.493	-13.371	1.00	109.40	N	ATOM	41620	N	PRO H	76	148.249	139.479	-17.521	1.00	43.44	N
ATOM	41571	C2	ARG H	69	150.960	137.344	-13.097	1.00	109.40	C	ATOM	41621	CA	PRO H	76	146.947	139.255	-16.894	1.00	43.44	C
ATOM	41572	NH1	ARG H	69	150.364	136.453	-12.315	1.00	109.40	N	ATOM	41622	C	PRO H	76	146.775	137.824	-16.399	1.00	43.44	C
ATOM	41573	NH2	ARG H	69	152.163	137.088	-13.600	1.00	109.40	N	ATOM	41623	O	PRO H	76	147.393	136.894	-16.930	1.00	43.44	O
ATOM	41574	N	GLN H	70	151.379	143.227	-11.404	1.00	64.74	N	ATOM	41624	CB	PRO H	76	145.962	139.535	-18.028	1.00	32.32	C
ATOM	41575	CA	GLN H	70	152.533	143.966	-10.895	1.00	64.74	C	ATOM	41625	CG	PRO H	76	146.709	140.416	-18.948	1.00	32.32	C
ATOM	41576	C	GLN H	70	153.842	143.206	-11.050	1.00	64.74	C	ATOM	41626	CD	PRO H	76	148.085	139.850	-18.933	1.00	32.32	C
ATOM	41577	O	GLN H	70	153.856	142.057	-11.501	1.00	64.74	O	ATOM	41627	N	GLU H	77	145.932	137.645	-15.386	1.00	50.30	N
ATOM	41578	CB	GLN H	70	152.325	144.305	-9.419	1.00	113.52	C	ATOM	41628	CA	GLU H	77	145.645	136.302	-14.916	1.00	50.30	C
ATOM	41579	CG	GLN H	70	151.101	145.152	-9.163	1.00	113.52	C	ATOM	41629	C	GLU H	77	144.674	135.805	-15.986	1.00	50.30	C
ATOM	41580	CD	GLN H	70	151.216	146.530	-9.780	1.00	113.52	C	ATOM	41630	O	GLU H	77	144.041	136.608	-16.669	1.00	50.30	O
ATOM	41581	OE1	GLN H	70	151.957	147.380	-9.290	1.00	113.52	O	ATOM	41631	CB	GLU H	77	144.955	136.317	-13.556	1.00	89.34	C
ATOM	41582	NE2	GLN H	70	150.488	146.757	-10.867	1.00	113.52	N	ATOM	41632	CG	GLU H	77	144.736	134.924	-13.007	1.00	89.34	C
ATOM	41583	N	GLY H	71	154.936	143.862	-10.661	1.00	66.05	N	ATOM	41633	CD	GLU H	77	144.073	134.914	-11.647	1.00	89.34	C
ATOM	41584	CA	GLY H	71	156.259	143.268	-10.752	1.00	66.05	C	ATOM	41634	OE1	GLU H	77	144.512	135.669	-10.753	1.00	89.34	O
ATOM	41585	C	GLY H	71	156.564	142.787	-12.154	1.00	66.05	C	ATOM	41635	OE2	GLU H	77	143.120	134.132	-11.462	1.00	89.34	O
ATOM	41586	O	GLY H	71	155.976	143.274	-13.115	1.00	66.05	O	ATOM	41636	N	GLN H	78	144.572	134.498	-16.159	1.00	58.16	N
ATOM	41587	N	PRO H	72	157.500	141.844	-12.310	1.00	55.03	N	ATOM	41637	CA	GLN H	78	143.664	133.956	-17.161	1.00	58.16	C
ATOM	41588	CA	PRO H	72	157.867	141.299	-13.623	1.00	55.03	C	ATOM	41638	C	GLN H	78	142.275	133.824	-16.571	1.00	58.16	C
ATOM	41589	C	PRO H	72	156.728	140.470	-14.186	1.00	55.03	C	ATOM	41639	O	GLN H	78	142.125	133.715	-15.357	1.00	58.16	O
ATOM	41590	O	PRO H	72	155.944	139.883	-13.437	1.00	55.03	O	ATOM	41640	CB	GLN H	78	144.125	132.570	-17.601	1.00	53.46	C
ATOM	41591	CB	PRO H	72	159.077	140.447	-13.312	1.00	30.39	C	ATOM	41641	CG	GLN H	78	145.414	132.551	-18.358	1.00	53.46	C
ATOM	41592	CG	PRO H	72	158.853	140.055	-11.882	1.00	30.39	C	ATOM	41642	CD	GLN H	78	145.267	133.126	-19.737	1.00	53.46	C
ATOM	41593	CD	PRO H	72	158.386	141.318	-11.261	1.00	30.39	C	ATOM	41643	OE1	GLN H	78	144.160	133.208	-20.269	1.00	53.46	O
ATOM	41594	N	ASP H	73	156.645	140.399	-15.505	1.00	67.59	N	ATOM	41644	NE2	GLN H	78	146.388	133.515	-20.341	1.00	53.46	N
ATOM	41595	CA	ASP H	73	155.565	139.656	-16.142	1.00	67.59	C	ATOM	41645	N	VAL H	79	141.260	133.844	-17.426	1.00	58.89	N
ATOM	41596	C	ASP H	73	154.255	140.176	-15.592	1.00	67.59	C	ATOM	41646	CA	VAL H	79	139.896	133.656	-16.953	1.00	58.89	C
ATOM	41597	O	ASP H	73	153.659	139.583	-14.696	1.00	67.59	O	ATOM	41647	C	VAL H	79	139.701	132.157	-17.105	1.00	58.89	C
ATOM	41598	CB	ASP H	73	155.656	138.157	-15.861	1.00	81.97	C	ATOM	41648	O	VAL H	79	139.119	131.506	-16.241	1.00	58.89	O
ATOM	41599	CG	ASP H	73	154.647	137.360	-16.671	1.00	81.97	C	ATOM	41649	CB	VAL H	79	138.887	134.423	-17.809	1.00	48.81	C
ATOM	41600	OD1	ASP H	73	154.495	136.143	-16.428	1.00	81.97	O	ATOM	41650	CG1	VAL H	79	137.471	134.156	-17.323	1.00	48.81	C
ATOM	41601	OD2	ASP H	73	154.007	137.962	-17.563	1.00	81.97	O	ATOM	41651	CG2	VAL H	79	139.200	135.906	-17.742	1.00	48.81	C
ATOM	41602	N	PRO H	74	153.799	141.311	-16.116	1.00	54.94	N	ATOM	41652	N	ILE H	80	140.213	131.624	-18.216	1.00	41.77	N
ATOM	41603	CA	PRO H	74	152.556	141.944	-15.702	1.00	54.94	C	ATOM	41653	CA	ILE H	80	140.185	130.193	-18.496	1.00	41.77	C
ATOM	41604	C	PRO H	74	151.411	141.322	-16.481	1.00	54.94	C	ATOM	41654	C	ILE H	80	141.553	129.655	-18.067	1.00	41.77	C
ATOM	41605	O	PRO H	74	150.310	141.881	-16.535	1.00	54.94	O	ATOM	41655	O	ILE H	80	142.513	129.672	-18.844	1.00	41.77	O
ATOM	41606	CB	PRO H	74	152.780	143.383	-16.100	1.00	45.85	C	ATOM	41656	CB	ILE H	80	140.044	129.887	-19.994	1.00	23.97	C
ATOM	41607	CG	PRO H	74	153.432	143.198	-17.425	1.00	45.85	C	ATOM	41657	CG1	ILE H	80	138.660	130.282	-20.493	1.00	23.97	C
ATOM	41608	CD	PRO H	74	154.474	142.134	-17.129	1.00	45.85	C	ATOM	41658	CG2	ILE H	80	140.290	128.405	-20.240	1.00	23.97	C
ATOM	41609	N	ARG H	75	151.676	140.173	-17.099	1.00	51.47	N	ATOM	41659	CD1	ILE H	80	138.376	129.832	-21.915	1.00	23.97	C
ATOM	41610	CA	ARG H	75	150.645	139.507	-17.871	1.00	51.47	C	ATOM	41660	N	HIS H	81	141.658	129.194	-16.830	1.00	50.31	N
ATOM	41611	C	ARG H	75	149.443	139.163	-17.014	1.00	51.47	C	ATOM	41661	CA	HIS H	81	142.926	128.669	-16.373	1.00	50.31	C
ATOM	41612	O	ARG H	75	149.569	138.618	-15.911	1.00	51.47	O	ATOM	41662	C	HIS H	81	143.179	127.313	-16.979	1.00	50.31	C
ATOM	41613	CB	ARG H	75	151.189	138.252	-18.539	1.00	56.28	C	ATOM	41663	O	HIS H	81	144.203	127.009	-17.418	1.00	50.31	O
ATOM	41614	CG	ARG H	75	152.054	138.559	-19.741	1.00	56.28	C	ATOM	41664	CB	HIS H	81	142.933	128.484	-14.867	1.00	59.14	C
ATOM	41615	CD	ARG H	75	152.447	137.302	-20.486	1.00	56.28	C	ATOM	41665	CG	HIS H	81	142.757	129.747	-14.102	1.00	59.14	C



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ATOM	41666	ND1	HIS	H	81	141.575	130.452	-14.100	1.00	59.14	N	ATOM	41716	CG2	ILE	H	86	136.431	113.228	-19.640	1.00	43.30	C
ATOM	41667	CD2	HIS	H	81	143.606	130.425	-13.295	1.00	59.14	C	ATOM	41717	CD1	ILE	H	86	136.440	116.035	-18.296	1.00	43.30	C
ATOM	41668	CE1	HIS	H	81	141.703	131.512	-13.322	1.00	59.14	C	ATOM	41718	N	SER	H	87	135.895	113.237	-22.749	1.00	36.10	N
ATOM	41669	NE2	HIS	H	81	142.926	131.518	-12.821	1.00	59.14	N	ATOM	41719	CA	SER	H	87	135.401	112.215	-23.649	1.00	36.10	C
ATOM	41670	N	HIS	H	82	142.133	126.504	-17.013	1.00	43.07	N	ATOM	41720	C	SER	H	87	136.146	112.474	-24.956	1.00	36.10	C
ATOM	41671	CA	HIS	H	82	142.234	125.135	-17.468	1.00	43.07	C	ATOM	41721	O	SER	H	87	136.229	113.619	-25.385	1.00	36.10	O
ATOM	41672	C	HIS	H	82	141.050	124.778	-18.351	1.00	43.07	C	ATOM	41722	CB	SER	H	87	133.898	112.380	-23.856	1.00	49.61	C
ATOM	41673	O	HIS	H	82	139.925	125.197	-18.075	1.00	43.07	O	ATOM	41723	OG	SER	H	87	133.409	111.417	-24.773	1.00	49.61	O
ATOM	41674	CB	HIS	H	82	142.260	124.277	-16.206	1.00	57.50	C	ATOM	41724	N	LYS	H	88	136.722	111.431	-25.555	1.00	28.24	N
ATOM	41675	CG	HIS	H	82	142.243	122.807	-16.449	1.00	57.50	C	ATOM	41725	CA	LYS	H	88	137.445	111.553	-26.837	1.00	28.24	C
ATOM	41676	ND1	HIS	H	82	143.392	122.050	-16.495	1.00	57.50	N	ATOM	41726	C	LYS	H	88	137.177	110.308	-27.667	1.00	28.24	C
ATOM	41677	CD2	HIS	H	82	141.212	121.939	-16.587	1.00	57.50	C	ATOM	41727	O	LYS	H	88	136.842	109.261	-27.124	1.00	28.24	O
ATOM	41678	CE1	HIS	H	82	143.071	120.777	-16.645	1.00	57.50	C	ATOM	41728	CB	LYS	H	88	138.957	111.629	-26.647	1.00	50.48	C
ATOM	41679	NE2	HIS	H	82	141.754	120.683	-16.702	1.00	57.50	N	ATOM	41729	CG	LYS	H	88	139.443	112.468	-25.506	1.00	50.48	C
ATOM	41680	N	ILE	H	83	141.302	124.037	-19.418	1.00	35.52	N	ATOM	41730	CD	LYS	H	88	140.932	112.339	-25.441	1.00	50.48	C
ATOM	41681	CA	ILE	H	83	140.242	123.610	-20.330	1.00	35.52	C	ATOM	41731	CE	LYS	H	88	141.461	112.824	-24.130	1.00	50.48	C
ATOM	41682	C	ILE	H	83	140.752	122.353	-21.038	1.00	35.52	C	ATOM	41732	NZ	LYS	H	88	142.904	112.458	-24.019	1.00	50.48	N
ATOM	41683	O	ILE	H	83	141.646	122.429	-21.883	1.00	35.52	O	ATOM	41733	N	PRO	H	89	137.345	110.395	-28.991	1.00	32.18	N
ATOM	41684	CB	ILE	H	83	139.902	124.718	-21.358	1.00	29.61	C	ATOM	41734	CA	PRO	H	89	137.104	109.222	-29.852	1.00	32.18	C
ATOM	41685	CG1	ILE	H	83	138.801	124.239	-22.297	1.00	29.61	C	ATOM	41735	C	PRO	H	89	138.036	108.062	-29.515	1.00	32.18	C
ATOM	41686	CG2	ILE	H	83	141.136	125.110	-22.159	1.00	29.61	C	ATOM	41736	O	PRO	H	89	139.126	108.259	-28.980	1.00	32.18	O
ATOM	41687	CD1	ILE	H	83	138.511	125.208	-23.427	1.00	29.61	C	ATOM	41737	CB	PRO	H	89	137.309	109.771	-31.257	1.00	32.43	C
ATOM	41688	N	ARG	H	84	140.193	121.194	-20.685	1.00	41.94	N	ATOM	41738	CG	PRO	H	89	138.196	110.993	-31.033	1.00	32.43	C
ATOM	41689	CA	ARG	H	84	140.646	119.931	-21.249	1.00	41.94	C	ATOM	41739	CD	PRO	H	89	137.696	111.590	-29.770	1.00	32.43	C
ATOM	41690	C	ARG	H	84	139.576	118.955	-21.701	1.00	41.94	C	ATOM	41740	CA	GLY	H	90	137.627	106.837	-29.791	1.00	100.64	N
ATOM	41691	O	ARG	H	84	138.614	118.720	-20.983	1.00	41.94	O	ATOM	41741	N	GLY	H	90	138.515	105.747	-29.435	1.00	100.64	C
ATOM	41692	CB	ARG	H	84	141.537	119.227	-20.233	1.00	88.34	C	ATOM	41742	C	GLY	H	90	138.644	105.645	-27.922	1.00	100.64	C
ATOM	41693	CG	ARG	H	84	142.043	117.904	-20.727	1.00	88.34	C	ATOM	41743	O	GLY	H	90	139.394	104.813	-27.411	1.00	100.64	O
ATOM	41694	CD	ARG	H	84	141.647	116.812	-19.789	1.00	88.34	C	ATOM	41744	N	ARG	H	91	137.940	106.526	-27.212	1.00	41.10	N
ATOM	41695	NE	ARG	H	84	142.376	116.911	-18.539	1.00	88.34	N	ATOM	41745	CA	ARG	H	91	137.899	106.503	-25.756	1.00	41.10	C
ATOM	41696	CZ	ARG	H	84	142.152	116.125	-17.495	1.00	88.34	C	ATOM	41746	C	ARG	H	91	136.805	107.415	-25.202	1.00	41.10	C
ATOM	41697	NH1	ARG	H	84	141.215	115.189	-17.564	1.00	88.34	N	ATOM	41747	O	ARG	H	91	137.097	108.458	-24.618	1.00	41.10	O
ATOM	41698	NH2	ARG	H	84	142.867	116.272	-16.386	1.00	88.34	N	ATOM	41748	CB	ARG	H	91	139.234	106.906	-25.187	1.00	47.01	C
ATOM	41699	N	ARG	H	85	139.755	118.365	-22.881	1.00	47.01	N	ATOM	41749	CG	ARG	H	91	139.632	106.118	-23.948	1.00	47.01	C
ATOM	41700	CA	ARG	H	85	138.796	117.392	-23.381	1.00	47.01	C	ATOM	41750	CD	ARG	H	91	138.686	106.246	-22.769	1.00	47.01	C
ATOM	41701	C	ARG	H	85	138.874	116.143	-22.552	1.00	47.01	C	ATOM	41751	NE	ARG	H	91	139.422	105.985	-21.525	1.00	47.01	C
ATOM	41702	O	ARG	H	85	139.962	115.707	-22.168	1.00	47.01	O	ATOM	41752	CZ	ARG	H	91	138.857	105.622	-20.378	1.00	47.01	C
ATOM	41703	CB	ARG	H	85	139.067	117.004	-24.825	1.00	41.44	C	ATOM	41753	NH1	ARG	H	91	137.533	105.470	-20.322	1.00	47.01	N
ATOM	41704	CG	ARG	H	85	138.041	117.564	-25.766	1.00	41.44	C	ATOM	41754	NH2	ARG	H	91	139.606	105.418	-19.296	1.00	47.01	N
ATOM	41705	CD	ARG	H	85	137.476	116.528	-26.687	1.00	41.44	C	ATOM	41755	N	ARG	H	92	135.548	107.017	-25.381	1.00	36.65	N
ATOM	41706	NE	ARG	H	85	136.085	116.217	-26.391	1.00	41.44	N	ATOM	41756	CA	ARG	H	92	134.410	107.803	-24.908	1.00	36.65	C
ATOM	41707	CZ	ARG	H	85	135.298	115.557	-27.235	1.00	41.44	C	ATOM	41757	C	ARG	H	92	134.169	107.741	-23.398	1.00	36.65	C
ATOM	41708	NH1	ARG	H	85	135.788	115.169	-28.405	1.00	41.44	N	ATOM	41758	O	ARG	H	92	134.482	106.740	-22.744	1.00	36.65	O
ATOM	41709	NH2	ARG	H	85	134.038	115.255	-26.913	1.00	41.44	N	ATOM	41759	CB	ARG	H	92	133.144	107.357	-25.629	1.00	47.09	C
ATOM	41710	N	ILE	H	86	137.715	115.558	-22.286	1.00	48.63	N	ATOM	41760	CG	ARG	H	92	132.550	108.421	-26.530	1.00	47.09	C
ATOM	41711	CA	ILE	H	86	137.643	114.346	-21.501	1.00	48.63	C	ATOM	41761	CD	ARG	H	92	133.375	108.658	-27.767	1.00	47.09	C
ATOM	41712	C	ILE	H	86	137.170	113.234	-22.400	1.00	48.63	C	ATOM	41762	NE	ARG	H	92	133.171	110.015	-28.253	1.00	47.09	N
ATOM	41713	O	ILE	H	86	137.952	112.379	-22.784	1.00	48.63	O	ATOM	41763	CZ	ARG	H	92	133.310	110.379	-29.523	1.00	47.09	C
ATOM	41714	CB	ILE	H	86	136.708	114.546	-20.326	1.00	43.30	C	ATOM	41764	NH1	ARG	H	92	133.648	109.479	-30.437	1.00	47.09	N
ATOM	41715	CG1	ILE	H	86	137.356	115.545	-19.371	1.00	43.30	C	ATOM	41765	NH2	ARG	H	92	133.126	111.644	-29.882	1.00	47.09	N



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ATOM 41766	N	VAL H 93	133.602	108.808	-22.840	1.00	37.62	N	ATOM 41816	CB	GLU H 99	129.115	109.028	-12.246	1.00	100.39	C
ATOM 41767	CA	VAL H 93	133.337	108.847	-21.405	1.00	37.62	C	ATOM 41817	CG	GLU H 99	128.653	107.663	-11.792	1.00	100.39	C
ATOM 41768	C	VAL H 93	131.936	109.294	-21.035	1.00	37.62	C	ATOM 41818	CD	GLU H 99	128.868	106.609	-12.869	1.00	100.39	C
ATOM 41769	O	VAL H 93	131.573	110.440	-21.259	1.00	37.62	O	ATOM 41819	OE1	GLU H 99	128.224	106.697	-13.939	1.00	100.39	O
ATOM 41770	CB	VAL H 93	134.333	109.753	-20.702	1.00	19.75	C	ATOM 41820	OE2	GLU H 99	129.690	105.694	-12.648	1.00	100.39	O
ATOM 41771	CG1	VAL H 93	133.830	110.122	-19.309	1.00	19.75	C	ATOM 41821	N	ILE H 100	128.630	112.473	-12.019	1.00	48.95	N
ATOM 41772	CG2	VAL H 93	135.647	109.043	-20.598	1.00	19.75	C	ATOM 41822	CA	ILE H 100	129.076	113.734	-12.574	1.00	48.95	C
ATOM 41773	N	TYR H 94	131.169	108.388	-20.433	1.00	46.97	N	ATOM 41823	O	ILE H 100	129.788	114.343	-11.623	1.00	48.95	C
ATOM 41774	CA	TYR H 94	129.788	108.662	-20.037	1.00	46.97	C	ATOM 41824	O	ILE H 100	127.904	114.688	-12.733	1.00	50.04	C
ATOM 41775	C	TYR H 94	129.549	108.549	-18.530	1.00	46.97	C	ATOM 41825	CB	ILE H 100	126.924	114.130	-13.765	1.00	50.04	C
ATOM 41776	O	TYR H 94	130.013	107.615	-17.889	1.00	46.97	O	ATOM 41826	CG1	ILE H 100	128.413	116.050	-13.129	1.00	50.04	C
ATOM 41777	CB	TYR H 94	128.859	107.684	-20.746	1.00	38.25	C	ATOM 41827	CG2	ILE H 100	125.658	114.941	-13.908	1.00	50.04	C
ATOM 41778	CG	TYR H 94	129.026	107.649	-22.244	1.00	38.25	C	ATOM 41828	CD1	ILE H 100	131.313	114.566	-12.096	1.00	58.90	N
ATOM 41779	CD1	TYR H 94	129.421	106.490	-22.901	1.00	38.25	C	ATOM 41829	N	PRO H 101	132.356	115.146	-11.251	1.00	58.90	C
ATOM 41780	CE1	TYR H 94	128.757	108.767	-23.005	1.00	38.25	C	ATOM 41830	CA	PRO H 101	132.134	116.613	-10.908	1.00	58.90	C
ATOM 41781	CE2	TYR H 94	129.540	106.452	-24.285	1.00	38.25	C	ATOM 41831	C	PRO H 101	131.519	117.347	-11.674	1.00	58.90	O
ATOM 41782	CE2	TYR H 94	128.868	108.741	-24.377	1.00	38.25	C	ATOM 41832	O	PRO H 101	133.601	114.945	-12.089	1.00	61.04	C
ATOM 41783	CZ	TYR H 94	129.261	107.587	-25.015	1.00	38.25	C	ATOM 41833	CB	PRO H 101	132.635	117.024	-9.746	1.00	57.03	N
ATOM 41784	OH	TYR H 94	129.379	107.614	-26.392	1.00	38.25	C	ATOM 41834	CG	PRO H 101	134.849	118.810	-8.734	1.00	57.03	C
ATOM 41785	N	VAL H 95	128.818	109.492	-17.955	1.00	43.95	N	ATOM 41835	CD	PRO H 101	132.123	118.480	-7.838	1.00	123.98	C
ATOM 41786	CA	VAL H 95	128.542	109.404	-16.532	1.00	43.95	C	ATOM 41836	N	ARG H 102	130.300	117.907	-6.218	1.00	123.98	N
ATOM 41787	C	VAL H 95	127.066	109.474	-16.230	1.00	43.95	C	ATOM 41837	CA	ARG H 102	128.361	116.897	-5.076	1.00	123.98	C
ATOM 41788	O	VAL H 95	126.288	110.048	-16.996	1.00	43.95	O	ATOM 41838	C	ARG H 102	129.060	116.767	-3.954	1.00	123.98	N
ATOM 41789	CB	VAL H 95	129.223	110.508	-15.749	1.00	37.25	C	ATOM 41839	O	ARG H 102	134.005	119.854	-10.547	1.00	50.41	N
ATOM 41790	CG1	VAL H 95	130.717	110.333	-15.834	1.00	37.25	C	ATOM 41840	CB	ARG H 102	135.687	121.587	-9.881	1.00	50.41	C
ATOM 41791	CG2	VAL H 95	128.809	111.851	-16.288	1.00	37.25	C	ATOM 41841	CG	ARG H 102	134.915	122.468	-9.511	1.00	50.41	O
ATOM 41792	N	GLY H 96	126.689	108.859	-15.113	1.00	45.93	N	ATOM 41842	CD	ARG H 102	135.078	121.173	-12.278	1.00	36.91	C
ATOM 41793	CA	GLY H 96	125.309	108.870	-14.667	1.00	45.93	C	ATOM 41843	NE	ARG H 102	136.341	121.905	-12.663	1.00	36.91	C
ATOM 41794	C	GLY H 96	125.181	110.112	-13.818	1.00	45.93	C	ATOM 41844	CZ	ARG H 102	134.708	120.085	-13.307	1.00	36.91	C
ATOM 41795	O	GLY H 96	126.173	110.612	-13.302	1.00	45.93	O	ATOM 41845	NH1	ARG H 102	136.941	121.484	-9.444	1.00	65.97	N
ATOM 41796	N	VAL H 97	123.972	110.619	-13.665	1.00	70.19	N	ATOM 41846	NH2	ARG H 102	137.530	122.400	-8.461	1.00	65.97	C
ATOM 41797	CA	VAL H 97	123.776	111.835	-12.896	1.00	70.19	C	ATOM 41847	N	VAL H 103	136.528	122.829	-7.402	1.00	65.97	C
ATOM 41798	C	VAL H 97	124.488	111.806	-11.551	1.00	70.19	O	ATOM 41848	CA	VAL H 103	136.303	124.026	-7.203	1.00	65.97	O
ATOM 41799	O	VAL H 97	124.842	112.847	-11.001	1.00	70.19	O	ATOM 41849	C	VAL H 103	138.084	123.652	-9.141	1.00	65.97	C
ATOM 41800	CB	VAL H 97	122.290	112.084	-12.659	1.00	43.77	C	ATOM 41850	O	VAL H 103	139.131	123.384	-10.195	1.00	65.35	C
ATOM 41801	CG1	VAL H 97	121.779	111.127	-11.619	1.00	43.77	C	ATOM 41851	CB	VAL H 103	140.511	123.133	-9.617	1.00	65.35	C
ATOM 41802	CG2	VAL H 97	122.068	113.508	-12.256	1.00	43.77	C	ATOM 41852	CG1	VAL H 103	141.329	124.342	-9.650	1.00	65.35	N
ATOM 41803	N	LYS H 98	124.720	110.609	-11.032	1.00	60.29	N	ATOM 41853	CG2	VAL H 103	142.660	124.347	-9.649	1.00	65.35	C
ATOM 41804	CA	LYS H 98	125.365	110.470	-9.734	1.00	60.29	C	ATOM 41854	N	ARG H 104	143.335	123.200	-9.615	1.00	65.35	N
ATOM 41805	C	LYS H 98	126.882	110.281	-8.811	1.00	60.29	O	ATOM 41855	CA	ARG H 104	143.317	125.500	-9.702	1.00	65.35	N
ATOM 41806	O	LYS H 98	127.536	110.100	-8.788	1.00	60.29	O	ATOM 41856	C	ARG H 104	135.930	121.053	-6.721	1.00	61.23	H
ATOM 41807	CB	LYS H 98	124.707	109.310	-8.987	1.00	106.53	C	ATOM 41857	O	ARG H 104						
ATOM 41808	CG	LYS H 98	123.192	109.293	-9.186	1.00	106.53	C	ATOM 41858	CB	ARG H 104						
ATOM 41809	CD	LYS H 98	122.486	108.177	-8.428	1.00	106.53	C	ATOM 41859	CG	ARG H 104						
ATOM 41810	CE	LYS H 98	121.060	107.942	-8.964	1.00	106.53	C	ATOM 41860	CD	ARG H 104						
ATOM 41811	NZ	LYS H 98	120.162	109.139	-8.933	1.00	106.53	N	ATOM 41861	NE	ARG H 104						
ATOM 41812	N	GLU H 99	127.429	110.337	-11.026	1.00	68.17	N	ATOM 41862	CZ	ARG H 104						
ATOM 41813	CA	GLU H 99	128.865	110.175	-11.268	1.00	68.17	C	ATOM 41863	NH1	ARG H 104						
ATOM 41814	C	GLU H 99	129.460	111.451	-11.871	1.00	68.17	C	ATOM 41864	NH2	ARG H 104						
ATOM 41815	O	GLU H 99	130.640	111.505	-12.219	1.00	68.17	O	ATOM 41865	N	ARG H 105						



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ATOM 41866	CA	ARG H 105	134.951	122.152	-5.688	1.00	61.23	C	ATOM 41916	O	LEU H 112	127.085	118.552	-21.883	1.00	35.35	O
ATOM 41867	C	ARG H 105	133.952	123.188	-6.194	1.00	61.23	C	ATOM 41917	CB	LEU H 112	127.160	116.524	-19.225	1.00	32.36	C
ATOM 41868	O	ARG H 105	133.634	124.144	-5.493	1.00	61.23	C	ATOM 41918	CG	LEU H 112	127.523	116.062	-17.819	1.00	32.36	C
ATOM 41869	CB	ARG H 105	135.647	122.688	-4.432	1.00	72.28	C	ATOM 41919	CD1	LEU H 112	128.525	114.935	-17.908	1.00	32.36	C
ATOM 41870	CG	ARG H 105	135.807	121.689	-3.288	1.00	72.28	C	ATOM 41920	CD2	LEU H 112	128.044	117.239	-17.001	1.00	32.36	C
ATOM 41871	CD	ARG H 105	136.617	120.462	-2.702	1.00	72.28	C	ATOM 41921	N	SER H 113	126.924	116.321	-22.144	1.00	42.09	N
ATOM 41872	NE	ARG H 105	137.215	119.775	-2.551	1.00	72.28	N	ATOM 41922	CA	SER H 113	126.071	116.379	-23.312	1.00	42.09	C
ATOM 41873	CZ	ARG H 105	136.533	119.139	-1.601	1.00	72.28	C	ATOM 41923	C	SER H 113	125.041	115.296	-23.034	1.00	42.09	C
ATOM 41874	NH1	ARG H 105	135.209	119.087	-1.654	1.00	72.28	N	ATOM 41924	O	SER H 113	125.341	114.108	-23.138	1.00	42.09	O
ATOM 41875	NH2	ARG H 105	137.175	118.561	-0.592	1.00	72.28	N	ATOM 41925	CB	SER H 113	126.819	116.041	-24.579	1.00	22.72	C
ATOM 41876	N	GLY H 106	133.473	123.014	-7.420	1.00	56.19	N	ATOM 41926	OG	SER H 113	125.887	115.890	-25.633	1.00	22.72	O
ATOM 41877	CA	GLY H 106	132.508	123.956	-7.951	1.00	56.19	C	ATOM 41927	N	THR H 114	123.837	115.721	-22.658	1.00	48.95	N
ATOM 41878	C	GLY H 106	133.068	125.262	-8.487	1.00	56.19	C	ATOM 41928	CA	THR H 114	122.742	114.822	-22.318	1.00	48.95	C
ATOM 41879	O	GLY H 106	132.375	125.980	-9.218	1.00	56.19	O	ATOM 41929	C	THR H 114	121.680	114.847	-23.397	1.00	48.95	C
ATOM 41880	N	LEU H 107	134.302	125.602	-8.138	1.00	44.00	N	ATOM 41930	O	THR H 114	121.725	115.693	-24.285	1.00	48.95	O
ATOM 41881	CA	LEU H 107	134.855	126.836	-8.666	1.00	44.00	C	ATOM 41931	CB	THR H 114	122.076	115.276	-21.034	1.00	46.98	C
ATOM 41882	C	LEU H 107	135.024	126.635	-10.164	1.00	44.00	O	ATOM 41932	OG1	THR H 114	121.345	116.478	-21.298	1.00	46.98	O
ATOM 41883	O	LEU H 107	135.041	127.590	-10.925	1.00	44.00	O	ATOM 41933	CG2	THR H 114	123.125	115.567	-19.961	1.00	46.98	C
ATOM 41884	CB	LEU H 107	136.203	127.162	-8.022	1.00	50.12	C	ATOM 41934	N	SER H 115	120.719	113.926	-23.316	1.00	64.28	N
ATOM 41885	CG	LEU H 107	136.284	127.141	-6.496	1.00	50.12	C	ATOM 41935	CA	SER H 115	119.631	113.890	-24.291	1.00	64.28	C
ATOM 41886	CD1	LEU H 107	137.442	128.002	-6.034	1.00	50.12	C	ATOM 41936	C	SER H 115	118.705	115.060	-24.000	1.00	64.28	C
ATOM 41887	CD2	LEU H 107	134.999	127.671	-5.913	1.00	50.12	C	ATOM 41937	O	SER H 115	117.729	115.291	-24.711	1.00	64.28	O
ATOM 41888	N	GLY H 108	135.147	125.380	-10.582	1.00	39.43	N	ATOM 41938	CB	SER H 115	118.857	112.568	-24.231	1.00	37.06	C
ATOM 41889	CA	GLY H 108	135.293	125.083	-11.995	1.00	39.43	C	ATOM 41939	OG	SER H 115	118.366	112.284	-22.933	1.00	37.06	O
ATOM 41890	C	GLY H 108	134.030	124.428	-12.505	1.00	39.43	C	ATOM 41940	N	LYS H 116	119.017	115.787	-22.933	1.00	48.40	N
ATOM 41891	O	GLY H 108	133.100	124.241	-11.744	1.00	39.43	O	ATOM 41941	CA	LYS H 116	118.265	116.976	-22.570	1.00	48.40	C
ATOM 41892	N	ILE H 109	133.961	124.073	-13.777	1.00	36.34	N	ATOM 41942	C	LYS H 116	119.096	118.170	-23.048	1.00	48.40	C
ATOM 41893	CA	ILE H 109	132.747	123.438	-14.266	1.00	36.34	C	ATOM 41943	O	LYS H 116	118.780	119.327	-22.734	1.00	48.40	O
ATOM 41894	C	ILE H 109	133.069	122.278	-15.183	1.00	36.34	C	ATOM 41944	CB	LYS H 116	118.071	117.067	-21.059	1.00	70.20	C
ATOM 41895	O	ILE H 109	134.228	122.000	-15.457	1.00	36.34	O	ATOM 41945	CG	LYS H 116	116.710	116.642	-20.567	1.00	70.20	C
ATOM 41896	CB	ILE H 109	131.880	124.429	-15.042	1.00	40.22	C	ATOM 41946	CD	LYS H 116	116.618	116.867	-19.074	1.00	70.20	C
ATOM 41897	CG1	ILE H 109	132.550	124.784	-16.371	1.00	40.22	C	ATOM 41947	CE	LYS H 116	115.241	116.535	-18.529	1.00	70.20	C
ATOM 41898	CG2	ILE H 109	131.684	125.677	-14.220	1.00	40.22	C	ATOM 41948	NZ	LYS H 116	115.157	116.864	-17.069	1.00	70.20	N
ATOM 41899	CD1	ILE H 109	131.663	125.546	-17.308	1.00	40.22	C	ATOM 41949	N	GLY H 117	120.171	117.870	-23.787	1.00	52.44	N
ATOM 41900	N	ALA H 110	132.224	120.405	-16.565	1.00	51.63	N	ATOM 41950	CA	GLY H 117	121.045	118.907	-24.323	1.00	52.44	C
ATOM 41901	CA	ALA H 110	132.040	121.598	-15.658	1.00	51.63	C	ATOM 41951	C	GLY H 117	122.334	119.183	-23.559	1.00	52.44	C
ATOM 41902	C	ALA H 110	131.108	120.613	-17.560	1.00	51.63	C	ATOM 41952	O	GLY H 117	122.522	118.707	-22.435	1.00	52.44	O
ATOM 41903	O	ALA H 110	130.068	121.161	-17.239	1.00	51.63	O	ATOM 41953	N	VAL H 118	123.223	119.967	-24.161	1.00	46.31	N
ATOM 41904	CB	ALA H 110	132.096	119.213	-15.833	1.00	10.74	C	ATOM 41954	CA	VAL H 118	124.498	120.291	-23.524	1.00	46.31	C
ATOM 41905	N	ILE H 111	131.287	120.115	-18.766	1.00	43.09	N	ATOM 41955	C	VAL H 118	124.281	121.087	-22.237	1.00	46.31	C
ATOM 41906	CA	ILE H 111	130.213	120.252	-19.723	1.00	43.09	C	ATOM 41956	O	VAL H 118	123.646	122.130	-22.255	1.00	46.31	O
ATOM 41907	C	ILE H 111	129.789	118.908	-20.238	1.00	43.09	C	ATOM 41957	CB	VAL H 118	125.403	121.115	-24.476	1.00	32.62	C
ATOM 41908	O	ILE H 111	130.490	118.304	-21.038	1.00	43.09	O	ATOM 41958	CG1	VAL H 118	126.655	121.537	-23.761	1.00	32.62	C
ATOM 41909	CB	ILE H 111	130.629	121.131	-20.920	1.00	32.33	C	ATOM 41959	CG2	VAL H 118	125.759	120.293	-25.708	1.00	32.62	C
ATOM 41910	CG1	ILE H 111	130.861	122.569	-20.464	1.00	32.33	C	ATOM 41960	N	LEU H 119	124.813	120.605	-21.121	1.00	41.67	N
ATOM 41911	CG2	ILE H 111	129.551	121.116	-21.983	1.00	32.33	C	ATOM 41961	CA	LEU H 119	124.637	121.308	-19.856	1.00	41.67	C
ATOM 41912	CD1	ILE H 111	131.342	123.486	-21.577	1.00	32.33	C	ATOM 41962	C	LEU H 119	125.919	121.269	-19.068	1.00	41.67	C
ATOM 41913	N	LEU H 112	128.644	118.430	-19.772	1.00	35.35	N	ATOM 41963	O	LEU H 119	126.827	120.505	-19.381	1.00	41.67	O
ATOM 41914	CA	LEU H 112	128.127	117.151	-20.237	1.00	35.35	C	ATOM 41964	CB	LEU H 119	123.571	120.635	-19.000	1.00	46.99	C
ATOM 41915	C	LEU H 112	127.327	117.408	-21.503	1.00	35.35	C	ATOM 41965	CG	LEU H 119	122.312	120.091	-19.652	1.00	46.99	C



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ATOM	41966	CD1	LEU H 119	121.581	119.225	-18.646	1.00	46.99	C	ATOM	42016	CZ	ARG H 125	126.938	117.070	-9.558	1.00	75.20	C
ATOM	41967	CD2	LEU H 119	121.452	121.225	-20.135	1.00	46.99	C	ATOM	42017	NH1	ARG H 125	126.712	115.767	-9.379	1.00	75.20	N
ATOM	41968	N	THR H 120	125.981	122.093	-18.033	1.00	33.67	N	ATOM	42018	NH2	ARG H 125	128.087	117.489	-10.087	1.00	75.20	N
ATOM	41969	CA	THR H 120	127.136	122.123	-17.158	1.00	33.67	N	ATOM	42019	N	LYS H 126	120.842	119.247	-11.867	1.00	64.67	N
ATOM	41970	C	THR H 120	126.811	121.105	-16.073	1.00	33.67	C	ATOM	42020	CA	LYS H 126	119.511	119.789	-11.608	1.00	64.67	C
ATOM	41971	O	THR H 120	125.659	120.735	-15.904	1.00	33.67	O	ATOM	42021	C	LYS H 126	118.447	119.003	-12.379	1.00	64.67	C
ATOM	41972	CB	THR H 120	127.296	123.476	-16.490	1.00	42.09	C	ATOM	42022	O	LYS H 126	117.561	118.408	-11.773	1.00	64.67	O
ATOM	41973	CG1	THR H 120	126.273	123.631	-15.499	1.00	42.09	C	ATOM	42023	CB	LYS H 126	119.464	121.265	-12.001	1.00	107.97	C
ATOM	41974	CG2	THR H 120	127.191	124.584	-17.526	1.00	42.09	C	ATOM	42024	CG	LYS H 126	118.170	121.949	-11.626	1.00	107.97	C
ATOM	41975	N	ASP H 121	127.811	120.659	-15.327	1.00	66.36	N	ATOM	42025	CD	LYS H 126	118.199	123.431	-11.961	1.00	107.97	C
ATOM	41976	CA	ASP H 121	127.539	119.681	-14.293	1.00	66.36	C	ATOM	42026	CE	LYS H 126	116.893	124.112	-11.558	1.00	107.97	C
ATOM	41977	C	ASP H 121	126.339	120.080	-13.421	1.00	66.36	C	ATOM	42027	N2	LYS H 126	116.892	125.571	-11.869	1.00	107.97	N
ATOM	41978	O	ASP H 121	125.506	119.238	-13.103	1.00	66.36	O	ATOM	42028	N	LEU H 127	118.530	119.003	-13.708	1.00	39.38	N
ATOM	41979	CB	ASP H 121	128.800	119.435	-13.450	1.00	75.93	C	ATOM	42029	CA	LEU H 127	117.583	118.259	-14.538	1.00	39.38	C
ATOM	41980	CG	ASP H 121	129.398	120.707	-12.897	1.00	75.93	C	ATOM	42030	C	LEU H 127	117.729	116.767	-14.223	1.00	39.38	C
ATOM	41981	OD1	ASP H 121	129.543	121.680	-13.674	1.00	75.93	O	ATOM	42031	O	LEU H 127	117.075	115.916	-14.838	1.00	39.38	O
ATOM	41982	OD2	ASP H 121	129.736	120.724	-11.689	1.00	75.93	O	ATOM	42032	CB	LEU H 127	117.888	118.452	-16.021	1.00	54.22	C
ATOM	41983	N	ARG H 122	126.222	121.356	-13.064	1.00	55.07	N	ATOM	42033	CG	LEU H 127	117.577	119.740	-16.778	1.00	54.22	C
ATOM	41984	CA	ARG H 122	125.102	121.790	-12.233	1.00	55.07	C	ATOM	42034	CD1	LEU H 127	116.084	119.959	-16.781	1.00	54.22	C
ATOM	41985	C	ARG H 122	123.794	121.713	-12.990	1.00	55.07	C	ATOM	42035	CD2	LEU H 127	118.297	120.909	-16.158	1.00	54.22	C
ATOM	41986	O	ARG H 122	122.851	121.073	-12.542	1.00	55.07	O	ATOM	42036	N	GLY H 128	118.609	116.445	-13.280	1.00	46.23	N
ATOM	41987	CB	ARG H 122	125.301	123.215	-11.729	1.00	107.67	C	ATOM	42037	CA	GLY H 128	118.823	115.056	-12.937	1.00	46.23	C
ATOM	41988	CG	ARG H 122	126.435	123.351	-10.761	1.00	107.67	C	ATOM	42038	C	GLY H 128	119.187	114.166	-14.121	1.00	46.23	C
ATOM	41989	CD	ARG H 122	126.307	124.617	-9.951	1.00	107.67	C	ATOM	42039	O	GLY H 128	118.553	113.142	-14.331	1.00	46.23	O
ATOM	41990	NE	ARG H 122	127.458	124.796	-9.072	1.00	107.67	N	ATOM	42040	N	VAL H 129	120.202	114.532	-14.898	1.00	60.17	N
ATOM	41991	CZ	ARG H 122	127.533	125.706	-8.105	1.00	107.67	C	ATOM	42041	CA	VAL H 129	120.595	113.695	-16.028	1.00	60.17	C
ATOM	41992	NH1	ARG H 122	126.518	126.532	-7.881	1.00	107.67	N	ATOM	42042	C	VAL H 129	122.099	113.555	-16.185	1.00	60.17	C
ATOM	41993	NH2	ARG H 122	128.628	125.790	-7.361	1.00	107.67	N	ATOM	42043	O	VAL H 129	122.865	114.371	-15.679	1.00	60.17	O
ATOM	41994	N	GLU H 123	123.729	122.371	-14.138	1.00	56.25	N	ATOM	42044	CB	VAL H 129	120.021	114.214	-17.373	1.00	32.88	C
ATOM	41995	CA	GLU H 123	122.509	122.350	-14.927	1.00	56.25	C	ATOM	42045	CG1	VAL H 129	118.535	114.058	-17.382	1.00	32.88	C
ATOM	41996	C	GLU H 123	122.083	120.889	-15.058	1.00	56.25	C	ATOM	42046	CG2	VAL H 129	120.409	115.670	-17.607	1.00	32.88	C
ATOM	41997	O	GLU H 123	120.920	120.543	-14.889	1.00	56.25	O	ATOM	42047	N	GLY H 130	122.506	112.498	-16.881	1.00	48.99	N
ATOM	41998	CB	GLU H 123	122.751	122.956	-16.321	1.00	84.43	C	ATOM	42048	CA	GLY H 130	123.913	112.255	-17.132	1.00	48.99	C
ATOM	41999	CG	GLU H 123	123.585	124.244	-16.335	1.00	84.43	C	ATOM	42049	C	GLY H 130	124.139	112.227	-18.636	1.00	48.99	C
ATOM	42000	CD	GLU H 123	123.625	124.930	-17.704	1.00	84.43	C	ATOM	42050	N	GLY H 130	123.204	112.489	-19.409	1.00	48.99	O
ATOM	42001	OE1	GLU H 123	123.461	124.239	-18.739	1.00	84.43	O	ATOM	42051	N	GLY H 131	125.362	111.914	-19.063	1.00	60.00	N
ATOM	42002	OE2	GLU H 123	123.838	126.165	-17.744	1.00	84.43	O	ATOM	42052	CA	GLY H 131	125.647	111.862	-20.488	1.00	60.00	C
ATOM	42003	N	ALA H 124	123.045	120.021	-15.331	1.00	48.02	N	ATOM	42053	C	GLY H 131	127.130	111.817	-20.774	1.00	60.00	C
ATOM	42004	CA	ALA H 124	122.745	118.614	-15.501	1.00	48.02	C	ATOM	42054	O	GLY H 131	127.911	111.482	-19.882	1.00	60.00	O
ATOM	42005	C	ALA H 124	122.264	117.974	-14.212	1.00	48.02	C	ATOM	42055	N	GLU H 132	127.518	112.141	-22.009	1.00	48.58	N
ATOM	42006	O	ALA H 124	121.239	117.297	-14.191	1.00	48.02	O	ATOM	42056	CA	GLU H 132	128.929	112.153	-22.403	1.00	48.58	C
ATOM	42007	CB	ALA H 124	123.967	117.887	-16.020	1.00	48.03	C	ATOM	42057	C	GLU H 132	129.582	113.339	-21.689	1.00	48.58	C
ATOM	42008	N	ARG H 125	123.003	118.187	-13.134	1.00	47.18	N	ATOM	42058	O	GLU H 132	129.075	114.456	-21.755	1.00	48.58	O
ATOM	42009	CA	ARG H 125	122.629	117.602	-11.859	1.00	47.18	C	ATOM	42059	CB	GLU H 132	129.063	112.297	-23.932	1.00	61.30	C
ATOM	42010	C	ARG H 125	121.204	118.014	-11.507	1.00	47.18	C	ATOM	42060	CG	GLU H 132	130.424	111.875	-24.493	1.00	61.30	C
ATOM	42011	O	ARG H 125	120.447	117.229	-10.938	1.00	47.18	O	ATOM	42061	CD	GLU H 132	130.439	111.632	-26.023	1.00	61.30	C
ATOM	42012	CB	ARG H 125	123.592	118.058	-10.778	1.00	75.20	C	ATOM	42062	OE1	GLU H 132	129.668	110.778	-26.540	1.00	61.30	O
ATOM	42013	CG	ARG H 125	123.776	117.053	-9.679	1.00	75.20	C	ATOM	42063	OF2	GLU H 132	131.250	112.291	-26.717	1.00	61.30	O
ATOM	42014	CD	ARG H 125	124.719	117.604	-8.634	1.00	75.20	C	ATOM	42064	N	LEU H 133	130.677	113.077	-20.974	1.00	43.14	N
ATOM	42015	NE	ARG H 125	126.011	117.956	-9.211	1.00	75.20	N	ATOM	42065	CA	LEU H 133	131.421	114.099	-20.237	1.00	43.14	C



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ATOM 42066	C	LEU H 133	132.363	114.755	-21.248	1.00	43.14	C	ATOM 42116	OXT	TRP H 138	139.721	127.380	-13.453	1.00	88.58	O
ATOM 42067	O	LEU H 133	133.500	114.335	-21.418	1.00	43.14	O	TER 42117	TRP H 138							
ATOM 42068	CB	LEU H 133	132.224	113.434	-19.116	1.00	42.62	C	ATOM 42118	N	GLU I 2	242.739	181.419	-8.277	1.00	138.65	N
ATOM 42069	CG	LEU H 133	132.402	114.255	-17.836	1.00	42.62	C	ATOM 42119	CA	GLU I 2	243.368	181.107	-6.961	1.00	138.65	C
ATOM 42070	CD1	LEU H 133	133.185	113.466	-16.814	1.00	42.62	C	ATOM 42120	C	GLU I 2	243.406	179.599	-6.731	1.00	138.65	C
ATOM 42071	CD2	LEU H 133	133.112	115.552	-18.141	1.00	42.62	C	ATOM 42121	O	GLU I 2	244.471	178.983	-6.803	1.00	138.65	O
ATOM 42072	N	ILE H 134	131.878	115.787	-21.922	1.00	62.57	N	ATOM 42122	CB	GLU I 2	242.584	181.771	-5.824	1.00	126.23	C
ATOM 42073	CA	ILE H 134	132.637	116.470	-22.959	1.00	62.57	C	ATOM 42123	CG	GLU I 2	243.367	181.945	-4.521	1.00	126.23	C
ATOM 42074	C	ILE H 134	133.968	117.103	-22.596	1.00	62.57	C	ATOM 42124	CD	GLU I 2	244.110	180.688	-4.083	1.00	126.23	C
ATOM 42075	O	ILE H 134	134.972	116.866	-23.272	1.00	62.57	O	ATOM 42125	OE1	GLU I 2	245.154	180.364	-4.692	1.00	126.23	O
ATOM 42076	CB	ILE H 134	131.764	117.526	-23.618	1.00	47.08	C	ATOM 42126	OE2	GLU I 2	243.648	180.023	-3.131	1.00	126.23	O
ATOM 42077	CG1	ILE H 134	130.679	116.825	-24.423	1.00	47.08	C	ATOM 42127	N	GLN I 3	242.244	179.007	-6.453	1.00	138.33	N
ATOM 42078	CG2	ILE H 134	132.592	118.434	-24.496	1.00	47.08	C	ATOM 42128	CA	GLN I 3	242.161	177.568	-6.206	1.00	138.33	C
ATOM 42079	CD1	ILE H 134	129.594	117.749	-24.882	1.00	47.08	C	ATOM 42129	C	GLN I 3	240.756	177.020	-6.443	1.00	138.33	C
ATOM 42080	N	CYS H 135	133.983	117.928	-21.558	1.00	48.01	N	ATOM 42130	O	GLN I 3	239.768	177.741	-6.313	1.00	138.33	O
ATOM 42081	CA	CYS H 135	135.218	118.580	-21.165	1.00	48.01	C	ATOM 42131	CB	GLN I 3	242.582	177.263	-4.771	1.00	87.88	C
ATOM 42082	C	CYS H 135	135.114	119.176	-19.774	1.00	48.01	C	ATOM 42132	CG	GLN I 3	243.102	175.861	-4.566	1.00	87.88	C
ATOM 42083	O	CYS H 135	134.037	119.248	-19.191	1.00	48.01	O	ATOM 42133	CD	GLN I 3	243.422	175.576	-3.115	1.00	87.88	C
ATOM 42084	CB	CYS H 135	135.572	119.673	-22.169	1.00	54.74	C	ATOM 42134	OE1	GLN I 3	244.133	174.627	-2.799	1.00	87.88	O
ATOM 42085	SG	CYS H 135	134.418	121.045	-22.185	1.00	54.74	S	ATOM 42135	NE2	GLN I 3	242.884	176.394	-6.791	1.00	87.88	N
ATOM 42086	N	GLU H 136	136.247	119.623	-19.258	1.00	58.51	N	ATOM 42136	N	TYR I 4	240.676	175.739	-6.791	1.00	101.22	N
ATOM 42087	CA	GLU H 136	136.329	120.186	-17.925	1.00	58.51	C	ATOM 42137	CA	TYR I 4	239.394	175.085	-7.046	1.00	101.22	C
ATOM 42088	C	GLU H 136	137.004	121.547	-18.021	1.00	58.51	C	ATOM 42138	C	TYR I 4	239.388	173.666	-6.482	1.00	101.22	C
ATOM 42089	O	GLU H 136	138.092	121.658	-18.551	1.00	58.51	O	ATOM 42139	O	TYR I 4	240.424	173.000	-6.439	1.00	101.22	O
ATOM 42090	CB	GLU H 136	137.131	119.207	-17.076	1.00	90.48	C	ATOM 42140	CB	TYR I 4	239.104	175.083	-8.546	1.00	123.55	C
ATOM 42091	CG	GLU H 136	137.860	119.758	-15.898	1.00	90.48	C	ATOM 42141	CG	TYR I 4	239.224	176.465	-9.133	1.00	123.55	C
ATOM 42092	CD	GLU H 136	138.934	118.793	-15.442	1.00	90.48	C	ATOM 42142	CD1	TYR I 4	240.455	176.955	-9.567	1.00	123.55	C
ATOM 42093	OE1	GLU H 136	139.970	118.686	-16.134	1.00	90.48	O	ATOM 42143	CD2	TYR I 4	238.128	177.319	-9.170	1.00	123.55	C
ATOM 42094	OE2	GLU H 136	138.733	118.125	-14.406	1.00	90.48	O	ATOM 42144	CE1	TYR I 4	240.590	178.260	-10.017	1.00	123.55	C
ATOM 42095	N	VAL H 137	136.359	122.585	-17.514	1.00	38.08	N	ATOM 42145	CE2	TYR I 4	238.251	178.627	-9.617	1.00	123.55	C
ATOM 42096	CA	VAL H 137	136.905	123.936	-17.583	1.00	38.08	C	ATOM 42146	CZ	TYR I 4	239.482	179.091	-10.038	1.00	123.55	O
ATOM 42097	C	VAL H 137	137.020	124.581	-16.210	1.00	38.08	C	ATOM 42147	OH	TYR I 4	239.599	180.386	-10.482	1.00	123.55	O
ATOM 42098	O	VAL H 137	136.118	124.429	-15.386	1.00	38.08	O	ATOM 42148	N	TYR I 5	238.219	173.202	-6.054	1.00	91.17	N
ATOM 42099	CB	VAL H 137	135.982	124.863	-18.397	1.00	38.08	C	ATOM 42149	CA	TYR I 5	238.128	171.884	-5.445	1.00	91.17	C
ATOM 42100	CG1	VAL H 137	136.516	126.275	-15.367	1.00	39.75	C	ATOM 42150	C	TYR I 5	236.913	171.025	-5.817	1.00	91.17	C
ATOM 42101	CG2	VAL H 137	135.833	124.359	-19.815	1.00	39.75	C	ATOM 42151	O	TYR I 5	235.872	171.530	-6.234	1.00	91.17	O
ATOM 42102	N	TRP H 138	138.104	125.309	-15.954	1.00	36.18	N	ATOM 42152	CB	TYR I 5	238.230	172.064	-3.923	1.00	66.38	C
ATOM 42103	CA	TRP H 138	138.218	126.002	-14.679	1.00	36.18	C	ATOM 42153	CG	TYR I 5	237.776	170.893	-3.085	1.00	66.38	C
ATOM 42104	C	TRP H 138	139.288	127.078	-14.585	1.00	36.18	O	ATOM 42154	CD1	TYR I 5	236.422	170.655	-2.857	1.00	66.38	C
ATOM 42105	O	TRP H 138	139.648	127.647	-15.641	1.00	36.18	C	ATOM 42155	CD2	TYR I 5	238.704	170.023	-2.513	1.00	66.38	C
ATOM 42106	CB	TRP H 138	138.339	125.019	-13.511	1.00	59.61	C	ATOM 42156	CE1	TYR I 5	236.003	169.577	-2.078	1.00	66.38	C
ATOM 42107	CG	TRP H 138	139.402	123.974	-13.572	1.00	59.61	C	ATOM 42157	CE2	TYR I 5	238.295	168.938	-1.731	1.00	66.38	C
ATOM 42108	CD1	TRP H 138	139.228	122.624	-13.789	1.00	59.61	C	ATOM 42158	CZ	TYR I 5	236.945	168.722	-1.519	1.00	66.38	C
ATOM 42109	CD2	TRP H 138	140.769	124.140	-13.221	1.00	59.61	C	ATOM 42159	OH	TYR I 5	236.540	167.650	-0.757	1.00	66.38	O
ATOM 42110	NE1	TRP H 138	140.405	121.944	-13.572	1.00	59.61	N	ATOM 42160	N	GLY I 6	237.086	169.712	-5.668	1.00	90.25	N
ATOM 42111	CE2	TRP H 138	141.367	122.852	-13.223	1.00	59.61	C	ATOM 42161	CA	GLY I 6	236.041	168.744	-5.952	1.00	90.25	C
ATOM 42112	CE3	TRP H 138	141.550	125.248	-12.897	1.00	59.61	C	ATOM 42162	C	GLY I 6	236.227	167.574	-4.999	1.00	90.25	O
ATOM 42113	CZ2	TRP H 138	142.702	122.653	-12.911	1.00	59.61	C	ATOM 42163	O	GLY I 6	237.346	167.325	-4.543	1.00	90.25	O
ATOM 42114	CZ3	TRP H 138	142.876	125.056	-12.589	1.00	59.61	C	ATOM 42164	N	THR I 7	235.155	166.846	-4.694	1.00	99.26	N
ATOM 42115	CH2	TRP H 138	143.446	123.765	-12.596	1.00	59.61	C	ATOM 42165	CA	THR I 7	235.262	165.725	-3.767	1.00	99.26	C



ATOM	42166	C	THR	I	7	235.456	164.346	-4.395	1.00	99.26	C	ATOM	42216	CA	ALA	I	13	237.049	155.746	-2.261	1.00	99.95	C
ATOM	42167	O	THR	I	7	236.313	163.589	-3.953	1.00	99.26	C	ATOM	42217	C	ALA	I	13	236.680	157.210	-2.364	1.00	99.95	C
ATOM	42168	CB	THR	I	7	234.057	165.674	-2.835	1.00	86.07	O	ATOM	42218	O	ALA	I	13	235.774	157.570	-3.119	1.00	99.95	O
ATOM	42169	OG1	THR	I	7	233.981	166.899	-2.094	1.00	86.07	O	ATOM	42219	CB	ALA	I	13	237.884	155.335	-3.456	1.00	42.28	C
ATOM	42170	CG2	THR	I	7	234.195	164.518	-1.861	1.00	86.07	C	ATOM	42220	N	VAL	I	14	237.354	158.052	-1.589	1.00	81.94	N
ATOM	42171	N	GLY	I	8	234.657	164.003	-5.397	1.00	68.19	N	ATOM	42221	CA	VAL	I	14	237.075	159.481	-1.640	1.00	81.94	C
ATOM	42172	CA	GLY	I	8	234.813	162.709	-6.053	1.00	68.19	C	ATOM	42222	C	VAL	I	14	238.343	160.188	-2.076	1.00	81.94	C
ATOM	42173	C	GLY	I	8	234.921	161.429	-5.222	1.00	68.19	C	ATOM	42223	O	VAL	I	14	239.437	159.854	-1.617	1.00	81.94	O
ATOM	42174	O	GLY	I	8	235.879	161.223	-4.465	1.00	68.19	O	ATOM	42224	CB	VAL	I	14	236.646	160.045	-0.268	1.00	45.77	C
ATOM	42175	N	ARG	I	9	233.928	160.554	-5.375	1.00	73.06	N	ATOM	42225	CG1	VAL	I	14	235.917	161.363	-0.477	1.00	45.77	C
ATOM	42176	CA	ARG	I	9	233.900	159.275	-4.670	1.00	73.06	C	ATOM	42226	CG2	VAL	I	14	235.768	159.052	0.476	1.00	45.77	C
ATOM	42177	C	ARG	I	9	233.516	158.146	-5.614	1.00	73.06	C	ATOM	42227	N	ALA	I	15	238.198	161.165	-2.962	1.00	78.06	N
ATOM	42178	O	ARG	I	9	232.684	158.321	-6.504	1.00	73.06	O	ATOM	42228	CA	ALA	I	15	239.360	161.892	-3.447	1.00	78.06	C
ATOM	42179	CB	ARG	I	9	232.926	159.316	-3.496	1.00	72.22	C	ATOM	42229	C	ALA	I	15	239.203	163.418	-3.476	1.00	78.06	C
ATOM	42180	CG	ARG	I	9	233.568	159.779	-2.204	1.00	72.22	C	ATOM	42230	O	ALA	I	15	238.471	163.964	-4.307	1.00	78.06	O
ATOM	42181	CD	ARG	I	9	232.579	159.767	-1.047	1.00	72.22	C	ATOM	42231	CB	ALA	I	15	239.738	161.374	-4.837	1.00	52.27	C
ATOM	42182	NE	ARG	I	9	231.470	160.686	-1.278	1.00	72.22	N	ATOM	42232	N	ARG	I	16	239.903	164.103	-2.571	1.00	76.36	N
ATOM	42183	CZ	ARG	I	9	231.274	161.810	-0.600	1.00	72.22	C	ATOM	42233	CA	ARG	I	16	239.863	165.564	-2.523	1.00	76.36	C
ATOM	42184	NH1	ARG	I	9	232.114	162.156	0.365	1.00	72.22	N	ATOM	42234	C	ARG	I	16	240.752	166.093	-3.640	1.00	76.36	C
ATOM	42185	NH2	ARG	I	9	230.243	162.594	-0.897	1.00	72.22	N	ATOM	42235	O	ARG	I	16	241.946	165.786	-3.694	1.00	76.36	O
ATOM	42186	N	ARG	I	10	234.133	156.985	-5.423	1.00	53.45	N	ATOM	42236	CB	ARG	I	16	240.417	166.096	-1.211	1.00	126.85	C
ATOM	42187	CA	ARG	I	10	233.856	155.840	-6.274	1.00	53.45	C	ATOM	42237	CG	ARG	I	16	239.933	165.430	0.034	1.00	126.85	C
ATOM	42188	C	ARG	I	10	233.930	154.530	-5.529	1.00	53.45	C	ATOM	42238	CD	ARG	I	16	240.598	166.129	1.183	1.00	126.85	C
ATOM	42189	O	ARG	I	10	234.891	154.283	-4.804	1.00	53.45	O	ATOM	42239	NE	ARG	I	16	240.622	165.330	2.397	1.00	126.85	N
ATOM	42190	CB	ARG	I	10	234.855	155.756	-7.427	1.00	68.82	C	ATOM	42240	NH1	ARG	I	16	241.202	165.730	3.522	1.00	126.85	C
ATOM	42191	CG	ARG	I	10	234.680	154.511	-8.283	1.00	68.82	C	ATOM	42241	NH2	ARG	I	16	241.799	166.917	3.566	1.00	126.85	N
ATOM	42192	CD	ARG	I	10	233.488	154.665	-9.220	1.00	68.82	C	ATOM	42242	NH2	ARG	I	16	241.187	164.950	4.599	1.00	126.85	N
ATOM	42193	NE	ARG	I	10	232.892	153.389	-9.629	1.00	68.82	N	ATOM	42243	N	VAL	I	17	240.176	166.889	-4.528	1.00	89.62	N
ATOM	42194	CZ	ARG	I	10	233.544	152.388	-10.218	1.00	68.82	C	ATOM	42244	CA	VAL	I	17	240.941	167.448	-5.628	1.00	89.62	C
ATOM	42195	NH1	ARG	I	10	234.840	152.480	-10.482	1.00	68.82	N	ATOM	42245	C	VAL	I	17	241.023	168.968	-5.519	1.00	89.62	C
ATOM	42196	NH2	ARG	I	10	232.892	151.291	-10.562	1.00	68.82	N	ATOM	42246	O	VAL	I	17	240.008	169.660	-5.592	1.00	89.62	O
ATOM	42197	N	LYS	I	11	232.911	153.697	-5.717	1.00	69.21	N	ATOM	42247	CB	VAL	I	17	240.315	167.059	-6.992	1.00	79.45	C
ATOM	42198	CA	LYS	I	11	232.895	152.375	-5.120	1.00	69.21	C	ATOM	42248	CG1	VAL	I	17	240.928	167.882	-8.112	1.00	79.45	C
ATOM	42199	C	LYS	I	11	233.709	152.323	-3.820	1.00	69.21	C	ATOM	42249	CG2	VAL	I	17	240.539	165.583	-7.258	1.00	79.45	C
ATOM	42200	O	LYS	I	11	234.538	151.441	-3.618	1.00	69.21	O	ATOM	42250	N	PHE	I	18	242.236	169.480	-5.325	1.00	79.55	N
ATOM	42201	CB	LYS	I	11	233.441	151.389	-6.164	1.00	57.06	C	ATOM	42251	CA	PHE	I	18	242.446	170.917	-5.240	1.00	79.55	C
ATOM	42202	CG	LYS	I	11	233.783	149.997	-5.676	1.00	57.06	C	ATOM	42252	C	PHE	I	18	243.109	171.405	-6.519	1.00	79.55	C
ATOM	42203	CD	LYS	I	11	234.474	149.213	-6.771	1.00	57.06	C	ATOM	42253	O	PHE	I	18	244.334	171.445	-6.619	1.00	79.55	O
ATOM	42204	CE	LYS	I	11	234.957	147.886	-6.237	1.00	57.06	C	ATOM	42254	CB	PHE	I	18	243.337	171.270	-4.055	1.00	80.69	C
ATOM	42205	NZ	LYS	I	11	235.809	147.218	-7.237	1.00	57.06	N	ATOM	42255	CG	PHE	I	18	242.741	170.935	-2.726	1.00	80.69	C
ATOM	42206	N	GLU	I	12	233.477	153.298	-2.954	1.00	48.89	N	ATOM	42256	CD1	PHE	I	18	243.103	169.768	-2.062	1.00	80.69	C
ATOM	42207	CA	GLU	I	12	234.134	153.385	-1.648	1.00	48.89	C	ATOM	42257	CD2	PHE	I	18	241.825	171.795	-2.126	1.00	80.69	C
ATOM	42208	C	GLU	I	12	235.554	153.962	-1.541	1.00	48.89	C	ATOM	42258	CE1	PHE	I	18	242.563	169.460	-0.812	1.00	80.69	C
ATOM	42209	O	GLU	I	12	236.411	153.451	-0.801	1.00	48.89	O	ATOM	42259	CE2	PHE	I	18	241.277	171.498	-0.877	1.00	80.69	C
ATOM	42210	CB	GLU	I	12	234.107	152.039	-0.939	1.00	109.04	C	ATOM	42260	CZ	PHE	I	18	241.649	170.327	-0.218	1.00	80.69	C
ATOM	42211	CG	GLU	I	12	234.228	152.207	0.546	1.00	109.04	C	ATOM	42261	N	LEU	I	19	242.298	171.748	-7.510	1.00	97.20	N
ATOM	42212	CD	GLU	I	12	234.221	150.903	1.260	1.00	109.04	C	ATOM	42262	CA	LEU	I	19	242.839	172.246	-8.758	1.00	97.20	C
ATOM	42213	OE1	GLU	I	12	235.171	150.125	1.044	1.00	109.04	O	ATOM	42263	C	LEU	I	19	243.447	173.619	-8.511	1.00	97.20	C
ATOM	42214	OE2	GLU	I	12	233.270	150.653	2.032	1.00	109.04	O	ATOM	42264	O	LEU	I	19	242.957	174.391	-7.687	1.00	97.20	O
ATOM	42215	N	ALA	I	13	235.777	155.050	-2.266	1.00	99.95	N	ATOM	42265	CB	LEU	I	19	241.746	172.350	-9.820	1.00	90.19	C



Table 2: Sheet 424/520

ATOM	42266	CG	LEU	I	19	241.337	171.051	-10.515	1.00	90.19	C	ATOM	42316	CB	VAL	I	26	249.017	165.235	-10.660	1.00	64.23	C
ATOM	42267	CD1	LEU	I	19	240.312	171.358	-11.599	1.00	90.19	C	ATOM	42317	CG1	VAL	I	26	248.039	164.636	-9.668	1.00	64.23	C
ATOM	42268	CD2	LEU	I	19	242.562	170.387	-11.127	1.00	90.19	C	ATOM	42318	CG2	VAL	I	26	248.273	165.929	-11.785	1.00	64.23	C
ATOM	42269	N	ARG	I	20	244.525	173.913	-9.224	1.00	118.03	N	ATOM	42319	N	THR	I	27	249.939	165.854	-7.556	1.00	101.24	N
ATOM	42270	CA	ARG	I	20	245.206	175.190	-9.092	1.00	118.03	C	ATOM	42320	CA	THR	I	27	250.410	165.257	-6.320	1.00	101.24	C
ATOM	42271	C	ARG	I	20	245.869	175.517	-10.417	1.00	118.03	C	ATOM	42321	C	THR	I	27	249.303	164.496	-5.618	1.00	101.24	C
ATOM	42272	O	ARG	I	20	246.202	174.622	-11.192	1.00	118.03	O	ATOM	42322	O	THR	I	27	248.392	165.075	-5.027	1.00	101.24	O
ATOM	42273	CB	ARG	I	20	246.261	175.116	-7.987	1.00	103.41	C	ATOM	42323	CB	THR	I	27	250.975	166.311	-5.363	1.00	103.93	C
ATOM	42274	CG	ARG	I	20	245.686	174.933	-6.593	1.00	103.41	C	ATOM	42324	CG1	THR	I	27	252.130	166.915	-5.955	1.00	103.93	O
ATOM	42275	CD	ARG	I	20	246.753	174.445	-5.629	1.00	103.41	C	ATOM	42325	CG2	THR	I	27	251.367	165.671	-4.036	1.00	103.93	C
ATOM	42276	NE	ARG	I	20	246.266	174.332	-4.256	1.00	103.41	N	ATOM	42326	N	VAL	I	28	249.403	163.178	-5.697	1.00	62.11	N
ATOM	42277	CZ	ARG	I	20	246.961	173.784	-3.263	1.00	103.41	C	ATOM	42327	CA	VAL	I	28	248.441	162.280	-5.084	1.00	62.11	C
ATOM	42278	NH1	ARG	I	20	248.173	173.295	-3.488	1.00	103.41	N	ATOM	42328	C	VAL	I	28	249.031	161.701	-3.807	1.00	62.11	C
ATOM	42279	NH2	ARG	I	20	246.451	173.733	-2.041	1.00	103.41	N	ATOM	42329	O	VAL	I	28	249.952	160.888	-3.857	1.00	62.11	O
ATOM	42280	N	PRO	I	21	246.051	176.809	-10.707	1.00	111.79	N	ATOM	42330	CB	VAL	I	28	248.082	161.126	-6.046	1.00	102.87	C
ATOM	42281	CA	PRO	I	21	246.688	177.172	-11.972	1.00	111.79	C	ATOM	42331	CG1	VAL	I	28	247.173	160.124	-5.351	1.00	102.87	C
ATOM	42282	C	PRO	I	21	248.176	176.868	-11.868	1.00	111.79	C	ATOM	42332	CG2	VAL	I	28	247.411	161.688	-7.294	1.00	102.87	C
ATOM	42283	O	PRO	I	21	248.785	177.112	-10.825	1.00	111.79	O	ATOM	42333	N	ASN	I	29	248.497	162.128	-2.668	1.00	82.15	N
ATOM	42284	CB	PRO	I	21	246.406	178.670	-12.084	1.00	78.83	C	ATOM	42334	CA	ASN	I	29	248.977	161.640	-1.385	1.00	82.15	C
ATOM	42285	CG	PRO	I	21	245.184	178.870	-11.216	1.00	78.83	C	ATOM	42335	C	ASN	I	29	250.463	161.917	-1.219	1.00	82.15	C
ATOM	42286	CD	PRO	I	21	245.498	177.998	-10.042	1.00	78.83	C	ATOM	42336	O	ASN	I	29	251.222	161.058	-0.764	1.00	82.15	O
ATOM	42287	N	GLY	I	22	248.759	176.327	-12.935	1.00	88.54	N	ATOM	42337	CB	ASN	I	29	248.715	160.141	-1.261	1.00	85.82	C
ATOM	42288	CA	GLY	I	22	250.178	176.016	-12.899	1.00	88.54	C	ATOM	42338	CG	ASN	I	29	247.342	159.836	-0.714	1.00	85.82	C
ATOM	42289	C	GLY	I	22	250.715	175.172	-14.040	1.00	88.54	C	ATOM	42339	OD1	ASN	I	29	246.353	160.463	-1.096	1.00	85.82	O
ATOM	42290	O	GLY	I	22	250.100	175.063	-15.105	1.00	88.54	O	ATOM	42340	ND2	ASN	I	29	247.270	158.860	0.180	1.00	85.82	N
ATOM	42291	N	ASN	I	23	251.882	174.579	-13.803	1.00	133.09	N	ATOM	42341	N	GLY	I	30	250.870	163.123	-1.599	1.00	119.90	N
ATOM	42292	CA	ASN	I	23	252.556	173.731	-14.780	1.00	133.09	C	ATOM	42342	CA	GLY	I	30	252.263	163.501	-1.471	1.00	119.90	C
ATOM	42293	C	ASN	I	23	251.622	172.659	-15.332	1.00	133.09	C	ATOM	42343	C	GLY	I	30	253.175	162.886	-2.511	1.00	119.90	C
ATOM	42294	O	ASN	I	23	251.119	172.765	-16.455	1.00	133.09	O	ATOM	42344	O	GLY	I	30	254.331	163.287	-2.627	1.00	119.90	O
ATOM	42295	CB	ASN	I	23	253.770	173.064	-14.127	1.00	184.66	C	ATOM	42345	N	GLN	I	31	252.674	161.912	-3.263	1.00	78.82	N
ATOM	42296	CG	ASN	I	23	254.482	172.097	-15.057	1.00	184.66	C	ATOM	42346	CA	GLN	I	31	253.488	161.275	-4.295	1.00	78.82	C
ATOM	42297	OD1	ASN	I	23	255.390	171.378	-14.639	1.00	184.66	O	ATOM	42347	C	GLN	I	31	253.136	161.820	-5.660	1.00	78.82	C
ATOM	42298	ND2	ASN	I	23	254.078	172.078	-16.322	1.00	184.66	N	ATOM	42348	O	GLN	I	31	252.039	162.335	-5.867	1.00	78.82	O
ATOM	42299	N	GLY	I	24	251.401	171.623	-14.531	1.00	17.46	N	ATOM	42349	CB	GLN	I	31	253.289	159.766	-4.295	1.00	89.44	C
ATOM	42300	CA	GLY	I	24	250.540	170.535	-14.942	1.00	17.46	C	ATOM	42350	CG	GLN	I	31	253.683	159.120	-3.002	1.00	89.44	C
ATOM	42301	C	GLY	I	24	250.871	169.285	-14.162	1.00	17.46	C	ATOM	42351	CD	GLN	I	31	254.080	157.686	-3.192	1.00	89.44	C
ATOM	42302	O	GLY	I	24	250.404	168.197	-14.489	1.00	17.46	O	ATOM	42352	OE1	GLN	I	31	253.277	156.861	-3.619	1.00	89.44	O
ATOM	42303	N	LYS	I	25	251.686	169.441	-13.127	1.00	101.62	N	ATOM	42353	NE2	GLN	I	31	255.333	157.374	-2.883	1.00	89.44	N
ATOM	42304	CA	LYS	I	25	252.074	168.309	-12.301	1.00	101.62	C	ATOM	42354	N	ASP	I	32	254.075	161.724	-6.590	1.00	94.14	N
ATOM	42305	C	LYS	I	25	250.939	167.941	-11.354	1.00	101.62	C	ATOM	42355	CA	ASP	I	32	253.820	162.215	-7.929	1.00	94.14	C
ATOM	42306	O	LYS	I	25	250.049	168.750	-11.090	1.00	101.62	O	ATOM	42356	C	ASP	I	32	252.728	161.316	-8.493	1.00	94.14	C
ATOM	42307	CB	LYS	I	25	253.337	168.637	-11.504	1.00	161.22	C	ATOM	42357	O	ASP	I	32	252.747	160.105	-8.279	1.00	94.14	O
ATOM	42308	CG	LYS	I	25	253.194	169.818	-10.572	1.00	161.22	C	ATOM	42358	CB	ASP	I	32	255.085	162.124	-8.777	1.00	126.33	C
ATOM	42309	CD	LYS	I	25	254.465	170.039	-9.781	1.00	161.22	C	ATOM	42359	CG	ASP	I	32	255.027	163.014	-9.995	1.00	126.33	C
ATOM	42310	CE	LYS	I	25	254.319	171.209	-8.825	1.00	161.22	C	ATOM	42360	OD1	ASP	I	32	254.115	162.829	-10.828	1.00	126.33	O
ATOM	42311	NZ	LYS	I	25	255.555	171.419	-8.020	1.00	161.22	N	ATOM	42361	OD2	ASP	I	32	255.894	163.904	-10.118	1.00	126.33	O
ATOM	42312	N	VAL	I	26	250.974	166.714	-10.848	1.00	83.97	N	ATOM	42362	N	PHE	I	33	251.766	161.910	-9.191	1.00	118.62	N
ATOM	42313	CA	VAL	I	26	249.939	166.235	-9.947	1.00	83.97	C	ATOM	42363	CA	PHE	I	33	250.660	161.156	-9.773	1.00	118.62	C
ATOM	42314	C	VAL	I	26	250.519	165.560	-8.713	1.00	83.97	C	ATOM	42364	C	PHE	I	33	251.128	159.869	-10.434	1.00	118.62	C
ATOM	42315	O	VAL	I	26	251.471	164.785	-8.805	1.00	83.97	O	ATOM	42365	O	PHE	I	33	250.498	158.824	-10.294	1.00	118.62	O



ATOM	42366	CB	PHE I	33	249.939	162.008	-10.808	1.00	94.41	C	ATOM	42416	O	GLN I	38	252.174	150.919	-11.065	1.00	96.70	O
ATOM	42367	CG	PHE I	33	248.791	161.313	-11.470	1.00	94.41	C	ATOM	42417	CB	GLN I	38	254.408	152.975	-10.563	1.00	111.00	C
ATOM	42368	CD1	PHE I	33	247.664	160.959	-10.740	1.00	94.41	C	ATOM	42418	CG	GLN I	38	255.434	152.212	-11.397	1.00	111.00	C
ATOM	42369	CD2	PHE I	33	248.831	161.023	-12.826	1.00	94.41	C	ATOM	42419	CD	GLN I	38	256.765	152.031	-10.691	1.00	111.00	C
ATOM	42370	CE1	PHE I	33	246.593	160.328	-11.351	1.00	94.41	C	ATOM	42420	OE1	GLN I	38	256.822	151.595	-9.541	1.00	111.00	O
ATOM	42371	CE2	PHE I	33	247.764	160.392	-13.446	1.00	94.41	C	ATOM	42421	NE2	GLN I	38	257.848	152.352	-11.387	1.00	111.00	N
ATOM	42372	C2	PHE I	33	246.642	160.043	-12.708	1.00	94.41	C	ATOM	42422	N	GLY I	39	252.748	151.621	-13.127	1.00	122.26	N
ATOM	42373	N	ASN I	34	252.236	159.957	-11.159	1.00	68.65	N	ATOM	42423	CA	GLY I	39	252.373	150.367	-13.750	1.00	122.26	C
ATOM	42374	CA	ASN I	34	252.797	158.811	-11.1855	1.00	68.65	C	ATOM	42424	O	GLY I	39	250.901	150.015	-13.656	1.00	122.26	C
ATOM	42375	CA	ASN I	34	253.681	157.971	-10.949	1.00	68.65	C	ATOM	42425	O	GLY I	39	250.553	148.889	-13.311	1.00	122.26	C
ATOM	42376	O	ASN I	34	254.405	157.105	-11.414	1.00	68.65	O	ATOM	42426	N	LEU I	40	250.033	150.974	-13.960	1.00	62.50	N
ATOM	42377	CB	ASN I	34	253.595	159.284	-13.068	1.00	138.49	C	ATOM	42427	CA	LEU I	40	248.596	150.745	-13.925	1.00	62.50	C
ATOM	42378	CG	ASN I	34	252.766	160.128	-14.012	1.00	138.49	C	ATOM	42428	O	LEU I	40	247.943	151.380	-15.141	1.00	62.50	C
ATOM	42379	OD1	ASN I	34	251.806	159.647	-14.613	1.00	138.49	C	ATOM	42429	O	LEU I	40	247.440	152.496	-15.068	1.00	62.50	O
ATOM	42380	ND2	ASN I	34	253.128	161.397	-14.142	1.00	138.49	N	ATOM	42430	CB	LEU I	40	247.987	151.339	-12.654	1.00	62.42	C
ATOM	42381	N	GLU I	35	253.633	158.224	-9.652	1.00	82.24	N	ATOM	42431	CG	LEU I	40	248.318	150.656	-11.327	1.00	62.42	C
ATOM	42382	CA	GLU I	35	254.444	157.447	-8.731	1.00	82.24	C	ATOM	42432	CD1	LEU I	40	247.442	151.246	-10.228	1.00	62.42	C
ATOM	42383	C	GLU I	35	253.512	156.628	-7.858	1.00	82.24	C	ATOM	42433	CD2	LEU I	40	248.070	149.160	-11.436	1.00	62.42	C
ATOM	42384	O	GLU I	35	253.841	155.510	-7.458	1.00	82.24	O	ATOM	42434	N	VAL I	41	247.940	150.661	-16.255	1.00	70.13	N
ATOM	42385	CB	GLU I	35	255.310	158.365	-7.869	1.00	169.92	C	ATOM	42435	CA	VAL I	41	247.365	151.171	-17.493	1.00	70.13	C
ATOM	42386	CG	GLU I	35	256.415	157.637	-7.122	1.00	169.92	C	ATOM	42436	C	VAL I	41	246.167	152.095	-17.280	1.00	70.13	C
ATOM	42387	CD	GLU I	35	257.289	156.807	-8.047	1.00	169.92	C	ATOM	42437	O	VAL I	41	246.061	153.134	-17.924	1.00	70.13	O
ATOM	42388	OE1	GLU I	35	257.798	157.358	-9.046	1.00	169.92	O	ATOM	42438	CB	VAL I	41	246.941	150.022	-18.422	1.00	84.51	C
ATOM	42389	OE2	GLU I	35	257.471	155.603	-7.775	1.00	169.92	O	ATOM	42439	CG1	VAL I	41	246.506	150.584	-19.765	1.00	84.51	C
ATOM	42390	N	TYR I	36	252.339	157.189	-7.570	1.00	92.29	N	ATOM	42440	CG2	VAL I	41	248.091	149.043	-18.598	1.00	84.51	C
ATOM	42391	CA	TYR I	36	251.335	156.515	-6.753	1.00	92.29	C	ATOM	42441	N	ARG I	42	245.267	151.719	-16.380	1.00	89.89	N
ATOM	42392	C	TYR I	36	250.660	155.445	-7.607	1.00	92.29	C	ATOM	42442	CA	ARG I	42	244.083	152.527	-16.096	1.00	89.89	C
ATOM	42393	O	TYR I	36	250.243	154.399	-7.110	1.00	92.29	O	ATOM	42443	C	ARG I	42	244.423	153.972	-15.725	1.00	89.89	C
ATOM	42394	CB	TYR I	36	250.285	157.525	-6.265	1.00	78.88	C	ATOM	42444	O	ARG I	42	243.798	154.915	-16.214	1.00	89.89	O
ATOM	42395	CG	TYR I	36	249.311	156.968	-5.241	1.00	78.88	C	ATOM	42445	CB	ARG I	42	243.293	151.888	-14.955	1.00	74.99	C
ATOM	42396	CD1	TYR I	36	249.764	156.486	-4.016	1.00	78.88	C	ATOM	42446	CG	ARG I	42	242.289	150.833	-15.381	1.00	74.99	C
ATOM	42397	CD2	TYR I	36	247.943	156.900	-5.508	1.00	78.88	C	ATOM	42447	CD	ARG I	42	240.895	151.415	-15.395	1.00	74.99	C
ATOM	42398	CE1	TYR I	36	248.884	155.944	-3.084	1.00	78.88	C	ATOM	42448	NE	ARG I	42	240.506	151.844	-14.056	1.00	74.99	C
ATOM	42399	CE2	TYR I	36	247.056	156.360	-4.584	1.00	78.88	C	ATOM	42449	CZ	ARG I	42	239.615	152.797	-13.804	1.00	74.99	C
ATOM	42400	C2	TYR I	36	247.534	155.878	-3.374	1.00	78.88	C	ATOM	42450	NH1	ARG I	42	239.014	153.429	-14.802	1.00	74.99	N
ATOM	42401	OH	TYR I	36	246.679	155.292	-2.462	1.00	78.88	O	ATOM	42451	NH2	ARG I	42	239.335	153.129	-12.555	1.00	74.99	N
ATOM	42402	N	PHE I	37	250.575	155.726	-8.903	1.00	84.31	N	ATOM	42452	N	ALA I	43	245.418	154.121	-14.855	1.00	67.86	N
ATOM	42403	CA	PHE I	37	249.953	154.831	-9.865	1.00	84.31	C	ATOM	42453	CA	ALA I	43	245.887	155.411	-14.352	1.00	67.86	C
ATOM	42404	C	PHE I	37	250.950	154.252	-10.863	1.00	84.31	C	ATOM	42454	C	ALA I	43	245.538	156.649	-15.177	1.00	67.86	C
ATOM	42405	O	PHE I	37	250.709	154.291	-12.071	1.00	84.31	O	ATOM	42455	O	ALA I	43	244.894	157.575	-14.679	1.00	67.86	O
ATOM	42406	CB	PHE I	37	248.867	155.588	-10.631	1.00	66.01	C	ATOM	42456	CB	ALA I	43	247.393	155.351	-14.134	1.00	161.96	C
ATOM	42407	CG	PHE I	37	247.764	156.101	-9.761	1.00	66.01	C	ATOM	42457	N	VAL I	44	245.972	156.676	-16.429	1.00	63.49	N
ATOM	42408	CD1	PHE I	37	247.253	157.380	-9.950	1.00	66.01	C	ATOM	42458	CA	VAL I	44	245.707	157.823	-17.290	1.00	63.49	C
ATOM	42409	CD2	PHE I	37	247.234	155.306	-8.746	1.00	66.01	C	ATOM	42459	C	VAL I	44	244.323	158.415	-17.112	1.00	63.49	C
ATOM	42410	CE1	PHE I	37	246.231	157.864	-9.140	1.00	66.01	C	ATOM	42460	O	VAL I	44	244.186	159.615	-16.924	1.00	63.49	O
ATOM	42411	CE2	PHE I	37	246.215	155.778	-7.933	1.00	66.01	C	ATOM	42461	CB	VAL I	44	245.864	157.463	-18.766	1.00	88.67	C
ATOM	42412	C2	PHE I	37	245.712	157.062	-8.129	1.00	66.01	C	ATOM	42462	CG1	VAL I	44	245.482	158.657	-19.625	1.00	88.67	C
ATOM	42413	N	GLN I	38	252.063	153.713	-10.373	1.00	96.70	N	ATOM	42463	CG2	VAL I	44	247.299	157.030	-19.042	1.00	88.67	C
ATOM	42414	CA	GLN I	38	253.061	153.140	-11.271	1.00	96.70	C	ATOM	42464	N	ALA I	45	243.308	157.560	-17.178	1.00	74.23	N
ATOM	42415	C	GLN I	38	252.619	151.789	-11.816	1.00	96.70	C	ATOM	42465	CA	ALA I	45	241.908	157.964	-17.046	1.00	74.23	C



ATOM	42466	C	ALA I	45	241.623	159.058	-16.015	1.00	74.23	C	ATOM	42516	NH2	ARG I	51	246.720	161.278	-21.136	1.00	165.11	N
ATOM	42467	O	ALA I	45	240.875	159.998	-16.289	1.00	74.23	O	ATOM	42517	N	ALA I	52	239.534	166.964	-21.583	1.00	89.23	N
ATOM	42468	CB	ALA I	45	241.059	156.745	-16.737	1.00	83.98	C	ATOM	42518	CA	ALA I	52	238.228	167.297	-22.132	1.00	89.23	C
ATOM	42469	N	ALA I	46	242.213	158.931	-14.833	1.00	89.47	N	ATOM	42519	C	ALA I	52	238.123	168.756	-22.535	1.00	89.23	C
ATOM	42470	CA	ALA I	46	242.012	159.895	-13.755	1.00	89.47	C	ATOM	42520	O	ALA I	52	237.884	169.070	-23.706	1.00	89.23	O
ATOM	42471	C	ALA I	46	242.022	161.364	-14.176	1.00	89.47	C	ATOM	42521	CB	ALA I	52	237.153	166.965	-21.125	1.00	49.16	C
ATOM	42472	O	ALA I	46	241.356	162.193	-13.554	1.00	89.47	O	ATOM	42522	N	VAL I	53	238.296	169.641	-21.557	1.00	121.23	N
ATOM	42473	CB	ALA I	46	243.059	159.679	-12.673	1.00	53.11	C	ATOM	42523	CA	VAL I	53	238.224	171.079	-21.785	1.00	121.23	C
ATOM	42474	N	LEU I	47	242.769	161.685	-15.229	1.00	62.30	N	ATOM	42524	C	VAL I	53	239.615	171.673	-21.978	1.00	121.23	C
ATOM	42475	CA	LEU I	47	242.893	163.067	-15.691	1.00	62.30	C	ATOM	42525	O	VAL I	53	239.794	172.890	-21.949	1.00	121.23	O
ATOM	42476	C	LEU I	47	242.156	163.347	-16.985	1.00	62.30	C	ATOM	42526	CB	VAL I	53	237.553	171.783	-20.599	1.00	65.82	C
ATOM	42477	O	LEU I	47	242.248	164.449	-17.526	1.00	62.30	O	ATOM	42527	CG1	VAL I	53	236.105	171.383	-20.521	1.00	65.82	C
ATOM	42478	CB	LEU I	47	244.370	163.416	-15.882	1.00	61.74	C	ATOM	42528	CG2	VAL I	53	238.269	171.413	-19.309	1.00	65.82	C
ATOM	42479	CG	LEU I	47	245.311	162.985	-14.753	1.00	61.74	C	ATOM	42529	N	ASP I	54	240.595	170.799	-22.179	1.00	125.07	N
ATOM	42480	CD1	LEU I	47	246.740	163.063	-15.244	1.00	61.74	C	ATOM	42530	CA	ASP I	54	241.978	171.212	-22.372	1.00	125.07	C
ATOM	42481	CD2	LEU I	47	245.097	163.853	-13.518	1.00	61.74	C	ATOM	42531	C	ASP I	54	242.516	172.008	-21.193	1.00	125.07	C
ATOM	42482	N	GLU I	48	241.425	162.357	-17.482	1.00	89.01	N	ATOM	42532	O	ASP I	54	242.280	173.209	-21.068	1.00	125.07	O
ATOM	42483	CA	GLU I	48	240.688	162.526	-18.726	1.00	89.01	C	ATOM	42533	CB	ASP I	54	242.122	172.022	-23.659	1.00	132.29	C
ATOM	42484	O	GLU I	48	239.671	164.433	-19.771	1.00	89.01	C	ATOM	42534	CG	ASP I	54	241.947	171.170	-24.897	1.00	132.29	C
ATOM	42485	C	GLU I	48	239.793	163.773	-18.741	1.00	89.01	C	ATOM	42535	OD1	ASP I	54	242.677	170.163	-25.035	1.00	132.29	C
ATOM	42486	CB	GLU I	48	239.851	161.280	-19.022	1.00	166.11	C	ATOM	42536	OD2	ASP I	54	241.082	171.506	-25.732	1.00	132.29	O
ATOM	42487	CG	GLU I	48	239.196	161.298	-20.396	1.00	166.11	C	ATOM	42537	N	ALA I	55	243.239	171.308	-20.328	1.00	97.72	N
ATOM	42488	CD	GLU I	48	240.207	161.364	-21.528	1.00	166.11	C	ATOM	42538	CA	ALA I	55	243.844	171.895	-19.150	1.00	97.72	C
ATOM	42489	OE1	GLU I	48	241.031	162.303	-21.548	1.00	166.11	O	ATOM	42539	C	ALA I	55	245.152	171.154	-18.926	1.00	97.72	C
ATOM	42490	OE2	GLU I	48	240.175	160.476	-22.403	1.00	166.11	O	ATOM	42540	O	ALA I	55	245.955	171.013	-19.851	1.00	97.72	O
ATOM	42491	N	PRO I	49	239.157	164.118	-17.604	1.00	89.35	N	ATOM	42541	CB	ALA I	55	242.931	171.730	-17.953	1.00	109.28	C
ATOM	42492	CA	PRO I	49	238.306	165.309	-17.631	1.00	89.35	C	ATOM	42542	N	LEU I	56	245.356	170.663	-17.707	1.00	151.19	N
ATOM	42493	C	PRO I	49	239.082	166.596	-17.926	1.00	89.35	C	ATOM	42543	CA	LEU I	56	246.577	169.941	-17.368	1.00	151.19	C
ATOM	42494	O	PRO I	49	238.498	167.587	-18.371	1.00	89.35	O	ATOM	42544	C	LEU I	56	247.743	170.909	-17.535	1.00	151.19	C
ATOM	42495	CB	PRO I	49	237.657	165.300	-16.250	1.00	71.55	C	ATOM	42545	O	LEU I	56	248.211	171.502	-16.564	1.00	151.19	O
ATOM	42496	CG	PRO I	49	238.691	164.647	-15.399	1.00	71.55	C	ATOM	42546	CB	LEU I	56	246.756	168.730	-18.293	1.00	136.67	C
ATOM	42497	CD	PRO I	49	239.153	163.506	-16.262	1.00	71.55	C	ATOM	42547	CG	LEU I	56	247.650	167.580	-17.818	1.00	136.67	C
ATOM	42498	N	LEU I	50	240.391	166.585	-17.679	1.00	83.09	N	ATOM	42548	CD1	LEU I	56	247.662	166.494	-18.879	1.00	136.67	C
ATOM	42499	CA	LEU I	50	241.217	167.760	-17.963	1.00	83.09	C	ATOM	42549	CD2	LEU I	56	249.061	168.071	-17.542	1.00	136.67	C
ATOM	42500	C	LEU I	50	241.391	167.883	-19.470	1.00	83.09	C	ATOM	42550	N	GLY I	57	248.202	171.077	-18.771	1.00	176.93	N
ATOM	42501	O	LEU I	50	241.196	168.955	-20.036	1.00	83.09	O	ATOM	42551	CA	GLY I	57	249.295	171.995	-19.028	1.00	176.93	C
ATOM	42502	CB	LEU I	50	242.591	167.645	-17.302	1.00	68.13	C	ATOM	42552	C	GLY I	57	248.892	173.404	-18.637	1.00	176.93	C
ATOM	42503	CG	LEU I	50	242.642	167.872	-15.792	1.00	68.13	C	ATOM	42553	O	GLY I	57	249.636	174.362	-18.841	1.00	176.93	O
ATOM	42504	CD1	LEU I	50	244.033	167.578	-15.268	1.00	68.13	C	ATOM	42554	N	ARG I	58	247.695	173.522	-18.072	1.00	95.52	N
ATOM	42505	CD2	LEU I	50	242.247	169.305	-15.489	1.00	68.13	C	ATOM	42555	CA	ARG I	58	247.161	174.802	-17.636	1.00	95.52	C
ATOM	42506	N	ARG I	51	241.757	166.777	-20.112	1.00	92.61	N	ATOM	42556	C	ARG I	58	247.008	174.807	-16.113	1.00	95.52	C
ATOM	42507	CA	ARG I	51	241.940	166.747	-21.559	1.00	92.61	C	ATOM	42557	O	ARG I	58	247.358	175.783	-15.450	1.00	95.52	O
ATOM	42508	C	ARG I	51	240.658	167.169	-22.260	1.00	92.61	C	ATOM	42558	CB	ARG I	58	245.810	175.046	-18.311	1.00	129.50	C
ATOM	42509	O	ARG I	51	240.686	167.661	-23.387	1.00	92.61	O	ATOM	42559	CG	ARG I	58	245.145	176.371	-17.979	1.00	129.50	C
ATOM	42510	CB	ARG I	51	242.299	165.337	-22.023	1.00	165.11	C	ATOM	42560	CD	ARG I	58	243.789	176.431	-18.653	1.00	129.50	C
ATOM	42511	CG	ARG I	51	243.652	164.856	-21.575	1.00	165.11	C	ATOM	42561	NE	ARG I	58	243.058	177.662	-18.383	1.00	129.50	N
ATOM	42512	CD	ARG I	51	243.811	163.383	-21.875	1.00	165.11	C	ATOM	42562	CZ	ARG I	58	241.845	177.916	-18.864	1.00	129.50	C
ATOM	42513	NE	ARG I	51	245.149	162.906	-21.549	1.00	165.11	N	ATOM	42563	NH1	ARG I	58	241.236	177.022	-19.633	1.00	129.50	N
ATOM	42514	CZ	ARG I	51	245.472	161.623	-21.429	1.00	165.11	C	ATOM	42564	NH2	ARG I	58	241.239	179.061	-18.583	1.00	129.50	N
ATOM	42515	NH1	ARG I	51	244.548	160.687	-21.605	1.00	165.11	N	ATOM	42565	H	PIE I	59	246.488	173.713	-15.562	1.00	93.02	H



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ATOM	42566	CA	PHE I	59	246.312	173.606	-14.116	1.00	93.02	C	ATOM	42616	N	VAL I	65	243.533	161.152	-1.244	1.00	66.72	N
ATOM	42567	C	PHE I	59	247.397	172.758	-13.489	1.00	93.02	C	ATOM	42617	CA	VAL I	65	242.851	159.922	-1.637	1.00	66.72	C
ATOM	42568	O	PHE I	59	248.254	172.201	-14.166	1.00	93.02	O	ATOM	42618	C	VAL I	65	242.954	158.884	-0.523	1.00	66.72	C
ATOM	42569	CB	PHE I	59	244.967	172.973	-13.752	1.00	94.24	C	ATOM	42619	O	VAL I	65	244.050	158.509	-0.114	1.00	66.72	O
ATOM	42570	CG	PHE I	59	243.791	173.888	-13.913	1.00	94.24	C	ATOM	42620	CB	VAL I	65	243.450	159.379	-2.969	1.00	54.57	C
ATOM	42571	CD1	PHE I	59	243.290	174.188	-15.176	1.00	94.24	C	ATOM	42621	CG1	VAL I	65	244.189	158.070	-2.747	1.00	54.57	C
ATOM	42572	CD2	PHE I	59	243.167	174.434	-12.796	1.00	94.24	C	ATOM	42622	CG2	VAL I	65	242.347	159.219	-4.000	1.00	54.57	C
ATOM	42573	CE1	PHE I	59	242.179	175.018	-15.326	1.00	94.24	C	ATOM	42623	N	ARG I	66	241.807	158.434	-0.022	1.00	80.53	N
ATOM	42574	CE2	PHE I	59	242.057	175.264	-12.932	1.00	94.24	C	ATOM	42624	CA	ARG I	66	241.775	157.454	1.063	1.00	80.53	C
ATOM	42575	CZ	PHE I	59	241.562	175.557	-14.201	1.00	94.24	C	ATOM	42625	C	ARG I	66	240.590	156.495	0.898	1.00	80.53	C
ATOM	42576	N	ASP I	60	247.332	172.665	-12.172	1.00	88.60	N	ATOM	42626	O	ARG I	66	239.470	156.926	0.586	1.00	80.53	O
ATOM	42577	CA	ASP I	60	248.264	171.883	-11.382	1.00	88.60	C	ATOM	42627	CB	ARG I	66	241.656	158.186	2.397	1.00	130.21	C
ATOM	42578	C	ASP I	60	247.329	171.391	-10.286	1.00	88.60	C	ATOM	42628	CD	ARG I	66	241.897	157.330	3.620	1.00	130.21	C
ATOM	42579	O	ASP I	60	246.489	172.153	-9.807	1.00	88.60	C	ATOM	42629	CG	ARG I	66	241.167	157.922	4.813	1.00	130.21	C
ATOM	42580	CB	ASP I	60	249.353	172.792	-10.809	1.00	195.22	C	ATOM	42630	NE	ARG I	66	241.270	159.379	4.855	1.00	130.21	N
ATOM	42581	CG	ASP I	60	250.668	172.073	-10.618	1.00	195.22	C	ATOM	42631	CZ	ARG I	66	242.360	160.047	5.220	1.00	130.21	C
ATOM	42582	OD1	ASP I	60	250.696	171.077	-9.867	1.00	195.22	O	ATOM	42632	NH1	ARG I	66	243.455	159.392	5.585	1.00	130.21	N
ATOM	42583	OD2	ASP I	60	251.674	172.504	-11.222	1.00	195.22	O	ATOM	42633	NH2	ARG I	66	242.356	161.373	5.210	1.00	130.21	N
ATOM	42584	N	ALA I	61	247.438	170.132	-9.884	1.00	81.96	N	ATOM	42634	N	GLY I	67	240.842	155.200	1.097	1.00	64.93	N
ATOM	42585	CA	ALA I	61	246.507	169.657	-8.874	1.00	81.96	C	ATOM	42635	CA	GLY I	67	239.787	154.203	0.975	1.00	64.93	C
ATOM	42586	C	ALA I	61	247.073	168.882	-7.698	1.00	81.96	C	ATOM	42636	C	GLY I	67	239.682	153.458	-0.352	1.00	64.93	C
ATOM	42587	O	ALA I	61	247.924	167.998	-7.841	1.00	81.96	O	ATOM	42637	O	GLY I	67	239.855	154.032	-1.423	1.00	64.93	O
ATOM	42588	CB	ALA I	61	245.400	168.846	-9.543	1.00	60.94	C	ATOM	42638	N	GLY I	68	239.384	152.166	-0.272	1.00	62.36	N
ATOM	42589	N	TYR I	62	246.572	169.243	-6.524	1.00	100.43	N	ATOM	42639	CA	GLY I	68	239.247	151.355	-1.465	1.00	62.36	C
ATOM	42590	CA	TYR I	62	246.955	168.606	-5.281	1.00	100.43	C	ATOM	42640	C	GLY I	68	240.529	150.805	-2.070	1.00	62.36	C
ATOM	42591	C	TYR I	62	245.792	167.660	-5.016	1.00	100.43	C	ATOM	42641	O	GLY I	68	241.425	150.327	-1.377	1.00	62.36	O
ATOM	42592	O	TYR I	62	244.631	168.056	-5.158	1.00	100.43	O	ATOM	42642	N	GLY I	69	240.590	150.848	-3.394	1.00	65.23	N
ATOM	42593	CB	TYR I	62	247.073	169.653	-4.178	1.00	58.58	C	ATOM	42643	CA	GLY I	69	241.751	150.363	-4.113	1.00	65.23	C
ATOM	42594	CG	TYR I	62	247.538	169.094	-2.866	1.00	58.58	C	ATOM	42644	C	GLY I	69	242.147	151.451	-5.084	1.00	65.23	C
ATOM	42595	CD1	TYR I	62	248.774	168.471	-2.754	1.00	58.58	C	ATOM	42645	O	GLY I	69	241.366	152.367	-5.351	1.00	65.23	O
ATOM	42596	CD2	TYR I	62	246.729	169.169	-1.735	1.00	58.58	C	ATOM	42646	N	LYS I	70	243.350	151.358	-5.628	1.00	61.12	N
ATOM	42597	CE1	TYR I	62	249.194	167.933	-1.542	1.00	58.58	C	ATOM	42647	CA	LYS I	70	243.808	152.384	-6.539	1.00	61.12	C
ATOM	42598	CE2	TYR I	62	247.135	168.637	-0.524	1.00	58.58	C	ATOM	42648	C	LYS I	70	242.967	152.512	-7.805	1.00	61.12	C
ATOM	42599	CZ	TYR I	62	248.365	168.020	-0.431	1.00	58.58	C	ATOM	42649	O	LYS I	70	242.932	153.576	-8.421	1.00	61.12	O
ATOM	42600	OH	TYR I	62	248.759	167.480	0.770	1.00	58.58	O	ATOM	42650	CB	LYS I	70	245.291	152.168	-6.850	1.00	75.06	C
ATOM	42601	N	ILE I	63	246.093	166.420	-4.636	1.00	75.62	N	ATOM	42651	CG	LYS I	70	246.150	152.336	-5.600	1.00	75.06	C
ATOM	42602	CA	ILE I	63	245.042	165.432	-4.427	1.00	75.62	C	ATOM	42652	CD	LYS I	70	247.638	152.290	-5.884	1.00	75.06	C
ATOM	42603	C	ILE I	63	245.166	164.530	-3.208	1.00	75.62	C	ATOM	42653	CE	LYS I	70	248.421	152.442	-4.585	1.00	75.06	C
ATOM	42604	O	ILE I	63	246.227	163.963	-2.942	1.00	75.62	O	ATOM	42654	NZ	LYS I	70	249.905	152.386	-4.750	1.00	75.06	N
ATOM	42605	CB	ILE I	63	244.915	164.533	-5.678	1.00	84.90	C	ATOM	42655	N	SER I	71	242.266	151.451	-8.188	1.00	71.12	N
ATOM	42606	CG1	ILE I	63	244.427	165.367	-6.867	1.00	84.90	C	ATOM	42656	CA	SER I	71	241.426	151.528	-9.379	1.00	71.12	C
ATOM	42607	CG2	ILE I	63	243.967	163.382	-5.405	1.00	84.90	C	ATOM	42657	C	SER I	71	240.201	152.376	-9.041	1.00	71.12	C
ATOM	42608	CD1	ILE I	63	244.526	164.659	-8.207	1.00	84.90	C	ATOM	42658	O	SER I	71	239.701	153.133	-9.869	1.00	71.12	O
ATOM	42609	N	THR I	64	244.051	164.406	-2.486	1.00	93.13	N	ATOM	42659	CB	SER I	71	240.984	150.135	-9.825	1.00	99.29	C
ATOM	42610	CA	THR I	64	243.943	163.556	-1.302	1.00	93.13	C	ATOM	42660	OG	SER I	71	240.256	150.217	-11.036	1.00	99.29	O
ATOM	42611	C	THR I	64	243.176	162.323	-1.762	1.00	93.13	C	ATOM	42661	N	GLY I	72	239.726	152.243	-7.808	1.00	66.74	N
ATOM	42612	O	THR I	64	242.261	162.437	-2.577	1.00	93.13	O	ATOM	42662	CA	GLY I	72	238.577	153.010	-7.384	1.00	66.74	C
ATOM	42613	CB	THR I	64	243.110	164.223	-0.185	1.00	162.16	C	ATOM	42663	C	GLY I	72	238.971	154.453	-7.184	1.00	66.74	C
ATOM	42614	OG1	THR I	64	243.724	165.454	0.210	1.00	162.16	O	ATOM	42664	O	GLY I	72	238.222	155.368	-7.532	1.00	66.74	O
ATOM	42615	CG2	THR I	64	243.003	163.301	1.023	1.00	162.16	C	ATOM	42665	N	GLN I	73	240.158	154.650	-6.618	1.00	65.29	N



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ATOM	42666	CA	GLN I	73	240.677	155.985	-6.370	1.00	65.29	C	ATOM	42716	CB	LEU I	79	234.349	162.203	-9.238	1.00	52.59	C
ATOM	42667	C	GLN I	73	240.841	156.741	-7.689	1.00	65.29	C	ATOM	42717	CG	LEU I	79	232.812	162.193	-9.382	1.00	52.59	C
ATOM	42668	O	GLN I	73	240.494	157.921	-7.790	1.00	65.29	O	ATOM	42718	CD1	LEU I	79	232.213	161.876	-8.016	1.00	52.59	C
ATOM	42669	CB	GLN I	73	242.009	155.885	-5.633	1.00	50.95	C	ATOM	42719	CD2	LEU I	79	232.269	163.521	-9.912	1.00	52.59	C
ATOM	42670	CG	GLN I	73	241.907	155.018	-4.392	1.00	50.95	C	ATOM	42720	N	GLY I	80	236.436	164.243	-8.695	1.00	87.78	N
ATOM	42671	CD	GLN I	73	243.156	155.050	-3.533	1.00	50.95	C	ATOM	42721	CA	GLY I	80	236.912	165.467	-8.077	1.00	87.78	C
ATOM	42672	OEL	GLN I	73	244.266	155.091	-4.050	1.00	50.95	O	ATOM	42722	C	GLY I	80	237.426	166.450	-9.109	1.00	87.78	C
ATOM	42673	NE2	GLN I	73	242.979	155.012	-2.211	1.00	50.95	N	ATOM	42723	O	GLY I	80	237.075	167.630	-9.075	1.00	87.78	O
ATOM	42674	N	ILE I	74	241.362	156.061	-8.704	1.00	58.03	N	ATOM	42724	N	ILE I	81	238.254	165.966	-10.031	1.00	68.77	N
ATOM	42675	CA	ILE I	74	241.530	156.689	-10.004	1.00	58.03	C	ATOM	42725	CA	ILE I	81	238.801	166.819	-11.079	1.00	68.77	C
ATOM	42676	C	ILE I	74	240.206	157.315	-10.413	1.00	58.03	C	ATOM	42726	C	ILE I	81	237.663	167.396	-11.918	1.00	68.77	C
ATOM	42677	O	ILE I	74	240.157	158.462	-10.857	1.00	58.03	O	ATOM	42727	O	ILE I	81	237.589	168.607	-12.135	1.00	68.77	O
ATOM	42678	CB	ILE I	74	241.928	155.665	-11.064	1.00	60.21	C	ATOM	42728	CB	ILE I	81	239.794	166.039	-11.999	1.00	50.56	C
ATOM	42679	CG1	ILE I	74	243.335	155.162	-10.781	1.00	60.21	C	ATOM	42729	CG1	ILE I	81	241.069	165.706	-11.225	1.00	50.56	C
ATOM	42680	CG2	ILE I	74	241.862	156.283	-12.444	1.00	60.21	C	ATOM	42730	CG2	ILE I	81	240.171	166.879	-13.223	1.00	50.56	C
ATOM	42681	CD1	ILE I	74	243.782	154.057	-11.713	1.00	60.21	C	ATOM	42731	CD1	ILE I	81	242.178	165.173	-12.087	1.00	50.56	C
ATOM	42682	N	ASP I	75	239.129	156.555	-10.250	1.00	78.31	N	ATOM	42732	N	ALA I	82	236.772	166.529	-12.381	1.00	93.51	N
ATOM	42683	CA	ASP I	75	237.806	157.034	-10.615	1.00	78.31	C	ATOM	42733	CA	ALA I	82	235.646	166.973	-13.187	1.00	93.51	C
ATOM	42684	C	ASP I	75	237.328	158.211	-9.773	1.00	78.31	C	ATOM	42734	C	ALA I	82	234.837	168.035	-12.443	1.00	93.51	C
ATOM	42685	O	ASP I	75	236.779	159.170	-10.312	1.00	78.31	O	ATOM	42735	O	ALA I	82	234.337	168.982	-13.047	1.00	93.51	O
ATOM	42686	CB	ASP I	75	236.791	155.889	-10.554	1.00	116.44	C	ATOM	42736	CB	ALA I	82	234.760	165.786	-13.533	1.00	157.56	C
ATOM	42687	CG	ASP I	75	236.783	155.049	-11.824	1.00	116.44	C	ATOM	42737	N	ARG I	83	234.724	167.878	-11.128	1.00	88.20	N
ATOM	42688	OD1	ASP I	75	236.536	155.618	-12.909	1.00	116.44	O	ATOM	42738	CA	ARG I	83	233.967	168.812	-10.304	1.00	88.20	C
ATOM	42689	OD2	ASP I	75	237.018	153.825	-11.742	1.00	116.44	O	ATOM	42739	C	ARG I	83	234.636	170.172	-10.130	1.00	88.20	C
ATOM	42690	N	ALA I	76	237.531	158.148	-8.461	1.00	65.48	N	ATOM	42740	O	ARG I	83	234.033	171.210	-10.426	1.00	88.20	O
ATOM	42691	CA	ALA I	76	237.113	159.245	-7.586	1.00	65.48	C	ATOM	42741	CB	ARG I	83	233.683	168.182	-8.942	1.00	100.24	C
ATOM	42692	C	ALA I	76	237.858	160.515	-7.995	1.00	65.48	C	ATOM	42742	CD	ARG I	83	232.600	167.118	-9.002	1.00	100.24	C
ATOM	42693	O	ALA I	76	237.252	161.573	-8.210	1.00	65.48	O	ATOM	42743	CD	ARG I	83	232.356	166.471	-7.654	1.00	100.24	C
ATOM	42694	CB	ALA I	76	237.417	158.906	-6.137	1.00	34.12	C	ATOM	42744	NE	ARG I	83	230.985	165.981	-7.545	1.00	100.24	N
ATOM	42695	N	ILE I	77	239.181	160.392	-8.090	1.00	53.50	N	ATOM	42745	CZ	ARG I	83	230.464	165.463	-6.438	1.00	100.24	C
ATOM	42696	CA	ILE I	77	240.046	161.487	-8.499	1.00	53.50	C	ATOM	42746	NH1	ARG I	83	231.208	165.363	-5.343	1.00	100.24	N
ATOM	42697	C	ILE I	77	239.454	162.079	-9.769	1.00	53.50	C	ATOM	42747	NH2	ARG I	83	229.195	165.069	-6.417	1.00	100.24	N
ATOM	42698	CB	ILE I	77	239.406	163.287	-9.947	1.00	51.07	C	ATOM	42748	N	ALA I	84	235.872	170.176	-9.640	1.00	93.19	N
ATOM	42699	CG1	ILE I	77	241.473	160.964	-8.806	1.00	51.07	C	ATOM	42749	CA	ALA I	84	236.594	171.432	-9.466	1.00	93.19	C
ATOM	42700	CG2	ILE I	77	242.222	160.686	-7.501	1.00	51.07	C	ATOM	42750	C	ALA I	84	236.526	172.198	-10.782	1.00	93.19	C
ATOM	42701	CG2	ILE I	77	242.220	161.952	-9.686	1.00	51.07	C	ATOM	42751	O	ALA I	84	236.206	173.383	-10.809	1.00	93.19	O
ATOM	42702	CD1	ILE I	77	243.606	160.139	-7.706	1.00	51.07	C	ATOM	42752	CB	ALA I	84	238.037	171.162	-9.098	1.00	38.89	C
ATOM	42703	N	LYS I	78	238.992	161.208	-10.650	1.00	62.21	N	ATOM	42753	N	LEU I	85	236.822	171.500	-11.873	1.00	90.58	N
ATOM	42704	CA	LYS I	78	238.416	161.646	-11.902	1.00	62.21	C	ATOM	42754	CA	LEU I	85	236.780	172.087	-13.206	1.00	90.58	C
ATOM	42705	C	LYS I	78	237.142	162.469	-11.670	1.00	62.21	C	ATOM	42755	O	LEU I	85	235.558	172.992	-13.376	1.00	90.58	C
ATOM	42706	O	LYS I	78	236.817	163.361	-12.459	1.00	62.21	O	ATOM	42756	O	LEU I	85	235.641	174.045	-14.007	1.00	90.58	O
ATOM	42707	CB	LYS I	78	238.137	160.422	-12.781	1.00	82.81	C	ATOM	42757	CB	LEU I	85	236.736	170.981	-14.264	1.00	108.75	C
ATOM	42708	CG	LYS I	78	238.102	160.722	-14.264	1.00	82.81	C	ATOM	42758	CG	LEU I	85	237.923	170.819	-15.216	1.00	108.75	C
ATOM	42709	CD	LYS I	78	236.704	161.035	-14.735	1.00	82.81	C	ATOM	42759	CD1	LEU I	85	239.173	170.400	-14.457	1.00	108.75	C
ATOM	42710	CE	LYS I	78	235.892	159.760	-14.903	1.00	82.81	C	ATOM	42760	CD2	LEU I	85	237.566	169.775	-16.258	1.00	108.75	C
ATOM	42711	NZ	LYS I	78	236.449	158.881	-15.972	1.00	82.81	H	ATOM	42761	N	VAL I	86	234.428	172.580	-12.809	1.00	104.06	N
ATOM	42712	N	LEU I	79	236.422	162.180	-10.589	1.00	91.53	N	ATOM	42762	CA	VAL I	86	233.198	173.356	-12.917	1.00	104.06	C
ATOM	42713	CA	LEU I	79	235.200	162.923	-10.289	1.00	91.53	C	ATOM	42763	C	VAL I	86	233.209	174.642	-12.095	1.00	104.06	C
ATOM	42714	C	LEU I	79	235.607	164.274	-9.735	1.00	91.53	C	ATOM	42764	O	VAL I	86	232.653	175.658	-12.522	1.00	104.06	O
ATOM	42715	O	LEU I	79	235.177	165.313	-10.232	1.00	91.53	O	ATOM	42765	CB	VAL I	86	231.979	172.507	-12.521	1.00	101.63	C



Table 2: Sheet 429/520

ATOM	42766	CG1 VAL I 86	230.729	173.381	-12.436	1.00101.63	C	ATOM	42816	CB TYR I 92	233.546	173.340	-17.569	1.00107.84	C
ATOM	42767	CG2 VAL I 86	231.780	171.410	-13.549	1.00101.63	C	ATOM	42817	CG TYR I 92	234.897	173.915	-17.937	1.00107.84	C
ATOM	42768	N GLN I 87	233.826	174.602	-10.916	1.00122.66	N	ATOM	42818	CD1 TYR I 92	235.927	173.968	-17.000	1.00107.84	C
ATOM	42769	CA GLN I 87	233.903	175.798	-10.086	1.00122.66	C	ATOM	42819	CD2 TYR I 92	235.156	174.384	-19.227	1.00107.84	C
ATOM	42770	C GLN I 87	234.705	176.841	-10.842	1.00122.66	C	ATOM	42820	CE1 TYR I 92	237.179	174.474	-17.333	1.00107.84	C
ATOM	42771	O GLN I 87	234.296	177.994	-10.957	1.00122.66	O	ATOM	42821	CE2 TYR I 92	236.406	174.890	-19.571	1.00107.84	C
ATOM	42772	CB GLN I 87	234.594	175.506	-8.761	1.00129.28	C	ATOM	42822	CZ TYR I 92	237.412	174.933	-18.617	1.00107.84	C
ATOM	42773	CG GLN I 87	233.771	174.695	-7.802	1.00129.28	C	ATOM	42823	OH TYR I 92	238.650	175.438	-18.939	1.00107.84	O
ATOM	42774	CD GLN I 87	234.293	174.805	-6.389	1.00129.28	C	ATOM	42824	N ARG I 93	230.509	172.508	-17.639	1.00 99.51	N
ATOM	42775	OEL GLN I 87	235.465	174.529	-6.124	1.00129.28	O	ATOM	42825	CA ARG I 93	229.477	171.479	-17.594	1.00 99.51	C
ATOM	42776	NE2 GLN I 87	233.426	175.213	-5.469	1.00129.28	N	ATOM	42826	C ARG I 93	228.927	171.169	-18.973	1.00 99.51	C
ATOM	42777	N TYR I 88	235.854	176.423	-11.358	1.00138.47	N	ATOM	42827	O ARG I 93	229.006	170.041	-19.438	1.00 99.51	O
ATOM	42778	CA TYR I 88	236.716	177.311	-12.120	1.00138.47	C	ATOM	42828	CB ARG I 93	228.312	171.916	-16.707	1.00147.66	C
ATOM	42779	C TYR I 88	235.913	177.991	-13.216	1.00138.47	C	ATOM	42829	CG ARG I 93	228.595	171.875	-15.229	1.00147.66	C
ATOM	42780	O TYR I 88	236.018	179.198	-13.426	1.00138.47	O	ATOM	42830	CD ARG I 93	227.328	172.132	-14.440	1.00147.66	C
ATOM	42781	CB TYR I 88	237.856	176.518	-12.752	1.00132.12	C	ATOM	42831	NE ARG I 93	227.487	171.746	-13.043	1.00147.66	N
ATOM	42782	CG TYR I 88	238.739	177.345	-13.648	1.00132.12	C	ATOM	42832	CZ ARG I 93	226.485	171.649	-12.177	1.00147.66	C
ATOM	42783	CD1 TYR I 88	239.610	178.288	-13.114	1.00132.12	C	ATOM	42833	NH1 ARG I 93	225.246	171.911	-12.566	1.00147.66	N
ATOM	42784	CD2 TYR I 88	238.699	177.192	-15.033	1.00132.12	C	ATOM	42834	NH2 ARG I 93	226.722	171.283	-10.924	1.00147.66	N
ATOM	42785	CE1 TYR I 88	240.423	179.060	-13.929	1.00132.12	C	ATOM	42835	N ALA I 94	228.369	172.183	-19.621	1.00109.33	N
ATOM	42786	CE2 TYR I 88	239.509	177.961	-15.865	1.00132.12	C	ATOM	42836	CA ALA I 94	227.780	172.018	-20.941	1.00109.33	C
ATOM	42787	CZ TYR I 88	240.370	178.894	-15.304	1.00132.12	C	ATOM	42837	C ALA I 94	228.596	171.156	-21.894	1.00109.33	C
ATOM	42788	OH TYR I 88	241.183	179.659	-16.110	1.00132.12	O	ATOM	42838	O ALA I 94	228.067	170.673	-22.893	1.00109.33	O
ATOM	42789	N ASN I 89	235.104	177.201	-13.910	1.00 87.87	N	ATOM	42839	CB ALA I 94	227.524	173.377	-21.564	1.00103.96	C
ATOM	42790	CA ASN I 89	234.287	177.712	-14.995	1.00 87.87	C	ATOM	42840	N LYS I 95	229.877	170.959	-21.598	1.00 96.70	N
ATOM	42791	C ASN I 89	233.012	176.887	-15.091	1.00 87.87	C	ATOM	42841	CA LYS I 95	230.726	170.141	-22.459	1.00 96.70	C
ATOM	42792	O ASN I 89	233.013	175.801	-15.668	1.00 87.87	O	ATOM	42842	C LYS I 95	231.433	169.033	-21.691	1.00 96.70	C
ATOM	42793	CB ASN I 89	235.055	177.611	-16.312	1.00 86.96	C	ATOM	42843	O LYS I 95	231.864	168.041	-22.275	1.00179.67	O
ATOM	42794	CG ASN I 89	234.391	178.380	-17.437	1.00 86.96	C	ATOM	42844	CB LYS I 95	231.768	171.014	-23.165	1.00179.67	C
ATOM	42795	OD1 ASN I 89	233.167	178.500	-17.488	1.00 86.96	O	ATOM	42845	CG LYS I 95	231.623	171.061	-24.684	1.00179.67	C
ATOM	42796	ND2 ASN I 89	235.200	178.895	-18.357	1.00 86.96	N	ATOM	42846	CD LYS I 95	231.827	169.685	-25.318	1.00179.67	C
ATOM	42797	N PRO I 90	231.902	177.396	-14.542	1.00128.80	N	ATOM	42847	CE LYS I 95	231.689	169.741	-26.837	1.00179.67	C
ATOM	42798	CA PRO I 90	230.648	176.644	-14.603	1.00128.80	C	ATOM	42848	NZ LYS I 95	231.947	168.420	-27.476	1.00179.67	N
ATOM	42799	C PRO I 90	230.299	176.222	-16.026	1.00128.80	C	ATOM	42849	N LEU I 96	231.539	169.203	-20.379	1.00 92.71	N
ATOM	42800	O PRO I 90	229.815	175.115	-16.251	1.00128.80	O	ATOM	42850	CA LEU I 96	232.204	168.230	-19.523	1.00 92.71	C
ATOM	42801	CB PRO I 90	229.634	177.629	-14.032	1.00 86.32	C	ATOM	42851	C LEU I 96	231.259	167.095	-19.127	1.00 92.71	C
ATOM	42802	CG PRO I 90	230.175	178.944	-14.480	1.00 86.32	C	ATOM	42852	O LEU I 96	231.703	165.990	-18.806	1.00 92.71	O
ATOM	42803	CD PRO I 90	231.645	178.790	-14.146	1.00 86.32	C	ATOM	42853	CB LEU I 96	232.729	168.938	-18.273	1.00 99.30	C
ATOM	42804	N ASP I 91	230.560	177.106	-16.983	1.00103.33	N	ATOM	42854	CG LEU I 96	233.723	168.192	-17.387	1.00 99.30	C
ATOM	42805	CA ASP I 91	230.258	176.836	-18.384	1.00103.33	C	ATOM	42855	CD1 LEU I 96	234.920	167.760	-18.216	1.00 99.30	C
ATOM	42806	C ASP I 91	230.901	175.559	-18.923	1.00103.33	C	ATOM	42856	CD2 LEU I 96	234.161	169.095	-16.243	1.00 99.30	C
ATOM	42807	O ASP I 91	230.610	175.140	-20.042	1.00103.33	O	ATOM	42857	N LYS I 97	229.957	167.384	-19.164	1.00107.73	N
ATOM	42808	CB ASP I 91	230.668	178.035	-19.244	1.00145.13	C	ATOM	42858	CA LYS I 97	228.905	166.426	-18.813	1.00107.73	C
ATOM	42809	CG ASP I 91	229.918	179.302	-18.870	1.00145.13	C	ATOM	42859	C LYS I 97	228.497	165.456	-19.916	1.00107.73	C
ATOM	42810	OD1 ASP I 91	230.078	179.776	-17.726	1.00145.13	O	ATOM	42860	O LYS I 97	228.160	164.314	-19.632	1.00107.73	O
ATOM	42811	OD2 ASP I 91	229.165	179.822	-19.720	1.00145.13	O	ATOM	42861	CB LYS I 97	227.655	167.162	-18.328	1.00161.88	C
ATOM	42812	N TYR I 92	231.772	174.941	-18.132	1.00122.08	N	ATOM	42862	CG LYS I 97	227.818	167.815	-16.975	1.00161.88	C
ATOM	42813	CA TYR I 92	232.423	173.702	-18.545	1.00122.08	C	ATOM	42863	CD LYS I 97	226.557	168.539	-16.540	1.00161.88	C
ATOM	42814	C TYR I 92	231.410	172.561	-18.617	1.00122.08	C	ATOM	42864	CE LYS I 97	226.707	169.083	-15.129	1.00161.88	C
ATOM	42815	O TYR I 92	231.446	171.749	-19.541	1.00122.08	O	ATOM	42865	NZ LYS I 97	225.517	169.857	-14.686	1.00161.88	N



ATOM 42866	N	PRO I 98	228.500	165.894	-21.185	1.00101.25	N	ATOM 42916	CG	ARG I 104	229.318	159.627	-6.988	1.00	65.40	C
ATOM 42867	CA	PRO I 98	228.108	164.955	-22.238	1.00101.25	C	ATOM 42917	CD	ARG I 104	228.982	158.267	-6.419	1.00	65.40	C
ATOM 42868	C	PRO I 98	228.940	163.678	-22.186	1.00101.25	C	ATOM 42918	NE	ARG I 104	230.050	157.767	-5.556	1.00	65.40	N
ATOM 42869	O	PRO I 98	228.612	162.685	-22.830	1.00101.25	O	ATOM 42919	CZ	ARG I 104	229.890	156.803	-4.655	1.00	65.40	C
ATOM 42870	CB	PRO I 98	228.332	165.756	-23.518	1.00185.08	C	ATOM 42920	NH1	ARG I 104	228.704	156.245	-4.490	1.00	65.40	N
ATOM 42871	CG	PRO I 98	229.419	166.705	-23.139	1.00185.08	C	ATOM 42921	NH2	ARG I 104	230.912	156.376	-3.932	1.00	65.40	N
ATOM 42872	CD	PRO I 98	228.978	167.154	-21.772	1.00185.08	C	ATOM 42922	N	ASP I 105	229.359	157.255	-10.211	1.00	73.47	N
ATOM 42873	N	LEU I 99	230.019	163.718	-21.412	1.00	83.53	ATOM 42923	CA	ASP I 105	229.117	155.837	-10.444	1.00	73.47	C
ATOM 42874	CA	LEU I 99	230.898	162.565	-21.239	1.00	83.53	ATOM 42924	C	ASP I 105	228.645	155.203	-9.141	1.00	73.47	C
ATOM 42875	C	LEU I 99	230.530	161.847	-19.935	1.00	83.53	ATOM 42925	O	ASP I 105	229.404	155.128	-8.173	1.00	73.47	O
ATOM 42876	O	LEU I 99	230.933	160.706	-19.699	1.00	83.53	ATOM 42926	CB	ASP I 105	230.403	155.166	-10.909	1.00	89.33	C
ATOM 42877	CB	LEU I 99	232.363	163.012	-21.192	1.00116.63	C	ATOM 42927	CG	ASP I 105	230.218	153.700	-11.195	1.00	89.33	C
ATOM 42878	CG	LEU I 99	232.957	163.622	-22.466	1.00116.63	C	ATOM 42928	OD1	ASP I 105	229.727	152.982	-10.299	1.00	89.33	O
ATOM 42879	CD1	LEU I 99	232.780	162.637	-23.608	1.00116.63	C	ATOM 42929	OD2	ASP I 105	230.569	153.266	-12.315	1.00	89.33	O
ATOM 42880	CD2	LEU I 99	232.287	164.946	-22.798	1.00116.63	C	ATOM 42930	N	ALA I 106	227.400	154.737	-9.114	1.00	71.02	N
ATOM 42881	N	GLY I 100	229.770	162.541	-19.091	1.00108.28	N	ATOM 42931	CA	ALA I 106	226.851	154.143	-7.899	1.00	71.02	C
ATOM 42882	CA	GLY I 100	229.321	161.976	-17.831	1.00108.28	C	ATOM 42932	C	ALA I 106	227.007	152.625	-7.760	1.00	71.02	C
ATOM 42883	C	GLY I 100	230.317	161.975	-16.689	1.00108.28	C	ATOM 42933	O	ALA I 106	226.479	152.030	-6.816	1.00	71.02	O
ATOM 42884	O	GLY I 100	230.074	161.330	-15.670	1.00108.28	O	ATOM 42934	CB	ALA I 106	225.389	154.529	-7.761	1.00	71.52	C
ATOM 42885	N	PHE I 101	231.429	162.691	-16.843	1.00	81.96	ATOM 42935	N	ARG I 107	227.729	152.000	-8.687	1.00	58.26	N
ATOM 42886	CA	PHE I 101	232.448	162.741	-15.794	1.00	81.96	ATOM 42936	CA	ARG I 107	227.943	150.558	-8.624	1.00	58.26	C
ATOM 42887	C	PHE I 101	231.865	163.258	-14.491	1.00	81.96	ATOM 42937	C	ARG I 107	228.726	150.196	-7.366	1.00	58.26	C
ATOM 42888	O	PHE I 101	232.378	162.972	-13.406	1.00	81.96	ATOM 42938	O	ARG I 107	229.777	150.766	-7.083	1.00	58.26	O
ATOM 42889	CB	PHE I 101	233.609	163.646	-16.210	1.00	71.99	ATOM 42939	CB	ARG I 107	228.666	150.080	-9.878	1.00	72.50	C
ATOM 42890	CG	PHE I 101	234.414	163.112	-17.355	1.00	71.99	ATOM 42940	CG	ARG I 107	227.828	150.241	-11.122	1.00	72.50	C
ATOM 42891	CD1	PHE I 101	234.630	163.887	-18.491	1.00	71.99	ATOM 42941	CD	ARG I 107	228.481	149.576	-12.289	1.00	72.50	C
ATOM 42892	CD2	PHE I 101	234.965	161.840	-17.300	1.00	71.99	ATOM 42942	NE	ARG I 107	229.716	150.248	-12.666	1.00	72.50	N
ATOM 42893	CE1	PHE I 101	235.385	163.399	-19.555	1.00	71.99	ATOM 42943	CZ	ARG I 107	230.786	149.617	-13.136	1.00	72.50	C
ATOM 42894	CE2	PHE I 101	235.719	161.344	-18.356	1.00	71.99	ATOM 42944	NH1	ARG I 107	230.765	148.294	-13.279	1.00	72.50	N
ATOM 42895	CZ	PHE I 101	235.929	162.127	-19.487	1.00	71.99	ATOM 42945	NH2	ARG I 107	231.873	150.305	-13.467	1.00	72.50	N
ATOM 42896	N	LEU I 102	230.781	164.016	-14.602	1.00	74.98	ATOM 42946	N	VAL I 108	228.209	149.231	-6.620	1.00	58.34	N
ATOM 42897	CA	LEU I 102	230.151	164.587	-13.428	1.00	74.98	ATOM 42947	CA	VAL I 108	228.825	148.841	-5.365	1.00	58.34	C
ATOM 42898	C	LEU I 102	229.141	163.668	-12.776	1.00	74.98	ATOM 42948	C	VAL I 108	228.748	147.356	-4.995	1.00	58.34	C
ATOM 42899	O	LEU I 102	228.433	164.073	-11.857	1.00	74.98	ATOM 42949	O	VAL I 108	227.810	146.639	-5.370	1.00	58.34	O
ATOM 42900	CB	LEU I 102	229.513	165.927	-13.788	1.00	89.56	ATOM 42950	CB	VAL I 108	228.194	149.679	-4.237	1.00	35.76	C
ATOM 42901	CG	LEU I 102	230.577	166.958	-14.180	1.00	89.56	ATOM 42951	CG1	VAL I 108	228.204	148.916	-2.914	1.00	35.76	C
ATOM 42902	CD1	LEU I 102	229.922	168.207	-14.723	1.00	89.56	ATOM 42952	CG2	VAL I 108	228.930	150.985	-4.128	1.00	35.76	C
ATOM 42903	CD2	LEU I 102	231.448	167.276	-12.966	1.00	89.56	ATOM 42953	N	VAL I 109	229.742	146.916	-4.235	1.00	49.22	N
ATOM 42904	N	THR I 103	229.081	162.427	-13.248	1.00	64.83	ATOM 42954	CA	VAL I 109	229.821	145.539	-3.776	1.00	49.22	C
ATOM 42905	CA	THR I 103	228.169	161.434	-12.683	1.00	64.83	ATOM 42955	C	VAL I 109	228.534	145.118	-3.104	1.00	49.22	C
ATOM 42906	C	THR I 103	228.891	160.594	-11.638	1.00	64.83	ATOM 42956	O	VAL I 109	228.154	145.688	-2.070	1.00	49.22	O
ATOM 42907	O	THR I 103	230.045	160.210	-11.821	1.00	64.83	ATOM 42957	CB	VAL I 109	230.949	145.363	-2.763	1.00	20.03	C
ATOM 42908	CB	THR I 103	227.617	160.482	-13.759	1.00	78.76	ATOM 42958	CG1	VAL I 109	230.851	144.010	-2.088	1.00	20.03	C
ATOM 42909	CG1	THR I 103	226.809	161.219	-14.685	1.00	78.76	ATOM 42959	CG2	VAL I 109	232.281	145.535	-3.463	1.00	20.03	C
ATOM 42910	CG2	THR I 103	226.776	159.396	-13.114	1.00	78.76	ATOM 42960	N	GLU I 110	227.895	144.095	-3.680	1.00	59.14	N
ATOM 42911	N	ARG I 104	228.213	160.308	-10.539	1.00	88.23	ATOM 42961	CA	GLU I 110	226.632	143.557	-3.186	1.00	59.14	C
ATOM 42912	CA	ARG I 104	228.831	159.512	-9.497	1.00	88.23	ATOM 42962	C	GLU I 110	226.756	142.735	-1.904	1.00	59.14	O
ATOM 42913	C	ARG I 104	228.430	158.053	-9.689	1.00	88.23	ATOM 42963	O	GLU I 110	227.661	141.921	-1.739	1.00	59.14	O
ATOM 42914	O	ARG I 104	227.300	157.664	-9.397	1.00	88.23	ATOM 42964	CB	GLU I 110	225.963	142.719	-4.272	1.00	76.55	C
ATOM 42915	CB	ARG I 104	228.397	160.026	-8.121	1.00	63.40	ATOM 42965	CG	GLU I 110	224.578	142.260	-3.896	1.00	76.55	C



Table 2: Sheet 431/520

ATOM	42966	CD	GLU I 110	223.793	141.745	-5.080	1.00	76.55	C	ATOM	43016	C	LYS I 116	225.400	131.704	-0.748	1.00	54.15	C
ATOM	42967	OE1	GLU I 110	223.726	142.461	-6.106	1.00	76.55	O	ATOM	43017	O	LYS I 116	225.675	131.966	0.422	1.00	54.15	O
ATOM	42968	OE2	GLU I 110	223.234	140.631	-4.980	1.00	76.55	O	ATOM	43018	CB	LYS I 116	223.521	132.685	-2.176	1.00	73.10	C
ATOM	42969	N	ARG I 111	225.823	142.971	-0.994	1.00	54.26	N	ATOM	43019	CG	LYS I 116	222.013	132.657	-2.414	1.00	73.10	C
ATOM	42970	CA	ARG I 111	225.792	142.282	0.282	1.00	54.26	C	ATOM	43020	CD	LYS I 116	221.604	133.322	-3.716	1.00	73.10	C
ATOM	42971	C	ARG I 111	225.832	140.777	0.064	1.00	54.26	C	ATOM	43021	CE	LYS I 116	221.615	132.328	-4.890	1.00	73.10	C
ATOM	42972	O	ARG I 111	225.249	140.276	-0.885	1.00	54.26	O	ATOM	43022	NZ	LYS I 116	221.468	132.961	-6.258	1.00	73.10	N
ATOM	42973	CB	ARG I 111	224.519	142.686	1.032	1.00	77.19	C	ATOM	43023	N	HIS I 117	226.336	131.460	-1.660	1.00	52.67	N
ATOM	42974	CG	ARG I 111	224.419	142.201	2.459	1.00	77.19	C	ATOM	43024	CA	HIS I 117	227.761	131.523	-1.337	1.00	52.67	C
ATOM	42975	CD	ARG I 111	224.079	140.734	2.512	1.00	77.19	C	ATOM	43025	C	HIS I 117	228.336	132.918	-1.444	1.00	52.67	C
ATOM	42976	NE	ARG I 111	223.168	140.450	3.609	1.00	77.19	N	ATOM	43026	O	HIS I 117	229.353	133.208	-0.840	1.00	52.67	O
ATOM	42977	CZ	ARG I 111	221.991	141.043	3.754	1.00	77.19	C	ATOM	43027	CB	HIS I 117	228.571	130.647	-2.283	1.00	48.42	C
ATOM	42978	NH1	ARG I 111	221.584	141.949	2.870	1.00	77.19	N	ATOM	43028	CG	HIS I 117	228.515	129.187	-1.973	1.00	48.42	C
ATOM	42979	NH2	ARG I 111	221.226	140.741	4.791	1.00	77.19	N	ATOM	43029	ND1	HIS I 117	228.896	128.669	-0.754	1.00	48.42	N
ATOM	42980	N	LYS I 112	226.537	140.069	0.939	1.00	44.69	N	ATOM	43030	CD2	HIS I 117	228.185	128.125	-2.747	1.00	48.42	C
ATOM	42981	CA	LYS I 112	226.640	138.617	0.871	1.00	44.69	C	ATOM	43031	CE1	HIS I 117	228.806	127.351	-0.790	1.00	48.42	C
ATOM	42982	C	LYS I 112	225.403	138.041	1.545	1.00	44.69	C	ATOM	43032	NE2	HIS I 117	228.377	126.995	-1.988	1.00	48.42	N
ATOM	42983	O	LYS I 112	225.311	138.038	2.765	1.00	44.69	O	ATOM	43033	CA	LYS I 118	227.698	133.784	-2.216	1.00	65.84	N
ATOM	42984	CB	LYS I 112	227.891	138.151	1.618	1.00	45.87	C	ATOM	43034	N	LYS I 118	228.243	135.113	-2.408	1.00	65.84	C
ATOM	42985	CG	LYS I 112	228.184	136.651	1.562	1.00	45.87	C	ATOM	43035	C	LYS I 118	227.231	136.126	-2.901	1.00	65.84	C
ATOM	42986	CD	LYS I 112	227.217	135.847	2.372	1.00	45.87	C	ATOM	43036	O	LYS I 118	227.482	136.776	-3.912	1.00	65.84	O
ATOM	42987	CE	LYS I 112	227.523	134.357	2.304	1.00	45.87	C	ATOM	43037	CB	LYS I 118	229.342	135.074	-3.470	1.00	38.81	C
ATOM	42988	NZ	LYS I 112	226.538	133.529	3.102	1.00	45.87	N	ATOM	43038	CD	LYS I 118	230.427	134.030	-3.335	1.00	38.81	C
ATOM	42989	N	LYS I 113	224.453	137.566	0.750	1.00	38.68	N	ATOM	43039	CG	LYS I 118	231.284	134.039	-4.613	1.00	38.81	C
ATOM	42990	CA	LYS I 113	223.203	136.980	1.248	1.00	38.68	C	ATOM	43040	CE	LYS I 118	231.564	135.462	-5.088	1.00	38.81	C
ATOM	42991	C	LYS I 113	223.403	135.593	1.851	1.00	38.68	C	ATOM	43041	NZ	LYS I 118	231.697	135.548	-6.564	1.00	38.81	N
ATOM	42992	O	LYS I 113	224.228	134.834	1.367	1.00	38.68	O	ATOM	43042	N	ALA I 119	226.108	136.295	-2.232	1.00	65.67	N
ATOM	42993	CB	LYS I 113	222.202	136.865	0.106	1.00	42.73	C	ATOM	43043	CA	ALA I 119	224.357	136.643	-3.863	1.00	65.67	C
ATOM	42994	CG	LYS I 113	221.487	138.137	-0.239	1.00	42.73	C	ATOM	43044	C	ALA I 119	223.128	136.766	-3.934	1.00	65.67	O
ATOM	42995	CD	LYS I 113	222.428	139.200	-0.697	1.00	42.73	C	ATOM	43045	O	ALA I 119	225.841	138.497	-3.263	1.00	22.20	C
ATOM	42996	CE	LYS I 113	221.746	140.119	-1.705	1.00	42.73	C	ATOM	43046	CB	ALA I 119	225.083	135.994	-4.765	1.00	37.09	N
ATOM	42997	NZ	LYS I 113	221.532	139.450	-3.044	1.00	42.73	N	ATOM	43047	CA	ARG I 120	224.453	135.335	-5.883	1.00	37.09	C
ATOM	42998	N	TYR I 114	222.657	135.252	2.899	1.00	62.30	N	ATOM	43048	C	ARG I 120	224.972	133.928	-6.097	1.00	37.09	C
ATOM	42999	CA	TYR I 114	222.804	133.918	3.485	1.00	62.30	C	ATOM	43049	C	ARG I 120	224.188	133.005	-6.247	1.00	37.09	O
ATOM	43000	C	TYR I 114	222.122	132.944	2.549	1.00	62.30	C	ATOM	43050	O	ARG I 120	224.603	136.184	-7.138	1.00	34.46	C
ATOM	43001	O	TYR I 114	221.326	133.345	1.695	1.00	63.07	O	ATOM	43051	CB	ARG I 120	223.986	137.555	-6.960	1.00	34.46	C
ATOM	43002	CB	TYR I 114	222.189	133.830	4.894	1.00	63.07	C	ATOM	43052	CG	ARG I 120	223.478	138.130	-8.266	1.00	34.46	C
ATOM	43003	CG	TYR I 114	220.698	134.058	4.962	1.00	63.07	C	ATOM	43053	CD	ARG I 120	223.017	139.500	-8.077	1.00	34.46	N
ATOM	43004	CD1	TYR I 114	219.801	133.077	4.558	1.00	63.07	C	ATOM	43054	NE	ARG I 120	222.507	140.265	-9.038	1.00	34.46	C
ATOM	43005	CD2	TYR I 114	220.186	135.266	5.426	1.00	63.07	C	ATOM	43055	CZ	ARG I 120	222.383	139.804	-10.274	1.00	34.46	N
ATOM	43006	CE1	TYR I 114	218.425	133.295	4.613	1.00	63.07	C	ATOM	43056	NH1	ARG I 120	222.111	141.500	-8.761	1.00	34.46	N
ATOM	43007	CE2	TYR I 114	218.817	135.493	5.488	1.00	63.07	C	ATOM	43057	NH2	ARG I 120	226.283	133.745	-6.102	1.00	54.35	N
ATOM	43008	CZ	TYR I 114	217.939	134.506	5.081	1.00	63.07	C	ATOM	43058	N	ARG I 121	226.810	132.402	-6.295	1.00	54.35	C
ATOM	43009	OH	TYR I 114	216.580	134.736	5.151	1.00	63.07	O	ATOM	43059	CA	ARG I 121	225.975	131.474	-5.423	1.00	54.35	C
ATOM	43010	N	GLY I 115	222.437	131.666	2.699	1.00	33.72	N	ATOM	43060	C	ARG I 121	225.993	131.571	-5.199	1.00	54.35	O
ATOM	43011	CA	GLY I 115	221.844	130.687	1.817	1.00	33.72	C	ATOM	43061	O	ARG I 121	228.273	132.335	-5.874	1.00	70.14	C
ATOM	43012	C	GLY I 115	222.706	130.534	0.584	1.00	33.72	C	ATOM	43062	CB	ARG I 121	229.072	131.319	-6.651	1.00	70.14	C
ATOM	43013	O	GLY I 115	223.034	129.423	0.182	1.00	33.72	O	ATOM	43063	CG	ARG I 121	228.481	129.947	-6.527	1.00	70.14	C
ATOM	43014	N	LYS I 116	223.081	131.650	-0.026	1.00	54.15	N	ATOM	43064	CD	ARG I 121	229.078	129.041	-7.498	1.00	70.14	N
ATOM	43015	CA	LYS I 116	223.934	131.588	-1.197	1.00	54.15	C	ATOM	43065	NE	ARG I 121						



ATOM	43066	CZ	ARG I 121	228.728	127.769	-7.643	1.00	70.14	C	ATOM	43116	NZ	LYS I 127	226.212	111.288	-9.329	1.00	63.02	N
ATOM	43067	NH1	ARG I 121	227.783	127.255	-6.873	1.00	70.14	N	ATOM	43117	N	ARG I 128	219.665	116.255	-8.227	1.00	115.09	N
ATOM	43068	NH2	ARG I 121	229.310	127.013	-8.564	1.00	70.14	N	ATOM	43118	CA	ARG I 128	218.400	116.826	-7.782	1.00	115.09	C
ATOM	43069	N	ALA I 122	225.228	130.582	-6.061	1.00	40.07	N	ATOM	43119	C	ARG I 128	217.234	115.987	-8.292	1.00	115.09	C
ATOM	43070	CA	ALA I 122	224.361	129.657	-5.336	1.00	40.07	C	ATOM	43120	O	ARG I 128	217.488	115.073	-9.104	1.00	115.09	O
ATOM	43071	C	ALA I 122	224.994	128.286	-5.161	1.00	40.07	C	ATOM	43121	CB	ARG I 128	218.290	118.267	-8.300	1.00	127.88	C
ATOM	43072	O	ALA I 122	225.511	127.715	-6.106	1.00	40.07	O	ATOM	43122	CG	ARG I 128	216.881	118.795	-8.510	1.00	127.88	C
ATOM	43073	CB	ALA I 122	223.082	129.530	-6.075	1.00	8.53	C	ATOM	43123	CD	ARG I 128	216.886	120.281	-8.842	1.00	127.88	C
ATOM	43074	N	PRO I 123	224.950	127.732	-3.950	1.00	42.07	N	ATOM	43124	NE	ARG I 128	217.269	121.095	-7.688	1.00	127.88	N
ATOM	43075	CA	PRO I 123	225.554	126.411	-3.754	1.00	42.07	C	ATOM	43125	CZ	ARG I 128	217.301	122.426	-7.679	1.00	127.88	C
ATOM	43076	C	PRO I 123	224.965	125.474	-4.764	1.00	42.07	C	ATOM	43126	NH1	ARG I 128	216.973	123.111	-8.770	1.00	127.88	N
ATOM	43077	O	PRO I 123	223.826	125.670	-5.158	1.00	42.07	O	ATOM	43127	NH2	ARG I 128	217.661	123.076	-6.577	1.00	127.88	N
ATOM	43078	CB	PRO I 123	225.167	126.050	-2.315	1.00	21.05	C	ATOM	43128	OXT	ARG I 128	216.085	116.250	-7.879	1.00	156.85	O
ATOM	43079	CG	PRO I 123	223.943	126.784	-2.102	1.00	21.05	C	TER	43129								
ATOM	43080	CD	PRO I 123	224.162	128.124	-2.776	1.00	21.05	C	ATOM	43130	N	LYS J 3	237.166	171.098	33.054	1.00	186.63	N
ATOM	43081	N	GLN I 124	225.730	124.473	-5.193	1.00	61.35	N	ATOM	43131	CA	LYS J 3	237.638	170.283	31.900	1.00	186.63	C
ATOM	43082	CA	GLN I 124	225.236	123.532	-6.192	1.00	61.35	C	ATOM	43132	C	LYS J 3	237.145	168.846	32.032	1.00	186.63	C
ATOM	43083	C	GLN I 124	224.698	122.261	-5.579	1.00	61.35	C	ATOM	43133	O	LYS J 3	237.936	167.902	32.065	1.00	186.63	O
ATOM	43084	O	GLN I 124	225.099	121.870	-4.486	1.00	61.35	O	ATOM	43134	CB	LYS J 3	239.166	170.327	31.834	1.00	158.30	C
ATOM	43085	CB	GLN I 124	226.335	123.162	-7.195	1.00	66.13	C	ATOM	43135	CG	LYS J 3	239.703	171.748	31.774	1.00	158.30	C
ATOM	43086	CG	GLN I 124	227.327	122.114	-6.721	1.00	66.13	C	ATOM	43136	CD	LYS J 3	241.214	171.809	31.853	1.00	158.30	C
ATOM	43087	CD	GLN I 124	228.226	121.626	-7.851	1.00	66.13	O	ATOM	43137	CE	LYS J 3	241.680	173.257	31.836	1.00	158.30	C
ATOM	43088	OE1	GLN I 124	228.658	122.412	-8.701	1.00	66.13	O	ATOM	43138	NZ	LYS J 3	243.159	173.381	31.909	1.00	158.30	N
ATOM	43089	NE2	GLN I 124	228.523	120.331	-7.857	1.00	66.13	N	ATOM	43139	CA	ILE J 4	235.826	168.698	32.112	1.00	124.71	N
ATOM	43090	N	TYR I 125	223.791	121.614	-6.301	1.00	62.74	N	ATOM	43140	CA	ILE J 4	235.184	167.396	32.239	1.00	124.71	C
ATOM	43091	CA	TYR I 125	223.197	120.372	-5.846	1.00	62.74	C	ATOM	43141	C	ILE J 4	234.731	166.873	30.881	1.00	124.71	C
ATOM	43092	C	TYR I 125	223.525	119.252	-6.821	1.00	62.74	C	ATOM	43142	O	ILE J 4	234.123	167.601	30.098	1.00	124.71	O
ATOM	43093	O	TYR I 125	221.696	120.541	-5.738	1.00	74.37	C	ATOM	43143	CB	ILE J 4	233.937	167.468	33.140	1.00	172.05	C
ATOM	43094	CB	TYR I 125	221.090	121.051	-7.005	1.00	74.37	C	ATOM	43144	CG1	ILE J 4	234.331	167.888	34.554	1.00	172.05	C
ATOM	43095	CG	TYR I 125	220.818	120.192	-8.063	1.00	74.37	C	ATOM	43145	CG2	ILE J 4	233.239	166.121	33.160	1.00	172.05	C
ATOM	43096	CD1	TYR I 125	220.264	120.665	-7.157	1.00	74.37	C	ATOM	43146	CD1	ILE J 4	233.154	167.990	35.509	1.00	172.05	C
ATOM	43097	CD2	TYR I 125	220.801	122.402	-9.245	1.00	74.37	C	ATOM	43147	N	ARG J 5	235.024	165.605	30.614	1.00	100.26	N
ATOM	43098	CE1	TYR I 125	220.264	120.665	-7.245	1.00	74.37	C	ATOM	43148	CA	ARG J 5	234.634	164.971	29.360	1.00	100.26	C
ATOM	43099	CE2	TYR I 125	220.251	122.892	-8.337	1.00	74.37	C	ATOM	43149	C	ARG J 5	233.515	163.983	29.654	1.00	100.26	C
ATOM	43100	CZ	TYR I 125	219.982	122.017	-9.375	1.00	74.37	C	ATOM	43150	O	ARG J 5	233.686	163.050	30.441	1.00	100.26	O
ATOM	43101	OH	TYR I 125	219.413	122.494	-10.532	1.00	74.37	O	ATOM	43151	CB	ARG J 5	235.820	164.226	28.751	1.00	102.50	C
ATOM	43102	N	SER I 126	223.664	118.046	-6.289	1.00	96.77	N	ATOM	43152	CG	ARG J 5	235.474	163.458	27.495	1.00	102.50	C
ATOM	43103	CA	SER I 126	223.986	116.883	-7.098	1.00	96.77	C	ATOM	43153	CD	ARG J 5	236.540	162.433	27.158	1.00	102.50	C
ATOM	43104	C	SER I 126	222.807	116.445	-7.933	1.00	96.77	C	ATOM	43154	NE	ARG J 5	237.766	163.036	26.650	1.00	102.50	N
ATOM	43105	O	SER I 126	222.204	117.243	-8.647	1.00	96.77	O	ATOM	43155	CZ	ARG J 5	238.853	162.343	26.324	1.00	102.50	C
ATOM	43106	CB	SER I 126	224.399	115.725	-6.205	1.00	96.00	C	ATOM	43156	NH1	ARG J 5	238.863	161.023	26.459	1.00	102.50	N
ATOM	43107	CG	SER I 126	223.343	115.361	-5.332	1.00	96.00	O	ATOM	43157	NH2	ARG J 5	239.927	162.964	25.854	1.00	102.50	N
ATOM	43108	N	LYS I 127	222.481	115.160	-7.830	1.00	79.64	N	ATOM	43158	N	ILE J 6	232.368	164.188	29.023	1.00	108.86	N
ATOM	43109	CA	LYS I 127	221.374	114.583	-8.578	1.00	79.64	C	ATOM	43159	CA	ILE J 6	231.237	163.301	29.242	1.00	108.86	C
ATOM	43110	O	LYS I 127	220.012	114.987	-8.018	1.00	79.64	C	ATOM	43160	C	ILE J 6	231.061	162.358	28.046	1.00	108.86	C
ATOM	43111	C	LYS I 127	219.305	114.177	-7.416	1.00	79.64	O	ATOM	43161	O	ILE J 6	231.107	162.790	26.897	1.00	108.86	O
ATOM	43112	CB	LYS I 127	221.499	113.056	-8.607	1.00	63.02	C	ATOM	43162	CB	ILE J 6	229.952	164.120	29.461	1.00	82.85	C
ATOM	43113	CG	LYS I 127	222.574	112.504	-9.563	1.00	63.02	C	ATOM	43163	CG1	ILE J 6	230.236	165.266	30.429	1.00	82.85	C
ATOM	43114	CD	LYS I 127	223.966	112.405	-8.954	1.00	63.02	C	ATOM	43164	CG2	ILE J 6	228.859	163.237	30.051	1.00	82.85	C
ATOM	43115	CE	LYS I 127	224.894	111.664	-9.911	1.00	63.02	C	ATOM	43165	CD1	ILE J 6	229.060	166.183	30.638	1.00	82.85	C



Table 2: Sheet 433/520

ATOM	43166	N	LYS J	7	230.870	161.069	28.317	1.00119.18	N	ATOM	43216	OD2	ASP J	12	214.945	155.005	21.342	1.00110.54	O
ATOM	43167	CA	LYS J	7	230.691	160.082	27.253	1.00119.18	C	ATOM	43217	N	HIS J	13	219.037	155.772	19.689	1.00100.94	N
ATOM	43168	C	LYS J	7	229.372	159.331	27.445	1.00119.18	C	ATOM	43218	CA	HIS J	13	219.746	156.977	19.284	1.00100.94	C
ATOM	43169	O	LYS J	7	229.275	158.407	28.257	1.00119.18	O	ATOM	43219	C	HIS J	13	219.049	158.262	19.709	1.00100.94	C
ATOM	43170	CB	LYS J	7	231.870	159.099	27.251	1.00125.01	C	ATOM	43220	O	HIS J	13	219.716	159.251	19.987	1.00100.94	O
ATOM	43171	CG	LYS J	7	231.914	158.148	26.064	1.00125.01	C	ATOM	43221	CB	HIS J	13	219.993	156.998	17.773	1.00 93.74	C
ATOM	43172	CD	LYS J	7	233.142	157.246	26.135	1.00125.01	C	ATOM	43222	CG	HIS J	13	218.793	157.372	16.966	1.00 93.74	C
ATOM	43173	CE	LYS J	7	233.185	156.257	24.977	1.00125.01	C	ATOM	43223	ND1	HIS J	13	217.754	156.499	16.727	1.00 93.74	N
ATOM	43174	NZ	LYS J	7	233.243	156.944	23.656	1.00125.01	N	ATOM	43224	CD2	HIS J	13	218.465	158.530	16.345	1.00 93.74	C
ATOM	43175	N	LEU J	8	228.356	159.742	26.691	1.00 83.58	N	ATOM	43225	CE1	HIS J	13	216.838	157.104	15.991	1.00 93.74	C
ATOM	43176	CA	LEU J	8	227.031	159.132	26.766	1.00 83.58	C	ATOM	43226	NE2	HIS J	13	217.245	158.337	15.745	1.00 93.74	N
ATOM	43177	C	LEU J	8	226.866	158.002	25.745	1.00 83.58	C	ATOM	43227	N	LYS J	14	217.720	158.263	19.765	1.00 91.35	N
ATOM	43178	O	LEU J	8	227.226	158.159	24.576	1.00 83.58	O	ATOM	43228	CA	LYS J	14	217.003	159.468	20.177	1.00 91.35	C
ATOM	43179	CB	LEU J	8	225.967	160.193	26.496	1.00115.02	C	ATOM	43229	C	LYS J	14	217.029	159.654	21.692	1.00 91.35	C
ATOM	43180	CG	LEU J	8	226.082	161.501	27.274	1.00115.02	C	ATOM	43230	O	LYS J	14	216.920	160.776	22.193	1.00 91.35	O
ATOM	43181	CD1	LEU J	8	225.072	162.497	26.746	1.00115.02	C	ATOM	43231	CB	LYS J	14	215.555	159.440	19.684	1.00133.10	C
ATOM	43182	CD2	LEU J	8	225.855	161.234	28.749	1.00115.02	C	ATOM	43232	CG	LYS J	14	215.399	159.841	18.225	1.00133.10	C
ATOM	43183	N	ARG J	9	226.317	156.871	26.185	1.00 90.27	N	ATOM	43233	CD	LYS J	14	213.936	160.080	17.864	1.00133.10	C
ATOM	43184	CA	ARG J	9	226.091	155.737	25.288	1.00 90.27	C	ATOM	43234	CE	LYS J	14	213.336	161.229	18.676	1.00133.10	C
ATOM	43185	C	ARG J	9	224.679	155.179	25.468	1.00 90.27	C	ATOM	43235	NZ	LYS J	14	211.901	161.485	18.345	1.00133.10	N
ATOM	43186	O	ARG J	9	224.060	155.366	26.511	1.00 90.27	O	ATOM	43236	N	THR J	15	217.180	158.551	22.416	1.00 87.10	N
ATOM	43187	CB	ARG J	9	227.123	154.633	25.540	1.00100.14	C	ATOM	43237	CA	THR J	15	217.237	158.600	23.868	1.00 87.10	C
ATOM	43188	CG	ARG J	9	226.680	153.544	26.497	1.00100.14	C	ATOM	43238	C	THR J	15	218.528	159.327	24.268	1.00 87.10	C
ATOM	43189	CD	ARG J	9	227.762	152.480	26.665	1.00100.14	C	ATOM	43239	O	THR J	15	218.596	159.960	25.325	1.00 87.10	O
ATOM	43190	NE	ARG J	9	228.880	152.933	27.494	1.00100.14	N	ATOM	43240	CB	THR J	15	217.121	157.175	24.470	1.00105.47	C
ATOM	43191	CZ	ARG J	9	229.855	153.743	27.088	1.00100.14	C	ATOM	43241	OG1	THR J	15	216.654	157.229	25.786	1.00105.47	O
ATOM	43192	NH1	ARG J	9	229.873	154.204	25.845	1.00100.14	N	ATOM	43242	CG2	THR J	15	218.625	156.580	24.547	1.00105.47	C
ATOM	43193	NH2	ARG J	9	230.810	154.104	27.938	1.00100.14	N	ATOM	43243	N	LEU J	16	219.552	159.221	23.421	1.00102.68	N
ATOM	43194	N	GLY J	10	224.172	154.497	24.448	1.00125.08	N	ATOM	43244	CA	LEU J	16	220.825	159.899	23.660	1.00102.68	C
ATOM	43195	CA	GLY J	10	222.835	153.938	24.541	1.00125.08	C	ATOM	43245	C	LEU J	16	220.671	161.312	23.146	1.00102.68	C
ATOM	43196	C	GLY J	10	222.400	153.159	23.316	1.00125.08	C	ATOM	43246	O	LEU J	16	220.870	162.274	23.884	1.00102.68	O
ATOM	43197	O	GLY J	10	222.950	153.322	22.229	1.00125.08	O	ATOM	43247	CB	LEU J	16	221.974	159.244	22.896	1.00 78.67	C
ATOM	43198	N	PHE J	11	221.399	152.306	23.496	1.00 86.23	N	ATOM	43248	CG	LEU J	16	222.663	158.018	23.487	1.00 78.67	C
ATOM	43199	CA	PHE J	11	220.885	151.498	22.404	1.00 86.23	C	ATOM	43249	CD1	LEU J	16	223.867	157.678	22.616	1.00 78.67	C
ATOM	43200	C	PHE J	11	219.986	152.333	21.500	1.00 86.23	C	ATOM	43250	CD2	LEU J	16	223.099	158.295	24.915	1.00 78.67	C
ATOM	43201	O	PHE J	11	220.117	150.301	22.969	1.00 52.26	C	ATOM	43251	N	ASP J	17	220.324	161.428	21.867	1.00121.96	N
ATOM	43202	CB	PHE J	11	220.984	149.317	23.726	1.00 52.26	C	ATOM	43252	CA	ASP J	17	220.130	162.731	21.253	1.00121.96	C
ATOM	43203	CG	PHE J	11	220.436	148.506	24.718	1.00 52.26	C	ATOM	43253	C	ASP J	17	219.388	163.590	22.268	1.00121.96	C
ATOM	43204	CD1	PHE J	11	222.340	149.180	23.430	1.00 52.26	C	ATOM	43254	O	ASP J	17	219.712	164.761	22.466	1.00121.96	O
ATOM	43205	CD2	PHE J	11	221.225	147.569	25.410	1.00 52.26	C	ATOM	43255	CB	ASP J	17	219.298	163.615	19.966	1.00128.06	C
ATOM	43206	CE1	PHE J	11	223.138	148.250	24.110	1.00 52.26	C	ATOM	43256	CG	ASP J	17	219.981	161.779	18.888	1.00128.06	C
ATOM	43207	CE2	PHE J	11	222.574	147.443	25.105	1.00 52.26	C	ATOM	43257	OD1	ASP J	17	221.196	161.970	18.660	1.00128.06	O
ATOM	43208	CZ	PHE J	11	219.229	153.248	22.098	1.00 90.23	N	ATOM	43258	OD2	ASP J	17	219.293	160.943	18.258	1.00128.06	O
ATOM	43209	N	ASP J	12	218.327	154.122	21.346	1.00 90.23	C	ATOM	43259	N	ALA J	18	218.398	162.985	22.920	1.00111.18	N
ATOM	43210	CA	ASP J	12	219.061	155.403	20.966	1.00 90.23	C	ATOM	43260	CA	ALA J	18	217.605	163.675	23.929	1.00111.18	C
ATOM	43211	C	ASP J	12	219.634	156.064	21.830	1.00 90.23	O	ATOM	43261	C	ALA J	18	218.499	164.060	25.101	1.00111.18	C
ATOM	43212	O	ASP J	12	217.101	154.470	22.195	1.00110.54	C	ATOM	43262	O	ALA J	18	218.765	165.240	25.332	1.00111.18	O
ATOM	43213	CB	ASP J	12	216.128	155.383	21.470	1.00110.54	C	ATOM	43263	CB	ALA J	18	216.472	162.773	24.408	1.00156.48	C
ATOM	43214	CG	ASP J	12	216.540	156.479	21.031	1.00110.54	O	ATOM	43264	N	SER J	19	218.956	163.052	25.837	1.00 90.09	N
ATOM	43215	OD1	ASP J	12						ATOM	43265	CA	SER J	19	219.829	163.263	26.981	1.00 90.09	C



ATOM	43266	C	SER J	19	220.934	164.250	26.633	1.00	90.09	C	ATOM	43316	OE2	GLU J	25	218.001	171.766	24.534	1.00169.86	O
ATOM	43267	O	SER J	19	220.882	165.409	27.029	1.00	90.09	O	ATOM	43317	N	ALA J	26	222.003	172.608	29.539	1.00168.51	N
ATOM	43268	CB	SER J	19	220.451	161.937	27.421	1.00100.98	C	ATOM	43318	CA	ALA J	26	222.153	172.871	30.966	1.00168.51	C	
ATOM	43269	OG	SER J	19	221.457	162.151	28.398	1.00100.98	O	ATOM	43319	C	ALA J	26	223.472	173.587	31.224	1.00168.51	C	
ATOM	43270	N	ALA J	20	221.929	163.783	25.886	1.00116.99	N	ATOM	43320	O	ALA J	26	223.498	174.786	31.504	1.00168.51	O	
ATOM	43271	CA	ALA J	20	223.056	164.616	25.483	1.00116.99	C	ATOM	43321	CB	ALA J	26	222.112	171.565	31.747	1.00104.04	C	
ATOM	43272	C	ALA J	20	222.679	166.075	25.245	1.00116.99	C	ATOM	43322	N	ALA J	27	224.567	172.843	31.122	1.00115.09	N	
ATOM	43273	O	ALA J	20	223.401	166.980	25.664	1.00116.99	O	ATOM	43323	CA	ALA J	27	225.895	173.397	31.343	1.00115.09	C	
ATOM	43274	CB	ALA J	20	223.703	164.041	24.233	1.00129.93	C	ATOM	43324	C	ALA J	27	226.232	174.540	30.379	1.00115.09	C	
ATOM	43275	N	GLN J	21	221.554	166.304	24.574	1.00	94.45	N	ATOM	43325	O	ALA J	27	227.286	175.165	30.500	1.00115.09	O
ATOM	43276	CA	GLN J	21	221.101	167.662	24.288	1.00	94.45	C	ATOM	43326	CB	ALA J	27	226.937	172.293	31.231	1.00119.98	C
ATOM	43277	C	GLN J	21	220.911	168.442	25.582	1.00	94.45	C	ATOM	43327	N	ARG J	28	225.345	174.813	29.425	1.00175.42	N
ATOM	43278	O	GLN J	21	221.306	169.603	25.682	1.00	94.45	O	ATOM	43328	CA	ARG J	28	225.571	175.889	28.460	1.00175.42	C
ATOM	43279	CB	GLN J	21	219.788	167.629	23.513	1.00189.43	C	ATOM	43329	C	ARG J	28	225.313	177.254	29.079	1.00175.42	C	
ATOM	43280	CG	GLN J	21	219.258	168.999	23.154	1.00189.43	C	ATOM	43330	O	ARG J	28	225.412	178.281	28.408	1.00175.42	O	
ATOM	43281	CD	GLN J	21	217.926	168.927	22.445	1.00189.43	C	ATOM	43331	CB	ARG J	28	224.666	175.721	27.238	1.00177.36	C	
ATOM	43282	OE1	GLN J	21	216.947	168.412	22.988	1.00189.43	O	ATOM	43332	CG	ARG J	28	225.346	175.072	26.050	1.00177.36	C	
ATOM	43283	NE2	GLN J	21	217.878	169.444	21.223	1.00189.43	N	ATOM	43333	CD	ARG J	28	224.435	175.048	24.835	1.00177.36	C	
ATOM	43284	N	LYS J	22	220.301	167.793	26.569	1.00138.65	N	ATOM	43334	NE	ARG J	28	225.175	174.691	23.631	1.00177.36	N	
ATOM	43285	CA	LYS J	22	220.066	168.404	27.872	1.00138.65	C	ATOM	43335	CZ	ARG J	28	226.178	175.409	23.136	1.00177.36	C	
ATOM	43286	C	LYS J	22	221.406	168.777	28.499	1.00138.65	C	ATOM	43336	NH1	ARG J	28	226.557	176.525	23.742	1.00177.36	N	
ATOM	43287	O	LYS J	22	221.679	169.952	28.743	1.00138.65	O	ATOM	43337	NH2	ARG J	28	226.805	175.013	22.039	1.00177.36	N	
ATOM	43288	CB	LYS J	22	219.340	167.424	28.795	1.00152.35	C	ATOM	43338	N	ARG J	29	224.983	177.254	30.364	1.00134.72	N	
ATOM	43289	CG	LYS J	22	218.077	166.824	28.211	1.00152.35	C	ATOM	43339	CA	ARG J	29	224.695	178.486	31.080	1.00134.72	C	
ATOM	43290	CD	LYS J	22	217.504	165.770	29.145	1.00152.35	C	ATOM	43340	C	ARG J	29	225.698	178.690	32.206	1.00134.72	C	
ATOM	43291	CE	LYS J	22	216.298	165.078	28.531	1.00152.35	C	ATOM	43341	O	ARG J	29	226.517	179.607	32.166	1.00134.72	O	
ATOM	43292	NZ	LYS J	22	215.767	163.996	29.409	1.00152.35	N	ATOM	43342	CB	ARG J	29	223.279	178.421	31.650	1.00133.59	C	
ATOM	43293	N	ILE J	23	222.235	167.763	28.753	1.00	82.41	N	ATOM	43343	CG	ARG J	29	222.217	178.177	30.593	1.00133.59	C
ATOM	43294	CA	ILE J	23	223.556	167.952	29.350	1.00	82.41	C	ATOM	43344	CD	ARG J	29	221.071	177.356	31.147	1.00133.59	C
ATOM	43295	C	ILE J	23	224.277	169.150	28.742	1.00	82.41	C	ATOM	43345	NE	ARG J	29	220.096	177.024	30.113	1.00133.59	N
ATOM	43296	O	ILE J	23	225.132	169.755	29.382	1.00	82.41	O	ATOM	43346	CZ	ARG J	29	219.121	176.131	30.262	1.00133.59	C
ATOM	43297	CB	ILE J	23	224.450	166.679	29.186	1.00	68.72	C	ATOM	43347	NH1	ARG J	29	218.989	175.475	31.407	1.00133.59	N
ATOM	43298	CG1	ILE J	23	223.981	165.562	30.130	1.00	68.72	C	ATOM	43348	NH2	ARG J	29	218.278	175.894	29.265	1.00133.59	N
ATOM	43299	CG2	ILE J	23	225.903	167.008	29.495	1.00	68.72	C	ATOM	43349	N	SER J	30	225.627	177.814	33.201	1.00145.30	N
ATOM	43300	CD1	ILE J	23	222.614	164.967	29.796	1.00	68.72	C	ATOM	43350	CA	SER J	30	226.501	177.871	34.366	1.00145.30	C
ATOM	43301	N	VAL J	24	223.933	169.494	27.507	1.00115.81	N	ATOM	43351	C	SER J	30	228.004	177.883	34.075	1.00145.30	C	
ATOM	43302	CA	VAL J	24	224.556	170.635	26.853	1.00115.81	C	ATOM	43352	O	SER J	30	228.809	178.056	34.993	1.00145.30	O	
ATOM	43303	C	VAL J	24	223.825	171.919	27.228	1.00115.81	C	ATOM	43353	CB	SER J	30	226.174	176.703	35.296	1.00151.51	C	
ATOM	43304	O	VAL J	24	224.417	172.815	27.824	1.00115.81	O	ATOM	43354	OG	SER J	30	226.157	175.479	34.582	1.00151.51	O	
ATOM	43305	CB	VAL J	24	224.552	170.482	25.319	1.00176.47	C	ATOM	43355	N	GLY J	31	228.387	177.704	32.813	1.00149.61	N	
ATOM	43306	CG1	VAL J	24	225.194	171.701	24.672	1.00176.47	C	ATOM	43356	CA	GLY J	31	229.803	177.703	32.477	1.00149.61	C	
ATOM	43307	CG2	VAL J	24	225.304	169.225	24.925	1.00176.47	C	ATOM	43357	C	GLY J	31	230.106	177.850	30.998	1.00149.61	C	
ATOM	43308	N	GLU J	25	222.539	172.003	26.887	1.00152.67	N	ATOM	43358	O	GLY J	31	229.467	178.639	30.300	1.00149.61	O	
ATOM	43309	CA	GLU J	25	221.740	173.187	27.196	1.00152.67	C	ATOM	43359	N	ALA J	32	231.094	177.097	30.521	1.00200.58	N	
ATOM	43310	C	GLU J	25	221.881	173.596	28.658	1.00152.67	C	ATOM	43360	CA	ALA J	32	231.476	177.140	29.114	1.00200.58	C	
ATOM	43311	O	GLU J	25	221.877	174.785	28.981	1.00152.67	O	ATOM	43361	C	ALA J	32	230.291	176.697	28.268	1.00200.58	C	
ATOM	43312	CB	GLU J	25	220.262	172.941	26.878	1.00169.86	C	ATOM	43362	O	ALA J	32	229.269	176.265	28.800	1.00200.58	O	
ATOM	43313	CG	GLU J	25	219.953	172.833	25.393	1.00169.86	C	ATOM	43363	CB	ALA J	32	232.672	176.222	28.858	1.00	73.35	C
ATOM	43314	CD	GLU J	25	218.462	172.775	25.109	1.00169.86	C	ATOM	43364	N	GLN J	33	230.427	176.806	26.951	1.00200.53	N	
ATOM	43315	OE1	GLU J	25	217.749	173.739	29.460	1.00169.86	O	ATOM	43365	CA	GLN J	33	229.352	176.402	26.055	1.00200.53	C	



ATOM	43366	C	GLN J	33	229.548	174.975	25.559	1.00200.53	C	ATOM	43416	CB	LEU J	40	231.521	158.667	18.950	1.00	74.04	C
ATOM	43367	O	GLN J	33	228.956	174.567	24.559	1.00200.53	O	ATOM	43417	CG	LEU J	40	232.532	159.475	19.767	1.00	74.04	C
ATOM	43368	CB	GLN J	33	229.246	177.368	24.869	1.00200.58	C	ATOM	43418	CD1	LEU J	40	232.680	158.851	21.156	1.00	74.04	C
ATOM	43369	CG	GLN J	33	228.656	178.730	25.237	1.00200.58	C	ATOM	43419	CD2	LEU J	40	233.874	159.485	19.057	1.00	74.04	C
ATOM	43370	CD	GLN J	33	228.414	179.619	24.029	1.00200.58	C	ATOM	43420	N	PRO J	41	231.604	156.931	16.105	1.00	84.00	N
ATOM	43371	OE1	GLN J	33	227.689	179.249	23.105	1.00200.58	O	ATOM	43421	CA	PRO J	41	231.132	155.724	15.432	1.00	84.00	C
ATOM	43372	NE2	GLN J	33	229.020	180.801	24.034	1.00200.58	N	ATOM	43422	C	PRO J	41	230.311	154.851	16.369	1.00	84.00	C
ATOM	43373	N	VAL J	34	230.386	174.221	26.267	1.00131.53	N	ATOM	43423	O	PRO J	41	230.418	154.965	17.595	1.00	84.00	O
ATOM	43374	CA	VAL J	34	230.643	172.830	25.920	1.00131.53	C	ATOM	43424	CB	PRO J	41	232.427	155.054	15.001	1.00	82.27	C
ATOM	43375	C	VAL J	34	231.306	172.669	24.551	1.00131.53	C	ATOM	43425	CG	PRO J	41	233.349	155.418	16.102	1.00	82.27	C
ATOM	43376	O	VAL J	34	231.180	173.533	23.681	1.00131.53	O	ATOM	43426	CD	PRO J	41	233.069	156.892	16.235	1.00	82.27	C
ATOM	43377	CB	VAL J	34	229.324	172.025	25.934	1.00200.32	C	ATOM	43427	N	THR J	42	229.498	153.981	15.774	1.00	79.36	N
ATOM	43378	CG1	VAL J	34	229.591	170.569	25.606	1.00200.32	C	ATOM	43428	CA	THR J	42	228.634	153.073	16.519	1.00	79.36	C
ATOM	43379	CG2	VAL J	34	228.653	172.158	27.292	1.00200.32	C	ATOM	43429	C	THR J	42	229.121	151.638	16.410	1.00	79.36	C
ATOM	43380	N	SER J	35	232.011	171.553	24.374	1.00135.13	N	ATOM	43430	O	THR J	42	229.330	151.142	15.307	1.00	79.36	O
ATOM	43381	CA	SER J	35	232.700	171.246	23.122	1.00135.13	C	ATOM	43431	CB	THR J	42	227.217	153.085	15.957	1.00	62.16	C
ATOM	43382	C	SER J	35	231.708	170.756	22.074	1.00135.13	C	ATOM	43432	OG1	THR J	42	226.716	154.425	15.935	1.00	62.16	O
ATOM	43383	O	SER J	35	232.105	170.206	21.045	1.00135.13	O	ATOM	43433	CG2	THR J	42	226.317	152.209	16.797	1.00	62.16	C
ATOM	43384	CB	SER J	35	233.756	170.157	23.343	1.00146.21	C	ATOM	43434	N	ARG J	43	229.310	150.964	17.538	1.00	68.03	N
ATOM	43385	OG	SER J	35	234.683	170.517	24.350	1.00146.21	O	ATOM	43435	CA	ARG J	43	229.733	149.574	17.473	1.00	68.03	C
ATOM	43386	N	GLY J	36	230.421	170.955	22.339	1.00154.05	N	ATOM	43436	C	ARG J	43	228.466	148.760	17.254	1.00	68.03	C
ATOM	43387	CA	GLY J	36	229.400	170.513	21.407	1.00154.05	C	ATOM	43437	O	ARG J	43	227.414	149.087	17.803	1.00	68.03	O
ATOM	43388	C	GLY J	36	229.272	169.004	21.452	1.00154.05	C	ATOM	43438	CB	ARG J	43	230.447	149.147	18.758	1.00	107.26	C
ATOM	43389	O	GLY J	36	230.280	168.304	21.532	1.00154.05	O	ATOM	43439	CG	ARG J	43	231.843	149.749	18.886	1.00	107.26	C
ATOM	43390	N	PRO J	37	228.047	168.466	21.402	1.00109.13	N	ATOM	43440	CD	ARG J	43	232.911	148.701	19.194	1.00	107.26	C
ATOM	43391	CA	PRO J	37	227.876	167.011	21.445	1.00109.13	C	ATOM	43441	NE	ARG J	43	234.257	149.274	19.152	1.00	107.26	N
ATOM	43392	C	PRO J	37	228.384	166.374	20.159	1.00109.13	C	ATOM	43442	CZ	ARG J	43	235.374	148.614	19.453	1.00	107.26	C
ATOM	43393	O	PRO J	37	227.935	166.716	19.064	1.00109.13	O	ATOM	43443	NH1	ARG J	43	235.325	147.341	19.824	1.00	107.26	N
ATOM	43394	CB	PRO J	37	226.376	166.852	21.627	1.00	82.77	ATOM	43444	NH2	ARG J	43	236.546	149.230	19.385	1.00	107.26	N
ATOM	43395	CG	PRO J	37	225.842	167.994	20.807	1.00	82.77	ATOM	43445	N	VAL J	44	228.546	147.716	16.438	1.00	76.05	N
ATOM	43396	CD	PRO J	37	226.758	169.146	21.180	1.00	82.77	ATOM	43446	CA	VAL J	44	227.357	146.926	16.168	1.00	76.05	C
ATOM	43397	N	ILE J	38	229.328	165.453	20.296	1.00	95.52	ATOM	43447	C	VAL J	44	227.526	145.420	16.354	1.00	76.05	C
ATOM	43398	CA	ILE J	38	229.900	164.786	19.139	1.00	95.52	ATOM	43448	O	VAL J	44	228.492	144.816	15.884	1.00	76.05	O
ATOM	43399	C	ILE J	38	229.409	163.343	19.056	1.00	95.52	ATOM	43449	CB	VAL J	44	226.839	147.192	14.738	1.00	46.89	C
ATOM	43400	CB	ILE J	38	229.370	162.629	20.060	1.00	95.52	ATOM	43450	CG1	VAL J	44	225.474	146.570	14.572	1.00	46.89	C
ATOM	43401	CB	ILE J	38	231.431	164.799	19.211	1.00	96.72	ATOM	43451	CG2	VAL J	44	226.768	148.685	14.466	1.00	46.89	C
ATOM	43402	CG1	ILE J	38	231.914	166.194	19.610	1.00	96.72	ATOM	43452	N	ARG J	45	226.565	144.824	17.050	1.00	71.03	N
ATOM	43403	CG2	ILE J	38	232.015	164.435	17.860	1.00	96.72	ATOM	43453	CA	ARG J	45	226.548	143.391	17.312	1.00	71.03	C
ATOM	43404	CD1	ILE J	38	233.395	166.266	19.933	1.00	96.72	ATOM	43454	C	ARG J	45	225.619	142.728	16.315	1.00	71.03	C
ATOM	43405	N	PRO J	39	229.035	162.895	17.848	1.00102.03	N	ATOM	43455	O	ARG J	45	224.537	143.244	16.020	1.00	71.03	O
ATOM	43406	CA	PRO J	39	228.531	161.549	17.560	1.00102.03	C	ATOM	43456	CB	ARG J	45	226.028	143.111	18.717	1.00	90.91	C
ATOM	43407	C	PRO J	39	229.383	160.342	17.940	1.00102.03	C	ATOM	43457	CD	ARG J	45	227.086	143.079	19.763	1.00	90.91	C
ATOM	43408	O	PRO J	39	229.049	159.624	18.880	1.00102.03	O	ATOM	43458	CG	ARG J	45	227.335	141.662	20.210	1.00	90.91	C
ATOM	43409	CB	PRO J	39	228.255	161.604	16.061	1.00	83.57	ATOM	43459	NE	ARG J	45	228.596	141.586	20.931	1.00	90.91	N
ATOM	43410	CG	PRO J	39	229.221	162.618	15.574	1.00	83.57	ATOM	43460	CZ	ARG J	45	228.879	142.316	22.001	1.00	90.91	C
ATOM	43411	CD	PRO J	39	229.088	163.689	16.610	1.00	83.57	ATOM	43461	NH1	ARG J	45	227.977	143.171	22.476	1.00	90.91	N
ATOM	43412	N	LEU J	40	230.469	160.113	17.208	1.00	83.28	ATOM	43462	NH2	ARG J	45	230.072	142.215	22.575	1.00	90.91	N
ATOM	43413	CA	LEU J	40	231.345	158.960	17.451	1.00	83.28	ATOM	43463	N	ARG J	46	226.045	141.583	15.796	1.00	66.40	N
ATOM	43414	C	LEU J	40	230.759	157.721	16.785	1.00	83.28	ATOM	43464	CA	ARG J	46	225.252	140.834	14.837	1.00	66.40	C
ATOM	43415	O	LEU J	40	229.560	157.456	16.894	1.00	83.28	ATOM	43465	C	ARG J	46	224.904	139.501	15.457	1.00	66.40	C



ATOM	43466	O	ARG J	46	225.681	138.955	16.237	1.00	66.40	O	ATOM	43516	NH1	ARG J	51	212.363	134.633	9.686	1.00	44.11	N
ATOM	43467	CB	ARG J	46	226.049	140.592	13.560	1.00	99.89	C	ATOM	43517	NH2	ARG J	51	213.518	136.160	8.415	1.00	44.11	N
ATOM	43468	CG	ARG J	46	225.886	141.647	12.506	1.00	99.89	C	ATOM	43518	N	GLY J	52	214.370	128.291	12.154	1.00	55.56	N
ATOM	43469	CD	ARG J	46	224.618	141.423	11.717	1.00	99.89	C	ATOM	43519	CA	GLY J	52	213.626	127.283	12.881	1.00	55.56	C
ATOM	43470	NE	ARG J	46	224.525	142.362	10.606	1.00	99.89	N	ATOM	43520	C	GLY J	52	214.474	126.330	13.690	1.00	55.56	C
ATOM	43471	C2	ARG J	46	224.471	143.681	10.752	1.00	99.89	C	ATOM	43521	O	GLY J	52	215.692	126.285	13.540	1.00	55.56	O
ATOM	43472	NH1	ARG J	46	224.498	144.214	11.965	1.00	99.89	N	ATOM	43522	N	PRO J	53	213.857	125.561	14.587	1.00	70.69	N
ATOM	43473	NH2	ARG J	46	224.398	144.467	9.687	1.00	99.89	N	ATOM	43523	CA	PRO J	53	214.683	124.633	15.353	1.00	70.69	C
ATOM	43474	N	PHE J	47	223.727	138.989	15.120	1.00	76.35	N	ATOM	43524	C	PRO J	53	214.917	123.505	14.377	1.00	70.69	C
ATOM	43475	CA	PHE J	47	223.292	137.693	15.610	1.00	76.35	C	ATOM	43525	O	PRO J	53	214.285	123.474	13.318	1.00	70.69	O
ATOM	43476	C	PHE J	47	222.575	137.035	14.451	1.00	76.35	C	ATOM	43526	CB	PRO J	53	213.758	124.214	16.473	1.00	43.31	C
ATOM	43477	O	PHE J	47	221.522	137.497	14.020	1.00	76.35	O	ATOM	43527	CG	PRO J	53	212.416	124.136	15.747	1.00	43.31	C
ATOM	43478	CB	PHE J	47	222.362	137.848	16.813	1.00	93.14	C	ATOM	43528	CD	PRO J	53	212.426	125.407	14.912	1.00	43.31	C
ATOM	43479	CG	PHE J	47	223.008	138.529	17.984	1.00	93.14	C	ATOM	43529	N	PHE J	54	215.807	122.586	14.713	1.00	55.97	N
ATOM	43480	CD1	PHE J	47	222.850	139.900	18.187	1.00	93.14	C	ATOM	43530	CA	PHE J	54	216.089	121.438	13.846	1.00	55.97	C
ATOM	43481	CD2	PHE J	47	223.822	137.813	18.857	1.00	93.14	C	ATOM	43531	C	PHE J	54	216.213	121.673	12.325	1.00	55.97	C
ATOM	43482	CE1	PHE J	47	223.499	140.550	19.246	1.00	93.14	C	ATOM	43532	O	PHE J	54	215.317	122.237	11.687	1.00	55.97	O
ATOM	43483	CE2	PHE J	47	224.477	138.451	19.917	1.00	93.14	C	ATOM	43533	CB	PHE J	54	215.042	120.368	14.079	1.00	54.14	C
ATOM	43484	C2	PHE J	47	224.314	139.823	20.110	1.00	93.14	C	ATOM	43534	CG	PHE J	54	215.439	119.041	13.562	1.00	54.14	C
ATOM	43485	N	THR J	48	223.172	135.977	13.918	1.00	65.67	N	ATOM	43535	CD1	PHE J	54	216.599	118.430	14.024	1.00	54.14	C
ATOM	43486	CA	THR J	48	222.573	135.274	12.794	1.00	65.67	C	ATOM	43536	CD2	PHE J	54	214.663	118.389	12.625	1.00	54.14	C
ATOM	43487	C	THR J	48	222.149	133.905	13.270	1.00	65.67	C	ATOM	43537	CE1	PHE J	54	216.984	117.176	13.559	1.00	54.14	C
ATOM	43488	O	THR J	48	222.968	132.991	13.398	1.00	65.67	O	ATOM	43538	CE2	PHE J	54	215.032	117.135	12.149	1.00	54.14	C
ATOM	43489	CB	THR J	48	223.558	135.120	11.643	1.00	66.82	C	ATOM	43539	C2	PHE J	54	216.199	116.525	12.618	1.00	54.14	C
ATOM	43490	CG1	THR J	48	224.095	136.402	11.308	1.00	66.82	O	ATOM	43540	N	LYS J	55	217.319	121.192	11.756	1.00	42.03	N
ATOM	43491	CG2	THR J	48	222.856	134.558	10.435	1.00	66.82	C	ATOM	43541	CA	LYS J	55	217.630	121.322	10.332	1.00	42.03	C
ATOM	43492	N	VAL J	49	220.850	133.769	13.508	1.00	58.33	N	ATOM	43542	C	LYS J	55	217.307	122.687	9.714	1.00	42.03	C
ATOM	43493	CA	VAL J	49	220.296	132.535	14.025	1.00	58.33	C	ATOM	43543	O	LYS J	55	217.170	123.568	10.424	1.00	42.03	O
ATOM	43494	C	VAL J	49	219.377	131.769	13.081	1.00	58.33	C	ATOM	43544	CB	LYS J	55	216.961	120.195	9.537	1.00	52.76	C
ATOM	43495	O	VAL J	49	218.423	132.330	12.581	1.00	58.33	O	ATOM	43545	CG	LYS J	55	215.470	120.158	9.607	1.00	52.76	C
ATOM	43496	CB	VAL J	49	219.514	132.841	15.307	1.00	75.25	C	ATOM	43546	CD	LYS J	55	214.932	118.845	9.059	1.00	52.76	C
ATOM	43497	CG1	VAL J	49	218.953	131.570	15.890	1.00	75.25	C	ATOM	43547	CE	LYS J	55	214.871	118.843	7.551	1.00	52.76	C
ATOM	43498	CG2	VAL J	49	220.413	133.525	16.301	1.00	75.25	C	ATOM	43548	N2	LYS J	55	217.213	122.752	8.392	1.00	53.78	N
ATOM	43499	N	ILE J	50	219.652	130.486	12.855	1.00	50.55	N	ATOM	43549	N	HIS J	56	217.213	122.752	8.392	1.00	53.78	N
ATOM	43500	CA	ILE J	50	218.788	129.662	12.012	1.00	50.55	C	ATOM	43550	CA	HIS J	56	216.934	124.004	7.688	1.00	53.78	C
ATOM	43501	C	ILE J	50	217.333	129.920	12.438	1.00	50.55	C	ATOM	43551	C	HIS J	56	218.092	125.009	7.766	1.00	53.78	C
ATOM	43502	O	ILE J	50	217.001	129.766	13.625	1.00	50.55	O	ATOM	43552	O	HIS J	56	217.862	126.216	7.789	1.00	53.78	O
ATOM	43503	CB	ILE J	50	219.053	128.175	12.237	1.00	33.93	C	ATOM	43553	CB	HIS J	56	215.661	124.670	8.228	1.00	72.98	C
ATOM	43504	CG1	ILE J	50	220.461	127.808	11.790	1.00	33.93	C	ATOM	43554	CG	HIS J	56	214.433	123.816	8.125	1.00	72.98	C
ATOM	43505	CG2	ILE J	50	218.027	127.359	11.476	1.00	33.93	C	ATOM	43555	ND1	HIS J	56	213.946	123.349	6.924	1.00	72.98	N
ATOM	43506	CD1	ILE J	50	220.841	126.365	12.115	1.00	33.93	C	ATOM	43556	CD2	HIS J	56	213.591	123.349	9.079	1.00	72.98	C
ATOM	43507	N	ARG J	51	216.468	130.284	11.489	1.00	53.96	N	ATOM	43557	CE1	HIS J	56	212.861	122.629	7.142	1.00	72.98	C
ATOM	43508	CA	ARG J	51	215.072	130.586	11.804	1.00	53.96	C	ATOM	43558	NE2	HIS J	56	212.624	122.613	8.440	1.00	72.98	N
ATOM	43509	C	ARG J	51	214.310	129.542	12.584	1.00	53.96	C	ATOM	43559	N	LYS J	57	219.328	124.505	7.791	1.00	43.99	N
ATOM	43510	O	ARG J	51	213.654	129.867	13.573	1.00	53.96	O	ATOM	43560	CA	LYS J	57	220.545	125.330	7.854	1.00	43.99	C
ATOM	43511	CB	ARG J	51	214.281	130.897	10.544	1.00	44.11	C	ATOM	43561	C	LYS J	57	220.478	126.633	7.070	1.00	43.99	C
ATOM	43512	CG	ARG J	51	214.299	132.340	10.178	1.00	44.11	C	ATOM	43562	O	LYS J	57	221.280	127.517	7.327	1.00	43.99	O
ATOM	43513	CD	ARG J	51	213.952	132.539	8.742	1.00	44.11	C	ATOM	43563	CB	LYS J	57	221.757	124.539	7.338	1.00	158.23	C
ATOM	43514	HE	ARG J	51	214.104	133.933	8.360	1.00	44.11	N	ATOM	43564	CG	LYS J	57	221.533	123.928	5.943	1.00	158.23	C
ATOM	43515	C2	ARG J	51	213.333	134.910	8.823	1.00	44.11	C	ATOM	43565	CD	LYS J	57	222.807	123.783	5.085	1.00	158.23	C



Table 2: Sheet 437/520

ATOM	43566	CE	LYS	J	57	223.281	125.120	4.500	1.00158.23	C	ATOM	43616	CB	PHE	J	63	219.149	139.649	15.804	1.00	62.50	C
ATOM	43567	NZ	LYS	J	57	224.336	124.981	3.446	1.00158.23	N	ATOM	43617	CG	PHE	J	63	217.834	138.944	15.716	1.00	62.50	C
ATOM	43568	N	ASP	J	58	219.547	126.759	6.122	1.00 50.63	N	ATOM	43618	CD1	PHE	J	63	217.768	137.556	15.791	1.00	62.50	C
ATOM	43569	CA	ASP	J	58	219.439	127.968	5.302	1.00 50.63	C	ATOM	43619	CD2	PHE	J	63	216.654	139.669	15.547	1.00	62.50	C
ATOM	43570	C	ASP	J	58	218.424	129.028	5.738	1.00 50.63	C	ATOM	43620	CE1	PHE	J	63	216.542	136.893	15.698	1.00	62.50	C
ATOM	43571	O	ASP	J	58	218.194	129.986	4.989	1.00 50.63	O	ATOM	43621	CE2	PHE	J	63	215.421	139.018	15.453	1.00	62.50	C
ATOM	43572	CB	ASP	J	58	219.121	127.595	3.861	1.00132.04	C	ATOM	43622	CZ	PHE	J	63	215.364	137.628	15.528	1.00	62.50	C
ATOM	43573	CG	ASP	J	58	220.210	126.786	3.222	1.00132.04	C	ATOM	43623	N	GLU	J	64	220.549	142.451	15.469	1.00	68.07	N
ATOM	43574	OD1	ASP	J	58	221.358	127.275	3.174	1.00132.04	O	ATOM	43624	CA	GLU	J	64	221.677	143.321	15.773	1.00	68.07	C
ATOM	43575	OD2	ASP	J	58	219.919	125.663	2.763	1.00132.04	O	ATOM	43625	C	GLU	J	64	221.444	144.264	16.957	1.00	68.07	C
ATOM	43576	N	SER	J	59	217.817	128.868	6.915	1.00 75.11	N	ATOM	43626	O	GLU	J	64	220.374	144.852	17.100	1.00	68.07	O
ATOM	43577	CA	SER	J	59	216.826	129.824	7.428	1.00 75.11	C	ATOM	43627	CB	GLU	J	64	222.042	144.148	14.545	1.00	82.36	C
ATOM	43578	C	SER	J	59	217.493	131.160	7.775	1.00 75.11	C	ATOM	43628	CG	GLU	J	64	221.072	145.264	14.257	1.00	82.36	C
ATOM	43579	O	SER	J	59	217.378	132.136	7.040	1.00 75.11	O	ATOM	43629	CD	GLU	J	64	221.519	146.131	13.096	1.00	82.36	C
ATOM	43580	CB	SER	J	59	216.154	129.249	8.674	1.00179.29	C	ATOM	43630	OE1	GLU	J	64	220.898	147.200	12.876	1.00	82.36	O
ATOM	43581	OG	SER	J	59	215.519	128.014	8.399	1.00179.29	O	ATOM	43631	OE2	GLU	J	64	222.485	145.744	12.399	1.00	82.36	O
ATOM	43582	N	ARG	J	60	218.138	131.217	8.931	1.00103.86	N	ATOM	43632	N	LEU	J	65	222.467	144.418	17.791	1.00	70.22	N
ATOM	43583	CA	ARG	J	60	218.883	132.403	9.335	1.00103.86	C	ATOM	43633	CA	LEU	J	65	222.400	145.291	18.961	1.00	70.22	C
ATOM	43584	C	ARG	J	60	218.335	133.622	10.073	1.00103.86	C	ATOM	43634	C	LEU	J	65	223.313	146.515	18.804	1.00	70.22	C
ATOM	43585	O	ARG	J	60	218.638	133.791	11.247	1.00103.86	O	ATOM	43635	O	LEU	J	65	224.475	146.474	19.209	1.00	70.22	O
ATOM	43586	CB	ARG	J	60	219.695	132.880	8.136	1.00 55.54	C	ATOM	43636	CB	LEU	J	65	222.825	144.498	20.194	1.00	51.23	C
ATOM	43587	CG	ARG	J	60	221.080	132.266	8.121	1.00 55.54	C	ATOM	43637	CG	LEU	J	65	222.830	145.231	21.538	1.00	51.23	C
ATOM	43588	CD	ARG	J	60	221.033	130.852	8.644	1.00 55.54	C	ATOM	43638	CD1	LEU	J	65	221.448	145.833	21.797	1.00	51.23	C
ATOM	43589	NE	ARG	J	60	222.278	130.466	9.287	1.00 55.54	N	ATOM	43639	CD2	LEU	J	65	223.233	144.261	22.652	1.00	51.23	C
ATOM	43590	CZ	ARG	J	60	223.300	129.890	8.666	1.00 55.54	C	ATOM	43640	N	ARG	J	66	222.800	147.605	18.238	1.00	79.49	N
ATOM	43591	NH1	ARG	J	60	223.248	129.620	7.371	1.00 55.54	N	ATOM	43641	CA	ARG	J	66	223.626	148.796	18.031	1.00	79.49	C
ATOM	43592	NH2	ARG	J	60	224.379	129.566	9.349	1.00 55.54	N	ATOM	43642	C	ARG	J	66	223.787	149.733	19.232	1.00	79.49	C
ATOM	43593	N	GLU	J	61	217.575	134.499	9.428	1.00 53.77	N	ATOM	43643	O	ARG	J	66	222.811	150.275	19.752	1.00	79.49	O
ATOM	43594	CA	GLU	J	61	217.107	135.704	10.154	1.00 53.77	C	ATOM	43644	CB	ARG	J	66	223.112	149.586	16.831	1.00	156.13	C
ATOM	43595	C	GLU	J	61	218.233	136.491	10.897	1.00 53.77	C	ATOM	43645	CG	ARG	J	66	221.623	149.840	16.835	1.00	156.13	C
ATOM	43596	O	GLU	J	61	218.928	135.947	11.750	1.00 53.77	O	ATOM	43646	CD	ARG	J	66	221.225	150.559	15.560	1.00	156.13	C
ATOM	43597	CB	GLU	J	61	216.013	135.332	11.162	1.00 56.36	C	ATOM	43647	NE	ARG	J	66	221.806	149.917	14.382	1.00	156.13	N
ATOM	43598	CG	GLU	J	61	215.618	136.482	12.083	1.00 56.36	C	ATOM	43648	CZ	ARG	J	66	221.649	150.352	13.135	1.00	156.13	C
ATOM	43599	CD	GLU	J	61	214.122	136.581	12.291	1.00 56.36	C	ATOM	43649	NH1	ARG	J	66	220.924	151.436	12.892	1.00	156.13	N
ATOM	43600	OE1	GLU	J	61	213.517	135.554	12.672	1.00 56.36	O	ATOM	43650	NH2	ARG	J	66	222.220	149.704	12.130	1.00	156.13	N
ATOM	43601	OE2	GLU	J	61	213.565	137.689	12.077	1.00 56.36	O	ATOM	43651	N	THR	J	67	225.046	149.914	19.644	1.00	71.06	N
ATOM	43602	N	HIS	J	62	218.384	137.777	10.587	1.00 68.21	N	ATOM	43652	CA	THR	J	67	225.441	150.765	20.771	1.00	71.06	C
ATOM	43603	CA	HIS	J	62	219.428	138.608	11.206	1.00 68.21	C	ATOM	43653	C	THR	J	67	225.963	152.104	20.251	1.00	71.06	C
ATOM	43604	C	HIS	J	62	219.005	139.573	12.317	1.00 68.21	C	ATOM	43654	O	THR	J	67	227.016	152.158	19.622	1.00	71.06	O
ATOM	43605	O	HIS	J	62	218.048	140.339	12.164	1.00 68.21	O	ATOM	43655	CB	THR	J	67	226.587	150.120	21.594	1.00	70.74	C
ATOM	43606	CB	HIS	J	62	220.139	139.437	10.130	1.00 78.48	C	ATOM	43656	OG1	THR	J	67	226.187	148.831	22.074	1.00	70.74	O
ATOM	43607	CG	HIS	J	62	221.197	138.691	9.383	1.00 78.48	C	ATOM	43657	CG2	THR	J	67	226.944	150.989	22.771	1.00	70.74	C
ATOM	43608	ND1	HIS	J	62	221.570	139.019	8.097	1.00 78.48	N	ATOM	43658	N	HIS	J	68	225.239	153.182	20.532	1.00	94.90	N
ATOM	43609	CD2	HIS	J	62	221.970	137.640	9.743	1.00 78.48	C	ATOM	43659	CA	HIS	J	68	225.636	154.516	20.083	1.00	94.90	C
ATOM	43610	CE1	HIS	J	62	222.524	138.199	7.696	1.00 78.48	C	ATOM	43660	C	HIS	J	68	226.482	155.256	21.124	1.00	94.90	C
ATOM	43611	NE2	HIS	J	62	222.785	137.352	8.676	1.00 78.48	N	ATOM	43661	O	HIS	J	68	226.491	154.890	22.300	1.00	94.90	O
ATOM	43612	N	PHE	J	63	219.752	139.558	13.420	1.00 62.96	N	ATOM	43662	CB	HIS	J	68	224.390	155.332	19.751	1.00	78.56	C
ATOM	43613	CA	PHE	J	63	219.497	140.454	14.550	1.00 62.96	C	ATOM	43663	CG	HIS	J	68	223.450	154.637	18.818	1.00	78.56	C
ATOM	43614	C	PHE	J	63	220.733	141.307	14.818	1.00 62.96	C	ATOM	43664	ND1	HIS	J	68	223.074	155.171	17.605	1.00	78.56	N
ATOM	43615	O	PHE	J	63	221.838	140.929	14.441	1.00 62.96	O	ATOM	43665	CD2	HIS	J	68	222.813	153.445	18.920	1.00	78.56	C



ATOM 43666	CE1	HIS	J	68	222.244	154.340	17.000	1.00	78.56	C	ATOM 43716	CG2	ILE	J	74	231.231	172.016	30.490	1.00108.58	C
ATOM 43667	NE2	HIS	J	68	222.069	153.285	17.777	1.00	78.56	N	ATOM 43717	CD1	ILE	J	74	229.186	169.772	30.747	1.00108.58	C
ATOM 43668	N	ASN	J	69	227.185	156.301	20.688	1.00	78.16	N	ATOM 43718	N	ILE	J	75	234.526	172.028	29.169	1.00179.94	N
ATOM 43669	CA	ASN	J	69	228.048	157.074	21.581	1.00	78.16	C	ATOM 43719	CA	ILE	J	75	235.750	172.538	29.774	1.00179.94	C
ATOM 43670	C	ASN	J	69	227.936	158.575	21.318	1.00	78.16	C	ATOM 43720	C	ILE	J	75	235.443	173.854	30.480	1.00179.94	C
ATOM 43671	O	ASN	J	69	227.363	158.985	20.309	1.00	78.16	O	ATOM 43721	O	ILE	J	75	234.811	174.740	29.903	1.00179.94	O
ATOM 43672	CB	ASN	J	69	229.501	156.627	21.403	1.00	82.68	C	ATOM 43722	CB	ILE	J	75	236.864	172.747	28.727	1.00146.80	C
ATOM 43673	CG	ASN	J	69	229.667	155.119	21.524	1.00	82.68	O	ATOM 43723	CG1	ILE	J	75	237.359	171.387	28.227	1.00146.80	C
ATOM 43674	OD1	ASN	J	69	229.603	154.554	22.618	1.00	82.68	O	ATOM 43724	CG2	ILE	J	75	238.019	173.531	29.340	1.00146.80	C
ATOM 43675	ND2	ASN	J	69	229.869	154.456	20.389	1.00	82.68	N	ATOM 43725	CD1	ILE	J	75	238.503	171.466	27.237	1.00146.80	C
ATOM 43676	N	ARG	J	70	228.481	159.373	22.241	1.00114.95	N	ATOM 43726	N	ASN	J	76	235.891	173.954	31.732	1.00115.44	N	
ATOM 43677	CA	ARG	J	70	228.483	160.842	22.172	1.00114.95	C	ATOM 43727	CA	ASN	J	76	235.678	175.117	32.595	1.00115.44	C	
ATOM 43678	C	ARG	J	70	229.652	161.405	22.994	1.00114.95	C	ATOM 43728	C	ASN	J	76	234.429	174.928	33.462	1.00115.44	C	
ATOM 43679	O	ARG	J	70	230.315	160.659	23.715	1.00114.95	O	ATOM 43729	O	ASN	J	76	233.394	175.568	33.244	1.00115.44	O	
ATOM 43680	CB	ARG	J	70	227.173	161.401	22.723	1.00104.86	C	ATOM 43730	CB	ASN	J	76	235.552	176.405	31.777	1.00186.56	C	
ATOM 43681	CG	ARG	J	70	225.933	160.880	22.029	1.00104.86	C	ATOM 43731	CG	ASN	J	76	236.783	176.684	30.946	1.00186.56	C	
ATOM 43682	CD	ARG	J	70	225.958	161.198	20.549	1.00104.86	C	ATOM 43732	OD1	ASN	J	76	237.900	176.729	31.465	1.00186.56	O	
ATOM 43683	NE	ARG	J	70	224.815	160.607	19.863	1.00104.86	N	ATOM 43733	ND2	ASN	J	76	236.588	176.874	29.648	1.00186.56	N	
ATOM 43684	CZ	ARG	J	70	224.688	160.545	18.542	1.00104.86	C	ATOM 43734	N	PRO	J	77	234.513	174.023	34.452	1.00166.27	N	
ATOM 43685	NH1	ARG	J	70	225.640	161.036	17.762	1.00104.86	N	ATOM 43735	CA	PRO	J	77	233.423	173.714	35.382	1.00166.27	C	
ATOM 43686	NH2	ARG	J	70	223.603	160.004	18.001	1.00104.86	N	ATOM 43736	C	PRO	J	77	233.363	174.736	36.515	1.00166.27	C	
ATOM 43687	N	LEU	J	71	229.902	162.713	22.905	1.00135.50	N	ATOM 43737	O	PRO	J	77	234.377	175.044	37.140	1.00166.27	O	
ATOM 43688	CA	LEU	J	71	231.007	163.308	23.662	1.00135.50	C	ATOM 43738	CB	PRO	J	77	233.786	172.319	35.876	1.00116.30	C	
ATOM 43689	C	LEU	J	71	230.714	164.544	24.510	1.00135.50	C	ATOM 43739	CG	PRO	J	77	235.276	172.378	35.923	1.00116.30	C	
ATOM 43690	O	LEU	J	71	231.177	164.638	25.646	1.00135.50	O	ATOM 43740	CD	PRO	J	77	235.626	173.069	34.621	1.00116.30	C	
ATOM 43691	CB	LEU	J	71	232.176	163.647	22.739	1.00	70.30	C	ATOM 43741	N	ASN	J	78	232.170	175.252	36.781	1.00103.20	N
ATOM 43692	CG	LEU	J	71	233.520	162.980	23.085	1.00	70.30	C	ATOM 43742	CA	ASN	J	78	231.995	176.249	37.823	1.00103.20	C
ATOM 43693	CD1	LEU	J	71	234.668	163.843	22.564	1.00	70.30	C	ATOM 43743	C	ASN	J	78	230.828	175.902	38.732	1.00103.20	C
ATOM 43694	CD2	LEU	J	71	233.653	162.795	24.586	1.00	70.30	C	ATOM 43744	O	ASN	J	78	229.707	176.353	38.497	1.00103.20	O
ATOM 43695	N	VAL	J	72	229.976	165.504	23.966	1.00148.60	N	ATOM 43745	CB	ASN	J	78	231.748	177.617	37.190	1.00200.58	C	
ATOM 43696	CA	VAL	J	72	229.679	166.717	24.724	1.00148.60	C	ATOM 43746	CG	ASN	J	78	232.713	177.918	36.063	1.00200.58	C	
ATOM 43697	C	VAL	J	72	231.000	167.409	25.067	1.00148.60	C	ATOM 43747	OD1	ASN	J	78	233.923	177.981	36.269	1.00200.58	O	
ATOM 43698	O	VAL	J	72	231.439	168.299	24.338	1.00148.60	O	ATOM 43748	ND2	ASN	J	78	232.180	178.100	34.860	1.00200.58	N	
ATOM 43699	CB	VAL	J	72	228.931	166.385	26.029	1.00132.53	C	ATOM 43749	N	ARG	J	79	231.100	175.105	39.764	1.00164.06	N	
ATOM 43700	CG1	VAL	J	72	228.449	167.658	26.691	1.00132.53	C	ATOM 43750	CA	ARG	J	79	230.088	174.693	40.734	1.00164.06	C	
ATOM 43701	CG2	VAL	J	72	227.764	165.466	25.733	1.00132.53	C	ATOM 43751	C	ARG	J	79	228.696	174.530	40.133	1.00164.06	C	
ATOM 43702	N	ASP	J	73	231.625	167.005	26.175	1.00106.90	N	ATOM 43752	O	ARG	J	79	228.225	173.408	39.959	1.00164.06	O	
ATOM 43703	CA	ASP	J	73	232.915	167.570	26.593	1.00106.90	C	ATOM 43753	CB	ARG	J	79	230.042	175.694	41.890	1.00187.74	C	
ATOM 43704	C	ASP	J	73	232.810	169.022	27.090	1.00106.90	C	ATOM 43754	CG	ARG	J	79	230.679	175.184	43.172	1.00187.74	C	
ATOM 43705	O	ASP	J	73	232.818	169.960	26.290	1.00106.90	O	ATOM 43755	CD	ARG	J	79	229.786	174.150	43.839	1.00187.74	C	
ATOM 43706	CB	ASP	J	73	233.899	167.495	25.418	1.00117.03	C	ATOM 43756	NE	ARG	J	79	230.408	173.544	45.013	1.00187.74	N	
ATOM 43707	CG	ASP	J	73	235.301	167.125	25.846	1.00117.03	C	ATOM 43757	CZ	ARG	J	79	231.450	172.722	44.964	1.00187.74	C	
ATOM 43708	OD1	ASP	J	73	235.458	166.100	26.540	1.00117.03	O	ATOM 43758	NH1	ARG	J	79	231.991	172.405	43.796	1.00187.74	N	
ATOM 43709	OD2	ASP	J	73	236.245	167.853	25.473	1.00117.03	O	ATOM 43759	NH2	ARG	J	79	231.949	172.215	46.083	1.00187.74	N	
ATOM 43710	N	ILE	J	74	232.728	169.199	28.411	1.00115.98	N	ATOM 43760	N	LYS	J	80	228.037	175.646	39.831	1.00188.31	N	
ATOM 43711	CA	ILE	J	74	232.613	170.529	29.022	1.00115.98	C	ATOM 43761	CA	LYS	J	80	226.705	175.611	39.235	1.00188.31	C	
ATOM 43712	C	ILE	J	74	233.905	170.977	29.692	1.00115.98	C	ATOM 43762	C	LYS	J	80	226.735	174.794	37.949	1.00188.31	C	
ATOM 43713	O	ILE	J	74	234.327	170.380	30.680	1.00115.98	O	ATOM 43763	O	LYS	J	80	225.748	174.152	37.585	1.00188.31	O	
ATOM 43714	CB	ILE	J	74	231.533	170.571	30.129	1.00108.58	C	ATOM 43764	CB	LYS	J	80	226.209	177.028	39.935	1.00145.49	C	
ATOM 43715	CG1	ILE	J	74	230.253	169.879	29.665	1.00108.58	C	ATOM 43765	CG	LYS	J	80	224.812	177.084	39.318	1.00145.49	C	



Table 2. Sheet 439/520

ATOM	43766	CD	LVS J	80	223.740	176.531	39.255	1.00145.49	C	ATOM	43816	SD	MET J	86	227.050	166.243	38.971	1.00137.24	S
ATOM	43767	CE	LVS J	80	223.544	177.417	40.480	1.00145.49	C	ATOM	43817	CE	MET J	86	226.653	164.914	37.809	1.00137.24	C
ATOM	43768	NZ	LVS J	80	222.451	176.924	41.367	1.00145.49	N	ATOM	43818	N	THR J	87	221.810	167.249	39.754	1.00186.45	N
ATOM	43769	N	THR J	81	227.873	174.828	37.259	1.00200.58	N	ATOM	43819	CA	THR J	87	220.425	167.430	40.174	1.00186.45	C
ATOM	43770	CA	THR J	81	228.037	174.071	36.025	1.00200.58	C	ATOM	43820	C	THR J	87	219.390	166.972	39.148	1.00186.45	C
ATOM	43771	C	THR J	81	227.760	172.617	36.371	1.00200.58	C	ATOM	43821	O	THR J	87	218.453	166.245	39.484	1.00186.45	O
ATOM	43772	O	THR J	81	227.121	171.889	35.610	1.00200.58	C	ATOM	43822	CB	THR J	87	220.139	168.906	40.505	1.00200.58	C
ATOM	43773	CB	THR J	81	229.473	174.197	35.477	1.00127.98	C	ATOM	43823	OG1	THR J	87	220.442	169.720	39.364	1.00157.48	C
ATOM	43774	OG1	THR J	81	229.778	175.576	35.248	1.00127.98	O	ATOM	43824	CG2	THR J	87	220.979	169.358	41.689	1.00157.48	C
ATOM	43775	CG2	THR J	81	229.614	173.442	34.169	1.00127.98	C	ATOM	43825	N	LEU J	88	219.565	167.396	37.900	1.00190.59	N
ATOM	43776	N	ILE J	82	228.243	172.215	37.542	1.00126.90	N	ATOM	43826	CA	LEU J	88	218.627	167.061	36.831	1.00190.59	C
ATOM	43777	CA	ILE J	82	228.065	170.862	38.049	1.00126.90	C	ATOM	43827	C	LEU J	88	219.057	165.864	35.981	1.00190.59	C
ATOM	43778	C	ILE J	82	226.764	170.797	38.845	1.00126.90	C	ATOM	43828	O	LEU J	88	220.069	165.918	35.284	1.00190.59	O
ATOM	43779	O	ILE J	82	226.292	169.715	39.195	1.00126.90	O	ATOM	43829	CB	LEU J	88	218.427	168.289	35.943	1.00200.58	C
ATOM	43780	CB	ILE J	82	229.235	170.467	38.974	1.00 91.18	C	ATOM	43830	CG	LEU J	88	218.264	169.593	36.734	1.00131.10	C
ATOM	43781	CG1	ILE J	82	230.563	170.719	38.257	1.00 91.18	C	ATOM	43831	CD1	LEU J	88	218.161	170.763	35.773	1.00131.10	C
ATOM	43782	CG2	ILE J	82	229.108	169.007	39.392	1.00 91.18	C	ATOM	43832	CD2	LEU J	88	217.030	169.517	37.625	1.00131.10	C
ATOM	43783	CD1	ILE J	82	231.782	170.446	39.111	1.00 91.18	C	ATOM	43833	N	ASP J	89	218.271	164.792	36.039	1.00200.41	N
ATOM	43784	N	GLU J	83	226.191	171.962	39.130	1.00133.56	N	ATOM	43834	CA	ASP J	89	218.550	163.568	35.287	1.00200.41	C
ATOM	43785	CA	GLU J	83	224.948	172.030	39.884	1.00133.56	C	ATOM	43835	C	ASP J	89	217.228	162.986	34.786	1.00200.41	C
ATOM	43786	C	GLU J	83	223.766	171.717	38.979	1.00133.56	C	ATOM	43836	O	ASP J	89	216.183	163.225	35.390	1.00200.41	O
ATOM	43787	O	GLU J	83	222.754	171.180	39.431	1.00133.56	O	ATOM	43837	CB	ASP J	89	219.247	162.551	36.193	1.00199.79	C
ATOM	43788	CB	GLU J	83	224.768	173.417	40.500	1.00200.48	C	ATOM	43838	CG	ASP J	89	220.379	163.164	36.997	1.00168.95	C
ATOM	43789	CG	GLU J	83	223.583	173.519	41.441	1.00200.48	C	ATOM	43839	OD1	ASP J	89	221.339	163.675	36.384	1.00168.95	O
ATOM	43790	CG	GLU J	83	223.756	172.672	42.689	1.00200.48	C	ATOM	43840	OD2	ASP J	89	220.308	163.136	36.244	1.00168.95	O
ATOM	43791	OE1	GLU J	83	224.002	171.454	42.557	1.00200.48	O	ATOM	43841	N	LEU J	90	217.264	162.220	33.695	1.00200.58	N
ATOM	43792	OE2	GLU J	83	223.643	173.224	43.803	1.00200.48	O	ATOM	43842	CA	LEU J	90	216.030	161.642	33.165	1.00200.58	C
ATOM	43793	N	GLN J	84	223.891	172.057	37.701	1.00158.30	N	ATOM	43843	C	LEU J	90	216.128	160.318	32.392	1.00200.58	C
ATOM	43794	CA	GLN J	84	222.823	171.791	36.747	1.00158.30	C	ATOM	43844	O	LEU J	90	215.631	159.293	32.856	1.00200.58	O
ATOM	43795	C	GLN J	84	222.848	170.328	36.340	1.00158.30	C	ATOM	43845	CB	LEU J	90	215.297	162.678	32.299	1.00200.58	C
ATOM	43796	O	GLN J	84	221.915	169.835	35.707	1.00158.30	O	ATOM	43846	CG	LEU J	90	214.622	163.864	32.996	1.00147.70	C
ATOM	43797	CB	GLN J	84	222.979	172.660	35.501	1.00189.38	C	ATOM	43847	CD1	LEU J	90	214.160	164.877	31.959	1.00147.70	C
ATOM	43798	CG	GLN J	84	222.821	174.142	35.750	1.00189.38	C	ATOM	43848	CD2	LEU J	90	213.446	163.370	33.829	1.00147.70	C
ATOM	43799	CD	GLN J	84	222.656	174.920	34.463	1.00189.38	C	ATOM	43849	N	PRO J	91	216.769	160.319	31.209	1.00148.59	N
ATOM	43800	OE1	GLN J	84	221.719	174.683	33.701	1.00189.38	O	ATOM	43850	CA	PRO J	91	216.908	159.109	30.386	1.00148.59	C
ATOM	43801	NE2	GLN J	84	223.565	175.854	34.211	1.00189.38	N	ATOM	43851	C	PRO J	91	217.172	157.789	31.118	1.00148.59	C
ATOM	43802	N	LEU J	85	223.920	169.635	36.712	1.00180.22	N	ATOM	43852	O	PRO J	91	217.934	157.748	32.086	1.00148.59	O
ATOM	43803	CA	LEU J	85	224.068	168.227	36.371	1.00180.22	C	ATOM	43853	CB	PRO J	91	218.038	159.481	29.434	1.00171.18	C
ATOM	43804	C	LEU J	85	223.483	167.286	37.423	1.00180.22	C	ATOM	43854	CG	PRO J	91	217.810	160.938	29.226	1.00152.09	C
ATOM	43805	O	LEU J	85	222.325	166.881	37.328	1.00180.22	O	ATOM	43855	CD	PRO J	91	217.576	161.415	30.642	1.00152.09	C
ATOM	43806	CB	LEU J	85	225.546	167.885	36.153	1.00 91.54	C	ATOM	43856	N	THR J	92	216.537	156.717	30.638	1.00100.29	N
ATOM	43807	CG	LEU J	85	226.380	168.703	35.157	1.00 91.54	C	ATOM	43857	CA	THR J	92	216.685	155.378	31.215	1.00100.29	C
ATOM	43808	CD1	LEU J	85	227.690	167.970	34.902	1.00 91.54	C	ATOM	43858	C	THR J	92	217.578	154.496	30.364	1.00100.29	C
ATOM	43809	CD2	LEU J	85	225.640	168.895	33.844	1.00 91.54	C	ATOM	43859	O	THR J	92	218.320	153.659	30.882	1.00100.29	O
ATOM	43810	N	MET J	86	224.296	166.945	38.420	1.00122.61	N	ATOM	43860	CB	THR J	92	215.346	154.666	31.323	1.00 75.75	C
ATOM	43811	CA	MET J	86	223.907	166.032	39.495	1.00122.61	C	ATOM	43861	OG1	THR J	92	214.474	155.443	32.146	1.00 75.75	O
ATOM	43812	C	MET J	86	222.454	166.107	39.968	1.00122.61	C	ATOM	43862	CG2	THR J	92	215.523	153.274	31.923	1.00 75.75	C
ATOM	43813	O	MET J	86	221.922	165.135	40.510	1.00122.61	O	ATOM	43863	N	GLY J	93	217.479	154.675	29.052	1.00124.79	N
ATOM	43814	CB	MET J	86	224.844	166.222	40.691	1.00137.24	C	ATOM	43864	CA	GLY J	93	218.284	153.895	28.134	1.00124.79	C
ATOM	43815	CG	MET J	86	226.241	165.652	40.478	1.00137.24	C	ATOM	43865	C	GLY J	93	219.578	154.607	27.810	1.00124.79	C



ATOM	43866	O	GLY J	93	220.168	154.385	26.751	1.00124.79	O	ATOM	43916	N2	LYS J	99	236.262	155.683	34.181	1.00140.82	N
ATOM	43867	N	VAL J	94	220.014	155.469	28.728	1.00 76.88	N	ATOM	43917	N	THR J	100	236.991	163.913	33.896	1.00200.58	N
ATOM	43868	CA	VAL J	94	221.249	156.229	28.557	1.00 76.88	C	ATOM	43918	CA	THR J	100	237.803	165.038	33.449	1.00200.58	C
ATOM	43869	C	VAL J	94	222.201	156.067	29.737	1.00 76.88	C	ATOM	43919	C	THR J	100	239.267	164.633	33.303	1.00200.58	C
ATOM	43870	O	VAL J	94	221.867	156.416	30.863	1.00 76.88	O	ATOM	43920	O	THR J	100	239.597	163.482	33.665	1.00200.58	O
ATOM	43871	CB	VAL J	94	220.966	157.722	28.394	1.00 56.20	C	ATOM	43921	CB	THR J	100	237.674	166.192	34.436	1.00164.86	C
ATOM	43872	CG1	VAL J	94	222.262	158.448	28.092	1.00 56.20	C	TER	43922		THR J	100					
ATOM	43873	CG2	VAL J	94	219.936	157.948	27.288	1.00 56.20	C	ATOM	43923	N	LYS K	11	225.860	114.522	-79.430	1.00130.87	N
ATOM	43874	N	GLU J	95	223.387	155.536	29.472	1.00 88.78	N	ATOM	43924	CA	LYS K	11	226.157	115.804	-80.127	1.00130.87	C
ATOM	43875	CA	GLU J	95	224.381	155.335	30.515	1.00 88.78	C	ATOM	43925	C	LYS K	11	225.209	115.974	-81.307	1.00130.87	C
ATOM	43876	C	GLU J	95	225.481	156.382	30.349	1.00 88.78	C	ATOM	43926	O	LYS K	11	225.050	115.063	-82.119	1.00130.87	O
ATOM	43877	O	GLU J	95	226.111	156.477	29.289	1.00 88.78	O	ATOM	43927	CB	LYS K	11	227.608	115.806	-80.613	1.00132.93	C
ATOM	43878	CB	GLU J	95	224.960	153.930	30.420	1.00 89.42	C	ATOM	43928	CG	LYS K	11	228.616	115.597	-79.496	1.00132.93	C
ATOM	43879	CG	GLU J	95	225.902	153.578	31.537	1.00 89.42	C	ATOM	43929	CD	LYS K	11	230.016	115.342	-80.026	1.00132.93	C
ATOM	43880	CD	GLU J	95	227.222	153.067	31.013	1.00 89.42	C	ATOM	43930	CE	LYS K	11	230.967	115.001	-78.889	1.00132.93	C
ATOM	43881	OE1	GLU J	95	227.903	153.832	30.294	1.00 89.42	O	ATOM	43931	NZ	LYS K	11	232.318	114.635	-79.384	1.00132.93	N
ATOM	43882	OE2	GLU J	95	227.576	151.903	31.312	1.00 89.42	O	ATOM	43932	N	ARG K	12	224.576	117.141	-81.388	1.00 97.83	N
ATOM	43883	N	ILE J	96	225.713	157.156	31.410	1.00 93.52	N	ATOM	43933	CA	ARG K	12	223.636	117.443	-82.458	1.00 97.83	C
ATOM	43884	CA	ILE J	96	226.691	158.240	31.397	1.00 93.52	C	ATOM	43934	C	ARG K	12	223.388	118.935	-82.607	1.00 97.83	C
ATOM	43885	C	ILE J	96	228.053	157.972	32.022	1.00 93.52	C	ATOM	43935	O	ARG K	12	223.034	119.396	-83.686	1.00 97.83	O
ATOM	43886	O	ILE J	96	228.190	157.202	32.972	1.00 93.52	O	ATOM	43936	CB	ARG K	12	222.291	116.746	-82.218	1.00200.58	C
ATOM	43887	CB	ILE J	96	226.096	159.476	32.068	1.00 94.04	C	ATOM	43937	CG	ARG K	12	222.253	115.285	-82.624	1.00200.58	C
ATOM	43888	CG1	ILE J	96	224.727	159.760	31.446	1.00 94.04	C	ATOM	43938	CD	ARG K	12	220.832	114.839	-82.948	1.00200.58	C
ATOM	43889	CG2	ILE J	96	227.034	160.665	31.906	1.00 94.04	C	ATOM	43939	NE	ARG K	12	220.808	113.535	-83.610	1.00200.58	N
ATOM	43890	CD1	ILE J	96	223.900	160.792	32.174	1.00 94.04	C	ATOM	43940	CZ	ARG K	12	219.746	113.022	-84.226	1.00200.58	C
ATOM	43891	N	GLU J	97	229.060	158.634	31.466	1.00 99.15	N	ATOM	43941	NH1	ARG K	12	218.607	113.702	-84.271	1.00200.58	N
ATOM	43892	CA	GLU J	97	230.429	158.517	31.939	1.00 99.15	C	ATOM	43942	NH2	ARG K	12	219.822	111.830	-84.804	1.00200.58	N
ATOM	43893	C	GLU J	97	231.089	159.889	31.971	1.00 99.15	C	ATOM	43943	CA	GLN K	13	223.573	119.689	-81.528	1.00139.64	N
ATOM	43894	O	GLU J	97	231.503	160.419	30.940	1.00 99.15	O	ATOM	43944	CA	GLN K	13	223.336	121.131	-81.552	1.00139.64	C
ATOM	43895	CB	GLU J	97	231.226	157.580	31.032	1.00171.57	C	ATOM	43945	C	GLN K	13	221.838	121.352	-81.700	1.00139.64	C
ATOM	43896	CG	GLU J	97	230.932	156.117	31.268	1.00171.57	C	ATOM	43946	O	GLN K	13	221.282	121.190	-82.786	1.00139.64	O
ATOM	43897	CD	GLU J	97	231.291	155.691	32.675	1.00171.57	C	ATOM	43947	CB	GLN K	13	224.081	121.784	-82.716	1.00105.95	C
ATOM	43898	OE1	GLU J	97	232.485	155.776	33.031	1.00171.57	O	ATOM	43948	CG	GLN K	13	225.556	121.437	-82.755	1.00105.95	C
ATOM	43899	OE2	GLU J	97	230.380	155.278	33.423	1.00171.57	O	ATOM	43949	CD	GLN K	13	226.282	121.833	-81.484	1.00105.95	C
ATOM	43900	N	ILE J	98	231.170	160.469	33.162	1.00135.18	N	ATOM	43950	OE1	GLN K	13	226.507	123.020	-81.221	1.00105.95	O
ATOM	43901	CA	ILE J	98	231.790	161.774	33.325	1.00135.18	C	ATOM	43951	NE2	GLN K	13	226.647	120.838	-80.679	1.00105.95	N
ATOM	43902	C	ILE J	98	233.178	161.611	33.922	1.00135.18	C	ATOM	43952	N	VAL K	14	221.186	121.723	-80.603	1.00109.62	N
ATOM	43903	O	ILE J	98	233.334	161.080	35.019	1.00135.18	O	ATOM	43953	CA	VAL K	14	219.746	121.930	-80.617	1.00109.62	C
ATOM	43904	CB	ILE J	98	230.941	162.691	34.239	1.00124.07	C	ATOM	43954	C	VAL K	14	219.333	123.390	-80.486	1.00109.62	C
ATOM	43905	CG1	ILE J	98	229.827	163.344	33.420	1.00124.07	C	ATOM	43955	O	VAL K	14	218.241	123.774	-80.912	1.00109.62	O
ATOM	43906	CG2	ILE J	98	231.815	163.750	34.889	1.00124.07	C	ATOM	43956	CB	VAL K	14	219.091	121.101	-79.507	1.00100.29	C
ATOM	43907	CD1	ILE J	98	229.000	164.350	34.197	1.00124.07	C	ATOM	43957	CG1	VAL K	14	217.585	121.294	-79.519	1.00100.29	C
ATOM	43908	N	LYS J	99	234.186	162.060	33.184	1.00142.97	N	ATOM	43958	CG2	VAL K	14	219.443	119.636	-79.706	1.00100.29	C
ATOM	43909	CA	LYS J	99	235.562	161.976	33.647	1.00142.97	C	ATOM	43959	N	ALA K	15	220.205	124.201	-79.899	1.00 91.46	N
ATOM	43910	C	LYS J	99	236.380	163.104	33.036	1.00142.97	C	ATOM	43960	CA	ALA K	15	219.927	125.623	-79.739	1.00 91.46	C
ATOM	43911	O	LYS J	99	236.446	163.243	31.815	1.00142.97	O	ATOM	43961	C	ALA K	15	218.789	125.890	-78.758	1.00 91.46	C
ATOM	43912	CB	LYS J	99	236.166	160.618	33.279	1.00140.82	C	ATOM	43962	O	ALA K	15	219.026	126.336	-77.638	1.00 91.46	O
ATOM	43913	CG	LYS J	99	235.515	159.445	34.003	1.00140.82	C	ATOM	43963	CB	ALA K	15	219.600	126.240	-81.095	1.00 54.10	C
ATOM	43914	CD	LYS J	99	236.220	158.131	33.706	1.00140.82	C	ATOM	43964	N	SER K	16	217.556	125.628	-79.188	1.00 95.60	N
ATOM	43915	CE	LYS J	99	235.572	156.974	34.454	1.00140.82	C	ATOM	43965	CA	SER K	16	216.377	125.834	-78.346	1.00 95.60	C



Table 2: Sheet 441/520

ATOM	43966	C	SER K	16	215.703	124.498	-78.033	1.00	95.60	C	ATOM	44016	ND1	HIS K	22	207.865	113.670	-62.664	1.00	58.13	N
ATOM	43967	O	SER K	16	215.819	123.544	-78.799	1.00	95.60	O	ATOM	44017	CD2	HIS K	22	209.226	113.601	-60.956	1.00	58.13	C
ATOM	43968	CB	SER K	16	215.386	126.756	-79.051	1.00	94.40	C	ATOM	44018	CE1	HIS K	22	207.404	112.751	-61.834	1.00	58.13	C
ATOM	43969	OG	SER K	16	215.023	126.220	-80.312	1.00	94.40	O	ATOM	44019	NE2	HIS K	22	208.212	112.689	-60.790	1.00	58.13	N
ATOM	43970	N	GLY K	17	214.997	124.433	-76.907	1.00	92.84	N	ATOM	44020	N	ALA K	23	209.048	117.905	-60.343	1.00	58.62	N
ATOM	43971	CA	GLY K	17	214.329	123.200	-76.530	1.00	92.84	C	ATOM	44021	CA	ALA K	23	209.209	118.174	-58.922	1.00	58.62	N
ATOM	43972	C	GLY K	17	213.409	123.329	-75.329	1.00	92.84	C	ATOM	44022	C	ALA K	23	208.343	117.235	-58.090	1.00	58.62	C
ATOM	43973	O	GLY K	17	213.030	124.433	-74.943	1.00	92.84	O	ATOM	44023	O	ALA K	23	207.325	116.735	-58.563	1.00	58.62	O
ATOM	43974	N	ARG K	18	213.054	122.189	-74.739	1.00	74.77	N	ATOM	44024	CB	ALA K	23	208.847	119.608	-58.637	1.00	46.11	C
ATOM	43975	CA	ARG K	18	212.166	122.155	-73.578	1.00	74.77	C	ATOM	44025	N	SER K	24	208.741	116.990	-56.850	1.00	67.53	N
ATOM	43976	C	ARG K	18	212.866	121.708	-72.302	1.00	74.77	C	ATOM	44026	CA	SER K	24	207.960	116.100	-56.009	1.00	67.53	C
ATOM	43977	O	ARG K	18	213.786	120.891	-72.339	1.00	74.77	O	ATOM	44027	C	SER K	24	208.416	116.073	-54.555	1.00	67.53	C
ATOM	43978	CB	ARG K	18	210.980	121.226	-73.852	1.00	83.69	C	ATOM	44028	O	SER K	24	209.531	116.480	-54.236	1.00	67.53	O
ATOM	43979	CG	ARG K	18	209.942	121.828	-74.775	1.00	83.69	C	ATOM	44029	CB	SER K	24	207.997	114.695	-56.596	1.00	25.03	C
ATOM	43980	CD	ARG K	18	209.666	120.950	-75.980	1.00	83.69	C	ATOM	44030	OG	SER K	24	208.604	113.777	-55.704	1.00	25.03	O
ATOM	43981	NE	ARG K	18	208.424	120.191	-75.865	1.00	83.69	N	ATOM	44031	N	TYR K	25	207.546	115.592	-53.674	1.00	100.36	N
ATOM	43982	CZ	ARG K	18	207.906	119.466	-76.855	1.00	83.69	C	ATOM	44032	CA	TYR K	25	207.864	115.525	-52.257	1.00	100.36	C
ATOM	43983	NH1	ARG K	18	208.523	119.404	-76.029	1.00	83.69	N	ATOM	44033	O	TYR K	25	208.819	114.395	-51.960	1.00	100.36	C
ATOM	43984	NH2	ARG K	18	206.770	118.803	-76.679	1.00	83.69	N	ATOM	44034	O	TYR K	25	208.817	113.840	-50.866	1.00	100.36	O
ATOM	43985	N	ALA K	19	212.418	122.255	-71.173	1.00	74.70	N	ATOM	44035	CB	TYR K	25	206.581	115.373	-51.439	1.00	113.69	C
ATOM	43986	CA	ALA K	19	212.975	121.909	-69.868	1.00	74.70	C	ATOM	44036	CG	TYR K	25	205.771	116.648	-51.399	1.00	113.69	C
ATOM	43987	C	ALA K	19	211.878	121.388	-68.951	1.00	74.70	C	ATOM	44037	CD1	TYR K	25	204.382	116.622	-51.493	1.00	113.69	C
ATOM	43988	O	ALA K	19	211.198	122.162	-68.282	1.00	74.70	O	ATOM	44038	CD2	TYR K	25	206.403	117.889	-51.297	1.00	113.69	C
ATOM	43989	CB	ALA K	19	213.635	123.121	-69.236	1.00	63.96	C	ATOM	44039	CE1	TYR K	25	203.639	117.804	-51.495	1.00	113.69	C
ATOM	43990	N	TYR K	20	211.704	120.074	-68.930	1.00	59.50	N	ATOM	44040	CE2	TYR K	25	205.675	119.074	-51.297	1.00	113.69	C
ATOM	43991	CA	TYR K	20	210.696	119.456	-68.087	1.00	59.50	C	ATOM	44041	CZ	TYR K	25	204.294	119.027	-51.398	1.00	113.69	C
ATOM	43992	C	TYR K	20	211.189	119.281	-66.648	1.00	59.50	C	ATOM	44042	OH	TYR K	25	203.575	120.201	-51.415	1.00	113.69	O
ATOM	43993	O	TYR K	20	212.227	118.657	-66.402	1.00	59.50	O	ATOM	44043	N	ASN K	26	209.647	114.063	-52.943	1.00	61.49	N
ATOM	43994	CB	TYR K	20	210.307	118.088	-68.639	1.00	72.53	C	ATOM	44044	CA	ASN K	26	210.618	112.992	-52.785	1.00	61.49	C
ATOM	43995	CG	TYR K	20	209.456	118.107	-69.886	1.00	72.53	C	ATOM	44045	C	ASN K	26	211.909	113.143	-53.594	1.00	61.49	C
ATOM	43996	CD1	TYR K	20	210.025	118.264	-71.145	1.00	72.53	C	ATOM	44046	O	ASN K	26	212.860	112.388	-53.369	1.00	61.49	O
ATOM	43997	CD2	TYR K	20	208.079	117.918	-69.806	1.00	72.53	C	ATOM	44047	CB	ASN K	26	209.978	111.648	-53.120	1.00	42.68	C
ATOM	43998	CE1	TYR K	20	209.242	118.224	-72.298	1.00	72.53	C	ATOM	44048	CG	ASN K	26	210.024	110.679	-51.955	1.00	42.68	C
ATOM	43999	CE2	TYR K	20	207.292	117.878	-70.943	1.00	72.53	C	ATOM	44049	OD1	ASN K	26	210.673	110.939	-50.942	1.00	42.68	O
ATOM	44000	CZ	TYR K	20	207.877	118.028	-72.187	1.00	72.53	C	ATOM	44050	ND2	ASN K	26	209.335	109.548	-52.095	1.00	42.68	N
ATOM	44001	OH	TYR K	20	207.085	117.973	-73.311	1.00	72.53	O	ATOM	44051	N	ASN K	27	211.977	114.098	-54.517	1.00	92.91	N
ATOM	44002	N	ILE K	21	210.447	119.834	-65.696	1.00	59.83	N	ATOM	44052	CA	ASN K	27	213.210	114.221	-55.277	1.00	92.91	C
ATOM	44003	CA	ILE K	21	210.811	119.698	-64.294	1.00	59.83	C	ATOM	44053	C	ASN K	27	213.373	115.444	-56.153	1.00	92.91	C
ATOM	44004	C	ILE K	21	209.788	118.813	-63.605	1.00	59.83	C	ATOM	44054	O	ASN K	27	214.042	116.408	-55.780	1.00	92.91	O
ATOM	44005	O	ILE K	21	208.609	119.148	-63.529	1.00	59.83	O	ATOM	44055	CB	ASN K	27	213.390	112.971	-56.138	1.00	58.71	C
ATOM	44006	CB	ILE K	21	210.856	121.053	-63.574	1.00	50.40	C	ATOM	44056	CG	ASN K	27	214.751	112.903	-56.814	1.00	58.71	C
ATOM	44007	CG1	ILE K	21	211.965	121.918	-64.167	1.00	50.40	C	ATOM	44057	OD1	ASN K	27	215.075	111.915	-57.462	1.00	58.71	O
ATOM	44008	CG2	ILE K	21	211.107	120.842	-62.093	1.00	50.40	C	ATOM	44058	ND2	ASN K	27	215.548	113.948	-56.667	1.00	58.71	N
ATOM	44009	CD1	ILE K	21	212.147	123.243	-63.460	1.00	50.40	C	ATOM	44059	N	THR K	28	212.767	115.370	-57.330	1.00	57.20	N
ATOM	44010	N	HIS K	22	210.253	117.672	-63.117	1.00	44.14	N	ATOM	44060	CA	THR K	28	212.838	116.406	-58.367	1.00	57.20	C
ATOM	44011	CA	HIS K	22	209.406	116.709	-62.421	1.00	44.14	C	ATOM	44061	C	THR K	28	213.847	115.948	-59.408	1.00	57.20	C
ATOM	44012	C	HIS K	22	209.641	116.869	-60.926	1.00	44.14	C	ATOM	44062	O	THR K	28	214.989	115.610	-59.086	1.00	57.20	O
ATOM	44013	O	HIS K	22	210.360	116.077	-60.314	1.00	44.14	O	ATOM	44063	CB	THR K	28	213.315	117.781	-57.858	1.00	65.49	C
ATOM	44014	CB	HIS K	22	209.786	115.291	-62.844	1.00	58.13	C	ATOM	44064	CG1	THR K	28	212.396	118.201	-56.801	1.00	65.49	O
ATOM	44015	CG	HIS K	22	209.014	114.223	-62.141	1.00	58.13	C	ATOM	44065	CG2	THR K	28	213.385	118.762	-59.007	1.00	65.49	C



Table 2: Sheet 442/520

ATOM	44066	N	ILE K	29	213.419	115.927	-60.661	1.00	51.40	N	ATOM	44116	CG	PRO K	35	213.236	122.555	-80.585	1.00	103.90	C
ATOM	44067	CA	ILE K	29	214.295	115.507	-61.731	1.00	51.40	C	ATOM	44117	CD	PRO K	35	213.972	121.303	-80.143	1.00	103.90	C
ATOM	44068	C	ILE K	29	214.022	116.363	-62.958	1.00	51.40	C	ATOM	44118	N	ASP K	36	210.914	118.718	-80.091	1.00	66.05	N
ATOM	44069	O	ILE K	29	212.878	116.696	-63.251	1.00	51.40	O	ATOM	44119	CA	ASP K	36	210.011	117.636	-80.449	1.00	66.05	C
ATOM	44070	CB	ILE K	29	214.126	113.986	-62.015	1.00	49.64	C	ATOM	44120	C	ASP K	36	209.700	116.766	-79.248	1.00	66.05	C
ATOM	44071	CG1	ILE K	29	214.046	113.723	-63.499	1.00	49.64	C	ATOM	44121	O	ASP K	36	208.877	115.852	-79.329	1.00	66.05	O
ATOM	44072	CG2	ILE K	29	212.898	113.447	-61.341	1.00	49.64	C	ATOM	44122	CB	ASP K	36	210.611	116.784	-81.567	1.00	121.22	C
ATOM	44073	CD1	ILE K	29	213.906	112.275	-63.769	1.00	49.64	C	ATOM	44123	CG	ASP K	36	210.278	117.318	-82.943	1.00	121.22	C
ATOM	44074	N	VAL K	30	215.087	116.742	-63.656	1.00	61.24	N	ATOM	44124	OD1	ASP K	36	210.492	118.523	-83.183	1.00	121.22	O
ATOM	44075	CA	VAL K	30	214.966	117.594	-64.829	1.00	61.24	C	ATOM	44125	OD2	ASP K	36	209.802	116.531	-83.785	1.00	121.22	O
ATOM	44076	C	VAL K	30	215.379	116.909	-66.114	1.00	61.24	C	ATOM	44126	N	GLY K	37	210.368	117.055	-78.135	1.00	76.80	N
ATOM	44077	O	VAL K	30	216.420	116.265	-66.170	1.00	61.24	O	ATOM	44127	CA	GLY K	37	210.134	116.306	-76.917	1.00	76.80	C
ATOM	44078	CB	VAL K	30	215.839	118.832	-64.688	1.00	50.74	C	ATOM	44128	C	GLY K	37	211.145	115.220	-76.616	1.00	76.80	C
ATOM	44079	CG1	VAL K	30	215.742	119.655	-65.939	1.00	50.74	C	ATOM	44129	O	GLY K	37	211.129	114.656	-75.522	1.00	76.80	O
ATOM	44080	CG2	VAL K	30	215.414	119.637	-63.474	1.00	50.74	C	ATOM	44130	N	ASN K	38	212.016	114.908	-77.572	1.00	65.94	N
ATOM	44081	N	THR K	31	214.567	117.057	-67.150	1.00	50.98	N	ATOM	44131	CA	ASN K	38	213.025	113.875	-77.360	1.00	65.94	C
ATOM	44082	CA	THR K	31	214.887	116.462	-68.436	1.00	50.98	C	ATOM	44132	C	ASN K	38	214.099	114.370	-76.406	1.00	65.94	C
ATOM	44083	C	THR K	31	214.838	117.536	-69.497	1.00	50.98	C	ATOM	44133	O	ASN K	38	214.779	115.369	-76.655	1.00	65.94	O
ATOM	44084	O	THR K	31	213.761	118.011	-69.838	1.00	50.98	C	ATOM	44134	CB	ASN K	38	213.646	113.460	-78.682	1.00	85.15	C
ATOM	44085	CB	THR K	31	213.888	115.374	-68.836	1.00	42.18	C	ATOM	44135	CG	ASN K	38	212.643	112.843	-79.606	1.00	85.15	C
ATOM	44086	OG1	THR K	31	214.075	114.217	-68.013	1.00	42.18	O	ATOM	44136	OD1	ASN K	38	211.731	113.513	-80.083	1.00	85.15	O
ATOM	44087	CG2	THR K	31	214.104	114.977	-70.278	1.00	42.18	C	ATOM	44137	ND2	ASN K	38	212.790	111.552	-79.858	1.00	85.15	N
ATOM	44088	N	ILE K	32	215.996	117.938	-70.009	1.00	72.44	N	ATOM	44138	N	PRO K	39	214.256	113.675	-75.281	1.00	60.91	N
ATOM	44089	CA	ILE K	32	216.023	118.952	-71.055	1.00	72.44	C	ATOM	44139	CA	PRO K	39	215.246	114.048	-74.275	1.00	60.91	C
ATOM	44090	C	ILE K	32	215.738	118.197	-72.352	1.00	72.44	C	ATOM	44140	C	PRO K	39	216.704	114.111	-74.741	1.00	60.91	C
ATOM	44091	O	ILE K	32	216.169	117.051	-72.513	1.00	72.44	O	ATOM	44141	O	PRO K	39	217.212	113.181	-75.365	1.00	60.91	O
ATOM	44092	CB	ILE K	32	217.392	119.644	-71.140	1.00	52.76	C	ATOM	44142	CB	PRO K	39	215.016	113.006	-73.182	1.00	57.48	C
ATOM	44093	CG1	ILE K	32	217.813	120.169	-69.761	1.00	52.76	C	ATOM	44143	CG	PRO K	39	214.503	111.813	-73.942	1.00	57.48	C
ATOM	44094	CG2	ILE K	32	217.313	120.808	-72.108	1.00	52.76	C	ATOM	44144	CD	PRO K	39	213.545	112.443	-74.895	1.00	57.48	C
ATOM	44095	CD1	ILE K	32	216.922	121.255	-69.208	1.00	52.76	C	ATOM	44145	N	ILE K	40	217.365	115.224	-74.431	1.00	68.04	N
ATOM	44096	N	THR K	33	215.023	118.830	-73.278	1.00	72.66	N	ATOM	44146	CA	ILE K	40	218.774	115.417	-74.769	1.00	68.04	C
ATOM	44097	CA	THR K	33	214.658	118.153	-74.515	1.00	72.66	C	ATOM	44147	C	ILE K	40	219.583	114.919	-73.590	1.00	68.04	C
ATOM	44098	C	THR K	33	214.662	119.040	-75.757	1.00	72.66	C	ATOM	44148	O	ILE K	40	220.347	113.964	-73.707	1.00	68.04	O
ATOM	44099	O	THR K	33	214.769	120.259	-75.656	1.00	72.66	O	ATOM	44149	CB	ILE K	40	219.126	116.891	-74.952	1.00	72.80	C
ATOM	44100	CB	THR K	33	213.263	117.522	-74.340	1.00	99.09	C	ATOM	44150	CG1	ILE K	40	218.555	117.419	-76.256	1.00	72.80	C
ATOM	44101	OG1	THR K	33	213.289	116.179	-74.817	1.00	99.09	O	ATOM	44151	CG2	ILE K	40	220.617	117.063	-74.962	1.00	72.80	C
ATOM	44102	CG2	THR K	33	212.198	118.318	-75.087	1.00	99.09	C	ATOM	44152	CD1	ILE K	40	218.695	118.923	-76.373	1.00	72.80	C
ATOM	44103	N	ASP K	34	214.535	118.418	-76.926	1.00	90.18	N	ATOM	44153	N	THR K	41	219.401	115.591	-72.455	1.00	73.69	N
ATOM	44104	CA	ASP K	34	214.508	119.149	-78.195	1.00	90.18	C	ATOM	44154	CA	THR K	41	220.085	115.262	-71.207	1.00	73.69	C
ATOM	44105	C	ASP K	34	213.074	119.600	-78.516	1.00	90.18	C	ATOM	44155	C	THR K	41	219.086	115.274	-70.057	1.00	73.69	C
ATOM	44106	O	ASP K	34	212.115	119.107	-77.926	1.00	90.18	O	ATOM	44156	O	THR K	41	217.942	115.703	-70.222	1.00	73.69	O
ATOM	44107	CB	ASP K	34	215.024	118.258	-79.325	1.00	101.95	C	ATOM	44157	CB	THR K	41	221.178	116.298	-70.863	1.00	70.30	C
ATOM	44108	CG	ASP K	34	213.959	117.319	-79.858	1.00	101.95	C	ATOM	44158	OG1	THR K	41	220.582	117.596	-70.717	1.00	70.30	O
ATOM	44109	OD1	ASP K	34	213.284	116.656	-79.046	1.00	101.95	O	ATOM	44159	CG2	THR K	41	222.228	116.352	-71.950	1.00	70.30	C
ATOM	44110	OD2	ASP K	34	213.798	117.238	-81.092	1.00	101.95	O	ATOM	44160	N	TRP K	42	219.526	114.807	-68.893	1.00	73.63	N
ATOM	44111	N	PRO K	35	212.910	120.540	-79.463	1.00	88.85	N	ATOM	44161	CA	TRP K	42	218.689	114.795	-67.700	1.00	73.63	C
ATOM	44112	CA	PRO K	35	211.589	121.047	-79.850	1.00	88.85	C	ATOM	44162	C	TRP K	42	219.546	114.697	-66.452	1.00	73.63	C
ATOM	44113	C	PRO K	35	210.567	119.987	-80.263	1.00	88.85	C	ATOM	44163	O	TRP K	42	220.692	114.260	-66.506	1.00	73.63	O
ATOM	44114	O	PRO K	35	209.480	120.316	-80.736	1.00	88.85	O	ATOM	44164	CB	TRP K	42	217.724	113.623	-67.716	1.00	49.13	C
ATOM	44115	CB	PRO K	35	211.915	122.005	-80.992	1.00	103.90	C	ATOM	44165	CG	TRP K	42	218.386	112.305	-67.580	1.00	49.13	C



Table 2: Sheet 443/520

ATOM	44166	CD1 TRP K	42	218.979	111.592	-68.569	1.00	49.13	C	ATOM	44216	O	TYR K	50	221.901	111.029	-54.278	1.00	82.77	O
ATOM	44167	CD2 TRP K	42	218.477	111.502	-66.395	1.00	49.13	C	ATOM	44217	CB	TYR K	50	221.513	113.977	-53.052	1.00	64.74	C
ATOM	44168	NE1 TRP K	42	219.428	110.385	-68.087	1.00	49.13	N	ATOM	44218	CG	TYR K	50	221.996	115.304	-52.507	1.00	64.74	C
ATOM	44169	CE2 TRP K	42	219.134	110.303	-66.753	1.00	49.13	C	ATOM	44219	CD1	TYR K	50	221.675	116.498	-53.135	1.00	64.74	C
ATOM	44170	CE3 TRP K	42	218.067	111.677	-65.067	1.00	49.13	C	ATOM	44220	CD2	TYR K	50	222.827	115.352	-51.389	1.00	64.74	C
ATOM	44171	CZ2 TRP K	42	219.390	109.276	-65.831	1.00	49.13	C	ATOM	44221	CE1	TYR K	50	222.171	117.700	-52.676	1.00	64.74	C
ATOM	44172	CZ3 TRP K	42	218.323	110.650	-64.143	1.00	49.13	C	ATOM	44222	CE2	TYR K	50	223.328	116.547	-50.923	1.00	64.74	C
ATOM	44173	CH2 TRP K	42	218.978	109.467	-64.534	1.00	49.13	C	ATOM	44223	CZ	TYR K	50	222.999	117.718	-51.572	1.00	64.74	C
ATOM	44174	N SER K	43	218.985	115.109	-65.324	1.00	68.52	N	ATOM	44224	OH	TYR K	50	223.527	118.910	-51.130	1.00	64.74	O
ATOM	44175	CA SER K	43	219.697	115.050	-64.063	1.00	68.52	C	ATOM	44225	N	LYS K	51	221.759	110.911	-52.028	1.00	79.50	N
ATOM	44176	C SER K	43	218.679	114.796	-62.970	1.00	68.52	C	ATOM	44226	CA	LYS K	51	221.260	109.547	-52.009	1.00	79.50	C
ATOM	44177	O SER K	43	217.509	114.560	-63.260	1.00	68.52	O	ATOM	44227	C	LYS K	51	219.857	109.244	-51.496	1.00	79.50	C
ATOM	44178	CB SER K	43	220.426	116.362	-63.806	1.00	76.49	C	ATOM	44228	O	LYS K	51	219.138	108.455	-52.117	1.00	79.50	O
ATOM	44179	OG SER K	43	221.446	116.171	-62.845	1.00	76.49	O	ATOM	44229	CB	LYS K	51	222.240	108.655	-51.253	1.00	107.20	C
ATOM	44180	N SER K	44	219.116	114.842	-61.715	1.00	49.84	N	ATOM	44230	CG	LYS K	51	223.295	108.028	-52.137	1.00	107.20	C
ATOM	44181	CA SER K	44	218.208	114.609	-60.598	1.00	49.84	C	ATOM	44231	CD	LYS K	51	223.328	106.508	-51.972	1.00	107.20	C
ATOM	44182	C SER K	44	218.965	114.641	-59.290	1.00	49.84	C	ATOM	44232	CE	LYS K	51	222.007	105.859	-52.382	1.00	107.20	C
ATOM	44183	O SER K	44	220.191	114.656	-59.282	1.00	49.84	O	ATOM	44233	NZ	LYS K	51	222.014	104.378	-52.180	1.00	107.20	N
ATOM	44184	CB SER K	44	217.536	113.246	-60.731	1.00	45.30	C	ATOM	44234	N	GLY K	52	219.443	109.830	-50.378	1.00	54.42	N
ATOM	44185	OG SER K	44	218.459	112.211	-60.446	1.00	45.30	O	ATOM	44235	CA	GLY K	52	218.116	109.479	-49.896	1.00	54.42	C
ATOM	44186	N GLY K	45	218.226	114.632	-58.184	1.00	54.23	N	ATOM	44236	C	GLY K	52	217.155	110.604	-49.616	1.00	54.42	C
ATOM	44187	CA GLY K	45	218.857	114.656	-56.879	1.00	54.23	C	ATOM	44237	O	GLY K	52	216.540	111.163	-50.525	1.00	54.42	O
ATOM	44188	C GLY K	45	219.847	113.519	-56.770	1.00	54.23	C	ATOM	44238	CA	SER K	53	216.993	110.905	-48.334	1.00	46.03	N
ATOM	44189	O GLY K	45	220.931	113.668	-56.209	1.00	54.23	O	ATOM	44239	CA	SER K	53	216.119	111.984	-47.935	1.00	46.03	C
ATOM	44190	N GLY K	46	219.476	112.375	-57.322	1.00	58.89	N	ATOM	44240	C	SER K	53	216.585	113.255	-48.633	1.00	46.03	C
ATOM	44191	CA GLY K	46	220.361	111.231	-57.266	1.00	58.89	C	ATOM	44241	O	SER K	53	215.806	113.917	-49.305	1.00	46.03	O
ATOM	44192	C GLY K	46	221.555	111.335	-58.205	1.00	58.89	C	ATOM	44242	CB	SER K	53	216.173	112.172	-46.424	1.00	81.97	C
ATOM	44193	O GLY K	46	222.663	110.936	-57.842	1.00	58.89	O	ATOM	44243	OG	SER K	53	215.452	113.327	-46.045	1.00	81.97	O
ATOM	44194	N VAL K	47	221.323	111.842	-59.416	1.00	69.90	N	ATOM	44244	N	ARG K	54	217.872	113.565	-48.476	1.00	55.69	N
ATOM	44195	CA VAL K	47	222.380	112.003	-60.409	1.00	69.90	C	ATOM	44245	CA	ARG K	54	218.508	114.755	-49.047	1.00	55.69	C
ATOM	44196	C VAL K	47	223.506	112.793	-59.777	1.00	69.90	C	ATOM	44246	C	ARG K	54	218.127	114.981	-50.504	1.00	55.69	C
ATOM	44197	O VAL K	47	224.677	112.516	-60.018	1.00	69.90	O	ATOM	44247	O	ARG K	54	218.067	116.110	-50.981	1.00	55.69	O
ATOM	44198	CB VAL K	47	221.847	112.726	-61.668	1.00	54.17	C	ATOM	44248	CB	ARG K	54	220.029	114.627	-48.951	1.00	134.70	C
ATOM	44199	CG1 VAL K	47	222.947	113.521	-62.352	1.00	54.17	C	ATOM	44249	CG	ARG K	54	220.507	113.417	-48.159	1.00	134.70	C
ATOM	44200	CG2 VAL K	47	221.275	111.697	-62.621	1.00	54.17	C	ATOM	44250	CD	ARG K	54	220.561	113.684	-46.666	1.00	134.70	C
ATOM	44201	N ILE K	48	223.148	113.785	-58.971	1.00	65.27	N	ATOM	44251	NE	ARG K	54	221.836	114.274	-46.258	1.00	134.70	N
ATOM	44202	CA ILE K	48	224.147	114.563	-58.265	1.00	65.27	C	ATOM	44252	CZ	ARG K	54	222.251	115.493	-46.594	1.00	134.70	C
ATOM	44203	C ILE K	48	224.525	113.660	-57.099	1.00	65.27	C	ATOM	44253	NH1	ARG K	54	221.494	116.275	-47.351	1.00	134.70	N
ATOM	44204	O ILE K	48	224.000	112.556	-56.966	1.00	65.27	O	ATOM	44254	NH2	ARG K	54	223.428	115.933	-46.167	1.00	134.70	N
ATOM	44205	CB ILE K	48	223.568	115.826	-57.680	1.00	66.56	C	ATOM	44255	N	LYS K	55	217.866	113.892	-51.208	1.00	47.91	N
ATOM	44206	CG1 ILE K	48	222.791	116.574	-58.740	1.00	66.56	C	ATOM	44256	CA	LYS K	55	217.521	113.961	-52.617	1.00	47.91	C
ATOM	44207	CG2 ILE K	48	224.680	116.698	-57.144	1.00	66.56	C	ATOM	44257	C	LYS K	55	216.379	114.942	-52.948	1.00	47.91	O
ATOM	44208	CD1 ILE K	48	221.936	117.631	-58.136	1.00	66.56	C	ATOM	44258	O	LYS K	55	216.444	115.690	-53.926	1.00	47.91	C
ATOM	44209	N GLY K	49	225.404	114.127	-56.231	1.00	66.00	N	ATOM	44259	CB	LYS K	55	217.170	112.558	-53.093	1.00	37.26	C
ATOM	44210	CA GLY K	49	225.809	113.294	-55.114	1.00	66.00	C	ATOM	44260	CG	LYS K	55	217.746	112.192	-54.425	1.00	37.26	C
ATOM	44211	C GLY K	49	224.732	112.629	-54.269	1.00	66.00	C	ATOM	44261	CD	LYS K	55	217.173	110.876	-54.937	1.00	37.26	C
ATOM	44212	O GLY K	49	224.823	111.436	-53.989	1.00	66.00	O	ATOM	44262	CE	LYS K	55	217.451	109.727	-53.982	1.00	37.26	C
ATOM	44213	N TYR K	50	223.719	113.397	-53.876	1.00	82.77	N	ATOM	44263	NZ	LYS K	55	216.927	108.422	-54.497	1.00	37.26	N
ATOM	44214	CA TYR K	50	222.627	112.939	-53.009	1.00	82.77	C	ATOM	44264	N	GLY K	56	215.337	114.951	-52.127	1.00	51.49	N
ATOM	44215	C TYR K	50	222.064	111.533	-53.167	1.00	82.77	C	ATOM	44265	CA	GLY K	56	214.210	115.627	-52.389	1.00	51.49	C



ATOM	44266	C	GLY	K	56	214.325	117.285	-51.981	1.00	51.49	C	ATOM	44316	O	LEU	K	63	222.406	120.555	-60.683	1.00	71.86	O
ATOM	44267	O	GLY	K	56	213.427	118.086	-52.260	1.00	51.49	O	ATOM	44317	CB	LEU	K	63	222.902	120.536	-57.409	1.00	46.03	C
ATOM	44268	N	THR	K	57	215.420	117.641	-51.324	1.00	66.69	N	ATOM	44318	CG	LEU	K	63	223.584	121.312	-56.269	1.00	46.03	C
ATOM	44269	CA	THR	K	57	215.609	119.011	-50.884	1.00	66.69	C	ATOM	44319	CD1	LEU	K	63	224.440	120.363	-55.450	1.00	46.03	C
ATOM	44270	C	THR	K	57	215.660	120.009	-52.038	1.00	66.69	C	ATOM	44320	CD2	LEU	K	63	224.450	122.443	-56.827	1.00	46.03	C
ATOM	44271	O	THR	K	57	215.993	119.661	-53.170	1.00	66.69	O	ATOM	44321	N	ALA	K	64	220.660	119.812	-59.494	1.00	57.86	N
ATOM	44272	CB	THR	K	57	216.900	119.152	-50.086	1.00	73.63	C	ATOM	44322	CA	ALA	K	64	220.195	118.965	-60.585	1.00	57.86	C
ATOM	44273	OG1	THR	K	57	217.089	120.525	-49.737	1.00	73.63	O	ATOM	44323	C	ALA	K	64	219.788	119.798	-61.795	1.00	57.86	C
ATOM	44274	CG2	THR	K	57	218.076	118.712	-50.909	1.00	73.63	C	ATOM	44324	O	ALA	K	64	219.967	119.379	-62.937	1.00	57.86	O
ATOM	44275	N	PRO	K	58	215.301	121.266	-51.768	1.00	76.80	N	ATOM	44325	CB	ALA	K	64	219.024	118.106	-60.119	1.00	35.18	C
ATOM	44276	CA	PRO	K	58	215.345	122.265	-52.834	1.00	76.80	C	ATOM	44326	N	ALA	K	65	219.245	120.981	-61.538	1.00	62.88	N
ATOM	44277	C	PRO	K	58	216.766	122.496	-53.372	1.00	76.80	C	ATOM	44327	CA	ALA	K	65	218.808	121.860	-62.609	1.00	62.88	C
ATOM	44278	O	PRO	K	58	216.943	122.911	-54.514	1.00	76.80	O	ATOM	44328	C	ALA	K	65	220.008	122.378	-63.379	1.00	62.88	C
ATOM	44279	CB	PRO	K	58	214.742	123.510	-52.169	1.00	55.59	C	ATOM	44329	O	ALA	K	65	220.089	122.212	-64.594	1.00	62.88	O
ATOM	44280	CG	PRO	K	58	214.903	123.250	-50.692	1.00	55.59	C	ATOM	44330	CB	ALA	K	65	218.012	123.023	-62.036	1.00	75.61	C
ATOM	44281	CD	PRO	K	58	214.592	121.794	-50.594	1.00	55.59	C	ATOM	44331	N	LEU	K	66	220.941	123.001	-62.665	1.00	80.50	N
ATOM	44282	N	TYR	K	59	217.780	122.224	-52.559	1.00	66.12	N	ATOM	44332	CA	LEU	K	66	222.141	123.547	-63.286	1.00	80.50	C
ATOM	44283	CA	TYR	K	59	219.156	122.409	-53.015	1.00	66.12	C	ATOM	44333	O	LEU	K	66	222.876	122.465	-64.058	1.00	80.50	C
ATOM	44284	C	TYR	K	59	219.497	121.317	-54.023	1.00	66.12	O	ATOM	44334	O	LEU	K	66	223.316	122.694	-65.184	1.00	80.50	O
ATOM	44285	O	TYR	K	59	220.051	121.589	-55.091	1.00	66.12	C	ATOM	44335	CB	LEU	K	66	223.061	124.136	-62.224	1.00	45.39	C
ATOM	44286	CB	TYR	K	59	220.133	122.341	-51.837	1.00	74.25	C	ATOM	44336	CG	LEU	K	66	222.453	125.281	-61.413	1.00	45.39	C
ATOM	44287	CG	TYR	K	59	221.571	122.596	-52.231	1.00	74.25	C	ATOM	44337	CD1	LEU	K	66	223.310	125.550	-60.208	1.00	45.39	C
ATOM	44288	CD1	TYR	K	59	221.935	123.782	-52.868	1.00	74.25	C	ATOM	44338	CD2	LEU	K	66	222.318	126.530	-62.273	1.00	45.39	C
ATOM	44289	CD2	TYR	K	59	222.567	121.647	-51.983	1.00	74.25	C	ATOM	44339	CA	ASP	K	67	223.011	121.286	-63.452	1.00	52.05	N
ATOM	44290	CE1	TYR	K	59	223.256	124.020	-53.252	1.00	74.25	C	ATOM	44340	N	ASP	K	67	223.683	120.176	-64.110	1.00	52.05	N
ATOM	44291	CE2	TYR	K	59	223.892	121.875	-52.365	1.00	74.25	C	ATOM	44341	C	ASP	K	67	222.963	119.871	-65.415	1.00	52.05	C
ATOM	44292	CZ	TYR	K	59	224.226	123.066	-53.000	1.00	74.25	O	ATOM	44342	O	ASP	K	67	223.535	119.984	-66.495	1.00	52.05	O
ATOM	44293	OH	TYR	K	59	225.524	123.308	-53.392	1.00	74.25	O	ATOM	44343	CB	ASP	K	67	223.681	118.940	-63.212	1.00	82.48	C
ATOM	44294	N	ALA	K	60	219.160	120.080	-53.670	1.00	49.65	N	ATOM	44344	CG	ASP	K	67	224.276	117.720	-63.897	1.00	82.48	C
ATOM	44295	CA	ALA	K	60	219.409	118.940	-54.537	1.00	49.65	C	ATOM	44345	OD1	ASP	K	67	223.572	117.081	-64.704	1.00	82.48	O
ATOM	44296	C	ALA	K	60	218.674	119.161	-55.836	1.00	49.65	C	ATOM	44346	OD2	ASP	K	67	225.456	117.403	-63.640	1.00	82.48	O
ATOM	44297	O	ALA	K	60	218.834	118.398	-56.789	1.00	49.65	O	ATOM	44347	N	ALA	K	68	221.699	119.489	-65.315	1.00	64.53	N
ATOM	44298	CB	ALA	K	60	218.913	117.668	-53.891	1.00	37.08	C	ATOM	44348	CA	ALA	K	68	220.928	119.182	-66.502	1.00	64.53	C
ATOM	44299	N	ALA	K	61	217.840	120.192	-55.864	1.00	52.60	N	ATOM	44349	C	ALA	K	68	221.134	120.290	-67.533	1.00	64.53	C
ATOM	44300	CA	ALA	K	61	217.088	120.509	-57.064	1.00	52.60	C	ATOM	44350	O	ALA	K	68	221.214	120.032	-68.736	1.00	64.53	O
ATOM	44301	C	ALA	K	61	217.874	121.547	-57.837	1.00	52.60	C	ATOM	44351	CB	ALA	K	68	219.460	119.058	-66.142	1.00	64.78	C
ATOM	44302	O	ALA	K	61	218.010	121.456	-59.048	1.00	52.60	O	ATOM	44352	N	ALA	K	69	221.233	121.526	-67.055	1.00	70.42	N
ATOM	44303	CB	ALA	K	61	215.702	121.044	-56.703	1.00	39.52	C	ATOM	44353	CA	ALA	K	69	221.429	122.665	-67.942	1.00	70.42	C
ATOM	44304	N	GLN	K	62	218.407	122.531	-57.126	1.00	70.91	N	ATOM	44354	C	ALA	K	69	222.811	122.631	-68.586	1.00	70.42	C
ATOM	44305	CA	GLN	K	62	219.182	123.578	-57.772	1.00	70.91	C	ATOM	44355	O	ALA	K	69	222.936	122.795	-69.797	1.00	70.42	O
ATOM	44306	C	GLN	K	62	220.346	122.949	-58.519	1.00	70.91	C	ATOM	44356	CB	ALA	K	69	221.240	123.969	-67.176	1.00	64.16	C
ATOM	44307	O	GLN	K	62	220.612	123.271	-59.674	1.00	70.91	O	ATOM	44357	N	LYS	K	70	223.848	122.426	-67.780	1.00	59.64	N
ATOM	44308	CB	GLN	K	62	219.723	124.556	-56.736	1.00	74.34	C	ATOM	44358	CA	LYS	K	70	225.205	122.369	-68.308	1.00	59.64	C
ATOM	44309	CG	GLN	K	62	220.352	125.783	-57.349	1.00	74.34	C	ATOM	44359	C	LYS	K	70	225.245	121.349	-69.438	1.00	59.64	C
ATOM	44310	CD	GLN	K	62	221.016	126.669	-56.319	1.00	74.34	O	ATOM	44360	O	LYS	K	70	225.522	121.687	-70.587	1.00	59.64	O
ATOM	44311	OE1	GLN	K	62	222.041	126.307	-55.748	1.00	74.34	C	ATOM	44361	CB	LYS	K	70	226.189	121.970	-67.206	1.00	131.11	C
ATOM	44312	NE2	GLN	K	62	220.430	127.837	-56.069	1.00	74.34	N	ATOM	44362	CG	LYS	K	70	226.240	122.960	-66.061	1.00	131.11	C
ATOM	44313	N	LEU	K	63	221.034	122.037	-57.848	1.00	71.86	N	ATOM	44363	CD	LYS	K	70	226.968	122.396	-64.855	1.00	131.11	C
ATOM	44314	CA	LEU	K	63	222.172	121.386	-58.451	1.00	71.86	C	ATOM	44364	CE	LYS	K	70	226.815	123.321	-63.655	1.00	131.11	C
ATOM	44315	C	LEU	K	63	221.755	120.540	-59.639	1.00	71.86	C	ATOM	44365	NZ	LYS	K	70	227.380	122.723	-62.418	1.00	131.11	N



ATOM	44366	N	LVS K	71	224.951	120.100	-69.115	1.00	56.25	N	ATOM	44416	CE	MET K	77	217.768	123.487	-73.879	1.00	91.25	C
ATOM	44367	CA	LVS K	71	224.962	119.061	-70.121	1.00	56.25	C	ATOM	44417	N	GLN K	78	220.657	126.901	-75.942	1.00	67.40	N
ATOM	44368	C	LVS K	71	224.202	119.534	-71.353	1.00	56.25	C	ATOM	44418	CA	GLN K	78	220.759	128.303	-75.566	1.00	67.40	C
ATOM	44369	O	LVS K	71	224.530	119.156	-72.471	1.00	56.25	O	ATOM	44419	C	GLN K	78	219.414	128.818	-75.062	1.00	67.40	C
ATOM	44370	CB	LVS K	71	224.311	117.790	-69.584	1.00	63.32	C	ATOM	44420	O	GLN K	78	219.365	129.661	-74.167	1.00	67.40	O
ATOM	44371	CG	LVS K	71	224.949	117.208	-68.331	1.00	63.32	C	ATOM	44421	CB	GLN K	78	221.206	129.138	-76.763	1.00	130.95	C
ATOM	44372	CD	LVS K	71	224.255	115.906	-67.984	1.00	63.32	C	ATOM	44422	CG	GLN K	78	222.506	128.674	-77.382	1.00	130.95	C
ATOM	44373	CE	LVS K	71	224.751	115.299	-66.694	1.00	63.32	C	ATOM	44423	CD	GLN K	78	222.988	129.608	-78.464	1.00	130.95	C
ATOM	44374	N2	LVS K	71	223.973	114.060	-66.399	1.00	63.32	N	ATOM	44424	OE1	GLN K	78	223.275	130.778	-78.205	1.00	130.95	O
ATOM	44375	N	ALA K	72	223.182	120.362	-71.151	1.00	58.27	N	ATOM	44425	NE2	GLN K	78	223.079	129.101	-79.688	1.00	130.95	N
ATOM	44376	CA	ALA K	72	222.387	120.869	-72.268	1.00	58.27	C	ATOM	44426	N	SER K	79	218.330	128.295	-75.640	1.00	76.03	N
ATOM	44377	C	ALA K	72	223.161	121.894	-73.104	1.00	58.27	C	ATOM	44427	CA	SER K	79	216.955	128.679	-75.294	1.00	76.03	C
ATOM	44378	O	ALA K	72	223.015	121.944	-74.324	1.00	58.27	O	ATOM	44428	C	SER K	79	216.116	127.487	-74.836	1.00	76.03	C
ATOM	44379	CB	ALA K	72	221.096	121.483	-71.747	1.00	100.73	C	ATOM	44429	O	SER K	79	216.277	129.321	-76.508	1.00	93.28	O
ATOM	44380	N	MET K	73	223.973	122.713	-72.442	1.00	78.82	N	ATOM	44430	CB	SER K	79	216.214	126.402	-75.403	1.00	76.03	O
ATOM	44381	CA	MET K	73	224.778	123.722	-73.123	1.00	78.82	C	ATOM	44431	OG	SER K	79	214.874	129.116	-76.483	1.00	93.28	C
ATOM	44382	C	MET K	73	225.688	123.004	-74.118	1.00	78.82	C	ATOM	44432	N	VAL K	80	215.279	127.691	-73.820	1.00	71.31	N
ATOM	44383	O	MET K	73	225.723	123.334	-75.304	1.00	78.82	O	ATOM	44433	CA	VAL K	80	214.439	126.608	-73.313	1.00	71.31	C
ATOM	44384	CB	MET K	73	225.651	124.475	-72.117	1.00	105.27	C	ATOM	44434	C	VAL K	80	213.045	127.058	-72.900	1.00	71.31	C
ATOM	44385	CG	MET K	73	224.913	125.073	-70.925	1.00	105.27	C	ATOM	44435	O	VAL K	80	212.810	128.232	-72.613	1.00	71.31	O
ATOM	44386	SD	MET K	73	224.012	126.582	-71.296	1.00	105.27	S	ATOM	44436	CB	VAL K	80	215.049	125.938	-72.067	1.00	62.40	C
ATOM	44387	CE	MET K	73	225.371	127.722	-71.531	1.00	105.27	C	ATOM	44437	CG1	VAL K	80	214.534	124.530	-71.949	1.00	62.40	C
ATOM	44388	CA	ALA K	74	226.425	122.017	-73.616	1.00	82.27	N	ATOM	44438	CG2	VAL K	80	216.550	125.953	-72.132	1.00	62.40	C
ATOM	44389	N	ALA K	74	227.347	121.232	-74.428	1.00	82.27	C	ATOM	44439	N	ASP K	81	212.129	126.095	-72.870	1.00	71.05	N
ATOM	44390	C	ALA K	74	226.709	120.695	-75.711	1.00	82.27	C	ATOM	44440	CA	ASP K	81	210.749	126.315	-72.445	1.00	71.05	C
ATOM	44391	O	ALA K	74	227.408	120.369	-76.670	1.00	82.27	O	ATOM	44441	C	ASP K	81	210.535	125.372	-71.257	1.00	71.05	C
ATOM	44392	CB	ALA K	74	227.898	120.081	-73.604	1.00	106.19	C	ATOM	44442	O	ASP K	81	210.658	124.149	-71.390	1.00	71.05	O
ATOM	44393	CA	TYR K	75	225.386	120.590	-75.724	1.00	83.99	N	ATOM	44443	CB	ASP K	81	209.770	125.978	-73.570	1.00	112.90	C
ATOM	44394	N	TYR K	75	224.676	120.103	-76.897	1.00	83.99	C	ATOM	44444	CG	ASP K	81	209.914	126.901	-74.762	1.00	112.90	C
ATOM	44395	C	TYR K	75	224.389	121.256	-77.845	1.00	83.99	C	ATOM	44445	OD1	ASP K	81	211.008	126.931	-75.364	1.00	112.90	O
ATOM	44396	O	TYR K	75	223.916	121.045	-78.957	1.00	83.99	O	ATOM	44446	OD2	ASP K	81	208.935	127.598	-75.096	1.00	112.90	O
ATOM	44397	CB	TYR K	75	223.351	119.460	-76.496	1.00	89.54	C	ATOM	44447	N	VAL K	82	210.226	125.942	-70.097	1.00	65.02	N
ATOM	44398	CG	TYR K	75	223.340	117.953	-76.563	1.00	89.54	C	ATOM	44448	CA	VAL K	82	210.037	125.141	-68.898	1.00	65.02	C
ATOM	44399	CD1	TYR K	75	223.979	117.185	-75.592	1.00	89.54	C	ATOM	44449	C	VAL K	82	208.624	124.620	-68.708	1.00	65.02	C
ATOM	44400	CD2	TYR K	75	222.673	117.291	-77.595	1.00	89.54	C	ATOM	44450	O	VAL K	82	207.646	125.330	-68.931	1.00	65.02	O
ATOM	44401	CE1	TYR K	75	223.954	115.791	-75.644	1.00	89.54	C	ATOM	44451	CB	VAL K	82	210.442	125.926	-67.646	1.00	43.44	C
ATOM	44402	CE2	TYR K	75	222.641	115.901	-77.659	1.00	89.54	C	ATOM	44452	CG1	VAL K	82	210.573	124.970	-66.455	1.00	43.44	C
ATOM	44403	CZ	TYR K	75	223.284	115.156	-76.681	1.00	89.54	C	ATOM	44453	CG2	VAL K	82	211.745	126.646	-67.902	1.00	43.44	C
ATOM	44404	OH	TYR K	75	223.271	113.779	-76.749	1.00	89.54	O	ATOM	44454	N	ILE K	83	208.539	123.368	-68.274	1.00	62.16	N
ATOM	44405	N	GLY K	76	224.663	122.476	-77.395	1.00	81.57	N	ATOM	44455	CA	ILE K	83	207.267	122.697	-68.042	1.00	62.16	C
ATOM	44406	CA	GLY K	76	224.414	123.643	-78.221	1.00	81.57	C	ATOM	44456	C	ILE K	83	207.284	122.054	-66.656	1.00	62.16	C
ATOM	44407	C	GLY K	76	223.242	124.476	-77.730	1.00	81.57	C	ATOM	44457	O	ILE K	83	207.794	120.947	-66.482	1.00	62.16	O
ATOM	44408	O	GLY K	76	223.015	125.590	-78.214	1.00	81.57	O	ATOM	44458	CB	ILE K	83	207.059	121.610	-69.089	1.00	65.69	C
ATOM	44409	N	MET K	77	222.499	123.930	-76.767	1.00	91.43	N	ATOM	44459	CG1	ILE K	83	207.228	122.223	-70.474	1.00	65.69	C
ATOM	44410	CA	MET K	77	221.337	124.601	-76.180	1.00	91.43	C	ATOM	44460	CG2	ILE K	83	205.699	120.960	-68.914	1.00	65.69	C
ATOM	44411	C	MET K	77	221.631	126.023	-75.728	1.00	91.43	C	ATOM	44461	CD1	ILE K	83	207.666	121.233	-71.513	1.00	65.69	C
ATOM	44412	O	MET K	77	222.700	126.309	-75.192	1.00	91.43	O	ATOM	44462	N	VAL K	84	206.721	122.747	-65.672	1.00	57.24	N
ATOM	44413	CB	MET K	77	220.815	123.806	-74.979	1.00	91.25	C	ATOM	44463	CA	VAL K	84	206.709	122.235	-64.315	1.00	57.24	C
ATOM	44414	CG	MET K	77	219.894	122.640	-75.321	1.00	91.25	C	ATOM	44464	C	VAL K	84	205.621	121.193	-64.139	1.00	57.24	C
ATOM	44415	SD	MET K	77	218.179	123.147	-75.539	1.00	91.25	S	ATOM	44465	O	VAL K	84	204.518	121.341	-64.653	1.00	57.24	O



ATOM	44466	CB	VAL K	84	206.480	123.363	-63.304	1.00	63.69	C	ATOM	44516	CA	GLU K	92	210.253	126.708	-57.803	1.00	62.48	C
ATOM	44467	CG1	VAL K	84	206.828	122.878	-61.915	1.00	63.69	C	ATOM	44517	C	GLU K	92	211.749	126.983	-57.739	1.00	62.48	C
ATOM	44468	CG2	VAL K	84	207.311	124.573	-63.669	1.00	63.69	C	ATOM	44518	O	GLU K	92	212.212	127.992	-58.254	1.00	62.48	O
ATOM	44469	N	ARG K	85	205.938	120.129	-63.417	1.00	66.57	N	ATOM	44519	CB	GLU K	92	209.494	127.643	-56.859	1.00	92.94	C
ATOM	44470	CA	ARG K	85	204.976	119.074	-63.176	1.00	66.57	C	ATOM	44520	CG	GLU K	92	208.712	128.751	-57.571	1.00	92.94	C
ATOM	44471	C	ARG K	85	205.115	118.535	-61.781	1.00	66.57	C	ATOM	44521	CD	GLU K	92	207.710	128.211	-58.597	1.00	92.94	C
ATOM	44472	O	ARG K	85	206.177	118.044	-61.399	1.00	66.57	O	ATOM	44522	OE1	GLU K	92	206.986	127.242	-58.272	1.00	92.94	O
ATOM	44473	CB	ARG K	85	205.163	117.928	-64.153	1.00	62.27	C	ATOM	44523	OE2	GLU K	92	207.636	128.760	-59.724	1.00	92.94	O
ATOM	44474	CG	ARG K	85	204.536	118.171	-65.491	1.00	62.27	C	ATOM	44524	N	GLN K	93	212.506	126.097	-57.098	1.00	63.97	N
ATOM	44475	CD	ARG K	85	204.641	116.941	-66.360	1.00	62.27	C	ATOM	44525	CA	GLN K	93	213.953	126.279	-57.019	1.00	63.97	C
ATOM	44476	NE	ARG K	85	203.985	117.158	-67.637	1.00	62.27	N	ATOM	44526	C	GLN K	93	214.539	125.902	-58.365	1.00	63.97	C
ATOM	44477	C2	ARG K	85	204.475	116.752	-68.799	1.00	62.27	C	ATOM	44527	O	GLN K	93	215.279	126.675	-58.976	1.00	63.97	O
ATOM	44478	NH1	ARG K	85	205.630	116.104	-68.844	1.00	62.27	N	ATOM	44528	CB	GLN K	93	214.559	125.387	-55.943	1.00	107.17	C
ATOM	44479	NH2	ARG K	85	203.815	117.005	-69.918	1.00	62.27	N	ATOM	44529	CG	GLN K	93	214.989	126.149	-54.716	1.00	107.17	C
ATOM	44480	N	GLY K	86	204.026	118.625	-61.026	1.00	64.53	N	ATOM	44530	CD	GLN K	93	215.934	127.285	-55.050	1.00	107.17	C
ATOM	44481	CA	GLY K	86	204.024	118.132	-59.668	1.00	64.53	C	ATOM	44531	OE1	GLN K	93	217.062	127.063	-55.490	1.00	107.17	O
ATOM	44482	C	GLY K	86	204.396	119.214	-58.689	1.00	64.53	C	ATOM	44532	NE2	GLN K	93	215.473	128.514	-54.848	1.00	107.17	N
ATOM	44483	O	GLY K	86	205.062	120.180	-59.037	1.00	64.53	O	ATOM	44533	N	ALA K	94	214.197	124.699	-58.817	1.00	75.88	N
ATOM	44484	N	THR K	87	203.929	119.058	-57.461	1.00	90.25	N	ATOM	44534	CA	ALA K	94	214.654	124.198	-60.102	1.00	75.88	C
ATOM	44485	CA	THR K	87	204.233	120.002	-56.412	1.00	90.25	C	ATOM	44535	C	ALA K	94	214.454	125.308	-61.103	1.00	75.88	C
ATOM	44486	C	THR K	87	205.278	119.300	-55.588	1.00	90.25	C	ATOM	44536	O	ALA K	94	215.356	125.634	-61.866	1.00	75.88	O
ATOM	44487	O	THR K	87	205.227	118.082	-55.432	1.00	90.25	O	ATOM	44537	CB	ALA K	94	213.840	122.979	-60.516	1.00	41.33	C
ATOM	44488	CB	THR K	87	203.030	120.259	-55.537	1.00	98.10	C	ATOM	44538	N	ILE K	95	213.266	125.898	-61.084	1.00	56.43	N
ATOM	44489	CG1	THR K	87	201.985	120.815	-56.337	1.00	98.10	O	ATOM	44539	CA	ILE K	95	212.950	126.976	-62.006	1.00	56.43	C
ATOM	44490	CG2	THR K	87	203.389	121.219	-54.419	1.00	98.10	C	ATOM	44540	C	ILE K	95	213.972	128.112	-61.933	1.00	56.43	C
ATOM	44491	N	GLY K	88	206.231	120.057	-55.071	1.00	56.16	N	ATOM	44541	O	ILE K	95	214.495	128.548	-62.957	1.00	56.43	O
ATOM	44492	CA	GLY K	88	207.265	119.447	-54.266	1.00	56.16	C	ATOM	44542	CB	ILE K	95	211.538	127.548	-61.746	1.00	62.79	C
ATOM	44493	C	GLY K	88	208.351	120.449	-53.977	1.00	56.16	C	ATOM	44543	CG1	ILE K	95	210.486	126.460	-61.961	1.00	62.79	C
ATOM	44494	O	GLY K	88	208.500	121.439	-54.703	1.00	56.16	O	ATOM	44544	CG2	ILE K	95	211.268	128.713	-62.684	1.00	62.79	C
ATOM	44495	N	ALA K	89	209.097	120.223	-52.904	1.00	77.09	N	ATOM	44545	CD1	ILE K	95	209.066	126.948	-61.810	1.00	62.79	C
ATOM	44496	CA	ALA K	89	210.181	121.122	-52.575	1.00	77.09	C	ATOM	44546	N	ARG K	96	214.263	128.590	-60.730	1.00	63.80	N
ATOM	44497	C	ALA K	89	211.088	121.055	-53.793	1.00	77.09	C	ATOM	44547	CA	ARG K	96	215.225	129.671	-60.575	1.00	63.80	C
ATOM	44498	O	ALA K	89	211.099	120.041	-54.505	1.00	77.09	O	ATOM	44548	C	ARG K	96	216.607	129.211	-61.010	1.00	63.80	C
ATOM	44499	CB	ALA K	89	210.912	120.623	-51.342	1.00	89.44	C	ATOM	44549	O	ARG K	96	217.369	129.973	-61.607	1.00	63.80	O
ATOM	44500	N	GLY K	90	211.823	122.128	-54.058	1.00	80.71	N	ATOM	44550	CB	ARG K	96	215.229	130.160	-59.127	1.00	119.82	C
ATOM	44501	CA	GLY K	90	212.731	122.117	-55.197	1.00	80.71	C	ATOM	44551	CG	ARG K	96	213.969	130.948	-58.795	1.00	119.82	C
ATOM	44502	C	GLY K	90	212.109	122.380	-56.557	1.00	80.71	C	ATOM	44552	CD	ARG K	96	213.471	130.688	-57.390	1.00	119.82	C
ATOM	44503	O	GLY K	90	212.786	122.351	-57.582	1.00	80.71	O	ATOM	44553	NE	ARG K	96	214.246	131.391	-56.379	1.00	119.82	C
ATOM	44504	N	ARG K	91	210.811	122.627	-56.562	1.00	56.80	N	ATOM	44554	C2	ARG K	96	214.086	131.212	-55.073	1.00	119.82	C
ATOM	44505	CA	ARG K	91	210.095	122.919	-57.786	1.00	56.80	C	ATOM	44555	NH1	ARG K	96	213.181	130.348	-54.631	1.00	119.82	N
ATOM	44506	C	ARG K	91	210.449	124.344	-58.224	1.00	56.80	C	ATOM	44556	NH2	ARG K	96	214.823	131.897	-54.210	1.00	119.82	N
ATOM	44507	O	ARG K	91	211.140	124.555	-59.217	1.00	56.80	O	ATOM	44557	N	ALA K	97	216.927	127.956	-60.730	1.00	78.54	N
ATOM	44508	CB	ARG K	91	208.598	122.814	-57.528	1.00	89.44	C	ATOM	44558	CA	ALA K	97	218.218	127.416	-61.129	1.00	78.54	C
ATOM	44509	CG	ARG K	91	207.739	123.107	-58.720	1.00	89.44	C	ATOM	44559	C	ALA K	97	218.365	127.557	-62.646	1.00	78.54	C
ATOM	44510	CD	ARG K	91	206.383	123.584	-58.264	1.00	89.44	C	ATOM	44560	O	ALA K	97	219.419	127.964	-63.140	1.00	78.54	O
ATOM	44511	NE	ARG K	91	205.325	123.151	-59.166	1.00	89.44	N	ATOM	44561	CB	ALA K	97	218.324	125.956	-60.718	1.00	107.32	C
ATOM	44512	C2	ARG K	91	204.047	123.479	-59.025	1.00	89.44	C	ATOM	44562	N	LEU K	98	217.303	127.226	-63.379	1.00	74.56	N
ATOM	44513	NH1	ARG K	91	203.667	124.257	-58.013	1.00	89.44	N	ATOM	44563	CA	LEU K	98	217.321	127.329	-64.835	1.00	74.56	C
ATOM	44514	NH2	ARG K	91	203.148	123.014	-59.885	1.00	89.44	N	ATOM	44564	C	LEU K	98	217.394	128.770	-65.286	1.00	74.56	C
ATOM	44515	N	GLU K	92	209.981	125.327	-57.466	1.00	62.48	N	ATOM	44565	O	LEU K	98	218.256	129.133	-66.084	1.00	74.56	O



Table 2: Sheet 447/520

ATOM	44566	CB	LEU K 98	216.069	126.719	-65.456	1.00	45.11	C	ATOM	44616	CG1	VAL K 105	212.422	129.819	-68.496	1.00	50.40	C
ATOM	44567	CG	LEU K 98	215.936	125.209	-65.525	1.00	45.11	C	ATOM	44617	CG2	VAL K 105	214.846	129.919	-67.938	1.00	50.40	C
ATOM	44568	CD1	LEU K 98	214.721	124.867	-66.379	1.00	45.11	C	ATOM	44618	N	LYS K 106	212.556	130.888	-72.077	1.00	74.78	N
ATOM	44569	CD2	LEU K 98	217.206	124.611	-66.121	1.00	45.11	C	ATOM	44619	CA	LYS K 106	211.535	131.533	-72.887	1.00	74.78	C
ATOM	44570	N	GLN K 99	216.468	129.587	-64.794	1.00	124.08	N	ATOM	44620	C	LYS K 106	210.192	131.646	-72.168	1.00	74.78	C
ATOM	44571	CA	GLN K 99	216.441	130.989	-65.167	1.00	124.08	C	ATOM	44621	O	LYS K 106	209.594	132.723	-72.136	1.00	74.78	O
ATOM	44572	C	GLN K 99	217.859	131.519	-65.173	1.00	124.08	C	ATOM	44622	CB	LYS K 106	211.353	130.769	-74.203	1.00	170.63	C
ATOM	44573	O	GLN K 99	218.237	132.290	-66.055	1.00	124.08	O	ATOM	44623	CG	LYS K 106	212.604	130.714	-75.072	1.00	170.63	C
ATOM	44574	CB	GLN K 99	215.554	131.775	-64.208	1.00	95.22	C	ATOM	44624	CD	LYS K 106	213.041	132.105	-75.513	1.00	170.63	C
ATOM	44575	CG	GLN K 99	214.074	131.546	-64.472	1.00	95.22	C	ATOM	44625	CE	LYS K 106	214.278	132.050	-76.400	1.00	170.63	C
ATOM	44576	CD	GLN K 99	213.184	132.317	-63.531	1.00	95.22	C	ATOM	44626	NZ	LYS K 106	214.673	133.395	-76.911	1.00	170.63	N
ATOM	44577	OE1	GLN K 99	213.194	132.087	-62.323	1.00	95.22	O	ATOM	44627	N	SER K 107	209.721	130.541	-71.589	1.00	93.74	N
ATOM	44578	NE2	GLN K 99	212.405	133.242	-64.078	1.00	95.22	N	ATOM	44628	CA	SER K 107	208.437	130.538	-70.887	1.00	93.74	C
ATOM	44579	N	ALA K 100	218.650	131.091	-64.196	1.00	98.07	N	ATOM	44629	C	SER K 107	208.330	129.468	-69.808	1.00	93.74	C
ATOM	44580	CA	ALA K 100	220.047	131.492	-64.141	1.00	98.07	C	ATOM	44630	O	SER K 107	209.065	128.484	-69.807	1.00	93.74	O
ATOM	44581	C	ALA K 100	220.714	130.699	-65.262	1.00	98.07	C	ATOM	44631	CB	SER K 107	207.296	130.320	-71.878	1.00	64.23	C
ATOM	44582	O	ALA K 100	220.337	130.823	-66.429	1.00	98.07	O	ATOM	44632	OG	SER K 107	207.261	128.963	-72.290	1.00	64.23	O
ATOM	44583	CB	ALA K 100	220.647	131.116	-62.803	1.00	61.18	C	ATOM	44633	CA	ILE K 108	207.384	129.666	-68.901	1.00	60.26	N
ATOM	44584	N	SER K 101	221.694	129.879	-64.905	1.00	89.15	N	ATOM	44634	N	ILE K 108	207.150	128.723	-67.819	1.00	60.26	C
ATOM	44585	CA	SER K 101	222.389	129.038	-65.873	1.00	89.15	C	ATOM	44635	C	ILE K 108	205.687	128.295	-67.829	1.00	60.26	C
ATOM	44586	C	SER K 101	222.727	129.751	-67.177	1.00	89.15	C	ATOM	44636	O	ILE K 108	204.786	129.124	-67.922	1.00	60.26	O
ATOM	44587	O	SER K 101	222.513	130.949	-67.320	1.00	89.15	O	ATOM	44637	CB	ILE K 108	207.497	129.350	-66.460	1.00	61.81	C
ATOM	44588	CB	SER K 101	221.537	127.808	-66.195	1.00	77.30	C	ATOM	44638	CG1	ILE K 108	208.970	129.770	-66.455	1.00	61.81	C
ATOM	44589	OG	SER K 101	220.482	128.137	-67.080	1.00	77.30	O	ATOM	44639	CG2	ILE K 108	207.227	128.357	-65.345	1.00	61.81	C
ATOM	44590	N	GLY K 102	223.254	128.993	-68.131	1.00	125.25	N	ATOM	44640	CD1	ILE K 108	209.434	130.431	-65.163	1.00	61.81	C
ATOM	44591	CA	GLY K 102	223.607	129.565	-69.414	1.00	125.25	C	ATOM	44641	N	VAL K 109	205.461	126.993	-67.734	1.00	51.46	N
ATOM	44592	C	GLY K 102	222.457	129.482	-70.396	1.00	125.25	C	ATOM	44642	CA	VAL K 109	204.113	126.461	-67.759	1.00	51.46	C
ATOM	44593	O	GLY K 102	222.597	129.835	-71.565	1.00	125.25	O	ATOM	44643	O	VAL K 109	203.880	125.336	-66.774	1.00	51.46	O
ATOM	44594	N	LEU K 103	221.311	129.009	-69.922	1.00	89.58	N	ATOM	44644	O	VAL K 109	204.695	124.416	-66.679	1.00	51.46	O
ATOM	44595	CA	LEU K 103	220.138	128.888	-70.773	1.00	89.58	C	ATOM	44645	CB	VAL K 109	203.781	125.917	-69.140	1.00	54.17	C
ATOM	44596	C	LEU K 103	219.196	130.056	-70.568	1.00	89.58	C	ATOM	44646	CG1	VAL K 109	202.430	125.238	-69.113	1.00	54.17	C
ATOM	44597	O	LEU K 103	219.145	130.653	-69.490	1.00	89.58	O	ATOM	44647	CG2	VAL K 109	203.801	127.037	-70.147	1.00	54.17	C
ATOM	44598	CB	LEU K 103	219.387	127.603	-70.460	1.00	61.72	C	ATOM	44648	N	ASP K 110	202.765	125.405	-66.045	1.00	54.40	C
ATOM	44599	CG	LEU K 103	220.095	126.298	-70.802	1.00	61.72	C	ATOM	44649	CA	ASP K 110	202.419	124.351	-65.101	1.00	54.40	C
ATOM	44600	CD1	LEU K 103	219.330	125.120	-70.200	1.00	61.72	C	ATOM	44650	C	ASP K 110	201.555	123.352	-65.867	1.00	54.40	C
ATOM	44601	CD2	LEU K 103	220.204	126.174	-72.311	1.00	61.72	C	ATOM	44651	O	ASP K 110	200.494	123.703	-66.369	1.00	54.40	O
ATOM	44602	N	GLN K 104	218.452	130.389	-71.613	1.00	82.11	N	ATOM	44652	CB	ASP K 110	201.638	124.902	-63.916	1.00	130.99	C
ATOM	44603	CA	GLN K 104	217.485	131.464	-71.518	1.00	82.11	C	ATOM	44653	CG	ASP K 110	201.285	123.823	-62.913	1.00	130.99	C
ATOM	44604	C	GLN K 104	216.137	130.787	-71.407	1.00	82.11	C	ATOM	44654	OD1	ASP K 110	200.653	122.820	-63.310	1.00	130.99	O
ATOM	44605	O	GLN K 104	215.814	129.897	-72.199	1.00	82.11	O	ATOM	44655	OD2	ASP K 110	201.639	123.973	-61.728	1.00	130.99	O
ATOM	44606	CB	GLN K 104	217.508	132.349	-72.755	1.00	136.77	C	ATOM	44656	N	ASP K 111	202.018	122.109	-65.949	1.00	57.98	N
ATOM	44607	CG	GLN K 104	216.475	133.449	-72.690	1.00	136.77	C	ATOM	44657	CA	ASP K 111	201.317	121.055	-66.678	1.00	57.98	C
ATOM	44608	CD	GLN K 104	216.511	134.349	-73.895	1.00	136.77	C	ATOM	44658	C	ASP K 111	201.189	119.764	-65.847	1.00	57.98	C
ATOM	44609	OE1	GLN K 104	216.286	133.906	-75.021	1.00	136.77	O	ATOM	44659	O	ASP K 111	201.254	118.656	-66.388	1.00	57.98	O
ATOM	44610	NE2	GLN K 104	216.798	135.625	-73.670	1.00	136.77	N	ATOM	44660	CB	ASP K 111	202.078	120.768	-67.985	1.00	95.08	C
ATOM	44611	N	VAL K 105	215.356	131.203	-70.415	1.00	65.13	N	ATOM	44661	CG	ASP K 111	201.348	119.795	-68.903	1.00	95.08	C
ATOM	44612	CA	VAL K 105	214.044	130.617	-70.195	1.00	65.13	C	ATOM	44662	OD1	ASP K 111	200.208	120.100	-69.314	1.00	95.08	O
ATOM	44613	C	VAL K 105	212.962	131.398	-70.920	1.00	65.13	C	ATOM	44663	OD2	ASP K 111	201.919	118.728	-69.222	1.00	95.08	O
ATOM	44614	O	VAL K 105	212.502	132.430	-70.440	1.00	65.13	O	ATOM	44664	N	THR K 112	201.006	119.898	-64.535	1.00	52.78	N
ATOM	44615	CB	VAL K 105	213.710	130.574	-68.704	1.00	50.40	C	ATOM	44665	CA	THR K 112	200.876	119.719	-63.681	1.00	52.78	C



ATOM	44666	C	THR K 112	199.640	117.913	-64.042	1.00	52.78	C	ATOM	44716	C	CYS K 119	191.745	105.845	-58.705	1.00	47.87	C
ATOM	44667	O	THR K 112	198.568	118.468	-64.240	1.00	52.78	O	ATOM	44717	O	CYS K 119	192.122	106.932	-58.265	1.00	47.87	O
ATOM	44668	CB	THR K 112	200.766	119.090	-62.204	1.00	57.31	C	ATOM	44718	CB	CYS K 119	193.131	105.210	-60.664	1.00	57.10	C
ATOM	44669	OG1	THR K 112	201.849	119.954	-61.835	1.00	57.31	O	ATOM	44719	SG	CYS K 119	193.230	104.351	-62.232	1.00	57.10	S
ATOM	44670	CG2	THR K 112	200.820	117.834	-61.364	1.00	57.31	C	ATOM	44720	N	ARG K 120	191.358	104.838	-57.920	1.00	37.84	N
ATOM	44671	N	PRO K 113	199.772	116.586	-64.129	1.00	52.71	N	ATOM	44721	CA	ARG K 120	191.360	104.978	-56.462	1.00	37.84	C
ATOM	44672	CA	PRO K 113	198.622	115.750	-64.473	1.00	52.71	C	ATOM	44722	C	ARG K 120	192.769	105.135	-55.912	1.00	37.84	C
ATOM	44673	O	PRO K 113	197.642	115.616	-63.320	1.00	52.71	C	ATOM	44723	O	ARG K 120	193.616	104.252	-56.081	1.00	37.84	O
ATOM	44674	O	PRO K 113	198.044	115.451	-62.170	1.00	52.71	O	ATOM	44724	CB	ARG K 120	190.714	103.763	-55.781	1.00	41.53	C
ATOM	44675	CB	PRO K 113	199.267	114.422	-64.836	1.00	47.57	C	ATOM	44725	CG	ARG K 120	191.119	103.653	-54.316	1.00	41.53	C
ATOM	44676	CG	PRO K 113	200.428	114.365	-63.908	1.00	47.57	C	ATOM	44726	CD	ARG K 120	190.388	102.600	-53.520	1.00	41.53	C
ATOM	44677	CD	PRO K 113	200.988	115.770	-63.983	1.00	47.57	C	ATOM	44727	NE	ARG K 120	189.247	103.176	-52.811	1.00	41.53	N
ATOM	44678	N	VAL K 114	196.354	115.690	-63.634	1.00	59.73	N	ATOM	44728	CZ	ARG K 120	188.881	102.851	-51.572	1.00	41.53	C
ATOM	44679	CA	VAL K 114	195.308	115.571	-62.626	1.00	59.73	C	ATOM	44729	NH1	ARG K 120	189.561	101.953	-50.880	1.00	41.53	N
ATOM	44680	C	VAL K 114	194.167	114.752	-63.193	1.00	59.73	C	ATOM	44730	NH2	ARG K 120	187.825	103.420	-51.020	1.00	41.53	N
ATOM	44681	O	VAL K 114	193.640	115.076	-64.251	1.00	59.73	O	ATOM	44731	N	PRO K 121	193.052	106.258	-55.251	1.00	39.77	N
ATOM	44682	CB	VAL K 114	194.760	116.940	-62.229	1.00	58.11	C	ATOM	44732	CA	PRO K 121	194.410	106.390	-54.721	1.00	39.77	C
ATOM	44683	CG2	VAL K 114	194.441	117.746	-63.472	1.00	58.11	C	ATOM	44733	O	PRO K 121	193.761	104.894	-52.977	1.00	39.77	O
ATOM	44685	N	PRO K 115	193.761	113.684	-62.490	1.00	55.01	N	ATOM	44735	CB	PRO K 121	194.477	107.841	-54.258	1.00	41.65	C
ATOM	44686	CA	PRO K 115	192.668	112.826	-62.954	1.00	55.01	C	ATOM	44736	CG	PRO K 121	193.054	108.230	-54.085	1.00	41.65	C
ATOM	44687	O	PRO K 115	191.365	113.537	-62.757	1.00	55.01	C	ATOM	44737	CD	PRO K 121	192.351	107.543	-55.217	1.00	41.65	C
ATOM	44688	O	PRO K 115	191.221	114.289	-61.795	1.00	55.01	O	ATOM	44738	N	LYS K 122	195.957	105.161	-53.333	1.00	48.15	N
ATOM	44689	CB	PRO K 115	192.732	111.616	-62.026	1.00	48.81	C	ATOM	44739	CA	LYS K 122	196.311	104.257	-52.255	1.00	48.15	C
ATOM	44690	CG	PRO K 115	194.042	111.760	-61.296	1.00	48.81	C	ATOM	44740	C	LYS K 122	196.001	104.975	-50.950	1.00	48.15	C
ATOM	44691	CD	PRO K 115	194.237	113.234	-61.177	1.00	48.81	C	ATOM	44741	O	LYS K 122	195.885	106.208	-50.920	1.00	48.15	O
ATOM	44692	N	HIS K 116	190.423	113.316	-63.664	1.00	50.69	N	ATOM	44742	CB	LYS K 122	197.788	103.894	-52.337	1.00	68.63	C
ATOM	44693	CA	HIS K 116	189.104	113.900	-63.510	1.00	50.69	C	ATOM	44743	CG	LYS K 122	198.640	105.011	-52.894	1.00	68.63	C
ATOM	44694	C	HIS K 116	188.352	112.792	-62.755	1.00	50.69	C	ATOM	44744	CD	LYS K 122	200.104	104.654	-52.852	1.00	68.63	C
ATOM	44695	O	HIS K 116	187.266	112.351	-63.135	1.00	50.69	O	ATOM	44745	CE	LYS K 122	200.396	103.384	-53.617	1.00	68.63	C
ATOM	44696	CB	HIS K 116	188.532	114.197	-64.885	1.00	52.97	C	ATOM	44746	NZ	LYS K 122	201.820	103.017	-53.423	1.00	68.63	N
ATOM	44697	CG	HIS K 116	189.318	115.233	-65.631	1.00	52.97	C	ATOM	44747	N	LYS K 123	195.857	104.198	-49.884	1.00	44.95	N
ATOM	44698	ND1	HIS K 116	190.301	115.989	-65.030	1.00	52.97	N	ATOM	44748	CA	LYS K 123	195.539	104.734	-48.568	1.00	44.95	C
ATOM	44699	CD2	HIS K 116	189.254	115.659	-66.916	1.00	52.97	C	ATOM	44749	C	LYS K 123	196.283	106.028	-48.287	1.00	44.95	C
ATOM	44700	CE1	HIS K 116	190.810	116.835	-65.908	1.00	52.97	C	ATOM	44750	O	LYS K 123	195.681	107.029	-47.919	1.00	44.95	O
ATOM	44701	NE2	HIS K 116	190.192	116.656	-67.060	1.00	52.97	N	ATOM	44751	CB	LYS K 123	195.857	103.694	-47.506	1.00	43.14	C
ATOM	44702	N	ASN K 117	188.999	112.363	-61.669	1.00	69.12	N	ATOM	44752	CG	LYS K 123	195.377	104.061	-46.128	1.00	43.14	C
ATOM	44703	CA	ASN K 117	188.572	111.284	-60.793	1.00	69.12	C	ATOM	44753	CD	LYS K 123	195.308	102.817	-45.263	1.00	43.14	C
ATOM	44704	C	ASN K 117	188.461	109.974	-61.550	1.00	69.12	C	ATOM	44754	CE	LYS K 123	195.695	103.112	-43.825	1.00	43.14	C
ATOM	44705	O	ASN K 117	187.420	109.672	-62.118	1.00	69.12	O	ATOM	44755	NZ	LYS K 123	195.863	101.863	-43.016	1.00	43.14	N
ATOM	44706	CB	ASN K 117	187.265	111.628	-60.110	1.00	91.68	C	ATOM	44756	N	LYS K 124	197.594	105.995	-48.466	1.00	46.52	N
ATOM	44707	CG	ASN K 117	187.479	112.499	-58.905	1.00	91.68	C	ATOM	44757	CA	LYS K 124	198.448	107.161	-48.270	1.00	46.52	C
ATOM	44708	OD1	ASN K 117	186.664	112.513	-57.984	1.00	91.68	O	ATOM	44758	C	LYS K 124	197.750	108.453	-48.673	1.00	46.52	C
ATOM	44709	ND2	ASN K 117	188.586	113.238	-58.898	1.00	91.68	N	ATOM	44759	O	LYS K 124	197.827	109.444	-47.964	1.00	46.52	O
ATOM	44710	N	GLY K 118	189.544	109.198	-61.556	1.00	44.95	N	ATOM	44760	CB	LYS K 124	199.713	107.024	-49.133	1.00	122.42	C
ATOM	44711	CA	GLY K 118	189.540	107.938	-62.276	1.00	44.95	C	ATOM	44761	CG	LYS K 124	201.021	106.821	-48.395	1.00	122.42	C
ATOM	44712	C	GLY K 118	189.995	106.727	-61.482	1.00	44.95	C	ATOM	44762	CD	LYS K 124	201.478	108.082	-47.684	1.00	122.42	C
ATOM	44713	O	GLY K 118	189.235	105.761	-61.336	1.00	44.95	O	ATOM	44763	CE	LYS K 124	202.810	107.858	-46.969	1.00	122.42	C
ATOM	44714	N	CYS K 119	191.227	106.745	-60.975	1.00	47.87	N	ATOM	44764	HZ	LYS K 124	203.268	109.033	-46.177	1.00	122.42	N
ATOM	44715	CA	CYS K 119	191.721	105.598	-60.208	1.00	47.87	C	ATOM	44765	N	PHE K 125	197.067	108.447	-49.815	1.00	60.61	N



Table 2: Sheet 449/520

ATOM	44766	CA	PHE K 125	196.435	109.665	-50.307	1.00	60.61	C	ATOM	44816	N	THR L	6	148.396	103.778	-26.776	1.00	21.19	N
ATOM	44767	C	PHE K 125	194.914	109.738	-50.282	1.00	60.61	C	ATOM	44817	CA	THR L	6	147.108	104.394	-27.021	1.00	21.19	C
ATOM	44768	O	PHE K 125	194.341	110.685	-50.825	1.00	60.61	O	ATOM	44818	C	THR L	6	146.117	103.514	-26.270	1.00	21.19	C
ATOM	44769	CB	PHE K 125	196.882	109.952	-51.748	1.00	49.20	C	ATOM	44819	O	THR L	6	146.442	102.384	-25.923	1.00	21.19	O
ATOM	44770	CG	PHE K 125	198.369	109.834	-51.979	1.00	49.20	C	ATOM	44820	CB	THR L	6	146.743	104.348	-28.477	1.00	21.06	C
ATOM	44771	CD1	PHE K 125	198.930	108.630	-52.362	1.00	49.20	C	ATOM	44821	OG1	THR L	6	146.483	102.986	-28.844	1.00	21.06	O
ATOM	44772	CD2	PHE K 125	199.199	110.942	-51.851	1.00	49.20	C	ATOM	44822	CG2	THR L	6	147.855	104.899	-29.309	1.00	21.06	C
ATOM	44773	CE1	PHE K 125	200.290	108.535	-52.617	1.00	49.20	C	ATOM	44823	N	ILE L	7	144.913	104.022	-26.020	1.00	38.65	N
ATOM	44774	CE2	PHE K 125	200.557	110.855	-52.104	1.00	49.20	C	ATOM	44824	CA	ILE L	7	143.921	103.235	-25.296	1.00	38.65	C
ATOM	44775	CZ	PHE K 125	201.103	109.651	-52.488	1.00	49.20	C	ATOM	44825	C	ILE L	7	143.566	102.010	-26.107	1.00	38.65	C
ATOM	44776	N	ARG K 126	194.243	108.760	-49.691	1.00	81.11	N	ATOM	44826	O	ILE L	7	143.226	100.979	-25.551	1.00	38.65	O
ATOM	44777	CA	ARG K 126	192.788	108.824	-49.665	1.00	81.11	C	ATOM	44827	CB	ILE L	7	142.628	104.067	-24.987	1.00	27.09	C
ATOM	44778	C	ARG K 126	192.322	109.856	-48.649	1.00	81.11	C	ATOM	44828	CG1	ILE L	7	142.788	104.798	-23.661	1.00	27.09	C
ATOM	44779	O	ARG K 126	193.131	110.391	-47.889	1.00	81.11	O	ATOM	44829	CG2	ILE L	7	141.402	103.165	-24.887	1.00	27.09	C
ATOM	44780	CB	ARG K 126	192.185	107.453	-49.348	1.00	82.16	C	ATOM	44830	CD1	ILE L	7	143.037	103.876	-22.522	1.00	27.09	C
ATOM	44781	CG	ARG K 126	192.471	106.411	-50.409	1.00	82.16	C	ATOM	44831	N	ASN L	8	143.659	102.108	-27.423	1.00	43.78	N
ATOM	44782	CD	ARG K 126	191.427	105.316	-50.409	1.00	82.16	C	ATOM	44832	CA	ASN L	8	143.317	100.957	-28.240	1.00	43.78	C
ATOM	44783	NE	ARG K 126	190.114	105.836	-50.787	1.00	82.16	N	ATOM	44833	C	ASN L	8	144.342	99.852	-28.052	1.00	43.78	C
ATOM	44784	CZ	ARG K 126	189.091	105.975	-49.947	1.00	82.16	C	ATOM	44834	O	ASN L	8	143.996	98.665	-28.011	1.00	43.78	O
ATOM	44785	NH1	ARG K 126	189.228	105.628	-48.676	1.00	82.16	N	ATOM	44835	CB	ASN L	8	143.252	101.343	-29.704	1.00	50.65	C
ATOM	44786	NH2	ARG K 126	187.932	106.463	-50.376	1.00	82.16	N	ATOM	44836	CG	ASN L	8	142.573	100.295	-30.542	1.00	50.65	C
ATOM	44787	N	LYS K 127	191.019	110.131	-48.649	1.00	159.15	N	ATOM	44837	OD1	ASN L	8	141.414	99.961	-30.316	1.00	50.65	O
ATOM	44788	CA	LYS K 127	190.405	111.104	-47.747	1.00	159.15	C	ATOM	44838	ND2	ASN L	8	143.289	99.771	-31.522	1.00	50.65	N
ATOM	44789	C	LYS K 127	190.617	112.532	-48.231	1.00	159.15	C	ATOM	44839	N	GLN L	9	145.606	100.247	-27.940	1.00	48.98	N
ATOM	44790	O	LYS K 127	191.733	113.050	-48.200	1.00	159.15	O	ATOM	44840	CA	GLN L	9	146.670	99.280	-27.744	1.00	48.98	C
ATOM	44791	CB	LYS K 127	190.961	110.962	-46.326	1.00	130.85	C	ATOM	44841	C	GLN L	9	146.493	98.615	-26.398	1.00	48.98	C
ATOM	44792	CG	LYS K 127	190.535	109.696	-45.604	1.00	130.85	C	ATOM	44842	O	GLN L	9	146.683	97.411	-26.272	1.00	48.98	O
ATOM	44793	CD	LYS K 127	189.045	109.700	-45.318	1.00	130.85	C	ATOM	44843	CB	GLN L	9	148.030	99.963	-27.804	1.00	41.72	C
ATOM	44794	CE	LYS K 127	188.645	108.476	-44.518	1.00	130.85	C	ATOM	44844	CG	GLN L	9	148.313	100.600	-29.138	1.00	41.72	C
ATOM	44795	NZ	LYS K 127	189.404	108.393	-43.241	1.00	130.85	N	ATOM	44845	CD	GLN L	9	149.650	101.298	-29.168	1.00	41.72	C
ATOM	44796	N	ALA K 128	189.534	113.161	-48.678	1.00	200.58	N	ATOM	44846	OE1	GLN L	9	149.930	102.170	-28.337	1.00	41.72	O
ATOM	44797	CA	ALA K 128	189.576	114.533	-49.171	1.00	200.58	C	ATOM	44847	NE2	GLN L	9	150.489	100.927	-30.137	1.00	41.72	N
ATOM	44798	C	ALA K 128	188.185	114.978	-49.624	1.00	200.58	C	ATOM	44848	N	LEU L	10	146.127	99.399	-25.389	1.00	46.29	N
ATOM	44799	O	ALA K 128	187.192	114.727	-48.939	1.00	200.58	O	ATOM	44849	CA	LEU L	10	145.920	98.856	-24.055	1.00	46.29	C
ATOM	44800	CB	ALA K 128	190.567	114.646	-50.328	1.00	121.80	C	ATOM	44850	C	LEU L	10	144.834	97.822	-24.089	1.00	46.29	C
ATOM	44801	N	SER K 129	188.125	115.641	-50.777	1.00	200.58	N	ATOM	44851	O	LEU L	10	144.851	96.878	-23.318	1.00	46.29	O
ATOM	44802	CA	SER K 129	186.870	116.131	-51.346	1.00	200.58	C	ATOM	44852	CB	LEU L	10	145.532	99.945	-23.069	1.00	42.46	C
ATOM	44803	C	SER K 129	186.078	117.020	-50.388	1.00	200.58	C	ATOM	44853	CG	LEU L	10	146.735	100.697	-22.522	1.00	42.46	C
ATOM	44804	O	SER K 129	186.594	117.328	-49.292	1.00	200.58	O	ATOM	44854	CD1	LEU L	10	146.268	101.835	-21.656	1.00	42.46	C
ATOM	44805	CB	SER K 129	185.996	114.955	-51.805	1.00	177.54	C	ATOM	44855	CD2	LEU L	10	147.608	99.735	-21.718	1.00	42.46	C
ATOM	44806	OG	SER K 129	185.595	114.139	-50.718	1.00	177.54	O	ATOM	44856	N	VAL L	11	143.880	97.997	-24.990	1.00	48.32	N
ATOM	44807	OXT	SER K 129	184.947	117.409	-50.753	1.00	200.58	O	ATOM	44857	CA	VAL L	11	142.793	97.047	-25.089	1.00	48.32	C
TER	44808		SER K 129							ATOM	44858	C	VAL L	11	143.246	95.793	-25.800	1.00	48.32	C
ATOM	44809	N	PRO L 5	151.100	103.928	-24.403	1.00	30.04	N	ATOM	44859	O	VAL L	11	142.820	94.692	-25.468	1.00	48.32	O
ATOM	44810	CA	PRO L 5	150.324	103.194	-25.418	1.00	30.04	C	ATOM	44860	CB	VAL L	11	141.608	97.650	-25.827	1.00	30.20	C
ATOM	44811	C	PRO L 5	148.991	103.906	-25.597	1.00	30.04	C	ATOM	44861	CG1	VAL L	11	140.598	96.573	-26.145	1.00	30.20	C
ATOM	44812	O	PRO L 5	148.513	104.568	-24.678	1.00	30.04	O	ATOM	44862	CG2	VAL L	11	140.961	98.708	-24.949	1.00	30.20	C
ATOM	44813	CB	PRO L 5	150.074	101.793	-24.882	1.00	28.27	C	ATOM	44863	N	ARG L	12	144.125	95.962	-26.775	1.00	49.15	N
ATOM	44814	CG	PRO L 5	150.862	101.783	-23.548	1.00	28.27	C	ATOM	44864	CA	ARG L	12	144.624	94.831	-27.523	1.00	49.15	C
ATOM	44815	CD	PRO L 5	151.035	103.217	-23.115	1.00	28.27	C	ATOM	44865	C	ARG L	12	145.664	94.062	-26.736	1.00	49.15	C



ATOM	44866	O	ARG	L	12	145.591	92.840	-26.642	1.00	49.15	O	ATOM	44916	N	VAL	L	18	153.424	92.437	-12.677	1.00	73.90	N
ATOM	44867	CB	ARG	L	12	145.253	95.291	-28.834	1.00	37.88	C	ATOM	44917	CA	VAL	L	18	154.772	92.146	-12.195	1.00	73.90	C
ATOM	44868	CG	ARG	L	12	144.341	96.107	-29.694	1.00	37.88	C	ATOM	44918	C	VAL	L	18	154.829	90.818	-11.436	1.00	73.90	C
ATOM	44869	CD	ARG	L	12	144.788	96.120	-31.142	1.00	37.88	C	ATOM	44919	O	VAL	L	18	153.936	90.517	-10.647	1.00	73.90	O
ATOM	44870	NE	ARG	L	12	146.013	96.889	-31.347	1.00	37.88	N	ATOM	44920	CB	VAL	L	18	155.268	93.270	-11.268	1.00	87.79	C
ATOM	44871	CZ	ARG	L	12	147.197	96.350	-31.616	1.00	37.88	C	ATOM	44921	CG1	VAL	L	18	156.584	92.871	-10.618	1.00	87.79	C
ATOM	44872	NH1	ARG	L	12	147.310	95.027	-31.710	1.00	37.88	N	ATOM	44922	CG2	VAL	L	18	155.436	94.553	-12.069	1.00	87.79	C
ATOM	44873	NH2	ARG	L	12	148.258	97.127	-31.805	1.00	37.88	N	ATOM	44923	N	ARG	L	19	155.879	90.030	-11.674	1.00	71.70	N
ATOM	44874	N	LYS	L	13	146.624	94.774	-26.155	1.00	46.87	N	ATOM	44924	CA	ARG	L	19	156.048	88.728	-11.001	1.00	71.70	C
ATOM	44875	CA	LYS	L	13	147.712	94.124	-25.434	1.00	46.87	C	ATOM	44925	O	ARG	L	19	157.125	88.816	-9.912	1.00	71.70	C
ATOM	44876	C	LYS	L	13	147.682	94.198	-23.911	1.00	46.87	C	ATOM	44926	O	ARG	L	19	158.214	89.335	-10.150	1.00	71.70	O
ATOM	44877	O	LYS	L	13	148.233	93.330	-23.233	1.00	46.87	O	ATOM	44927	CB	ARG	L	19	156.465	87.655	-12.011	1.00	169.55	C
ATOM	44878	CB	LYS	L	13	149.033	94.656	-25.979	1.00	86.66	C	ATOM	44928	CG	ARG	L	19	155.691	87.659	-13.317	1.00	169.55	C
ATOM	44879	CG	LYS	L	13	149.118	94.472	-27.484	1.00	86.66	C	ATOM	44929	CD	ARG	L	19	156.305	86.669	-14.301	1.00	169.55	C
ATOM	44880	CD	LYS	L	13	150.424	94.947	-28.068	1.00	86.66	C	ATOM	44930	CE	ARG	L	19	155.813	86.855	-15.664	1.00	169.55	N
ATOM	44881	CE	LYS	L	13	150.491	94.611	-29.549	1.00	86.66	C	ATOM	44931	NZ	ARG	L	19	156.256	86.176	-16.718	1.00	169.55	C
ATOM	44882	NZ	LYS	L	13	151.747	95.097	-30.190	1.00	86.66	N	ATOM	44932	NH1	ARG	L	19	157.204	85.260	-16.570	1.00	169.55	N
ATOM	44883	N	GLY	L	14	147.039	95.221	-23.365	1.00	45.66	N	ATOM	44933	NH2	ARG	L	19	155.756	86.415	-17.923	1.00	169.55	N
ATOM	44884	CA	GLY	L	14	146.953	95.332	-21.918	1.00	45.66	C	ATOM	44934	N	LYS	L	20	156.831	88.310	-8.720	1.00	85.05	N
ATOM	44885	C	GLY	L	14	148.286	95.451	-21.217	1.00	45.66	C	ATOM	44935	CA	LYS	L	20	157.815	88.363	-7.641	1.00	85.05	C
ATOM	44886	O	GLY	L	14	149.334	95.407	-21.855	1.00	45.66	O	ATOM	44936	C	LYS	L	20	158.715	87.133	-7.637	1.00	85.05	C
ATOM	44887	N	ARG	L	15	148.243	95.612	-19.898	1.00	40.98	N	ATOM	44937	O	LYS	L	20	158.236	86.003	-7.754	1.00	85.05	O
ATOM	44888	CA	ARG	L	15	149.459	95.740	-19.101	1.00	40.98	C	ATOM	44938	CB	LYS	L	20	157.122	88.511	-6.284	1.00	200.55	C
ATOM	44889	C	ARG	L	15	149.906	94.375	-18.593	1.00	40.98	C	ATOM	44939	CD	LYS	L	20	156.045	89.084	-4.636	1.00	200.55	C
ATOM	44890	O	ARG	L	15	149.090	93.463	-18.507	1.00	40.98	O	ATOM	44940	CD	LYS	L	20	155.503	91.491	-4.430	1.00	200.55	C
ATOM	44891	CB	ARG	L	15	149.199	96.676	-17.928	1.00	44.08	C	ATOM	44941	CE	LYS	L	20	155.241	91.790	-2.995	1.00	200.55	N
ATOM	44892	CG	ARG	L	15	148.830	98.091	-18.350	1.00	44.08	C	ATOM	44942	NZ	LYS	L	20	160.020	87.361	-7.507	1.00	55.28	N
ATOM	44893	CD	ARG	L	15	149.983	98.776	-19.043	1.00	44.08	C	ATOM	44943	CA	LYS	L	21	160.998	86.274	-7.502	1.00	55.28	C
ATOM	44894	NE	ARG	L	15	149.701	100.175	-19.336	1.00	44.08	N	ATOM	44944	CA	LYS	L	21	161.614	86.071	-6.121	1.00	55.28	C
ATOM	44895	CZ	ARG	L	15	150.591	101.028	-19.835	1.00	44.08	C	ATOM	44945	C	LYS	L	21	162.228	86.985	-5.579	1.00	55.28	O
ATOM	44896	NH1	ARG	L	15	151.827	100.625	-20.101	1.00	44.08	N	ATOM	44946	O	LYS	L	21	162.100	86.560	-8.527	1.00	113.83	C
ATOM	44897	NH2	ARG	L	15	150.248	102.285	-20.069	1.00	44.08	N	ATOM	44947	CB	LYS	L	21	163.264	85.587	-8.481	1.00	113.83	C
ATOM	44898	N	GLU	L	16	151.192	94.230	-18.271	1.00	46.60	N	ATOM	44948	CG	LYS	L	21	162.800	84.150	-8.627	1.00	113.83	C
ATOM	44899	CA	GLU	L	16	151.726	92.960	-17.772	1.00	46.60	C	ATOM	44949	CD	LYS	L	21	163.964	83.194	-8.493	1.00	113.83	C
ATOM	44900	C	GLU	L	16	151.975	93.026	-16.274	1.00	46.60	C	ATOM	44950	CE	LYS	L	21	163.506	81.787	-8.548	1.00	113.83	N
ATOM	44901	O	GLU	L	16	152.733	93.872	-15.809	1.00	46.60	O	ATOM	44951	NZ	LYS	L	21	161.465	84.870	-5.563	1.00	60.45	N
ATOM	44902	CB	GLU	L	16	153.026	92.603	-18.486	1.00	109.84	C	ATOM	44952	N	SER	L	22	162.004	84.579	-4.235	1.00	60.45	C
ATOM	44903	CG	GLU	L	16	153.570	91.244	-18.093	1.00	109.84	C	ATOM	44953	CA	SER	L	22	163.505	84.662	-4.134	1.00	60.45	C
ATOM	44904	CD	GLU	L	16	154.793	90.846	-18.898	1.00	109.84	C	ATOM	44954	C	SER	L	22	164.220	84.315	-5.074	1.00	60.45	O
ATOM	44905	OE1	GLU	L	16	155.872	91.444	-18.691	1.00	109.84	O	ATOM	44955	O	SER	L	22	161.599	83.195	-3.759	1.00	56.18	C
ATOM	44906	OE2	GLU	L	16	154.672	89.934	-19.746	1.00	109.84	O	ATOM	44956	CB	SER	L	22	162.272	82.902	-2.548	1.00	56.18	O
ATOM	44907	N	LYS	L	17	151.336	92.130	-15.523	1.00	43.32	N	ATOM	44957	OG	SER	L	22	163.978	85.102	-2.973	1.00	53.29	N
ATOM	44908	CA	LYS	L	17	151.473	92.097	-14.069	1.00	43.32	C	ATOM	44958	N	LYS	L	23	165.408	85.221	-2.743	1.00	53.29	C
ATOM	44909	C	LYS	L	17	152.882	91.729	-13.660	1.00	43.32	C	ATOM	44959	CA	LYS	L	23	165.828	84.202	-1.698	1.00	53.29	C
ATOM	44910	O	LYS	L	17	153.467	90.800	-14.210	1.00	43.32	O	ATOM	44960	C	LYS	L	23	166.905	84.294	-1.118	1.00	53.29	O
ATOM	44911	CB	LYS	L	17	150.531	91.061	-13.472	1.00	60.12	C	ATOM	44961	O	LYS	L	23	165.741	86.644	-2.293	1.00	117.09	C
ATOM	44912	CG	LYS	L	17	149.061	91.259	-13.765	1.00	60.12	C	ATOM	44962	CB	LYS	L	23	165.444	87.659	-3.383	1.00	117.09	C
ATOM	44913	CD	LYS	L	17	148.390	92.092	-12.703	1.00	60.12	C	ATOM	44963	CG	LYS	L	23	165.648	89.101	-2.954	1.00	117.09	C
ATOM	44914	CE	LYS	L	17	146.887	91.873	-12.725	1.00	60.12	C	ATOM	44964	CD	LYS	L	23	165.280	90.045	-4.104	1.00	117.09	C
ATOM	44915	NZ	LYS	L	17	146.538	90.450	-12.471	1.00	60.12	N	ATOM	44965	CE	LYS	L	23						



Table 2: Sheet 451/520

ATOM	44966	NZ	LVS L	23	165.410	91.491	-3.756	1.00117.09	N	ATOM	45016	CB	PRO L	31	159.041	79.839	8.660	1.00	34.93	C	
ATOM	44967	N	VAL L	24	164.978	83.204	-1.492	1.00	48.79	N	ATOM	45017	CG	PRO L	31	157.763	79.180	8.198	1.00	34.93	C
ATOM	44968	CA	VAL L	24	165.238	82.192	-0.488	1.00	48.79	C	ATOM	45018	CD	PRO L	31	158.228	78.145	7.233	1.00	34.93	C
ATOM	44969	C	VAL L	24	164.595	80.843	-0.799	1.00	48.79	C	ATOM	45019	N	PHE L	32	161.529	78.171	7.949	1.00	63.92	N
ATOM	44970	O	VAL L	24	163.602	80.449	-0.178	1.00	48.79	O	ATOM	45020	CA	PHE L	32	162.839	77.597	8.245	1.00	63.92	C
ATOM	44971	CB	VAL L	24	164.743	82.684	-0.897	1.00	45.31	C	ATOM	45021	C	PHE L	32	162.890	76.225	7.622	1.00	63.92	C
ATOM	44972	CG1	VAL L	24	164.714	81.541	1.901	1.00	45.31	C	ATOM	45022	O	PHE L	32	161.863	75.682	7.211	1.00	63.92	O
ATOM	44973	CG2	VAL L	24	165.668	83.761	1.409	1.00	45.31	C	ATOM	45023	CB	PHE L	32	163.045	77.436	9.740	1.00	38.08	C
ATOM	44974	N	PRO L	25	165.120	80.131	-1.798	1.00	51.35	N	ATOM	45024	CG	PHE L	32	162.672	78.639	10.524	1.00	38.08	C
ATOM	44975	CA	PRO L	25	164.482	78.829	-2.059	1.00	51.35	C	ATOM	45025	CD1	PHE L	32	163.484	79.757	10.524	1.00	38.08	C
ATOM	44976	C	PRO L	25	164.750	77.805	-0.937	1.00	51.35	C	ATOM	45026	CD2	PHE L	32	161.483	78.664	11.241	1.00	38.08	C
ATOM	44977	O	PRO L	25	165.720	77.024	-0.953	1.00	51.35	O	ATOM	45027	CE1	PHE L	32	163.113	80.881	11.227	1.00	38.08	C
ATOM	44978	CB	PRO L	25	165.060	78.421	-3.390	1.00	29.13	C	ATOM	45028	CE2	PHE L	32	161.106	79.780	11.948	1.00	38.08	C
ATOM	44979	CG	PRO L	25	165.273	79.796	-4.086	1.00	29.13	C	ATOM	45029	CZ	PHE L	32	161.915	80.891	11.944	1.00	38.08	C
ATOM	44980	CD	PRO L	25	165.825	80.658	-2.984	1.00	29.13	C	ATOM	45030	N	ARG L	33	164.083	75.646	7.584	1.00	45.63	N
ATOM	44981	N	ALA L	26	163.875	77.896	0.068	1.00	74.57	N	ATOM	45031	CA	ARG L	33	164.253	74.332	6.990	1.00	45.63	C
ATOM	44982	CA	ALA L	26	163.827	77.048	1.260	1.00	74.57	C	ATOM	45032	C	ARG L	33	165.461	73.709	7.656	1.00	45.63	C
ATOM	44983	C	ALA L	26	162.542	76.319	0.926	1.00	74.57	C	ATOM	45033	O	ARG L	33	166.461	74.394	7.858	1.00	45.63	O
ATOM	44984	O	ALA L	26	161.676	76.120	1.779	1.00	74.57	O	ATOM	45034	CB	ARG L	33	164.495	74.493	5.491	1.00	85.19	C
ATOM	44985	CB	ALA L	26	163.638	77.915	2.543	1.00	15.16	C	ATOM	45035	CG	ARG L	33	164.000	73.357	4.639	1.00	85.19	C
ATOM	44986	N	LEU L	27	162.441	75.984	-0.365	1.00	49.85	N	ATOM	45036	CD	ARG L	33	162.493	73.178	4.752	1.00	85.19	C
ATOM	44987	CA	LEU L	27	161.306	75.294	-0.993	1.00	49.85	C	ATOM	45037	NE	ARG L	33	161.984	72.423	3.612	1.00	85.19	N
ATOM	44988	C	LEU L	27	160.041	75.647	-0.248	1.00	49.85	C	ATOM	45038	CZ	ARG L	33	160.785	71.854	3.550	1.00	85.19	C
ATOM	44989	O	LEU L	27	159.881	76.796	0.136	1.00	49.85	O	ATOM	45039	NH1	ARG L	33	159.944	71.942	4.574	1.00	85.19	N
ATOM	44990	CB	LEU L	27	161.515	73.772	-0.993	1.00	84.34	C	ATOM	45040	NH2	ARG L	33	160.426	71.199	2.454	1.00	85.19	N
ATOM	44991	CG	LEU L	27	161.027	73.019	-2.237	1.00	84.34	C	ATOM	45041	N	ARG L	34	165.384	72.430	8.019	1.00	49.49	N
ATOM	44992	CD1	LEU L	27	162.009	73.265	-3.372	1.00	84.34	C	ATOM	45042	CA	ARG L	34	166.536	71.795	8.657	1.00	49.49	C
ATOM	44993	CD2	LEU L	27	160.923	71.524	-1.961	1.00	84.34	C	ATOM	45043	C	ARG L	34	167.364	70.987	7.668	1.00	49.49	C
ATOM	44994	N	LVS L	28	159.177	74.649	-0.044	1.00	00200.58	N	ATOM	45044	O	ARG L	34	166.871	70.534	6.633	1.00	49.49	O
ATOM	44995	CA	LVS L	28	157.899	74.777	0.667	1.00	00200.58	C	ATOM	45045	CB	ARG L	34	166.106	70.896	9.808	1.00	82.38	C
ATOM	44996	C	LVS L	28	157.592	76.158	1.224	1.00	00200.58	C	ATOM	45046	CG	ARG L	34	165.300	69.733	9.358	1.00	82.38	C
ATOM	44997	O	LVS L	28	156.942	76.260	2.266	1.00	00200.58	O	ATOM	45047	CD	ARG L	34	165.471	68.570	10.287	1.00	82.38	C
ATOM	44998	CB	LVS L	28	157.841	73.793	1.842	1.00	00166.33	C	ATOM	45048	NE	ARG L	34	164.828	67.397	9.716	1.00	82.38	N
ATOM	44999	CG	LVS L	28	157.515	72.349	1.508	1.00	00166.33	C	ATOM	45049	CZ	ARG L	34	164.912	66.173	10.218	1.00	82.38	C
ATOM	45000	CD	LVS L	28	157.295	71.565	2.803	1.00	00166.33	C	ATOM	45050	NH1	ARG L	34	165.622	65.945	11.321	1.00	82.38	N
ATOM	45001	CE	LVS L	28	156.918	70.115	2.546	1.00	00166.33	C	ATOM	45051	NH2	ARG L	34	164.278	65.176	9.613	1.00	82.38	N
ATOM	45002	NZ	LVS L	28	156.720	69.367	3.818	1.00	00166.33	N	ATOM	45052	N	GLY L	35	168.636	70.824	7.996	1.00	57.34	N
ATOM	45003	N	GLY L	29	158.026	77.209	0.533	1.00	61.85	N	ATOM	45053	CA	GLY L	35	169.537	70.081	7.139	1.00	57.34	C
ATOM	45004	CA	GLY L	29	157.820	78.561	1.020	1.00	61.85	C	ATOM	45054	C	GLY L	35	170.737	69.654	7.955	1.00	57.34	C
ATOM	45005	C	GLY L	29	157.814	78.524	2.530	1.00	61.85	C	ATOM	45055	O	GLY L	35	170.741	69.821	9.181	1.00	57.34	O
ATOM	45006	O	GLY L	29	156.957	79.125	3.183	1.00	61.85	O	ATOM	45056	N	VAL L	36	171.749	69.099	7.295	1.00	53.41	N
ATOM	45007	N	ALA L	30	158.775	77.793	3.082	1.00	48.13	N	ATOM	45057	CA	VAL L	36	172.948	68.669	8.009	1.00	53.41	C
ATOM	45008	CA	ALA L	30	158.878	77.612	4.519	1.00	48.13	C	ATOM	45058	C	VAL L	36	174.197	69.338	7.473	1.00	53.41	C
ATOM	45009	C	ALA L	30	159.575	78.741	5.243	1.00	48.13	C	ATOM	45059	O	VAL L	36	174.353	69.517	6.264	1.00	53.41	O
ATOM	45010	O	ALA L	30	160.316	79.521	4.655	1.00	48.13	O	ATOM	45060	CB	VAL L	36	173.187	67.159	7.911	1.00	44.02	C
ATOM	45011	CB	ALA L	30	159.577	76.300	4.817	1.00	77.42	C	ATOM	45061	CG1	VAL L	36	174.241	66.776	8.925	1.00	44.02	C
ATOM	45012	N	PRO L	31	159.311	78.855	6.541	1.00	44.06	N	ATOM	45062	CG2	VAL L	36	171.912	66.393	8.157	1.00	44.02	C
ATOM	45013	CA	PRO L	31	159.906	79.883	7.396	1.00	44.06	C	ATOM	45063	N	CYS L	37	175.098	69.706	8.371	1.00	52.90	N
ATOM	45014	C	PRO L	31	161.349	79.466	7.694	1.00	44.06	C	ATOM	45064	CA	CYS L	37	176.318	70.339	7.919	1.00	52.90	C
ATOM	45015	O	PRO L	31	162.261	80.294	7.707	1.00	44.06	O	ATOM	45065	C	CYS L	37	177.084	69.332	7.078	1.00	52.90	C



Table 2: Sheet 452/520

ATOM	45066	O	CYS L	37	176.989	68.127	7.285	1.00	52.90	O	ATOM	45116	CA	THR L	44	186.697	85.789	3.719	1.00	60.10	C
ATOM	45067	CB	CYS L	37	177.134	70.810	9.111	1.00	71.45	C	ATOM	45117	C	THR L	44	185.661	86.689	3.044	1.00	60.10	C
ATOM	45068	SG	CYS L	37	176.285	72.119	10.011	1.00	71.45	S	ATOM	45118	O	THR L	44	185.028	86.300	2.062	1.00	60.10	O
ATOM	45069	N	THR L	38	177.808	69.827	6.092	1.00	78.63	N	ATOM	45119	CB	THR L	44	188.070	86.027	3.036	1.00	55.43	C
ATOM	45070	CA	THR L	38	178.578	68.968	5.217	1.00	78.63	C	ATOM	45120	OG1	THR L	44	187.913	86.018	1.610	1.00	55.43	O
ATOM	45071	C	THR L	38	180.006	69.395	5.383	1.00	78.63	C	ATOM	45121	CG2	THR L	44	189.060	84.962	3.450	1.00	55.43	C
ATOM	45072	O	THR L	38	180.894	68.585	5.613	1.00	78.63	O	ATOM	45122	N	PRO L	45	185.476	87.906	3.570	1.00	55.02	N
ATOM	45073	CB	THR L	38	178.143	69.160	3.773	1.00	54.63	C	ATOM	45123	CA	PRO L	45	184.520	88.872	3.031	1.00	55.02	C
ATOM	45074	OG1	THR L	38	177.023	68.305	3.514	1.00	54.63	O	ATOM	45124	C	PRO L	45	184.965	89.380	1.666	1.00	55.02	C
ATOM	45075	CG2	THR L	38	179.283	68.855	2.818	1.00	54.63	C	ATOM	45125	O	PRO L	45	185.977	88.928	1.127	1.00	55.02	O
ATOM	45076	N	VAL L	39	180.205	70.695	5.263	1.00	57.85	N	ATOM	45126	CB	PRO L	45	184.534	89.996	4.072	1.00	62.70	C
ATOM	45077	CA	VAL L	39	181.502	71.300	5.429	1.00	57.85	C	ATOM	45127	CG	PRO L	45	185.106	89.354	5.301	1.00	62.70	C
ATOM	45078	C	VAL L	39	181.238	72.455	6.364	1.00	57.85	C	ATOM	45128	CD	PRO L	45	186.154	88.459	4.750	1.00	62.70	C
ATOM	45079	O	VAL L	39	180.199	73.107	6.266	1.00	57.85	O	ATOM	45129	N	LYS L	46	184.224	90.346	1.132	1.00	41.25	N
ATOM	45080	CB	VAL L	39	182.015	71.879	4.127	1.00	60.14	C	ATOM	45130	CA	LYS L	46	184.538	90.927	-0.169	1.00	41.25	C
ATOM	45081	CG1	VAL L	39	183.446	72.326	4.306	1.00	60.14	C	ATOM	45131	C	LYS L	46	184.844	92.418	-0.107	1.00	41.25	C
ATOM	45082	CG2	VAL L	39	181.875	70.868	3.018	1.00	60.14	C	ATOM	45132	O	LYS L	46	185.066	93.009	0.950	1.00	41.25	O
ATOM	45083	N	VAL L	40	182.152	72.705	7.287	1.00	47.92	N	ATOM	45133	CB	LYS L	46	183.368	90.740	-1.145	1.00	48.62	C
ATOM	45084	CA	VAL L	40	181.974	73.827	8.190	1.00	47.92	C	ATOM	45134	CG	LYS L	46	182.166	91.677	-0.883	1.00	48.62	C
ATOM	45085	C	VAL L	40	183.225	74.657	8.007	1.00	47.92	C	ATOM	45135	CD	LYS L	46	181.299	91.884	-2.134	1.00	48.62	C
ATOM	45086	O	VAL L	40	184.150	74.594	8.792	1.00	47.92	O	ATOM	45136	CE	LYS L	46	180.041	92.713	-1.829	1.00	48.62	C
ATOM	45087	CB	VAL L	40	181.826	73.352	9.632	1.00	39.88	C	ATOM	45137	NZ	LYS L	46	179.091	92.780	-2.973	1.00	48.62	N
ATOM	45088	CG1	VAL L	40	181.741	74.541	10.561	1.00	39.88	C	ATOM	45138	CA	LYS L	47	184.812	93.006	-1.292	1.00	79.49	N
ATOM	45089	CG2	VAL L	40	180.573	72.489	9.760	1.00	39.88	C	ATOM	45139	CA	LYS L	47	185.039	94.416	-1.501	1.00	79.49	C
ATOM	45090	N	ARG L	41	183.228	75.429	6.932	1.00	52.31	N	ATOM	45140	C	LYS L	47	185.931	95.115	-0.496	1.00	79.49	C
ATOM	45091	CA	ARG L	41	184.351	76.263	6.534	1.00	52.31	C	ATOM	45141	O	LYS L	47	187.141	95.112	-0.680	1.00	79.49	O
ATOM	45092	C	ARG L	41	184.467	77.597	7.260	1.00	52.31	C	ATOM	45142	CB	LYS L	47	183.689	95.139	-1.643	1.00	93.25	C
ATOM	45093	O	ARG L	41	183.796	77.862	8.264	1.00	52.31	O	ATOM	45143	CG	LYS L	47	183.168	95.297	-3.072	1.00	93.25	C
ATOM	45094	CB	ARG L	41	184.227	76.520	5.036	1.00	92.69	C	ATOM	45144	CD	LYS L	47	183.221	93.996	-3.859	1.00	93.25	C
ATOM	45095	CG	ARG L	41	185.490	76.865	4.296	1.00	92.69	C	ATOM	45145	CE	LYS L	47	184.545	93.849	-4.592	1.00	93.25	C
ATOM	45096	CD	ARG L	41	185.131	77.016	2.833	1.00	92.69	C	ATOM	45146	NZ	LYS L	47	184.575	92.647	-5.450	1.00	93.25	N
ATOM	45097	NE	ARG L	41	184.174	75.982	2.432	1.00	92.69	C	ATOM	45147	N	PRO L	48	185.369	95.693	0.589	1.00	43.38	N
ATOM	45098	CZ	ARG L	41	183.335	76.079	1.400	1.00	92.69	C	ATOM	45148	CA	PRO L	48	186.257	96.378	1.530	1.00	43.38	C
ATOM	45099	NH1	ARG L	41	183.323	77.171	0.642	1.00	92.69	N	ATOM	45149	C	PRO L	48	186.368	95.731	2.903	1.00	43.38	C
ATOM	45100	NH2	ARG L	41	182.494	75.086	1.134	1.00	92.69	N	ATOM	45150	O	PRO L	48	186.924	96.322	3.822	1.00	43.38	O
ATOM	45101	N	THR L	42	185.358	78.419	6.713	1.00	57.90	N	ATOM	45151	CB	PRO L	48	185.605	97.735	1.647	1.00	25.51	C
ATOM	45102	CA	THR L	42	185.660	79.772	7.162	1.00	57.90	C	ATOM	45152	CG	PRO L	48	184.159	97.306	1.860	1.00	25.51	C
ATOM	45103	C	THR L	42	185.723	80.491	5.812	1.00	57.90	C	ATOM	45153	CD	PRO L	48	183.975	96.037	0.931	1.00	25.51	C
ATOM	45104	O	THR L	42	186.259	79.953	4.842	1.00	57.90	O	ATOM	45154	N	ASN L	49	185.835	94.534	3.068	1.00	59.64	N
ATOM	45105	CB	THR L	42	187.037	79.846	7.858	1.00	68.22	C	ATOM	45155	CA	ASN L	49	185.928	93.922	4.369	1.00	59.64	C
ATOM	45106	OG1	THR L	42	187.253	81.167	8.350	1.00	68.22	O	ATOM	45156	C	ASN L	49	186.884	92.765	4.474	1.00	59.64	C
ATOM	45107	CG2	THR L	42	188.159	79.508	6.886	1.00	68.22	C	ATOM	45157	O	ASN L	49	187.178	92.082	3.490	1.00	59.64	O
ATOM	45108	N	VAL L	43	185.164	81.687	5.731	1.00	58.16	N	ATOM	45158	CB	ASN L	49	184.547	93.517	4.835	1.00	49.60	C
ATOM	45109	CA	VAL L	43	185.140	82.408	4.470	1.00	58.16	C	ATOM	45159	CG	ASN L	49	183.815	94.668	5.456	1.00	49.60	C
ATOM	45110	C	VAL L	43	185.567	83.850	4.639	1.00	58.16	C	ATOM	45160	OD1	ASN L	49	182.660	94.550	5.836	1.00	49.60	O
ATOM	45111	O	VAL L	43	185.269	84.467	5.664	1.00	58.16	O	ATOM	45161	ND2	ASN L	49	184.498	95.801	5.575	1.00	49.60	N
ATOM	45112	CB	VAL L	43	183.722	82.369	3.880	1.00	58.52	C	ATOM	45162	N	SER L	50	187.387	92.564	5.686	1.00	49.88	N
ATOM	45113	CG1	VAL L	43	183.541	83.468	2.861	1.00	58.52	C	ATOM	45163	CA	SER L	50	188.321	91.487	5.952	1.00	49.88	C
ATOM	45114	CG2	VAL L	43	183.472	81.019	3.240	1.00	58.52	C	ATOM	45164	C	SER L	50	187.998	90.869	7.299	1.00	49.88	C
ATOM	45115	N	THR L	44	186.265	84.392	3.644	1.00	60.10	N	ATOM	45165	O	SEK L	50	187.865	91.567	8.299	1.00	49.88	O



Table 2: Sheet 453/520

ATOM	45166	CB	SER L	50	189.750	92.025	5.940	1.00	69.04	C	ATOM	45216	O	LYS L	57	176.617	72.038	5.235	1.00	65.18	O
ATOM	45167	OG	SER L	50	190.677	91.012	6.277	1.00	69.04	O	ATOM	45217	CB	LYS L	57	178.294	72.847	2.887	1.00	96.82	C
ATOM	45168	N	ALA L	51	187.857	89.554	7.309	1.00	50.92	N	ATOM	45218	CG	LYS L	57	178.731	73.525	1.618	1.00	96.82	C
ATOM	45169	CA	ALA L	51	187.548	88.823	8.522	1.00	50.92	C	ATOM	45219	CD	LYS L	57	179.520	72.583	0.743	1.00	96.82	C
ATOM	45170	C	ALA L	51	187.421	87.372	8.095	1.00	50.92	C	ATOM	45220	CE	LYS L	57	180.022	73.298	-0.494	1.00	96.82	C
ATOM	45171	O	ALA L	51	187.536	87.074	6.912	1.00	50.92	O	ATOM	45221	N2	LYS L	57	180.770	72.372	-1.384	1.00	96.82	N
ATOM	45172	CB	ALA L	51	186.247	89.322	9.108	1.00	50.57	C	ATOM	45222	N	VAL L	58	175.087	73.113	4.003	1.00	42.34	N
ATOM	45173	N	LEU L	52	187.203	86.459	9.030	1.00	46.57	N	ATOM	45223	CA	VAL L	58	173.984	72.393	4.599	1.00	42.34	C
ATOM	45174	CA	LEU L	52	187.072	85.066	8.636	1.00	46.57	C	ATOM	45224	C	VAL L	58	173.182	71.657	3.552	1.00	42.34	C
ATOM	45175	C	LEU L	52	185.676	84.573	8.972	1.00	46.57	C	ATOM	45225	O	VAL L	58	172.827	72.226	2.527	1.00	42.34	O
ATOM	45176	O	LEU L	52	185.496	83.808	9.923	1.00	46.57	O	ATOM	45226	CB	VAL L	58	173.041	73.376	5.325	1.00	45.66	C
ATOM	45177	CB	LEU L	52	188.121	84.204	9.346	1.00	66.25	C	ATOM	45227	CG1	VAL L	58	172.227	72.646	6.373	1.00	45.66	C
ATOM	45178	CG	LEU L	52	189.611	84.507	9.132	1.00	66.25	C	ATOM	45228	CG2	VAL L	58	173.845	74.516	5.940	1.00	45.66	C
ATOM	45179	CD1	LEU L	52	190.429	83.416	9.787	1.00	66.25	C	ATOM	45229	N	ARG L	59	172.917	70.384	3.806	1.00	53.59	N
ATOM	45180	CD2	LEU L	52	189.944	84.581	7.652	1.00	66.25	C	ATOM	45230	CA	ARG L	59	172.102	69.579	2.912	1.00	53.59	C
ATOM	45181	N	ARG L	53	184.687	85.010	8.191	1.00	52.22	N	ATOM	45231	C	ARG L	59	170.714	69.675	3.538	1.00	53.59	C
ATOM	45182	CA	ARG L	53	183.298	84.623	8.431	1.00	52.22	C	ATOM	45232	O	ARG L	59	170.493	69.155	4.631	1.00	53.59	O
ATOM	45183	C	ARG L	53	183.099	83.107	8.528	1.00	52.22	C	ATOM	45233	CB	ARG L	59	172.578	68.135	2.919	1.00	102.24	C
ATOM	45184	O	ARG L	53	183.675	82.348	7.752	1.00	52.22	O	ATOM	45234	CG	ARG L	59	171.697	67.214	2.123	1.00	102.24	C
ATOM	45185	CB	ARG L	53	182.389	85.206	7.334	1.00	64.85	C	ATOM	45235	CD	ARG L	59	172.535	66.463	1.130	1.00	102.24	C
ATOM	45186	CG	ARG L	53	181.999	86.676	7.538	1.00	64.85	C	ATOM	45236	NE	ARG L	59	173.590	65.710	1.798	1.00	102.24	N
ATOM	45187	CD	ARG L	53	183.227	87.543	7.514	1.00	64.85	C	ATOM	45237	C2	ARG L	59	174.782	65.472	1.263	1.00	102.24	C
ATOM	45188	NE	ARG L	53	183.076	88.829	8.201	1.00	64.85	N	ATOM	45238	NH1	ARG L	59	175.069	65.934	0.050	1.00	102.24	N
ATOM	45189	C2	ARG L	53	182.432	89.882	7.711	1.00	64.85	C	ATOM	45239	NH2	ARG L	59	175.684	64.769	1.938	1.00	102.24	N
ATOM	45190	NH1	ARG L	53	181.845	89.817	6.515	1.00	64.85	N	ATOM	45240	N	LEU L	60	169.786	70.351	2.868	1.00	65.70	N
ATOM	45191	NH2	ARG L	53	182.429	91.020	8.393	1.00	64.85	N	ATOM	45241	CA	LEU L	60	168.444	70.524	3.419	1.00	65.70	C
ATOM	45192	N	LYS L	54	182.291	82.667	9.490	1.00	44.13	N	ATOM	45242	C	LEU L	60	167.488	69.371	3.192	1.00	65.70	C
ATOM	45193	CA	LYS L	54	182.029	81.241	9.647	1.00	44.13	C	ATOM	45243	O	LEU L	60	167.683	68.556	2.294	1.00	65.70	O
ATOM	45194	C	LYS L	54	180.788	80.811	8.869	1.00	44.13	C	ATOM	45244	CB	LEU L	60	167.788	71.800	2.869	1.00	62.98	C
ATOM	45195	O	LYS L	54	179.669	81.206	9.184	1.00	44.13	O	ATOM	45245	CG	LEU L	60	168.328	73.144	3.344	1.00	62.98	C
ATOM	45196	CB	LYS L	54	181.864	80.876	11.119	1.00	55.02	C	ATOM	45246	CD1	LEU L	60	168.525	73.098	4.849	1.00	62.98	C
ATOM	45197	CG	LYS L	54	183.161	80.864	11.917	1.00	55.02	C	ATOM	45247	CD2	LEU L	60	169.635	73.438	2.647	1.00	62.98	C
ATOM	45198	CD	LYS L	54	183.804	82.236	11.981	1.00	55.02	C	ATOM	45248	N	THR L	61	166.447	69.319	4.019	1.00	58.15	N
ATOM	45199	CE	LYS L	54	184.994	82.214	12.911	1.00	55.02	C	ATOM	45249	CA	THR L	61	165.418	68.292	3.889	1.00	58.15	C
ATOM	45200	N2	LYS L	54	185.696	83.524	12.966	1.00	55.02	N	ATOM	45250	C	THR L	61	164.668	68.614	2.603	1.00	58.15	C
ATOM	45201	N	VAL L	55	181.007	79.973	7.864	1.00	51.75	N	ATOM	45251	O	THR L	61	163.995	67.762	2.028	1.00	58.15	O
ATOM	45202	CA	VAL L	55	179.952	79.478	7.003	1.00	51.75	C	ATOM	45252	CB	THR L	61	164.396	68.345	5.044	1.00	68.77	C
ATOM	45203	C	VAL L	55	179.784	77.972	7.197	1.00	51.75	C	ATOM	45253	OG1	THR L	61	163.795	69.645	5.085	1.00	68.77	O
ATOM	45204	O	VAL L	55	180.547	77.353	7.926	1.00	51.75	O	ATOM	45254	CG2	THR L	61	165.061	68.052	6.369	1.00	68.77	C
ATOM	45205	CB	VAL L	55	180.337	79.771	5.550	1.00	65.45	C	ATOM	45255	N	SER L	62	164.789	69.866	2.173	1.00	60.54	N
ATOM	45206	CG1	VAL L	55	179.132	79.694	4.650	1.00	65.45	C	ATOM	45256	CA	SER L	62	164.142	70.337	0.963	1.00	60.54	C
ATOM	45207	CG2	VAL L	55	180.965	81.139	5.470	1.00	65.45	C	ATOM	45257	O	SER L	62	164.894	69.849	-0.257	1.00	60.54	C
ATOM	45208	N	ALA L	56	178.781	77.385	6.550	1.00	58.93	N	ATOM	45258	C	SER L	62	164.528	70.179	-1.380	1.00	60.54	O
ATOM	45209	CA	ALA L	56	178.547	75.940	6.632	1.00	58.93	C	ATOM	45259	CB	SER L	62	164.089	71.868	0.940	1.00	62.49	C
ATOM	45210	C	ALA L	56	177.727	75.431	5.447	1.00	58.93	C	ATOM	45260	OG	SER L	62	165.388	72.435	0.904	1.00	62.49	O
ATOM	45211	O	ALA L	56	176.752	76.061	5.047	1.00	58.93	O	ATOM	45261	N	GLY L	63	165.954	69.078	-0.037	1.00	80.57	N
ATOM	45212	CB	ALA L	56	177.841	75.592	7.927	1.00	23.76	C	ATOM	45262	CA	GLY L	63	166.726	68.565	-1.152	1.00	80.57	C
ATOM	45213	N	LYS L	57	178.140	74.307	4.867	1.00	65.18	N	ATOM	45263	C	GLY L	63	167.771	69.522	-1.696	1.00	80.57	C
ATOM	45214	CA	LYS L	57	177.403	73.726	3.752	1.00	65.18	C	ATOM	45264	O	GLY L	63	168.394	69.240	-2.720	1.00	80.57	O
ATOM	45215	C	LYS L	57	176.329	72.884	4.395	1.00	65.18	C	ATOM	45265	N	TYR L	64	167.964	70.659	-1.032	1.00	90.97	N



ATOM 45266	CA	TYR	L	64	168.967	71.629	-1.469	1.00	98.97	C	ATOM 45316	OH	TYR	L	69	179.648	86.380	10.645	1.00	70.44	O
ATOM 45267	C	TYR	L	64	170.184	71.587	-0.558	1.00	98.97	C	ATOM 45317	N	ILE	L	70	176.934	81.363	10.132	1.00	49.25	N
ATOM 45268	O	TYR	L	64	170.064	71.425	0.658	1.00	98.97	O	ATOM 45318	CA	ILE	L	70	176.806	80.960	11.537	1.00	49.25	C
ATOM 45269	CB	TYR	L	64	168.414	73.054	-1.465	1.00	87.06	C	ATOM 45319	C	ILE	L	70	177.117	82.162	12.413	1.00	49.25	C
ATOM 45270	CG	TYR	L	64	167.472	73.380	-2.596	1.00	87.06	C	ATOM 45320	O	ILE	L	70	178.266	82.390	12.779	1.00	49.25	O
ATOM 45271	CD1	TYR	L	64	166.239	72.744	-2.709	1.00	87.06	C	ATOM 45321	CB	ILE	L	70	177.788	79.831	11.929	1.00	42.49	C
ATOM 45272	CD2	TYR	L	64	167.801	74.355	-3.539	1.00	87.06	C	ATOM 45322	CG1	ILE	L	70	177.706	78.676	10.928	1.00	42.49	C
ATOM 45273	CE1	TYR	L	64	165.353	73.074	-3.731	1.00	87.06	C	ATOM 45323	CG2	ILE	L	70	177.421	79.297	13.287	1.00	42.49	C
ATOM 45274	CE2	TYR	L	64	166.924	74.693	-4.565	1.00	87.06	C	ATOM 45324	CD1	ILE	L	70	178.807	77.631	11.076	1.00	42.49	C
ATOM 45275	CZ	TYR	L	64	165.703	74.051	-4.654	1.00	87.06	C	ATOM 45325	N	PRO	L	71	176.090	82.935	12.777	1.00	65.88	N
ATOM 45276	OH	TYR	L	64	164.822	74.390	-5.652	1.00	87.06	O	ATOM 45326	CA	PRO	L	71	176.204	84.135	13.611	1.00	65.88	C
ATOM 45277	N	GLU	L	65	171.355	71.733	-1.161	1.00	52.13	N	ATOM 45327	C	PRO	L	71	176.665	83.829	15.039	1.00	65.88	C
ATOM 45278	CA	GLU	L	65	172.610	71.730	-0.429	1.00	52.13	C	ATOM 45328	O	PRO	L	71	176.513	82.706	15.514	1.00	65.88	O
ATOM 45279	C	GLU	L	65	173.064	73.171	-0.547	1.00	52.13	C	ATOM 45329	CB	PRO	L	71	174.794	84.693	13.570	1.00	52.84	C
ATOM 45280	O	GLU	L	65	173.552	73.589	-1.591	1.00	52.13	O	ATOM 45330	CG	PRO	L	71	173.973	83.433	13.618	1.00	52.84	C
ATOM 45281	CB	GLU	L	65	173.614	70.791	-1.104	1.00	174.19	C	ATOM 45331	CD	PRO	L	71	174.679	82.541	12.620	1.00	52.84	C
ATOM 45282	CG	GLU	L	65	173.166	69.327	-1.198	1.00	174.19	C	ATOM 45332	N	GLY	L	72	177.223	84.829	15.718	1.00	67.76	N
ATOM 45283	CD	GLU	L	65	171.851	69.138	-1.952	1.00	174.19	C	ATOM 45333	CA	GLY	L	72	177.698	84.633	17.082	1.00	67.76	C
ATOM 45284	OE1	GLU	L	65	171.704	69.691	-3.065	1.00	174.19	O	ATOM 45334	C	GLY	L	72	179.211	84.737	17.203	1.00	67.76	C
ATOM 45285	OE2	GLU	L	65	170.964	68.425	-1.433	1.00	174.19	O	ATOM 45335	O	GLY	L	72	179.904	84.788	16.187	1.00	67.76	O
ATOM 45286	N	VAL	L	66	172.889	73.947	0.513	1.00	62.85	N	ATOM 45336	N	GLU	L	73	179.737	84.767	18.426	1.00	134.53	N
ATOM 45287	CA	VAL	L	66	173.263	75.348	0.447	1.00	62.85	C	ATOM 45337	CA	GLU	L	73	181.182	84.863	18.608	1.00	134.53	C
ATOM 45288	C	VAL	L	66	174.222	75.800	1.532	1.00	62.85	C	ATOM 45338	C	GLU	L	73	181.890	83.521	18.445	1.00	134.53	C
ATOM 45289	O	VAL	L	66	174.430	75.118	2.528	1.00	62.85	O	ATOM 45339	O	GLU	L	73	183.093	83.487	18.200	1.00	134.53	O
ATOM 45290	CB	VAL	L	66	172.006	76.234	0.488	1.00	57.69	C	ATOM 45340	CB	GLU	L	73	181.532	85.463	19.972	1.00	136.66	C
ATOM 45291	CG1	VAL	L	66	170.968	75.690	-0.483	1.00	57.69	C	ATOM 45341	CG	GLU	L	73	181.178	86.934	20.120	1.00	136.66	C
ATOM 45292	CG2	VAL	L	66	171.444	76.290	1.904	1.00	57.69	C	ATOM 45342	CD	GLU	L	73	179.732	87.149	20.535	1.00	136.66	C
ATOM 45293	N	THR	L	67	174.795	76.974	1.319	1.00	52.81	N	ATOM 45343	OE1	GLU	L	73	179.384	86.774	21.677	1.00	136.66	O
ATOM 45294	CA	THR	L	67	175.741	77.569	2.241	1.00	52.81	C	ATOM 45344	OE2	GLU	L	73	178.944	87.689	19.724	1.00	136.66	O
ATOM 45295	C	THR	L	67	174.991	78.510	3.201	1.00	52.81	C	ATOM 45345	N	GLY	L	74	181.158	82.419	18.590	1.00	59.01	N
ATOM 45296	O	THR	L	67	174.161	79.311	2.771	1.00	52.81	O	ATOM 45346	CA	GLY	L	74	181.769	81.107	18.421	1.00	59.01	C
ATOM 45297	CB	THR	L	67	176.827	78.324	1.426	1.00	59.35	C	ATOM 45347	C	GLY	L	74	180.746	79.994	18.282	1.00	59.01	C
ATOM 45298	OG1	THR	L	67	178.112	78.027	1.972	1.00	59.35	O	ATOM 45348	O	GLY	L	74	179.616	80.161	18.713	1.00	59.01	O
ATOM 45299	CG2	THR	L	67	176.602	79.838	1.442	1.00	59.35	C	ATOM 45349	N	HIS	L	75	181.105	78.858	17.698	1.00	71.14	N
ATOM 45300	N	ALA	L	68	175.278	78.414	4.495	1.00	58.42	N	ATOM 45350	CA	HIS	L	75	180.116	77.800	17.578	1.00	71.14	C
ATOM 45301	CA	ALA	L	68	174.600	79.250	5.485	1.00	58.42	C	ATOM 45351	C	HIS	L	75	180.609	76.395	17.876	1.00	71.14	C
ATOM 45302	C	ALA	L	68	175.571	79.878	6.465	1.00	58.42	C	ATOM 45352	O	HIS	L	75	181.753	76.191	18.268	1.00	71.14	O
ATOM 45303	O	ALA	L	68	176.571	79.262	6.833	1.00	58.42	O	ATOM 45353	CB	HIS	L	75	179.478	77.827	16.197	1.00	56.90	C
ATOM 45304	CB	ALA	L	68	173.576	78.419	6.256	1.00	30.13	C	ATOM 45354	CG	HIS	L	75	180.404	77.438	15.092	1.00	56.90	C
ATOM 45305	N	TYR	L	69	175.261	81.091	6.911	1.00	54.86	N	ATOM 45355	ND1	HIS	L	75	181.310	78.313	14.537	1.00	56.90	N
ATOM 45306	CA	TYR	L	69	176.115	81.797	7.861	1.00	54.86	C	ATOM 45356	CD2	HIS	L	75	180.553	76.269	14.428	1.00	56.90	C
ATOM 45307	C	TYR	L	69	175.891	81.331	9.303	1.00	54.86	C	ATOM 45357	CE1	HIS	L	75	181.976	77.702	13.575	1.00	56.90	C
ATOM 45308	O	TYR	L	69	174.785	80.949	9.657	1.00	54.86	O	ATOM 45358	NE2	HIS	L	75	181.535	76.460	13.488	1.00	56.90	N
ATOM 45309	CB	TYR	L	69	175.847	83.293	7.787	1.00	70.44	C	ATOM 45359	N	ASN	L	76	179.722	75.429	17.676	1.00	56.05	N
ATOM 45310	CG1	TYR	L	69	176.849	84.102	8.567	1.00	70.44	C	ATOM 45360	CA	ASN	L	76	180.006	74.029	17.938	1.00	56.05	C
ATOM 45311	CD1	TYR	L	69	178.138	84.292	8.079	1.00	70.44	C	ATOM 45361	C	ASN	L	76	179.524	73.184	16.768	1.00	56.05	C
ATOM 45312	CD2	TYR	L	69	176.517	84.678	9.792	1.00	70.44	C	ATOM 45362	O	ASN	L	76	178.935	72.116	16.963	1.00	56.05	O
ATOM 45313	CE1	TYR	L	69	179.070	85.035	8.777	1.00	70.44	C	ATOM 45363	CB	ASN	L	76	179.247	73.583	19.183	1.00	68.45	C
ATOM 45314	CE2	TYR	L	69	177.447	85.428	10.506	1.00	70.44	C	ATOM 45364	CG	ASN	L	76	177.735	73.666	18.993	1.00	68.45	C
ATOM 45315	CZ	TYR	L	69	178.722	85.605	9.985	1.00	70.44	C	ATOM 45365	OD1	ASN	L	76	177.192	74.744	18.757	1.00	68.45	O



ATOM	45366	ND2	ASN	L	76	177.056	72.528	19.081	1.00	68.45	N	ATOM	45416	N	VAL	L	83	171.060	71.148	11.586	1.00	74.64	N
ATOM	45367	N	LEU	L	77	179.751	73.641	15.550	1.00	53.09	N	ATOM	45417	CA	VAL	L	83	170.557	72.388	12.111	1.00	74.64	C
ATOM	45368	CA	LEU	L	77	179.273	72.860	14.434	1.00	53.09	C	ATOM	45418	C	VAL	L	83	169.435	73.018	11.290	1.00	74.64	C
ATOM	45369	C	LEU	L	77	180.375	72.037	13.804	1.00	53.09	C	ATOM	45419	O	VAL	L	83	169.080	72.521	10.221	1.00	74.64	O
ATOM	45370	O	LEU	L	77	181.397	72.575	13.385	1.00	53.09	O	ATOM	45420	CB	VAL	L	83	171.725	73.346	12.255	1.00	53.68	C
ATOM	45371	CB	LEU	L	77	178.617	73.771	13.398	1.00	55.32	C	ATOM	45421	CG1	VAL	L	83	172.385	73.549	12.904	1.00	53.68	C
ATOM	45372	CG	LEU	L	77	177.370	74.531	13.875	1.00	55.32	C	ATOM	45422	CG2	VAL	L	83	171.251	74.645	12.885	1.00	53.68	C
ATOM	45373	CD1	LEU	L	77	176.929	75.497	12.789	1.00	55.32	C	ATOM	45423	N	LEU	L	84	168.877	74.106	11.821	1.00	49.89	N
ATOM	45374	CD2	LEU	L	77	176.251	73.557	14.227	1.00	55.32	C	ATOM	45424	CA	LEU	L	84	167.788	74.853	11.194	1.00	49.89	C
ATOM	45375	N	GLN	L	78	180.149	70.721	13.764	1.00	55.95	N	ATOM	45425	O	LEU	L	84	168.289	76.105	10.474	1.00	49.89	C
ATOM	45376	CA	GLN	L	78	181.077	69.746	13.190	1.00	55.95	C	ATOM	45426	O	LEU	L	84	169.045	76.905	11.029	1.00	49.89	O
ATOM	45377	C	GLN	L	78	180.528	69.339	11.832	1.00	55.95	C	ATOM	45427	CB	LEU	L	84	166.781	75.272	12.259	1.00	46.07	C
ATOM	45378	O	GLN	L	78	179.584	69.939	11.334	1.00	55.95	O	ATOM	45428	CG	LEU	L	84	165.395	75.713	11.815	1.00	46.07	C
ATOM	45379	CB	GLN	L	78	181.174	68.494	14.067	1.00	123.59	C	ATOM	45429	CD1	LEU	L	84	164.703	74.553	11.108	1.00	46.07	C
ATOM	45380	CG	GLN	L	78	181.600	68.731	15.502	1.00	123.59	C	ATOM	45430	CD2	LEU	L	84	164.593	76.153	13.026	1.00	46.07	C
ATOM	45381	CD	GLN	L	78	181.455	67.483	16.355	1.00	123.59	C	ATOM	45431	N	ILE	L	85	167.849	76.266	9.233	1.00	48.25	N
ATOM	45382	OE1	GLN	L	78	180.368	66.906	16.456	1.00	123.59	O	ATOM	45432	CA	ILE	L	85	168.212	77.401	8.392	1.00	48.25	C
ATOM	45383	NE2	GLN	L	78	182.552	67.059	16.976	1.00	123.59	N	ATOM	45433	C	ILE	L	85	167.047	78.388	8.374	1.00	48.25	C
ATOM	45384	N	GLU	L	79	181.095	68.283	11.264	1.00	89.08	N	ATOM	45434	O	ILE	L	85	165.881	77.974	8.348	1.00	48.25	O
ATOM	45385	CA	GLU	L	79	180.687	67.823	9.953	1.00	89.08	C	ATOM	45435	CB	ILE	L	85	168.505	76.905	6.974	1.00	65.99	C
ATOM	45386	C	GLU	L	79	179.264	67.348	9.829	1.00	89.08	C	ATOM	45436	CG1	ILE	L	85	169.847	76.200	6.973	1.00	65.99	C
ATOM	45387	O	GLU	L	79	178.656	67.562	8.791	1.00	89.08	O	ATOM	45437	CG2	ILE	L	85	168.491	78.039	5.982	1.00	65.99	C
ATOM	45388	CB	GLU	L	79	181.604	66.717	9.445	1.00	108.46	C	ATOM	45438	CD1	ILE	L	85	170.254	75.747	5.610	1.00	65.99	C
ATOM	45389	CG	GLU	L	79	181.310	66.351	8.002	1.00	108.46	C	ATOM	45439	N	ARG	L	86	167.347	79.687	8.381	1.00	65.23	N
ATOM	45390	CD	GLU	L	79	182.345	65.429	7.411	1.00	108.46	C	ATOM	45440	CA	ARG	L	86	166.271	80.670	8.389	1.00	65.23	C
ATOM	45391	OE1	GLU	L	79	182.329	64.226	7.738	1.00	108.46	O	ATOM	45441	C	ARG	L	86	166.278	81.711	7.296	1.00	65.23	C
ATOM	45392	OE2	GLU	L	79	183.186	65.912	6.623	1.00	108.46	O	ATOM	45442	O	ARG	L	86	165.358	82.518	7.213	1.00	65.23	O
ATOM	45393	N	HIS	L	80	178.716	66.695	10.845	1.00	59.97	N	ATOM	45443	CB	ARG	L	86	166.207	82.424	9.733	1.00	57.94	C
ATOM	45394	CA	HIS	L	80	177.333	66.225	10.714	1.00	59.97	C	ATOM	45444	CG	ARG	L	86	167.277	82.424	9.946	1.00	57.94	C
ATOM	45395	C	HIS	L	80	176.433	66.846	11.753	1.00	59.97	C	ATOM	45445	CD	ARG	L	86	167.000	83.174	11.235	1.00	57.94	C
ATOM	45396	O	HIS	L	80	175.561	66.180	12.316	1.00	59.97	O	ATOM	45446	NE	ARG	L	86	168.037	84.147	11.556	1.00	57.94	N
ATOM	45397	CB	HIS	L	80	177.275	64.707	10.836	1.00	86.78	C	ATOM	45447	CZ	ARG	L	86	168.442	85.104	10.726	1.00	57.94	C
ATOM	45398	CG	HIS	L	80	178.188	64.000	9.891	1.00	86.78	C	ATOM	45448	NH1	ARG	L	86	167.897	85.214	9.518	1.00	57.94	N
ATOM	45399	ND1	HIS	L	80	179.553	63.962	10.071	1.00	86.78	N	ATOM	45449	NH2	ARG	L	86	169.388	85.957	11.101	1.00	57.94	N
ATOM	45400	CD2	HIS	L	80	177.940	63.347	8.732	1.00	86.78	C	ATOM	45450	N	GLY	L	87	167.289	81.725	6.450	1.00	38.89	N
ATOM	45401	CE1	HIS	L	80	180.107	63.315	9.062	1.00	86.78	C	ATOM	45451	CA	GLY	L	87	167.258	82.741	5.413	1.00	38.89	C
ATOM	45402	NE2	HIS	L	80	179.151	62.932	8.235	1.00	86.78	N	ATOM	45452	C	GLY	L	87	167.638	84.146	5.885	1.00	38.89	C
ATOM	45403	N	SER	L	81	176.630	68.138	11.980	1.00	71.22	N	ATOM	45453	O	GLY	L	87	167.139	84.666	6.888	1.00	38.89	O
ATOM	45404	CA	SER	L	81	175.877	68.845	12.991	1.00	71.22	C	ATOM	45454	N	GLY	L	88	168.541	84.756	5.124	1.00	46.78	N
ATOM	45405	C	SER	L	81	174.352	68.813	12.966	1.00	71.22	C	ATOM	45455	CA	GLY	L	88	169.046	86.079	5.414	1.00	46.78	C
ATOM	45406	O	SER	L	81	173.747	68.560	14.003	1.00	71.22	O	ATOM	45456	C	GLY	L	88	170.395	86.126	4.731	1.00	46.78	C
ATOM	45407	CB	SER	L	81	176.368	70.283	13.071	1.00	59.86	C	ATOM	45457	O	GLY	L	88	171.302	85.392	5.113	1.00	46.78	O
ATOM	45408	OG	SER	L	81	177.572	70.346	13.820	1.00	59.86	C	ATOM	45458	N	ARG	L	89	170.524	86.965	3.709	1.00	38.75	N
ATOM	45409	N	VAL	L	82	173.714	69.051	11.822	1.00	70.55	N	ATOM	45459	CA	ARG	L	89	171.770	87.078	2.968	1.00	38.75	C
ATOM	45410	CA	VAL	L	82	172.238	69.047	11.786	1.00	70.55	C	ATOM	45460	C	ARG	L	89	172.836	87.532	3.949	1.00	38.75	C
ATOM	45411	C	VAL	L	82	171.690	70.322	12.407	1.00	70.55	C	ATOM	45461	O	ARG	L	89	172.543	87.775	5.110	1.00	38.75	O
ATOM	45412	O	VAL	L	82	171.799	70.543	13.619	1.00	70.55	O	ATOM	45462	CB	ARG	L	89	171.650	88.133	1.868	1.00	77.82	C
ATOM	45413	CB	VAL	L	82	171.613	67.883	12.583	1.00	51.19	C	ATOM	45463	CG	ARG	L	89	171.919	89.532	2.397	1.00	77.82	C
ATOM	45414	CG1	VAL	L	82	170.125	68.134	12.770	1.00	51.19	C	ATOM	45464	CD	ARG	L	89	171.760	90.627	1.367	1.00	77.82	C
ATOM	45415	CG2	VAL	L	82	171.837	66.578	11.858	1.00	51.19	C	ATOM	45465	NE	ARG	L	89	172.713	90.544	0.269	1.00	77.82	N



ATOM 45466	CZ ARG L 89	172.972	91.556	-0.553	1.00 77.82	C	ATOM 45516	CB VAL L 96	176.443	83.566	2.602	1.00 60.11	C
ATOM 45467	NH1 ARG L 89	172.357	92.722	-0.390	1.00 77.82	N	ATOM 45517	CG1 VAL L 96	176.011	82.946	3.924	1.00 60.11	C
ATOM 45468	NH2 ARG L 89	173.833	91.401	-1.548	1.00 77.82	N	ATOM 45518	CG2 VAL L 96	177.854	83.181	2.250	1.00 60.11	C
ATOM 45469	N VAL L 90	174.071	87.636	3.472	1.00 60.76	N	ATOM 45519	N ARG L 97	173.057	83.078	1.497	1.00 52.48	N
ATOM 45470	CA VAL L 90	175.177	88.123	4.279	1.00 60.76	C	ATOM 45520	CA ARG L 97	171.715	83.655	1.590	1.00 52.48	C
ATOM 45471	C VAL L 90	176.007	88.993	3.348	1.00 60.76	C	ATOM 45521	C ARG L 97	170.826	83.218	2.759	1.00 52.48	C
ATOM 45472	O VAL L 90	177.051	88.596	2.871	1.00 60.76	O	ATOM 45522	O ARG L 97	169.657	83.587	2.815	1.00 52.48	O
ATOM 45473	CB VAL L 90	176.020	86.976	4.853	1.00 49.40	C	ATOM 45523	CB ARG L 97	170.969	83.416	0.284	1.00 70.85	C
ATOM 45474	CG1 VAL L 90	177.271	87.522	5.515	1.00 49.40	C	ATOM 45524	CG ARG L 97	171.574	84.178	-0.852	1.00 70.85	C
ATOM 45475	CG2 VAL L 90	175.207	86.227	5.885	1.00 49.40	C	ATOM 45525	CG ARG L 97	170.606	84.309	-1.983	1.00 70.85	C
ATOM 45476	N LYS L 91	175.483	90.181	3.082	1.00 47.22	N	ATOM 45526	NE ARG L 97	170.545	83.096	-2.776	1.00 70.85	N
ATOM 45477	CA LYS L 91	176.080	91.181	2.215	1.00 47.22	C	ATOM 45527	CZ ARG L 97	169.699	82.933	-3.781	1.00 70.85	C
ATOM 45478	C LYS L 91	177.526	90.956	1.827	1.00 47.22	C	ATOM 45528	NH1 ARG L 97	168.854	83.911	-4.085	1.00 70.85	N
ATOM 45479	O LYS L 91	177.860	90.984	0.647	1.00 47.22	O	ATOM 45529	NH2 ARG L 97	169.714	81.814	-4.494	1.00 70.85	N
ATOM 45480	CB LYS L 91	175.944	92.547	2.875	1.00 58.49	C	ATOM 45530	N TYR L 98	171.357	82.430	3.682	1.00 46.02	N
ATOM 45481	CG LYS L 91	176.568	93.684	2.109	1.00 58.49	C	ATOM 45531	CA TYR L 98	170.559	82.013	4.816	1.00 46.02	C
ATOM 45482	CD LYS L 91	175.759	94.061	0.893	1.00 58.49	C	ATOM 45532	C TYR L 98	171.431	81.990	6.060	1.00 46.02	C
ATOM 45483	CE LYS L 91	176.339	95.321	0.265	1.00 58.49	C	ATOM 45533	O TYR L 98	172.642	81.820	5.970	1.00 46.02	O
ATOM 45484	NZ LYS L 91	175.501	95.854	-0.855	1.00 58.49	N	ATOM 45534	CB TYR L 98	169.972	80.623	4.583	1.00 48.20	C
ATOM 45485	N ASP L 92	178.382	90.741	2.819	1.00 59.03	N	ATOM 45535	CG TYR L 98	169.466	80.360	3.182	1.00 48.20	C
ATOM 45486	CA ASP L 92	179.813	90.529	2.599	1.00 59.03	C	ATOM 45536	CD1 TYR L 98	170.348	80.134	2.134	1.00 48.20	C
ATOM 45487	C ASP L 92	180.270	89.250	1.923	1.00 59.03	C	ATOM 45537	CD2 TYR L 98	168.102	80.310	2.909	1.00 48.20	C
ATOM 45488	O ASP L 92	181.376	89.199	1.399	1.00 59.03	O	ATOM 45538	CE1 TYR L 98	169.891	79.861	0.843	1.00 48.20	C
ATOM 45489	CB ASP L 92	180.547	90.648	3.919	1.00 63.64	C	ATOM 45539	CE2 TYR L 98	167.628	80.036	1.620	1.00 48.20	C
ATOM 45490	CG ASP L 92	181.030	92.037	4.161	1.00 63.64	C	ATOM 45540	CZ TYR L 98	168.530	79.810	0.590	1.00 48.20	C
ATOM 45491	OD1 ASP L 92	180.668	92.933	3.341	1.00 63.64	O	ATOM 45541	OH TYR L 98	168.079	79.504	-0.687	1.00 48.20	O
ATOM 45492	OD2 ASP L 92	181.766	92.221	5.160	1.00 63.64	O	ATOM 45542	N HIS L 99	170.826	82.188	7.220	1.00 39.10	N
ATOM 45493	N LEU L 93	179.437	88.217	1.954	1.00 42.44	N	ATOM 45543	CA HIS L 99	171.571	82.138	8.470	1.00 39.10	C
ATOM 45494	CA LEU L 93	179.770	86.940	1.344	1.00 42.44	C	ATOM 45544	C HIS L 99	171.175	80.857	9.177	1.00 39.10	C
ATOM 45495	C LEU L 93	178.758	86.593	0.268	1.00 42.44	C	ATOM 45545	O HIS L 99	170.069	80.345	8.987	1.00 39.10	O
ATOM 45496	O LEU L 93	177.688	86.058	0.568	1.00 42.44	O	ATOM 45546	CB HIS L 99	171.209	83.305	9.400	1.00 42.98	C
ATOM 45497	CB LEU L 93	179.751	85.831	2.391	1.00 43.82	C	ATOM 45547	CG HIS L 99	171.903	84.589	9.073	1.00 42.98	C
ATOM 45498	CG LEU L 93	180.431	86.123	3.721	1.00 43.82	C	ATOM 45548	ND1 HIS L 99	171.774	85.217	7.853	1.00 42.98	N
ATOM 45499	CD1 LEU L 93	180.241	84.943	4.636	1.00 43.82	C	ATOM 45549	CD2 HIS L 99	172.727	85.369	9.813	1.00 42.98	C
ATOM 45500	CD2 LEU L 93	181.911	86.405	3.501	1.00 43.82	C	ATOM 45550	CE1 HIS L 99	172.491	86.329	7.857	1.00 42.98	C
ATOM 45501	N PRO L 94	179.066	86.893	-1.002	1.00 58.85	N	ATOM 45551	NE2 HIS L 99	173.079	86.444	9.034	1.00 42.98	N
ATOM 45502	CA PRO L 94	178.087	86.548	-2.034	1.00 58.85	C	ATOM 45552	N ILE L 100	172.076	80.334	9.992	1.00 48.63	N
ATOM 45503	C PRO L 94	177.880	85.046	-1.967	1.00 58.85	C	ATOM 45553	CA ILE L 100	171.766	79.150	10.762	1.00 48.63	C
ATOM 45504	O PRO L 94	178.823	84.309	-1.665	1.00 58.85	O	ATOM 45554	C ILE L 100	171.150	79.692	12.049	1.00 48.63	C
ATOM 45505	CB PRO L 94	178.781	86.976	-3.320	1.00 76.29	C	ATOM 45555	O ILE L 100	171.513	80.770	12.513	1.00 48.63	O
ATOM 45506	CG PRO L 94	179.638	88.125	-2.873	1.00 76.29	C	ATOM 45556	CB ILE L 100	173.031	78.339	11.053	1.00 59.91	C
ATOM 45507	CD PRO L 94	180.218	87.601	-1.583	1.00 76.29	C	ATOM 45557	CG1 ILE L 100	173.556	77.732	9.745	1.00 59.91	C
ATOM 45508	N GLY L 95	176.657	84.592	-2.220	1.00 72.42	N	ATOM 45558	CG2 ILE L 100	172.729	77.259	12.052	1.00 59.91	C
ATOM 45509	CA GLY L 95	176.385	83.168	-2.186	1.00 72.42	C	ATOM 45559	CD1 ILE L 100	174.825	76.907	9.881	1.00 59.91	C
ATOM 45510	C GLY L 95	175.774	82.730	-0.875	1.00 72.42	C	ATOM 45560	N VAL L 101	170.193	78.972	12.609	1.00 55.65	N
ATOM 45511	O GLY L 95	175.051	81.736	-0.810	1.00 72.42	O	ATOM 45561	CA VAL L 101	169.541	79.422	13.831	1.00 55.65	C
ATOM 45512	N VAL L 96	176.068	83.461	0.188	1.00 47.65	N	ATOM 45562	C VAL L 101	170.188	78.836	15.077	1.00 55.65	C
ATOM 45513	CA VAL L 96	175.503	83.121	1.481	1.00 47.65	C	ATOM 45563	O VAL L 101	170.152	77.624	15.302	1.00 55.65	O
ATOM 45514	C VAL L 96	174.148	83.834	1.618	1.00 47.65	C	ATOM 45564	CB VAL L 101	168.057	79.038	13.824	1.00 44.10	C
ATOM 45515	O VAL L 96	174.095	85.048	1.825	1.00 47.65	O	ATOM 45565	CG1 VAL L 101	167.456	79.256	15.199	1.00 44.10	C



ATOM	45566	CG2	VAL	L	101	167.324	79.851	12.781	1.00	44.10	C	ATOM	45616	C	ALA	L	108	174.187	77.150	20.506	1.00	53.25	C
ATOM	45567	N	ARG	L	102	170.766	79.699	15.899	1.00	57.16	N	ATOM	45617	O	ALA	L	108	174.561	77.781	19.524	1.00	53.25	O
ATOM	45568	CA	ARG	L	102	171.415	79.236	17.111	1.00	57.16	C	ATOM	45618	CB	ALA	L	108	175.677	75.352	21.369	1.00	74.89	C
ATOM	45569	C	ARG	L	102	170.389	78.956	18.180	1.00	57.16	C	ATOM	45619	N	GLY	L	109	173.559	77.721	21.521	1.00	55.31	N
ATOM	45570	O	ARG	L	102	169.460	79.727	18.370	1.00	57.16	O	ATOM	45620	CA	GLY	L	109	173.339	79.152	21.502	1.00	55.31	C
ATOM	45571	CB	ARG	L	102	172.415	80.278	17.588	1.00	60.56	C	ATOM	45621	C	GLY	L	109	174.626	79.816	21.932	1.00	55.31	C
ATOM	45572	CG	ARG	L	102	173.325	80.671	16.461	1.00	60.56	C	ATOM	45622	O	GLY	L	109	175.419	79.196	22.622	1.00	55.31	O
ATOM	45573	CD	ARG	L	102	174.728	80.871	16.910	1.00	60.56	C	ATOM	45623	N	VAL	L	110	174.848	81.061	21.532	1.00	66.34	N
ATOM	45574	NE	ARG	L	102	175.159	79.827	17.824	1.00	60.56	N	ATOM	45624	CA	VAL	L	110	176.071	81.754	21.915	1.00	66.34	C
ATOM	45575	CZ	ARG	L	102	176.394	79.746	18.293	1.00	60.56	C	ATOM	45625	C	VAL	L	110	176.318	81.691	23.421	1.00	66.34	C
ATOM	45576	NH1	ARG	L	102	177.289	80.644	17.914	1.00	60.56	N	ATOM	45626	O	VAL	L	110	175.406	81.883	24.218	1.00	66.34	O
ATOM	45577	NH2	ARG	L	102	176.728	78.795	19.151	1.00	60.56	N	ATOM	45627	CB	VAL	L	110	176.028	83.222	21.480	1.00	53.52	C
ATOM	45578	N	GLY	L	103	170.555	77.841	18.874	1.00	61.59	N	ATOM	45628	CG1	VAL	L	110	177.264	83.965	22.000	1.00	53.52	C
ATOM	45579	CA	GLY	L	103	169.620	77.499	19.918	1.00	61.59	C	ATOM	45629	CG2	VAL	L	110	175.948	83.290	19.968	1.00	53.52	C
ATOM	45580	C	GLY	L	103	168.680	76.412	19.452	1.00	61.59	C	ATOM	45630	N	LYS	L	111	177.556	81.419	23.809	1.00	101.48	N
ATOM	45581	O	GLY	L	103	167.772	76.007	20.189	1.00	61.59	O	ATOM	45631	CA	LYS	L	111	177.886	81.333	25.222	1.00	101.48	C
ATOM	45582	N	VAL	L	104	168.878	75.945	18.223	1.00	55.41	N	ATOM	45632	C	LYS	L	111	178.251	82.710	25.745	1.00	101.48	C
ATOM	45583	CA	VAL	L	104	168.042	74.878	17.685	1.00	55.41	C	ATOM	45633	O	LYS	L	111	178.951	83.461	25.069	1.00	101.48	O
ATOM	45584	C	VAL	L	104	168.909	73.736	17.173	1.00	55.41	C	ATOM	45634	CB	LYS	L	111	179.051	80.361	25.430	1.00	156.12	C
ATOM	45585	O	VAL	L	104	169.917	73.963	16.501	1.00	55.41	O	ATOM	45635	CG	LYS	L	111	178.748	78.946	24.952	1.00	156.12	C
ATOM	45586	CB	VAL	L	104	167.116	75.381	16.539	1.00	36.47	C	ATOM	45636	CD	LYS	L	111	179.943	78.015	25.105	1.00	156.12	C
ATOM	45587	CG1	VAL	L	104	166.433	74.202	15.867	1.00	36.47	C	ATOM	45637	CE	LYS	L	111	179.631	76.627	24.555	1.00	156.12	C
ATOM	45588	CG2	VAL	L	104	166.049	76.320	17.099	1.00	36.47	C	ATOM	45638	NZ	LYS	L	111	180.807	75.714	24.617	1.00	156.12	N
ATOM	45589	N	TYR	L	105	168.509	72.511	17.501	1.00	56.46	N	ATOM	45639	N	ASP	L	112	177.754	83.042	26.937	1.00	79.05	N
ATOM	45590	CA	TYR	L	105	169.239	71.320	17.091	1.00	56.46	C	ATOM	45640	CA	ASP	L	112	178.032	84.329	27.576	1.00	79.05	C
ATOM	45591	C	TYR	L	105	170.653	71.327	17.651	1.00	56.46	C	ATOM	45641	C	ASP	L	112	177.196	85.492	27.059	1.00	79.05	C
ATOM	45592	O	TYR	L	105	170.879	71.799	18.766	1.00	56.46	O	ATOM	45642	O	ASP	L	112	177.212	86.574	27.641	1.00	79.05	O
ATOM	45593	CB	TYR	L	105	169.250	71.212	15.564	1.00	47.37	C	ATOM	45643	CB	ASP	L	112	179.516	84.687	27.438	1.00	117.98	C
ATOM	45594	CG	TYR	L	105	167.850	71.096	14.986	1.00	47.37	C	ATOM	45644	CG	ASP	L	112	180.405	83.840	28.321	1.00	117.98	C
ATOM	45595	CD1	TYR	L	105	167.521	71.669	13.749	1.00	47.37	C	ATOM	45645	OD1	ASP	L	112	181.642	83.903	28.151	1.00	117.98	O
ATOM	45596	CD2	TYR	L	105	166.841	70.448	15.699	1.00	47.37	C	ATOM	45646	OD2	ASP	L	112	179.868	83.120	29.190	1.00	117.98	O
ATOM	45597	CE1	TYR	L	105	166.223	71.602	13.251	1.00	47.37	C	ATOM	45647	N	ARG	L	113	176.476	85.277	25.964	1.00	74.00	N
ATOM	45598	CE2	TYR	L	105	165.550	70.378	15.211	1.00	47.37	C	ATOM	45648	CA	ARG	L	113	175.635	86.323	25.383	1.00	74.00	C
ATOM	45599	CZ	TYR	L	105	165.245	70.956	13.996	1.00	47.37	C	ATOM	45649	C	ARG	L	113	174.726	86.922	26.442	1.00	74.00	C
ATOM	45600	OH	TYR	L	105	163.945	70.915	13.557	1.00	47.37	O	ATOM	45650	O	ARG	L	113	173.965	86.205	27.085	1.00	74.00	O
ATOM	45601	N	ASP	L	106	171.610	70.823	16.884	1.00	60.45	N	ATOM	45651	CB	ARG	L	113	174.782	85.736	24.263	1.00	65.51	C
ATOM	45602	CA	ASP	L	106	172.983	70.748	17.362	1.00	60.45	C	ATOM	45652	CG	ARG	L	113	175.074	86.318	22.912	1.00	65.51	C
ATOM	45603	C	ASP	L	106	173.749	72.069	17.357	1.00	60.45	C	ATOM	45653	CD	ARG	L	113	174.639	87.746	22.839	1.00	65.51	C
ATOM	45604	O	ASP	L	106	174.955	72.105	17.611	1.00	60.45	O	ATOM	45654	NE	ARG	L	113	175.190	88.380	21.654	1.00	65.51	N
ATOM	45605	CB	ASP	L	106	173.729	69.677	16.570	1.00	82.08	C	ATOM	45655	CZ	ARG	L	113	174.823	89.576	21.217	1.00	65.51	C
ATOM	45606	CG	ASP	L	106	173.061	68.315	16.675	1.00	82.08	C	ATOM	45656	NH1	ARG	L	113	173.893	90.266	21.875	1.00	65.51	N
ATOM	45607	OD1	ASP	L	106	173.508	67.364	16.000	1.00	82.08	O	ATOM	45657	NH2	ARG	L	113	175.388	90.082	20.129	1.00	65.51	N
ATOM	45608	OD2	ASP	L	106	172.080	68.195	17.440	1.00	82.08	O	ATOM	45658	N	LYS	L	114	174.795	88.234	26.625	1.00	68.74	N
ATOM	45609	N	ALA	L	107	173.042	73.155	17.079	1.00	57.70	N	ATOM	45659	CA	LYS	L	114	173.956	88.869	27.630	1.00	68.74	C
ATOM	45610	CA	ALA	L	107	173.657	74.475	17.071	1.00	57.70	C	ATOM	45660	C	LYS	L	114	172.940	89.864	27.090	1.00	68.74	C
ATOM	45611	C	ALA	L	107	173.447	75.115	18.443	1.00	57.70	C	ATOM	45661	O	LYS	L	114	172.014	90.233	27.801	1.00	68.74	O
ATOM	45612	O	ALA	L	107	172.367	75.615	18.757	1.00	57.70	O	ATOM	45662	CB	LYS	L	114	174.823	89.544	28.690	1.00	112.23	C
ATOM	45613	CB	ALA	L	107	173.032	75.334	15.986	1.00	58.29	C	ATOM	45663	CG	LYS	L	114	175.704	88.565	29.430	1.00	112.23	C
ATOM	45614	N	ALA	L	108	174.484	75.080	19.268	1.00	53.25	N	ATOM	45664	CD	LYS	L	114	176.355	89.204	30.635	1.00	112.23	C
ATOM	45615	CA	ALA	L	108	174.403	75.650	20.601	1.00	53.25	C	ATOM	45665	CE	LYS	L	114	175.352	89.424	31.752	1.00	112.23	C



Table 2: Sheet 458/520

ATOM	45666	NZ	LYS L 114	175.969	90.138	32.908	1.00112.23	N	ATOM	45716	CEL TYR L 120	173.315	88.184	18.608	1.00	48.59	C
ATOM	45667	N	LYS L 115	173.085	90.280	25.836	1.00 93.01	N	ATOM	45717	CE2 TYR L 120	173.957	86.500	17.020	1.00	48.59	C
ATOM	45668	CA	LYS L 115	172.152	91.247	25.273	1.00 93.01	C	ATOM	45718	CZ TYR L 120	173.845	87.831	17.373	1.00	48.59	C
ATOM	45669	C	LYS L 115	171.060	90.699	24.375	1.00 93.01	C	ATOM	45719	OH TYR L 120	174.229	88.798	16.469	1.00	48.59	O
ATOM	45670	O	LYS L 115	170.143	90.025	24.843	1.00 93.01	O	ATOM	45720	N GLY L 121	169.863	82.535	20.470	1.00	57.10	N
ATOM	45671	CB	LYS L 115	172.919	92.326	24.536	1.00 66.24	C	ATOM	45721	CA GLY L 121	169.229	81.623	21.404	1.00	57.10	C
ATOM	45672	CG	LYS L 115	173.865	93.052	25.448	1.00 66.24	C	ATOM	45722	C GLY L 121	169.897	81.259	22.718	1.00	57.10	C
ATOM	45673	CD	LYS L 115	173.767	94.559	25.310	1.00 66.24	C	ATOM	45723	O GLY L 121	170.054	80.080	23.012	1.00	57.10	O
ATOM	45674	CE	LYS L 115	174.784	95.249	26.207	1.00 66.24	C	ATOM	45724	N THR L 122	170.286	82.243	23.519	1.00	48.90	N
ATOM	45675	NZ	LYS L 115	174.651	96.727	26.110	1.00 66.24	N	ATOM	45725	CA THR L 122	170.895	81.928	24.806	1.00	48.90	C
ATOM	45676	N	SER L 116	171.141	91.014	23.089	1.00 45.85	N	ATOM	45726	C THR L 122	169.882	82.258	25.900	1.00	48.90	C
ATOM	45677	CA	SER L 116	170.142	90.558	22.127	1.00 45.85	C	ATOM	45727	O THR L 122	169.382	83.390	25.982	1.00	48.90	O
ATOM	45678	C	SER L 116	170.200	89.033	22.051	1.00 45.85	C	ATOM	45728	CB THR L 122	172.185	82.729	25.046	1.00	60.55	C
ATOM	45679	O	SER L 116	170.615	88.486	21.027	1.00 45.85	O	ATOM	45729	OG1 THR L 122	171.864	84.018	25.573	1.00	60.55	O
ATOM	45680	CB	SER L 116	170.454	91.149	20.756	1.00 45.85	C	ATOM	45730	CG2 THR L 122	172.939	82.905	23.749	1.00	60.55	C
ATOM	45681	OG	SER L 116	170.806	92.516	20.863	1.00 99.29	O	ATOM	45731	N LYS L 123	169.566	81.259	26.724	1.00	53.16	N
ATOM	45682	N	ARG L 117	169.771	88.362	23.125	1.00 46.19	N	ATOM	45732	CA LYS L 123	168.595	81.423	27.806	1.00	53.16	C
ATOM	45683	CA	ARG L 117	169.829	86.904	23.222	1.00 46.19	C	ATOM	45733	C LYS L 123	168.963	82.584	28.727	1.00	53.16	C
ATOM	45684	C	ARG L 117	168.711	86.171	22.527	1.00 46.19	C	ATOM	45734	O LYS L 123	170.123	83.014	28.784	1.00	53.16	O
ATOM	45685	O	ARG L 117	168.876	84.993	22.198	1.00 46.19	O	ATOM	45735	CB LYS L 123	168.524	80.151	28.641	1.00	57.63	C
ATOM	45686	CB	ARG L 117	169.843	86.437	24.681	1.00 54.49	C	ATOM	45736	CG LYS L 123	168.474	78.870	27.845	1.00	57.63	C
ATOM	45687	CG	ARG L 117	170.697	87.239	25.650	1.00 54.49	C	ATOM	45737	CD LYS L 123	167.057	78.433	27.546	1.00	57.63	C
ATOM	45688	CD	ARG L 117	170.622	86.624	27.042	1.00 54.49	C	ATOM	45738	CE LYS L 123	167.057	77.044	26.921	1.00	57.63	C
ATOM	45689	NE	ARG L 117	169.315	86.009	27.276	1.00 54.49	N	ATOM	45739	NZ LYS L 123	165.723	76.647	26.393	1.00	57.63	N
ATOM	45690	CZ	ARG L 117	168.315	86.571	27.951	1.00 54.49	C	ATOM	45740	N LYS L 124	167.976	83.086	29.458	1.00	70.04	N
ATOM	45691	NH1	ARG L 117	168.452	87.777	28.492	1.00 54.49	N	ATOM	45741	CA LYS L 124	168.230	84.181	30.379	1.00	70.04	C
ATOM	45692	NH2	ARG L 117	167.161	85.930	28.058	1.00 54.49	N	ATOM	45742	C LYS L 124	169.133	83.717	31.520	1.00	70.04	C
ATOM	45693	N	SER L 118	167.570	86.836	22.340	1.00 48.18	N	ATOM	45743	O LYS L 124	168.912	82.655	32.110	1.00	70.04	O
ATOM	45694	CA	SER L 118	166.425	86.218	21.671	1.00 48.18	C	ATOM	45744	CB LYS L 124	166.922	84.708	30.962	1.00	63.06	C
ATOM	45695	C	SER L 118	167.031	85.607	20.423	1.00 48.18	C	ATOM	45745	CG LYS L 124	167.145	85.546	32.204	1.00	63.06	C
ATOM	45696	O	SER L 118	166.741	84.473	20.055	1.00 48.18	O	ATOM	45746	CD LYS L 124	166.896	87.011	31.973	1.00	63.06	C
ATOM	45697	CB	SER L 118	165.390	87.284	21.308	1.00 80.08	C	ATOM	45747	CE LYS L 124	165.426	87.319	32.141	1.00	63.06	C
ATOM	45698	OG	SER L 118	164.334	86.755	20.539	1.00 80.08	O	ATOM	45748	NZ LYS L 124	165.204	88.781	32.279	1.00	63.06	N
ATOM	45699	N	LYS L 119	167.890	86.386	19.783	1.00 76.37	N	ATOM	45749	N PRO L 125	170.159	84.516	31.853	1.00	77.93	N
ATOM	45700	CA	LYS L 119	168.617	85.955	18.607	1.00 76.37	C	ATOM	45750	CA PRO L 125	171.095	84.187	32.928	1.00	77.93	C
ATOM	45701	C	LYS L 119	169.835	85.370	19.299	1.00 76.37	C	ATOM	45751	C PRO L 125	170.321	84.108	34.225	1.00	77.93	C
ATOM	45702	O	LYS L 119	170.186	85.843	20.369	1.00 76.37	O	ATOM	45752	O PRO L 125	169.343	84.833	34.403	1.00	77.93	O
ATOM	45703	CB	LYS L 119	169.001	87.179	17.807	1.00 49.06	C	ATOM	45753	CB PRO L 125	172.052	85.368	32.925	1.00	55.60	C
ATOM	45704	CG	LYS L 119	167.902	88.225	17.794	1.00 49.06	C	ATOM	45754	CG PRO L 125	171.970	85.882	31.544	1.00	55.60	C
ATOM	45705	CD	LYS L 119	168.358	89.495	17.107	1.00 49.06	C	ATOM	45755	CD PRO L 125	170.501	85.817	31.267	1.00	55.60	C
ATOM	45706	CE	LYS L 119	167.197	90.438	16.876	1.00 49.06	C	ATOM	45756	N LYS L 126	170.756	83.242	35.135	1.00	116.40	N
ATOM	45707	NZ	LYS L 119	167.610	91.629	16.094	1.00 49.06	N	ATOM	45757	CA LYS L 126	170.060	83.094	36.403	1.00	116.40	C
ATOM	45708	N	TYR L 120	170.486	84.364	18.728	1.00 59.23	N	ATOM	45758	C LYS L 126	170.510	84.079	37.469	1.00	116.40	C
ATOM	45709	CA	TYR L 120	171.646	83.740	19.396	1.00 59.23	C	ATOM	45759	O LYS L 126	170.909	83.690	38.564	1.00	116.40	O
ATOM	45710	C	TYR L 120	171.169	82.765	20.460	1.00 59.23	C	ATOM	45760	CB LYS L 126	170.188	81.658	36.910	1.00	160.09	C
ATOM	45711	O	TYR L 120	171.956	82.256	21.246	1.00 59.23	O	ATOM	45761	CG LYS L 126	169.447	80.663	36.035	1.00	160.09	C
ATOM	45712	CB	TYR L 120	172.535	84.783	20.071	1.00 48.59	C	ATOM	45762	CD LYS L 126	169.497	79.258	36.597	1.00	160.09	C
ATOM	45713	CG	TYR L 120	172.998	85.853	19.136	1.00 48.59	C	ATOM	45763	CE LYS L 126	168.714	78.302	35.710	1.00	160.09	C
ATOM	45714	CD1	TYR L 120	172.897	87.193	19.479	1.00 48.59	C	ATOM	45764	N2 LYS L 126	168.734	76.907	36.230	1.00	160.09	N
ATOM	45715	CD2	TYR L 120	173.532	85.523	17.901	1.00 48.59	C	ATOM	45765	N GLU L 127	170.444	85.363	37.131	1.00	151.60	N



Table 2: Sheet 459/520

ATOM	45766	CA	GLU L 127	170.800	86.419	38.067	1.00151.60	C	ATOM	45816	C	GLY M 6	275.415	107.790	-2.736	1.00127.55	C
ATOM	45767	C	GLU L 127	169.648	86.467	39.056	1.00151.60	C	ATOM	45817	O	GLY M 6	274.230	107.898	-3.049	1.00127.55	O
ATOM	45768	O	GLU L 127	169.832	86.761	40.236	1.00151.60	O	ATOM	45818	N	VAL M 7	276.378	107.514	-3.613	1.00116.64	N
ATOM	45769	CB	GLU L 127	170.902	87.768	37.354	1.00200.58	C	ATOM	45819	CA	VAL M 7	276.124	107.315	-5.039	1.00116.64	C
ATOM	45770	CG	GLU L 127	171.911	87.820	36.224	1.00200.58	C	ATOM	45820	C	VAL M 7	275.251	108.431	-5.620	1.00116.64	C
ATOM	45771	CD	GLU L 127	171.988	89.194	35.584	1.00200.58	C	ATOM	45821	O	VAL M 7	274.620	108.264	-6.666	1.00116.64	O
ATOM	45772	OE1	GLU L 127	170.946	89.681	35.095	1.00200.58	O	ATOM	45822	CB	VAL M 7	275.459	105.930	-5.317	1.00124.83	C
ATOM	45773	OE2	GLU L 127	173.088	89.787	35.571	1.00200.58	O	ATOM	45823	CG1	VAL M 7	276.191	104.840	-4.542	1.00124.83	C
ATOM	45774	N	ALA L 128	168.456	86.170	38.546	1.00185.90	N	ATOM	45824	CG2	VAL M 7	273.979	105.954	-4.960	1.00124.83	C
ATOM	45775	CA	ALA L 128	167.239	86.157	39.344	1.00185.90	C	ATOM	45825	N	GLU M 8	275.228	109.570	-5.357	1.00 88.11	N
ATOM	45776	C	ALA L 128	167.397	85.177	40.499	1.00185.90	C	ATOM	45826	CA	GLU M 8	274.450	110.731	-5.357	1.00 88.11	C
ATOM	45777	O	ALA L 128	166.605	85.176	41.444	1.00185.90	O	ATOM	45827	C	GLU M 8	275.203	111.466	-6.440	1.00 88.11	C
ATOM	45778	CB	ALA L 128	166.058	85.756	38.476	1.00104.81	C	ATOM	45828	O	GLU M 8	276.428	111.484	-6.433	1.00 88.11	O
ATOM	45779	N	ALA L 129	168.426	84.339	40.408	1.00192.84	N	ATOM	45829	CB	GLU M 8	274.215	111.675	-4.180	1.00200.58	C
ATOM	45780	CA	ALA L 129	168.715	83.353	41.441	1.00192.84	C	ATOM	45830	CG	GLU M 8	272.946	111.389	-3.411	1.00200.58	C
ATOM	45781	C	ALA L 129	169.407	84.035	42.622	1.00192.84	C	ATOM	45831	CD	GLU M 8	271.710	111.630	-4.249	1.00200.58	C
ATOM	45782	O	ALA L 129	170.606	83.758	42.850	1.00192.84	O	ATOM	45832	OE1	GLU M 8	271.560	112.758	-4.764	1.00200.58	O
ATOM	45783	CB	ALA L 129	169.603	82.238	40.873	1.00 93.76	C	ATOM	45833	OE2	GLU M 8	270.892	110.697	-4.393	1.00200.58	O
TER	45784		ALA L 129						ATOM	45834	N	ILE M 9	274.473	112.070	-7.373	1.00 94.81	N
ATOM	45785	N	ALA M 2	278.069	115.897	-9.897	1.00 91.22	N	ATOM	45835	CA	ILE M 9	275.101	112.803	-8.469	1.00 94.81	C
ATOM	45786	CA	ALA M 2	279.152	115.764	-8.885	1.00 91.22	C	ATOM	45836	C	ILE M 9	274.165	113.833	-9.105	1.00 94.81	C
ATOM	45787	C	ALA M 2	278.739	114.820	-7.766	1.00 91.22	C	ATOM	45837	O	ILE M 9	273.450	113.527	-10.054	1.00 94.81	O
ATOM	45788	O	ALA M 2	277.920	115.181	-6.928	1.00 91.22	O	ATOM	45838	CB	ILE M 9	275.589	111.845	-9.596	1.00 70.78	C
ATOM	45789	CB	ALA M 2	279.478	117.129	-8.305	1.00 61.44	C	ATOM	45839	CG1	ILE M 9	275.441	110.371	-9.176	1.00 70.78	C
ATOM	45790	N	ARG M 3	279.299	113.615	-7.748	1.00 86.41	N	ATOM	45840	CG2	ILE M 9	277.039	112.161	-9.939	1.00 70.78	C
ATOM	45791	CA	ARG M 3	278.969	112.656	-6.700	1.00 86.41	C	ATOM	45841	CD1	ILE M 9	274.010	109.824	-9.207	1.00 70.78	C
ATOM	45792	C	ARG M 3	279.192	113.258	-5.317	1.00 86.41	C	ATOM	45842	N	PRO M 10	274.158	115.069	-8.588	1.00 92.20	N
ATOM	45793	O	ARG M 3	280.311	113.236	-4.812	1.00 86.41	O	ATOM	45843	CA	PRO M 10	273.299	116.131	-9.127	1.00 92.20	C
ATOM	45794	CB	ARG M 3	279.825	111.397	-6.829	1.00174.99	C	ATOM	45844	C	PRO M 10	273.987	116.786	-10.324	1.00 92.20	C
ATOM	45795	CG	ARG M 3	279.195	110.293	-7.640	1.00174.99	C	ATOM	45845	O	PRO M 10	275.199	116.636	-10.467	1.00 92.20	O
ATOM	45796	CD	ARG M 3	279.650	108.954	-7.103	1.00174.99	C	ATOM	45846	CB	PRO M 10	273.186	117.083	-7.945	1.00 78.24	C
ATOM	45797	NE	ARG M 3	278.947	107.837	-7.721	1.00174.99	N	ATOM	45847	CG	PRO M 10	274.574	117.020	-7.358	1.00 78.24	C
ATOM	45798	CZ	ARG M 3	279.000	106.590	-7.267	1.00174.99	C	ATOM	45848	CD	PRO M 10	274.842	115.522	-7.360	1.00 78.24	C
ATOM	45799	NH1	ARG M 3	279.723	106.305	-6.191	1.00174.99	N	ATOM	45849	N	ARG M 11	273.255	117.502	-11.182	1.00 96.10	N
ATOM	45800	NH2	ARG M 3	278.336	105.627	-7.887	1.00174.99	N	ATOM	45850	CA	ARG M 11	273.936	118.153	-12.308	1.00 96.10	C
ATOM	45801	N	ILE M 4	278.137	113.781	-4.696	1.00114.35	N	ATOM	45851	C	ARG M 11	273.164	119.166	-13.149	1.00 96.10	C
ATOM	45802	CA	ILE M 4	278.280	114.384	-3.376	1.00114.35	C	ATOM	45852	O	ARG M 11	271.940	119.272	-13.048	1.00 96.10	O
ATOM	45803	C	ILE M 4	277.768	113.535	-2.220	1.00114.35	C	ATOM	45853	CB	ARG M 11	274.526	117.099	-13.249	1.00125.58	C
ATOM	45804	O	ILE M 4	278.200	113.714	-1.082	1.00114.35	O	ATOM	45854	CG	ARG M 11	275.570	117.660	-14.204	1.00125.58	C
ATOM	45805	CB	ILE M 4	277.623	115.785	-3.324	1.00 63.93	C	ATOM	45855	CD	ARG M 11	276.253	116.561	-14.995	1.00125.58	C
ATOM	45806	CG1	ILE M 4	278.519	116.789	-4.060	1.00 63.93	C	ATOM	45856	CE	ARG M 11	277.469	117.033	-15.655	1.00125.58	N
ATOM	45807	CG2	ILE M 4	277.417	116.231	-1.880	1.00 63.93	C	ATOM	45857	NZ	ARG M 11	277.500	117.962	-16.605	1.00125.58	N
ATOM	45808	CD1	ILE M 4	278.080	118.236	-3.949	1.00 63.93	C	ATOM	45858	NH1	ARG M 11	276.375	118.531	-17.019	1.00125.58	N
ATOM	45809	N	ALA M 5	276.859	112.610	-2.494	1.00 60.99	N	ATOM	45859	NH2	ARG M 11	278.659	118.326	-17.141	1.00125.58	N
ATOM	45810	CA	ALA M 5	276.354	111.749	-1.423	1.00 60.99	C	ATOM	45860	N	ASN M 12	273.919	119.911	-13.966	1.00 62.90	N
ATOM	45811	C	ALA M 5	276.315	110.289	-1.859	1.00 60.99	C	ATOM	45861	CA	ASN M 12	273.399	120.924	-14.896	1.00 62.90	C
ATOM	45812	O	ALA M 5	276.649	109.977	-3.001	1.00 60.99	O	ATOM	45862	C	ASN M 12	272.362	121.947	-14.377	1.00 62.90	C
ATOM	45813	CB	ALA M 5	274.973	112.207	-0.991	1.00170.11	C	ATOM	45863	O	ASN M 12	271.823	122.742	-15.155	1.00 62.90	O
ATOM	45814	N	GLY M 6	275.919	109.399	-0.954	1.00127.55	N	ATOM	45864	CB	ASN M 12	272.825	120.219	-16.125	1.00106.36	C
ATOM	45815	CA	GLY M 6	275.852	107.987	-1.295	1.00127.55	C	ATOM	45865	CG	ASN M 12	273.119	120.960	-17.411	1.00106.36	C



ATOM	45866	OD1	ASN	M	12	272.894	122.166	-17.515	1.00106.36	O	ATOM	45916	CA	LEU	M	19	271.636	119.067	-3.504	1.00	79.81	C	
ATOM	45867	ND2	ASN	M	12	273.620	120.237	-18.405	1.00106.36	N	ATOM	45917	C	LEU	M	19	270.340	118.472	-2.967	1.00	79.81	C	
ATOM	45868	N	LYS	M	13	272.080	121.935	-13.078	1.00	85.92	N	ATOM	45918	O	LEU	M	19	270.348	117.569	-2.122	1.00	79.81	C
ATOM	45869	CA	LYS	M	13	271.122	122.876	-12.504	1.00	85.92	C	ATOM	45919	CB	LEU	M	19	272.250	120.016	-2.475	1.00	62.73	C
ATOM	45870	C	LYS	M	13	271.843	123.636	-11.403	1.00	85.92	C	ATOM	45920	CG	LEU	M	19	273.692	120.423	-2.779	1.00	62.73	C
ATOM	45871	O	LYS	M	13	272.982	123.310	-11.082	1.00	85.92	O	ATOM	45921	CD1	LEU	M	19	274.091	121.650	-1.965	1.00	62.73	C
ATOM	45872	CB	LYS	M	13	269.942	122.124	-11.889	1.00	88.41	C	ATOM	45922	CD2	LEU	M	19	274.595	119.244	-2.479	1.00	62.73	C
ATOM	45873	CG	LYS	M	13	269.399	120.993	-12.747	1.00	88.41	C	ATOM	45923	N	THR	M	20	269.229	118.994	-3.483	1.00	82.35	N
ATOM	45874	CD	LYS	M	13	268.302	120.210	-12.029	1.00	88.41	C	ATOM	45924	CA	THR	M	20	267.892	118.560	-3.101	1.00	82.35	C
ATOM	45875	CE	LYS	M	13	267.021	121.016	-11.901	1.00	88.41	C	ATOM	45925	C	THR	M	20	267.704	117.116	-3.522	1.00	82.35	C
ATOM	45876	NZ	LYS	M	13	266.392	121.279	-13.224	1.00	88.41	N	ATOM	45926	O	THR	M	20	266.976	116.355	-2.881	1.00	82.35	C
ATOM	45877	N	ARG	M	14	271.202	124.654	-10.834	1.00	53.50	N	ATOM	45927	CB	THR	M	20	266.817	119.404	-3.810	1.00	100.95	C
ATOM	45878	CA	ARG	M	14	271.815	125.383	-9.728	1.00	53.50	C	ATOM	45928	OG1	THR	M	20	266.981	120.783	-3.464	1.00	100.95	C
ATOM	45879	C	ARG	M	14	272.125	124.320	-8.663	1.00	53.50	C	ATOM	45929	CG2	THR	M	20	265.433	118.954	-3.400	1.00	100.95	C
ATOM	45880	O	ARG	M	14	271.461	123.289	-8.612	1.00	53.50	O	ATOM	45930	N	TYR	M	21	268.384	116.752	-4.603	1.00	46.15	N
ATOM	45881	CB	ARG	M	14	270.838	126.419	-9.174	1.00	69.43	C	ATOM	45931	CA	TYR	M	21	268.298	115.415	-5.164	1.00	46.15	C
ATOM	45882	CG	ARG	M	14	270.572	127.566	-10.129	1.00	69.43	C	ATOM	45932	C	TYR	M	21	268.918	114.315	-4.343	1.00	46.15	C
ATOM	45883	CD	ARG	M	14	269.355	128.383	-9.716	1.00	69.43	C	ATOM	45933	O	TYR	M	21	268.964	113.176	-4.789	1.00	46.15	C
ATOM	45884	NE	ARG	M	14	269.659	129.742	-9.256	1.00	69.43	N	ATOM	45934	CB	TYR	M	21	268.892	115.388	-6.569	1.00	74.15	C
ATOM	45885	CZ	ARG	M	14	269.913	130.077	-7.992	1.00	69.43	C	ATOM	45935	CG	TYR	M	21	268.040	116.110	-7.575	1.00	74.15	C
ATOM	45886	NH1	ARG	M	14	269.913	129.155	-7.037	1.00	69.43	N	ATOM	45936	CD1	TYR	M	21	267.793	117.473	-7.449	1.00	74.15	C
ATOM	45887	NH2	ARG	M	14	270.139	131.349	-7.680	1.00	69.43	N	ATOM	45937	CD2	TYR	M	21	267.460	115.426	-8.638	1.00	74.15	C
ATOM	45888	N	VAL	M	15	273.129	124.550	-7.825	1.00	75.43	N	ATOM	45938	CE1	TYR	M	21	266.989	118.139	-8.353	1.00	74.15	C
ATOM	45889	CA	VAL	M	15	273.493	123.570	-6.803	1.00	75.43	C	ATOM	45939	CE2	TYR	M	21	266.651	116.079	-9.555	1.00	74.15	C
ATOM	45890	C	VAL	M	15	272.490	123.494	-5.656	1.00	75.43	C	ATOM	45940	CZ	TYR	M	21	266.416	117.441	-9.409	1.00	74.15	C
ATOM	45891	O	VAL	M	15	272.185	122.406	-5.153	1.00	75.43	O	ATOM	45941	OH	TYR	M	21	265.605	118.104	-10.311	1.00	74.15	O
ATOM	45892	CB	VAL	M	15	274.877	123.881	-6.218	1.00	67.01	C	ATOM	45942	N	ILE	M	22	269.397	114.634	-3.149	1.00	68.21	N
ATOM	45893	CG1	VAL	M	15	275.321	122.763	-5.281	1.00	67.01	C	ATOM	45943	CA	ILE	M	22	269.980	113.615	-2.288	1.00	68.21	C
ATOM	45894	CG2	VAL	M	15	275.862	124.060	-7.340	1.00	67.01	C	ATOM	45944	C	ILE	M	22	268.871	113.193	-1.324	1.00	68.21	C
ATOM	45895	N	ASP	M	16	271.985	124.654	-5.248	1.00	102.34	N	ATOM	45945	O	ILE	M	22	268.146	114.045	-0.798	1.00	68.21	O
ATOM	45896	CA	ASP	M	16	271.018	124.749	-4.159	1.00	102.34	C	ATOM	45946	CB	ILE	M	22	271.177	114.181	-1.531	1.00	66.36	C
ATOM	45897	C	ASP	M	16	269.723	124.030	-4.511	1.00	102.34	C	ATOM	45947	CG1	ILE	M	22	272.168	114.771	-2.542	1.00	66.36	C
ATOM	45898	O	ASP	M	16	268.817	123.908	-3.684	1.00	102.34	O	ATOM	45948	CG2	ILE	M	22	271.806	113.094	-0.678	1.00	66.36	C
ATOM	45899	CB	ASP	M	16	270.723	126.213	-3.867	1.00	82.27	C	ATOM	45949	CD1	ILE	M	22	273.367	115.453	-1.937	1.00	66.36	C
ATOM	45900	CG	ASP	M	16	270.096	126.919	-5.045	1.00	82.27	C	ATOM	45950	N	TYR	M	23	268.728	111.890	-1.092	1.00	105.60	N
ATOM	45901	OD1	ASP	M	16	270.294	126.455	-6.189	1.00	82.27	O	ATOM	45951	CA	TYR	M	23	267.654	111.401	-0.234	1.00	105.60	C
ATOM	45902	OD2	ASP	M	16	269.417	127.944	-4.831	1.00	82.27	O	ATOM	45952	C	TYR	M	23	267.496	112.076	1.118	1.00	105.60	C
ATOM	45903	N	VAL	M	17	269.644	123.566	-5.751	1.00	72.66	N	ATOM	45953	O	TYR	M	23	266.411	112.054	1.689	1.00	105.60	O
ATOM	45904	CA	VAL	M	17	268.477	122.849	-6.236	1.00	72.66	C	ATOM	45954	CB	TYR	M	23	267.749	109.892	-0.011	1.00	84.17	C
ATOM	45905	C	VAL	M	17	268.875	121.411	-6.471	1.00	72.66	C	ATOM	45955	CG	TYR	M	23	266.550	109.375	0.753	1.00	84.17	C
ATOM	45906	O	VAL	M	17	268.062	120.494	-6.361	1.00	72.66	O	ATOM	45956	CD1	TYR	M	23	265.263	109.531	0.242	1.00	84.17	C
ATOM	45907	CB	VAL	M	17	267.994	123.411	-7.571	1.00	74.04	C	ATOM	45957	CD2	TYR	M	23	266.687	108.811	2.022	1.00	84.17	C
ATOM	45908	CG1	VAL	M	17	266.930	122.517	-8.144	1.00	74.04	C	ATOM	45958	CE1	TYR	M	23	264.139	109.145	0.976	1.00	84.17	C
ATOM	45909	CG2	VAL	M	17	267.458	124.812	-7.382	1.00	74.04	C	ATOM	45959	CE2	TYR	M	23	265.564	108.422	2.766	1.00	84.17	C
ATOM	45910	N	ALA	M	18	270.145	121.229	-6.797	1.00	55.47	N	ATOM	45960	CZ	TYR	M	23	264.296	108.594	2.235	1.00	84.17	C
ATOM	45911	CA	ALA	M	18	270.688	119.912	-7.082	1.00	55.47	C	ATOM	45961	OH	TYR	M	23	263.182	108.226	2.956	1.00	84.17	O
ATOM	45912	C	ALA	M	18	270.981	119.109	-5.824	1.00	55.47	C	ATOM	45962	N	GLY	M	24	268.556	112.672	1.644	1.00	55.89	N
ATOM	45913	O	ALA	M	18	270.878	117.889	-5.835	1.00	55.47	O	ATOM	45963	CA	GLY	M	24	268.418	113.332	2.930	1.00	55.89	C
ATOM	45914	CB	ALA	M	18	271.949	120.052	-7.935	1.00	30.28	C	ATOM	45964	C	GLY	M	24	268.473	114.853	2.890	1.00	55.89	C
ATOM	45915	N	LEU	M	19	271.351	119.781	-4.743	1.00	79.81	N	ATOM	45965	O	GLY	M	24	268.442	115.497	3.936	1.00	55.89	O



Table 2: Sheet 461/520

ATOM	45966	N	ILE M	25	268.535	115.447	1.702	1.00	96.63	N	ATOM	46016	NZ	LYS M	31	265.109	128.871	0.085	1.00	178.20	N
ATOM	45967	CA	ILE M	25	268.627	116.902	1.618	1.00	96.63	C	ATOM	46017	N	GLU M	32	271.797	125.554	3.521	1.00	88.63	N
ATOM	45968	C	ILE M	25	267.533	117.593	0.818	1.00	96.63	C	ATOM	46018	CA	GLU M	32	272.700	125.591	4.659	1.00	88.63	C
ATOM	45969	O	ILE M	25	266.951	117.017	-0.108	1.00	96.63	O	ATOM	46019	C	GLU M	32	274.119	125.234	4.228	1.00	88.63	C
ATOM	45970	CB	ILE M	25	269.976	117.322	1.018	1.00	70.83	C	ATOM	46020	O	GLU M	32	275.041	126.024	4.403	1.00	88.63	O
ATOM	45971	CG1	ILE M	25	271.079	116.438	1.584	1.00	70.83	C	ATOM	46021	CB	GLU M	32	272.229	124.610	5.732	1.00	135.59	C
ATOM	45972	CG2	ILE M	25	270.278	118.774	1.368	1.00	70.83	C	ATOM	46022	CG	GLU M	32	272.827	124.859	7.102	1.00	135.59	C
ATOM	45973	CD1	ILE M	25	272.412	116.689	0.965	1.00	70.83	C	ATOM	46023	CD	GLU M	32	272.394	123.823	8.117	1.00	135.59	C
ATOM	45974	N	GLY M	26	267.270	118.844	1.190	1.00	63.11	N	ATOM	46024	OE1	GLU M	32	272.937	122.700	8.089	1.00	135.59	O
ATOM	45975	CA	GLY M	26	266.271	119.641	0.504	1.00	63.11	C	ATOM	46025	OE2	GLU M	32	271.500	124.125	8.937	1.00	135.59	O
ATOM	45976	C	GLY M	26	266.272	121.090	0.963	1.00	63.11	C	ATOM	46026	N	ALA M	33	274.280	124.041	3.657	1.00	105.22	N
ATOM	45977	O	GLY M	26	266.507	121.359	2.135	1.00	63.11	O	ATOM	46027	CA	ALA M	33	275.583	123.552	3.208	1.00	105.22	C
ATOM	45978	N	LYS M	27	265.997	122.013	0.042	1.00	69.90	N	ATOM	46028	C	ALA M	33	276.293	124.504	2.256	1.00	105.22	C
ATOM	45979	CA	LYS M	27	265.960	123.449	0.328	1.00	69.90	C	ATOM	46029	O	ALA M	33	277.504	124.672	2.341	1.00	105.22	O
ATOM	45980	C	LYS M	27	266.581	123.870	1.658	1.00	69.90	C	ATOM	46030	CB	ALA M	33	275.435	122.173	2.556	1.00	72.42	C
ATOM	45981	O	LYS M	27	267.639	124.489	1.680	1.00	69.90	O	ATOM	46031	N	LEU M	34	275.553	125.123	1.343	1.00	79.40	N
ATOM	45982	CB	LYS M	27	264.525	123.970	0.237	1.00	139.07	C	ATOM	46032	CA	LEU M	34	276.172	126.056	0.410	1.00	79.40	C
ATOM	45983	CG	LYS M	27	264.056	124.201	-1.191	1.00	139.07	C	ATOM	46033	O	LEU M	34	277.657	127.880	0.883	1.00	79.40	O
ATOM	45984	CD	LYS M	27	264.965	125.198	-1.905	1.00	139.07	C	ATOM	46034	O	LEU M	34	275.203	126.439	-0.710	1.00	97.58	C
ATOM	45985	CE	LYS M	27	264.519	125.453	-3.340	1.00	139.07	C	ATOM	46035	CB	LEU M	34	274.853	125.345	-1.720	1.00	97.58	C
ATOM	45986	NZ	LYS M	27	265.397	126.446	-4.028	1.00	139.07	N	ATOM	46036	CG	LEU M	34	274.093	125.977	-2.869	1.00	97.58	C
ATOM	45987	N	ALA M	28	265.934	123.536	2.766	1.00	96.23	N	ATOM	46037	CD1	LEU M	34	276.113	124.676	-2.245	1.00	91.98	N
ATOM	45988	CA	ALA M	28	266.467	123.901	4.075	1.00	96.23	C	ATOM	46038	CD2	LEU M	34	275.785	127.709	2.118	1.00	91.98	C
ATOM	45989	C	ALA M	28	267.962	123.550	4.231	1.00	96.23	C	ATOM	46039	N	GLU M	35	276.068	128.877	2.939	1.00	91.98	C
ATOM	45990	O	ALA M	28	268.796	124.436	4.427	1.00	96.23	O	ATOM	46040	CA	GLU M	35	277.379	128.671	3.697	1.00	91.98	C
ATOM	45991	CB	ALA M	28	265.633	123.229	5.179	1.00	55.40	C	ATOM	46041	O	GLU M	35	278.324	129.451	3.568	1.00	91.98	O
ATOM	45992	N	ARG M	29	268.296	122.266	4.135	1.00	66.85	N	ATOM	46042	O	GLU M	35	274.931	129.085	3.943	1.00	186.20	C
ATOM	45993	CA	ARG M	29	269.681	121.817	4.271	1.00	66.85	C	ATOM	46043	CB	GLU M	35	275.051	130.344	4.774	1.00	186.20	C
ATOM	45994	C	ARG M	29	270.550	122.225	3.092	1.00	66.85	C	ATOM	46044	CG	GLU M	35	274.873	131.592	3.942	1.00	186.20	C
ATOM	45995	O	ARG M	29	271.745	122.458	3.251	1.00	66.85	O	ATOM	46045	CD	GLU M	35	273.783	131.758	3.354	1.00	186.20	O
ATOM	45996	CB	ARG M	29	269.738	120.299	4.427	1.00	55.54	C	ATOM	46046	OE1	GLU M	35	275.818	132.404	3.872	1.00	186.20	O
ATOM	45997	CG	ARG M	29	269.279	119.803	5.788	1.00	55.54	C	ATOM	46047	OE2	GLU M	35	277.421	127.599	4.480	1.00	89.93	N
ATOM	45998	CD	ARG M	29	269.234	118.279	5.853	1.00	55.54	C	ATOM	46048	N	LYS M	36	278.581	127.268	5.288	1.00	89.93	C
ATOM	45999	NE	ARG M	29	269.320	117.805	7.231	1.00	55.54	N	ATOM	46049	CA	LYS M	36	279.715	126.607	4.515	1.00	89.93	C
ATOM	46000	CZ	ARG M	29	269.343	116.522	7.578	1.00	55.54	C	ATOM	46050	C	LYS M	36	280.592	125.979	5.101	1.00	89.93	O
ATOM	46001	NH1	ARG M	29	269.278	115.588	6.643	1.00	55.54	N	ATOM	46051	O	LYS M	36	278.135	126.389	6.455	1.00	102.46	C
ATOM	46002	NH2	ARG M	29	269.458	116.172	8.857	1.00	55.54	N	ATOM	46052	CB	LYS M	36	277.174	127.126	7.362	1.00	102.46	C
ATOM	46003	N	ALA M	30	269.955	122.298	1.907	1.00	59.88	N	ATOM	46053	CG	LYS M	36	276.562	126.247	8.426	1.00	102.46	C
ATOM	46004	CA	ALA M	30	270.696	122.690	0.717	1.00	59.88	C	ATOM	46054	CD	LYS M	36	275.567	127.056	9.254	1.00	102.46	C
ATOM	46005	C	ALA M	30	271.251	124.094	0.910	1.00	59.88	C	ATOM	46055	CE	LYS M	36	274.749	126.221	10.185	1.00	102.46	N
ATOM	46006	O	ALA M	30	272.443	124.318	0.736	1.00	59.88	O	ATOM	46056	NZ	LYS M	36	279.702	126.760	3.197	1.00	91.73	N
ATOM	46007	CB	ALA M	30	269.791	122.649	-0.503	1.00	100.80	C	ATOM	46057	N	THR M	37	280.742	126.183	2.355	1.00	91.73	N
ATOM	46008	N	LYS M	31	270.383	125.033	1.279	1.00	77.63	N	ATOM	46058	CA	THR M	37	281.282	127.274	1.437	1.00	91.73	C
ATOM	46009	CA	LYS M	31	270.789	126.419	1.492	1.00	77.63	C	ATOM	46059	O	THR M	37	282.286	127.094	0.750	1.00	91.73	O
ATOM	46010	C	LYS M	31	271.768	126.552	2.649	1.00	77.63	C	ATOM	46060	O	THR M	37	280.191	124.991	1.534	1.00	79.43	C
ATOM	46011	O	LYS M	31	272.494	127.536	2.750	1.00	77.63	O	ATOM	46061	CB	THR M	37	279.964	123.877	2.408	1.00	79.43	O
ATOM	46012	CB	LYS M	31	269.564	127.297	1.753	1.00	178.20	C	ATOM	46062	OG1	THR M	37	281.165	124.565	0.475	1.00	79.43	C
ATOM	46013	CG	LYS M	31	268.601	127.356	0.582	1.00	178.20	C	ATOM	46063	CG2	THR M	37	290.610	128.418	1.442	1.00	76.47	N
ATOM	46014	CD	LYS M	31	267.356	128.159	-0.919	1.00	178.20	C	ATOM	46064	N	GLY M	38	291.046	129.531	0.626	1.00	76.47	C
ATOM	46015	CE	LYS M	31	266.361	128.130	-0.233	1.00	178.20	C	ATOM	46065	CA	GLY M	38						



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ATOM	46066	C	GLY M	38	280.603	129.522	-0.823	1.00	76.47	C	ATOM	46116	C	VAL M	45	277.980	121.739	-11.467	1.00	71.40	C
ATOM	46067	O	GLY M	38	280.670	130.558	-1.484	1.00	76.47	O	ATOM	46117	O	VAL M	45	279.088	121.591	-10.954	1.00	71.40	O
ATOM	46068	N	ILE M	39	280.148	128.377	-1.328	1.00	64.34	N	ATOM	46118	CB	VAL M	45	275.988	120.560	-10.543	1.00	84.36	C
ATOM	46069	CA	ILE M	39	279.709	128.288	-2.723	1.00	64.34	C	ATOM	46119	CG1	VAL M	45	276.959	119.424	-10.234	1.00	84.36	C
ATOM	46070	C	ILE M	39	278.496	129.161	-3.020	1.00	64.34	C	ATOM	46120	CG2	VAL M	45	274.920	120.632	-9.465	1.00	84.36	C
ATOM	46071	O	ILE M	39	277.587	129.268	-2.201	1.00	64.34	O	ATOM	46121	N	VAL M	46	277.785	121.784	-12.780	1.00	82.54	N
ATOM	46072	CB	ILE M	39	279.300	126.860	-3.109	1.00	66.51	C	ATOM	46122	CA	LYS M	46	278.890	121.665	-13.722	1.00	82.54	C
ATOM	46073	CG1	ILE M	39	280.039	125.836	-2.242	1.00	66.51	C	ATOM	46123	C	LYS M	46	279.916	122.770	-13.489	1.00	82.54	C
ATOM	46074	CG2	ILE M	39	279.559	126.648	-2.597	1.00	66.51	C	ATOM	46124	O	LYS M	46	278.364	121.744	-13.345	1.00	82.54	O
ATOM	46075	CD1	ILE M	39	281.530	125.869	-4.388	1.00	66.51	C	ATOM	46125	CB	LYS M	46	277.157	122.644	-15.291	1.00	91.48	C
ATOM	46076	N	ASN M	40	278.480	129.785	-4.191	1.00	69.53	N	ATOM	46126	CG	LYS M	46	277.823	122.914	-16.739	1.00	91.48	C
ATOM	46077	CA	ASN M	40	277.341	130.600	-4.590	1.00	69.53	C	ATOM	46127	CD	LYS M	46	277.882	123.787	-17.372	1.00	91.48	C
ATOM	46078	C	ASN M	40	276.316	129.617	-5.160	1.00	69.53	C	ATOM	46128	CE	LYS M	46	277.477	124.225	-18.734	1.00	91.48	N
ATOM	46079	O	ASN M	40	276.542	129.015	-6.212	1.00	69.53	O	ATOM	46129	NZ	LYS M	46	279.442	124.015	-13.445	1.00	86.29	N
ATOM	46080	CB	ASN M	40	277.751	131.597	-5.665	1.00	79.98	C	ATOM	46130	N	ASP M	47	279.544	126.366	-15.754	1.00	149.11	O
ATOM	46081	CG	ASN M	40	276.564	132.276	-6.313	1.00	79.98	C	ATOM	46131	CA	ASP M	47	277.663	126.975	-14.802	1.00	149.11	O
ATOM	46082	OD1	ASN M	40	276.725	133.062	-7.244	1.00	79.98	O	ATOM	46132	C	ASP M	47	280.646	124.248	-11.006	1.00	86.88	N
ATOM	46083	ND2	ASN M	40	275.361	131.978	-5.825	1.00	79.98	N	ATOM	46133	O	ASP M	47	281.020	125.172	-11.885	1.00	86.29	C
ATOM	46084	N	PRO M	41	275.166	129.462	-4.486	1.00	122.99	N	ATOM	46134	CB	ASP M	47	281.898	125.998	-11.642	1.00	86.29	O
ATOM	46085	CA	PRO M	41	274.089	128.549	-4.893	1.00	122.99	C	ATOM	46135	CG	ASP M	47	279.499	126.472	-13.377	1.00	149.11	C
ATOM	46086	C	PRO M	41	273.847	128.538	-6.392	1.00	122.99	C	ATOM	46136	OD1	ASP M	47	278.856	126.611	-14.741	1.00	149.11	C
ATOM	46087	O	PRO M	41	273.908	127.495	-7.044	1.00	122.99	O	ATOM	46137	OD2	ASP M	47	279.544	126.366	-15.754	1.00	149.11	O
ATOM	46088	CB	PRO M	41	272.882	129.087	-4.139	1.00	54.25	C	ATOM	46138	N	LEU M	48	277.663	126.975	-14.802	1.00	149.11	O
ATOM	46090	CD	PRO M	41	273.482	129.709	-2.937	1.00	54.25	C	ATOM	46139	CA	LEU M	48	280.646	124.248	-11.006	1.00	86.88	N
ATOM	46091	N	ALA M	42	274.659	130.436	-3.506	1.00	54.25	C	ATOM	46140	C	LEU M	48	281.286	124.155	-9.698	1.00	86.88	C
ATOM	46092	CA	ALA M	42	273.557	129.721	-6.916	1.00	55.45	N	ATOM	46141	O	LEU M	48	282.778	123.958	-9.868	1.00	86.88	C
ATOM	46093	C	ALA M	42	273.298	129.937	-8.329	1.00	55.45	C	ATOM	46142	CB	LEU M	48	283.229	123.493	-10.910	1.00	86.88	O
ATOM	46094	O	ALA M	42	274.230	129.217	-9.313	1.00	55.45	C	ATOM	46143	CG	LEU M	48	280.732	122.973	-8.907	1.00	62.29	C
ATOM	46095	CB	ALA M	42	273.874	129.042	-10.482	1.00	55.45	O	ATOM	46144	CD1	LEU M	48	279.429	123.172	-8.139	1.00	62.29	C
ATOM	46096	N	THR M	43	273.333	131.425	-8.611	1.00	30.49	C	ATOM	46145	CD2	LEU M	48	278.997	121.830	-7.563	1.00	62.29	C
ATOM	46097	CA	THR M	43	275.419	128.814	-8.870	1.00	54.10	N	ATOM	46146	N	THR M	49	279.624	124.212	-7.030	1.00	62.29	C
ATOM	46098	O	THR M	43	276.341	128.147	-9.786	1.00	54.10	C	ATOM	46147	CA	THR M	49	283.539	124.311	-8.838	1.00	71.25	N
ATOM	46099	CB	THR M	43	275.820	126.780	-10.220	1.00	54.10	C	ATOM	46148	C	THR M	49	284.990	124.155	-8.859	1.00	71.25	C
ATOM	46100	CG1	THR M	43	275.271	126.026	-9.410	1.00	54.10	O	ATOM	46149	O	THR M	49	285.382	122.929	-8.068	1.00	71.25	O
ATOM	46101	CG2	THR M	43	277.752	127.975	-9.166	1.00	110.46	C	ATOM	46150	CB	THR M	49	284.852	122.691	-6.982	1.00	71.25	O
ATOM	46102	N	ARG M	44	278.317	129.321	-8.748	1.00	110.46	O	ATOM	46151	OG1	THR M	49	285.702	125.374	-8.253	1.00	62.14	C
ATOM	46103	CA	ARG M	44	275.984	126.475	-11.506	1.00	57.43	N	ATOM	46152	CG2	THR M	49	286.144	126.234	-9.309	1.00	62.14	C
ATOM	46104	C	ARG M	44	275.544	125.195	-12.051	1.00	57.43	C	ATOM	46153	N	GLU M	50	286.890	124.948	-7.410	1.00	62.14	C
ATOM	46105	O	ARG M	44	276.462	124.112	-11.516	1.00	57.43	C	ATOM	46154	CA	GLU M	50	286.890	124.948	-7.410	1.00	62.14	C
ATOM	46106	O	ARG M	44	277.668	124.320	-11.428	1.00	57.43	O	ATOM	46155	C	GLU M	50	286.452	120.354	-5.669	1.00	82.46	O
ATOM	46107	CB	ARG M	44	275.586	125.233	-13.579	1.00	96.88	C	ATOM	46156	O	GLU M	50	286.154	120.549	-8.537	1.00	158.56	C
ATOM	46108	CG	ARG M	44	274.299	125.743	-14.226	1.00	96.88	C	ATOM	46157	CB	GLU M	50	288.674	119.252	-7.974	1.00	158.56	C
ATOM	46109	CD	ARG M	44	273.728	126.953	-13.498	1.00	96.88	C	ATOM	46158	CG	GLU M	50	287.630	118.161	-8.031	1.00	158.56	C
ATOM	46110	NE	ARG M	44	272.439	127.381	-14.042	1.00	96.88	N	ATOM	46159	CD	GLU M	50	287.143	117.865	-9.142	1.00	158.56	O
ATOM	46111	CZ	ARG M	44	271.358	126.608	-14.133	1.00	96.88	C	ATOM	46160	OE1	GLU M	50	287.293	117.605	-6.965	1.00	158.56	O
ATOM	46112	NH1	ARG M	44	271.397	125.349	-13.719	1.00	96.88	N	ATOM	46161	OE2	GLU M	50	287.495	122.302	-6.102	1.00	97.90	N
ATOM	46113	NH2	ARG M	44	270.232	127.099	-14.635	1.00	96.88	N	ATOM	46162	N	ALA M	51	287.668	122.666	-4.706	1.00	97.90	C
ATOM	46114	N	VAL M	45	275.907	122.966	-11.137	1.00	71.40	N	ATOM	46163	CA	ALA M	51	286.308	122.798	-4.040	1.00	97.90	C
ATOM	46115	CA	VAL M	45	276.741	121.898	-10.604	1.00	71.40	C	ATOM	46164	C	ALA M	51	286.076	122.239	-2.969	1.00	97.90	O
											ATOM	46165	O	ALA M	51						



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ATOM	46166	CB	ALA M	51	288.428	123.976	-4.605	1.00	68.64	C	ATOM	46216	NE	ARG M	57	282.618	114.585	-3.367	1.00	79.93	N
ATOM	46167	N	GLU M	52	285.413	123.544	-4.681	1.00	80.40	N	ATOM	46217	CZ	ARG M	57	283.394	114.150	-4.355	1.00	79.93	C
ATOM	46168	CA	GLU M	52	284.069	123.743	-4.158	1.00	80.40	C	ATOM	46218	NH1	ARG M	57	284.328	113.239	-4.107	1.00	79.93	N
ATOM	46169	C	GLU M	52	283.389	122.391	-3.957	1.00	80.40	C	ATOM	46219	NH2	ARG M	57	283.239	114.627	-5.588	1.00	79.93	N
ATOM	46170	O	GLU M	52	282.780	122.131	-2.914	1.00	80.40	O	ATOM	46220	N	GLU M	58	282.440	117.450	1.465	1.00	121.62	N
ATOM	46171	CB	GLU M	52	283.246	124.594	-5.128	1.00	92.26	C	ATOM	46221	CA	GLU M	58	283.008	117.224	2.794	1.00	121.62	C
ATOM	46172	CG	GLU M	52	283.838	125.960	-5.396	1.00	92.26	C	ATOM	46222	C	GLU M	58	281.928	117.409	3.849	1.00	121.62	C
ATOM	46173	CD	GLU M	52	282.968	126.814	-6.304	1.00	92.26	C	ATOM	46223	O	GLU M	58	281.607	116.489	4.598	1.00	121.62	O
ATOM	46174	OE1	GLU M	52	282.674	126.386	-7.444	1.00	92.26	O	ATOM	46224	CB	GLU M	58	284.156	118.203	3.074	1.00	200.58	C
ATOM	46175	OE2	GLU M	52	282.582	127.923	-5.878	1.00	92.26	O	ATOM	46225	CG	GLU M	58	285.421	117.993	2.243	1.00	200.58	C
ATOM	46176	N	VAL M	53	283.505	121.527	-4.958	1.00	60.06	N	ATOM	46226	CD	GLU M	58	286.118	116.673	2.529	1.00	200.58	C
ATOM	46177	CA	VAL M	53	282.897	120.212	-4.877	1.00	60.06	C	ATOM	46227	OE1	GLU M	58	287.225	116.458	1.990	1.00	200.58	O
ATOM	46178	C	VAL M	53	283.460	119.437	-3.706	1.00	60.06	C	ATOM	46228	OE2	GLU M	58	285.563	115.849	3.285	1.00	200.58	O
ATOM	46179	O	VAL M	53	282.862	118.467	-3.257	1.00	60.06	O	ATOM	46229	N	TYR M	59	281.378	118.616	3.896	1.00	87.69	N
ATOM	46180	CB	VAL M	53	283.131	119.391	-6.159	1.00	61.91	C	ATOM	46230	CA	TYR M	59	280.321	118.973	4.836	1.00	87.69	C
ATOM	46181	CG1	VAL M	53	282.489	118.004	-6.018	1.00	61.91	C	ATOM	46231	C	TYR M	59	279.182	117.971	4.726	1.00	87.69	C
ATOM	46182	CG2	VAL M	53	282.554	120.137	-7.363	1.00	61.91	C	ATOM	46232	O	TYR M	59	279.056	117.059	5.541	1.00	87.69	O
ATOM	46183	N	VAL M	54	284.615	119.857	-3.211	1.00	67.20	N	ATOM	46233	CB	TYR M	59	279.810	120.369	4.499	1.00	99.58	C
ATOM	46184	CA	VAL M	54	285.225	119.164	-2.089	1.00	67.20	C	ATOM	46234	CG	TYR M	59	278.862	120.973	5.500	1.00	99.58	C
ATOM	46185	C	VAL M	54	284.606	119.672	-0.799	1.00	67.20	C	ATOM	46235	CD1	TYR M	59	279.249	121.170	6.822	1.00	99.58	C
ATOM	46186	O	VAL M	54	284.066	118.895	-0.019	1.00	67.20	O	ATOM	46236	CD2	TYR M	59	277.614	121.441	5.103	1.00	99.58	C
ATOM	46187	CB	VAL M	54	286.758	119.375	-2.060	1.00	85.86	C	ATOM	46237	CE1	TYR M	59	278.423	121.830	7.722	1.00	99.58	C
ATOM	46188	CG1	VAL M	54	287.377	118.638	-0.875	1.00	85.86	C	ATOM	46238	CE2	TYR M	59	276.779	122.103	5.994	1.00	99.58	C
ATOM	46189	CG2	VAL M	54	287.359	118.869	-3.348	1.00	85.86	C	ATOM	46239	CZ	TYR M	59	277.193	122.298	7.300	1.00	99.58	C
ATOM	46190	N	ARG M	55	284.683	120.978	-0.579	1.00	111.35	N	ATOM	46240	OH	TYR M	59	276.387	122.987	8.174	1.00	99.58	O
ATOM	46191	CA	ARG M	55	284.111	121.570	0.621	1.00	111.35	C	ATOM	46241	N	VAL M	60	278.362	118.155	3.698	1.00	82.40	N
ATOM	46192	C	ARG M	55	282.659	121.126	0.768	1.00	111.35	C	ATOM	46242	CA	VAL M	60	277.215	117.300	3.419	1.00	82.40	C
ATOM	46193	O	ARG M	55	282.224	120.705	1.843	1.00	111.35	O	ATOM	46243	C	VAL M	60	277.316	115.865	3.935	1.00	82.40	C
ATOM	46194	CB	ARG M	55	284.155	123.091	0.528	1.00	92.37	C	ATOM	46244	O	VAL M	60	276.486	115.425	4.731	1.00	82.40	O
ATOM	46195	CG	ARG M	55	285.529	123.687	0.587	1.00	92.37	C	ATOM	46245	CB	VAL M	60	276.947	117.245	1.911	1.00	63.19	C
ATOM	46196	CD	ARG M	55	285.433	125.187	-0.462	1.00	92.37	C	ATOM	46246	CG1	VAL M	60	275.796	116.309	1.625	1.00	63.19	C
ATOM	46197	NE	ARG M	55	285.169	125.605	-0.909	1.00	92.37	N	ATOM	46247	CG2	VAL M	60	276.641	118.637	1.399	1.00	63.19	C
ATOM	46198	CZ	ARG M	55	284.792	126.833	-1.243	1.00	92.37	C	ATOM	46248	N	GLU M	61	278.324	115.133	3.482	1.00	78.98	N
ATOM	46199	NH1	ARG M	55	284.630	127.750	-0.301	1.00	92.37	N	ATOM	46249	CA	GLU M	61	278.480	113.751	3.903	1.00	78.98	C
ATOM	46200	NH2	ARG M	55	284.586	127.153	-2.515	1.00	92.37	N	ATOM	46250	C	GLU M	61	278.793	113.581	5.385	1.00	78.98	C
ATOM	46201	N	LEU M	56	281.917	121.228	-0.331	1.00	79.61	N	ATOM	46251	O	GLU M	61	278.416	112.576	5.995	1.00	78.98	O
ATOM	46202	CA	LEU M	56	280.515	120.855	-0.356	1.00	79.61	C	ATOM	46252	CB	GLU M	61	279.572	113.066	3.088	1.00	127.52	C
ATOM	46203	C	LEU M	56	280.366	119.400	0.077	1.00	79.61	C	ATOM	46253	CG	GLU M	61	279.303	113.015	1.606	1.00	127.52	C
ATOM	46204	O	LEU M	56	279.745	119.103	1.096	1.00	79.61	O	ATOM	46254	CD	GLU M	61	280.228	112.049	0.899	1.00	127.52	C
ATOM	46205	CB	LEU M	56	279.963	121.057	-1.766	1.00	88.16	C	ATOM	46255	OE1	GLU M	61	280.119	110.831	1.151	1.00	127.52	O
ATOM	46206	CG	LEU M	56	278.500	121.490	-1.844	1.00	88.16	C	ATOM	46256	OE2	GLU M	61	281.069	112.503	0.099	1.00	127.52	O
ATOM	46207	CD1	LEU M	56	278.146	121.880	-3.272	1.00	88.16	C	ATOM	46257	N	ASN M	62	279.482	114.553	5.970	1.00	88.95	N
ATOM	46208	CD2	LEU M	56	277.619	120.364	-1.348	1.00	88.16	C	ATOM	46258	CA	ASN M	62	279.851	114.454	7.375	1.00	88.95	C
ATOM	46209	N	ARG M	57	280.948	118.493	-0.697	1.00	61.26	N	ATOM	46259	C	ASN M	62	278.946	115.214	8.323	1.00	88.95	C
ATOM	46210	CA	ARG M	57	280.887	117.072	-0.381	1.00	61.26	C	ATOM	46260	O	ASN M	62	278.833	114.859	9.496	1.00	88.95	O
ATOM	46211	C	ARG M	57	281.394	116.753	1.026	1.00	61.26	C	ATOM	46261	CB	ASN M	62	281.298	114.907	7.565	1.00	125.92	C
ATOM	46212	O	ARG M	57	280.856	115.874	1.692	1.00	61.26	O	ATOM	46262	CG	ASN M	62	282.292	113.921	6.986	1.00	125.92	C
ATOM	46213	CB	ARG M	57	281.702	116.278	-1.387	1.00	79.93	C	ATOM	46263	OD1	ASN M	62	283.491	114.187	6.942	1.00	125.92	O
ATOM	46214	CG	ARG M	57	281.706	114.809	-1.113	1.00	79.93	C	ATOM	46264	ND2	ASN M	62	281.796	112.770	6.543	1.00	125.92	N
ATOM	46215	CD	ARG M	57	282.717	114.125	-1.986	1.00	79.93	C	ATOM	46265	N	THR M	63	278.296	116.255	7.822	1.00	78.46	N



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ATOM 46266	CA	THR M	63	277.409	117.039	8.663	1.00	78.46	C	ATOM 46316	N	GLU M	69	271.745	105.156	4.482	1.00	97.70	N
ATOM 46267	C	THR M	63	276.006	116.414	8.827	1.00	78.46	C	ATOM 46317	CA	GLU M	69	271.709	105.048	5.939	1.00	97.70	C
ATOM 46268	O	THR M	63	275.269	116.789	9.740	1.00	78.46	O	ATOM 46318	C	GLU M	69	270.427	105.645	6.506	1.00	97.70	C
ATOM 46269	CB	THR M	63	277.316	118.502	8.140	1.00	92.97	C	ATOM 46319	O	GLU M	69	269.851	105.124	7.464	1.00	97.70	O
ATOM 46270	CG1	THR M	63	276.395	119.248	8.942	1.00	92.97	O	ATOM 46320	CB	GLU M	69	272.914	105.749	6.558	1.00	150.11	C
ATOM 46271	CG2	THR M	63	276.868	118.532	6.700	1.00	92.97	C	ATOM 46321	CG	GLU M	69	272.890	105.761	8.070	1.00	150.11	C
ATOM 46272	N	TRP M	64	275.642	115.452	7.973	1.00	107.30	N	ATOM 46322	CD	GLU M	69	274.177	106.285	8.654	1.00	150.11	C
ATOM 46273	CA	TRP M	64	274.327	114.801	8.076	1.00	107.30	C	ATOM 46323	OE1	GLU M	69	275.218	105.622	8.474	1.00	150.11	O
ATOM 46274	C	TRP M	64	274.295	113.294	7.869	1.00	107.30	C	ATOM 46324	OE2	GLU M	69	274.153	107.361	9.286	1.00	150.11	O
ATOM 46275	O	TRP M	64	275.311	112.638	7.637	1.00	107.30	O	ATOM 46325	N	LEU M	70	269.991	106.747	5.907	1.00	78.46	N
ATOM 46276	CB	TRP M	64	273.321	115.398	7.087	1.00	50.11	C	ATOM 46326	CA	LEU M	70	268.772	107.421	6.328	1.00	78.46	C
ATOM 46277	CG	TRP M	64	272.975	116.808	7.340	1.00	50.11	C	ATOM 46327	C	LEU M	70	267.610	106.442	6.172	1.00	78.46	C
ATOM 46278	CD1	TRP M	64	272.473	117.335	8.494	1.00	50.11	C	ATOM 46328	O	LEU M	70	266.917	106.120	7.139	1.00	78.46	O
ATOM 46279	CD2	TRP M	64	273.164	117.903	6.441	1.00	50.11	C	ATOM 46329	CB	LEU M	70	268.525	108.643	5.444	1.00	53.24	C
ATOM 46280	NE1	TRP M	64	272.346	118.700	8.370	1.00	50.11	N	ATOM 46330	CG	LEU M	70	267.807	109.831	6.083	1.00	53.24	C
ATOM 46281	CE2	TRP M	64	272.765	119.074	7.119	1.00	50.11	C	ATOM 46331	CD1	LEU M	70	267.104	110.636	4.991	1.00	53.24	C
ATOM 46282	CE3	TRP M	64	273.637	118.009	5.127	1.00	50.11	C	ATOM 46332	CD2	LEU M	70	266.815	109.341	7.118	1.00	53.24	C
ATOM 46283	C22	TRP M	64	272.827	120.345	6.526	1.00	50.11	C	ATOM 46333	N	ARG M	71	267.409	105.976	4.941	1.00	67.46	N
ATOM 46284	C23	TRP M	64	273.699	119.275	4.537	1.00	50.11	C	ATOM 46334	CA	ARG M	71	266.344	105.030	4.635	1.00	67.46	C
ATOM 46285	CH2	TRP M	64	273.296	120.426	5.247	1.00	50.11	C	ATOM 46335	C	ARG M	71	266.372	103.917	5.653	1.00	67.46	C
ATOM 46286	N	LYS M	65	273.074	112.775	7.947	1.00	94.60	N	ATOM 46336	O	ARG M	71	265.342	103.545	6.204	1.00	67.46	O
ATOM 46287	CA	LYS M	65	272.761	111.365	7.772	1.00	94.60	C	ATOM 46337	CB	ARG M	71	266.539	104.425	3.247	1.00	82.57	C
ATOM 46288	C	LYS M	65	271.913	111.381	6.502	1.00	94.60	C	ATOM 46338	CG	ARG M	71	266.578	105.424	2.122	1.00	82.57	C
ATOM 46289	CB	LYS M	65	270.774	111.855	8.518	1.00	94.60	O	ATOM 46339	CD	ARG M	71	266.872	104.728	0.810	1.00	82.57	C
ATOM 46290	CG	LYS M	65	271.938	110.890	8.968	1.00	98.70	C	ATOM 46340	NE	ARG M	71	267.111	105.681	-0.266	1.00	82.57	N
ATOM 46291	CE	LYS M	65	271.965	109.404	9.221	1.00	98.70	C	ATOM 46341	CZ	ARG M	71	266.154	106.352	-0.893	1.00	82.57	C
ATOM 46292	CD	LYS M	65	271.478	109.119	10.636	1.00	98.70	C	ATOM 46342	NH1	ARG M	71	264.883	106.170	-0.553	1.00	82.57	N
ATOM 46293	CE	LYS M	65	271.713	107.666	11.031	1.00	98.70	C	ATOM 46343	NH2	ARG M	71	266.472	107.213	-1.850	1.00	82.57	N
ATOM 46294	NZ	LYS M	65	271.498	107.449	12.493	1.00	98.70	N	ATOM 46344	N	ALA M	72	267.569	103.392	5.893	1.00	68.25	N
ATOM 46295	N	LEU M	66	272.470	110.878	5.404	1.00	70.09	N	ATOM 46345	CA	ALA M	72	267.765	102.307	6.843	1.00	68.25	C
ATOM 46296	CA	LEU M	66	271.769	110.900	4.130	1.00	70.09	C	ATOM 46346	C	ALA M	72	267.199	102.691	8.202	1.00	68.25	C
ATOM 46297	C	LEU M	66	271.589	109.549	3.449	1.00	70.09	C	ATOM 46347	O	ALA M	72	266.458	101.921	8.822	1.00	68.25	O
ATOM 46298	O	LEU M	66	271.932	108.501	3.999	1.00	70.09	O	ATOM 46348	CB	ALA M	72	269.246	101.987	6.966	1.00	170.82	C
ATOM 46299	CB	LEU M	66	272.504	111.840	3.184	1.00	67.71	C	ATOM 46349	N	GLU M	73	267.552	103.887	8.661	1.00	80.01	N
ATOM 46300	CG	LEU M	66	272.835	113.195	3.813	1.00	67.71	C	ATOM 46350	CA	GLU M	73	267.073	104.365	9.944	1.00	80.01	C
ATOM 46301	CD1	LEU M	66	273.793	113.980	2.927	1.00	67.71	C	ATOM 46351	C	GLU M	73	265.553	104.310	9.958	1.00	80.01	C
ATOM 46302	CD2	LEU M	66	271.550	113.964	4.037	1.00	67.71	C	ATOM 46352	O	GLU M	73	264.959	103.447	10.609	1.00	80.01	O
ATOM 46303	N	GLU M	67	271.034	109.600	2.240	1.00	75.44	N	ATOM 46353	CB	GLU M	73	267.546	105.795	10.184	1.00	143.45	C
ATOM 46304	CA	GLU M	67	270.788	108.423	1.419	1.00	75.44	C	ATOM 46354	CG	GLU M	73	267.113	106.356	11.518	1.00	143.45	C
ATOM 46305	C	GLU M	67	270.507	107.126	2.156	1.00	75.44	C	ATOM 46355	CD	GLU M	73	267.655	107.744	11.757	1.00	143.45	C
ATOM 46306	O	GLU M	67	269.774	107.106	3.141	1.00	75.44	O	ATOM 46356	OE1	GLU M	73	267.374	108.639	10.934	1.00	143.45	O
ATOM 46307	CB	GLU M	67	271.956	108.211	0.465	1.00	84.76	C	ATOM 46357	OE2	GLU M	73	268.363	107.943	12.765	1.00	143.45	O
ATOM 46308	CG	GLU M	67	271.893	109.087	-0.750	1.00	84.76	C	ATOM 46358	N	VAL M	74	264.935	105.230	9.225	1.00	82.24	N
ATOM 46309	CD	GLU M	67	270.590	108.911	-1.491	1.00	84.76	C	ATOM 46359	CA	VAL M	74	263.482	105.310	9.128	1.00	82.24	C
ATOM 46310	OE1	GLU M	67	270.159	107.747	-1.680	1.00	84.76	O	ATOM 46360	C	VAL M	74	262.822	103.936	9.165	1.00	82.24	C
ATOM 46311	OE2	GLU M	67	269.999	109.937	-1.888	1.00	84.76	O	ATOM 46361	O	VAL M	74	261.958	103.671	10.002	1.00	82.24	O
ATOM 46312	N	GLY M	68	271.097	106.046	1.653	1.00	90.78	N	ATOM 46362	CB	VAL M	74	263.065	106.032	7.829	1.00	61.45	C
ATOM 46313	CA	GLY M	68	270.922	104.722	2.224	1.00	90.78	C	ATOM 46363	CG1	VAL M	74	261.573	105.910	7.608	1.00	61.45	C
ATOM 46314	C	GLY M	68	270.813	104.575	3.732	1.00	90.78	C	ATOM 46364	CG2	VAL M	74	263.461	107.497	7.915	1.00	61.45	C
ATOM 46315	O	GLY M	68	269.889	103.918	4.215	1.00	90.78	O	ATOM 46365	N	ALA M	75	263.238	103.063	8.258	1.00	64.08	N



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ATOM 46366	CA	ALA M	75	262.682	101.723	8.190	1.00	64.08	C	ATOM	46416	CG	LEU M	81	256.277	102.393	15.432	1.00	54.10	C
ATOM 46367	C	ALA M	75	262.823	101.022	9.537	1.00	64.08	C	ATOM	46417	CD1	LEU M	81	256.269	103.899	15.143	1.00	54.10	C
ATOM 46368	O	ALA M	75	261.884	100.383	10.018	1.00	64.08	O	ATOM	46418	CD2	LEU M	81	257.143	101.642	14.430	1.00	54.10	C
ATOM 46369	CB	ALA M	75	263.384	100.927	7.100	1.00	66.14	C	ATOM	46419	N	MET M	82	256.593	99.086	15.570	1.00	72.27	N
ATOM 46370	N	ALA M	76	264.000	101.148	10.142	1.00	100.03.77	N	ATOM	46420	CA	MET M	82	255.711	98.076	15.007	1.00	72.27	C
ATOM 46371	CA	ALA M	76	264.263	100.533	11.434	1.00	100.03.77	C	ATOM	46421	O	MET M	82	255.861	96.735	15.722	1.00	72.27	C
ATOM 46372	C	ALA M	76	263.276	101.045	12.484	1.00	100.03.77	C	ATOM	46422	C	MET M	82	254.900	95.976	15.832	1.00	72.27	O
ATOM 46373	O	ALA M	76	262.831	100.289	13.350	1.00	100.03.77	O	ATOM	46423	CB	MET M	82	256.010	97.883	13.523	1.00	90.87	C
ATOM 46374	CB	ALA M	76	265.689	100.827	11.868	1.00	100.164.43	C	ATOM	46424	CG	MET M	82	255.043	96.954	12.824	1.00	90.87	C
ATOM 46375	N	ASN M	77	262.943	102.331	12.412	1.00	84.78	N	ATOM	46425	SD	MET M	82	255.528	96.608	11.132	1.00	90.87	S
ATOM 46376	CA	ASN M	77	261.997	102.912	13.354	1.00	84.78	C	ATOM	46426	CE	MET M	82	255.658	98.265	10.476	1.00	90.87	C
ATOM 46377	C	ASN M	77	260.627	102.306	13.129	1.00	84.78	C	ATOM	46427	N	ASP M	83	257.070	96.444	16.198	1.00	98.19	N
ATOM 46378	O	ASN M	77	259.988	101.829	14.063	1.00	84.78	O	ATOM	46428	CA	ASP M	83	257.344	95.190	16.896	1.00	98.19	C
ATOM 46379	CB	ASN M	77	261.902	104.424	13.171	1.00	93.68	C	ATOM	46429	C	ASP M	83	256.836	95.196	18.326	1.00	98.19	C
ATOM 46380	CG	ASN M	77	263.122	105.142	13.679	1.00	93.68	C	ATOM	46430	O	ASP M	83	257.080	94.265	19.089	1.00	98.19	O
ATOM 46381	OD1	ASN M	77	263.517	104.973	14.830	1.00	93.68	C	ATOM	46431	CB	ASP M	83	258.835	94.899	16.888	1.00	103.09	C
ATOM 46382	ND2	ASN M	77	263.728	105.957	12.826	1.00	93.68	N	ATOM	46432	CG	ASP M	83	259.360	94.662	15.501	1.00	103.09	C
ATOM 46383	N	ILE M	78	260.179	102.322	11.879	1.00	81.74	N	ATOM	46433	OD1	ASP M	83	258.877	93.723	14.834	1.00	103.09	O
ATOM 46384	CA	ILE M	78	258.872	101.780	11.544	1.00	81.74	C	ATOM	46434	OD2	ASP M	83	260.254	95.417	15.075	1.00	103.09	O
ATOM 46385	C	ILE M	78	258.726	100.332	12.005	1.00	81.74	C	ATOM	46435	N	ILE M	84	256.145	96.266	18.687	1.00	88.55	N
ATOM 46386	O	ILE M	78	257.639	99.908	12.377	1.00	81.74	C	ATOM	46436	CA	ILE M	84	255.557	96.388	20.005	1.00	88.55	C
ATOM 46387	CB	ILE M	78	258.589	101.885	10.028	1.00	58.57	C	ATOM	46437	C	ILE M	84	254.104	96.753	19.709	1.00	88.55	C
ATOM 46388	CG1	ILE M	78	258.828	103.322	9.555	1.00	58.57	C	ATOM	46438	O	ILE M	84	253.825	97.436	18.719	1.00	88.55	C
ATOM 46389	CG2	ILE M	78	257.140	101.519	9.739	1.00	58.57	C	ATOM	46439	CB	ILE M	84	256.266	97.483	20.837	1.00	64.54	C
ATOM 46390	CD1	ILE M	78	258.505	103.551	8.094	1.00	58.57	C	ATOM	46440	CG1	ILE M	84	255.916	98.881	20.320	1.00	64.54	C
ATOM 46391	N	LYS M	79	259.805	99.560	11.991	1.00	80.84	N	ATOM	46441	CG2	ILE M	84	257.768	97.293	20.727	1.00	64.54	C
ATOM 46392	CA	LYS M	79	259.679	98.189	12.460	1.00	80.84	C	ATOM	46442	CD1	ILE M	84	256.486	100.017	21.154	1.00	64.54	C
ATOM 46393	C	LYS M	79	259.619	98.247	13.981	1.00	80.84	C	ATOM	46443	N	GLY M	85	253.185	96.270	20.541	1.00	106.21	N
ATOM 46394	O	LYS M	79	258.791	97.592	14.608	1.00	80.84	O	ATOM	46444	CA	GLY M	85	251.767	96.531	20.335	1.00	106.21	C
ATOM 46395	CB	LYS M	79	260.868	97.324	12.033	1.00	77.75	C	ATOM	46445	C	GLY M	85	251.386	97.891	19.171	1.00	106.21	C
ATOM 46396	CG	LYS M	79	260.540	95.833	12.089	1.00	77.75	C	ATOM	46446	O	GLY M	85	250.336	98.031	19.147	1.00	106.21	O
ATOM 46397	CD	LYS M	79	261.763	94.946	12.229	1.00	77.75	C	ATOM	46447	N	CYS M	86	252.240	98.885	20.002	1.00	63.78	N
ATOM 46398	CE	LYS M	79	261.328	93.495	12.444	1.00	77.75	C	ATOM	46448	CA	CYS M	86	252.038	100.260	19.544	1.00	63.78	C
ATOM 46399	NZ	LYS M	79	262.427	92.588	12.897	1.00	77.75	C	ATOM	46449	C	CYS M	86	250.953	100.447	18.483	1.00	63.78	C
ATOM 46400	N	ARG M	80	260.507	99.044	14.563	1.00	87.93	N	ATOM	46450	O	CYS M	86	250.942	99.763	17.457	1.00	63.78	O
ATOM 46401	CA	ARG M	80	260.579	99.216	16.007	1.00	87.93	C	ATOM	46451	CB	CYS M	86	253.362	100.823	19.018	1.00	105.02	C
ATOM 46402	C	ARG M	80	259.185	99.321	16.627	1.00	87.93	C	ATOM	46452	SG	CYS M	86	253.290	102.524	18.413	1.00	105.02	S
ATOM 46403	O	ARG M	80	258.632	98.327	17.102	1.00	87.93	O	ATOM	46453	N	TYR M	87	250.046	101.386	18.734	1.00	67.49	N
ATOM 46404	CB	ARG M	80	261.404	100.469	16.325	1.00	100.20.35	C	ATOM	46454	CA	TYR M	87	248.971	101.666	17.795	1.00	67.49	C
ATOM 46405	CG	ARG M	80	261.300	100.982	17.751	1.00	100.20.35	C	ATOM	46455	C	TYR M	87	249.585	101.868	16.413	1.00	67.49	C
ATOM 46406	CD	ARG M	80	261.777	102.424	17.813	1.00	100.20.35	C	ATOM	46456	O	TYR M	87	249.319	101.100	15.485	1.00	67.49	O
ATOM 46407	NE	ARG M	80	261.060	103.196	18.826	1.00	100.20.35	N	ATOM	46457	CB	TYR M	87	248.197	102.920	18.228	1.00	93.30	C
ATOM 46408	CZ	ARG M	80	261.040	104.525	18.877	1.00	100.20.35	C	ATOM	46458	CG	TYR M	87	247.014	103.256	17.337	1.00	93.30	C
ATOM 46409	NH1	ARG M	80	261.699	105.234	17.970	1.00	100.20.35	N	ATOM	46459	CD1	TYR M	87	245.991	102.331	17.116	1.00	93.30	C
ATOM 46410	NH2	ARG M	80	260.360	105.147	19.834	1.00	100.20.35	N	ATOM	46460	CD2	TYR M	87	246.927	104.493	16.700	1.00	93.30	C
ATOM 46411	N	LEU M	81	258.615	100.520	16.611	1.00	100.52.38	N	ATOM	46461	CE1	TYR M	87	244.914	102.630	16.280	1.00	93.30	C
ATOM 46412	CA	LEU M	81	257.292	100.750	17.188	1.00	100.52.38	C	ATOM	46462	CE2	TYR M	87	245.855	104.803	15.865	1.00	93.30	C
ATOM 46413	C	LEU M	81	256.282	99.717	16.693	1.00	100.52.38	C	ATOM	46463	CZ	TYR M	87	244.855	103.869	15.658	1.00	93.30	C
ATOM 46414	O	LEU M	81	255.246	99.493	17.313	1.00	100.52.38	O	ATOM	46464	OH	TYR M	87	243.803	104.175	14.822	1.00	93.30	O
ATOM 46415	CB	LEU M	81	256.811	102.165	16.841	1.00	54.10	C	ATOM	46465	N	ARG M	88	250.419	102.898	16.290	1.00	64.34	N



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ATOM	46466	CA	ARG M	88	251.085	103.203	15.030	1.00	64.34	C	ATOM	46516	NE	ARG M	93	252.458	94.182	13.775	1.00	123.87	N
ATOM	46467	C	ARG M	88	251.599	101.899	14.438	1.00	64.34	C	ATOM	46517	CZ	ARG M	93	252.290	93.969	15.074	1.00	123.87	C
ATOM	46468	O	ARG M	88	251.457	101.647	13.244	1.00	64.34	O	ATOM	46518	NH1	ARG M	93	251.070	93.995	15.595	1.00	123.87	N
ATOM	46469	CB	ARG M	88	252.262	104.146	15.266	1.00	85.34	C	ATOM	46519	NH2	ARG M	93	253.338	93.733	15.852	1.00	123.87	N
ATOM	46470	CG	ARG M	88	251.943	105.338	16.140	1.00	85.34	C	ATOM	46520	N	ARG M	94	248.686	97.218	9.073	1.00	76.08	N
ATOM	46471	CD	ARG M	88	253.223	106.025	16.577	1.00	85.34	C	ATOM	46521	CA	ARG M	94	247.467	97.292	8.280	1.00	76.08	C
ATOM	46472	NE	ARG M	88	253.800	106.860	15.528	1.00	85.34	N	ATOM	46522	C	ARG M	94	247.722	98.033	6.980	1.00	76.08	C
ATOM	46473	CZ	ARG M	88	255.081	107.214	15.480	1.00	85.34	C	ATOM	46523	O	ARG M	94	247.163	97.691	5.942	1.00	76.08	O
ATOM	46474	NH1	ARG M	88	255.919	106.794	16.416	1.00	85.34	N	ATOM	46524	CB	ARG M	94	246.368	98.025	9.052	1.00	131.55	C
ATOM	46475	NH2	ARG M	88	255.518	108.007	14.513	1.00	85.34	N	ATOM	46525	CG	ARG M	94	245.922	97.349	10.328	1.00	131.55	C
ATOM	46476	N	GLY M	89	252.198	101.071	15.285	1.00	76.31	N	ATOM	46526	CD	ARG M	94	245.093	96.116	10.052	1.00	131.55	C
ATOM	46477	CA	GLY M	89	252.708	99.802	14.813	1.00	76.31	C	ATOM	46527	NE	ARG M	94	244.715	95.453	11.296	1.00	131.55	N
ATOM	46478	C	GLY M	89	251.640	99.069	14.024	1.00	76.31	C	ATOM	46528	CZ	ARG M	94	243.938	94.378	11.366	1.00	131.55	C
ATOM	46479	O	GLY M	89	251.871	98.655	12.886	1.00	76.31	O	ATOM	46529	NH1	ARG M	94	243.449	93.837	10.257	1.00	131.55	N
ATOM	46480	N	LEU M	90	250.464	98.917	14.628	1.00	78.94	N	ATOM	46530	NH2	ARG M	94	243.655	93.839	12.545	1.00	131.55	N
ATOM	46481	CA	LEU M	90	249.350	98.229	13.982	1.00	78.94	C	ATOM	46531	N	GLY M	95	248.573	99.050	7.039	1.00	69.61	N
ATOM	46482	C	LEU M	90	249.002	98.926	12.677	1.00	78.94	C	ATOM	46532	CA	GLY M	95	248.846	99.830	5.853	1.00	69.61	C
ATOM	46483	O	LEU M	90	248.917	98.293	11.630	1.00	78.94	O	ATOM	46533	C	GLY M	95	247.839	100.963	5.763	1.00	69.61	C
ATOM	46484	CB	LEU M	90	248.121	98.221	14.896	1.00	97.74	C	ATOM	46534	O	GLY M	95	247.635	101.547	4.696	1.00	69.61	O
ATOM	46485	CG	LEU M	90	248.295	97.690	16.321	1.00	97.74	C	ATOM	46535	N	LEU M	96	247.197	101.259	6.892	1.00	58.55	N
ATOM	46486	CD1	LEU M	90	246.975	97.809	17.058	1.00	97.74	C	ATOM	46536	CA	LEU M	96	246.212	102.332	6.987	1.00	58.55	C
ATOM	46487	CD2	LEU M	90	248.769	96.243	16.298	1.00	97.74	C	ATOM	46537	C	LEU M	96	246.938	103.501	7.625	1.00	58.55	C
ATOM	46488	N	ARG M	91	248.806	100.238	12.747	1.00	65.00	N	ATOM	46538	O	LEU M	96	247.922	103.292	8.319	1.00	58.55	O
ATOM	46489	C	ARG M	91	248.461	101.009	11.565	1.00	65.00	C	ATOM	46539	CB	LEU M	96	245.052	101.906	7.880	1.00	64.60	C
ATOM	46490	O	ARG M	91	249.443	100.720	10.438	1.00	65.00	C	ATOM	46540	CG	LEU M	96	244.184	100.737	7.412	1.00	64.60	C
ATOM	46491	O	ARG M	91	249.060	100.671	9.272	1.00	65.00	O	ATOM	46541	CD1	LEU M	96	243.157	100.402	8.484	1.00	64.60	C
ATOM	46492	CB	ARG M	91	248.455	102.506	11.887	1.00	75.36	C	ATOM	46542	CD2	LEU M	96	243.493	101.103	6.107	1.00	64.60	C
ATOM	46493	CG	ARG M	91	247.567	102.876	13.057	1.00	75.36	C	ATOM	46543	N	PRO M	97	246.473	104.745	7.397	1.00	45.34	N
ATOM	46494	CD	ARG M	91	246.147	102.389	12.854	1.00	75.36	C	ATOM	46544	CA	PRO M	97	247.125	105.927	7.980	1.00	45.34	C
ATOM	46495	NE	ARG M	91	245.447	103.144	11.818	1.00	75.36	N	ATOM	46545	C	PRO M	97	247.434	105.785	9.467	1.00	45.34	C
ATOM	46496	CZ	ARG M	91	244.213	102.873	11.392	1.00	75.36	C	ATOM	46546	O	PRO M	97	246.743	105.073	10.202	1.00	45.34	O
ATOM	46497	NH1	ARG M	91	243.531	101.858	11.909	1.00	75.36	N	ATOM	46547	CB	PRO M	97	246.150	107.069	7.673	1.00	48.71	C
ATOM	46498	NH2	ARG M	91	243.657	103.622	10.449	1.00	75.36	N	ATOM	46548	CG	PRO M	97	244.858	106.384	7.399	1.00	48.71	C
ATOM	46499	N	HIS M	92	250.711	100.530	10.774	1.00	76.46	N	ATOM	46549	CD	PRO M	97	245.257	105.130	6.669	1.00	48.71	C
ATOM	46500	CA	HIS M	92	251.691	100.232	9.743	1.00	76.46	C	ATOM	46550	N	VAL M	98	248.486	106.474	9.897	1.00	83.06	N
ATOM	46501	C	HIS M	92	251.480	98.830	9.199	1.00	76.46	C	ATOM	46551	CA	VAL M	98	248.952	106.397	11.271	1.00	83.06	C
ATOM	46502	O	HIS M	92	251.577	98.617	7.993	1.00	76.46	O	ATOM	46552	C	VAL M	98	248.867	107.710	12.040	1.00	83.06	C
ATOM	46503	CB	HIS M	92	253.110	100.397	10.279	1.00	58.81	C	ATOM	46553	O	VAL M	98	249.466	107.842	13.103	1.00	83.06	O
ATOM	46504	CG	HIS M	92	253.604	101.809	10.227	1.00	58.81	C	ATOM	46554	CB	VAL M	98	250.423	105.929	11.295	1.00	124.23	C
ATOM	46505	ND1	HIS M	92	253.769	102.493	9.041	1.00	58.81	N	ATOM	46555	CG1	VAL M	98	250.774	105.396	12.660	1.00	124.23	C
ATOM	46506	CD2	HIS M	92	253.947	102.673	11.211	1.00	58.81	C	ATOM	46556	CG2	VAL M	98	250.659	104.877	10.226	1.00	124.23	C
ATOM	46507	CE1	HIS M	92	254.193	103.718	9.298	1.00	58.81	C	ATOM	46557	N	ARG M	99	248.124	108.681	11.531	1.00	66.60	N
ATOM	46508	NE2	HIS M	92	254.309	103.853	10.607	1.00	58.81	N	ATOM	46558	CA	ARG M	99	248.054	109.959	12.229	1.00	66.60	C
ATOM	46509	N	ARG M	93	251.183	97.876	10.076	1.00	82.39	N	ATOM	46559	C	ARG M	99	246.647	110.479	12.449	1.00	66.60	C
ATOM	46510	CA	ARG M	93	250.935	96.507	9.633	1.00	82.39	C	ATOM	46560	O	ARG M	99	246.362	111.660	12.221	1.00	66.60	O
ATOM	46511	C	ARG M	93	249.736	96.494	8.694	1.00	82.39	C	ATOM	46561	CB	ARG M	99	248.892	111.004	11.485	1.00	68.87	C
ATOM	46512	O	ARG M	93	249.760	95.828	7.657	1.00	82.39	O	ATOM	46562	CG	ARG M	99	250.304	110.519	11.200	1.00	68.87	C
ATOM	46513	CB	ARG M	93	250.632	95.594	10.814	1.00	123.87	C	ATOM	46563	CD	ARG M	99	251.220	111.602	10.658	1.00	68.87	C
ATOM	46514	CG	ARG M	93	251.825	95.216	11.641	1.00	123.87	C	ATOM	46564	NE	ARG M	99	252.564	111.069	10.464	1.00	68.87	N
ATOM	46515	CD	ARG M	93	251.365	94.449	12.853	1.00	123.87	C	ATOM	46565	CZ	ARG M	99	253.616	111.707	10.102	1.00	68.87	C



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ATOM	46566	NH1	ARG M	99	253.495	113.088	9.885	1.00	68.87	N	ATOM	46616	CG2	THR M	105	234.561	108.717	2.911	1.00	51.86	C
ATOM	46567	NH2	ARG M	99	254.793	111.198	9.960	1.00	68.87	N	ATOM	46617	N	ASN M	106	238.682	109.384	2.240	1.00	83.53	N
ATOM	46568	N	GLY M	100	245.777	109.578	12.898	1.00	75.01	N	ATOM	46618	CA	ASN M	106	240.031	109.767	1.847	1.00	83.53	C
ATOM	46569	CA	GLY M	100	244.396	109.922	13.188	1.00	75.01	C	ATOM	46619	C	ASN M	106	241.164	109.121	2.648	1.00	83.53	C
ATOM	46570	C	GLY M	100	243.600	110.603	12.097	1.00	75.01	C	ATOM	46620	O	ASN M	106	241.505	109.565	3.751	1.00	83.53	O
ATOM	46571	O	GLY M	100	242.855	111.540	12.377	1.00	75.01	O	ATOM	46621	CB	ASN M	106	240.178	111.274	1.947	1.00	64.55	C
ATOM	46572	N	GLN M	101	243.757	110.151	10.857	1.00	64.47	N	ATOM	46622	CG	ASN M	106	238.892	111.980	1.719	1.00	64.55	C
ATOM	46573	CA	GLN M	101	243.006	110.723	9.750	1.00	64.47	C	ATOM	46623	OD1	ASN M	106	238.266	111.822	0.673	1.00	64.55	O
ATOM	46574	C	GLN M	101	241.809	109.810	9.568	1.00	64.47	C	ATOM	46624	ND2	ASN M	106	238.472	112.768	2.700	1.00	64.55	N
ATOM	46575	O	GLN M	101	241.843	108.663	10.010	1.00	64.47	O	ATOM	46625	N	ALA M	107	241.762	108.087	2.075	1.00	52.11	N
ATOM	46576	CB	GLN M	101	243.853	110.750	8.485	1.00	69.52	C	ATOM	46626	CA	ALA M	107	242.875	107.395	2.707	1.00	52.11	C
ATOM	46577	CG	GLN M	101	245.124	111.563	8.622	1.00	69.52	C	ATOM	46627	C	ALA M	107	243.474	106.600	1.571	1.00	52.11	C
ATOM	46578	CD	GLN M	101	246.362	110.712	8.502	1.00	69.52	C	ATOM	46628	O	ALA M	107	244.098	105.550	1.764	1.00	52.11	O
ATOM	46579	OE1	GLN M	101	246.513	109.715	9.208	1.00	69.52	O	ATOM	46629	CB	ALA M	107	242.373	106.464	3.796	1.00	58.27	C
ATOM	46580	NE2	GLN M	101	247.259	111.095	7.602	1.00	69.52	N	ATOM	46630	N	ARG M	108	243.258	107.124	0.372	1.00	60.47	N
ATOM	46581	N	ARG M	102	240.744	110.299	8.943	1.00	71.51	N	ATOM	46631	CA	ARG M	108	243.722	106.485	-0.838	1.00	60.47	C
ATOM	46582	CA	ARG M	102	239.567	109.459	8.763	1.00	71.51	C	ATOM	46632	C	ARG M	108	245.234	106.428	-0.930	1.00	60.47	C
ATOM	46583	C	ARG M	102	239.856	108.378	7.741	1.00	71.51	C	ATOM	46633	O	ARG M	108	245.822	105.383	-1.228	1.00	60.47	O
ATOM	46584	O	ARG M	102	240.577	108.613	6.780	1.00	71.51	O	ATOM	46634	CB	ARG M	108	243.161	107.222	-2.052	1.00	46.32	C
ATOM	46585	CB	ARG M	102	238.367	110.288	8.310	1.00	74.30	C	ATOM	46635	CD	ARG M	108	241.639	107.290	-2.109	1.00	46.32	C
ATOM	46586	CG	ARG M	102	238.479	110.869	6.924	1.00	74.30	C	ATOM	46636	CG	ARG M	108	240.924	106.022	-1.586	1.00	46.32	C
ATOM	46587	CD	ARG M	102	237.119	110.858	6.252	1.00	74.30	C	ATOM	46637	NE	ARG M	108	241.598	104.775	-1.935	1.00	46.32	N
ATOM	46588	NE	ARG M	102	236.143	111.698	6.941	1.00	74.30	N	ATOM	46638	CZ	ARG M	108	241.083	103.564	-1.731	1.00	46.32	C
ATOM	46589	C2	ARG M	102	234.825	111.555	6.834	1.00	74.30	N	ATOM	46639	NH1	ARG M	108	239.881	103.430	-1.188	1.00	46.32	N
ATOM	46590	NH1	ARG M	102	234.305	110.597	6.069	1.00	74.30	N	ATOM	46640	NH2	ARG M	108	241.776	102.479	-2.046	1.00	46.32	N
ATOM	46591	NH2	ARG M	102	234.021	112.380	7.489	1.00	74.30	N	ATOM	46641	N	THR M	109	245.863	107.565	-0.668	1.00	52.35	N
ATOM	46592	N	THR M	103	239.305	107.188	7.943	1.00	63.52	N	ATOM	46642	CA	THR M	109	247.306	107.664	-0.750	1.00	52.35	C
ATOM	46593	CA	THR M	103	239.546	106.112	6.999	1.00	63.52	C	ATOM	46643	C	THR M	109	247.968	106.594	0.113	1.00	52.35	C
ATOM	46594	C	THR M	103	238.277	105.684	6.267	1.00	63.52	C	ATOM	46644	O	THR M	109	249.101	106.198	-0.127	1.00	52.35	O
ATOM	46595	O	THR M	103	238.321	104.840	5.366	1.00	63.52	O	ATOM	46645	CB	THR M	109	247.752	109.055	-0.315	1.00	59.63	C
ATOM	46596	CB	THR M	103	240.143	104.899	7.699	1.00	74.17	C	ATOM	46646	OG1	THR M	109	249.064	109.325	-0.809	1.00	59.63	O
ATOM	46597	OG1	THR M	103	239.133	104.253	8.478	1.00	74.17	O	ATOM	46647	CG2	THR M	109	247.761	109.136	1.174	1.00	59.63	C
ATOM	46598	CG2	THR M	103	241.274	105.331	8.604	1.00	74.17	C	ATOM	46648	N	ARG M	110	247.247	106.106	1.110	1.00	52.95	N
ATOM	46599	N	ARG M	104	237.148	106.267	6.661	1.00	47.25	N	ATOM	46649	CA	ARG M	110	247.795	105.087	1.993	1.00	52.95	C
ATOM	46600	CA	ARG M	104	235.873	105.956	6.036	1.00	47.25	C	ATOM	46650	C	ARG M	110	247.272	103.705	1.596	1.00	52.95	C
ATOM	46601	C	ARG M	104	235.930	106.403	4.584	1.00	47.25	C	ATOM	46651	O	ARG M	110	248.043	102.760	1.462	1.00	52.95	O
ATOM	46602	O	ARG M	104	235.203	105.889	3.737	1.00	47.25	O	ATOM	46652	CB	ARG M	110	247.410	105.397	3.445	1.00	79.85	C
ATOM	46603	CB	ARG M	104	234.739	106.687	6.749	1.00	60.05	C	ATOM	46653	CG	ARG M	110	248.364	104.829	4.473	1.00	79.85	C
ATOM	46604	CG	ARG M	104	233.347	106.240	6.324	1.00	60.05	C	ATOM	46654	CD	ARG M	110	249.567	105.744	4.690	1.00	79.85	C
ATOM	46605	CD	ARG M	104	232.283	106.957	7.125	1.00	60.05	C	ATOM	46655	NE	ARG M	110	250.773	104.994	5.041	1.00	79.85	N
ATOM	46606	NE	ARG M	104	230.937	106.523	6.772	1.00	60.05	N	ATOM	46656	C2	ARG M	110	250.839	104.058	5.986	1.00	79.85	C
ATOM	46607	C2	ARG M	104	229.832	106.932	7.391	1.00	60.05	C	ATOM	46657	NH1	ARG M	110	249.771	103.734	6.698	1.00	79.85	N
ATOM	46608	NH1	ARG M	104	229.908	107.790	8.400	1.00	60.05	N	ATOM	46658	NH2	ARG M	110	251.982	103.434	6.218	1.00	79.85	N
ATOM	46609	NH2	ARG M	104	228.649	106.473	7.009	1.00	60.05	N	ATOM	46659	N	LYS M	111	245.959	103.599	1.409	1.00	60.67	N
ATOM	46610	N	THR M	105	236.795	107.367	4.297	1.00	77.89	N	ATOM	46660	CA	LYS M	111	245.320	102.343	1.028	1.00	60.67	C
ATOM	46611	CA	THR M	105	236.920	107.845	2.936	1.00	77.89	C	ATOM	46661	C	LYS M	111	245.721	101.849	-0.365	1.00	60.67	C
ATOM	46612	C	THR M	105	238.377	108.134	2.552	1.00	77.89	C	ATOM	46662	O	LYS M	111	245.576	100.668	-0.679	1.00	60.67	O
ATOM	46613	O	THR M	105	239.214	107.229	2.536	1.00	77.89	O	ATOM	46663	CB	LYS M	111	243.804	102.494	1.044	1.00	71.78	C
ATOM	46614	CB	THR M	105	236.010	109.085	2.711	1.00	51.86	C	ATOM	46664	CG	LYS M	111	243.157	102.691	2.389	1.00	71.78	C
ATOM	46615	OG1	THR M	105	236.327	110.104	3.659	1.00	51.86	O	ATOM	46665	CD	LYS M	111	241.680	102.385	2.225	1.00	71.78	C



Table 2: Sheet 468/520

ATOM	46666	CE	LYS M 111	240.869	102.722	3.449	1.00	71.78	C	ATOM	46716	O	ALA M 118	229.365	96.404	-2.909	1.00	91.52	O
ATOM	46667	NZ	LYS M 111	239.435	102.387	3.213	1.00	71.78	N	ATOM	46717	CB	ALA M 118	228.758	93.642	-4.954	1.00	55.85	C
ATOM	46668	N	GLY M 112	246.203	102.755	-1.206	1.00	58.46	N	ATOM	46718	N	GLY M 119	227.348	95.885	-3.726	1.00	118.32	N
ATOM	46669	CA	GLY M 112	246.585	102.363	-2.546	1.00	58.46	C	ATOM	46719	CA	GLY M 119	226.702	96.645	-2.669	1.00	118.32	C
ATOM	46670	C	GLY M 112	245.407	102.486	-3.490	1.00	58.46	C	ATOM	46720	C	GLY M 119	225.190	96.570	-2.560	1.00	118.32	C
ATOM	46671	O	GLY M 112	244.469	103.232	-3.204	1.00	58.46	O	ATOM	46721	O	GLY M 119	224.548	95.718	-3.174	1.00	118.32	O
ATOM	46672	N	PRO M 113	245.421	101.774	-4.603	1.00	88.82	N	ATOM	46722	N	LYS M 120	224.630	97.470	-1.753	1.00	170.37	N
ATOM	46673	CA	PRO M 113	244.348	101.799	-5.632	1.00	88.82	C	ATOM	46723	CA	LYS M 120	223.188	97.562	-1.531	1.00	170.37	C
ATOM	46674	C	PRO M 113	242.983	101.448	-5.045	1.00	88.82	C	ATOM	46724	C	LYS M 120	222.671	98.816	-2.237	1.00	170.37	C
ATOM	46675	O	PRO M 113	242.879	100.586	-4.172	1.00	88.82	O	ATOM	46725	O	LYS M 120	222.725	99.918	-1.686	1.00	170.37	O
ATOM	46676	CB	PRO M 113	244.817	100.772	-6.654	1.00	119.46	C	ATOM	46726	CB	LYS M 120	222.895	97.650	-0.031	1.00	127.13	C
ATOM	46677	CG	PRO M 113	246.302	100.910	-6.590	1.00	119.46	C	ATOM	46727	CG	LYS M 120	221.437	97.928	0.309	1.00	127.13	C
ATOM	46678	CD	PRO M 113	246.546	100.950	-5.103	1.00	119.46	C	ATOM	46728	CD	LYS M 120	221.257	98.201	1.795	1.00	127.13	C
ATOM	46679	N	ARG M 114	241.939	102.110	-5.531	1.00	85.55	N	ATOM	46729	CE	LYS M 120	219.844	98.666	2.108	1.00	127.13	C
ATOM	46680	CA	ARG M 114	240.589	101.866	-5.032	1.00	85.55	C	ATOM	46730	NZ	LYS M 120	219.697	99.062	3.535	1.00	127.13	N
ATOM	46681	C	ARG M 114	240.030	100.554	-5.560	1.00	85.55	C	ATOM	46731	N	LYS M 121	222.166	98.635	-3.455	1.00	198.25	N
ATOM	46682	O	ARG M 114	239.808	100.401	-6.760	1.00	85.55	O	ATOM	46732	CA	LYS M 121	221.663	99.739	-4.273	1.00	198.25	C
ATOM	46683	CB	ARG M 114	239.660	103.008	-5.432	1.00	66.57	C	ATOM	46733	C	LYS M 121	220.417	100.451	-3.746	1.00	198.25	C
ATOM	46684	CG	ARG M 114	238.370	103.029	-4.649	1.00	66.57	C	ATOM	46734	O	LYS M 121	220.528	101.526	-3.153	1.00	198.25	O
ATOM	46685	CD	ARG M 114	237.358	103.981	-5.263	1.00	66.57	C	ATOM	46735	CB	LYS M 121	221.411	99.246	-5.705	1.00	151.10	C
ATOM	46686	NE	ARG M 114	237.797	105.376	-5.275	1.00	66.57	N	ATOM	46736	CG	LYS M 121	222.655	98.681	-6.379	1.00	151.10	C
ATOM	46687	CZ	ARG M 114	237.779	106.194	-4.225	1.00	66.57	C	ATOM	46737	CD	LYS M 121	222.365	98.154	-7.771	1.00	151.10	C
ATOM	46688	NH1	ARG M 114	237.340	105.771	-3.050	1.00	66.57	N	ATOM	46738	CE	LYS M 121	223.609	97.525	-8.371	1.00	151.10	C
ATOM	46689	NH2	ARG M 114	238.199	107.443	-4.357	1.00	66.57	N	ATOM	46739	NZ	LYS M 121	223.362	97.008	-9.742	1.00	151.10	N
ATOM	46690	N	LYS M 115	239.784	99.617	-4.654	1.00	61.36	N	ATOM	46740	N	LYS M 122	219.242	99.860	-3.972	1.00	200.58	N
ATOM	46691	CA	LYS M 115	239.264	98.302	-5.020	1.00	61.36	C	ATOM	46741	CA	LYS M 122	217.971	100.447	-3.535	1.00	200.58	C
ATOM	46692	C	LYS M 115	237.769	98.088	-4.735	1.00	61.36	C	ATOM	46742	C	LYS M 122	218.031	101.011	-2.116	1.00	200.58	C
ATOM	46693	O	LYS M 115	237.399	97.506	-3.714	1.00	61.36	O	ATOM	46743	O	LYS M 122	217.653	100.351	-1.143	1.00	200.58	O
ATOM	46694	CB	LYS M 115	240.099	97.234	-4.308	1.00	69.77	C	ATOM	46744	CB	LYS M 122	216.832	99.418	-3.652	1.00	121.44	C
ATOM	46695	CG	LYS M 115	240.508	97.613	-2.891	1.00	69.77	C	ATOM	46745	CG	LYS M 122	215.495	99.872	-3.049	1.00	121.44	C
ATOM	46696	CD	LYS M 115	241.561	96.666	-2.359	1.00	69.77	C	ATOM	46746	CD	LYS M 122	215.082	101.262	-3.529	1.00	121.44	C
ATOM	46697	CE	LYS M 115	242.798	96.671	-3.239	1.00	69.77	C	ATOM	46747	CE	LYS M 122	213.878	101.786	-2.752	1.00	121.44	C
ATOM	46698	NZ	LYS M 115	243.498	98.002	-3.253	1.00	69.77	N	ATOM	46748	NZ	LYS M 122	213.644	103.241	-2.989	1.00	121.44	N
ATOM	46699	N	THR M 116	236.922	98.535	-5.661	1.00	50.94	N	ATOM	46749	N	ALA M 123	218.506	102.251	-2.032	1.00	200.58	N
ATOM	46700	CA	THR M 116	235.461	98.433	-5.533	1.00	50.94	C	ATOM	46750	CA	ALA M 123	218.663	102.989	-0.784	1.00	200.58	C
ATOM	46701	C	THR M 116	234.890	97.047	-5.236	1.00	50.94	C	ATOM	46751	C	ALA M 123	219.656	104.111	-1.075	1.00	200.58	C
ATOM	46702	O	THR M 116	235.472	96.030	-5.591	1.00	50.94	O	ATOM	46752	O	ALA M 123	220.847	103.853	-1.258	1.00	200.58	O
ATOM	46703	CB	THR M 116	234.767	98.976	-6.806	1.00	64.58	C	ATOM	46753	CB	ALA M 123	219.212	102.078	0.319	1.00	124.31	C
ATOM	46704	OG1	THR M 116	235.070	100.369	-6.956	1.00	64.58	O	ATOM	46754	N	PRO M 124	219.176	105.367	-1.143	1.00	200.58	N
ATOM	46705	CG2	THR M 116	233.266	98.805	-6.723	1.00	64.58	C	ATOM	46755	CA	PRO M 124	220.046	106.517	-1.417	1.00	200.58	C
ATOM	46706	N	VAL M 117	233.732	97.035	-4.582	1.00	73.57	N	ATOM	46756	C	PRO M 124	221.329	106.513	-0.577	1.00	200.58	C
ATOM	46707	CA	VAL M 117	233.013	95.817	-4.205	1.00	73.57	C	ATOM	46757	O	PRO M 124	221.388	107.123	0.494	1.00	200.58	O
ATOM	46708	C	VAL M 117	231.540	96.020	-4.551	1.00	73.57	C	ATOM	46758	CB	PRO M 124	219.141	107.706	-1.106	1.00	157.48	C
ATOM	46709	O	VAL M 117	231.104	97.149	-4.790	1.00	73.57	O	ATOM	46759	CG	PRO M 124	217.803	107.209	-1.565	1.00	157.48	C
ATOM	46710	CB	VAL M 117	233.123	95.557	-2.676	1.00	54.85	C	ATOM	46760	CD	PRO M 124	217.770	105.795	-1.011	1.00	157.48	C
ATOM	46711	CG1	VAL M 117	232.211	94.426	-2.257	1.00	54.85	C	ATOM	46761	N	ARG M 125	222.352	105.822	-1.079	1.00	200.58	N
ATOM	46712	CG2	VAL M 117	234.544	95.214	-2.318	1.00	54.85	C	ATOM	46762	CA	ARG M 125	223.633	105.718	-0.386	1.00	200.58	C
ATOM	46713	N	ALA M 118	230.774	94.935	-4.581	1.00	91.52	N	ATOM	46763	O	ARG M 125	224.366	107.055	-0.273	1.00	200.58	O
ATOM	46714	CA	ALA M 118	229.348	95.027	-4.871	1.00	91.52	C	ATOM	46764	C	ARG M 125	225.426	107.140	0.350	1.00	200.58	C
ATOM	46715	C	ALA M 118	228.677	95.830	-3.751	1.00	91.52	C	ATOM	46765	CB	ARG M 125	224.535	104.665	-1.067	1.00	138.36	C



Table 2: Sheet 469/520

ATOM	46766	CG	ARG M 125	224.688	104.805	-2.581	1.00138.36	C	ATOM	46816	O	LEU N	6	223.431	118.898	33.077	1.00111.37	O
ATOM	46767	CD	ARG M 125	225.484	106.040	-2.958	1.00138.36	C	ATOM	46817	CB	LEU N	6	221.918	116.756	31.666	1.00 96.90	C
ATOM	46768	NE	ARG M 125	225.442	106.309	-4.392	1.00138.36	N	ATOM	46818	CG	LEU N	6	222.444	115.468	31.034	1.00 96.90	C
ATOM	46769	C2	ARG M 125	224.338	106.611	-5.066	1.00138.36	C	ATOM	46819	CD1	LEU N	6	222.435	115.647	29.532	1.00 96.90	C
ATOM	46770	NH1	ARG M 125	223.170	106.685	-4.444	1.00138.36	N	ATOM	46820	CD2	LEU N	6	223.860	115.165	31.510	1.00 96.90	C
ATOM	46771	NH2	ARG M 125	224.403	106.846	-6.367	1.00138.36	N	ATOM	46821	N	ILE N	7	221.424	119.133	34.042	1.00 91.27	N
ATOM	46772	N	LYS M 126	223.800	108.097	-0.874	1.00 99.03	N	ATOM	46822	CA	ILE N	7	221.695	120.527	34.339	1.00 91.27	C
ATOM	46773	CA	LYS M 126	224.408	109.418	-0.816	1.00 99.03	C	ATOM	46823	C	ILE N	7	222.405	120.561	35.690	1.00 91.27	C
ATOM	46774	O	LYS M 126	224.483	109.808	0.646	1.00 99.03	C	ATOM	46824	O	ILE N	7	221.980	121.218	36.647	1.00 91.27	C
ATOM	46775	O	LYS M 126	225.581	110.196	1.076	1.00 99.03	O	ATOM	46825	CB	ILE N	7	220.418	121.364	34.365	1.00 72.29	C
ATOM	46776	CB	LYS M 126	223.565	110.444	-1.579	1.00122.91	C	ATOM	46826	CG1	ILE N	7	219.713	121.250	33.007	1.00 72.29	C
ATOM	46777	CG	LYS M 126	223.362	110.137	-3.060	1.00122.91	C	ATOM	46827	CG2	ILE N	7	220.769	122.818	34.665	1.00 72.29	C
ATOM	46778	CD	LYS M 126	222.552	111.239	-3.735	1.00122.91	C	ATOM	46828	CD1	ILE N	7	218.507	122.147	32.850	1.00 72.29	C
ATOM	46779	CE	LYS M 126	222.330	110.973	-5.217	1.00122.91	C	ATOM	46829	N	GLU N	8	223.492	119.795	35.734	1.00154.54	N
ATOM	46780	NZ	LYS M 126	221.505	112.056	-5.821	1.00122.91	N	ATOM	46830	CA	GLU N	8	224.363	119.669	36.892	1.00154.54	C
ATOM	46781	OXT	LYS M 126	223.444	109.724	1.335	1.00151.88	O	ATOM	46831	C	GLU N	8	225.422	120.731	36.652	1.00154.54	C
TER	46782		LYS M 126						ATOM	46832	O	GLU N	8	226.101	121.168	37.569	1.00154.54	O
ATOM	46783	N	ALA N 2	216.352	118.017	27.223	1.00123.18	N	ATOM	46833	CB	GLU N	8	225.039	118.296	36.898	1.00 87.40	C
ATOM	46784	CA	ALA N 2	217.219	118.472	28.336	1.00123.18	C	ATOM	46834	CG	GLU N	8	226.349	118.273	36.096	1.00 87.40	C
ATOM	46785	C	ALA N 2	216.801	117.755	29.598	1.00123.18	C	ATOM	46835	CD	GLU N	8	226.581	116.982	35.307	1.00 87.40	C
ATOM	46786	O	ALA N 2	215.663	117.885	30.059	1.00123.18	O	ATOM	46836	OE1	GLU N	8	226.695	115.894	35.918	1.00 87.40	O
ATOM	46787	CB	ALA N 2	217.089	119.968	28.523	1.00 38.59	C	ATOM	46837	OE2	GLU N	8	226.660	117.065	34.060	1.00 87.40	O
ATOM	46788	N	ARG N 3	217.724	116.981	30.146	1.00 88.34	N	ATOM	46838	N	LYS N	9	225.565	121.120	35.388	1.00105.65	N
ATOM	46789	CA	ARG N 3	217.452	116.249	31.366	1.00 88.34	C	ATOM	46839	CA	LYS N	9	226.530	122.132	34.997	1.00105.65	C
ATOM	46790	C	ARG N 3	217.718	117.131	32.576	1.00 88.34	C	ATOM	46840	O	LYS N	9	226.432	123.302	35.958	1.00105.65	C
ATOM	46791	O	ARG N 3	218.770	117.762	32.671	1.00 88.34	O	ATOM	46841	C	LYS N	9	227.440	123.927	36.292	1.00105.65	O
ATOM	46792	CB	ARG N 3	218.321	115.003	31.422	1.00 73.94	C	ATOM	46842	CB	LYS N	9	226.251	122.611	33.569	1.00105.52	C
ATOM	46793	CG	ARG N 3	217.854	113.915	30.491	1.00 73.94	C	ATOM	46843	CG	LYS N	9	227.313	123.559	33.008	1.00105.52	C
ATOM	46794	CD	ARG N 3	219.026	113.101	30.026	1.00 73.94	C	ATOM	46844	CE	LYS N	9	227.231	124.957	33.613	1.00105.52	C
ATOM	46795	NE	ARG N 3	219.954	112.862	31.118	1.00 73.94	N	ATOM	46845	CD	LYS N	9	228.510	125.737	33.370	1.00105.52	C
ATOM	46796	CZ	ARG N 3	221.218	112.500	30.945	1.00 73.94	C	ATOM	46846	NZ	LYS N	9	228.405	127.128	33.874	1.00105.52	N
ATOM	46797	NH1	ARG N 3	221.689	112.337	29.714	1.00 73.94	N	ATOM	46847	N	ALA N	10	225.214	123.596	36.402	1.00142.80	N
ATOM	46798	NH2	ARG N 3	222.013	112.323	31.996	1.00 73.94	N	ATOM	46848	CA	ALA N	10	224.992	124.692	37.334	1.00142.80	C
ATOM	46799	N	LYS N 4	216.754	117.192	33.490	1.00 83.32	N	ATOM	46849	C	ALA N	10	225.875	124.511	38.572	1.00142.80	C
ATOM	46800	CA	LYS N 4	216.914	118.000	34.685	1.00 83.32	C	ATOM	46850	O	ALA N	10	226.035	125.432	39.373	1.00142.80	O
ATOM	46801	C	LYS N 4	218.244	117.568	35.278	1.00 83.32	C	ATOM	46851	CB	ALA N	10	223.520	124.754	37.727	1.00 66.75	C
ATOM	46802	O	LYS N 4	219.083	118.394	35.637	1.00 83.32	O	ATOM	46852	N	LYS N	11	226.447	123.318	38.720	1.00104.74	N
ATOM	46803	CB	LYS N 4	215.771	117.732	35.665	1.00112.08	C	ATOM	46853	CA	LYS N	11	227.336	123.025	39.839	1.00104.74	C
ATOM	46804	CG	LYS N 4	215.553	118.853	36.668	1.00112.08	C	ATOM	46854	C	LYS N	11	228.683	123.667	39.557	1.00104.74	C
ATOM	46805	CD	LYS N 4	214.293	118.635	37.495	1.00112.08	C	ATOM	46855	O	LYS N	11	229.538	123.067	38.904	1.00104.74	O
ATOM	46806	CE	LYS N 4	213.995	119.845	38.379	1.00112.08	C	ATOM	46856	CB	LYS N	11	227.545	121.513	40.014	1.00130.07	C
ATOM	46807	NZ	LYS N 4	212.771	119.668	39.219	1.00112.08	N	ATOM	46857	CG	LYS N	11	226.319	120.729	40.475	1.00130.07	C
ATOM	46808	N	ALA N 5	218.440	116.256	35.329	1.00 78.17	N	ATOM	46858	CD	LYS N	11	226.631	119.238	40.602	1.00130.07	C
ATOM	46809	CA	ALA N 5	219.662	115.680	35.865	1.00 78.17	C	ATOM	46859	CE	LYS N	11	225.383	118.439	40.940	1.00130.07	C
ATOM	46810	C	ALA N 5	220.920	116.262	35.222	1.00 78.17	C	ATOM	46860	NZ	LYS N	11	225.666	116.981	40.999	1.00130.07	C
ATOM	46811	O	ALA N 5	221.888	116.566	35.918	1.00 78.17	O	ATOM	46861	N	ARG N	12	228.865	124.890	40.044	1.00199.36	N
ATOM	46812	CB	ALA N 5	219.638	114.173	35.682	1.00109.04	C	ATOM	46862	CA	ARG N	12	230.115	125.617	39.860	1.00199.36	C
ATOM	46813	N	LEU N 6	220.907	116.414	33.898	1.00111.37	N	ATOM	46863	C	ARG N	12	231.260	124.819	40.480	1.00199.36	C
ATOM	46814	CA	LEU N 6	222.063	116.949	33.177	1.00111.37	C	ATOM	46864	O	ARG N	12	232.358	125.338	40.680	1.00199.36	O
ATOM	46815	C	LEU N 6	222.362	118.413	33.442	1.00111.37	C	ATOM	46865	CB	ARG N	12	230.021	126.983	40.539	1.00200.58	C



Table 2: Sheet 470/520

ATOM	46866	CG	ARG N	12	229.600	126.895	41.997	1.00200.58	C	ATOM	46916	CA	VAL N	18	237.727	122.184	31.203	1.00113.66	C
ATOM	46867	CD	ARG N	12	230.516	127.705	42.892	1.00200.58	C	ATOM	46917	C	VAL N	18	236.396	121.473	31.011	1.00113.66	C
ATOM	46868	NE	ARG N	12	230.238	127.470	44.306	1.00200.58	N	ATOM	46918	O	VAL N	18	235.874	121.420	29.897	1.00113.66	O
ATOM	46869	C2	ARG N	12	230.942	127.995	45.303	1.00200.58	C	ATOM	46919	CB	VAL N	18	238.844	121.274	30.656	1.00 82.79	C
ATOM	46870	NH1	ARG N	12	231.971	128.791	45.045	1.00200.58	N	ATOM	46920	CG1	VAL N	18	240.044	122.109	30.289	1.00 82.79	C
ATOM	46871	NH2	ARG N	12	230.618	127.724	46.560	1.00200.58	N	ATOM	46921	CG2	VAL N	18	239.207	120.213	31.681	1.00 82.79	C
ATOM	46872	N	THR N	13	230.990	123.550	40.773	1.00126.25	N	ATOM	46922	N	ARG N	19	235.843	120.931	32.093	1.00 71.62	N
ATOM	46873	CA	THR N	13	231.963	122.662	41.387	1.00126.25	C	ATOM	46923	CA	ARG N	19	234.569	120.225	32.003	1.00 71.62	C
ATOM	46874	C	THR N	13	232.386	121.517	40.467	1.00126.25	C	ATOM	46924	C	ARG N	19	233.371	121.163	32.075	1.00 71.62	C
ATOM	46875	O	THR N	13	232.030	120.363	40.703	1.00126.25	O	ATOM	46925	O	ARG N	19	232.259	120.777	31.723	1.00 71.62	O
ATOM	46876	CB	THR N	13	231.392	122.053	42.688	1.00194.63	C	ATOM	46926	CB	ARG N	19	234.450	119.170	33.105	1.00 54.45	C
ATOM	46877	OG1	THR N	13	230.910	123.103	43.536	1.00194.63	O	ATOM	46927	CG	ARG N	19	235.551	118.132	33.087	1.00 54.45	C
ATOM	46878	CG2	THR N	13	232.462	121.264	43.429	1.00194.63	C	ATOM	46928	CD	ARG N	19	235.166	116.861	33.825	1.00 54.45	C
ATOM	46879	N	PRO N	14	233.133	121.824	39.395	1.00 89.25	N	ATOM	46929	NE	ARG N	19	236.277	115.914	33.830	1.00 54.45	N
ATOM	46880	CA	PRO N	14	233.587	120.784	38.468	1.00 89.25	C	ATOM	46930	CZ	ARG N	19	236.249	114.707	34.392	1.00 54.45	C
ATOM	46881	C	PRO N	14	235.050	120.433	38.732	1.00 89.25	C	ATOM	46931	NH1	ARG N	19	235.158	114.261	35.002	1.00 54.45	N
ATOM	46882	O	PRO N	14	235.898	121.321	38.814	1.00 89.25	O	ATOM	46932	NH2	ARG N	19	237.336	113.952	34.371	1.00 54.45	N
ATOM	46883	CB	PRO N	14	233.395	121.442	37.118	1.00 80.86	C	ATOM	46933	N	ALA N	20	233.596	122.395	32.514	1.00 61.37	N
ATOM	46884	CG	PRO N	14	233.846	122.834	37.405	1.00 80.86	C	ATOM	46934	CA	ALA N	20	232.516	123.368	32.636	1.00 61.37	C
ATOM	46885	CD	PRO N	14	233.218	123.150	38.757	1.00 80.86	C	ATOM	46935	O	ALA N	20	232.031	123.887	31.289	1.00 61.37	C
ATOM	46886	N	LYS N	15	235.338	119.141	38.868	1.00 90.73	N	ATOM	46936	O	ALA N	20	232.779	124.559	30.589	1.00 61.37	O
ATOM	46887	CA	LYS N	15	236.699	118.665	39.127	1.00 90.73	C	ATOM	46937	CB	ALA N	20	232.971	124.536	33.498	1.00146.10	C
ATOM	46888	C	LYS N	15	237.782	119.511	38.446	1.00 90.73	C	ATOM	46938	N	TYR N	21	230.785	123.580	30.922	1.00 82.30	N
ATOM	46889	O	LYS N	15	238.816	119.811	39.041	1.00 90.73	O	ATOM	46939	CA	TYR N	21	230.257	124.072	29.656	1.00 82.30	C
ATOM	46890	CB	LYS N	15	236.846	117.211	38.671	1.00119.96	C	ATOM	46940	O	TYR N	21	229.254	125.214	29.806	1.00 82.30	C
ATOM	46891	CG	LYS N	15	236.245	116.152	39.579	1.00119.96	C	ATOM	46941	C	TYR N	21	229.667	122.939	28.814	1.00 79.31	C
ATOM	46892	CD	LYS N	15	236.432	114.774	38.941	1.00119.96	C	ATOM	46942	CB	TYR N	21	228.593	122.102	29.450	1.00 79.31	C
ATOM	46893	CE	LYS N	15	236.039	113.629	39.864	1.00119.96	C	ATOM	46943	CG	TYR N	21	228.915	121.063	30.314	1.00 79.31	C
ATOM	46894	N2	LYS N	15	236.978	113.491	41.010	1.00119.96	N	ATOM	46944	CD1	TYR N	21	227.254	122.288	29.110	1.00 79.31	C
ATOM	46895	N	PHE N	16	237.547	119.878	37.191	1.00 75.13	N	ATOM	46945	CD2	TYR N	21	227.930	120.218	30.816	1.00 79.31	C
ATOM	46896	CA	PHE N	16	238.492	120.688	36.436	1.00 75.13	C	ATOM	46946	CE1	TYR N	21	226.265	121.452	29.606	1.00 79.31	C
ATOM	46897	C	PHE N	16	237.674	121.640	35.577	1.00 75.13	C	ATOM	46947	CE2	TYR N	21	226.608	120.418	30.454	1.00 79.31	C
ATOM	46898	O	PHE N	16	236.626	121.261	35.068	1.00 75.13	O	ATOM	46948	C2	TYR N	21	225.630	119.572	30.925	1.00 79.31	O
ATOM	46899	CB	PHE N	16	239.354	119.804	35.541	1.00 60.61	C	ATOM	46949	OH	TYR N	21	228.239	125.288	28.950	1.00 78.69	N
ATOM	46900	CG	PHE N	16	239.598	118.428	36.091	1.00 60.61	C	ATOM	46950	N	THR N	22	227.310	126.404	29.048	1.00 78.69	C
ATOM	46901	CD1	PHE N	16	238.621	117.446	36.001	1.00 60.61	C	ATOM	46951	CA	THR N	22	225.822	126.196	29.367	1.00 78.69	C
ATOM	46902	CD2	PHE N	16	240.825	118.096	36.650	1.00 60.61	C	ATOM	46952	C	THR N	22	225.400	126.486	30.493	1.00 78.69	O
ATOM	46903	CE1	PHE N	16	238.863	116.143	36.454	1.00 60.61	C	ATOM	46953	O	THR N	22	227.418	127.305	27.798	1.00 76.51	C
ATOM	46904	CE2	PHE N	16	241.077	116.799	37.106	1.00 60.61	C	ATOM	46954	CB	THR N	22	227.552	126.499	26.619	1.00 76.51	O
ATOM	46905	CZ	PHE N	16	240.090	115.822	37.005	1.00 60.61	C	ATOM	46955	OG1	THR N	22	228.604	128.223	27.924	1.00 76.51	C
ATOM	46906	N	LYS N	17	238.149	122.865	35.390	1.00 70.86	N	ATOM	46956	CG2	THR N	22	225.027	125.733	28.401	1.00 55.77	N
ATOM	46907	CA	LYS N	17	237.379	123.824	34.613	1.00 70.86	C	ATOM	46957	N	ARG N	23	223.577	125.541	28.603	1.00 55.77	C
ATOM	46908	C	LYS N	17	237.172	123.486	33.136	1.00 70.86	O	ATOM	46958	CA	ARG N	23	222.789	126.855	28.530	1.00 55.77	C
ATOM	46909	O	LYS N	17	236.323	124.091	32.474	1.00 70.86	O	ATOM	46959	C	ARG N	23	223.248	127.895	29.010	1.00 55.77	O
ATOM	46910	CB	LYS N	17	237.977	125.223	34.744	1.00102.31	C	ATOM	46960	O	ARG N	23	223.282	124.907	29.957	1.00 60.70	C
ATOM	46911	CG	LYS N	17	239.220	125.479	33.926	1.00102.31	C	ATOM	46961	CB	ARG N	23	223.752	123.507	30.119	1.00 60.70	C
ATOM	46912	CD	LYS N	17	239.112	126.844	33.250	1.00102.31	C	ATOM	46962	CG	ARG N	23	222.795	122.547	29.493	1.00 60.70	C
ATOM	46913	CE	LYS N	17	238.629	127.921	34.226	1.00102.31	C	ATOM	46963	CD	ARG N	23	223.277	121.195	29.698	1.00 60.70	N
ATOM	46914	N2	LYS N	17	238.461	129.257	33.586	1.00102.31	N	ATOM	46964	NE	ARG N	23	223.008	120.181	28.891	1.00 60.70	C
ATOM	46915	N	VAL N	18	237.926	122.535	32.602	1.00113.66	N	ATOM	46965	C2	ARG N	23					



Table 2: Sheet 471/520

ATOM	46966	NH1	ARG	N	23	222.245	120.379	27.815	1.00	60.70	N	ATOM	47016	O	ALA	N	30	225.284	124.278	23.464	1.00	73.12	O
ATOM	46967	NH2	ARG	N	23	223.515	118.977	29.153	1.00	60.70	N	ATOM	47017	CB	ALA	N	30	224.073	122.321	25.678	1.00	23.06	C
ATOM	46968	N	CYS	N	24	221.596	126.808	27.944	1.00	85.68	N	ATOM	47018	N	ARG	N	31	223.558	123.108	22.626	1.00	97.36	N
ATOM	46969	CA	CYS	N	24	220.771	128.003	27.836	1.00	85.68	C	ATOM	47019	CA	ARG	N	31	224.095	123.083	21.281	1.00	97.36	C
ATOM	46970	C	CYS	N	24	220.147	128.323	29.188	1.00	85.68	C	ATOM	47020	C	ARG	N	31	224.499	124.405	20.663	1.00	97.36	C
ATOM	46971	O	CYS	N	24	219.741	127.428	29.933	1.00	85.68	O	ATOM	47021	O	ARG	N	31	225.442	124.424	19.878	1.00	97.36	O
ATOM	46972	CB	CYS	N	24	219.660	127.810	26.794	1.00	68.81	C	ATOM	47022	CB	ARG	N	31	223.157	122.348	20.328	1.00	54.86	C
ATOM	46973	SG	CYS	N	24	218.587	129.274	26.543	1.00	68.81	S	ATOM	47023	CG	ARG	N	31	223.908	121.401	19.403	1.00	54.86	C
ATOM	46974	N	VAL	N	25	220.086	129.611	29.502	1.00	83.36	N	ATOM	47024	CD	ARG	N	31	224.287	120.120	20.119	1.00	54.86	C
ATOM	46975	CA	VAL	N	25	219.494	130.072	30.745	1.00	83.36	C	ATOM	47025	NE	ARG	N	31	225.404	119.459	19.467	1.00	54.86	N
ATOM	46976	C	VAL	N	25	218.020	129.693	30.734	1.00	83.36	C	ATOM	47026	CZ	ARG	N	31	225.497	118.147	19.305	1.00	54.86	C
ATOM	46977	O	VAL	N	25	217.482	129.219	31.732	1.00	83.36	O	ATOM	47027	NH1	ARG	N	31	224.527	117.353	19.744	1.00	54.86	N
ATOM	46978	CB	VAL	N	25	219.582	131.605	30.860	1.00	77.64	C	ATOM	47028	NH2	ARG	N	31	226.570	117.630	18.721	1.00	54.86	N
ATOM	46979	CG1	VAL	N	25	218.921	132.065	32.126	1.00	77.64	C	ATOM	47029	N	SER	N	32	223.811	125.505	20.947	1.00	43.67	N
ATOM	46980	CG2	VAL	N	25	221.019	132.048	30.833	1.00	77.64	C	ATOM	47030	CA	SER	N	32	224.293	126.752	20.355	1.00	43.67	C
ATOM	46981	N	ARG	N	26	217.391	129.894	29.578	1.00	65.89	N	ATOM	47031	C	SER	N	32	223.867	127.994	21.113	1.00	43.67	C
ATOM	46982	CA	ARG	N	26	215.963	129.638	29.371	1.00	65.89	C	ATOM	47032	O	SER	N	32	223.076	128.809	20.631	1.00	43.67	O
ATOM	46983	C	ARG	N	26	215.479	128.215	29.048	1.00	65.89	C	ATOM	47033	CB	SER	N	32	223.926	126.860	18.864	1.00	60.73	C
ATOM	46984	O	ARG	N	26	214.740	127.628	29.836	1.00	65.89	O	ATOM	47034	OG	SER	N	32	222.547	127.057	18.663	1.00	60.73	O
ATOM	46985	CB	ARG	N	26	215.446	130.605	28.306	1.00	66.95	C	ATOM	47035	N	VAL	N	33	224.450	128.130	22.303	1.00	70.30	N
ATOM	46986	CG	ARG	N	26	214.043	130.346	27.849	1.00	66.95	C	ATOM	47036	CA	VAL	N	33	224.193	129.232	23.226	1.00	70.30	C
ATOM	46987	CD	ARG	N	26	213.541	131.526	27.047	1.00	66.95	C	ATOM	47037	C	VAL	N	33	225.082	130.449	22.949	1.00	70.30	C
ATOM	46988	NE	ARG	N	26	212.269	131.233	26.393	1.00	66.95	N	ATOM	47038	O	VAL	N	33	226.261	130.295	22.652	1.00	70.30	O
ATOM	46989	CZ	ARG	N	26	211.507	132.154	25.813	1.00	66.95	C	ATOM	47039	CB	VAL	N	33	224.437	128.755	24.672	1.00	57.23	C
ATOM	46990	NH1	ARG	N	26	211.891	133.419	25.815	1.00	66.95	N	ATOM	47040	CG1	VAL	N	33	223.347	127.801	25.106	1.00	57.23	C
ATOM	46991	NH2	ARG	N	26	210.366	131.815	25.228	1.00	66.95	N	ATOM	47041	CG2	VAL	N	33	225.765	128.021	24.742	1.00	57.23	C
ATOM	46992	N	CYS	N	27	215.872	127.657	27.903	1.00	57.36	N	ATOM	47042	N	TYR	N	34	224.515	131.650	23.053	1.00	72.85	N
ATOM	46993	CA	CYS	N	27	215.416	126.310	27.539	1.00	57.36	C	ATOM	47043	CA	TYR	N	34	225.256	132.897	22.826	1.00	72.85	C
ATOM	46994	C	CYS	N	27	216.305	125.193	28.073	1.00	57.36	C	ATOM	47044	C	TYR	N	34	225.697	133.557	24.138	1.00	72.85	C
ATOM	46995	O	CYS	N	27	215.910	124.028	28.090	1.00	57.36	C	ATOM	47045	O	TYR	N	34	224.866	134.050	24.904	1.00	72.85	O
ATOM	46996	CB	CYS	N	27	215.271	126.175	26.015	1.00	41.87	C	ATOM	47046	CB	TYR	N	34	224.395	133.893	22.056	1.00	73.43	C
ATOM	46997	SG	CYS	N	27	216.803	126.043	25.096	1.00	41.87	S	ATOM	47047	CG	TYR	N	34	224.260	133.613	20.582	1.00	73.43	C
ATOM	46998	N	GLY	N	28	217.506	125.548	28.512	1.00	68.13	N	ATOM	47048	CD1	TYR	N	34	223.849	132.370	20.116	1.00	73.43	C
ATOM	46999	CA	GLY	N	28	218.406	124.544	29.052	1.00	68.13	C	ATOM	47049	CD2	TYR	N	34	224.514	134.611	19.650	1.00	73.43	C
ATOM	47000	C	GLY	N	28	219.193	123.835	27.974	1.00	68.13	C	ATOM	47050	CE1	TYR	N	34	223.697	132.134	18.751	1.00	73.43	C
ATOM	47001	O	GLY	N	28	219.834	122.812	28.224	1.00	68.13	O	ATOM	47051	CE2	TYR	N	34	224.363	134.389	18.294	1.00	73.43	C
ATOM	47002	N	ARG	N	29	219.149	124.389	26.768	1.00	113.92	N	ATOM	47052	CZ	TYR	N	34	223.956	133.155	17.849	1.00	73.43	C
ATOM	47003	CA	ARG	N	29	219.859	123.811	25.636	1.00	113.92	C	ATOM	47053	OH	TYR	N	34	223.804	132.956	16.496	1.00	73.43	O
ATOM	47004	C	ARG	N	29	221.352	123.849	25.904	1.00	113.92	C	ATOM	47054	CA	ARG	N	35	227.005	133.583	24.379	1.00	69.08	N
ATOM	47005	O	ARG	N	29	221.785	124.114	27.021	1.00	113.92	C	ATOM	47055	CA	ARG	N	35	227.572	134.171	25.592	1.00	69.08	C
ATOM	47006	CB	ARG	N	29	219.540	124.596	24.361	1.00	59.72	C	ATOM	47056	C	ARG	N	35	226.933	135.493	26.006	1.00	69.08	C
ATOM	47007	CG	ARG	N	29	219.742	123.820	23.085	1.00	59.72	C	ATOM	47057	O	ARG	N	35	226.454	135.644	27.128	1.00	69.08	O
ATOM	47008	CD	ARG	N	29	218.690	124.226	22.076	1.00	59.72	C	ATOM	47058	CB	ARG	N	35	229.077	134.388	25.415	1.00	68.60	C
ATOM	47009	NE	ARG	N	29	218.822	123.470	20.840	1.00	59.72	C	ATOM	47059	CG	ARG	N	35	229.927	133.124	25.412	1.00	68.60	C
ATOM	47010	CZ	ARG	N	29	219.832	123.612	19.995	1.00	59.72	C	ATOM	47060	CD	ARG	N	35	231.384	133.484	25.135	1.00	68.60	C
ATOM	47011	NH1	ARG	N	29	220.791	124.487	20.254	1.00	59.72	N	ATOM	47061	NE	ARG	N	35	232.310	132.353	25.239	1.00	68.60	C
ATOM	47012	NH2	ARG	N	29	219.889	122.870	18.904	1.00	59.72	N	ATOM	47062	CZ	ARG	N	35	233.603	132.417	24.911	1.00	68.60	C
ATOM	47013	N	ALA	N	30	222.136	123.577	24.871	1.00	73.12	N	ATOM	47063	NH1	ARG	N	35	234.114	133.558	24.457	1.00	68.60	N
ATOM	47014	CA	ALA	N	30	223.587	123.586	24.986	1.00	73.12	C	ATOM	47064	NH2	ARG	N	35	234.389	131.348	25.037	1.00	68.60	N
ATOM	47015	C	ALA	N	30	224.225	123.681	23.618	1.00	73.12	C	ATOM	47065	N	PHE	N	36	226.929	136.454	25.096	1.00	55.70	N



Table 2: Sheet 472/520

ATOM	47066	CA	PHE N	36	226.372	137.766	25.388	1.00	55.70	C	ATOM	47116	N	ILE N	42	217.596	129.465	19.553	1.00	40.88	N
ATOM	47067	C	PHE N	36	224.967	137.734	25.949	1.00	55.70	C	ATOM	47117	CA	ILE N	42	216.145	129.442	19.470	1.00	40.88	C
ATOM	47068	O	PHE N	36	224.553	138.682	26.605	1.00	55.70	O	ATOM	47118	C	ILE N	42	215.515	130.453	20.434	1.00	40.88	C
ATOM	47069	CB	PHE N	36	226.394	138.631	24.131	1.00	45.64	C	ATOM	47119	O	ILE N	42	214.718	131.320	20.028	1.00	40.88	O
ATOM	47070	CG	PHE N	36	225.941	140.040	24.349	1.00	45.64	C	ATOM	47120	CB	ILE N	42	215.606	128.061	19.813	1.00	35.44	C
ATOM	47071	CD1	PHE N	36	224.598	140.377	24.245	1.00	45.64	C	ATOM	47121	CG1	ILE N	42	216.061	127.055	18.754	1.00	35.44	C
ATOM	47072	CD2	PHE N	36	226.866	141.044	24.621	1.00	45.64	C	ATOM	47122	CG2	ILE N	42	214.096	128.119	19.918	1.00	35.44	C
ATOM	47073	CE1	PHE N	36	224.182	141.704	24.402	1.00	45.64	C	ATOM	47123	CD1	ILE N	42	215.808	125.605	19.148	1.00	35.44	C
ATOM	47074	CE2	PHE N	36	226.468	142.371	24.781	1.00	45.64	C	ATOM	47124	N	CYS N	43	215.887	130.322	21.711	1.00	50.86	N
ATOM	47075	CZ	PHE N	36	225.126	142.703	24.669	1.00	45.64	C	ATOM	47125	CA	CYS N	43	215.391	131.187	22.771	1.00	50.86	C
ATOM	47076	N	PHE N	37	224.229	136.657	25.694	1.00	58.53	N	ATOM	47126	C	CYS N	43	215.669	132.652	22.459	1.00	50.86	C
ATOM	47077	CA	PHE N	37	222.859	136.557	26.183	1.00	58.53	C	ATOM	47127	O	CYS N	43	214.846	133.523	22.752	1.00	50.86	O
ATOM	47078	C	PHE N	37	222.634	135.432	27.162	1.00	58.53	C	ATOM	47128	CB	CYS N	43	216.026	130.771	24.095	1.00	41.10	C
ATOM	47079	O	PHE N	37	221.760	135.524	28.013	1.00	58.53	O	ATOM	47129	SG	CYS N	43	215.487	129.111	24.612	1.00	41.10	S
ATOM	47080	CB	PHE N	37	221.883	136.345	25.037	1.00	47.74	C	ATOM	47130	N	LEU N	44	216.823	132.916	21.847	1.00	48.36	N
ATOM	47081	CG	PHE N	37	221.729	137.522	24.134	1.00	47.74	C	ATOM	47131	CA	LEU N	44	217.205	134.272	21.470	1.00	48.36	C
ATOM	47082	CD1	PHE N	37	222.188	137.469	22.828	1.00	47.74	C	ATOM	47132	C	LEU N	44	216.251	134.864	20.438	1.00	48.36	C
ATOM	47083	CD2	PHE N	37	221.055	138.654	24.559	1.00	47.74	C	ATOM	47133	O	LEU N	44	215.869	136.021	20.559	1.00	48.36	O
ATOM	47084	CE1	PHE N	37	221.969	138.525	21.956	1.00	47.74	C	ATOM	47134	CB	LEU N	44	218.646	134.294	20.935	1.00	66.75	C
ATOM	47085	CE2	PHE N	37	220.829	139.723	23.689	1.00	47.74	C	ATOM	47135	CG	LEU N	44	219.107	135.393	19.959	1.00	66.75	C
ATOM	47086	CZ	PHE N	37	221.285	139.655	22.385	1.00	47.74	C	ATOM	47136	CD1	LEU N	44	218.647	136.761	20.399	1.00	66.75	C
ATOM	47087	N	GLY N	38	223.397	134.357	27.035	1.00	44.29	N	ATOM	47137	CD2	LEU N	44	220.623	135.359	19.868	1.00	66.75	C
ATOM	47088	CA	GLY N	38	223.195	133.229	27.929	1.00	44.29	C	ATOM	47138	N	ARG N	45	215.855	134.084	19.431	1.00	61.41	N
ATOM	47089	C	GLY N	38	222.030	132.398	27.416	1.00	44.29	C	ATOM	47139	CA	ARG N	45	214.936	134.600	18.410	1.00	61.41	C
ATOM	47090	O	GLY N	38	221.620	131.404	28.019	1.00	44.29	O	ATOM	47140	C	ARG N	45	213.556	134.864	18.998	1.00	61.41	C
ATOM	47091	N	LEU N	39	221.512	132.823	26.267	1.00	66.57	N	ATOM	47141	O	ARG N	45	212.920	135.865	18.670	1.00	47.89	O
ATOM	47092	CA	LEU N	39	220.391	132.179	25.603	1.00	66.57	C	ATOM	47142	CB	ARG N	45	214.807	133.630	17.231	1.00	47.89	C
ATOM	47093	C	LEU N	39	220.852	131.366	24.398	1.00	66.57	C	ATOM	47143	CG	ARG N	45	214.187	134.284	15.997	1.00	47.89	C
ATOM	47094	O	LEU N	39	221.901	131.645	23.826	1.00	66.57	O	ATOM	47144	CD	ARG N	45	214.409	133.466	14.723	1.00	47.89	C
ATOM	47095	CB	LEU N	39	219.421	133.247	25.112	1.00	54.42	C	ATOM	47145	NE	ARG N	45	213.355	132.482	14.493	1.00	47.89	N
ATOM	47096	CG	LEU N	39	218.784	134.158	26.146	1.00	54.42	C	ATOM	47146	CZ	ARG N	45	212.293	132.678	13.711	1.00	47.89	C
ATOM	47097	CD1	LEU N	39	217.891	135.173	25.448	1.00	54.42	C	ATOM	47147	NH1	ARG N	45	212.135	133.827	13.066	1.00	47.89	N
ATOM	47098	CD2	LEU N	39	217.992	133.308	27.120	1.00	54.42	C	ATOM	47148	NH2	ARG N	45	211.380	131.721	13.583	1.00	47.89	N
ATOM	47099	N	CYS N	40	220.056	130.375	24.004	1.00	76.18	N	ATOM	47149	N	GLU N	46	213.104	133.959	19.867	1.00	64.06	N
ATOM	47100	CA	CYS N	40	220.377	129.554	22.839	1.00	76.18	C	ATOM	47150	CA	GLU N	46	211.808	134.090	20.526	1.00	64.06	C
ATOM	47101	C	CYS N	40	219.853	130.284	21.596	1.00	76.18	C	ATOM	47151	C	GLU N	46	211.791	135.398	21.323	1.00	64.06	C
ATOM	47102	O	CYS N	40	219.131	131.280	21.710	1.00	76.18	O	ATOM	47152	O	GLU N	46	211.058	136.334	20.977	1.00	64.06	O
ATOM	47103	CB	CYS N	40	219.723	128.173	22.953	1.00	62.37	C	ATOM	47153	CB	GLU N	46	211.566	132.886	21.442	1.00	92.72	C
ATOM	47104	SG	CYS N	40	217.930	128.181	22.768	1.00	62.37	S	ATOM	47154	CG	GLU N	46	211.771	131.550	20.724	1.00	92.72	C
ATOM	47105	N	ARG N	41	220.214	129.786	20.415	1.00	63.69	N	ATOM	47155	CD	GLU N	46	211.408	130.332	21.568	1.00	92.72	C
ATOM	47106	CA	ARG N	41	219.801	130.407	19.154	1.00	63.69	C	ATOM	47156	OE1	GLU N	46	211.860	130.246	22.731	1.00	92.72	O
ATOM	47107	C	ARG N	41	218.282	130.460	19.007	1.00	63.69	C	ATOM	47157	OE2	GLU N	46	210.682	129.449	21.059	1.00	92.72	O
ATOM	47108	O	ARG N	41	217.735	131.393	18.425	1.00	63.69	O	ATOM	47158	N	LEU N	47	212.608	135.467	22.374	1.00	43.83	N
ATOM	47109	CB	ARG N	41	220.443	129.668	17.964	1.00	63.29	C	ATOM	47159	CA	LEU N	47	212.702	136.675	23.191	1.00	43.83	C
ATOM	47110	CG	ARG N	41	219.974	128.228	17.733	1.00	63.29	C	ATOM	47160	C	LEU N	47	212.964	137.890	22.315	1.00	43.83	C
ATOM	47111	CD	ARG N	41	219.047	128.125	16.496	1.00	63.29	C	ATOM	47161	O	LEU N	47	212.338	138.931	22.472	1.00	43.83	O
ATOM	47112	NE	ARG N	41	218.566	126.766	16.243	1.00	63.29	N	ATOM	47162	CG	LEU N	47	213.828	136.535	24.212	1.00	63.11	C
ATOM	47113	CZ	ARG N	41	219.365	125.720	16.061	1.00	63.29	C	ATOM	47163	CB	LEU N	47	213.500	135.598	25.371	1.00	63.11	C
ATOM	47114	NH1	ARG N	41	220.685	125.877	16.102	1.00	63.29	N	ATOM	47164	CD1	LEU N	47	214.761	135.199	26.113	1.00	63.11	C
ATOM	47115	NH2	ARG N	41	218.846	124.520	15.836	1.00	63.29	N	ATOM	47165	CD2	LEU N	47	212.511	136.291	26.293	1.00	63.11	C



Table 2: Sheet 473/520

ATOM	47166	N	ALA	N	48	213.896	137.756	21.385	1.00	57.92	N	ATOM	47216	CG	PRO	N	54	217.579	144.713	27.040	1.00	45.59	C
ATOM	47167	CA	ALA	N	48	214.205	138.858	20.493	1.00	57.92	C	ATOM	47217	CD	PRO	N	54	216.655	143.626	26.557	1.00	45.59	C
ATOM	47168	C	ALA	N	48	212.912	139.424	19.923	1.00	57.92	C	ATOM	47218	N	GLY	N	55	217.325	146.808	23.148	1.00	86.60	N
ATOM	47169	O	ALA	N	48	212.633	140.610	20.068	1.00	57.92	O	ATOM	47219	CA	GLY	N	55	218.274	147.246	22.144	1.00	86.60	C
ATOM	47170	CB	ALA	N	48	215.104	138.384	19.365	1.00	45.38	C	ATOM	47220	C	GLY	N	55	218.409	146.301	20.967	1.00	86.60	C
ATOM	47171	N	HIS	N	49	212.122	138.561	19.291	1.00	65.60	N	ATOM	47221	O	GLY	N	55	218.770	146.733	19.869	1.00	86.60	O
ATOM	47172	CA	HIS	N	49	210.865	138.965	18.671	1.00	65.60	C	ATOM	47222	N	VAL	N	56	218.136	145.016	21.192	1.00	73.96	N
ATOM	47173	C	HIS	N	49	209.881	139.650	19.612	1.00	65.60	C	ATOM	47223	CA	VAL	N	56	218.226	144.018	20.129	1.00	73.96	C
ATOM	47174	O	HIS	N	49	209.175	140.583	19.211	1.00	65.60	O	ATOM	47224	C	VAL	N	56	217.107	144.299	19.135	1.00	73.96	C
ATOM	47175	CB	HIS	N	49	210.180	137.753	18.031	1.00	81.05	C	ATOM	47225	O	VAL	N	56	216.047	144.804	19.500	1.00	73.96	O
ATOM	47176	CG	HIS	N	49	210.828	137.284	16.766	1.00	81.05	C	ATOM	47226	CB	VAL	N	56	218.105	142.589	20.687	1.00	72.00	C
ATOM	47177	ND1	HIS	N	49	211.090	138.127	15.707	1.00	81.05	N	ATOM	47227	CG1	VAL	N	56	218.405	141.579	19.592	1.00	72.00	C
ATOM	47178	CD2	HIS	N	49	211.252	136.057	16.383	1.00	81.05	C	ATOM	47228	CG2	VAL	N	56	219.074	142.405	21.849	1.00	72.00	C
ATOM	47179	CE1	HIS	N	49	211.650	137.441	14.728	1.00	81.05	C	ATOM	47229	N	ARG	N	57	217.339	143.964	17.876	1.00	81.78	N
ATOM	47180	NE2	HIS	N	49	211.760	136.182	15.113	1.00	81.05	N	ATOM	47230	CA	ARG	N	57	216.367	144.268	16.847	1.00	81.78	C
ATOM	47181	N	LYS	N	50	209.818	139.176	20.853	1.00	74.49	N	ATOM	47231	C	ARG	N	57	216.646	143.478	15.569	1.00	81.78	C
ATOM	47182	CA	LYS	N	50	208.906	139.747	21.837	1.00	74.49	C	ATOM	47232	O	ARG	N	57	217.551	142.638	15.523	1.00	81.78	O
ATOM	47183	C	LYS	N	50	209.300	141.163	22.219	1.00	74.49	C	ATOM	47233	CB	ARG	N	57	216.449	145.768	16.596	1.00	71.58	C
ATOM	47184	O	LYS	N	50	208.478	141.931	22.717	1.00	74.49	O	ATOM	47234	CG	ARG	N	57	215.552	146.337	15.558	1.00	71.58	C
ATOM	47185	CB	LYS	N	50	208.874	138.896	23.102	1.00	58.88	C	ATOM	47235	CD	ARG	N	57	215.690	147.849	15.577	1.00	71.58	C
ATOM	47186	CG	LYS	N	50	208.025	137.650	23.025	1.00	58.88	C	ATOM	47236	CE	ARG	N	57	215.017	148.485	14.448	1.00	71.58	N
ATOM	47187	CD	LYS	N	50	208.218	136.849	24.299	1.00	58.88	C	ATOM	47237	CZ	ARG	N	57	214.771	149.790	14.365	1.00	71.58	C
ATOM	47188	CE	LYS	N	50	207.411	135.563	24.317	1.00	58.88	C	ATOM	47238	NH1	ARG	N	57	215.144	150.603	15.348	1.00	71.58	N
ATOM	47189	NZ	LYS	N	50	207.928	134.640	25.390	1.00	58.88	N	ATOM	47239	NH2	ARG	N	57	214.141	150.285	13.304	1.00	71.58	N
ATOM	47190	N	GLY	N	51	210.559	141.508	21.984	1.00	85.77	N	ATOM	47240	N	LYS	N	58	215.858	143.742	14.534	1.00	58.18	N
ATOM	47191	CA	GLY	N	51	211.025	142.836	22.331	1.00	85.77	C	ATOM	47241	CA	LYS	N	58	216.010	143.059	13.261	1.00	58.18	C
ATOM	47192	C	GLY	N	51	211.540	142.810	23.751	1.00	85.77	C	ATOM	47242	C	LYS	N	58	217.005	143.812	12.384	1.00	58.18	O
ATOM	47193	O	GLY	N	51	211.719	143.845	24.388	1.00	85.77	O	ATOM	47243	O	LYS	N	58	216.786	144.974	12.026	1.00	58.18	O
ATOM	47194	N	GLN	N	52	211.776	141.605	24.250	1.00	64.18	N	ATOM	47244	CB	LYS	N	58	214.654	142.959	12.567	1.00	66.31	C
ATOM	47195	CA	GLN	N	52	212.273	141.445	25.598	1.00	64.18	C	ATOM	47245	CD	LYS	N	58	213.677	142.000	13.252	1.00	66.31	C
ATOM	47196	C	GLN	N	52	213.794	141.500	25.668	1.00	64.18	C	ATOM	47246	CD	LYS	N	58	213.434	140.739	12.421	1.00	66.31	C
ATOM	47197	O	GLN	N	52	214.378	141.404	26.746	1.00	64.18	O	ATOM	47247	CE	LYS	N	58	212.706	141.072	11.132	1.00	66.31	C
ATOM	47198	CB	GLN	N	52	211.737	140.148	26.197	1.00	64.07	C	ATOM	47248	NZ	LYS	N	58	212.675	139.900	10.244	1.00	66.31	N
ATOM	47199	CG	GLN	N	52	210.281	140.264	26.605	1.00	64.07	C	ATOM	47249	N	ALA	N	59	218.101	143.138	12.042	1.00	60.44	N
ATOM	47200	CD	GLN	N	52	209.790	139.053	27.362	1.00	64.07	C	ATOM	47250	CA	ALA	N	59	219.149	143.724	11.218	1.00	60.44	C
ATOM	47201	OE1	GLN	N	52	210.568	138.353	28.015	1.00	64.07	O	ATOM	47251	C	ALA	N	59	218.780	143.701	9.743	1.00	60.44	C
ATOM	47202	NE2	GLN	N	52	208.487	138.808	27.299	1.00	64.07	N	ATOM	47252	O	ALA	N	59	218.426	142.661	9.209	1.00	60.44	O
ATOM	47203	N	LEU	N	53	214.438	141.649	24.516	1.00	75.01	N	ATOM	47253	CB	ALA	N	59	220.448	142.972	11.443	1.00	84.74	C
ATOM	47204	CA	LEU	N	53	215.888	141.771	24.489	1.00	75.01	C	ATOM	47254	N	SER	N	60	218.863	144.847	9.085	1.00	84.29	N
ATOM	47205	C	LEU	N	53	216.114	143.237	24.150	1.00	75.01	C	ATOM	47255	CA	SER	N	60	218.539	144.928	7.664	1.00	84.29	C
ATOM	47206	O	LEU	N	53	216.045	143.637	22.985	1.00	75.01	O	ATOM	47256	C	SER	N	60	219.550	145.832	6.972	1.00	84.29	C
ATOM	47207	CB	LEU	N	53	216.499	140.869	23.420	1.00	77.70	C	ATOM	47257	O	SER	N	60	219.928	146.868	7.518	1.00	84.29	O
ATOM	47208	CG	LEU	N	53	216.214	139.367	23.545	1.00	77.70	C	ATOM	47258	CB	SER	N	60	217.130	145.495	7.474	1.00	83.68	C
ATOM	47209	CD1	LEU	N	53	216.978	138.642	22.459	1.00	77.70	C	ATOM	47259	OG	SER	N	60	216.886	145.812	6.112	1.00	83.68	O
ATOM	47210	CD2	LEU	N	53	216.619	138.841	24.915	1.00	77.70	C	ATOM	47260	N	TRP	N	61	219.989	145.454	5.775	1.00	89.52	N
ATOM	47211	N	PRO	N	54	216.365	144.063	25.180	1.00	60.88	N	ATOM	47261	CA	TRP	N	61	220.961	146.269	5.066	1.00	89.52	C
ATOM	47212	CA	PRO	N	54	216.596	145.502	25.039	1.00	60.88	C	ATOM	47262	C	TRP	N	61	221.397	145.668	3.737	1.00	89.52	C
ATOM	47213	C	PRO	N	54	217.659	145.871	24.027	1.00	60.88	C	ATOM	47263	O	TRP	N	61	221.587	146.445	2.775	1.00	89.52	O
ATOM	47214	O	PRO	N	54	218.753	145.321	24.039	1.00	60.88	O	ATOM	47264	CB	TRP	N	61	222.172	146.502	5.961	1.00	51.63	C
ATOM	47215	CB	PRO	N	54	216.961	145.935	26.461	1.00	45.59	C	ATOM	47265	CG	TRP	N	61	223.135	145.369	6.042	1.00	51.63	C



ATOM	47266	CD1	TRP	N	61	224.342	145.293	5.418	1.00	51.63	C	ATOM	47316	N	GLU	O	7	145.543	111.146	-76.463	1.00	75.27	N
ATOM	47267	CD2	TRP	N	61	223.001	144.158	6.800	1.00	51.63	C	ATOM	47317	CA	GLU	O	7	145.204	109.864	-75.856	1.00	75.27	C
ATOM	47268	NE1	TRP	N	61	224.975	144.114	5.739	1.00	51.63	N	ATOM	47318	C	GLU	O	7	144.439	110.026	-74.548	1.00	75.27	C
ATOM	47269	CE2	TRP	N	61	224.173	143.398	6.586	1.00	51.63	C	ATOM	47319	O	GLU	O	7	143.492	109.291	-74.266	1.00	75.27	O
ATOM	47270	CE3	TRP	N	61	222.012	143.640	7.637	1.00	51.63	C	ATOM	47320	CB	GLU	O	7	146.476	109.072	-75.568	1.00	115.43	C
ATOM	47271	C22	TRP	N	61	224.381	142.143	7.182	1.00	51.63	C	ATOM	47321	CG	GLU	O	7	147.577	109.263	-76.578	1.00	115.43	C
ATOM	47272	C23	TRP	N	61	222.224	142.383	8.234	1.00	51.63	C	ATOM	47322	CD	GLU	O	7	148.844	108.548	-76.170	1.00	115.43	C
ATOM	47273	CH2	TRP	N	61	223.398	141.656	8.000	1.00	51.63	C	ATOM	47323	OE1	GLU	O	7	148.833	107.301	-76.132	1.00	115.43	O
ATOM	47274	OXT	TRP	N	61	221.555	144.429	3.675	1.00	79.03	O	ATOM	47324	OE2	GLU	O	7	149.848	109.229	-75.880	1.00	115.43	O
TER	47275	TRP	N	61								ATOM	47325	N	LYS	O	8	144.861	110.997	-73.750	1.00	66.76	N
ATOM	47276	N	PRO	O	2	154.779	107.918	-73.490	1.00	115.77	N	ATOM	47326	CA	LYS	O	8	144.244	111.228	-72.461	1.00	66.76	C
ATOM	47277	CA	PRO	O	2	154.004	108.876	-72.667	1.00	115.77	C	ATOM	47327	C	LYS	O	8	142.808	111.703	-72.554	1.00	66.76	C
ATOM	47278	C	PRO	O	2	152.565	108.962	-73.145	1.00	115.77	C	ATOM	47328	O	LYS	O	8	141.885	110.970	-72.182	1.00	66.76	O
ATOM	47279	O	PRO	O	2	152.254	108.601	-74.282	1.00	115.77	O	ATOM	47329	CB	LYS	O	8	145.071	112.228	-71.666	1.00	64.78	C
ATOM	47280	CB	PRO	O	2	154.663	110.240	-72.808	1.00	64.51	C	ATOM	47330	CG	LYS	O	8	144.649	112.339	-70.228	1.00	64.78	C
ATOM	47281	CG	PRO	O	2	156.066	109.871	-73.268	1.00	64.51	C	ATOM	47331	CD	LYS	O	8	145.646	113.144	-69.436	1.00	64.78	C
ATOM	47282	CD	PRO	O	2	155.897	108.615	-74.149	1.00	64.51	C	ATOM	47332	CE	LYS	O	8	145.168	113.341	-68.016	1.00	64.78	C
ATOM	47283	N	ILE	O	3	151.688	109.441	-72.272	1.00	82.54	N	ATOM	47333	NZ	LYS	O	8	146.168	114.061	-67.191	1.00	64.78	N
ATOM	47284	CA	ILE	O	3	150.291	109.601	-72.627	1.00	82.54	C	ATOM	47334	N	GLN	O	9	142.611	112.925	-73.047	1.00	88.52	N
ATOM	47285	C	ILE	O	3	150.137	111.033	-73.114	1.00	82.54	C	ATOM	47335	CA	GLN	O	9	141.263	113.475	-73.165	1.00	88.52	C
ATOM	47286	O	ILE	O	3	150.281	111.970	-72.334	1.00	82.54	O	ATOM	47336	C	GLN	O	9	140.342	112.557	-73.944	1.00	88.52	C
ATOM	47287	CB	ILE	O	3	149.365	109.400	-71.419	1.00	77.90	C	ATOM	47337	O	GLN	O	9	139.123	112.655	-73.839	1.00	88.52	O
ATOM	47288	CG1	ILE	O	3	149.471	107.970	-70.894	1.00	77.90	C	ATOM	47338	CB	GLN	O	9	141.299	114.859	-73.799	1.00	146.38	C
ATOM	47289	CG2	ILE	O	3	147.936	109.687	-71.820	1.00	77.90	C	ATOM	47339	CG	GLN	O	9	141.878	115.898	-72.868	1.00	146.38	C
ATOM	47290	CD1	ILE	O	3	150.528	107.790	-69.850	1.00	77.90	C	ATOM	47340	CD	GLN	O	9	141.655	117.305	-73.359	1.00	146.38	C
ATOM	47291	N	THR	O	4	149.854	111.206	-74.399	1.00	84.56	N	ATOM	47341	OE1	GLN	O	9	140.519	117.716	-73.603	1.00	146.38	O
ATOM	47292	CA	THR	O	4	149.696	112.541	-74.968	1.00	84.56	C	ATOM	47342	NE2	GLN	O	9	142.740	118.060	-73.502	1.00	146.38	N
ATOM	47293	C	THR	O	4	148.333	113.132	-74.632	1.00	84.56	C	ATOM	47343	N	LYS	O	10	140.931	111.658	-74.722	1.00	81.21	N
ATOM	47294	O	THR	O	4	147.370	112.401	-74.385	1.00	84.56	C	ATOM	47344	CA	LYS	O	10	140.153	110.699	-75.486	1.00	81.21	C
ATOM	47295	CB	THR	O	4	149.844	112.516	-76.501	1.00	93.33	C	ATOM	47345	C	LYS	O	10	139.475	109.806	-74.457	1.00	81.21	C
ATOM	47296	OG1	THR	O	4	148.743	111.802	-77.081	1.00	93.33	O	ATOM	47346	O	LYS	O	10	138.288	109.496	-74.554	1.00	81.21	O
ATOM	47297	CG2	THR	O	4	151.139	111.832	-76.894	1.00	93.33	C	ATOM	47347	CB	LYS	O	10	141.068	109.859	-76.381	1.00	127.50	C
ATOM	47298	N	LYS	O	5	148.258	114.460	-74.630	1.00	98.15	N	ATOM	47348	CG	LYS	O	10	140.330	108.892	-77.291	1.00	127.50	C
ATOM	47299	CA	LYS	O	5	147.013	115.156	-74.337	1.00	98.15	C	ATOM	47349	CD	LYS	O	10	139.435	109.636	-78.271	1.00	127.50	C
ATOM	47300	C	LYS	O	5	145.895	114.439	-75.077	1.00	98.15	C	ATOM	47350	CE	LYS	O	10	138.623	108.677	-79.129	1.00	127.50	C
ATOM	47301	O	LYS	O	5	144.841	114.154	-74.506	1.00	98.15	O	ATOM	47351	NZ	LYS	O	10	137.715	109.397	-80.071	1.00	127.50	N
ATOM	47302	CB	LYS	O	5	147.112	116.611	-74.793	1.00	134.06	C	ATOM	47352	N	VAL	O	11	140.249	109.410	-73.455	1.00	62.12	N
ATOM	47303	CG	LYS	O	5	148.357	117.309	-74.268	1.00	134.06	C	ATOM	47353	CA	VAL	O	11	139.752	108.558	-72.389	1.00	62.12	C
ATOM	47304	CD	LYS	O	5	148.475	118.735	-74.775	1.00	134.06	C	ATOM	47354	C	VAL	O	11	138.764	109.321	-71.531	1.00	62.12	C
ATOM	47305	CE	LYS	O	5	149.774	119.378	-74.302	1.00	134.06	C	ATOM	47355	O	VAL	O	11	137.686	108.816	-71.212	1.00	62.12	O
ATOM	47306	NZ	LYS	O	5	149.885	120.806	-74.721	1.00	134.06	N	ATOM	47356	CB	VAL	O	11	140.896	108.081	-71.496	1.00	68.27	C
ATOM	47307	N	GLU	O	6	146.153	114.130	-76.345	1.00	76.83	N	ATOM	47357	CG1	VAL	O	11	140.347	107.274	-70.336	1.00	68.27	C
ATOM	47308	CA	GLU	O	6	145.196	113.426	-77.190	1.00	76.83	C	ATOM	47358	CG2	VAL	O	11	141.864	107.259	-72.312	1.00	68.27	C
ATOM	47309	C	GLU	O	6	144.691	112.164	-76.502	1.00	76.83	C	ATOM	47359	N	ILE	O	12	139.138	110.539	-71.158	1.00	58.21	N
ATOM	47310	O	GLU	O	6	143.563	112.118	-76.015	1.00	76.83	O	ATOM	47360	CA	ILE	O	12	138.269	111.351	-70.327	1.00	58.21	C
ATOM	47311	CB	GLU	O	6	145.849	113.046	-78.520	1.00	195.33	C	ATOM	47361	C	ILE	O	12	136.863	111.377	-70.908	1.00	58.21	C
ATOM	47312	CG	GLU	O	6	146.038	114.205	-79.476	1.00	195.33	C	ATOM	47362	O	ILE	O	12	135.918	110.899	-70.280	1.00	58.21	O
ATOM	47313	CD	GLU	O	6	144.718	114.777	-79.952	1.00	195.33	C	ATOM	47363	CH	ILE	O	12	138.799	112.785	-70.186	1.00	50.25	C
ATOM	47314	OE1	GLU	O	6	143.910	114.011	-80.519	1.00	195.33	O	ATOM	47364	CG1	ILE	O	12	140.219	112.753	-69.616	1.00	50.25	C
ATOM	47315	OE2	GLU	O	6	144.486	115.989	-79.760	1.00	195.33	O	ATOM	47365	CG2	ILE	O	12	137.902	113.580	-69.259	1.00	50.25	C



Table 2: Sheet 475/520

ATOM	47366	CD1	ILE	O	12	140.821	114.125	-69.358	1.00	50.25	C	ATOM	47416	CB	PHE	O	18	127.352	114.620	-67.888	1.00	80.39	C
ATOM	47367	N	GLN	O	13	136.706	111.920	-72.107	1.00	88.80	N	ATOM	47417	CG	PHE	O	18	127.951	115.183	-66.646	1.00	80.39	C
ATOM	47368	CA	GLN	O	13	135.381	111.944	-72.701	1.00	88.80	C	ATOM	47418	CD1	PHE	O	18	128.774	116.306	-66.705	1.00	80.39	C
ATOM	47369	C	GLN	O	13	134.827	110.522	-72.735	1.00	88.80	C	ATOM	47419	CD2	PHE	O	18	127.744	114.560	-65.419	1.00	80.39	C
ATOM	47370	O	GLN	O	13	133.713	110.268	-72.278	1.00	88.80	O	ATOM	47420	CE1	PHE	O	18	129.390	116.803	-65.561	1.00	80.39	C
ATOM	47371	CB	GLN	O	13	135.435	112.533	-74.108	1.00	138.67	C	ATOM	47421	CE2	PHE	O	18	128.354	115.046	-64.267	1.00	80.39	C
ATOM	47372	CG	GLN	O	13	135.697	114.025	-74.117	1.00	138.67	C	ATOM	47422	CZ	PHE	O	18	129.182	116.173	-64.339	1.00	80.39	C
ATOM	47373	CD	GLN	O	13	135.573	114.632	-75.496	1.00	138.67	C	ATOM	47423	N	PRO	O	19	128.804	115.893	-70.272	1.00	93.39	N
ATOM	47374	OE1	GLN	O	13	135.685	115.846	-75.663	1.00	138.67	O	ATOM	47424	CA	PRO	O	19	129.636	116.947	-70.854	1.00	93.39	C
ATOM	47375	NE2	GLN	O	13	135.341	113.788	-76.496	1.00	138.67	N	ATOM	47425	C	PRO	O	19	130.404	117.739	-69.798	1.00	93.39	C
ATOM	47376	N	GLU	O	14	135.625	109.595	-73.253	1.00	65.03	N	ATOM	47426	O	PRO	O	19	129.797	118.361	-68.928	1.00	93.39	O
ATOM	47377	CA	GLU	O	14	135.230	108.195	-73.347	1.00	65.03	C	ATOM	47427	CB	PRO	O	19	128.621	117.815	-71.587	1.00	117.82	C
ATOM	47378	C	GLU	O	14	134.487	107.648	-72.126	1.00	65.03	C	ATOM	47428	CG	PRO	O	19	127.577	116.830	-71.995	1.00	117.82	C
ATOM	47379	O	GLU	O	14	133.592	106.822	-72.275	1.00	65.03	O	ATOM	47429	CD	PRO	O	19	127.417	115.994	-70.758	1.00	117.82	C
ATOM	47380	CB	GLU	O	14	136.462	107.330	-73.617	1.00	165.30	C	ATOM	47430	N	GLY	O	20	131.734	117.708	-69.870	1.00	84.25	N
ATOM	47381	CG	GLU	O	14	136.189	105.838	-73.565	1.00	165.30	C	ATOM	47431	CA	GLY	O	20	132.546	118.453	-68.918	1.00	84.25	C
ATOM	47382	CD	GLU	O	14	135.125	105.399	-74.552	1.00	165.30	C	ATOM	47432	C	GLY	O	20	132.966	117.703	-67.663	1.00	84.25	C
ATOM	47383	OE1	GLU	O	14	134.744	104.211	-74.517	1.00	165.30	O	ATOM	47433	O	GLY	O	20	133.547	118.284	-66.736	1.00	84.25	O
ATOM	47384	OE2	GLU	O	14	134.673	106.236	-75.362	1.00	165.30	O	ATOM	47434	N	ASP	O	21	132.672	116.408	-67.625	1.00	78.66	N
ATOM	47385	N	PHE	O	15	134.849	108.101	-70.924	1.00	79.27	N	ATOM	47435	CA	ASP	O	21	133.033	115.595	-66.477	1.00	78.66	C
ATOM	47386	CA	PHE	O	15	134.201	107.625	-69.692	1.00	79.27	C	ATOM	47436	C	ASP	O	21	134.513	115.271	-66.542	1.00	78.66	C
ATOM	47387	C	PHE	O	15	133.389	108.666	-68.927	1.00	79.27	C	ATOM	47437	O	ASP	O	21	134.933	114.427	-67.330	1.00	78.66	O
ATOM	47388	O	PHE	O	15	132.586	108.309	-68.063	1.00	79.27	O	ATOM	47438	CB	ASP	O	21	132.244	114.293	-66.468	1.00	76.33	C
ATOM	47389	CB	PHE	O	15	135.235	107.051	-68.714	1.00	47.52	C	ATOM	47439	CG	ASP	O	21	132.614	113.419	-65.302	1.00	76.33	C
ATOM	47390	CG	PHE	O	15	135.797	105.728	-69.123	1.00	47.52	C	ATOM	47440	OD1	ASP	O	21	132.245	112.225	-65.294	1.00	76.33	O
ATOM	47391	CD1	PHE	O	15	136.738	105.642	-70.133	1.00	47.52	C	ATOM	47441	OD2	ASP	O	21	133.282	113.941	-64.386	1.00	76.33	O
ATOM	47392	CD2	PHE	O	15	135.346	104.562	-68.524	1.00	47.52	C	ATOM	47442	N	THR	O	22	135.300	115.938	-65.705	1.00	70.49	N
ATOM	47393	CE1	PHE	O	15	137.219	104.408	-70.546	1.00	47.52	C	ATOM	47443	CA	THR	O	22	136.742	115.719	-65.690	1.00	70.49	C
ATOM	47394	CE2	PHE	O	15	135.819	103.320	-68.929	1.00	47.52	C	ATOM	47444	C	THR	O	22	137.217	114.765	-64.585	1.00	70.49	C
ATOM	47395	CZ	PHE	O	15	136.757	103.243	-69.945	1.00	47.52	C	ATOM	47445	O	THR	O	22	138.109	113.962	-64.814	1.00	70.49	O
ATOM	47396	N	ALA	O	16	133.609	109.943	-69.228	1.00	59.56	N	ATOM	47446	CB	THR	O	22	137.511	117.058	-65.545	1.00	71.39	C
ATOM	47397	CA	ALA	O	16	132.912	111.032	-68.542	1.00	59.56	C	ATOM	47447	OG1	THR	O	22	137.323	117.579	-64.226	1.00	71.39	C
ATOM	47398	C	ALA	O	16	131.422	110.783	-68.350	1.00	59.56	C	ATOM	47448	CG2	THR	O	22	136.997	118.085	-66.537	1.00	71.39	C
ATOM	47399	O	ALA	O	16	130.735	110.303	-69.252	1.00	59.56	O	ATOM	47449	N	GLY	O	23	136.620	114.832	-63.398	1.00	65.41	N
ATOM	47400	CB	ALA	O	16	133.126	112.340	-69.291	1.00	44.76	C	ATOM	47450	CA	GLY	O	23	137.077	113.961	-62.326	1.00	65.41	C
ATOM	47401	N	ARG	O	17	130.931	111.118	-67.165	1.00	97.22	N	ATOM	47451	C	GLY	O	23	136.081	113.173	-61.491	1.00	65.41	C
ATOM	47402	CA	ARG	O	17	129.528	110.935	-66.825	1.00	97.22	C	ATOM	47452	O	GLY	O	23	135.998	113.360	-60.281	1.00	65.41	O
ATOM	47403	C	ARG	O	17	128.615	110.935	-66.825	1.00	97.22	C	ATOM	47453	N	SER	O	24	135.335	112.279	-62.124	1.00	70.31	N
ATOM	47404	O	ARG	O	17	127.455	111.849	-67.634	1.00	97.22	O	ATOM	47454	CA	SER	O	24	134.376	111.453	-61.409	1.00	70.31	C
ATOM	47405	CB	ARG	O	17	129.323	111.212	-65.338	1.00	93.67	C	ATOM	47455	C	SER	O	24	135.061	110.124	-61.180	1.00	70.31	C
ATOM	47406	CG	ARG	O	17	130.123	110.308	-64.423	1.00	93.67	C	ATOM	47456	O	SER	O	24	136.098	109.851	-61.783	1.00	70.31	C
ATOM	47407	CD	ARG	O	17	129.519	108.920	-64.351	1.00	93.67	C	ATOM	47457	CB	SER	O	24	133.132	111.231	-62.255	1.00	106.31	C
ATOM	47408	NE	ARG	O	17	128.144	108.949	-63.851	1.00	93.67	N	ATOM	47458	OG	SER	O	24	132.545	112.466	-62.594	1.00	106.31	O
ATOM	47409	CZ	ARG	O	17	127.764	109.518	-62.707	1.00	93.67	C	ATOM	47459	N	THR	O	25	134.489	109.291	-60.320	1.00	53.45	N
ATOM	47410	NH1	ARG	O	17	128.654	110.121	-61.920	1.00	93.67	N	ATOM	47460	CA	THR	O	25	135.086	107.997	-60.060	1.00	53.45	C
ATOM	47411	NH2	ARG	O	17	126.487	109.481	-62.347	1.00	93.67	N	ATOM	47461	C	THR	O	25	135.358	107.253	-61.355	1.00	53.45	C
ATOM	47412	N	PHE	O	18	129.147	112.995	-68.048	1.00	67.12	N	ATOM	47462	O	THR	O	25	136.433	106.689	-61.525	1.00	53.45	O
ATOM	47413	CA	PHE	O	18	128.378	113.977	-68.806	1.00	67.12	C	ATOM	47463	CB	THR	O	25	134.195	107.139	-59.179	1.00	59.52	C
ATOM	47414	C	PHE	O	18	129.309	115.051	-69.363	1.00	67.12	C	ATOM	47464	OG1	THR	O	25	134.053	107.768	-57.901	1.00	59.52	O
ATOM	47415	O	PHE	O	18	130.471	115.139	-68.971	1.00	67.12	O	ATOM	47465	CG2	THR	O	25	134.806	105.765	-58.995	1.00	59.52	C



Table 2: Sheet 476/520

ATOM	47466	N	GLU	O	26	134.400	107.254	-62.278	1.00	58.04	N	ATOM	47516	CG	LEU	O	32	144.205	106.100	-61.099	1.00	47.78	C
ATOM	47467	CA	GLU	O	26	134.600	106.559	-63.547	1.00	58.04	C	ATOM	47517	CD1	LEU	O	32	143.445	105.785	-59.807	1.00	47.78	C
ATOM	47468	C	GLU	O	26	135.780	107.120	-64.348	1.00	58.04	C	ATOM	47518	CD2	LEU	O	32	145.702	106.148	-60.854	1.00	47.78	C
ATOM	47469	O	GLU	O	26	136.639	106.359	-64.795	1.00	58.04	O	ATOM	47519	N	THR	O	33	143.713	103.362	-64.673	1.00	56.59	N
ATOM	47470	CB	GLU	O	26	133.327	106.596	-64.401	1.00	65.94	C	ATOM	47520	CA	THR	O	33	143.850	102.096	-65.373	1.00	56.59	C
ATOM	47471	CG	GLU	O	26	132.236	105.600	-63.984	1.00	65.94	C	ATOM	47521	C	THR	O	33	144.817	102.263	-66.531	1.00	56.59	C
ATOM	47472	CD	GLU	O	26	131.207	106.181	-63.012	1.00	65.94	C	ATOM	47522	O	THR	O	33	145.665	101.406	-66.771	1.00	56.59	O
ATOM	47473	OE1	GLU	O	26	130.229	105.470	-62.684	1.00	65.94	O	ATOM	47523	CB	THR	O	33	142.512	101.626	-65.918	1.00	51.10	C
ATOM	47474	OE2	GLU	O	26	131.371	107.342	-62.579	1.00	65.94	O	ATOM	47524	OG1	THR	O	33	141.573	101.530	-64.841	1.00	51.10	O
ATOM	47475	N	VAL	O	27	135.832	108.440	-64.527	1.00	54.19	N	ATOM	47525	CG2	THR	O	33	142.661	100.270	-66.570	1.00	51.10	C
ATOM	47476	CA	VAL	O	27	136.933	109.046	-65.276	1.00	54.19	C	ATOM	47526	N	LEU	O	34	144.688	103.381	-67.238	1.00	66.79	N
ATOM	47477	C	VAL	O	27	138.254	108.690	-64.605	1.00	54.19	C	ATOM	47527	CA	LEU	O	34	145.551	103.681	-68.373	1.00	66.79	C
ATOM	47478	O	VAL	O	27	139.123	108.048	-65.202	1.00	54.19	O	ATOM	47528	C	LEU	O	34	147.007	103.645	-67.929	1.00	66.79	C
ATOM	47479	CB	VAL	O	27	136.829	110.590	-65.329	1.00	49.14	C	ATOM	47529	O	LEU	O	34	147.787	102.805	-68.380	1.00	66.79	O
ATOM	47480	CG1	VAL	O	27	137.983	111.149	-66.115	1.00	49.14	C	ATOM	47530	CB	LEU	O	34	145.218	105.064	-68.935	1.00	65.69	C
ATOM	47481	CG2	VAL	O	27	135.538	111.011	-65.983	1.00	49.14	C	ATOM	47531	CG	LEU	O	34	145.799	105.418	-70.306	1.00	65.69	C
ATOM	47482	N	GLN	O	28	138.393	109.109	-63.352	1.00	55.93	N	ATOM	47532	CD1	LEU	O	34	145.419	106.852	-70.652	1.00	65.69	C
ATOM	47483	CA	GLN	O	28	139.598	108.840	-62.584	1.00	55.93	C	ATOM	47533	CD2	LEU	O	34	147.314	105.262	-70.302	1.00	65.69	C
ATOM	47484	C	GLN	O	28	140.059	107.397	-62.689	1.00	55.93	C	ATOM	47534	N	ARG	O	35	147.368	104.572	-67.051	1.00	54.43	N
ATOM	47485	O	GLN	O	28	141.226	107.141	-62.977	1.00	55.93	O	ATOM	47535	CA	ARG	O	35	148.720	104.649	-66.531	1.00	54.43	C
ATOM	47486	CB	GLN	O	28	139.376	109.197	-61.125	1.00	48.91	C	ATOM	47536	C	ARG	O	35	149.194	103.291	-66.011	1.00	54.43	O
ATOM	47487	CG	GLN	O	28	139.503	110.676	-60.828	1.00	48.91	C	ATOM	47537	O	ARG	O	35	150.256	102.810	-66.407	1.00	54.43	O
ATOM	47488	CD	GLN	O	28	139.295	110.974	-59.358	1.00	48.91	C	ATOM	47538	CB	ARG	O	35	148.786	105.686	-65.415	1.00	72.88	C
ATOM	47489	OE1	GLN	O	28	139.824	110.275	-58.493	1.00	48.91	O	ATOM	47539	CG	ARG	O	35	148.433	107.077	-65.872	1.00	72.88	C
ATOM	47490	NE2	GLN	O	28	138.527	112.018	-59.066	1.00	48.91	N	ATOM	47540	CD	ARG	O	35	148.729	108.079	-64.793	1.00	72.88	C
ATOM	47491	N	VAL	O	29	139.149	106.456	-62.447	1.00	46.30	N	ATOM	47541	NE	ARG	O	35	150.130	107.996	-64.402	1.00	72.88	N
ATOM	47492	CA	VAL	O	29	139.493	105.039	-62.540	1.00	46.30	C	ATOM	47542	CZ	ARG	O	35	150.627	108.511	-63.281	1.00	72.88	C
ATOM	47493	C	VAL	O	29	139.951	104.695	-63.952	1.00	46.30	C	ATOM	47543	NH1	ARG	O	35	149.830	109.160	-62.435	1.00	72.88	N
ATOM	47494	O	VAL	O	29	140.827	103.853	-64.140	1.00	46.30	O	ATOM	47544	NH2	ARG	O	35	151.915	108.351	-62.992	1.00	72.88	N
ATOM	47495	CB	VAL	O	29	138.300	104.124	-62.161	1.00	29.97	C	ATOM	47545	N	ILE	O	36	148.414	102.672	-65.128	1.00	46.57	N
ATOM	47496	CG1	VAL	O	29	138.636	102.679	-62.473	1.00	29.97	C	ATOM	47546	CA	ILE	O	36	148.794	101.373	-64.593	1.00	46.57	C
ATOM	47497	CG2	VAL	O	29	138.001	104.250	-60.679	1.00	29.97	C	ATOM	47547	C	ILE	O	36	149.249	100.443	-65.706	1.00	46.57	C
ATOM	47498	N	ALA	O	30	139.360	105.345	-64.945	1.00	63.60	N	ATOM	47548	O	ILE	O	36	150.207	99.694	-65.539	1.00	46.57	O
ATOM	47499	CA	ALA	O	30	139.750	105.086	-66.318	1.00	63.60	C	ATOM	47549	CB	ILE	O	36	147.638	100.679	-63.852	1.00	39.10	C
ATOM	47500	C	ALA	O	30	141.202	105.536	-66.509	1.00	63.60	C	ATOM	47550	CG1	ILE	O	36	147.294	101.440	-62.570	1.00	39.10	C
ATOM	47501	O	ALA	O	30	142.053	104.747	-66.932	1.00	63.60	O	ATOM	47551	CG2	ILE	O	36	148.038	99.266	-63.489	1.00	39.10	C
ATOM	47502	CB	ALA	O	30	138.835	105.834	-67.270	1.00	97.91	C	ATOM	47552	CD1	ILE	O	36	146.109	100.860	-61.793	1.00	39.10	C
ATOM	47503	N	LEU	O	31	141.485	106.800	-66.190	1.00	56.25	N	ATOM	47553	N	ASN	O	37	148.572	100.490	-66.846	1.00	55.47	N
ATOM	47504	CA	LEU	O	31	142.839	107.342	-66.330	1.00	56.25	C	ATOM	47554	CA	ASN	O	37	148.933	99.623	-67.959	1.00	55.47	C
ATOM	47505	C	LEU	O	31	143.889	106.521	-65.576	1.00	56.25	C	ATOM	47555	C	ASN	O	37	150.230	100.030	-68.650	1.00	55.47	C
ATOM	47506	O	LEU	O	31	144.959	106.249	-66.110	1.00	56.25	O	ATOM	47556	O	ASN	O	37	151.079	99.184	-68.923	1.00	55.47	O
ATOM	47507	CB	LEU	O	31	142.886	108.799	-65.852	1.00	60.37	C	ATOM	47557	CB	ASN	O	37	147.771	99.553	-68.937	1.00	64.53	C
ATOM	47508	CG	LEU	O	31	142.380	109.880	-66.812	1.00	60.37	C	ATOM	47558	CG	ASN	O	37	146.617	98.737	-68.386	1.00	64.53	O
ATOM	47509	CD1	LEU	O	31	141.010	109.505	-67.303	1.00	60.37	C	ATOM	47559	OD1	ASN	O	37	145.522	98.733	-68.937	1.00	64.53	O
ATOM	47510	CD2	LEU	O	31	142.339	111.225	-66.113	1.00	60.37	C	ATOM	47560	ND2	ASN	O	37	146.867	98.029	-67.291	1.00	64.53	N
ATOM	47511	N	LEU	O	32	143.585	106.135	-64.338	1.00	56.31	N	ATOM	47561	N	ARG	O	38	150.395	101.318	-68.929	1.00	51.55	N
ATOM	47512	CA	LEU	O	32	144.508	105.333	-63.541	1.00	56.31	C	ATOM	47562	CA	ARG	O	38	151.631	101.783	-69.547	1.00	51.55	C
ATOM	47513	C	LEU	O	32	144.779	104.026	-64.244	1.00	56.31	O	ATOM	47563	C	ARG	O	38	152.805	101.369	-68.653	1.00	51.55	C
ATOM	47514	O	LEU	O	32	145.928	103.622	-64.396	1.00	56.31	C	ATOM	47564	O	ARG	O	38	153.797	100.803	-69.117	1.00	51.55	O
ATOM	47515	CB	LEU	O	32	143.927	105.039	-62.162	1.00	47.78	C	ATOM	47565	CB	ARG	O	38	151.638	103.306	-69.666	1.00	97.95	C



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ATOM	47566	CG	ARG	O	38	150.692	103.865	-70.689	1.00	97.95	C	ATOM	47616	O	LYS	O	44	160.088	93.026	-68.230	1.00	63.87	O
ATOM	47567	CD	ARG	O	38	151.023	103.358	-72.084	1.00	97.95	C	ATOM	47617	CB	LYS	O	44	156.973	93.648	-69.265	1.00	133.99	C
ATOM	47568	NE	ARG	O	38	150.511	104.262	-73.109	1.00	97.95	N	ATOM	47618	CG	LYS	O	44	155.816	92.715	-68.951	1.00	133.99	C
ATOM	47569	C2	ARG	O	38	150.929	105.514	-73.259	1.00	97.95	C	ATOM	47619	CD	LYS	O	44	155.027	92.380	-70.204	1.00	133.99	C
ATOM	47570	NH1	ARG	O	38	151.868	106.003	-72.453	1.00	97.95	N	ATOM	47620	CE	LYS	O	44	153.864	91.457	-69.894	1.00	133.99	C
ATOM	47571	NH2	ARG	O	38	150.404	106.278	-74.205	1.00	97.95	N	ATOM	47621	NZ	LYS	O	44	153.124	91.074	-71.127	1.00	133.99	N
ATOM	47572	N	LEU	O	39	152.663	101.669	-67.364	1.00	59.61	C	ATOM	47622	N	VAL	O	45	159.698	95.027	-69.169	1.00	89.80	N
ATOM	47573	CA	LEU	O	39	153.676	101.386	-66.358	1.00	59.61	C	ATOM	47623	CA	VAL	O	45	161.075	95.246	-69.568	1.00	89.80	C
ATOM	47574	C	LEU	O	39	153.913	99.892	-66.177	1.00	59.61	C	ATOM	47624	C	VAL	O	45	161.468	96.080	-68.373	1.00	89.80	C
ATOM	47575	O	LEU	O	39	155.057	99.435	-66.188	1.00	59.61	O	ATOM	47625	O	VAL	O	45	160.592	96.653	-67.740	1.00	89.80	O
ATOM	47576	CB	LEU	O	39	153.257	102.015	-65.024	1.00	68.81	C	ATOM	47626	CB	VAL	O	45	161.164	96.120	-70.806	1.00	60.30	C
ATOM	47577	CG	LEU	O	39	154.342	102.451	-64.034	1.00	68.81	C	ATOM	47627	CG1	VAL	O	45	162.613	96.367	-71.159	1.00	60.30	C
ATOM	47578	CD1	LEU	O	39	153.684	103.036	-62.789	1.00	68.81	C	ATOM	47628	CG2	VAL	O	45	160.445	95.460	-71.943	1.00	60.30	C
ATOM	47579	CD2	LEU	O	39	155.222	101.274	-63.674	1.00	68.81	C	ATOM	47629	N	HIS	O	46	162.744	96.163	-68.038	1.00	52.22	N
ATOM	47580	N	SER	O	40	152.838	99.131	-65.995	1.00	57.31	N	ATOM	47630	CA	HIS	O	46	163.139	96.965	-66.868	1.00	52.22	C
ATOM	47581	CA	SER	O	40	152.979	97.695	-65.823	1.00	57.31	C	ATOM	47631	C	HIS	O	46	162.696	96.347	-65.528	1.00	52.22	C
ATOM	47582	C	SER	O	40	153.724	97.152	-67.025	1.00	57.31	C	ATOM	47632	O	HIS	O	46	162.233	97.061	-64.633	1.00	52.22	O
ATOM	47583	O	SER	O	40	154.508	96.212	-66.916	1.00	57.31	O	ATOM	47633	CB	HIS	O	46	162.989	99.140	-68.176	1.00	65.65	C
ATOM	47584	CB	SER	O	40	151.613	97.022	-65.705	1.00	113.13	C	ATOM	47634	CG	HIS	O	46	162.551	98.809	-69.439	1.00	65.65	N
ATOM	47585	OG	SER	O	40	151.035	97.274	-64.437	1.00	113.13	O	ATOM	47635	ND1	HIS	O	46	163.830	100.191	-68.334	1.00	65.65	C
ATOM	47586	N	GLU	O	41	153.483	97.766	-68.175	1.00	66.71	N	ATOM	47636	CD2	HIS	O	46	163.106	99.621	-70.323	1.00	65.65	C
ATOM	47587	CA	GLU	O	41	154.131	97.353	-69.409	1.00	66.71	C	ATOM	47637	CE1	HIS	O	46	163.888	100.467	-69.678	1.00	65.65	N
ATOM	47588	C	GLU	O	41	155.621	97.648	-69.298	1.00	66.71	C	ATOM	47638	NE2	HIS	O	46	162.846	95.031	-65.389	1.00	67.44	N
ATOM	47589	O	GLU	O	41	156.467	96.758	-69.402	1.00	100.71	C	ATOM	47639	N	LYS	O	47	162.465	94.345	-64.159	1.00	67.44	C
ATOM	47590	CB	GLU	O	41	153.530	98.122	-70.587	1.00	100.71	C	ATOM	47640	CA	LYS	O	47	163.109	95.005	-62.936	1.00	67.44	C
ATOM	47591	CG	GLU	O	41	153.781	97.473	-71.921	1.00	100.71	C	ATOM	47641	C	LYS	O	47	162.633	94.841	-61.814	1.00	67.44	O
ATOM	47592	CD	GLU	O	41	153.266	96.049	-71.964	1.00	100.71	C	ATOM	47642	O	LYS	O	47	162.912	92.881	-64.201	1.00	88.13	C
ATOM	47593	OE1	GLU	O	41	153.491	95.361	-72.981	1.00	100.71	O	ATOM	47643	CB	LYS	O	47	162.543	92.109	-65.456	1.00	88.13	C
ATOM	47594	OE2	GLU	O	41	152.634	95.612	-70.979	1.00	100.71	O	ATOM	47644	CD	LYS	O	47	161.064	91.796	-65.517	1.00	88.13	C
ATOM	47595	N	HIS	O	42	155.919	98.920	-69.080	1.00	58.50	N	ATOM	47645	CD	LYS	O	47	160.749	90.868	-66.685	1.00	88.13	C
ATOM	47596	CA	HIS	O	42	157.279	99.407	-68.936	1.00	58.50	C	ATOM	47646	CE	LYS	O	47	159.276	90.683	-66.892	1.00	88.13	N
ATOM	47597	C	HIS	O	42	158.111	98.593	-67.961	1.00	58.50	C	ATOM	47647	NZ	LYS	O	47	164.188	95.753	-63.151	1.00	54.36	N
ATOM	47598	O	HIS	O	42	159.327	98.586	-68.050	1.00	60.51	O	ATOM	47648	N	LYS	O	48	164.904	96.383	-62.048	1.00	54.36	C
ATOM	47599	CB	HIS	O	42	157.246	100.855	-68.470	1.00	60.51	C	ATOM	47649	CA	LYS	O	48	164.588	97.833	-61.731	1.00	54.36	C
ATOM	47600	CG	HIS	O	42	158.492	101.292	-67.774	1.00	60.51	C	ATOM	47650	C	LYS	O	48	165.233	98.411	-60.864	1.00	54.36	O
ATOM	47601	ND1	HIS	O	42	159.651	101.605	-68.449	1.00	60.51	N	ATOM	47651	O	LYS	O	48	166.409	96.265	-62.272	1.00	85.66	C
ATOM	47602	CD2	HIS	O	42	158.765	101.453	-66.459	1.00	60.51	C	ATOM	47652	CB	LYS	O	48	166.944	94.852	-62.190	1.00	85.66	C
ATOM	47603	CE1	HIS	O	42	160.585	101.944	-67.580	1.00	60.51	N	ATOM	47653	CD	LYS	O	48	168.425	94.811	-62.548	1.00	85.66	C
ATOM	47604	NE2	HIS	O	42	160.072	101.860	-66.365	1.00	60.51	C	ATOM	47654	CE	LYS	O	48	168.689	95.391	-63.939	1.00	85.66	C
ATOM	47605	N	LEU	O	43	157.463	97.927	-67.015	1.00	52.92	N	ATOM	47655	CE	LYS	O	48	170.100	95.194	-64.375	1.00	85.66	N
ATOM	47606	CA	LEU	O	43	158.189	97.130	-66.042	1.00	52.92	C	ATOM	47656	NZ	LYS	O	48	163.635	98.443	-62.425	1.00	58.89	N
ATOM	47607	C	LEU	O	43	158.371	95.683	-66.476	1.00	52.92	C	ATOM	47657	N	ASP	O	49	163.294	99.832	-62.124	1.00	58.89	C
ATOM	47608	O	LEU	O	43	159.077	94.929	-65.808	1.00	52.92	O	ATOM	47658	CA	ASP	O	49	162.387	99.798	-60.891	1.00	58.89	C
ATOM	47609	CB	LEU	O	43	157.480	97.178	-64.698	1.00	45.12	C	ATOM	47659	C	ASP	O	49	161.186	100.027	-60.988	1.00	58.89	O
ATOM	47610	CG	LEU	O	43	157.442	98.570	-64.078	1.00	45.12	C	ATOM	47660	O	ASP	O	49	162.553	100.462	-63.301	1.00	58.89	C
ATOM	47611	CD1	LEU	O	43	156.664	98.543	-62.768	1.00	45.12	C	ATOM	47661	CB	ASP	O	49	162.272	101.937	-63.089	1.00	58.29	C
ATOM	47612	CD2	LEU	O	43	158.869	99.044	-63.851	1.00	45.12	C	ATOM	47662	CG	ASP	O	49	162.075	102.341	-61.926	1.00	58.29	O
ATOM	47613	N	LYS	O	44	157.721	95.283	-67.571	1.00	63.87	N	ATOM	47663	OD1	ASP	O	49	162.234	102.700	-64.078	1.00	58.29	O
ATOM	47614	CA	LYS	O	44	157.882	93.921	-68.068	1.00	63.87	C	ATOM	47664	OD2	ASP	O	49	162.959	99.505	-59.730	1.00	55.93	N
ATOM	47615	C	LYS	O	44	159.329	93.948	-68.494	1.00	63.87	C	ATOM	47665	N	HIS	O	50						



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ATOM	47666	CA	HIS	O	50	162.164	99.407	-58.523	1.00	55.93	ATOM	47716	N	LEU	O	56	153.746	102.531	-59.337	1.00	42.15	N
ATOM	47667	C	HIS	O	50	161.546	100.718	-58.116	1.00	55.93	ATOM	47717	CA	LEU	O	56	152.704	101.589	-59.719	1.00	42.15	C
ATOM	47668	O	HIS	O	50	160.462	100.736	-57.545	1.00	55.93	ATOM	47718	C	LEU	O	56	151.904	101.106	-58.528	1.00	42.15	C
ATOM	47669	CB	HIS	O	50	162.994	98.889	-57.355	1.00	53.73	ATOM	47719	O	LEU	O	56	150.686	101.011	-58.596	1.00	42.15	O
ATOM	47670	CG	HIS	O	50	163.661	97.579	-57.621	1.00	53.73	ATOM	47720	CB	LEU	O	56	153.324	100.380	-60.401	1.00	38.35	C
ATOM	47671	ND1	HIS	O	50	162.969	96.464	-58.038	1.00	53.73	ATOM	47721	CG	LEU	O	56	152.383	99.198	-60.622	1.00	38.35	C
ATOM	47672	CD2	HIS	O	50	164.960	97.207	-57.535	1.00	53.73	ATOM	47722	CD1	LEU	O	56	151.253	99.618	-61.535	1.00	38.35	C
ATOM	47673	CE1	HIS	O	50	163.814	95.461	-58.199	1.00	53.73	ATOM	47723	CD2	LEU	O	56	153.154	98.046	-61.235	1.00	38.35	C
ATOM	47674	NE2	HIS	O	50	165.029	95.886	-57.901	1.00	53.73	ATOM	47724	N	LEU	O	57	152.600	100.790	-57.442	1.00	63.02	N
ATOM	47675	N	HIS	O	51	162.220	101.823	-58.386	1.00	49.63	ATOM	47725	CA	LEU	O	57	151.957	100.291	-56.230	1.00	63.02	C
ATOM	47676	CA	HIS	O	51	161.658	103.097	-57.993	1.00	49.63	ATOM	47726	C	LEU	O	57	151.004	101.285	-55.624	1.00	63.02	C
ATOM	47677	C	HIS	O	51	160.324	103.355	-58.659	1.00	49.63	ATOM	47727	O	LEU	O	57	149.991	100.903	-55.046	1.00	63.02	O
ATOM	47678	O	HIS	O	51	159.376	103.765	-57.998	1.00	49.63	ATOM	47728	CB	LEU	O	57	153.005	99.908	-55.189	1.00	55.68	C
ATOM	47679	CB	HIS	O	51	162.642	104.223	-58.271	1.00	53.23	ATOM	47729	CG	LEU	O	57	152.962	98.431	-54.806	1.00	55.68	C
ATOM	47680	CG	HIS	O	51	163.752	104.285	-57.271	1.00	53.23	ATOM	47730	CD1	LEU	O	57	152.874	97.568	-56.061	1.00	55.68	C
ATOM	47681	ND1	HIS	O	51	164.526	103.189	-56.955	1.00	53.23	ATOM	47731	CD2	LEU	O	57	154.193	98.089	-53.999	1.00	55.68	C
ATOM	47682	CD2	HIS	O	51	164.176	105.287	-56.467	1.00	53.23	ATOM	47732	N	MET	O	58	151.342	102.560	-55.745	1.00	59.09	N
ATOM	47683	CE1	HIS	O	51	165.374	103.510	-55.995	1.00	53.23	ATOM	47733	CA	MET	O	58	150.504	103.612	-55.207	1.00	59.09	C
ATOM	47684	NE2	HIS	O	51	165.182	104.778	-55.679	1.00	53.23	ATOM	47734	C	MET	O	58	149.312	103.810	-56.123	1.00	59.09	C
ATOM	47685	N	SER	O	52	160.225	103.101	-59.956	1.00	51.78	ATOM	47735	O	MET	O	58	148.195	103.993	-55.652	1.00	59.09	O
ATOM	47686	CA	SER	O	52	158.955	103.317	-60.636	1.00	51.78	ATOM	47736	CB	MET	O	58	151.289	104.920	-55.086	1.00	60.41	C
ATOM	47687	C	SER	O	52	157.917	102.347	-60.084	1.00	51.78	ATOM	47737	CG	MET	O	58	152.486	104.848	-54.153	1.00	60.41	C
ATOM	47688	O	SER	O	52	156.741	102.673	-59.973	1.00	51.78	ATOM	47738	SD	MET	O	58	153.178	106.490	-53.762	1.00	60.41	S
ATOM	47689	CB	SER	O	52	159.105	103.103	-62.141	1.00	49.02	ATOM	47739	CE	MET	O	58	153.854	106.967	-55.329	1.00	60.41	C
ATOM	47690	OG	SER	O	52	160.013	104.035	-62.700	1.00	49.02	ATOM	47740	N	MET	O	59	149.561	103.772	-57.430	1.00	45.33	N
ATOM	47691	N	HIS	O	53	158.354	101.156	-59.712	1.00	39.54	ATOM	47741	CA	MET	O	59	148.516	103.946	-58.435	1.00	45.33	C
ATOM	47692	CA	HIS	O	53	157.427	100.172	-59.202	1.00	39.54	ATOM	47742	C	MET	O	59	147.448	102.880	-58.277	1.00	45.33	C
ATOM	47693	C	HIS	O	53	156.653	100.661	-58.000	1.00	39.54	ATOM	47743	O	MET	O	59	146.252	103.171	-58.245	1.00	45.33	O
ATOM	47694	O	HIS	O	53	155.502	100.251	-57.782	1.00	39.54	ATOM	47744	CB	MET	O	59	149.110	103.861	-59.840	1.00	70.33	C
ATOM	47695	CB	HIS	O	53	158.144	98.882	-58.851	1.00	50.75	ATOM	47745	CG	MET	O	59	149.893	105.094	-60.250	1.00	70.33	C
ATOM	47696	CG	HIS	O	53	157.223	97.804	-58.374	1.00	50.75	ATOM	47746	SD	MET	O	59	150.747	104.911	-61.832	1.00	70.33	S
ATOM	47697	ND1	HIS	O	53	156.959	97.587	-57.039	1.00	50.75	ATOM	47747	CE	MET	O	59	149.572	103.877	-62.706	1.00	70.33	C
ATOM	47698	CD2	HIS	O	53	156.488	96.895	-59.056	1.00	50.75	ATOM	47748	N	VAL	O	60	147.885	101.636	-58.181	1.00	52.08	N
ATOM	47699	CE1	HIS	O	53	156.104	96.587	-56.920	1.00	50.75	ATOM	47749	CA	VAL	O	60	146.959	100.537	-58.013	1.00	52.08	C
ATOM	47700	NE2	HIS	O	53	155.802	96.150	-58.129	1.00	50.75	ATOM	47750	C	VAL	O	60	146.137	100.732	-56.755	1.00	52.08	C
ATOM	47701	N	ARG	O	54	157.273	101.517	-57.197	1.00	56.67	ATOM	47751	O	VAL	O	60	144.928	100.535	-56.753	1.00	52.08	O
ATOM	47702	CA	ARG	O	54	156.562	102.039	-56.043	1.00	56.67	ATOM	47752	CB	VAL	O	60	147.705	99.214	-57.894	1.00	27.47	C
ATOM	47703	C	ARG	O	54	155.452	102.942	-56.569	1.00	56.67	ATOM	47753	CG1	VAL	O	60	146.755	98.122	-57.429	1.00	27.47	C
ATOM	47704	O	ARG	O	54	154.383	103.038	-55.975	1.00	56.67	ATOM	47754	CG2	VAL	O	60	148.338	98.877	-59.236	1.00	27.47	C
ATOM	47705	CB	ARG	O	54	157.496	102.828	-55.132	1.00	47.41	ATOM	47755	N	GLY	O	61	146.811	101.119	-55.682	1.00	47.29	N
ATOM	47706	CG	ARG	O	54	156.759	103.659	-54.103	1.00	47.41	ATOM	47756	CA	GLY	O	61	146.138	101.322	-54.416	1.00	47.29	C
ATOM	47707	CD	ARG	O	54	157.680	104.121	-53.000	1.00	47.41	ATOM	47757	C	GLY	O	61	145.047	102.341	-54.549	1.00	47.29	C
ATOM	47708	NE	ARG	O	54	157.002	104.999	-52.045	1.00	47.41	ATOM	47758	O	GLY	O	61	143.911	102.076	-54.175	1.00	47.29	O
ATOM	47709	C2	ARG	O	54	156.811	106.301	-52.233	1.00	47.41	ATOM	47759	N	GLN	O	62	145.399	103.504	-55.089	1.00	57.30	N
ATOM	47710	NH1	ARG	O	54	157.245	106.887	-53.338	1.00	47.41	ATOM	47760	CA	GLN	O	62	144.453	104.592	-55.289	1.00	57.30	C
ATOM	47711	NH2	ARG	O	54	156.201	107.021	-51.312	1.00	47.41	ATOM	47761	C	GLN	O	62	143.267	104.097	-56.115	1.00	57.30	C
ATOM	47712	N	GLY	O	55	155.712	103.600	-57.695	1.00	60.16	ATOM	47762	O	GLN	O	62	142.119	104.455	-55.843	1.00	57.30	O
ATOM	47713	CA	GLY	O	55	154.707	104.462	-58.278	1.00	60.16	ATOM	47763	CB	GLN	O	62	145.145	105.755	-55.995	1.00	63.39	C
ATOM	47714	C	GLY	O	55	153.507	103.595	-58.578	1.00	60.16	ATOM	47764	CG	GLN	O	62	144.264	106.973	-56.236	1.00	63.39	C
ATOM	47715	O	GLY	O	55	152.398	103.866	-58.123	1.00	60.16	ATOM	47765	CD	GLN	O	62	143.846	107.692	-54.956	1.00	63.39	C



Table 2: Sheet 479/520

ATOM	47766	OE1	GLN	O	62	144.688	108.059	-54.138	1.00	63.39	O	ATOM	47816	CD2	LEU	O	67	136.549	100.997	-59.768	1.00	52.43	C
ATOM	47767	NE2	GLN	O	62	142.539	107.912	-54.791	1.00	63.39	N	ATOM	47817	N	ARG	O	68	136.471	100.688	-54.526	1.00	46.83	N
ATOM	47768	N	ARG	O	63	143.529	103.267	-57.119	1.00	44.60	N	ATOM	47818	CA	ARG	O	68	135.857	100.286	-53.278	1.00	46.83	C
ATOM	47769	CA	ARG	O	63	142.433	102.764	-57.927	1.00	44.60	C	ATOM	47819	C	ARG	O	68	134.715	101.226	-52.949	1.00	46.83	C
ATOM	47770	C	ARG	O	63	141.545	101.886	-57.064	1.00	44.60	C	ATOM	47820	O	ARG	O	68	133.636	100.788	-52.565	1.00	46.83	O
ATOM	47771	O	ARG	O	63	140.323	102.046	-57.058	1.00	44.60	O	ATOM	47821	CB	ARG	O	68	136.868	100.333	-52.144	1.00	85.99	C
ATOM	47772	CB	ARG	O	63	142.941	101.959	-59.117	1.00	53.01	C	ATOM	47822	CG	ARG	O	68	136.228	100.265	-50.773	1.00	85.99	C
ATOM	47773	CG	ARG	O	63	141.818	101.534	-60.042	1.00	53.01	C	ATOM	47823	CD	ARG	O	68	137.290	100.224	-49.706	1.00	85.99	C
ATOM	47774	CD	ARG	O	63	142.327	100.962	-61.348	1.00	53.01	C	ATOM	47824	NE	ARG	O	68	138.174	99.083	-49.908	1.00	85.99	C
ATOM	47775	NE	ARG	O	63	143.026	99.697	-61.157	1.00	53.01	N	ATOM	47825	CZ	ARG	O	68	139.495	99.129	-49.775	1.00	85.99	C
ATOM	47776	CZ	ARG	O	63	143.471	98.937	-62.151	1.00	53.01	C	ATOM	47826	NH1	ARG	O	68	140.095	100.269	-49.438	1.00	85.99	N
ATOM	47777	NH1	ARG	O	63	143.289	99.315	-63.412	1.00	53.01	N	ATOM	47827	NH2	ARG	O	68	140.215	98.034	-49.985	1.00	85.99	N
ATOM	47778	NH2	ARG	O	63	144.092	97.796	-61.886	1.00	53.01	N	ATOM	47828	N	TYR	O	69	134.970	102.523	-53.096	1.00	50.49	N
ATOM	47779	N	ARG	O	64	142.157	100.962	-56.330	1.00	53.36	N	ATOM	47829	CA	TYR	O	69	133.981	103.560	-52.811	1.00	50.49	C
ATOM	47780	CA	ARG	O	64	141.406	100.064	-55.459	1.00	53.36	C	ATOM	47830	C	TYR	O	69	132.860	103.521	-53.810	1.00	50.49	C
ATOM	47781	C	ARG	O	64	140.471	100.883	-54.569	1.00	53.36	C	ATOM	47831	O	TYR	O	69	131.700	103.668	-53.449	1.00	50.49	O
ATOM	47782	O	ARG	O	64	139.295	100.567	-54.426	1.00	53.36	C	ATOM	47832	CB	TYR	O	69	134.619	104.944	-52.872	1.00	49.09	C
ATOM	47783	CB	ARG	O	64	142.353	99.248	-54.579	1.00	128.52	C	ATOM	47833	CG	TYR	O	69	133.615	106.061	-52.956	1.00	49.09	C
ATOM	47784	CG	ARG	O	64	141.642	98.224	-53.714	1.00	128.52	C	ATOM	47834	CD1	TYR	O	69	132.947	106.509	-51.826	1.00	49.09	C
ATOM	47785	CD	ARG	O	64	142.418	97.935	-52.437	1.00	128.52	C	ATOM	47835	CD2	TYR	O	69	133.322	106.660	-54.172	1.00	49.09	C
ATOM	47786	NE	ARG	O	64	143.812	97.935	-52.437	1.00	128.52	C	ATOM	47836	CE1	TYR	O	69	132.006	107.541	-51.901	1.00	49.09	C
ATOM	47787	CZ	ARG	O	64	144.203	96.569	-53.448	1.00	128.52	C	ATOM	47837	CE2	TYR	O	69	132.380	107.689	-54.262	1.00	49.09	C
ATOM	47788	NH1	ARG	O	64	143.304	95.774	-54.015	1.00	128.52	N	ATOM	47838	OH	TYR	O	69	131.726	108.127	-53.122	1.00	49.09	C
ATOM	47789	NH2	ARG	O	64	145.496	96.339	-53.632	1.00	128.52	N	ATOM	47839	CZ	TYR	O	69	130.801	109.145	-53.208	1.00	49.09	O
ATOM	47790	N	ARG	O	65	140.995	101.943	-53.971	1.00	52.02	C	ATOM	47840	N	LEU	O	70	133.222	103.356	-55.078	1.00	44.62	N
ATOM	47791	CA	ARG	O	65	140.174	102.763	-53.108	1.00	52.02	C	ATOM	47841	CA	LEU	O	70	132.239	103.302	-56.147	1.00	44.62	C
ATOM	47792	C	ARG	O	65	139.005	103.375	-53.852	1.00	52.02	C	ATOM	47842	C	LEU	O	70	131.275	102.182	-55.830	1.00	44.62	C
ATOM	47793	O	ARG	O	65	137.870	103.285	-53.385	1.00	52.02	O	ATOM	47843	O	LEU	O	70	130.091	102.431	-55.677	1.00	44.62	O
ATOM	47794	CB	ARG	O	65	141.004	103.860	-52.460	1.00	65.10	C	ATOM	47844	CB	LEU	O	70	132.920	103.058	-57.502	1.00	63.46	C
ATOM	47795	CG	ARG	O	65	141.417	103.535	-51.056	1.00	65.10	C	ATOM	47845	CG	LEU	O	70	132.129	103.314	-58.795	1.00	63.46	C
ATOM	47796	CD	ARG	O	65	142.902	103.606	-50.934	1.00	65.10	C	ATOM	47846	CD1	LEU	O	70	131.044	102.288	-58.932	1.00	63.46	C
ATOM	47797	NE	ARG	O	65	143.384	104.888	-51.418	1.00	65.10	N	ATOM	47847	CD2	LEU	O	70	131.529	104.710	-58.788	1.00	63.46	C
ATOM	47798	CZ	ARG	O	65	144.653	105.137	-51.713	1.00	65.10	C	ATOM	47848	N	GLN	O	71	131.772	100.954	-55.699	1.00	48.79	N
ATOM	47799	NH1	ARG	O	65	145.564	104.182	-51.566	1.00	65.10	N	ATOM	47849	CA	GLN	O	71	130.881	99.838	-55.399	1.00	48.79	C
ATOM	47800	NH2	ARG	O	65	145.007	106.334	-52.167	1.00	65.10	N	ATOM	47850	C	GLN	O	71	130.025	100.134	-54.182	1.00	48.79	C
ATOM	47801	N	LEU	O	66	139.269	103.999	-55.000	1.00	51.86	N	ATOM	47851	O	GLN	O	71	128.826	99.881	-54.186	1.00	48.79	O
ATOM	47802	CA	LEU	O	66	138.192	104.608	-55.766	1.00	51.86	C	ATOM	47852	CB	GLN	O	71	131.649	98.551	-55.149	1.00	99.60	C
ATOM	47803	C	LEU	O	66	137.088	103.597	-56.024	1.00	51.86	C	ATOM	47853	CG	GLN	O	71	130.725	97.410	-54.789	1.00	99.60	C
ATOM	47804	O	LEU	O	66	135.929	103.857	-55.710	1.00	51.86	O	ATOM	47854	CD	GLN	O	71	131.472	96.180	-54.353	1.00	99.60	C
ATOM	47805	CB	LEU	O	66	138.703	105.171	-57.092	1.00	37.74	C	ATOM	47855	OE1	GLN	O	71	132.199	96.206	-53.363	1.00	99.60	C
ATOM	47806	CG	LEU	O	66	139.368	106.557	-57.082	1.00	37.74	C	ATOM	47856	NE2	GLN	O	71	131.303	95.090	-55.091	1.00	99.60	O
ATOM	47807	CD1	LEU	O	66	139.594	106.962	-58.501	1.00	37.74	C	ATOM	47857	N	ARG	O	72	130.641	100.666	-53.134	1.00	55.28	N
ATOM	47808	CD2	LEU	O	66	138.497	107.614	-56.408	1.00	37.74	C	ATOM	47858	CA	ARG	O	72	129.911	101.006	-51.923	1.00	55.28	C
ATOM	47809	N	LEU	O	67	137.443	102.445	-56.583	1.00	51.35	N	ATOM	47859	C	ARG	O	72	128.731	101.899	-52.276	1.00	55.28	C
ATOM	47810	CA	LEU	O	67	136.460	101.408	-56.856	1.00	51.35	C	ATOM	47860	O	ARG	O	72	127.616	101.634	-51.852	1.00	55.28	O
ATOM	47811	C	LEU	O	67	135.724	100.972	-55.583	1.00	51.35	C	ATOM	47861	CB	ARG	O	72	130.838	101.708	-50.929	1.00	91.78	C
ATOM	47812	O	LEU	O	67	134.495	100.888	-55.556	1.00	51.35	O	ATOM	47862	CG	ARG	O	72	130.139	102.258	-49.704	1.00	91.78	C
ATOM	47813	CB	LEU	O	67	137.141	100.210	-57.507	1.00	52.43	C	ATOM	47863	CD	ARG	O	72	131.050	102.190	-48.498	1.00	91.78	C
ATOM	47814	CG	LEU	O	67	137.692	100.553	-58.886	1.00	52.43	C	ATOM	47864	NE	ARG	O	72	132.354	102.804	-48.736	1.00	91.78	N
ATOM	47815	CD1	LEU	O	67	138.384	99.358	-59.496	1.00	52.43	C	ATOM	47865	CZ	ARG	O	72	132.565	104.113	-48.838	1.00	91.78	C



Table 2: Sheet 480/520

ATOM	47856	NH1	ARG	O	72	131.553	104.968	-48.726	1.00	91.78	N	ATOM	47916	CB	TYR	O	78	130.516	99.005	-59.041	1.00	56.71	C
ATOM	47867	NH2	ARG	O	72	133.795	104.570	-49.040	1.00	91.78	N	ATOM	47917	CG	TYR	O	78	131.665	98.090	-59.710	1.00	56.71	C
ATOM	47868	N	GLU	O	73	128.972	102.945	-53.064	1.00	64.38	N	ATOM	47918	CD1	TYR	O	78	132.964	98.582	-58.595	1.00	56.71	C
ATOM	47869	CA	GLU	O	73	127.905	103.855	-53.465	1.00	64.38	C	ATOM	47919	CD2	TYR	O	78	131.460	96.726	-58.547	1.00	56.71	C
ATOM	47870	C	GLU	O	73	126.953	103.222	-54.466	1.00	64.38	C	ATOM	47920	CE1	TYR	O	78	134.033	97.730	-58.331	1.00	56.71	C
ATOM	47871	O	GLU	O	73	125.917	102.689	-54.082	1.00	64.38	C	ATOM	47921	CE2	TYR	O	78	132.510	95.866	-58.281	1.00	56.71	C
ATOM	47872	CB	GLU	O	73	128.487	105.136	-54.045	1.00	102.83	C	ATOM	47922	CZ	TYR	O	78	133.795	96.366	-58.179	1.00	56.71	C
ATOM	47873	CG	GLU	O	73	129.183	105.966	-53.004	1.00	102.83	C	ATOM	47923	OH	TYR	O	78	134.842	95.489	-57.984	1.00	56.71	C
ATOM	47874	CD	GLU	O	73	128.371	106.060	-51.730	1.00	102.83	C	ATOM	47924	N	ARG	O	79	129.895	97.545	-61.427	1.00	82.09	N
ATOM	47875	OE1	GLU	O	73	127.215	106.527	-51.795	1.00	102.83	O	ATOM	47925	CA	ARG	O	79	129.930	96.452	-62.400	1.00	82.09	C
ATOM	47876	OE2	GLU	O	73	128.886	105.661	-50.664	1.00	102.83	O	ATOM	47926	C	ARG	O	79	130.149	96.978	-63.810	1.00	82.09	C
ATOM	47877	N	ASP	O	74	127.292	103.275	-55.749	1.00	72.18	N	ATOM	47927	C	ARG	O	79	130.863	96.372	-64.605	1.00	82.09	C
ATOM	47878	CA	ASP	O	74	126.438	102.688	-56.776	1.00	72.18	C	ATOM	47928	CB	ARG	O	79	128.630	95.645	-62.339	1.00	138.56	C
ATOM	47879	C	ASP	O	74	127.008	101.375	-57.324	1.00	72.18	C	ATOM	47929	CG	ARG	O	79	128.479	94.860	-61.051	1.00	138.56	C
ATOM	47880	O	ASP	O	74	127.790	101.375	-58.276	1.00	72.18	C	ATOM	47930	CD	ARG	O	79	127.050	94.881	-60.543	1.00	138.56	C
ATOM	47881	CB	ASP	O	74	126.251	103.678	-57.922	1.00	115.43	C	ATOM	47931	NE	ARG	O	79	126.985	94.512	-59.132	1.00	138.56	N
ATOM	47882	CG	ASP	O	74	125.236	103.204	-58.932	1.00	115.43	C	ATOM	47932	CZ	ARG	O	79	125.912	94.673	-58.366	1.00	138.56	N
ATOM	47883	OD1	ASP	O	74	125.387	102.078	-59.451	1.00	115.43	O	ATOM	47933	NH1	ARG	O	79	124.807	95.198	-58.875	1.00	138.56	N
ATOM	47884	OD2	ASP	O	74	124.284	103.961	-59.207	1.00	115.43	O	ATOM	47934	NH2	ARG	O	79	125.948	94.319	-57.088	1.00	138.56	N
ATOM	47885	N	PRO	O	75	126.610	100.234	-56.741	1.00	54.90	N	ATOM	47935	N	ALA	O	80	129.542	98.119	-64.107	1.00	69.45	N
ATOM	47886	CA	PRO	O	75	127.097	98.924	-57.190	1.00	54.90	C	ATOM	47936	CA	ALA	O	80	129.669	98.734	-65.419	1.00	69.45	C
ATOM	47887	C	PRO	O	75	126.854	98.653	-58.663	1.00	54.90	C	ATOM	47937	C	ALA	O	80	131.107	99.142	-65.717	1.00	69.45	C
ATOM	47888	O	PRO	O	75	127.477	97.768	-59.247	1.00	54.90	O	ATOM	47938	O	ALA	O	80	131.671	98.753	-66.741	1.00	69.45	O
ATOM	47889	CB	PRO	O	75	126.350	97.944	-56.293	1.00	56.36	C	ATOM	47939	CB	ALA	O	80	128.761	99.952	-65.501	1.00	59.25	C
ATOM	47890	CG	PRO	O	75	125.083	98.659	-56.015	1.00	56.36	C	ATOM	47940	CA	LEU	O	81	131.688	99.927	-64.811	1.00	84.15	N
ATOM	47891	CD	PRO	O	75	125.543	100.074	-55.744	1.00	56.36	C	ATOM	47941	CA	LEU	O	81	133.054	100.428	-64.950	1.00	84.15	C
ATOM	47892	N	GLU	O	76	125.950	99.406	-59.274	1.00	92.84	N	ATOM	47942	C	LEU	O	81	134.057	99.333	-65.240	1.00	84.15	C
ATOM	47893	CA	GLU	O	76	125.700	99.195	-60.686	1.00	92.84	C	ATOM	47943	O	LEU	O	81	134.816	99.414	-66.209	1.00	84.15	O
ATOM	47894	C	GLU	O	76	126.789	99.892	-61.489	1.00	92.84	C	ATOM	47944	CB	LEU	O	81	133.499	101.148	-63.678	1.00	51.68	C
ATOM	47895	O	GLU	O	76	127.451	99.264	-62.319	1.00	92.84	O	ATOM	47945	CG	LEU	O	81	134.245	102.475	-63.865	1.00	51.68	C
ATOM	47896	CB	GLU	O	76	124.322	99.716	-61.086	1.00	154.18	C	ATOM	47946	CD1	LEU	O	81	134.955	102.866	-62.575	1.00	51.68	C
ATOM	47897	CG	GLU	O	76	123.877	99.173	-62.432	1.00	154.18	C	ATOM	47947	CD2	LEU	O	81	135.240	102.341	-64.996	1.00	51.68	C
ATOM	47898	CD	GLU	O	76	124.122	97.674	-62.556	1.00	154.18	C	ATOM	47948	N	ILE	O	82	134.073	98.321	-64.381	1.00	90.59	N
ATOM	47899	OE1	GLU	O	76	123.602	96.911	-61.712	1.00	154.18	O	ATOM	47949	CA	ILE	O	82	134.996	97.209	-64.541	1.00	90.59	C
ATOM	47900	OE2	GLU	O	76	124.838	97.260	-63.494	1.00	154.18	O	ATOM	47950	C	ILE	O	82	134.864	96.629	-65.935	1.00	90.59	C
ATOM	47901	N	ARG	O	77	126.982	101.186	-61.238	1.00	63.98	N	ATOM	47951	O	ILE	O	82	135.790	96.702	-66.741	1.00	90.59	C
ATOM	47902	CA	ARG	O	77	128.021	101.928	-61.937	1.00	63.98	C	ATOM	47952	CB	ILE	O	82	134.699	96.092	-63.552	1.00	77.78	C
ATOM	47903	C	ARG	O	77	129.315	101.145	-61.803	1.00	63.98	C	ATOM	47953	CG1	ILE	O	82	134.669	96.645	-62.134	1.00	77.78	C
ATOM	47904	O	ARG	O	77	130.161	101.161	-62.694	1.00	63.98	O	ATOM	47954	CG2	ILE	O	82	135.755	95.005	-63.678	1.00	77.78	C
ATOM	47905	CB	ARG	O	77	128.193	103.320	-61.338	1.00	59.09	C	ATOM	47955	CD1	ILE	O	82	134.241	95.616	-61.140	1.00	77.78	C
ATOM	47906	CG	ARG	O	77	127.092	104.276	-61.732	1.00	59.09	C	ATOM	47956	N	GLU	O	83	133.700	96.047	-66.205	1.00	85.78	N
ATOM	47907	CD	ARG	O	77	127.599	105.704	-61.779	1.00	59.09	C	ATOM	47957	CA	GLU	O	83	133.416	95.447	-67.501	1.00	85.78	C
ATOM	47908	NE	ARG	O	77	127.549	106.369	-60.485	1.00	59.09	N	ATOM	47958	C	GLU	O	83	133.978	96.356	-68.595	1.00	85.78	C
ATOM	47909	CZ	ARG	O	77	128.471	107.223	-60.058	1.00	59.09	C	ATOM	47959	O	GLU	O	83	134.868	95.963	-69.355	1.00	85.78	O
ATOM	47910	NH1	ARG	O	77	129.515	107.498	-60.827	1.00	59.09	N	ATOM	47960	CB	GLU	O	83	131.903	95.285	-67.670	1.00	100.58	C
ATOM	47911	NH2	ARG	O	77	128.344	107.823	-58.878	1.00	59.09	N	ATOM	47961	CG	GLU	O	83	131.475	94.088	-68.507	1.00	100.58	C
ATOM	47912	N	TYR	O	78	129.450	100.445	-60.681	1.00	59.24	N	ATOM	47962	CD	GLU	O	83	131.923	94.182	-69.950	1.00	100.58	C
ATOM	47913	CA	TYR	O	78	130.623	99.637	-60.422	1.00	59.24	C	ATOM	47963	OE1	GLU	O	83	133.147	94.173	-70.201	1.00	100.58	O
ATOM	47914	C	TYR	O	78	130.754	98.559	-61.489	1.00	59.24	C	ATOM	47964	OE2	GLU	O	83	131.048	94.264	-70.837	1.00	100.58	O
ATOM	47915	O	TYR	O	78	131.613	98.652	-62.364	1.00	59.24	O	ATOM	47965	N	LYS	O	84	133.470	97.581	-68.655	1.00	72.40	N



Table 2: Sheet 481/520

ATOM	47966	CA	LYS O	84	133.922	98.534	-69.654	1.00	72.40	C	ATOM	48016	CG	MET P	1	108.032	67.286	5.348	1.00	68.96	C
ATOM	47967	C	LYS O	84	135.444	98.577	-69.685	1.00	72.40	C	ATOM	48017	SD	MET P	1	107.507	66.172	6.626	1.00	68.96	S
ATOM	47968	O	LYS O	84	136.057	98.430	-70.742	1.00	72.40	O	ATOM	48018	CE	MET P	1	108.940	66.318	7.744	1.00	68.96	C
ATOM	47969	CB	LYS O	84	133.360	99.921	-69.347	1.00	68.32	C	ATOM	48019	N	VAL P	2	109.591	70.046	3.802	1.00	47.23	N
ATOM	47970	CG	LYS O	84	133.562	100.942	-70.457	1.00	68.32	C	ATOM	48020	CA	VAL P	2	109.863	71.338	4.405	1.00	47.23	C
ATOM	47971	CD	LYS O	84	132.810	102.226	-70.137	1.00	68.32	C	ATOM	48021	C	VAL P	2	109.338	71.431	5.838	1.00	47.23	C
ATOM	47972	CE	LYS O	84	133.023	103.311	-71.181	1.00	68.32	C	ATOM	48022	O	VAL P	2	108.257	70.950	6.153	1.00	47.23	O
ATOM	47973	NZ	LYS O	84	132.353	104.579	-70.757	1.00	68.32	N	ATOM	48023	CB	VAL P	2	109.317	72.487	3.517	1.00	44.90	C
ATOM	47974	N	LEU O	85	136.052	98.780	-68.521	1.00	94.28	N	ATOM	48024	CG1	VAL P	2	107.933	72.140	2.999	1.00	44.90	C
ATOM	47975	CA	LEU O	85	137.503	98.826	-68.423	1.00	94.28	C	ATOM	48025	CG2	VAL P	2	109.311	73.792	4.309	1.00	44.90	C
ATOM	47976	C	LEU O	85	138.080	97.436	-68.649	1.00	94.28	C	ATOM	48026	N	LYS P	3	110.131	72.052	6.701	1.00	54.42	N
ATOM	47977	O	LEU O	85	138.185	96.979	-69.782	1.00	94.28	O	ATOM	48027	CA	LYS P	3	109.779	72.176	8.101	1.00	54.42	C
ATOM	47978	CB	LEU O	85	137.922	99.332	-67.048	1.00	54.74	C	ATOM	48028	C	LYS P	3	109.954	73.564	8.686	1.00	54.42	C
ATOM	47979	CG	LEU O	85	137.795	100.828	-66.777	1.00	54.74	C	ATOM	48029	O	LYS P	3	110.549	74.454	8.076	1.00	54.42	O
ATOM	47980	CD1	LEU O	85	138.114	101.100	-65.323	1.00	54.74	C	ATOM	48030	CB	LYS P	3	110.627	71.214	8.906	1.00	42.62	C
ATOM	47981	CD2	LEU O	85	138.752	101.596	-67.672	1.00	54.74	C	ATOM	48031	CG	LYS P	3	110.809	69.880	8.225	1.00	42.62	C
ATOM	47982	N	GLY O	86	138.449	96.769	-67.561	1.00	129.76	N	ATOM	48032	CE	LYS P	3	111.343	68.860	9.188	1.00	42.62	C
ATOM	47983	CA	GLY O	86	139.009	95.433	-67.651	1.00	129.76	C	ATOM	48033	CD	LYS P	3	110.347	68.624	10.290	1.00	42.62	C
ATOM	47984	C	GLY O	86	139.523	94.986	-66.298	1.00	129.76	C	ATOM	48034	NZ	LYS P	3	111.007	67.869	11.377	1.00	42.62	N
ATOM	47985	O	GLY O	86	140.129	93.921	-66.170	1.00	129.76	O	ATOM	48035	N	ILE P	4	109.418	73.734	9.886	1.00	50.74	N
ATOM	47986	N	ILE O	87	139.263	95.810	-65.285	1.00	85.53	N	ATOM	48036	CA	ILE P	4	109.518	74.982	10.627	1.00	50.74	C
ATOM	47987	CA	ILE O	87	139.688	95.557	-63.913	1.00	85.53	C	ATOM	48037	C	ILE P	4	110.243	74.529	11.877	1.00	50.74	C
ATOM	47988	C	ILE O	87	139.165	94.234	-63.348	1.00	85.53	C	ATOM	48038	O	ILE P	4	109.669	73.833	12.709	1.00	50.74	O
ATOM	47989	O	ILE O	87	138.470	93.484	-64.036	1.00	85.53	O	ATOM	48039	CB	ILE P	4	108.136	75.526	11.007	1.00	33.79	C
ATOM	47990	CB	ILE O	87	139.254	96.716	-63.004	1.00	96.48	C	ATOM	48040	CG1	ILE P	4	107.376	75.912	9.749	1.00	33.79	C
ATOM	47991	CG1	ILE O	87	139.633	98.042	-63.665	1.00	96.48	C	ATOM	48041	CG2	ILE P	4	108.264	76.711	11.941	1.00	33.79	C
ATOM	47992	CG2	ILE O	87	139.942	96.617	-61.649	1.00	96.48	C	ATOM	48042	CD1	ILE P	4	105.942	76.276	10.045	1.00	33.79	C
ATOM	47993	CD1	ILE O	87	139.269	99.260	-62.850	1.00	96.48	C	ATOM	48043	N	ARG P	5	111.508	74.905	12.001	1.00	46.63	N
ATOM	47994	N	ARG O	88	139.112	92.716	-61.429	1.00	155.98	N	ATOM	48044	CA	ARG P	5	112.287	74.480	13.144	1.00	46.63	C
ATOM	47995	CA	ARG O	88	139.499	93.959	-62.089	1.00	155.98	C	ATOM	48045	C	ARG P	5	113.206	75.565	13.656	1.00	46.63	C
ATOM	47996	C	ARG O	88	139.777	91.574	-62.179	1.00	155.98	C	ATOM	48046	O	ARG P	5	113.130	76.708	13.217	1.00	46.63	O
ATOM	47997	O	ARG O	88	139.491	90.399	-61.948	1.00	155.98	O	ATOM	48047	CB	ARG P	5	113.097	73.241	12.765	1.00	42.87	C
ATOM	47998	CB	ARG O	88	137.596	92.534	-61.430	1.00	145.61	C	ATOM	48048	CG	ARG P	5	114.176	73.469	11.738	1.00	42.87	C
ATOM	47999	CG	ARG O	88	136.945	92.961	-60.134	1.00	145.61	C	ATOM	48049	CD	ARG P	5	114.665	72.140	11.241	1.00	42.87	C
ATOM	48000	CD	ARG O	88	135.534	92.421	-60.036	1.00	145.61	C	ATOM	48050	NE	ARG P	5	115.918	72.243	10.506	1.00	42.87	N
ATOM	48001	NE	ARG O	88	134.996	92.559	-58.687	1.00	145.61	C	ATOM	48051	CZ	ARG P	5	116.337	71.353	9.609	1.00	42.87	C
ATOM	48002	CZ	ARG O	88	133.816	92.086	-58.301	1.00	145.61	C	ATOM	48052	NH1	ARG P	5	115.604	70.283	9.324	1.00	42.87	N
ATOM	48003	NH1	ARG O	88	133.042	91.441	-59.165	1.00	145.61	N	ATOM	48053	NH2	ARG P	5	117.491	71.540	8.985	1.00	42.87	N
ATOM	48004	NH2	ARG O	88	133.410	92.254	-57.051	1.00	145.61	N	ATOM	48054	N	LEU P	6	114.080	75.195	14.582	1.00	40.33	N
ATOM	48005	N	GLY O	89	140.675	91.954	-63.081	1.00	200.58	N	ATOM	48055	CA	LEU P	6	115.019	76.129	15.173	1.00	40.33	C
ATOM	48006	CA	GLY O	89	141.408	91.000	-63.886	1.00	200.58	C	ATOM	48056	C	LEU P	6	116.435	75.956	14.625	1.00	40.33	C
ATOM	48007	C	GLY O	89	142.776	91.570	-64.204	1.00	200.58	C	ATOM	48057	O	LEU P	6	116.901	74.820	14.442	1.00	40.33	O
ATOM	48008	O	GLY O	89	143.781	90.867	-63.975	1.00	200.58	O	ATOM	48058	CB	LEU P	6	115.032	75.939	16.690	1.00	39.33	C
ATOM	48009	OXT	GLY O	89	142.843	92.725	-64.682	1.00	150.60	O	ATOM	48059	CG	LEU P	6	113.916	76.594	17.513	1.00	39.33	C
TER	48010	GLY O	89								ATOM	48060	CD1	LEU P	6	112.564	76.297	16.895	1.00	39.33	C
ATOM	48011	N	MET P	1	111.047	67.065	2.999	1.00	74.85	N	ATOM	48061	CD2	LEU P	6	113.982	76.106	18.955	1.00	39.33	C
ATOM	48012	CA	MET P	1	109.812	67.653	3.594	1.00	74.85	C	ATOM	48062	N	ALA P	7	117.108	77.081	14.350	1.00	44.69	N
ATOM	48013	C	MET P	1	110.133	68.946	4.306	1.00	74.85	C	ATOM	48063	CA	ALA P	7	118.493	77.067	13.852	1.00	44.69	C
ATOM	48014	O	MET P	1	110.845	68.946	5.310	1.00	74.85	O	ATOM	48064	C	ALA P	7	119.397	77.776	14.856	1.00	44.69	C
ATOM	48015	CB	MET P	1	109.201	66.697	4.599	1.00	68.96	C	ATOM	48065	O	ALA P	7	119.122	78.895	15.275	1.00	44.69	O



Table 2: Sheet 482/520

ATOM	48066	CB	ALA	P	7	118.591	77.748	12.499	1.00	6.28	C	ATOM	48116	CE1	HIS	P	13	128.962	76.313	28.357	1.00	57.34	C
ATOM	48067	N	ARG	P	8	120.475	77.114	15.246	1.00	57.17	N	ATOM	48117	NE2	HIS	P	13	130.150	76.857	28.162	1.00	57.34	N
ATOM	48068	CA	ARG	P	8	121.394	77.681	16.214	1.00	57.17	C	ATOM	48118	CA	ASN	P	14	125.693	80.928	24.770	1.00	45.68	N
ATOM	48069	C	ARG	P	8	122.112	78.902	15.668	1.00	57.17	C	ATOM	48119	CA	ASN	P	14	124.802	82.050	24.502	1.00	45.68	C
ATOM	48070	O	ARG	P	8	122.723	78.852	14.596	1.00	57.17	O	ATOM	48120	C	ASN	P	14	123.940	81.723	23.289	1.00	45.68	C
ATOM	48071	CB	ARG	P	8	122.409	76.628	16.632	1.00	61.18	C	ATOM	48121	O	ASN	P	14	123.996	82.378	22.256	1.00	45.68	O
ATOM	48072	CG	ARG	P	8	122.300	76.206	18.076	1.00	61.18	C	ATOM	48122	CB	ASN	P	14	125.590	83.339	24.260	1.00	57.95	C
ATOM	48073	CD	ARG	P	8	123.071	77.129	18.997	1.00	61.18	C	ATOM	48123	CG	ASN	P	14	124.690	84.499	23.926	1.00	57.95	C
ATOM	48074	NE	ARG	P	8	123.227	76.521	20.313	1.00	61.18	N	ATOM	48124	OD1	ASN	P	14	123.626	84.640	24.516	1.00	57.95	O
ATOM	48075	CZ	ARG	P	8	124.082	76.944	21.237	1.00	61.18	C	ATOM	48125	ND2	ASN	P	14	125.104	85.337	22.980	1.00	57.95	N
ATOM	48076	NH1	ARG	P	8	124.863	77.988	20.991	1.00	61.18	N	ATOM	48126	N	PRO	P	15	123.115	80.690	23.420	1.00	69.94	N
ATOM	48077	NH2	ARG	P	8	124.168	76.316	22.407	1.00	61.18	N	ATOM	48127	CA	PRO	P	15	122.218	80.232	22.360	1.00	69.94	C
ATOM	48078	N	PHE	P	9	122.049	79.999	16.418	1.00	52.27	N	ATOM	48128	C	PRO	P	15	121.142	81.233	21.994	1.00	69.94	C
ATOM	48079	CA	PHE	P	9	122.689	81.227	15.998	1.00	52.27	C	ATOM	48129	O	PRO	P	15	120.620	81.949	22.846	1.00	69.94	O
ATOM	48080	C	PHE	P	9	123.298	82.013	17.129	1.00	52.27	C	ATOM	48130	CB	PRO	P	15	121.619	78.966	22.948	1.00	36.37	C
ATOM	48081	O	PHE	P	9	123.879	83.070	16.906	1.00	52.27	O	ATOM	48131	CG	PRO	P	15	121.516	79.330	24.394	1.00	36.37	C
ATOM	48082	CB	PHE	P	9	121.690	82.112	15.253	1.00	37.96	C	ATOM	48132	CD	PRO	P	15	122.865	79.961	24.673	1.00	36.37	C
ATOM	48083	CG	PHE	P	9	121.730	81.947	13.770	1.00	37.96	C	ATOM	48133	N	HIS	P	16	120.821	81.261	20.710	1.00	42.88	N
ATOM	48084	CD1	PHE	P	9	122.640	82.656	13.010	1.00	37.96	C	ATOM	48134	CA	HIS	P	16	119.788	82.121	20.153	1.00	42.88	C
ATOM	48085	CD2	PHE	P	9	120.907	81.034	13.142	1.00	37.96	C	ATOM	48135	C	HIS	P	16	119.371	81.389	18.905	1.00	42.88	C
ATOM	48086	CE1	PHE	P	9	122.733	82.458	11.652	1.00	37.96	C	ATOM	48136	O	HIS	P	16	120.209	81.100	18.048	1.00	42.88	O
ATOM	48087	CE2	PHE	P	9	120.997	80.827	11.779	1.00	37.96	C	ATOM	48137	CB	HIS	P	16	120.329	83.512	19.774	1.00	50.52	C
ATOM	48088	CZ	PHE	P	9	121.913	81.542	11.031	1.00	37.96	C	ATOM	48138	CG	HIS	P	16	120.402	84.468	20.924	1.00	50.52	C
ATOM	48089	N	GLY	P	10	123.180	81.525	18.350	1.00	48.35	N	ATOM	48139	ND1	HIS	P	16	121.437	84.465	21.835	1.00	50.52	N
ATOM	48090	CA	GLY	P	10	123.766	82.291	19.437	1.00	48.35	C	ATOM	48140	CD2	HIS	P	16	119.547	85.434	21.333	1.00	50.52	C
ATOM	48091	C	GLY	P	10	125.288	82.363	19.380	1.00	48.35	C	ATOM	48141	CE1	HIS	P	16	121.218	85.387	22.754	1.00	50.52	C
ATOM	48092	O	GLY	P	10	125.874	83.049	18.552	1.00	48.35	O	ATOM	48142	NE2	HIS	P	16	120.077	85.988	22.473	1.00	50.52	N
ATOM	48093	N	SER	P	11	125.912	81.632	20.293	1.00	49.00	N	ATOM	48143	N	TYR	P	17	118.086	81.076	18.801	1.00	43.38	N
ATOM	48094	CA	SER	P	11	127.352	81.529	20.429	1.00	49.00	C	ATOM	48144	CA	TYR	P	17	117.608	80.347	17.638	1.00	43.38	C
ATOM	48095	C	SER	P	11	127.528	80.656	21.662	1.00	49.00	C	ATOM	48145	C	TYR	P	17	116.782	81.200	16.730	1.00	43.38	C
ATOM	48096	O	SER	P	11	126.595	80.508	22.455	1.00	49.00	O	ATOM	48146	O	TYR	P	17	116.212	82.193	17.158	1.00	43.38	O
ATOM	48097	CB	SER	P	11	127.979	82.899	20.632	1.00	48.57	C	ATOM	48147	CB	TYR	P	17	116.763	79.141	18.057	1.00	50.39	C
ATOM	48098	OG	SER	P	11	127.282	83.629	21.612	1.00	48.57	O	ATOM	48148	CG	TYR	P	17	117.471	78.200	18.989	1.00	50.39	C
ATOM	48099	N	LYS	P	12	128.701	80.060	21.826	1.00	69.78	N	ATOM	48149	CD1	TYR	P	17	117.529	78.457	20.358	1.00	50.39	C
ATOM	48100	CA	LYS	P	12	128.903	79.178	22.965	1.00	69.78	C	ATOM	48150	CD2	TYR	P	17	118.097	77.063	18.505	1.00	50.39	C
ATOM	48101	C	LYS	P	12	128.277	79.751	24.232	1.00	69.78	C	ATOM	48151	CE1	TYR	P	17	118.191	77.603	21.221	1.00	50.39	C
ATOM	48102	O	LYS	P	12	128.461	80.920	24.563	1.00	69.78	O	ATOM	48152	CE2	TYR	P	17	118.762	76.203	19.360	1.00	50.39	C
ATOM	48103	CB	LYS	P	12	130.392	78.896	23.189	1.00	65.61	C	ATOM	48153	CZ	TYR	P	17	118.803	76.478	20.718	1.00	50.39	C
ATOM	48104	CG	LYS	P	12	130.631	77.909	24.305	1.00	65.61	C	ATOM	48154	OH	TYR	P	17	119.443	75.606	21.565	1.00	50.39	O
ATOM	48105	CD	LYS	P	12	132.098	77.629	24.535	1.00	65.61	C	ATOM	48155	N	ARG	P	18	116.733	80.803	15.469	1.00	39.22	N
ATOM	48106	CE	LYS	P	12	132.627	76.590	23.567	1.00	65.61	C	ATOM	48156	CA	ARG	P	18	115.921	81.488	14.486	1.00	39.22	C
ATOM	48107	NZ	LYS	P	12	134.017	76.169	23.927	1.00	65.61	N	ATOM	48157	C	ARG	P	18	114.843	80.492	14.102	1.00	39.22	C
ATOM	48108	N	HIS	P	13	127.508	78.914	24.915	1.00	54.60	N	ATOM	48158	O	ARG	P	18	115.154	79.395	13.623	1.00	39.22	O
ATOM	48109	CA	HIS	P	13	126.845	79.301	26.147	1.00	54.60	C	ATOM	48159	CB	ARG	P	18	116.730	81.843	13.237	1.00	51.56	C
ATOM	48110	C	HIS	P	13	125.915	80.495	26.006	1.00	54.60	C	ATOM	48160	CG	ARG	P	18	117.804	82.870	13.468	1.00	51.56	C
ATOM	48111	O	HIS	P	13	125.409	81.014	27.001	1.00	54.60	O	ATOM	48161	CD	ARG	P	18	118.276	83.489	12.169	1.00	51.56	C
ATOM	48112	CB	HIS	P	13	127.881	79.579	27.221	1.00	57.34	C	ATOM	48162	NE	ARG	P	18	119.343	84.452	12.420	1.00	51.56	N
ATOM	48113	CG	HIS	P	13	128.652	78.368	27.628	1.00	57.34	C	ATOM	48163	CZ	ARG	P	18	120.106	84.984	11.473	1.00	51.56	C
ATOM	48114	ND1	HIS	P	13	128.038	77.204	28.041	1.00	57.34	N	ATOM	48164	NH1	ARG	P	18	119.921	84.650	10.202	1.00	51.56	N
ATOM	48115	CD2	HIS	P	13	129.985	78.141	27.704	1.00	57.34	C	ATOM	48165	NH2	ARG	P	18	121.065	85.835	11.799	1.00	51.56	N



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ATOM	48166	N	ILE	P	19	113.584	80.828	14.352	1.00	40.95	N	ATOM	48216	CZ	ARG	P	25	114.988	66.544	-0.353	1.00	45.87	C
ATOM	48167	CA	ILE	P	19	112.523	79.925	13.952	1.00	40.95	C	ATOM	48217	NH1	ARG	P	25	114.889	65.339	-0.902	1.00	45.87	N
ATOM	48168	C	ILE	P	19	112.604	80.036	12.436	1.00	40.95	C	ATOM	48218	NH2	ARG	P	25	114.555	67.617	-1.015	1.00	45.87	N
ATOM	48169	O	ILE	P	19	112.613	81.142	11.883	1.00	40.95	O	ATOM	48219	N	ARG	P	26	118.313	69.889	5.004	1.00	43.46	N
ATOM	48170	CB	ILE	P	19	111.184	80.385	14.493	1.00	44.07	C	ATOM	48220	CA	ARG	P	26	119.391	70.876	5.162	1.00	43.46	C
ATOM	48171	CG1	ILE	P	19	111.227	80.280	16.019	1.00	44.07	C	ATOM	48221	C	ARG	P	26	120.119	70.684	6.475	1.00	43.46	C
ATOM	48172	CG2	ILE	P	19	110.052	79.567	13.865	1.00	44.07	C	ATOM	48222	O	ARG	P	26	119.604	70.025	7.368	1.00	43.46	O
ATOM	48173	CD1	ILE	P	19	109.975	80.755	16.713	1.00	44.07	C	ATOM	48223	CB	ARG	P	26	118.831	72.302	5.172	1.00	58.62	C
ATOM	48174	N	VAL	P	20	112.654	78.891	11.768	1.00	62.56	N	ATOM	48224	CG	ARG	P	26	118.829	73.032	3.849	1.00	58.62	C
ATOM	48175	CA	VAL	P	20	112.871	78.884	10.336	1.00	62.56	C	ATOM	48225	CD	ARG	P	26	120.203	73.542	3.492	1.00	58.62	C
ATOM	48176	C	VAL	P	20	112.108	77.872	9.496	1.00	62.56	C	ATOM	48226	NE	ARG	P	26	120.168	74.312	2.252	1.00	58.62	N
ATOM	48177	O	VAL	P	20	111.670	76.845	10.002	1.00	62.56	O	ATOM	48227	CZ	ARG	P	26	119.843	73.810	1.066	1.00	58.62	C
ATOM	48178	CB	VAL	P	20	114.371	78.646	10.119	1.00	50.51	C	ATOM	48228	NH1	ARG	P	26	119.528	72.532	0.948	1.00	58.62	N
ATOM	48179	CG1	VAL	P	20	114.608	77.892	8.851	1.00	50.51	C	ATOM	48229	NH2	ARG	P	26	119.817	74.586	-0.006	1.00	58.62	N
ATOM	48180	CG2	VAL	P	20	115.110	79.964	10.127	1.00	50.51	C	ATOM	48230	N	LYS	P	27	121.316	71.261	6.591	1.00	52.27	N
ATOM	48181	N	VAL	P	21	111.958	78.172	8.206	1.00	46.63	N	ATOM	48231	CA	LYS	P	27	122.055	71.211	7.853	1.00	52.27	C
ATOM	48182	CA	VAL	P	21	111.332	77.238	7.272	1.00	46.63	C	ATOM	48232	C	LYS	P	27	121.122	71.985	8.786	1.00	52.27	C
ATOM	48183	C	VAL	P	21	112.482	76.757	6.401	1.00	46.63	C	ATOM	48233	O	LYS	P	27	120.212	72.657	8.317	1.00	52.27	O
ATOM	48184	O	VAL	P	21	113.237	77.570	5.869	1.00	46.63	O	ATOM	48234	CB	LYS	P	27	123.355	72.016	7.784	1.00	50.00	C
ATOM	48185	CB	VAL	P	21	110.311	77.896	6.338	1.00	32.98	C	ATOM	48235	CG	LYS	P	27	124.361	71.679	6.704	1.00	50.00	C
ATOM	48186	CG1	VAL	P	21	109.875	76.911	5.255	1.00	32.98	C	ATOM	48236	CD	LYS	P	27	125.577	72.586	6.891	1.00	50.00	C
ATOM	48187	CG2	VAL	P	21	109.114	78.332	7.128	1.00	32.98	C	ATOM	48237	CE	LYS	P	27	126.710	72.166	6.017	1.00	50.00	C
ATOM	48188	N	THR	P	22	112.622	75.443	6.255	1.00	48.56	N	ATOM	48238	NZ	LYS	P	27	126.192	71.950	4.637	1.00	50.00	N
ATOM	48189	CA	THR	P	22	113.694	74.885	5.447	1.00	48.56	C	ATOM	48239	N	ARG	P	28	121.330	71.946	10.091	1.00	60.46	N
ATOM	48190	C	THR	P	22	113.372	73.457	5.121	1.00	48.56	C	ATOM	48240	CA	ARG	P	28	120.415	72.713	10.907	1.00	60.46	C
ATOM	48191	O	THR	P	22	112.517	72.873	5.763	1.00	48.56	O	ATOM	48241	C	ARG	P	28	120.787	74.185	10.823	1.00	60.46	C
ATOM	48192	CB	THR	P	22	115.009	74.888	6.205	1.00	41.12	C	ATOM	48242	O	ARG	P	28	119.938	75.067	10.997	1.00	60.46	O
ATOM	48193	OG1	THR	P	22	116.018	74.293	5.383	1.00	41.12	O	ATOM	48243	CB	ARG	P	28	120.396	72.230	12.361	1.00	31.40	C
ATOM	48194	CG2	THR	P	22	114.879	74.113	7.499	1.00	41.12	C	ATOM	48244	CG	ARG	P	28	121.528	72.676	13.239	1.00	31.40	C
ATOM	48195	N	ASP	P	23	114.045	72.890	4.126	1.00	45.75	N	ATOM	48245	CD	ARG	P	28	121.028	72.737	14.693	1.00	31.40	C
ATOM	48196	CA	ASP	P	23	113.808	71.493	3.774	1.00	45.75	C	ATOM	48246	NE	ARG	P	28	122.077	72.521	15.696	1.00	31.40	N
ATOM	48197	C	ASP	P	23	114.433	70.660	4.890	1.00	45.75	C	ATOM	48247	CZ	ARG	P	28	123.184	73.252	15.818	1.00	31.40	C
ATOM	48198	O	ASP	P	23	115.525	70.969	5.372	1.00	45.75	O	ATOM	48248	NH1	ARG	P	28	123.405	74.258	14.992	1.00	31.40	N
ATOM	48199	CB	ASP	P	23	114.450	71.153	2.427	1.00	59.98	C	ATOM	48249	NH2	ARG	P	28	124.056	72.994	16.789	1.00	31.40	N
ATOM	48200	CG	ASP	P	23	114.268	69.690	2.036	1.00	59.98	C	ATOM	48250	N	ASP	P	29	122.052	74.452	10.524	1.00	45.06	N
ATOM	48201	OD1	ASP	P	23	114.870	68.812	2.694	1.00	59.98	O	ATOM	48251	CA	ASP	P	29	122.512	75.831	10.417	1.00	45.06	C
ATOM	48202	OD2	ASP	P	23	113.522	69.417	1.069	1.00	59.98	O	ATOM	48252	C	ASP	P	29	122.787	76.280	8.982	1.00	45.06	C
ATOM	48203	N	ALA	P	24	113.739	69.610	5.313	1.00	50.25	N	ATOM	48253	O	ASP	P	29	123.350	77.351	8.758	1.00	45.06	O
ATOM	48204	CA	ALA	P	24	114.236	68.766	6.396	1.00	50.25	C	ATOM	48254	CB	ASP	P	29	123.759	76.023	11.273	1.00	49.03	C
ATOM	48205	C	ALA	P	24	115.672	68.275	6.207	1.00	50.25	C	ATOM	48255	CG	ASP	P	29	123.468	75.885	12.754	1.00	49.03	C
ATOM	48206	O	ALA	P	24	116.407	68.066	7.174	1.00	50.25	O	ATOM	48256	OD1	ASP	P	29	124.373	76.154	13.581	1.00	49.03	O
ATOM	48207	CB	ALA	P	24	113.312	67.588	6.576	1.00	41.18	C	ATOM	48257	OD2	ASP	P	29	122.327	75.509	13.092	1.00	49.03	O
ATOM	48208	N	ARG	P	25	116.076	68.111	4.956	1.00	40.83	N	ATOM	48258	N	GLY	P	30	122.371	75.456	8.021	1.00	41.60	N
ATOM	48209	CA	ARG	P	25	117.407	67.620	4.650	1.00	40.83	C	ATOM	48259	CA	GLY	P	30	122.578	75.769	6.619	1.00	41.60	C
ATOM	48210	C	ARG	P	25	118.582	68.599	4.812	1.00	40.83	C	ATOM	48260	C	GLY	P	30	121.532	76.698	6.033	1.00	41.60	C
ATOM	48211	O	ARG	P	25	119.732	68.178	4.771	1.00	40.83	O	ATOM	48261	O	GLY	P	30	120.802	77.361	6.769	1.00	41.60	O
ATOM	48212	CB	ARG	P	25	117.377	67.036	3.245	1.00	45.87	C	ATOM	48262	N	LYS	P	31	121.437	76.726	4.705	1.00	41.58	N
ATOM	48213	CG	ARG	P	25	116.269	66.020	3.093	1.00	45.87	C	ATOM	48263	CA	LYS	P	31	120.490	77.609	4.032	1.00	41.58	C
ATOM	48214	CD	ARG	P	25	116.031	65.586	1.663	1.00	45.87	C	ATOM	48264	C	LYS	P	31	119.034	77.294	4.223	1.00	41.58	C
ATOM	48215	NE	ARG	P	25	115.523	66.684	0.858	1.00	45.87	N	ATOM	48265	O	LYS	P	31	118.540	76.318	3.607	1.00	41.58	O



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ATOM	48266	CB	LYS P	31	120.747	77.671	2.524	1.00	58.36	C	ATOM	48316	CD1	ILE P	36	107.686	80.255	10.523	1.00	41.94	C
ATOM	48267	CG	LYS P	31	119.646	78.447	1.811	1.00	58.36	C	ATOM	48317	N	GLY P	37	110.785	83.944	12.566	1.00	44.84	N
ATOM	48268	CD	LYS P	31	120.045	78.976	0.454	1.00	58.36	C	ATOM	48318	CA	GLY P	37	110.724	84.249	13.981	1.00	44.84	C
ATOM	48269	CE	LYS P	31	120.227	77.862	-0.548	1.00	58.36	C	ATOM	48319	C	GLY P	37	112.081	84.061	14.604	1.00	44.84	C
ATOM	48270	NZ	LYS P	31	120.589	78.411	-1.890	1.00	58.36	N	ATOM	48320	O	GLY P	37	113.034	83.707	13.911	1.00	44.84	O
ATOM	48271	N	TYR P	32	118.336	78.126	4.976	1.00	36.15	N	ATOM	48321	N	TYR P	38	112.182	84.316	15.901	1.00	52.58	N
ATOM	48272	CA	TYR P	32	116.916	77.906	5.153	1.00	36.15	C	ATOM	48322	CA	TYR P	38	113.438	84.127	16.609	1.00	52.58	C
ATOM	48273	C	TYR P	32	116.142	78.589	4.030	1.00	36.15	C	ATOM	48323	C	TYR P	38	113.124	83.808	18.056	1.00	52.58	C
ATOM	48274	O	TYR P	32	116.720	79.268	3.193	1.00	36.15	O	ATOM	48324	O	TYR P	38	112.036	84.116	18.545	1.00	52.58	O
ATOM	48275	CB	TYR P	32	116.443	79.419	6.510	1.00	49.03	C	ATOM	48325	CB	TYR P	38	114.350	85.354	16.476	1.00	65.41	C
ATOM	48276	CG	TYR P	32	116.921	79.788	6.928	1.00	49.03	C	ATOM	48326	CG	TYR P	38	113.780	86.659	16.973	1.00	65.41	C
ATOM	48277	CD1	TYR P	32	118.123	79.952	7.605	1.00	49.03	C	ATOM	48327	CD1	TYR P	38	113.821	86.990	18.332	1.00	65.41	C
ATOM	48278	CD2	TYR P	32	116.134	80.908	6.711	1.00	49.03	C	ATOM	48328	CD2	TYR P	38	113.223	87.580	16.081	1.00	65.41	C
ATOM	48279	CE1	TYR P	32	118.530	81.205	8.067	1.00	49.03	C	ATOM	48329	CE1	TYR P	38	113.325	88.208	18.787	1.00	65.41	C
ATOM	48280	CE2	TYR P	32	116.528	82.165	7.155	1.00	49.03	C	ATOM	48330	CE2	TYR P	38	112.723	88.798	16.526	1.00	65.41	C
ATOM	48281	CZ	TYR P	32	117.724	82.312	7.844	1.00	49.03	C	ATOM	48331	CZ	TYR P	38	112.776	89.106	17.877	1.00	65.41	C
ATOM	48282	OH	TYR P	32	118.092	83.563	8.302	1.00	49.03	O	ATOM	48332	OH	TYR P	38	112.274	90.306	18.322	1.00	65.41	O
ATOM	48283	N	ILE P	33	114.835	78.395	3.995	1.00	48.15	N	ATOM	48333	N	TYR P	39	114.072	83.195	18.747	1.00	43.87	N
ATOM	48284	CA	ILE P	33	114.025	78.999	2.953	1.00	48.15	C	ATOM	48334	CA	TYR P	39	113.815	82.790	20.111	1.00	43.87	C
ATOM	48285	C	ILE P	33	113.534	80.369	3.363	1.00	48.15	C	ATOM	48335	C	TYR P	39	115.056	82.746	20.999	1.00	43.87	C
ATOM	48286	O	ILE P	33	113.467	81.283	2.545	1.00	48.15	O	ATOM	48336	O	TYR P	39	116.059	82.111	20.652	1.00	43.87	O
ATOM	48287	CB	ILE P	33	112.811	78.143	2.641	1.00	27.47	C	ATOM	48337	CB	TYR P	39	113.135	81.421	20.055	1.00	72.02	C
ATOM	48288	CG1	ILE P	33	113.251	76.890	1.881	1.00	27.47	C	ATOM	48338	CG1	TYR P	39	113.178	80.623	21.326	1.00	72.02	C
ATOM	48289	CG2	ILE P	33	111.825	78.945	1.844	1.00	27.47	C	ATOM	48339	CG2	TYR P	39	112.508	81.052	22.464	1.00	72.02	C
ATOM	48290	CD1	ILE P	33	112.401	75.669	2.131	1.00	27.47	C	ATOM	48340	CD2	TYR P	39	113.884	79.429	21.385	1.00	72.02	C
ATOM	48291	N	GLU P	34	113.174	80.496	4.634	1.00	51.77	N	ATOM	48341	CE1	TYR P	39	112.539	80.313	23.631	1.00	72.02	C
ATOM	48292	CA	GLU P	34	112.672	81.744	5.164	1.00	51.77	C	ATOM	48342	CE2	TYR P	39	113.923	78.685	22.544	1.00	72.02	C
ATOM	48293	C	GLU P	34	112.706	81.771	6.675	1.00	51.77	C	ATOM	48343	CZ	TYR P	39	113.250	79.131	23.664	1.00	72.02	C
ATOM	48294	O	GLU P	34	112.388	80.783	7.340	1.00	51.77	O	ATOM	48344	OH	TYR P	39	113.304	78.403	24.825	1.00	72.02	O
ATOM	48295	CB	GLU P	34	111.236	81.969	4.713	1.00	56.64	C	ATOM	48345	N	ASP P	40	114.983	83.433	22.138	1.00	48.81	N
ATOM	48296	CG	GLU P	34	110.647	83.251	5.256	1.00	56.64	C	ATOM	48346	CA	ASP P	40	116.072	83.480	23.107	1.00	48.81	C
ATOM	48297	CD	GLU P	34	109.216	83.489	4.806	1.00	56.64	C	ATOM	48347	C	ASP P	40	115.644	82.622	24.297	1.00	48.81	C
ATOM	48298	OE1	GLU P	34	108.855	83.043	3.688	1.00	56.64	O	ATOM	48348	O	ASP P	40	114.883	83.065	25.159	1.00	48.81	O
ATOM	48299	OE2	GLU P	34	108.459	84.141	5.566	1.00	56.64	O	ATOM	48349	CB	ASP P	40	116.307	84.913	23.556	1.00	67.37	C
ATOM	48300	N	LYS P	35	113.108	82.911	7.214	1.00	50.32	N	ATOM	48350	CG	ASP P	40	117.242	85.006	24.741	1.00	67.37	C
ATOM	48301	CA	LYS P	35	113.132	83.100	8.650	1.00	50.32	C	ATOM	48351	OD1	ASP P	40	117.446	86.135	25.238	1.00	67.37	O
ATOM	48302	C	LYS P	35	111.723	83.555	8.980	1.00	50.32	C	ATOM	48352	OD2	ASP P	40	117.772	83.963	25.177	1.00	67.37	O
ATOM	48303	O	LYS P	35	111.138	84.334	8.229	1.00	50.32	O	ATOM	48353	CA	PRO P	41	116.150	81.384	24.366	1.00	49.32	N
ATOM	48304	CB	LYS P	35	114.122	84.195	9.027	1.00	39.33	C	ATOM	48354	CA	PRO P	41	115.842	80.423	25.423	1.00	49.32	C
ATOM	48305	CG	LYS P	35	114.047	84.616	10.482	1.00	39.33	C	ATOM	48355	C	PRO P	41	115.974	80.980	26.821	1.00	49.32	C
ATOM	48306	CD	LYS P	35	115.263	85.440	10.900	1.00	39.33	C	ATOM	48356	O	PRO P	41	115.181	80.655	27.696	1.00	49.32	O
ATOM	48307	CE	LYS P	35	115.135	85.928	12.334	1.00	39.33	C	ATOM	48357	CB	PRO P	41	116.851	79.305	23.187	1.00	72.98	C
ATOM	48308	NZ	LYS P	35	116.224	86.878	12.728	1.00	39.33	N	ATOM	48358	CG	PRO P	41	117.172	79.416	23.758	1.00	72.98	C
ATOM	48309	N	ILE P	36	111.145	83.057	10.065	1.00	48.38	N	ATOM	48359	CD	PRO P	41	117.270	80.895	23.549	1.00	72.98	C
ATOM	48310	CA	ILE P	36	109.806	83.511	10.402	1.00	48.38	C	ATOM	48360	N	ARG P	42	116.979	81.813	27.042	1.00	52.40	N
ATOM	48311	C	ILE P	36	109.665	83.783	11.876	1.00	48.38	C	ATOM	48361	CA	ARG P	42	117.197	82.341	28.372	1.00	52.40	C
ATOM	48312	O	ILE P	36	108.563	83.858	12.379	1.00	48.38	O	ATOM	48362	C	ARG P	42	116.510	83.656	28.716	1.00	52.40	C
ATOM	48313	CB	ILE P	36	108.710	82.525	9.980	1.00	41.94	C	ATOM	48363	O	ARG P	42	116.767	84.230	29.778	1.00	52.40	O
ATOM	48314	CG1	ILE P	36	108.831	81.233	10.785	1.00	41.94	C	ATOM	48364	CH	ARG P	42	118.691	82.456	28.623	1.00	57.97	C
ATOM	48315	CG2	ILE P	36	108.796	82.266	8.490	1.00	41.94	C	ATOM	48365	CG	ARG P	42	119.408	81.139	28.480	1.00	57.97	C



Table 2: Sheet 485/520

ATOM 48366	CD	ARG P	42	120.871	81.343	28.688	1.00	57.97	C	ATOM 48416	CD2	TRP P	48	111.195	84.720	25.999	1.00	62.21	C
ATOM 48367	NE	ARG P	42	121.379	82.300	27.717	1.00	57.97	N	ATOM 48417	NE1	TRP P	48	110.613	86.192	27.579	1.00	62.21	N
ATOM 48368	CZ	ARG P	42	122.476	83.029	27.890	1.00	57.97	C	ATOM 48418	CE2	TRP P	48	110.304	84.964	27.060	1.00	62.21	C
ATOM 48369	NH1	ARG P	42	123.185	82.912	29.006	1.00	57.97	N	ATOM 48419	CE3	TRP P	48	111.092	83.519	25.294	1.00	62.21	C
ATOM 48370	NH2	ARG P	42	122.862	83.877	26.945	1.00	57.97	N	ATOM 48420	CZ2	TRP P	48	109.320	84.052	27.436	1.00	62.21	C
ATOM 48371	N	ARG P	43	115.637	84.131	27.837	1.00	73.73	N	ATOM 48421	CZ3	TRP P	48	110.115	82.612	25.666	1.00	62.21	C
ATOM 48372	CA	LYS P	43	114.926	85.378	28.090	1.00	73.73	C	ATOM 48422	CH2	TRP P	48	109.241	82.884	26.731	1.00	62.21	C
ATOM 48373	C	LYS P	43	115.830	86.515	28.577	1.00	73.73	C	ATOM 48423	N	LEU P	49	110.862	86.217	22.138	1.00	56.21	N
ATOM 48374	O	LYS P	43	115.430	87.276	29.464	1.00	73.73	O	ATOM 48424	CA	LEU P	49	110.161	85.340	21.204	1.00	56.21	C
ATOM 48375	CB	LYS P	43	113.837	85.162	29.143	1.00	68.85	C	ATOM 48425	C	LEU P	49	109.223	86.123	20.299	1.00	56.21	C
ATOM 48376	CG	LYS P	43	112.810	84.100	28.812	1.00	68.85	C	ATOM 48426	O	LEU P	49	108.200	86.629	20.750	1.00	56.21	O
ATOM 48377	CD	LYS P	43	113.335	82.717	29.103	1.00	68.85	C	ATOM 48427	CB	LEU P	49	109.362	84.248	21.929	1.00	51.18	C
ATOM 48378	CE	LYS P	43	112.264	81.656	28.905	1.00	68.85	C	ATOM 48428	CG	LEU P	49	108.493	83.366	20.998	1.00	51.18	C
ATOM 48379	NZ	LYS P	43	112.808	80.315	29.282	1.00	68.85	N	ATOM 48429	CD1	LEU P	49	109.365	82.474	20.106	1.00	51.18	C
ATOM 48380	N	THR P	44	117.031	86.646	28.441	1.00	56.39	N	ATOM 48430	CD2	LEU P	49	107.558	82.507	21.835	1.00	51.18	C
ATOM 48381	CA	THR P	44	117.940	87.707	28.441	1.00	56.39	C	ATOM 48431	N	LYS P	50	109.575	86.239	19.025	1.00	39.43	N
ATOM 48382	C	THR P	44	117.344	89.100	28.245	1.00	56.39	C	ATOM 48432	CA	LYS P	50	108.727	86.949	18.081	1.00	39.43	C
ATOM 48383	O	THR P	44	117.863	90.083	28.773	1.00	56.39	O	ATOM 48433	C	LYS P	50	108.350	85.862	17.114	1.00	39.43	C
ATOM 48384	CB	THR P	44	119.302	87.628	27.717	1.00	62.26	C	ATOM 48434	O	LYS P	50	109.120	84.916	16.959	1.00	39.43	O
ATOM 48385	OG1	THR P	44	119.107	87.675	26.301	1.00	62.26	C	ATOM 48435	CB	LYS P	50	109.507	88.044	17.356	1.00	97.74	C
ATOM 48386	CG2	THR P	44	120.009	86.346	28.072	1.00	62.26	O	ATOM 48436	CG	LYS P	50	108.775	88.594	16.147	1.00	97.74	C
ATOM 48387	N	THR P	45	116.252	89.177	27.491	1.00	49.24	N	ATOM 48437	CD	LYS P	50	109.632	89.554	15.349	1.00	97.74	C
ATOM 48388	CA	THR P	45	115.576	90.444	27.243	1.00	49.24	C	ATOM 48438	CE	LYS P	50	109.000	89.841	13.992	1.00	97.74	C
ATOM 48389	C	THR P	45	114.074	90.214	27.147	1.00	49.24	C	ATOM 48439	NZ	LYS P	50	108.851	88.598	13.178	1.00	97.74	N
ATOM 48390	O	THR P	45	113.614	89.118	26.811	1.00	49.24	O	ATOM 48440	CA	VAL P	51	107.195	85.955	16.460	1.00	55.23	N
ATOM 48391	CB	THR P	45	116.024	91.096	25.930	1.00	54.54	C	ATOM 48441	N	VAL P	51	106.853	84.883	15.543	1.00	55.23	C
ATOM 48392	OG1	THR P	45	115.608	90.280	24.834	1.00	54.54	O	ATOM 48442	C	VAL P	51	106.220	85.209	14.215	1.00	55.23	C
ATOM 48393	CG2	THR P	45	117.531	91.262	25.897	1.00	54.54	C	ATOM 48443	O	VAL P	51	106.335	84.419	13.295	1.00	55.23	O
ATOM 48394	N	PRO P	46	113.284	91.258	27.426	1.00	70.28	N	ATOM 48444	CB	VAL P	51	105.989	83.817	16.236	1.00	62.66	C
ATOM 48395	CA	PRO P	46	111.827	91.150	27.371	1.00	70.28	C	ATOM 48445	CG1	VAL P	51	105.414	82.849	15.213	1.00	62.66	C
ATOM 48396	C	PRO P	46	111.318	90.521	26.093	1.00	70.28	C	ATOM 48446	CG2	VAL P	51	106.837	83.048	17.234	1.00	62.66	C
ATOM 48397	O	PRO P	46	110.412	89.700	26.122	1.00	70.28	O	ATOM 48447	N	ASP P	52	105.550	86.337	14.068	1.00	62.09	C
ATOM 48398	CB	PRO P	46	111.372	92.597	27.512	1.00	61.79	C	ATOM 48448	CA	ASP P	52	104.959	86.610	12.755	1.00	62.09	C
ATOM 48399	CG	PRO P	46	112.515	93.361	26.906	1.00	61.79	C	ATOM 48449	C	ASP P	52	104.069	85.436	12.333	1.00	62.09	C
ATOM 48400	CD	PRO P	46	113.686	92.668	27.538	1.00	61.79	C	ATOM 48450	O	ASP P	52	104.369	84.698	11.381	1.00	62.09	O
ATOM 48401	N	ASP P	47	111.905	90.905	24.971	1.00	71.74	N	ATOM 48451	CB	ASP P	52	106.062	86.820	11.712	1.00	71.87	C
ATOM 48402	CA	ASP P	47	111.466	90.379	23.695	1.00	71.74	C	ATOM 48452	CG	ASP P	52	105.509	87.013	10.313	1.00	71.87	C
ATOM 48403	O	ASP P	47	112.242	89.133	23.292	1.00	71.74	C	ATOM 48453	OD1	ASP P	52	106.216	87.593	9.461	1.00	71.87	O
ATOM 48404	C	ASP P	47	113.047	89.181	22.367	1.00	71.74	C	ATOM 48454	OD2	ASP P	52	104.367	86.581	10.053	1.00	71.87	O
ATOM 48405	CB	ASP P	47	111.613	91.457	22.622	1.00	126.08	C	ATOM 48455	N	VAL P	53	102.963	85.281	13.046	1.00	65.90	N
ATOM 48406	CG	ASP P	47	110.963	91.068	21.316	1.00	126.08	C	ATOM 48456	CA	VAL P	53	102.045	84.196	12.785	1.00	65.90	C
ATOM 48407	OD1	ASP P	47	111.009	91.876	20.367	1.00	126.08	O	ATOM 48457	C	VAL P	53	101.469	84.224	11.386	1.00	65.90	C
ATOM 48408	OD2	ASP P	47	110.403	89.956	21.237	1.00	126.08	O	ATOM 48458	O	VAL P	53	101.063	83.196	10.862	1.00	65.90	O
ATOM 48409	N	TRP P	48	111.993	88.013	23.969	1.00	55.08	N	ATOM 48459	CB	VAL P	53	100.914	84.221	13.786	1.00	44.55	C
ATOM 48410	CA	TRP P	48	112.702	86.779	23.648	1.00	55.08	C	ATOM 48460	CG1	VAL P	53	101.416	84.828	15.076	1.00	44.55	C
ATOM 48411	C	TRP P	48	111.963	85.797	22.746	1.00	55.08	C	ATOM 48461	CG2	VAL P	53	99.750	84.990	13.242	1.00	44.55	C
ATOM 48412	O	TRP P	48	112.386	84.659	22.610	1.00	55.08	O	ATOM 48462	N	GLU P	54	101.415	85.399	10.777	1.00	59.53	N
ATOM 48413	CB	TRP P	48	113.145	86.057	24.919	1.00	62.21	C	ATOM 48463	CA	GLU P	54	100.875	85.491	9.426	1.00	59.53	C
ATOM 48414	CG	TRP P	48	112.054	85.855	25.901	1.00	62.21	C	ATOM 48464	C	GLU P	54	101.603	84.481	8.538	1.00	59.53	C
ATOM 48415	CD1	TRP P	48	111.664	86.718	26.875	1.00	62.21	C	ATOM 48465	O	GLU P	54	100.995	83.612	7.906	1.00	59.53	O



Table 2: Sheet 486/520

ATOM	48466	CB	GLU	P	54	101.067	86.911	8.882	1.00137.75	C	ATOM	48516	CD1	TRP	P	59	106.511	79.985	5.732	1.00	49.38	C	
ATOM	48467	CG	GLU	P	54	100.642	87.091	7.434	1.00137.75	C	ATOM	48517	CD2	TRP	P	59	106.649	78.356	4.202	1.00	49.38	C	
ATOM	48468	CD	GLU	P	54	99.239	86.580	7.175	1.00137.75	C	ATOM	48518	NE1	TRP	P	59	107.212	80.476	4.657	1.00	49.38	N	
ATOM	48469	OE1	GLU	P	54	98.309	87.017	7.885	1.00137.75	O	ATOM	48519	CE2	TRP	P	59	107.311	79.496	3.704	1.00	49.38	C	
ATOM	48470	OE2	GLU	P	54	99.065	85.743	6.264	1.00137.75	O	ATOM	48520	CE3	TRP	P	59	106.604	77.202	3.414	1.00	49.38	C	
ATOM	48471	N	ARG	P	55	102.920	84.591	8.518	1.00	64.30	N	ATOM	48521	C22	TRP	P	59	107.926	79.515	2.452	1.00	49.38	C
ATOM	48472	CA	ARG	P	55	103.724	83.707	7.711	1.00	64.30	C	ATOM	48522	C23	TRP	P	59	107.213	77.220	2.169	1.00	49.38	C
ATOM	48473	O	ARG	P	55	103.655	82.261	8.191	1.00	64.30	C	ATOM	48523	CH2	TRP	P	59	107.866	78.371	1.699	1.00	49.38	C
ATOM	48474	C	ARG	P	55	103.520	81.337	7.380	1.00	64.30	O	ATOM	48524	N	LEU	P	60	102.456	76.561	7.244	1.00	57.04	N
ATOM	48475	CB	ARG	P	55	105.158	84.210	7.702	1.00	51.31	C	ATOM	48525	CA	LEU	P	60	101.690	75.436	7.756	1.00	57.04	C
ATOM	48476	CG	ARG	P	55	105.333	85.465	6.896	1.00	51.31	C	ATOM	48526	C	LEU	P	60	100.611	75.080	6.748	1.00	57.04	C
ATOM	48477	CD	ARG	P	55	105.906	85.117	5.555	1.00	51.31	C	ATOM	48527	O	LEU	P	60	100.272	73.911	6.554	1.00	57.04	O
ATOM	48478	NE	ARG	P	55	104.901	84.723	4.578	1.00	51.31	N	ATOM	48528	CB	LEU	P	60	101.032	75.809	9.072	1.00	43.89	C
ATOM	48479	C2	ARG	P	55	105.173	83.991	3.500	1.00	51.31	C	ATOM	48529	CG	LEU	P	60	102.013	76.111	10.193	1.00	43.89	C
ATOM	48480	NH1	ARG	P	55	106.414	83.569	3.287	1.00	51.31	N	ATOM	48530	CD1	LEU	P	60	101.266	76.692	11.385	1.00	43.89	C
ATOM	48481	NH2	ARG	P	55	104.220	83.706	2.615	1.00	51.31	N	ATOM	48531	CD2	LEU	P	60	102.760	74.824	10.565	1.00	43.89	C
ATOM	48482	N	ALA	P	56	103.754	82.053	9.499	1.00	43.74	N	ATOM	48532	N	SER	P	61	100.073	76.098	6.096	1.00	43.01	N
ATOM	48483	CA	ALA	P	56	103.676	80.695	10.010	1.00	43.74	C	ATOM	48533	CA	SER	P	61	99.029	75.884	5.123	1.00	43.01	C
ATOM	48484	C	ALA	P	56	102.423	80.085	9.411	1.00	43.74	C	ATOM	48534	C	SER	P	61	99.577	75.206	3.885	1.00	43.01	C
ATOM	48485	O	ALA	P	56	102.490	79.101	8.680	1.00	43.74	O	ATOM	48535	O	SER	P	61	98.819	74.784	3.021	1.00	43.01	O
ATOM	48486	CB	ALA	P	56	103.582	80.695	11.507	1.00	34.40	C	ATOM	48536	CB	SER	P	61	98.407	77.210	4.718	1.00	57.18	C
ATOM	48487	N	ARG	P	57	101.280	80.697	9.702	1.00	52.56	N	ATOM	48537	OG	SER	P	61	99.120	77.776	3.632	1.00	57.18	O
ATOM	48488	CA	ARG	P	57	100.004	80.221	9.190	1.00	52.56	C	ATOM	48538	N	VAL	P	62	100.891	75.091	3.778	1.00	51.61	N
ATOM	48489	C	ARG	P	57	100.110	79.890	7.711	1.00	52.56	C	ATOM	48539	CA	VAL	P	62	101.443	74.475	2.583	1.00	51.61	C
ATOM	48490	O	ARG	P	57	99.403	79.021	7.210	1.00	52.56	O	ATOM	48540	C	VAL	P	62	102.250	73.229	2.868	1.00	51.61	C
ATOM	48491	CB	ARG	P	57	98.914	81.271	9.392	1.00	88.88	C	ATOM	48541	O	VAL	P	62	103.072	72.811	2.052	1.00	51.61	O
ATOM	48492	CG	ARG	P	57	98.477	81.482	10.828	1.00	88.88	C	ATOM	48542	CB	VAL	P	62	102.333	75.456	1.813	1.00	57.09	C
ATOM	48493	CD	ARG	P	57	97.485	82.645	10.911	1.00	88.88	C	ATOM	48543	CG1	VAL	P	62	102.145	75.233	0.336	1.00	57.09	C
ATOM	48494	NE	ARG	P	57	97.194	83.035	12.286	1.00	88.88	N	ATOM	48544	CG2	VAL	P	62	101.996	76.880	2.187	1.00	57.09	C
ATOM	48495	C2	ARG	P	57	96.464	82.313	13.122	1.00	88.88	C	ATOM	48545	N	GLY	P	63	102.025	72.638	4.031	1.00	48.88	N
ATOM	48496	NH1	ARG	P	57	95.939	81.162	12.721	1.00	88.88	N	ATOM	48546	CA	GLY	P	63	102.744	71.431	4.371	1.00	48.88	C
ATOM	48497	NH2	ARG	P	57	96.280	82.730	14.364	1.00	88.88	N	ATOM	48547	C	GLY	P	63	103.959	71.610	5.251	1.00	48.88	C
ATOM	48498	N	TYR	P	58	100.984	80.578	6.994	1.00	48.09	N	ATOM	48548	O	GLY	P	63	104.707	70.658	5.448	1.00	48.88	O
ATOM	48499	CA	TYR	P	58	101.102	80.276	5.580	1.00	48.09	C	ATOM	48549	N	ALA	P	64	104.195	72.811	5.766	1.00	71.86	N
ATOM	48500	C	TYR	P	58	101.857	78.989	5.352	1.00	48.09	C	ATOM	48550	CA	ALA	P	64	105.341	72.987	6.642	1.00	71.86	C
ATOM	48501	O	TYR	P	58	101.352	78.078	4.713	1.00	48.09	O	ATOM	48551	C	ALA	P	64	105.036	72.083	7.828	1.00	71.86	C
ATOM	48502	CB	TYR	P	58	101.812	81.383	4.809	1.00	37.70	C	ATOM	48552	O	ALA	P	64	103.875	71.912	8.212	1.00	71.86	O
ATOM	48503	CG	TYR	P	58	102.267	80.900	3.459	1.00	37.70	C	ATOM	48553	CB	ALA	P	64	105.468	74.428	7.090	1.00	51.33	C
ATOM	48504	CD1	TYR	P	58	103.624	80.633	3.205	1.00	37.70	C	ATOM	48554	N	GLN	P	65	106.076	71.500	8.401	1.00	61.99	N
ATOM	48505	CD2	TYR	P	58	101.349	80.662	2.449	1.00	37.70	C	ATOM	48555	CA	GLN	P	65	105.904	70.586	9.508	1.00	61.99	C
ATOM	48506	CE1	TYR	P	58	104.054	80.138	1.955	1.00	37.70	C	ATOM	48556	C	GLN	P	65	106.816	70.981	10.649	1.00	61.99	C
ATOM	48507	CE2	TYR	P	58	101.755	80.169	1.207	1.00	37.70	C	ATOM	48557	O	GLN	P	65	108.009	70.697	10.622	1.00	61.99	O
ATOM	48508	CZ	TYR	P	58	103.105	79.910	0.959	1.00	37.70	C	ATOM	48558	CB	GLN	P	65	106.260	69.183	9.052	1.00	53.87	C
ATOM	48509	OH	TYR	P	58	103.487	79.435	-0.285	1.00	37.70	O	ATOM	48559	CG	GLN	P	65	105.459	68.123	9.726	1.00	53.87	C
ATOM	48510	N	TRP	P	59	103.080	78.917	5.855	1.00	63.12	N	ATOM	48560	CD	GLN	P	65	104.038	68.116	9.236	1.00	53.87	C
ATOM	48511	CA	TRP	P	59	103.865	77.715	5.649	1.00	63.12	C	ATOM	48561	OE1	GLN	P	65	103.785	67.959	8.040	1.00	53.87	O
ATOM	48512	C	TRP	P	59	103.128	76.472	6.101	1.00	63.12	C	ATOM	48562	NE2	GLN	P	65	103.094	68.281	10.155	1.00	53.87	N
ATOM	48513	O	TRP	P	59	103.153	75.453	5.412	1.00	63.12	O	ATOM	48563	N	PRO	P	66	106.265	71.625	11.679	1.00	52.38	N
ATOM	48514	CB	TRP	P	59	105.234	77.845	6.328	1.00	49.38	C	ATOM	48564	CA	PRO	P	66	107.044	72.062	12.843	1.00	52.38	C
ATOM	48515	CG	TRP	P	59	106.138	78.692	5.495	1.00	49.38	C	ATOM	48565	C	PRO	P	66	107.710	70.986	13.692	1.00	52.38	C



Table 2: Sheet 487/520

ATOM	48566	O	PRO	P	66	107.222	69.865	13.810	1.00	52.38	O	ATOM	48616	C2	ARG	P	72	109.541	75.868	25.076	1.00	60.28	C
ATOM	48567	CB	PRO	P	66	106.025	72.854	13.664	1.00	33.11	C	ATOM	48617	NH1	ARG	P	72	110.439	74.967	24.689	1.00	60.28	N
ATOM	48568	CG	PRO	P	66	104.715	72.194	13.309	1.00	33.11	C	ATOM	48618	NH2	ARG	P	72	109.941	77.013	25.621	1.00	60.28	N
ATOM	48569	CD	PRO	P	66	104.852	72.021	11.812	1.00	33.11	C	ATOM	48619	N	LEU	P	73	106.643	76.914	20.497	1.00	50.27	N
ATOM	48570	N	THR	P	67	108.837	71.355	14.285	1.00	52.96	N	ATOM	48620	CA	LEU	P	73	106.849	78.347	20.401	1.00	50.27	C
ATOM	48571	CA	THR	P	67	109.566	70.485	15.188	1.00	52.96	C	ATOM	48621	C	LEU	P	73	105.802	78.960	19.482	1.00	50.27	C
ATOM	48572	C	THR	P	67	108.682	70.502	16.428	1.00	52.96	C	ATOM	48622	O	LEU	P	73	105.203	79.978	19.818	1.00	50.27	O
ATOM	48573	O	THR	P	67	107.812	71.369	16.557	1.00	52.96	O	ATOM	48623	CB	LEU	P	73	108.263	78.633	19.887	1.00	56.87	C
ATOM	48574	CB	THR	P	67	110.917	71.105	15.570	1.00	69.30	C	ATOM	48624	CG	LEU	P	73	109.375	78.071	20.789	1.00	56.87	C
ATOM	48575	OG1	THR	P	67	111.777	71.123	14.431	1.00	69.30	O	ATOM	48625	CD1	LEU	P	73	110.743	78.431	20.222	1.00	56.87	C
ATOM	48576	CG2	THR	P	67	111.569	70.313	16.675	1.00	69.30	C	ATOM	48626	CD2	LEU	P	73	109.223	78.610	22.212	1.00	56.87	C
ATOM	48577	N	ASP	P	68	108.878	69.571	17.350	1.00	67.26	N	ATOM	48627	CA	LEU	P	74	105.579	78.346	18.326	1.00	46.44	N
ATOM	48578	CA	ASP	P	68	108.053	69.616	18.539	1.00	67.26	C	ATOM	48628	C	LEU	P	74	104.576	78.857	17.403	1.00	46.44	C
ATOM	48579	C	ASP	P	68	108.297	70.917	19.299	1.00	67.26	C	ATOM	48629	C	LEU	P	74	103.255	78.963	18.152	1.00	46.44	C
ATOM	48580	O	ASP	P	68	107.368	71.479	19.867	1.00	67.26	O	ATOM	48630	O	LEU	P	74	102.527	79.949	18.015	1.00	46.44	O
ATOM	48581	CB	ASP	P	68	108.300	68.407	19.438	1.00	67.26	C	ATOM	48631	CB	LEU	P	74	104.394	77.913	16.216	1.00	30.68	C
ATOM	48582	CG	ASP	P	68	107.498	67.199	19.000	1.00	112.67	C	ATOM	48632	CG	LEU	P	74	105.421	77.838	15.099	1.00	30.68	C
ATOM	48583	OD1	ASP	P	68	106.342	67.396	18.569	1.00	112.67	O	ATOM	48633	CD1	LEU	P	74	104.772	78.275	13.803	1.00	30.68	C
ATOM	48584	OD2	ASP	P	68	108.009	66.062	19.092	1.00	112.67	O	ATOM	48634	CD2	LEU	P	74	106.594	78.705	15.417	1.00	30.68	C
ATOM	48585	N	THR	P	69	109.531	71.409	19.304	1.00	56.24	N	ATOM	48635	N	ARG	P	75	102.944	77.937	18.940	1.00	50.97	N
ATOM	48586	CA	THR	P	69	109.797	72.662	19.999	1.00	56.24	C	ATOM	48636	CA	ARG	P	75	101.705	77.928	19.710	1.00	50.97	C
ATOM	48587	C	THR	P	69	109.327	73.848	19.168	1.00	56.24	C	ATOM	48637	C	ARG	P	75	101.690	79.123	20.654	1.00	50.97	C
ATOM	48588	O	THR	P	69	108.732	74.784	19.695	1.00	56.24	O	ATOM	48638	O	ARG	P	75	100.786	79.958	20.604	1.00	50.97	O
ATOM	48589	CB	THR	P	69	111.287	72.860	20.316	1.00	55.00	C	ATOM	48639	CB	ARG	P	75	101.585	76.641	20.531	1.00	63.32	C
ATOM	48590	OG1	THR	P	69	111.729	71.825	21.196	1.00	55.00	O	ATOM	48640	CD	ARG	P	75	100.289	76.528	21.330	1.00	63.32	C
ATOM	48591	CG2	THR	P	69	111.504	74.198	21.004	1.00	55.00	C	ATOM	48641	CD	ARG	P	75	100.279	75.290	22.208	1.00	63.32	C
ATOM	48592	N	ALA	P	70	109.594	73.817	17.869	1.00	66.26	N	ATOM	48642	NE	ARG	P	75	100.534	74.068	21.448	1.00	63.32	N
ATOM	48593	CA	ALA	P	70	109.167	74.907	17.008	1.00	66.26	C	ATOM	48643	CZ	ARG	P	75	99.786	73.644	20.433	1.00	63.32	C
ATOM	48594	C	ALA	P	70	107.675	75.139	17.220	1.00	66.26	C	ATOM	48644	NH1	ARG	P	75	98.723	74.342	20.047	1.00	63.32	N
ATOM	48595	O	ALA	P	70	107.230	76.275	17.378	1.00	66.26	O	ATOM	48645	NH2	ARG	P	75	100.108	72.527	19.791	1.00	63.32	N
ATOM	48596	CB	ALA	P	70	109.444	74.567	15.554	1.00	59.48	C	ATOM	48646	N	GLN	P	76	102.699	79.185	21.515	1.00	55.94	N
ATOM	48597	N	ARG	P	71	106.906	74.055	17.240	1.00	59.06	N	ATOM	48647	CA	GLN	P	76	102.837	80.263	22.477	1.00	55.94	C
ATOM	48598	CA	ARG	P	71	105.463	74.154	17.434	1.00	59.06	C	ATOM	48648	C	GLN	P	76	102.639	81.625	21.819	1.00	55.94	C
ATOM	48599	C	ARG	P	71	105.087	74.768	18.789	1.00	59.06	C	ATOM	48649	O	GLN	P	76	102.166	82.570	22.446	1.00	55.94	O
ATOM	48600	O	ARG	P	71	104.163	75.578	18.886	1.00	59.06	O	ATOM	48650	CB	GLN	P	76	104.211	80.184	23.114	1.00	63.77	C
ATOM	48601	CB	ARG	P	71	104.825	72.771	17.298	1.00	58.03	C	ATOM	48651	CG	GLN	P	76	104.516	81.294	24.051	1.00	63.77	C
ATOM	48602	CG	ARG	P	71	103.438	72.687	17.884	1.00	58.03	C	ATOM	48652	CD	GLN	P	76	105.738	80.991	24.882	1.00	63.77	C
ATOM	48603	CD	ARG	P	71	102.848	71.310	17.746	1.00	58.03	C	ATOM	48653	OE1	GLN	P	76	106.329	81.885	25.485	1.00	63.77	O
ATOM	48604	NE	ARG	P	71	102.108	71.177	16.500	1.00	58.03	N	ATOM	48654	NE2	GLN	P	76	106.122	79.717	24.932	1.00	63.77	N
ATOM	48605	CZ	ARG	P	71	102.511	70.443	15.469	1.00	58.03	C	ATOM	48655	N	ALA	P	77	102.987	81.722	20.545	1.00	58.61	N
ATOM	48606	NH1	ARG	P	71	103.661	69.772	15.541	1.00	58.03	N	ATOM	48656	CA	ALA	P	77	102.835	82.972	19.829	1.00	58.61	C
ATOM	48607	NH2	ARG	P	71	101.758	70.367	14.372	1.00	58.03	N	ATOM	48657	C	ALA	P	77	101.421	83.130	19.280	1.00	58.61	O
ATOM	48608	N	ARG	P	72	105.807	74.368	19.829	1.00	50.10	N	ATOM	48658	O	ALA	P	77	101.125	84.103	18.587	1.00	58.61	O
ATOM	48609	CA	ARG	P	72	105.574	74.860	21.177	1.00	50.10	C	ATOM	48659	CB	ALA	P	77	103.833	83.036	18.718	1.00	37.90	C
ATOM	48610	C	ARG	P	72	105.634	76.384	21.184	1.00	50.10	C	ATOM	48660	N	GLY	P	78	100.555	82.167	19.584	1.00	51.66	N
ATOM	48611	O	ARG	P	72	104.797	77.060	21.799	1.00	50.10	O	ATOM	48661	CA	GLY	P	78	99.176	82.226	19.135	1.00	51.66	C
ATOM	48612	CB	ARG	P	72	106.648	74.307	22.112	1.00	60.28	C	ATOM	48662	C	GLY	P	78	98.965	81.756	17.717	1.00	51.66	C
ATOM	48613	CG	ARG	P	72	106.447	74.650	23.564	1.00	60.28	C	ATOM	48663	O	GLY	P	78	97.902	81.958	17.133	1.00	51.66	O
ATOM	48614	CD	ARG	P	72	107.715	74.394	24.335	1.00	60.28	C	ATOM	48664	N	VAL	P	79	99.972	81.115	17.148	1.00	56.20	N
ATOM	48615	NE	ARG	P	72	108.244	75.623	24.919	1.00	60.28	N	ATOM	48665	CA	VAL	P	79	99.842	80.644	15.782	1.00	56.20	C



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ATOM	48666	C	VAL	P	79	98.657	79.703	15.573	1.00	56.20	C	ATOM	48716	CB	PRO	Q	2	112.702	87.334	-21.898	1.00	51.13	C
ATOM	48667	O	VAL	P	79	98.098	79.646	14.480	1.00	56.20	O	ATOM	48717	CG	PRO	Q	2	112.431	87.867	-20.510	1.00	51.13	C
ATOM	48668	CB	VAL	P	79	101.124	79.937	15.327	1.00	57.14	C	ATOM	48718	CD	PRO	Q	2	113.016	86.837	-19.544	1.00	51.13	C
ATOM	48669	CG1	VAL	P	79	100.956	79.400	13.921	1.00	57.14	C	ATOM	48719	N	LYS	Q	3	113.078	84.298	-23.456	1.00	43.86	N
ATOM	48670	CG2	VAL	P	79	102.272	80.912	15.368	1.00	57.14	C	ATOM	48720	CA	LYS	Q	3	113.974	83.613	-24.354	1.00	43.86	C
ATOM	48671	N	PHE	P	80	98.258	78.980	16.613	1.00	63.71	N	ATOM	48721	C	LYS	Q	3	114.719	84.731	-25.072	1.00	43.86	C
ATOM	48672	CA	PHE	P	80	97.160	78.032	16.455	1.00	63.71	C	ATOM	48722	O	LYS	Q	3	114.103	85.630	-25.652	1.00	43.86	O
ATOM	48673	C	PHE	P	80	95.841	78.448	17.082	1.00	63.71	C	ATOM	48723	CB	LYS	Q	3	113.195	82.769	-25.355	1.00	48.27	C
ATOM	48674	O	PHE	P	80	94.784	77.909	16.731	1.00	63.71	O	ATOM	48724	CG	LYS	Q	3	112.491	81.589	-24.731	1.00	48.27	C
ATOM	48675	CB	PHE	P	80	97.560	76.667	17.009	1.00	47.61	C	ATOM	48725	CD	LYS	Q	3	111.985	80.637	-25.796	1.00	48.27	C
ATOM	48676	CG	PHE	P	80	98.792	76.086	16.372	1.00	47.61	C	ATOM	48726	CE	LYS	Q	3	111.339	79.418	-25.169	1.00	48.27	C
ATOM	48677	CD1	PHE	P	80	100.003	76.056	17.068	1.00	47.61	C	ATOM	48727	NZ	LYS	Q	3	110.152	79.761	-24.322	1.00	48.27	N
ATOM	48678	CD2	PHE	P	80	98.734	75.538	15.086	1.00	47.61	C	ATOM	48728	N	LYS	Q	4	116.042	84.679	-24.992	1.00	48.79	N
ATOM	48679	CE1	PHE	P	80	101.132	75.484	16.499	1.00	47.61	C	ATOM	48729	CA	LYS	Q	4	116.927	85.653	-25.609	1.00	48.79	C
ATOM	48680	CE2	PHE	P	80	99.855	74.963	14.502	1.00	47.61	C	ATOM	48730	C	LYS	Q	4	116.687	85.805	-27.108	1.00	48.79	C
ATOM	48681	CZ	PHE	P	80	101.059	74.931	15.206	1.00	47.61	C	ATOM	48731	O	LYS	Q	4	116.533	84.810	-27.830	1.00	48.79	O
ATOM	48682	N	ARG	P	81	95.906	79.389	18.020	1.00	73.82	N	ATOM	48732	CB	LYS	Q	4	118.371	85.209	-25.399	1.00	49.28	C
ATOM	48683	CA	ARG	P	81	94.714	79.889	18.698	1.00	73.82	C	ATOM	48733	CG	LYS	Q	4	119.417	86.231	-25.783	1.00	49.28	C
ATOM	48684	C	ARG	P	81	93.662	80.290	17.664	1.00	73.82	C	ATOM	48734	CD	LYS	Q	4	119.441	87.321	-24.763	1.00	49.28	C
ATOM	48685	O	ARG	P	81	93.883	81.189	16.857	1.00	73.82	C	ATOM	48735	CE	LYS	Q	4	120.550	88.283	-25.006	1.00	49.28	C
ATOM	48686	CB	ARG	P	81	95.101	81.080	19.579	1.00	119.07	C	ATOM	48736	NZ	LYS	Q	4	120.459	89.306	-23.939	1.00	49.28	N
ATOM	48687	CG	ARG	P	81	93.949	81.876	20.141	1.00	119.07	C	ATOM	48737	N	VAL	Q	5	116.662	87.044	-27.584	1.00	45.29	N
ATOM	48688	CD	ARG	P	81	94.451	82.825	21.207	1.00	119.07	C	ATOM	48738	CA	VAL	Q	5	116.487	87.274	-29.009	1.00	45.29	C
ATOM	48689	NE	ARG	P	81	94.592	82.158	22.497	1.00	119.07	N	ATOM	48739	C	VAL	Q	5	117.757	87.967	-29.517	1.00	45.29	C
ATOM	48690	CZ	ARG	P	81	95.329	82.615	23.507	1.00	119.07	N	ATOM	48740	O	VAL	Q	5	118.239	88.909	-28.894	1.00	45.29	O
ATOM	48691	NH1	ARG	P	81	96.009	83.750	23.383	1.00	119.07	N	ATOM	48741	CB	VAL	Q	5	115.236	88.118	-29.269	1.00	37.84	C
ATOM	48692	NH2	ARG	P	81	95.372	81.945	24.654	1.00	119.07	N	ATOM	48742	CG1	VAL	Q	5	115.079	88.396	-30.753	1.00	37.84	C
ATOM	48693	N	GLN	P	82	92.520	79.610	17.686	1.00	97.79	N	ATOM	48743	CG2	VAL	Q	5	114.028	87.370	-28.771	1.00	37.84	C
ATOM	48694	CA	GLN	P	82	91.447	79.887	16.734	1.00	97.79	C	ATOM	48744	N	LEU	Q	6	118.314	87.493	-30.628	1.00	50.20	N
ATOM	48695	C	GLN	P	82	90.361	80.795	17.293	1.00	97.79	C	ATOM	48745	CA	LEU	Q	6	119.551	88.076	-31.138	1.00	50.20	C
ATOM	48696	O	GLN	P	82	89.847	81.660	16.577	1.00	97.79	O	ATOM	48746	C	LEU	Q	6	119.530	88.444	-32.610	1.00	50.20	C
ATOM	48697	CB	GLN	P	82	90.832	78.570	16.258	1.00	103.53	C	ATOM	48747	O	LEU	Q	6	118.831	87.827	-33.406	1.00	50.20	O
ATOM	48698	CG	GLN	P	82	90.996	77.449	17.253	1.00	103.53	C	ATOM	48748	CB	LEU	Q	6	120.704	87.117	-30.892	1.00	36.25	C
ATOM	48699	CD	GLN	P	82	90.486	76.121	16.755	1.00	103.53	C	ATOM	48749	CG	LEU	Q	6	121.006	86.825	-29.427	1.00	36.25	C
ATOM	48700	OE1	GLN	P	82	89.280	75.924	16.608	1.00	103.53	O	ATOM	48750	CD1	LEU	Q	6	122.054	85.712	-29.296	1.00	36.25	C
ATOM	48701	NE2	GLN	P	82	91.405	75.198	16.481	1.00	103.53	N	ATOM	48751	CD2	LEU	Q	6	121.477	88.091	-28.787	1.00	36.25	C
ATOM	48702	N	GLU	P	83	90.023	80.588	18.566	1.00	158.58	N	ATOM	48752	N	THR	Q	7	120.317	89.448	-32.976	1.00	57.04	N
ATOM	48703	CA	GLU	P	83	88.998	81.360	19.277	1.00	158.58	C	ATOM	48753	CA	THR	Q	7	120.359	89.883	-34.361	1.00	57.04	C
ATOM	48704	C	GLU	P	83	87.919	81.930	18.364	1.00	158.58	C	ATOM	48754	C	THR	Q	7	121.733	89.776	-34.991	1.00	57.04	C
ATOM	48705	O	GLU	P	83	87.254	82.907	18.711	1.00	158.58	O	ATOM	48755	O	THR	Q	7	122.712	90.332	-34.491	1.00	57.04	O
ATOM	48706	CB	GLU	P	83	89.647	82.504	20.059	1.00	158.53	C	ATOM	48756	CB	THR	Q	7	119.892	91.324	-34.500	1.00	56.14	C
ATOM	48707	CG	GLU	P	83	90.796	82.071	20.947	1.00	158.53	C	ATOM	48757	OG1	THR	Q	7	118.515	91.424	-34.120	1.00	56.14	O
ATOM	48708	CD	GLU	P	83	90.454	80.866	21.798	1.00	158.53	C	ATOM	48758	CG2	THR	Q	7	120.041	91.774	-35.930	1.00	56.14	C
ATOM	48709	OE1	GLU	P	83	89.461	80.929	22.553	1.00	158.53	O	ATOM	48759	N	GLY	Q	8	121.796	89.074	-36.112	1.00	46.18	N
ATOM	48710	OE2	GLU	P	83	91.179	79.853	21.712	1.00	158.53	O	ATOM	48760	CA	GLY	Q	8	123.063	88.912	-36.785	1.00	46.18	C
TER	48711	GLU	P	83								ATOM	48761	C	GLY	Q	8	122.881	88.653	-38.257	1.00	46.18	C
ATOM	48712	N	PRO	Q	2	112.777	85.569	-20.253	1.00	48.72	N	ATOM	48762	O	GLY	Q	8	121.758	88.681	-38.760	1.00	46.18	O
ATOM	48713	CA	PRO	Q	2	112.558	85.839	-21.685	1.00	48.72	C	ATOM	48763	N	VAL	Q	9	123.987	88.390	-38.941	1.00	49.91	N
ATOM	48714	C	PRO	Q	2	113.569	85.116	-22.539	1.00	48.72	C	ATOM	48764	CA	VAL	Q	9	123.943	88.137	-40.363	1.00	49.91	C
ATOM	48715	O	PRO	Q	2	114.775	85.284	-22.366	1.00	48.72	O	ATOM	48765	C	VAL	Q	9	124.207	86.695	-40.687	1.00	49.91	C



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ATOM	48766	O	VAL	Q	9	125.072	86.066	-40.087	1.00	49.91	O	ATOM	48816	CA	GLN	Q	16	120.829	71.369	-44.237	1.00	51.35	C
ATOM	48767	CB	VAL	Q	9	124.985	88.952	-41.098	1.00	71.79	C	ATOM	48817	C	GLN	Q	16	119.992	71.836	-43.049	1.00	51.35	C
ATOM	48768	CG1	VAL	Q	9	124.890	88.687	-42.585	1.00	71.79	C	ATOM	48818	O	GLN	Q	16	120.192	71.382	-41.931	1.00	51.35	O
ATOM	48769	CG2	VAL	Q	9	124.778	90.405	-40.806	1.00	71.79	C	ATOM	48819	CB	GLN	Q	16	120.775	69.845	-44.333	1.00	91.56	C
ATOM	48770	N	VAL	Q	10	123.466	86.173	-41.654	1.00	58.18	N	ATOM	48820	CG	GLN	Q	16	121.479	69.271	-45.550	1.00	91.56	C
ATOM	48771	CA	VAL	Q	10	123.650	84.800	-42.073	1.00	58.18	C	ATOM	48821	CD	GLN	Q	16	121.508	67.756	-45.543	1.00	91.56	C
ATOM	48772	C	VAL	Q	10	124.938	84.754	-42.870	1.00	58.18	C	ATOM	48822	OE1	GLN	Q	16	121.949	67.131	-46.501	1.00	91.56	O
ATOM	48773	O	VAL	Q	10	124.972	85.181	-44.015	1.00	58.18	O	ATOM	48823	NE2	GLN	Q	16	121.041	67.158	-44.457	1.00	91.56	N
ATOM	48774	CB	VAL	Q	10	122.502	84.343	-42.965	1.00	43.98	C	ATOM	48824	N	LYS	Q	17	119.065	72.753	-43.305	1.00	49.97	N
ATOM	48775	CG1	VAL	Q	10	122.773	82.941	-43.472	1.00	43.98	C	ATOM	48825	CA	LYS	Q	17	118.177	73.291	-42.277	1.00	49.97	C
ATOM	48776	CG2	VAL	Q	10	121.207	84.382	-42.190	1.00	43.98	C	ATOM	48826	C	LYS	Q	17	118.896	74.040	-41.168	1.00	49.97	C
ATOM	48777	N	VAL	Q	11	126.005	84.256	-42.266	1.00	47.66	N	ATOM	48827	O	LYS	Q	17	118.385	74.163	-40.055	1.00	49.97	O
ATOM	48778	CA	VAL	Q	11	127.279	84.186	-42.963	1.00	47.66	C	ATOM	48828	CB	LYS	Q	17	117.339	72.172	-41.674	1.00	59.01	C
ATOM	48779	C	VAL	Q	11	127.515	82.800	-43.527	1.00	47.66	C	ATOM	48829	CG	LYS	Q	17	116.428	71.505	-42.671	1.00	59.01	C
ATOM	48780	O	VAL	Q	11	128.604	82.509	-44.005	1.00	46.77	C	ATOM	48830	CD	LYS	Q	17	115.887	70.213	-42.110	1.00	59.01	C
ATOM	48781	CB	VAL	Q	11	128.439	84.526	-42.035	1.00	46.77	C	ATOM	48831	CE	LYS	Q	17	114.866	69.594	-43.033	1.00	59.01	C
ATOM	48782	CG1	VAL	Q	11	128.198	85.857	-41.390	1.00	46.77	C	ATOM	48832	NZ	LYS	Q	17	114.383	68.319	-42.449	1.00	59.01	N
ATOM	48783	CG2	VAL	Q	11	128.583	83.450	-40.975	1.00	46.77	C	ATOM	48833	N	THR	Q	18	120.083	74.550	-41.468	1.00	70.28	N
ATOM	48784	N	SER	Q	12	126.502	81.941	-43.466	1.00	64.21	N	ATOM	48834	CA	THR	Q	18	120.830	75.297	-40.470	1.00	70.28	C
ATOM	48785	CA	SER	Q	12	126.637	80.592	-44.009	1.00	64.21	C	ATOM	48835	C	THR	Q	18	121.553	76.467	-41.119	1.00	70.28	C
ATOM	48786	C	SER	Q	12	125.351	79.803	-44.107	1.00	64.21	O	ATOM	48836	O	THR	Q	18	122.064	76.339	-42.229	1.00	70.28	O
ATOM	48787	O	SER	Q	12	124.677	79.580	-43.105	1.00	64.21	O	ATOM	48837	CB	THR	Q	18	121.894	74.422	-39.785	1.00	49.92	C
ATOM	48788	CB	SER	Q	12	127.615	79.762	-43.191	1.00	47.45	C	ATOM	48838	OG1	THR	Q	18	121.392	73.091	-39.592	1.00	49.92	C
ATOM	48789	OG	SER	Q	12	127.521	78.402	-43.582	1.00	47.45	O	ATOM	48839	CG2	THR	Q	18	122.271	75.033	-38.443	1.00	49.92	C
ATOM	48790	N	ASP	Q	13	125.031	79.370	-45.323	1.00	84.43	N	ATOM	48840	N	VAL	Q	19	121.579	77.608	-40.438	1.00	57.03	N
ATOM	48791	CA	ASP	Q	13	123.845	78.568	-45.581	1.00	84.43	C	ATOM	48841	CA	VAL	Q	19	122.295	78.778	-40.947	1.00	57.03	C
ATOM	48792	C	ASP	Q	13	124.349	77.298	-46.247	1.00	84.43	C	ATOM	48842	C	VAL	Q	19	123.170	79.328	-39.841	1.00	57.03	C
ATOM	48793	O	ASP	Q	13	123.693	76.737	-47.122	1.00	84.43	O	ATOM	48843	O	VAL	Q	19	122.786	79.290	-38.674	1.00	57.03	O
ATOM	48794	CB	ASP	Q	13	122.883	79.302	-46.516	1.00	98.49	C	ATOM	48844	CB	VAL	Q	19	121.361	79.923	-41.394	1.00	36.37	C
ATOM	48795	CG	ASP	Q	13	121.564	78.566	-46.691	1.00	98.49	C	ATOM	48845	CG1	VAL	Q	19	120.678	79.561	-42.690	1.00	36.37	C
ATOM	48796	OD1	ASP	Q	13	120.694	79.076	-47.427	1.00	98.49	O	ATOM	48846	CG2	VAL	Q	19	120.360	80.227	-40.298	1.00	36.37	C
ATOM	48797	OD2	ASP	Q	13	121.394	77.480	-46.092	1.00	98.49	O	ATOM	48847	N	THR	Q	20	124.351	79.822	-40.206	1.00	41.82	N
ATOM	48798	N	LYS	Q	14	125.526	76.850	-45.821	1.00	66.20	N	ATOM	48848	CA	THR	Q	20	125.242	80.402	-39.221	1.00	41.82	C
ATOM	48799	CA	LYS	Q	14	126.150	75.655	-46.374	1.00	66.20	C	ATOM	48849	C	THR	Q	20	124.952	81.883	-39.175	1.00	41.82	C
ATOM	48800	C	LYS	Q	14	125.640	74.367	-45.733	1.00	66.20	C	ATOM	48850	O	THR	Q	20	125.070	82.571	-40.185	1.00	41.82	O
ATOM	48801	O	LYS	Q	14	126.145	73.285	-46.017	1.00	66.20	O	ATOM	48851	CB	THR	Q	20	126.699	80.252	-39.588	1.00	44.88	C
ATOM	48802	CB	LYS	Q	14	127.674	75.747	-46.212	1.00	93.87	C	ATOM	48852	OG1	THR	Q	20	126.990	78.881	-39.879	1.00	44.88	O
ATOM	48803	CG	LYS	Q	14	128.304	76.918	-46.964	1.00	93.87	C	ATOM	48853	CG2	THR	Q	20	127.554	80.714	-38.423	1.00	44.88	C
ATOM	48804	CD	LYS	Q	14	129.303	77.685	-46.102	1.00	93.87	C	ATOM	48854	N	VAL	Q	21	124.555	82.370	-38.007	1.00	45.88	N
ATOM	48805	CE	LYS	Q	14	129.712	79.004	-46.760	1.00	93.87	C	ATOM	48855	CA	VAL	Q	21	124.264	83.778	-37.850	1.00	45.88	C
ATOM	48806	NZ	LYS	Q	14	130.523	79.891	-45.868	1.00	93.87	N	ATOM	48856	C	VAL	Q	21	125.370	84.426	-37.027	1.00	45.88	C
ATOM	48807	N	MET	Q	15	124.634	74.475	-44.877	1.00	92.38	N	ATOM	48857	O	VAL	Q	21	125.688	83.986	-35.923	1.00	45.88	O
ATOM	48808	CA	MET	Q	15	124.106	73.294	-44.215	1.00	92.38	C	ATOM	48858	CB	VAL	Q	21	122.919	83.994	-37.160	1.00	39.22	C
ATOM	48809	C	MET	Q	15	122.635	73.006	-44.494	1.00	92.38	C	ATOM	48859	CG1	VAL	Q	21	122.645	85.474	-37.045	1.00	39.22	C
ATOM	48810	O	MET	Q	15	121.912	73.833	-45.067	1.00	92.38	O	ATOM	48860	CG2	VAL	Q	21	121.818	83.327	-37.953	1.00	39.22	C
ATOM	48811	CB	MET	Q	15	124.308	73.416	-42.711	1.00	55.50	C	ATOM	48861	N	LEU	Q	22	125.961	85.472	-37.584	1.00	42.65	N
ATOM	48812	CG	MET	Q	15	125.752	73.494	-42.275	1.00	55.50	C	ATOM	48862	CA	LEU	Q	22	127.039	86.169	-36.920	1.00	42.65	C
ATOM	48813	SD	MET	Q	15	125.921	73.401	-40.472	1.00	55.50	S	ATOM	48863	C	LEU	Q	22	126.481	87.330	-36.144	1.00	42.65	C
ATOM	48814	CE	MET	Q	15	125.737	75.122	-40.019	1.00	55.50	C	ATOM	48864	O	LEU	Q	22	126.202	88.384	-36.711	1.00	42.65	O
ATOM	48815	N	GLN	Q	16	122.209	71.814	-44.077	1.00	51.35	N	ATOM	48865	CB	LEU	Q	22	128.044	86.669	-37.951	1.00	40.03	C



ATOM	48866	CG	LEU Q	22	129.261	87.414	-37.421	1.00	40.03	C	ATOM	48916	N	PRO Q	28	131.568	98.696	-23.269	1.00	42.03	N
ATOM	48867	CD1	LEU Q	22	129.938	86.585	-36.358	1.00	40.03	C	ATOM	48917	CA	PRO Q	28	132.724	99.351	-22.679	1.00	42.03	C
ATOM	48868	CD2	LEU Q	22	130.203	87.683	-38.567	1.00	40.03	C	ATOM	48918	C	PRO Q	28	133.679	98.336	-22.162	1.00	42.03	C
ATOM	48869	N	VAL Q	23	126.315	87.133	-34.843	1.00	44.05	N	ATOM	48919	O	PRO Q	28	133.276	97.291	-21.665	1.00	42.03	O
ATOM	48870	CA	VAL Q	23	125.769	88.173	-33.981	1.00	44.05	C	ATOM	48920	CB	PRO Q	28	132.121	100.119	-21.529	1.00	37.41	C
ATOM	48871	C	VAL Q	23	126.892	89.031	-33.440	1.00	44.05	C	ATOM	48921	CG	PRO Q	28	131.077	99.174	-21.069	1.00	37.41	C
ATOM	48872	O	VAL Q	23	127.902	88.518	-32.971	1.00	44.05	O	ATOM	48922	CD	PRO Q	28	130.414	98.826	-22.373	1.00	37.41	C
ATOM	48873	CB	VAL Q	23	124.985	87.549	-32.804	1.00	36.99	C	ATOM	48923	N	HIS Q	29	134.952	98.661	-22.266	1.00	43.38	N
ATOM	48874	CG1	VAL Q	23	124.441	88.632	-31.892	1.00	36.99	C	ATOM	48924	CA	HIS Q	29	135.976	97.790	-21.756	1.00	43.38	C
ATOM	48875	CG2	VAL Q	23	123.866	86.693	-33.343	1.00	36.99	C	ATOM	48925	C	HIS Q	29	135.929	97.925	-20.229	1.00	43.38	C
ATOM	48876	N	GLU Q	24	126.714	90.343	-33.512	1.00	48.75	N	ATOM	48926	O	HIS Q	29	135.944	99.026	-19.682	1.00	43.38	O
ATOM	48877	CA	GLU Q	24	127.725	91.276	-33.029	1.00	48.75	C	ATOM	48927	CB	HIS Q	29	137.328	98.228	-22.294	1.00	38.53	C
ATOM	48878	C	GLU Q	24	127.191	92.031	-31.811	1.00	48.75	C	ATOM	48928	CG	HIS Q	29	138.430	97.298	-21.928	1.00	38.53	C
ATOM	48879	O	GLU Q	24	125.976	92.135	-31.626	1.00	48.75	O	ATOM	48929	ND1	HIS Q	29	138.892	97.176	-20.635	1.00	38.53	N
ATOM	48880	CB	GLU Q	24	128.090	92.244	-34.151	1.00	119.53	C	ATOM	48930	CD2	HIS Q	29	139.097	96.380	-22.664	1.00	38.53	C
ATOM	48881	CG	GLU Q	24	129.213	93.199	-33.833	1.00	119.53	C	ATOM	48931	CE1	HIS Q	29	139.794	96.214	-20.591	1.00	38.53	C
ATOM	48882	CD	GLU Q	24	129.616	94.013	-35.046	1.00	119.53	C	ATOM	48932	NE2	HIS Q	29	139.936	95.715	-21.807	1.00	38.53	N
ATOM	48883	OE1	GLU Q	24	130.200	93.433	-35.988	1.00	119.53	O	ATOM	48933	N	PRO Q	30	135.861	96.802	-19.522	1.00	47.87	N
ATOM	48884	OE2	GLU Q	24	129.338	95.231	-35.064	1.00	119.53	O	ATOM	48934	CA	PRO Q	30	135.806	96.823	-18.062	1.00	47.87	C
ATOM	48885	N	ARG Q	25	128.092	92.541	-30.974	1.00	41.65	N	ATOM	48935	C	PRO Q	30	136.865	97.664	-17.365	1.00	47.87	C
ATOM	48886	CA	ARG Q	25	127.682	93.273	-29.777	1.00	41.65	C	ATOM	48936	O	PRO Q	30	136.634	98.137	-16.250	1.00	47.87	O
ATOM	48887	C	ARG Q	25	128.774	94.219	-29.337	1.00	41.65	C	ATOM	48937	CB	PRO Q	30	135.903	95.351	-17.691	1.00	48.73	C
ATOM	48888	O	ARG Q	25	129.945	93.900	-29.455	1.00	41.65	O	ATOM	48938	CG	PRO Q	30	136.687	94.773	-18.818	1.00	48.73	C
ATOM	48889	CB	ARG Q	25	127.367	92.297	-28.640	1.00	41.62	C	ATOM	48939	CD	PRO Q	30	136.054	95.434	-20.015	1.00	48.73	C
ATOM	48890	CG	ARG Q	25	128.555	91.848	-27.846	1.00	41.62	C	ATOM	48940	N	LEU Q	31	138.029	97.851	-17.980	1.00	43.20	N
ATOM	48891	CD	ARG Q	25	128.411	90.410	-27.401	1.00	41.62	C	ATOM	48941	CA	LEU Q	31	139.043	98.660	-17.317	1.00	43.20	C
ATOM	48892	NE	ARG Q	25	129.552	89.989	-26.588	1.00	41.62	N	ATOM	48942	C	LEU Q	31	139.436	99.907	-18.096	1.00	43.20	C
ATOM	48893	C2	ARG Q	25	129.737	90.373	-25.329	1.00	41.62	C	ATOM	48943	O	LEU Q	31	139.680	100.965	-17.507	1.00	43.20	O
ATOM	48894	NH1	ARG Q	25	128.844	91.179	-24.746	1.00	41.62	N	ATOM	48944	CB	LEU Q	31	140.293	97.834	-17.026	1.00	25.05	C
ATOM	48895	NH2	ARG Q	25	130.816	89.971	-24.664	1.00	41.62	N	ATOM	48945	CG	LEU Q	31	141.469	98.645	-16.441	1.00	25.05	C
ATOM	48896	N	GLN Q	26	128.400	95.385	-28.834	1.00	50.06	N	ATOM	48946	CD1	LEU Q	31	141.118	99.212	-15.073	1.00	25.05	C
ATOM	48897	CA	GLN Q	26	129.395	96.343	-28.380	1.00	50.06	C	ATOM	48947	CD2	LEU Q	31	142.676	97.762	-16.327	1.00	25.05	C
ATOM	48898	C	GLN Q	26	129.338	96.418	-26.872	1.00	50.06	C	ATOM	48948	N	TYR Q	32	139.495	99.781	-19.418	1.00	32.93	N
ATOM	48899	O	GLN Q	26	128.493	95.783	-26.260	1.00	50.06	O	ATOM	48949	CA	TYR Q	32	139.882	100.896	-20.261	1.00	32.93	C
ATOM	48900	CB	GLN Q	26	129.116	97.724	-28.952	1.00	106.61	C	ATOM	48950	C	TYR Q	32	138.706	101.742	-20.726	1.00	32.93	C
ATOM	48901	CG	GLN Q	26	129.027	97.761	-30.448	1.00	106.61	C	ATOM	48951	O	TYR Q	32	138.882	102.804	-21.312	1.00	32.93	O
ATOM	48902	CD	GLN Q	26	128.974	99.175	-30.963	1.00	106.61	C	ATOM	48952	CB	TYR Q	32	140.738	100.359	-21.407	1.00	48.57	C
ATOM	48903	OE1	GLN Q	26	128.195	99.998	-30.472	1.00	106.61	O	ATOM	48953	CG	TYR Q	32	142.003	99.777	-20.825	1.00	48.57	C
ATOM	48904	NE2	GLN Q	26	129.804	99.471	-31.960	1.00	106.61	N	ATOM	48954	CD1	TYR Q	32	142.435	98.477	-21.128	1.00	48.57	C
ATOM	48905	N	PHE Q	27	130.239	97.196	-26.283	1.00	57.61	N	ATOM	48955	CD2	TYR Q	32	142.698	100.490	-19.851	1.00	48.57	C
ATOM	48906	CA	PHE Q	27	130.295	97.380	-24.840	1.00	57.61	C	ATOM	48956	CE1	TYR Q	32	143.522	97.907	-20.452	1.00	48.57	C
ATOM	48907	C	PHE Q	27	131.607	97.979	-24.389	1.00	57.61	C	ATOM	48957	CE2	TYR Q	32	143.772	99.938	-19.176	1.00	48.57	C
ATOM	48908	O	PHE Q	27	132.649	97.801	-25.021	1.00	57.61	O	ATOM	48958	CZ	TYR Q	32	144.181	98.653	-19.468	1.00	48.57	C
ATOM	48909	CB	PHE Q	27	130.060	96.064	-24.089	1.00	38.05	C	ATOM	48959	OH	TYR Q	32	145.231	98.151	-18.723	1.00	48.57	O
ATOM	48910	CG	PHE Q	27	131.140	95.049	-24.268	1.00	38.05	C	ATOM	48960	N	GLY Q	33	137.504	101.272	-20.433	1.00	39.90	N
ATOM	48911	CD1	PHE Q	27	132.328	95.144	-23.567	1.00	38.05	C	ATOM	48961	CA	GLY Q	33	136.315	102.016	-20.778	1.00	39.90	C
ATOM	48912	CD2	PHE Q	27	130.958	93.970	-25.126	1.00	38.05	C	ATOM	48962	C	GLY Q	33	135.942	102.188	-22.231	1.00	39.90	C
ATOM	48913	CE1	PHE Q	27	133.332	94.171	-23.714	1.00	38.05	C	ATOM	48963	O	GLY Q	33	134.751	102.233	-22.545	1.00	39.90	O
ATOM	48914	CE2	PHE Q	27	131.954	92.998	-25.277	1.00	38.05	C	ATOM	48964	N	LYS Q	34	136.917	102.290	-23.128	1.00	26.43	N
ATOM	48915	CZ	PHE Q	27	133.142	93.104	-24.566	1.00	38.05	C	ATOM	48965	CA	LYS Q	34	136.573	102.494	-24.527	1.00	26.43	C



Table 2: Sheet 491/520

ATOM 48956	C	LYS Q	34	135.610	101.393	-24.981	1.00	26.43	C	ATOM 49016	C	LYS Q	40	128.973	84.753	-33.176	1.00	44.75	C
ATOM 48967	O	LYS Q	34	135.716	100.245	-24.555	1.00	26.43	O	ATOM 49017	O	LYS Q	40	128.978	85.426	-33.690	1.00	44.75	O
ATOM 48968	CB	LYS Q	34	137.837	102.555	-25.400	1.00	25.63	C	ATOM 49018	CB	LYS Q	40	129.084	85.156	-30.744	1.00	39.16	C
ATOM 48969	CG	LYS Q	34	138.372	101.246	-25.874	1.00	25.63	C	ATOM 49019	CG	LYS Q	40	129.067	83.738	-30.314	1.00	39.16	C
ATOM 48970	CD	LYS Q	34	138.142	101.052	-27.365	1.00	25.63	C	ATOM 49020	CD	LYS Q	40	128.600	83.778	-28.872	1.00	39.16	C
ATOM 48971	CE	LYS Q	34	138.996	101.994	-28.179	1.00	25.63	C	ATOM 49021	CE	LYS Q	40	128.389	82.422	-28.266	1.00	39.16	C
ATOM 48972	NZ	LYS Q	34	138.984	101.614	-29.618	1.00	25.63	N	ATOM 49022	NZ	LYS Q	40	127.772	82.618	-26.934	1.00	39.16	N
ATOM 48973	N	VAL Q	35	134.628	101.774	-25.792	1.00	39.26	N	ATOM 49023	N	LYS Q	41	129.200	83.484	-33.501	1.00	46.28	N
ATOM 48974	CA	VAL Q	35	133.643	100.834	-26.302	1.00	39.26	C	ATOM 49024	CA	LYS Q	41	128.374	82.803	-34.490	1.00	46.28	C
ATOM 48975	C	VAL Q	35	134.339	99.918	-27.288	1.00	39.26	C	ATOM 49025	C	LYS Q	41	127.498	81.773	-33.824	1.00	46.28	C
ATOM 48976	O	VAL Q	35	135.072	100.377	-28.154	1.00	39.26	O	ATOM 49026	O	LYS Q	41	127.976	80.936	-33.060	1.00	46.28	O
ATOM 48977	CB	VAL Q	35	132.504	101.566	-27.037	1.00	24.57	C	ATOM 49027	CB	LYS Q	41	129.220	82.084	-35.537	1.00	46.19	C
ATOM 48978	CG1	VAL Q	35	131.738	100.596	-27.918	1.00	24.57	C	ATOM 49028	CG	LYS Q	41	129.886	82.985	-36.543	1.00	46.19	C
ATOM 48979	CG2	VAL Q	35	131.578	102.195	-26.046	1.00	24.57	C	ATOM 49029	CD	LYS Q	41	130.734	82.180	-37.527	1.00	46.19	C
ATOM 48980	N	ILE Q	36	134.107	98.622	-27.165	1.00	42.84	N	ATOM 49030	CE	LYS Q	41	131.869	81.486	-36.813	1.00	46.19	C
ATOM 48981	CA	ILE Q	36	134.746	97.675	-28.057	1.00	42.84	C	ATOM 49031	NZ	LYS Q	41	132.658	80.582	-37.698	1.00	46.19	N
ATOM 48982	C	ILE Q	36	133.705	96.753	-28.644	1.00	42.84	O	ATOM 49032	N	TYR Q	42	126.211	81.839	-34.126	1.00	41.59	N
ATOM 48983	O	ILE Q	36	132.789	96.322	-27.955	1.00	42.84	O	ATOM 49033	CA	TYR Q	42	125.246	80.894	-33.601	1.00	41.59	C
ATOM 48984	CB	ILE Q	36	135.781	96.829	-27.313	1.00	45.41	C	ATOM 49034	C	TYR Q	42	124.731	80.069	-34.779	1.00	41.59	C
ATOM 48985	CG1	ILE Q	36	135.080	95.960	-26.270	1.00	45.41	C	ATOM 49035	O	TYR Q	42	124.559	80.605	-35.869	1.00	41.59	O
ATOM 48986	CG2	ILE Q	36	136.784	97.729	-26.620	1.00	45.41	C	ATOM 49036	CB	TYR Q	42	124.086	81.643	-32.951	1.00	38.50	C
ATOM 48987	CD1	ILE Q	36	136.012	95.042	-25.518	1.00	45.41	C	ATOM 49037	CG	TYR Q	42	124.478	82.444	-31.743	1.00	38.50	C
ATOM 48988	N	LYS Q	37	133.850	96.462	-29.927	1.00	58.90	N	ATOM 49038	CD1	TYR Q	42	125.056	83.703	-31.868	1.00	38.50	C
ATOM 48989	CA	LYS Q	37	132.936	95.582	-30.624	1.00	58.90	C	ATOM 49039	CD2	TYR Q	42	124.288	81.934	-30.467	1.00	38.50	C
ATOM 48990	C	LYS Q	37	133.426	94.176	-30.302	1.00	58.90	C	ATOM 49040	CE1	TYR Q	42	125.433	84.438	-30.742	1.00	38.50	C
ATOM 48991	O	LYS Q	37	134.548	94.006	-29.827	1.00	58.90	O	ATOM 49041	CE2	TYR Q	42	124.664	82.648	-29.338	1.00	38.50	C
ATOM 48992	CB	LYS Q	37	133.034	95.860	-32.117	1.00	88.03	C	ATOM 49042	OH	TYR Q	42	125.234	83.900	-29.474	1.00	38.50	C
ATOM 48993	CG	LYS Q	37	131.842	95.438	-32.915	1.00	88.03	C	ATOM 49043	OH	TYR Q	42	125.603	84.602	-28.337	1.00	38.50	O
ATOM 48994	CD	LYS Q	37	131.969	95.934	-34.345	1.00	88.03	C	ATOM 49044	N	LEU Q	43	124.512	78.772	-34.583	1.00	51.60	N
ATOM 48995	CE	LYS Q	37	131.942	97.453	-34.422	1.00	88.03	C	ATOM 49045	CA	LEU Q	43	123.972	77.935	-35.658	1.00	51.60	C
ATOM 48996	N2	LYS Q	37	131.969	97.926	-35.839	1.00	88.03	N	ATOM 49046	C	LEU Q	43	122.475	77.866	-35.441	1.00	51.60	C
ATOM 48997	N	ARG Q	38	132.592	93.174	-30.544	1.00	55.75	N	ATOM 49047	O	LEU Q	43	122.004	77.043	-34.672	1.00	51.60	O
ATOM 48998	CA	ARG Q	38	132.951	91.782	-30.272	1.00	55.75	C	ATOM 49048	CB	LEU Q	43	124.535	76.513	-35.607	1.00	34.50	C
ATOM 48999	C	ARG Q	38	131.818	90.958	-30.882	1.00	55.75	C	ATOM 49049	CG	LEU Q	43	126.042	76.350	-35.803	1.00	34.50	C
ATOM 49000	O	ARG Q	38	130.672	91.406	-30.893	1.00	55.75	O	ATOM 49050	CD1	LEU Q	43	126.408	74.881	-35.827	1.00	34.50	C
ATOM 49001	CB	ARG Q	38	133.038	91.557	-28.763	1.00	73.40	C	ATOM 49051	CD2	LEU Q	43	126.445	77.018	-37.108	1.00	34.50	C
ATOM 49002	CG	ARG Q	38	133.874	90.370	-28.368	1.00	73.40	C	ATOM 49052	N	ALA Q	44	121.729	78.740	-36.101	1.00	50.79	N
ATOM 49003	CD	ARG Q	38	135.199	90.780	-27.722	1.00	73.40	C	ATOM 49053	CA	ALA Q	44	120.281	78.755	-35.958	1.00	50.79	C
ATOM 49004	NE	ARG Q	38	135.990	91.700	-28.538	1.00	73.40	N	ATOM 49054	C	ALA Q	44	119.601	77.750	-36.892	1.00	50.79	C
ATOM 49005	C2	ARG Q	38	137.257	92.016	-28.279	1.00	73.40	C	ATOM 49055	O	ALA Q	44	120.048	77.501	-38.022	1.00	50.79	O
ATOM 49006	NH1	ARG Q	38	137.866	91.473	-27.232	1.00	73.40	N	ATOM 49056	CB	ALA Q	44	119.744	80.157	-36.215	1.00	54.01	C
ATOM 49007	NH2	ARG Q	38	137.906	92.886	-29.045	1.00	73.40	N	ATOM 49057	N	HIS Q	45	118.508	77.184	-36.400	1.00	54.09	N
ATOM 49008	N	SER Q	39	132.113	89.767	-31.391	1.00	44.32	N	ATOM 49058	CA	HIS Q	45	117.733	76.192	-37.131	1.00	54.09	C
ATOM 49009	CA	SER Q	39	131.060	88.980	-32.030	1.00	44.32	C	ATOM 49059	C	HIS Q	45	116.883	76.855	-38.215	1.00	54.09	C
ATOM 49010	C	SER Q	39	131.019	87.484	-31.729	1.00	44.32	O	ATOM 49060	O	HIS Q	45	116.239	77.867	-37.975	1.00	54.09	O
ATOM 49011	O	SER Q	39	131.848	86.957	-30.991	1.00	44.32	O	ATOM 49061	CB	HIS Q	45	116.864	75.431	-36.119	1.00	60.19	C
ATOM 49012	CB	SER Q	39	131.163	89.163	-33.531	1.00	42.21	C	ATOM 49062	CG	HIS Q	45	116.001	74.360	-36.713	1.00	60.19	C
ATOM 49013	OG	SER Q	39	132.381	88.617	-33.980	1.00	42.21	O	ATOM 49063	ND1	HIS Q	45	116.429	73.524	-37.721	1.00	60.19	N
ATOM 49014	N	LYS Q	40	130.059	86.794	-32.339	1.00	44.75	N	ATOM 49064	CD2	HIS Q	45	114.741	73.968	-36.410	1.00	60.19	C
ATOM 49015	CA	LYS Q	40	129.887	85.362	-32.122	1.00	44.75	C	ATOM 49065	CE1	HIS Q	45	115.469	72.667	-38.016	1.00	60.19	C



Table 2: Sheet 492/520

ATOM	49066	NE2	HIS	Q	45	114.434	72.914	-37.234	1.00	60.19	N	ATOM	49116	CD2	TYR	Q	51	115.679	83.915	-42.729	1.00	56.64	C
ATOM	49067	N	ASP	Q	46	116.910	76.289	-39.415	1.00	58.77	N	ATOM	49117	CE1	TYR	Q	51	114.267	81.843	-41.572	1.00	56.64	C
ATOM	49068	CA	ASP	Q	46	116.138	76.812	-40.535	1.00	58.77	C	ATOM	49118	CE2	TYR	Q	51	114.511	84.187	-42.045	1.00	56.64	C
ATOM	49069	C	ASP	Q	46	115.441	75.628	-41.203	1.00	58.77	C	ATOM	49119	CZ	TYR	Q	51	113.804	83.148	-41.465	1.00	56.64	C
ATOM	49070	O	ASP	Q	46	115.907	75.110	-42.219	1.00	58.77	O	ATOM	49120	OH	TYR	Q	51	112.640	83.414	-40.766	1.00	56.64	O
ATOM	49071	CB	ASP	Q	46	117.058	77.507	-41.541	1.00	78.35	C	ATOM	49121	N	LYS	Q	52	118.652	82.859	-46.670	1.00	78.58	N
ATOM	49072	CG	ASP	Q	46	116.293	78.156	-42.685	1.00	78.35	C	ATOM	49122	CA	LYS	Q	52	119.821	82.829	-47.533	1.00	78.58	C
ATOM	49073	OD1	ASP	Q	46	116.942	78.543	-43.687	1.00	78.35	O	ATOM	49123	C	LYS	Q	52	120.986	83.682	-47.043	1.00	78.58	C
ATOM	49074	OD2	ASP	Q	46	115.050	78.284	-42.576	1.00	78.35	O	ATOM	49124	O	LYS	Q	52	120.833	84.590	-46.224	1.00	78.58	O
ATOM	49075	N	PRO	Q	47	114.311	75.184	-40.631	1.00	80.28	N	ATOM	49125	CB	LYS	Q	52	119.426	83.249	-48.951	1.00	126.86	C
ATOM	49076	CA	PRO	Q	47	113.519	74.058	-41.132	1.00	80.28	C	ATOM	49126	CG	LYS	Q	52	118.402	82.327	-49.595	1.00	126.86	C
ATOM	49077	C	PRO	Q	47	113.152	74.169	-42.602	1.00	80.28	C	ATOM	49127	CD	LYS	Q	52	118.029	82.798	-50.990	1.00	126.86	C
ATOM	49078	O	PRO	Q	47	113.249	73.198	-43.350	1.00	80.28	O	ATOM	49128	CE	LYS	Q	52	116.981	81.891	-51.623	1.00	126.86	C
ATOM	49079	CB	PRO	Q	47	112.279	74.089	-40.251	1.00	69.44	C	ATOM	49129	NZ	LYS	Q	52	116.569	82.377	-52.973	1.00	126.86	N
ATOM	49080	CG	PRO	Q	47	112.778	74.683	-38.981	1.00	69.44	C	ATOM	49130	N	LEU	Q	53	122.157	83.364	-47.573	1.00	70.06	N
ATOM	49081	CD	PRO	Q	47	113.662	75.792	-39.457	1.00	69.44	C	ATOM	49131	CA	LEU	Q	53	123.403	84.029	-47.238	1.00	70.06	C
ATOM	49082	N	GLU	Q	48	112.726	75.356	-43.013	1.00	67.70	N	ATOM	49132	C	LEU	Q	53	123.355	85.530	-47.464	1.00	70.06	C
ATOM	49083	CA	GLU	Q	48	112.311	75.564	-44.390	1.00	67.70	C	ATOM	49133	O	LEU	Q	53	123.317	85.987	-48.600	1.00	70.06	O
ATOM	49084	C	GLU	Q	48	113.391	76.128	-45.293	1.00	67.70	C	ATOM	49134	CB	LEU	Q	53	124.509	83.410	-48.082	1.00	55.41	C
ATOM	49085	O	GLU	Q	48	113.068	76.656	-46.347	1.00	67.70	O	ATOM	49135	CG	LEU	Q	53	125.943	83.653	-47.665	1.00	55.41	C
ATOM	49086	CB	GLU	Q	48	111.099	76.495	-44.432	1.00	171.39	C	ATOM	49136	CD1	LEU	Q	53	126.048	83.595	-46.164	1.00	55.41	C
ATOM	49087	CG	GLU	Q	48	109.904	75.999	-43.640	1.00	171.39	C	ATOM	49137	CD2	LEU	Q	53	126.816	82.596	-48.307	1.00	55.41	C
ATOM	49088	CD	GLU	Q	48	108.716	76.936	-43.736	1.00	171.39	C	ATOM	49138	N	GLY	Q	54	123.367	86.298	-46.383	1.00	54.08	N
ATOM	49089	OE1	GLU	Q	48	108.856	78.116	-43.347	1.00	171.39	O	ATOM	49139	CA	GLY	Q	54	123.315	87.745	-46.507	1.00	54.08	C
ATOM	49090	OE2	GLU	Q	48	107.643	76.492	-44.199	1.00	171.39	O	ATOM	49140	C	GLY	Q	54	122.142	88.359	-45.759	1.00	54.08	O
ATOM	49091	N	GLU	Q	49	114.661	76.014	-44.903	1.00	67.97	N	ATOM	49141	O	GLY	Q	54	122.113	89.566	-45.517	1.00	54.08	O
ATOM	49092	CA	GLU	Q	49	115.752	76.564	-45.711	1.00	67.97	C	ATOM	49142	N	ASP	Q	55	121.166	87.528	-45.397	1.00	69.30	N
ATOM	49093	C	GLU	Q	49	115.254	77.902	-46.247	1.00	67.97	C	ATOM	49143	CA	ASP	Q	55	119.998	87.996	-44.660	1.00	69.30	C
ATOM	49094	O	GLU	Q	49	115.484	78.268	-47.393	1.00	67.97	O	ATOM	49144	C	ASP	Q	55	120.401	88.431	-43.263	1.00	69.30	C
ATOM	49095	CB	GLU	Q	49	116.085	75.615	-46.860	1.00	102.63	C	ATOM	49145	CB	ASP	Q	55	121.348	87.910	-42.693	1.00	69.30	O
ATOM	49096	CG	GLU	Q	49	116.730	74.319	-46.400	1.00	102.63	C	ATOM	49146	CG	ASP	Q	55	118.953	86.885	-44.507	1.00	111.06	C
ATOM	49097	CD	GLU	Q	49	118.202	74.484	-46.060	1.00	102.63	C	ATOM	49147	CG	ASP	Q	55	118.260	86.542	-45.802	1.00	111.06	C
ATOM	49098	OE1	GLU	Q	49	118.567	75.499	-45.423	1.00	102.63	O	ATOM	49148	OD1	ASP	Q	55	117.764	87.469	-46.472	1.00	111.06	O
ATOM	49099	OE2	GLU	Q	49	118.996	73.591	-46.426	1.00	102.63	O	ATOM	49149	OD2	ASP	Q	55	118.195	85.343	-46.143	1.00	111.06	O
ATOM	49100	N	LYS	Q	50	114.555	78.620	-45.382	1.00	81.43	N	ATOM	49150	N	VAL	Q	56	119.674	89.394	-42.727	1.00	70.89	N
ATOM	49101	CA	LYS	Q	50	113.950	79.896	-45.710	1.00	81.43	C	ATOM	49151	CA	VAL	Q	56	119.922	89.860	-41.376	1.00	70.89	C
ATOM	49102	C	LYS	Q	50	114.911	81.080	-45.712	1.00	81.43	C	ATOM	49152	C	VAL	Q	56	118.727	89.335	-40.616	1.00	70.89	C
ATOM	49103	O	LYS	Q	50	114.579	82.152	-46.219	1.00	81.43	O	ATOM	49153	O	VAL	Q	56	117.654	89.934	-40.653	1.00	70.89	O
ATOM	49104	CB	LYS	Q	50	112.808	80.138	-44.722	1.00	89.11	C	ATOM	49154	CB	VAL	Q	56	119.932	91.393	-41.287	1.00	51.26	C
ATOM	49105	CG	LYS	Q	50	112.050	81.432	-44.864	1.00	89.11	C	ATOM	49155	CG1	VAL	Q	56	120.002	91.833	-39.827	1.00	51.26	C
ATOM	49106	CD	LYS	Q	50	110.935	81.460	-43.833	1.00	89.11	C	ATOM	49156	CG2	VAL	Q	56	121.117	91.940	-42.057	1.00	51.26	C
ATOM	49107	CE	LYS	Q	50	110.052	82.687	-43.971	1.00	89.11	C	ATOM	49157	N	VAL	Q	57	118.903	88.208	-39.942	1.00	58.64	N
ATOM	49108	NZ	LYS	Q	50	108.911	82.633	-43.008	1.00	89.11	N	ATOM	49158	CA	VAL	Q	57	117.803	87.602	-39.203	1.00	58.64	C
ATOM	49109	N	TYR	Q	51	116.105	80.902	-45.161	1.00	81.01	N	ATOM	49159	C	VAL	Q	57	117.881	87.811	-37.697	1.00	58.64	C
ATOM	49110	CA	TYR	Q	51	117.041	82.014	-45.113	1.00	81.01	C	ATOM	49160	O	VAL	Q	57	118.883	88.290	-37.168	1.00	58.64	O
ATOM	49111	C	TYR	Q	51	118.294	81.816	-45.928	1.00	81.01	C	ATOM	49161	CB	VAL	Q	57	117.758	86.080	-39.452	1.00	56.09	C
ATOM	49112	O	TYR	Q	51	118.919	80.756	-45.888	1.00	81.01	O	ATOM	49162	CG1	VAL	Q	57	117.714	85.793	-40.929	1.00	56.09	C
ATOM	49113	CB	TYR	Q	51	117.391	82.327	-43.665	1.00	56.64	C	ATOM	49163	CG2	VAL	Q	57	118.980	85.420	-38.842	1.00	56.09	C
ATOM	49114	CG	TYR	Q	51	116.159	82.617	-42.851	1.00	56.64	C	ATOM	49164	N	GLU	Q	58	116.794	87.461	-37.018	1.00	66.76	N
ATOM	49115	CD1	TYR	Q	51	115.437	81.588	-42.261	1.00	56.64	C	ATOM	49165	CA	GLU	Q	58	116.739	87.512	-35.565	1.00	66.76	C



Table 2: Sheet 493/520

ATOM	49166	C	GLU	Q	58	116.738	86.040	-35.139	1.00	66.76	C	ATOM	49216	CA	PRO	Q	64	118.076	72.120	-28.152	1.00	48.27	C
ATOM	49167	O	GLU	Q	58	116.095	85.187	-35.750	1.00	66.76	O	ATOM	49217	C	PRO	Q	64	117.549	71.377	-29.381	1.00	48.27	C
ATOM	49168	CB	GLU	Q	58	115.477	88.200	-35.062	1.00	82.46	C	ATOM	49218	O	PRO	Q	64	116.567	70.638	-29.313	1.00	48.27	O
ATOM	49169	CG	GLU	Q	58	115.414	89.671	-35.370	1.00	82.46	C	ATOM	49219	CB	PRO	Q	64	118.747	71.199	-27.147	1.00	38.73	C
ATOM	49170	CD	GLU	Q	58	114.385	90.392	-34.511	1.00	82.46	C	ATOM	49220	CG	PRO	Q	64	118.680	72.028	-25.873	1.00	38.73	C
ATOM	49171	OE1	GLU	Q	58	113.283	89.836	-34.300	1.00	82.46	O	ATOM	49221	CD	PRO	Q	64	117.252	72.528	-25.907	1.00	38.73	C
ATOM	49172	OE2	GLU	Q	58	114.671	91.518	-34.051	1.00	82.46	O	ATOM	49222	N	ILE	Q	65	118.208	71.590	-30.508	1.00	49.29	N
ATOM	49173	N	ILE	Q	59	117.491	85.751	-34.095	1.00	40.53	N	ATOM	49223	CA	ILE	Q	65	117.831	70.957	-31.767	1.00	49.29	C
ATOM	49174	CA	ILE	Q	59	117.629	84.412	-33.578	1.00	40.53	C	ATOM	49224	C	ILE	Q	65	118.900	69.944	-32.156	1.00	49.29	C
ATOM	49175	C	ILE	Q	59	116.909	84.399	-32.247	1.00	40.53	C	ATOM	49225	O	ILE	Q	65	118.623	68.898	-32.748	1.00	49.29	O
ATOM	49176	O	ILE	Q	59	116.967	85.366	-31.480	1.00	40.53	O	ATOM	49226	CB	ILE	Q	65	117.706	72.015	-32.864	1.00	38.01	C
ATOM	49177	CB	ILE	Q	59	119.111	84.098	-33.386	1.00	60.90	C	ATOM	49227	CG1	ILE	Q	65	116.569	72.961	-32.493	1.00	38.01	C
ATOM	49178	CG1	ILE	Q	59	119.850	84.329	-34.693	1.00	60.90	C	ATOM	49228	CG2	ILE	Q	65	117.527	71.353	-34.235	1.00	38.01	C
ATOM	49179	CG2	ILE	Q	59	119.293	82.690	-33.020	1.00	60.90	C	ATOM	49229	CD1	ILE	Q	65	116.423	74.120	-33.397	1.00	38.01	C
ATOM	49180	CD1	ILE	Q	59	119.204	83.631	-35.872	1.00	60.90	C	ATOM	49230	N	SER	Q	66	120.134	70.284	-31.818	1.00	53.08	N
ATOM	49181	N	ILE	Q	60	116.228	83.299	-31.972	1.00	39.08	N	ATOM	49231	CA	SER	Q	66	121.270	69.427	-32.079	1.00	53.08	C
ATOM	49182	CA	ILE	Q	60	115.470	83.172	-30.741	1.00	39.08	C	ATOM	49232	C	SER	Q	66	122.312	69.926	-31.123	1.00	53.08	C
ATOM	49183	C	ILE	Q	60	116.001	81.977	-29.946	1.00	39.08	C	ATOM	49233	O	SER	Q	66	122.100	70.940	-30.466	1.00	53.08	O
ATOM	49184	O	ILE	Q	60	116.303	80.922	-30.518	1.00	39.08	O	ATOM	49234	CB	SER	Q	66	121.772	69.597	-33.516	1.00	46.88	O
ATOM	49185	CB	ILE	Q	60	113.971	82.986	-31.096	1.00	43.89	C	ATOM	49235	OG	SER	Q	66	122.484	70.807	-33.694	1.00	46.88	O
ATOM	49186	CG1	ILE	Q	60	113.076	83.679	-30.065	1.00	43.89	C	ATOM	49236	N	LYS	Q	67	123.415	69.204	-31.004	1.00	68.12	N
ATOM	49187	CG2	ILE	Q	60	113.652	81.514	-31.232	1.00	43.89	C	ATOM	49237	CA	LYS	Q	67	124.498	69.667	-30.159	1.00	68.12	C
ATOM	49188	CD1	ILE	Q	60	113.121	83.097	-28.687	1.00	43.89	C	ATOM	49238	O	LYS	Q	67	124.802	70.914	-30.933	1.00	68.12	C
ATOM	49189	N	GLU	Q	61	116.147	82.148	-28.636	1.00	56.24	N	ATOM	49239	O	LYS	Q	67	124.541	70.933	-32.124	1.00	68.12	O
ATOM	49190	CA	GLU	Q	61	116.629	81.066	-27.782	1.00	56.24	C	ATOM	49240	CB	LYS	Q	67	125.670	68.718	-30.282	1.00	38.07	C
ATOM	49191	C	GLU	Q	61	115.625	79.927	-27.929	1.00	56.24	C	ATOM	49241	CG	LYS	Q	67	127.016	69.294	-29.944	1.00	38.07	C
ATOM	49192	O	GLU	Q	61	114.415	80.149	-27.860	1.00	56.24	O	ATOM	49242	CD	LYS	Q	67	128.075	68.260	-30.227	1.00	38.07	C
ATOM	49193	CB	GLU	Q	61	116.685	81.544	-26.339	1.00	51.64	C	ATOM	49243	CE	LYS	Q	67	129.453	68.755	-29.887	1.00	38.07	C
ATOM	49194	CG	GLU	Q	61	117.295	80.576	-25.369	1.00	51.64	C	ATOM	49244	NZ	LYS	Q	67	130.490	67.777	-30.337	1.00	38.07	N
ATOM	49195	CD	GLU	Q	61	117.257	81.099	-23.935	1.00	51.64	C	ATOM	49245	N	ARG	Q	68	125.305	71.965	-30.306	1.00	50.07	N
ATOM	49196	OE1	GLU	Q	61	117.585	80.332	-23.011	1.00	51.64	O	ATOM	49246	CA	ARG	Q	68	125.629	73.168	-31.085	1.00	50.07	C
ATOM	49197	OE2	GLU	Q	61	116.901	82.274	-23.714	1.00	51.64	O	ATOM	49247	C	ARG	Q	68	124.440	74.049	-31.550	1.00	50.07	C
ATOM	49198	N	SER	Q	62	116.108	78.710	-28.148	1.00	36.32	N	ATOM	49248	O	ARG	Q	68	124.614	75.250	-31.754	1.00	50.07	O
ATOM	49199	CA	SER	Q	62	115.202	77.582	-28.329	1.00	36.32	C	ATOM	49249	CB	ARG	Q	68	126.475	72.759	-32.300	1.00	53.17	C
ATOM	49200	C	SER	Q	62	115.618	76.316	-27.611	1.00	36.32	C	ATOM	49250	CG	ARG	Q	68	127.347	73.845	-32.858	1.00	53.17	C
ATOM	49201	O	SER	Q	62	116.724	76.218	-27.066	1.00	36.32	O	ATOM	49251	CD	ARG	Q	68	128.597	74.055	-32.017	1.00	53.17	C
ATOM	49202	CB	SER	Q	62	115.063	77.259	-29.821	1.00	57.71	C	ATOM	49252	NE	ARG	Q	68	129.007	75.457	-32.041	1.00	53.17	N
ATOM	49203	OG	SER	Q	62	114.480	78.334	-30.532	1.00	57.71	O	ATOM	49253	CZ	ARG	Q	68	129.301	76.134	-33.147	1.00	53.17	C
ATOM	49204	N	ARG	Q	63	114.717	75.340	-27.623	1.00	49.10	N	ATOM	49254	NH1	ARG	Q	68	129.244	75.539	-34.336	1.00	53.17	N
ATOM	49205	CA	ARG	Q	63	114.976	74.037	-27.033	1.00	49.10	C	ATOM	49255	NH2	ARG	Q	68	129.624	77.423	-33.069	1.00	53.17	N
ATOM	49206	C	ARG	Q	63	116.015	73.396	-27.932	1.00	49.10	C	ATOM	49256	N	LYS	Q	69	123.253	73.475	-31.742	1.00	51.39	N
ATOM	49207	O	ARG	Q	63	115.908	73.461	-29.151	1.00	49.10	O	ATOM	49257	CA	LYS	Q	69	122.080	74.265	-32.152	1.00	51.39	C
ATOM	49208	CB	ARG	Q	63	113.714	73.183	-27.057	1.00	61.24	C	ATOM	49258	O	LYS	Q	69	121.144	74.482	-30.972	1.00	51.39	C
ATOM	49209	CG	ARG	Q	63	113.943	71.724	-26.690	1.00	61.24	C	ATOM	49259	O	LYS	Q	69	120.583	73.528	-30.446	1.00	51.39	O
ATOM	49210	CD	ARG	Q	63	113.457	70.811	-27.798	1.00	61.24	C	ATOM	49260	CB	LYS	Q	69	121.298	73.575	-33.279	1.00	48.94	C
ATOM	49211	NE	ARG	Q	63	112.083	71.118	-28.186	1.00	61.24	N	ATOM	49261	CG	LYS	Q	69	121.943	73.716	-34.649	1.00	48.94	C
ATOM	49212	CZ	ARG	Q	63	111.447	70.512	-29.181	1.00	61.24	C	ATOM	49262	CD	LYS	Q	69	121.260	72.878	-35.726	1.00	48.94	C
ATOM	49213	NH1	ARG	Q	63	112.057	69.569	-29.884	1.00	61.24	N	ATOM	49263	CE	LYS	Q	69	119.896	73.429	-36.109	1.00	48.94	C
ATOM	49214	NH2	ARG	Q	63	110.211	70.857	-29.483	1.00	61.24	N	ATOM	49264	NZ	LYS	Q	69	119.355	72.721	-37.314	1.00	48.94	N
ATOM	49215	N	PRO	Q	64	117.034	72.763	-27.347	1.00	48.27	N	ATOM	49265	N	ARG	Q	70	120.982	75.735	-30.561	1.00	50.11	N



ATOM	49266	CA	ARG Q	70	120.113	76.082	-29.439	1.00	50.11	C	ATOM	49316	O	ARG Q	75	114.425	87.598	-38.605	1.00	71.61	O
ATOM	49267	C	ARG Q	70	119.314	77.345	-29.736	1.00	50.11	C	ATOM	49317	CB	ARG Q	75	111.226	87.413	-38.088	1.00	79.98	C
ATOM	49268	O	ARG Q	70	118.749	77.959	-28.828	1.00	50.11	O	ATOM	49318	CG	ARG Q	75	111.744	88.621	-37.369	1.00	79.98	C
ATOM	49269	CB	ARG Q	70	120.933	76.323	-28.174	1.00	57.81	C	ATOM	49319	CD	ARG Q	75	110.614	89.487	-36.863	1.00	79.98	C
ATOM	49270	CG	ARG Q	70	121.143	75.113	-27.300	1.00	57.81	C	ATOM	49320	CE	ARG Q	75	111.130	90.679	-36.199	1.00	79.98	N
ATOM	49271	CD	ARG Q	70	122.074	74.086	-27.909	1.00	57.81	C	ATOM	49321	CZ	ARG Q	75	111.771	91.663	-36.825	1.00	79.98	C
ATOM	49272	NE	ARG Q	70	122.061	72.881	-27.085	1.00	57.81	N	ATOM	49322	NH1	ARG Q	75	111.968	91.602	-38.139	1.00	79.98	N
ATOM	49273	CZ	ARG Q	70	122.640	71.730	-27.408	1.00	57.81	C	ATOM	49323	NH2	ARG Q	75	112.232	92.701	-36.136	1.00	79.98	N
ATOM	49274	NH1	ARG Q	70	123.303	71.610	-28.549	1.00	57.81	N	ATOM	49324	N	LEU Q	76	113.202	87.444	-40.480	1.00	58.53	N
ATOM	49275	NH2	ARG Q	70	122.531	70.688	-26.594	1.00	57.81	N	ATOM	49325	CA	LEU Q	76	114.134	88.179	-41.307	1.00	58.53	C
ATOM	49276	N	PHE Q	71	119.275	77.732	-31.008	1.00	45.79	N	ATOM	49326	C	LEU Q	76	113.969	89.665	-40.995	1.00	58.53	C
ATOM	49277	CA	PHE Q	71	118.560	78.932	-31.438	1.00	45.79	C	ATOM	49327	O	LEU Q	76	112.857	90.134	-40.806	1.00	58.53	O
ATOM	49278	C	PHE Q	71	117.804	78.651	-32.734	1.00	45.79	C	ATOM	49328	CB	LEU Q	76	113.807	87.872	-42.760	1.00	54.86	C
ATOM	49279	O	PHE Q	71	118.201	77.801	-33.534	1.00	45.79	O	ATOM	49329	CG	LEU Q	76	114.516	88.579	-43.895	1.00	54.86	C
ATOM	49280	CB	PHE Q	71	119.556	80.067	-31.681	1.00	37.73	C	ATOM	49330	CD1	LEU Q	76	114.275	87.786	-45.173	1.00	54.86	C
ATOM	49281	CG	PHE Q	71	119.945	80.833	-30.444	1.00	37.73	C	ATOM	49331	CD2	LEU Q	76	113.989	90.011	-44.014	1.00	54.86	C
ATOM	49282	CD1	PHE Q	71	119.205	81.932	-30.030	1.00	37.73	C	ATOM	49332	N	VAL Q	77	115.069	90.405	-40.921	1.00	65.50	N
ATOM	49283	CD2	PHE Q	71	121.070	80.463	-29.701	1.00	37.73	C	ATOM	49333	CA	VAL Q	77	114.990	91.828	-40.619	1.00	65.50	C
ATOM	49284	CE1	PHE Q	71	119.571	82.662	-28.900	1.00	37.73	C	ATOM	49334	C	VAL Q	77	115.256	92.685	-41.846	1.00	65.50	C
ATOM	49286	CZ	PHE Q	71	121.445	81.187	-28.559	1.00	37.73	C	ATOM	49335	O	VAL Q	77	114.609	93.712	-42.042	1.00	65.50	O
ATOM	49287	N	ARG Q	72	120.691	82.290	-28.162	1.00	37.73	C	ATOM	49336	CB	VAL Q	77	115.965	92.200	-39.519	1.00	48.56	C
ATOM	49288	CA	ARG Q	72	116.713	79.373	-32.938	1.00	51.15	N	ATOM	49337	CG1	VAL Q	77	116.024	93.693	-39.362	1.00	48.56	C
ATOM	49289	C	ARG Q	72	115.917	79.204	-34.141	1.00	51.15	C	ATOM	49338	CG2	VAL Q	77	115.520	91.565	-38.228	1.00	48.56	C
ATOM	49290	O	ARG Q	72	115.790	80.554	-34.796	1.00	51.15	C	ATOM	49339	N	GLU Q	78	116.228	92.280	-42.652	1.00	68.43	N
ATOM	49291	CB	ARG Q	72	115.750	81.575	-34.106	1.00	51.15	O	ATOM	49340	CA	GLU Q	78	116.533	92.974	-43.897	1.00	68.43	C
ATOM	49292	CG	ARG Q	72	114.520	78.691	-33.800	1.00	35.10	C	ATOM	49341	C	GLU Q	78	117.302	92.002	-44.771	1.00	68.43	C
ATOM	49293	CD	ARG Q	72	113.042	76.827	-33.050	1.00	35.10	C	ATOM	49342	O	GLU Q	78	118.340	91.482	-44.378	1.00	68.43	O
ATOM	49295	CZ	ARG Q	72	112.380	77.621	-32.026	1.00	35.10	N	ATOM	49343	CB	GLU Q	78	117.330	94.260	-43.662	1.00	109.19	C
ATOM	49296	NH1	ARG Q	72	111.086	77.537	-31.743	1.00	35.10	C	ATOM	49344	CG	GLU Q	78	118.721	94.089	-43.122	1.00	109.19	C
ATOM	49297	NH2	ARG Q	72	110.312	76.693	-32.417	1.00	35.10	N	ATOM	49345	CD	GLU Q	78	119.535	95.362	-43.257	1.00	109.19	C
ATOM	49298	N	VAL Q	73	110.569	78.287	-30.778	1.00	35.10	N	ATOM	49346	OE1	GLU Q	78	119.774	95.790	-44.406	1.00	109.19	O
ATOM	49299	CA	VAL Q	73	115.732	80.569	-36.124	1.00	44.96	N	ATOM	49347	OE2	GLU Q	78	119.927	95.937	-42.220	1.00	109.19	O
ATOM	49300	C	VAL Q	73	114.165	82.282	-36.581	1.00	44.96	C	ATOM	49348	N	SER Q	79	116.761	91.737	-45.952	1.00	63.38	N
ATOM	49301	O	VAL Q	73	113.227	81.590	-36.937	1.00	44.96	O	ATOM	49349	CA	SER Q	79	117.366	90.791	-46.877	1.00	63.38	C
ATOM	49302	CB	VAL Q	73	115.814	81.691	-38.322	1.00	198.91	C	ATOM	49350	C	SER Q	79	118.632	91.308	-47.528	1.00	63.38	C
ATOM	49303	CG1	VAL Q	73	115.785	83.027	-38.928	1.00	26.59	C	ATOM	49351	O	SER Q	79	118.941	92.495	-47.466	1.00	63.38	O
ATOM	49304	CG2	VAL Q	73	117.148	81.089	-38.601	1.00	26.59	C	ATOM	49352	CB	SER Q	79	116.358	90.401	-47.963	1.00	113.87	C
ATOM	49305	N	LEU Q	74	114.017	83.438	-35.949	1.00	62.46	N	ATOM	49353	OG	SER Q	79	116.891	89.411	-48.830	1.00	113.87	N
ATOM	49306	CA	LEU Q	74	112.711	83.996	-35.620	1.00	62.46	C	ATOM	49354	N	GLY Q	80	119.357	90.380	-48.139	1.00	81.73	O
ATOM	49307	C	LEU Q	74	112.112	84.709	-36.824	1.00	62.46	C	ATOM	49355	CA	GLY Q	80	120.592	90.679	-48.838	1.00	81.73	C
ATOM	49308	O	LEU Q	74	111.026	84.369	-37.276	1.00	62.46	O	ATOM	49356	C	GLY Q	80	121.471	91.849	-48.434	1.00	81.73	C
ATOM	49309	CB	LEU Q	74	112.865	84.981	-34.465	1.00	43.43	C	ATOM	49357	O	GLY Q	80	121.039	92.994	-48.365	1.00	81.73	O
ATOM	49310	CG	LEU Q	74	111.679	85.326	-33.574	1.00	43.43	C	ATOM	49358	N	ARG Q	81	122.732	91.532	-48.174	1.00	68.61	N
ATOM	49311	CD1	LEU Q	74	112.089	86.478	-32.656	1.00	43.43	C	ATOM	49359	CA	ARG Q	81	123.746	92.512	-47.824	1.00	68.61	C
ATOM	49312	CD2	LEU Q	74	110.484	85.701	-34.417	1.00	43.43	C	ATOM	49360	C	ARG Q	81	125.048	91.841	-47.426	1.00	68.61	C
ATOM	49313	N	ARG Q	75	112.814	85.710	-37.338	1.00	71.61	N	ATOM	49361	O	ARG Q	81	125.386	91.695	-46.248	1.00	68.61	O
ATOM	49314	CA	ARG Q	75	112.324	86.440	-38.494	1.00	71.61	C	ATOM	49362	CB	ARG Q	81	123.263	93.451	-46.739	1.00	57.05	C
ATOM	49315	C	ARG Q	75	113.420	87.214	-39.198	1.00	71.61	C	ATOM	49363	CG	ARG Q	81	122.750	92.827	-45.513	1.00	57.05	C
											ATOM	49364	CD	ARG Q	81	122.488	93.988	-44.613	1.00	57.05	C
											ATOM	49365	NE	ARG Q	81	123.708	94.786	-44.497	1.00	57.05	N



Table 2. Sheet 495/520

ATOM	49366	CZ	ARG Q	81	123.762	96.008	-43.983	1.00	57.05	C	ATOM	49416	CE	LYS Q	87	132.228	95.768	-41.960	1.00	87.75	C
ATOM	49367	NH1	ARG Q	81	122.655	96.592	-43.543	1.00	57.05	N	ATOM	49417	NZ	LYS Q	87	131.229	96.313	-40.986	1.00	87.75	N
ATOM	49368	NH2	ARG Q	81	124.926	96.628	-43.871	1.00	57.05	N	ATOM	49418	N	TYR Q	88	133.286	99.328	-42.956	1.00	46.49	N
ATOM	49369	N	MET Q	82	125.763	91.443	-48.470	1.00	61.42	N	ATOM	49419	CA	TYR Q	88	133.509	88.007	-42.403	1.00	46.49	C
ATOM	49370	CA	MET Q	82	127.030	90.766	-48.367	1.00	61.42	C	ATOM	49420	C	TYR Q	88	134.433	87.130	-43.238	1.00	46.49	C
ATOM	49371	C	MET Q	82	128.085	91.729	-47.887	1.00	61.42	C	ATOM	49421	O	TYR Q	88	135.453	86.652	-42.751	1.00	46.49	O
ATOM	49372	O	MET Q	82	129.192	91.321	-47.567	1.00	61.42	O	ATOM	49422	CB	TYR Q	88	132.179	87.294	-42.215	1.00	58.98	C
ATOM	49373	CB	MET Q	82	127.434	90.219	-49.732	1.00	100.14	C	ATOM	49423	CG	TYR Q	88	132.338	85.885	-41.724	1.00	58.98	C
ATOM	49374	CG	MET Q	82	126.274	89.688	-50.557	1.00	100.14	C	ATOM	49424	CD1	TYR Q	88	132.864	85.622	-40.464	1.00	58.98	C
ATOM	49375	SD	MET Q	82	125.299	88.463	-49.681	1.00	100.14	S	ATOM	49425	CD2	TYR Q	88	131.960	84.811	-42.523	1.00	58.98	C
ATOM	49376	CE	MET Q	82	126.445	87.055	-49.674	1.00	100.14	C	ATOM	49426	CE1	TYR Q	88	133.007	84.317	-40.008	1.00	58.98	C
ATOM	49377	N	ASP Q	83	127.765	93.014	-47.850	1.00	82.63	N	ATOM	49427	CE2	TYR Q	88	132.097	83.506	-42.083	1.00	58.98	C
ATOM	49378	CA	ASP Q	83	128.751	93.968	-47.379	1.00	82.63	C	ATOM	49428	CZ	TYR Q	88	132.619	83.263	-40.825	1.00	58.98	C
ATOM	49379	C	ASP Q	83	129.216	93.424	-46.034	1.00	82.63	C	ATOM	49429	OH	TYR Q	88	132.741	81.963	-40.396	1.00	58.98	O
ATOM	49380	C	ASP Q	83	130.405	93.466	-45.710	1.00	82.63	O	ATOM	49430	N	LEU Q	89	134.080	86.922	-44.499	1.00	51.87	N
ATOM	49381	CB	ASP Q	83	128.133	95.366	-47.237	1.00	88.01	C	ATOM	49431	CA	LEU Q	89	134.893	86.076	-45.357	1.00	51.87	C
ATOM	49382	CG	ASP Q	83	127.086	95.442	-46.147	1.00	88.01	O	ATOM	49432	C	LEU Q	89	136.345	86.518	-45.478	1.00	51.87	O
ATOM	49383	OD1	ASP Q	83	126.179	94.580	-46.109	1.00	88.01	O	ATOM	49433	O	LEU Q	89	137.255	85.690	-45.425	1.00	51.87	O
ATOM	49384	OD2	ASP Q	83	127.168	96.380	-45.329	1.00	88.01	O	ATOM	49434	CB	LEU Q	89	134.259	85.971	-46.740	1.00	60.61	C
ATOM	49385	N	LEU Q	84	128.268	92.868	-45.280	1.00	74.73	N	ATOM	49435	CG	LEU Q	89	132.960	85.172	-46.751	1.00	60.61	C
ATOM	49386	CA	LEU Q	84	128.549	92.286	-43.975	1.00	74.73	C	ATOM	49436	CD1	LEU Q	89	132.447	85.083	-48.169	1.00	60.61	C
ATOM	49387	C	LEU Q	84	129.211	90.927	-44.123	1.00	74.73	C	ATOM	49437	CD2	LEU Q	89	133.209	83.787	-46.178	1.00	60.61	C
ATOM	49388	O	LEU Q	84	130.217	90.638	-43.476	1.00	74.73	O	ATOM	49438	N	ILE Q	90	136.567	87.813	-45.648	1.00	52.89	N
ATOM	49389	CB	LEU Q	84	127.258	92.149	-43.184	1.00	55.29	C	ATOM	49439	CA	ILE Q	90	137.924	88.320	-45.753	1.00	52.89	C
ATOM	49390	CG	LEU Q	84	126.768	93.496	-42.664	1.00	55.29	C	ATOM	49440	C	ILE Q	90	138.664	88.039	-44.447	1.00	52.89	C
ATOM	49391	CD1	LEU Q	84	125.437	93.335	-41.946	1.00	55.29	C	ATOM	49441	O	ILE Q	90	139.793	87.549	-44.462	1.00	52.89	O
ATOM	49392	CD2	LEU Q	84	127.825	94.085	-41.732	1.00	55.29	C	ATOM	49442	CB	ILE Q	90	137.924	89.825	-46.037	1.00	68.48	C
ATOM	49393	N	VAL Q	85	128.638	90.086	-44.973	1.00	53.16	N	ATOM	49443	CG1	ILE Q	90	137.315	90.073	-47.416	1.00	68.48	C
ATOM	49394	CA	VAL Q	85	129.200	88.769	-45.207	1.00	53.16	C	ATOM	49444	CG2	ILE Q	90	139.335	90.373	-45.970	1.00	68.48	C
ATOM	49395	C	VAL Q	85	130.636	88.922	-45.715	1.00	53.16	C	ATOM	49445	CD1	ILE Q	90	137.115	91.535	-47.749	1.00	68.48	C
ATOM	49396	O	VAL Q	85	131.542	88.178	-45.318	1.00	53.16	O	ATOM	49446	N	ARG Q	91	138.024	88.334	-43.316	1.00	55.86	N
ATOM	49397	CB	VAL Q	85	128.371	88.008	-46.249	1.00	70.99	C	ATOM	49447	CA	ARG Q	91	138.648	88.089	-42.016	1.00	55.86	C
ATOM	49398	CG1	VAL Q	85	128.941	86.610	-46.459	1.00	70.99	C	ATOM	49448	C	ARG Q	91	139.114	86.637	-42.036	1.00	55.86	C
ATOM	49399	CG2	VAL Q	85	126.925	87.938	-45.793	1.00	70.99	C	ATOM	49449	O	ARG Q	91	140.218	86.315	-41.605	1.00	55.86	O
ATOM	49400	N	GLU Q	86	130.835	89.904	-46.589	1.00	64.75	N	ATOM	49450	CB	ARG Q	91	137.641	88.310	-40.874	1.00	98.39	C
ATOM	49401	CA	GLU Q	86	132.143	90.171	-47.163	1.00	64.75	C	ATOM	49451	CG	ARG Q	91	138.269	88.825	-39.574	1.00	98.39	C
ATOM	49402	C	GLU Q	86	133.180	90.294	-46.066	1.00	64.75	C	ATOM	49452	CD	ARG Q	91	137.867	88.002	-38.343	1.00	98.39	C
ATOM	49403	O	GLU Q	86	134.192	89.582	-46.078	1.00	64.75	O	ATOM	49453	NE	ARG Q	91	136.456	88.144	-37.986	1.00	98.39	N
ATOM	49404	CB	GLU Q	86	132.107	91.451	-47.992	1.00	118.34	C	ATOM	49454	CZ	ARG Q	91	135.864	87.512	-36.973	1.00	98.39	C
ATOM	49405	CG	GLU Q	86	132.278	91.203	-49.471	1.00	118.34	C	ATOM	49455	NH1	ARG Q	91	136.550	86.680	-36.201	1.00	98.39	N
ATOM	49406	CD	GLU Q	86	133.631	90.614	-49.792	1.00	118.34	C	ATOM	49456	NH2	ARG Q	91	134.577	87.715	-36.730	1.00	98.39	N
ATOM	49407	OE1	GLU Q	86	133.998	89.596	-49.172	1.00	118.34	O	ATOM	49457	N	ARG Q	92	138.265	85.768	-42.565	1.00	58.84	N
ATOM	49408	OE2	GLU Q	86	134.329	91.168	-50.665	1.00	118.34	O	ATOM	49458	CA	ARG Q	92	138.584	84.357	-42.655	1.00	58.84	C
ATOM	49409	N	LYS Q	87	132.922	91.196	-45.118	1.00	53.08	N	ATOM	49459	C	ARG Q	92	139.791	84.155	-43.567	1.00	58.84	O
ATOM	49410	CA	LYS Q	87	133.840	91.404	-44.005	1.00	53.08	C	ATOM	49460	O	ARG Q	92	140.773	83.528	-43.169	1.00	58.84	O
ATOM	49411	C	LYS Q	87	134.260	90.045	-43.500	1.00	53.08	C	ATOM	49461	CB	ARG Q	92	137.385	83.576	-43.203	1.00	146.05	C
ATOM	49412	O	LYS Q	87	135.421	89.650	-43.616	1.00	53.08	O	ATOM	49462	CG	ARG Q	92	137.608	82.073	-43.275	1.00	146.05	C
ATOM	49413	CB	LYS Q	87	133.163	92.157	-42.859	1.00	87.75	C	ATOM	49463	CD	ARG Q	92	136.526	81.372	-44.086	1.00	146.05	C
ATOM	49414	CG	LYS Q	87	133.135	93.664	-42.986	1.00	87.75	C	ATOM	49464	NE	ARG Q	92	135.223	81.386	-43.429	1.00	146.05	N
ATOM	49415	CD	LYS Q	87	132.388	94.268	-41.808	1.00	87.75	C	ATOM	49465	CZ	ARG Q	92	134.122	80.861	-43.955	1.00	146.05	C



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ATOM	49466	NH1	ARG	Q	92	134.169	80.283	-45.147	1.00146.05	N	ATOM	49516	CB	LEU	Q	98	148.873	85.323	-39.908	1.00	71.66	C	
ATOM	49467	NH2	ARG	Q	92	132.975	80.907	-43.291	1.00146.05	N	ATOM	49517	CG	LEU	Q	98	147.338	85.405	-39.790	1.00	71.66	C	
ATOM	49468	N	GLN	Q	93	139.714	84.688	-44.786	1.00	68.99	N	ATOM	49518	CD1	LEU	Q	98	146.799	84.313	-38.896	1.00	71.66	C
ATOM	49469	CA	GLN	Q	93	140.796	84.562	-45.765	1.00	68.99	C	ATOM	49519	CD2	LEU	Q	98	146.952	86.761	-39.220	1.00	71.66	C
ATOM	49470	C	GLN	Q	93	142.179	84.922	-45.205	1.00	68.99	C	ATOM	49520	N	SER	Q	99	150.396	81.962	-40.566	1.00	63.87	N
ATOM	49471	O	GLN	Q	93	143.176	84.270	-45.537	1.00	68.99	O	ATOM	49521	CA	SER	Q	99	150.747	80.706	-39.910	1.00	63.87	C
ATOM	49472	CB	GLN	Q	93	140.490	85.425	-46.991	1.00158.67	C	ATOM	49522	C	SER	Q	99	152.244	80.394	-40.059	1.00	63.87	C	
ATOM	49473	CG	GLN	Q	93	139.197	85.039	-47.689	1.00158.67	C	ATOM	49523	O	SER	Q	99	153.058	80.815	-39.235	1.00	63.87	O	
ATOM	49474	CD	GLN	Q	93	138.810	86.001	-48.794	1.00158.67	C	ATOM	49524	CB	SER	Q	99	149.929	79.554	-40.498	1.00143.71	C		
ATOM	49475	OE1	GLN	Q	93	138.674	87.204	-48.568	1.00158.67	O	ATOM	49525	OG	SER	Q	99	150.214	79.379	-41.875	1.00143.71	O		
ATOM	49476	NE2	GLN	Q	93	138.620	85.474	-49.998	1.00158.67	N	ATOM	49526	N	LYS	Q	100	152.595	79.644	-41.106	1.00200.58	N		
ATOM	49477	N	ASN	Q	94	142.245	85.949	-44.356	1.00	59.22	N	ATOM	49527	CA	LYS	Q	100	153.988	79.271	-41.381	1.00200.58	C	
ATOM	49478	CA	ASN	Q	94	143.519	86.356	-43.772	1.00	59.22	C	ATOM	49528	C	LYS	Q	100	154.657	80.232	-42.365	1.00200.58	C	
ATOM	49479	C	ASN	Q	94	144.102	85.252	-42.921	1.00	59.22	C	ATOM	49529	O	LYS	Q	100	155.883	80.369	-42.369	1.00200.58	O	
ATOM	49480	O	ASN	Q	94	145.312	85.121	-42.824	1.00	59.22	O	ATOM	49530	CB	LYS	Q	100	154.080	77.853	-41.971	1.00	96.83	C
ATOM	49481	CB	ASN	Q	94	143.369	87.602	-42.902	1.00	64.92	C	ATOM	49531	CG	LYS	Q	100	153.879	76.694	-40.999	1.00	96.83	C
ATOM	49482	CG	ASN	Q	94	143.080	88.844	-43.710	1.00	64.92	C	ATOM	49532	CD	LYS	Q	100	155.004	76.578	-39.970	1.00	96.83	C
ATOM	49483	OD1	ASN	Q	94	143.444	88.931	-44.885	1.00	64.92	O	ATOM	49533	CE	LYS	Q	100	154.888	75.271	-39.166	1.00	96.83	C
ATOM	49484	ND2	ASN	Q	94	142.440	89.826	-43.080	1.00	64.92	N	ATOM	49534	NZ	LYS	Q	100	155.856	75.160	-38.030	1.00	96.83	N
ATOM	49485	N	TYR	Q	95	143.242	84.461	-42.291	1.00	62.77	N	ATOM	49535	NA	ARG	Q	101	153.856	80.884	-43.206	1.00200.58	N	
ATOM	49486	CA	TYR	Q	95	143.717	83.381	-41.440	1.00	62.77	C	ATOM	49536	CA	ARG	Q	101	154.396	81.809	-44.202	1.00200.58	C	
ATOM	49487	C	TYR	Q	95	144.731	82.524	-42.159	1.00	62.77	C	ATOM	49537	C	ARG	Q	101	153.908	83.251	-44.056	1.00200.58	C	
ATOM	49488	O	TYR	Q	95	145.922	82.581	-41.841	1.00	62.77	O	ATOM	49538	O	ARG	Q	101	154.684	84.132	-43.683	1.00200.58	O	
ATOM	49489	CB	TYR	Q	95	142.536	82.550	-40.930	1.00	83.70	C	ATOM	49539	CB	ARG	Q	101	154.080	81.295	-45.609	1.00200.58	C	
ATOM	49490	CG	TYR	Q	95	141.809	83.278	-39.829	1.00	83.70	C	ATOM	49540	CG	ARG	Q	101	154.821	82.030	-46.710	1.00200.58	C	
ATOM	49491	CD1	TYR	Q	95	142.077	84.632	-39.596	1.00	83.70	C	ATOM	49541	CD	ARG	Q	101	155.099	81.101	-47.875	1.00200.58	C	
ATOM	49492	CD2	TYR	Q	95	140.876	82.636	-39.012	1.00	83.70	C	ATOM	49542	NE	ARG	Q	101	155.817	79.904	-47.438	1.00200.58	N	
ATOM	49493	CE1	TYR	Q	95	141.449	85.334	-38.587	1.00	83.70	C	ATOM	49543	CZ	ARG	Q	101	157.002	79.918	-46.833	1.00200.58	C	
ATOM	49494	CE2	TYR	Q	95	140.230	83.337	-37.984	1.00	83.70	C	ATOM	49544	NH1	ARG	Q	101	157.615	81.069	-46.591	1.00200.58	N	
ATOM	49495	CZ	TYR	Q	95	140.529	84.692	-37.781	1.00	83.70	C	ATOM	49545	NH2	ARG	Q	101	157.574	78.780	-46.462	1.00200.58	N	
ATOM	49496	OH	TYR	Q	95	139.943	85.435	-36.780	1.00	83.70	O	ATOM	49546	N	GLY	Q	102	152.635	83.496	-44.363	1.00200.58	N	
ATOM	49497	N	GLN	Q	96	144.268	81.737	-43.127	1.00139.69	N	ATOM	49547	CA	GLY	Q	102	152.105	84.845	-44.242	1.00200.58	C		
ATOM	49498	CA	GLN	Q	96	145.167	80.887	-43.898	1.00139.69	C	ATOM	49548	C	GLY	Q	102	150.800	85.127	-44.969	1.00200.58	C		
ATOM	49499	C	GLN	Q	96	146.174	81.854	-44.486	1.00139.69	C	ATOM	49549	O	GLY	Q	102	150.342	84.322	-45.778	1.00200.58	O		
ATOM	49500	O	GLN	Q	96	145.985	82.371	-45.586	1.00139.69	O	ATOM	49550	N	GLY	Q	103	150.206	86.285	-44.684	1.00200.58	N		
ATOM	49501	CB	GLN	Q	96	144.415	80.167	-45.021	1.00195.44	C	ATOM	49551	CA	GLY	Q	103	148.949	86.672	-45.306	1.00200.58	C		
ATOM	49502	CG	GLN	Q	96	145.150	78.954	-45.590	1.00195.44	C	ATOM	49552	C	GLY	Q	103	148.973	87.589	-46.509	1.00200.58	C		
ATOM	49503	CD	GLN	Q	96	146.522	79.292	-46.149	1.00195.44	C	ATOM	49553	O	GLY	Q	103	149.570	87.270	-47.538	1.00200.58	O		
ATOM	49504	OE1	GLN	Q	96	146.647	80.077	-47.088	1.00195.44	O	ATOM	49554	N	LYS	Q	104	148.279	80.717	-46.300	1.00200.58	N		
ATOM	49505	NE2	GLN	Q	96	147.560	78.696	-45.571	1.00195.44	N	ATOM	49555	CA	LYS	Q	104	148.224	89.699	-47.459	1.00200.58	C		
ATOM	49506	N	SER	Q	97	147.234	82.106	-43.727	1.00137.54	N	ATOM	49556	C	LYS	Q	104	148.706	91.041	-46.929	1.00200.58	C		
ATOM	49507	CA	SER	Q	97	148.270	83.034	-44.137	1.00137.54	C	ATOM	49557	O	LYS	Q	104	149.280	91.106	-45.856	1.00200.58	O		
ATOM	49508	C	SER	Q	97	149.237	83.271	-42.983	1.00137.54	C	ATOM	49558	CB	LYS	Q	104	146.804	89.831	-48.012	1.00135.30	C		
ATOM	49509	O	SER	Q	97	150.393	82.853	-43.037	1.00137.54	O	ATOM	49559	CG	LYS	Q	104	146.733	90.582	-49.339	1.00135.30	C		
ATOM	49510	CB	SER	Q	97	147.636	84.356	-44.532	1.00	95.22	C	ATOM	49560	CD	LYS	Q	104	147.675	89.970	-50.393	1.00135.30	C	
ATOM	49511	OG	SER	Q	97	147.759	85.309	-43.488	1.00	95.22	O	ATOM	49561	CE	LYS	Q	104	149.140	90.401	-50.212	1.00135.30	C	
ATOM	49512	N	LEU	Q	98	148.755	83.948	-41.942	1.00	82.58	N	ATOM	49562	NZ	LYS	Q	104	150.074	89.645	-51.095	1.00135.30	N	
ATOM	49513	CA	LEU	Q	98	149.560	84.241	-40.763	1.00	82.58	C	ATOM	49563	NA	ALA	Q	105	148.457	92.112	-47.666	1.00200.58	N	
ATOM	49514	C	LEU	Q	98	149.850	82.994	-39.921	1.00	82.58	C	ATOM	49564	CA	ALA	Q	105	148.895	93.447	-47.273	1.00200.58	C	
ATOM	49515	O	LEU	Q	98	149.590	82.976	-38.720	1.00	82.58	O	ATOM	49565	C	ALA	Q	105	148.961	93.802	-45.784	1.00200.58	C	



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ATOM	49566	O	ALA Q 105	149.751	93.195	-45.039	1.00200.58	O	ATOM	49616	NZ	LYS R 21	182.475	140.383	-58.403	1.00	95.78	N	
ATOM	49567	CB	ALA Q 105	148.076	94.446	-47.989	1.00	99.74	C	ATOM	49617	N	VAL R 22	181.755	137.938	-65.352	1.00	59.82	N
ATOM	49568	OXT	ALA Q 105	148.220	94.705	-45.371	1.00143.30	O	ATOM	49618	CA	VAL R 22	181.707	137.682	-66.782	1.00	59.82	C	
TER	49569	ALA Q 105							ATOM	49619	C	VAL R 22	180.355	138.044	-67.383	1.00	59.82	C	
ATOM	49570	N	PRO R 16	189.691	139.843	-55.412	1.00199.23	N	ATOM	49620	O	VAL R 22	180.240	138.248	-68.588	1.00	59.82	O	
ATOM	49571	CA	PRO R 16	188.648	139.460	-54.432	1.00199.23	C	ATOM	49621	CB	VAL R 22	182.001	136.202	-67.076	1.00	56.12	C	
ATOM	49572	C	PRO R 16	187.403	139.000	-55.178	1.00199.23	C	ATOM	49622	CG1	VAL R 22	182.554	136.045	-68.490	1.00	56.12	C	
ATOM	49573	O	PRO R 16	186.283	139.262	-54.739	1.00199.23	O	ATOM	49623	CG2	VAL R 22	182.980	135.656	-66.042	1.00	56.12	C	
ATOM	49574	CB	PRO R 16	188.340	140.704	-53.616	1.00164.50	C	ATOM	49624	N	LYS R 23	179.339	138.128	-66.532	1.00102.01	N		
ATOM	49575	CG	PRO R 16	188.613	141.799	-54.652	1.00164.50	C	ATOM	49625	CA	LYS R 23	177.983	138.460	-66.964	1.00102.01	C		
ATOM	49576	CD	PRO R 16	189.871	141.307	-55.403	1.00164.50	C	ATOM	49626	C	LYS R 23	177.929	139.894	-67.484	1.00102.01	C		
ATOM	49577	N	SER R 17	187.609	138.310	-56.298	1.00197.78	N	ATOM	49627	O	LYS R 23	177.565	140.129	-68.636	1.00102.01	C		
ATOM	49578	CA	SER R 17	186.508	137.845	-57.136	1.00197.78	C	ATOM	49628	CB	LYS R 23	177.014	138.301	-65.790	1.00	98.64	C	
ATOM	49579	C	SER R 17	185.593	139.046	-57.369	1.00197.78	C	ATOM	49629	CG	LYS R 23	175.541	138.406	-66.136	1.00	98.64	C	
ATOM	49580	O	SER R 17	184.371	138.910	-57.453	1.00197.78	O	ATOM	49630	CD	LYS R 23	174.780	139.034	-64.971	1.00	98.64	C	
ATOM	49581	CB	SER R 17	185.737	136.695	-56.458	1.00128.31	C	ATOM	49631	CE	LYS R 23	173.350	138.541	-64.893	1.00	98.64	C	
ATOM	49582	OG	SER R 17	185.085	137.103	-55.264	1.00128.31	O	ATOM	49632	NZ	LYS R 23	173.298	137.103	-64.490	1.00	98.64	N	
ATOM	49583	N	ARG R 18	186.207	140.226	-57.469	1.00187.15	N	ATOM	49633	N	ALA R 24	178.286	140.846	-66.627	1.00111.36	N		
ATOM	49584	CA	ARG R 18	185.474	141.472	-57.666	1.00187.15	C	ATOM	49634	CA	ALA R 24	178.282	142.258	-66.998	1.00111.36	C		
ATOM	49585	C	ARG R 18	185.976	142.287	-58.859	1.00187.15	C	ATOM	49635	C	ALA R 24	179.051	142.463	-68.295	1.00111.36	C		
ATOM	49586	O	ARG R 18	185.819	143.509	-58.887	1.00187.15	O	ATOM	49636	O	ALA R 24	178.529	143.029	-69.252	1.00111.36	O		
ATOM	49587	CB	ARG R 18	185.554	142.324	-56.390	1.00166.10	C	ATOM	49637	CB	ALA R 24	178.901	143.092	-65.892	1.00	91.63	C	
ATOM	49588	CG	ARG R 18	184.617	143.531	-56.362	1.00166.10	C	ATOM	49638	N	THR R 25	180.298	142.006	-68.317	1.00121.46	N		
ATOM	49589	CD	ARG R 18	183.166	143.101	-56.513	1.00166.10	C	ATOM	49639	CA	THR R 25	181.135	142.120	-69.502	1.00121.46	C		
ATOM	49590	NE	ARG R 18	182.821	142.046	-55.564	1.00166.10	N	ATOM	49640	C	THR R 25	180.552	141.185	-70.551	1.00121.46	C		
ATOM	49591	C2	ARG R 18	181.631	141.459	-55.494	1.00166.10	C	ATOM	49641	O	THR R 25	181.172	140.184	-70.905	1.00121.46	O		
ATOM	49592	NH1	ARG R 18	180.658	141.822	-56.319	1.00166.10	N	ATOM	49642	CB	THR R 25	182.589	141.681	-69.209	1.00122.01	C		
ATOM	49593	NH2	ARG R 18	181.417	140.502	-54.601	1.00166.10	N	ATOM	49643	OG1	THR R 25	183.152	142.522	-68.196	1.00122.01	C		
ATOM	49594	N	LYS R 19	186.581	141.624	-59.842	1.00140.23	N	ATOM	49644	CG2	THR R 25	183.442	141.778	-70.465	1.00122.01	C		
ATOM	49595	CA	LYS R 19	187.070	142.338	-61.019	1.00140.23	C	ATOM	49645	N	LEU R 26	179.355	141.509	-71.036	1.00	88.37	N	
ATOM	49596	C	LYS R 19	185.876	142.804	-61.836	1.00140.23	C	ATOM	49646	CA	LEU R 26	178.682	140.685	-72.036	1.00	88.37	C	
ATOM	49597	O	LYS R 19	185.617	144.000	-61.954	1.00140.23	O	ATOM	49647	C	LEU R 26	177.222	141.113	-72.227	1.00	88.37	C	
ATOM	49598	CB	LYS R 19	187.958	141.439	-61.886	1.00124.52	C	ATOM	49648	O	LEU R 26	176.532	141.444	-71.255	1.00	88.37	O	
ATOM	49599	CG	LYS R 19	187.925	139.972	-61.520	1.00124.52	C	ATOM	49649	CB	LEU R 26	178.734	139.214	-71.609	1.00113.66	C		
ATOM	49600	CD	LYS R 19	188.688	139.726	-60.231	1.00124.52	C	ATOM	49650	CG	LEU R 26	178.144	138.157	-72.538	1.00113.66	C		
ATOM	49601	CE	LYS R 19	188.658	138.257	-59.844	1.00124.52	C	ATOM	49651	CD1	LEU R 26	178.698	138.326	-73.944	1.00113.66	C		
ATOM	49602	NZ	LYS R 19	189.422	138.013	-58.592	1.00124.52	N	ATOM	49652	CD2	LEU R 26	178.478	136.781	-71.990	1.00113.66	C		
ATOM	49603	N	ALA R 20	185.144	141.845	-62.387	1.00104.18	N	ATOM	49653	N	GLY R 27	176.761	141.108	-73.478	1.00	99.32	N	
ATOM	49604	CA	ALA R 20	183.968	142.136	-63.195	1.00104.18	C	ATOM	49654	CA	GLY R 27	175.386	141.482	-73.769	1.00	99.32	C	
ATOM	49605	C	ALA R 20	183.353	140.820	-63.623	1.00104.18	C	ATOM	49655	C	GLY R 27	174.447	140.328	-73.476	1.00	99.32	C	
ATOM	49606	O	ALA R 20	183.890	140.133	-64.497	1.00104.18	O	ATOM	49656	O	GLY R 27	174.781	139.449	-72.684	1.00	99.32	O	
ATOM	49607	CB	ALA R 20	184.352	142.953	-64.428	1.00	96.61	C	ATOM	49657	N	GLU R 28	173.272	140.312	-74.095	1.00	95.27	N
ATOM	49608	N	LYS R 21	182.238	140.462	-62.995	1.00	93.63	C	ATOM	49658	CA	GLU R 28	172.350	139.213	-73.850	1.00	99.32	C
ATOM	49609	CA	LYS R 21	181.545	139.222	-63.319	1.00	93.63	C	ATOM	49659	C	GLU R 28	172.807	138.000	-74.651	1.00	95.27	C
ATOM	49610	C	LYS R 21	181.410	139.107	-64.832	1.00	93.63	C	ATOM	49660	O	GLU R 28	173.550	138.137	-75.625	1.00	95.27	O
ATOM	49611	O	LYS R 21	181.014	140.056	-65.509	1.00	93.63	O	ATOM	49661	CB	GLU R 28	170.921	139.599	-74.238	1.00156.59	C	
ATOM	49612	CB	LYS R 21	180.167	139.199	-62.643	1.00	95.78	C	ATOM	49662	CG	GLU R 28	170.649	139.734	-75.722	1.00156.59	C	
ATOM	49613	CG	LYS R 21	180.223	138.949	-61.139	1.00	95.78	C	ATOM	49663	CD	GLU R 28	169.190	140.054	-76.004	1.00156.59	C	
ATOM	49614	CD	LYS R 21	181.210	139.878	-60.461	1.00	95.78	C	ATOM	49664	OE1	GLU R 28	168.314	139.286	-75.548	1.00156.59	O	
ATOM	49615	CE	LYS R 21	181.450	139.491	-59.018	1.00	95.78	C	ATOM	49665	OE2	GLU R 28	168.911	141.068	-76.681	1.00156.59	O	



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ATOM	49666	N	PHE R	29	172.374	136.812	-74.239	1.00	78.84	N	ATOM	49716	CB	TYR R	34	175.742	123.372	-76.865	1.00	78.26	C
ATOM	49667	CA	PHE R	29	172.768	135.589	-74.928	1.00	78.84	C	ATOM	49717	CG	TYR R	34	174.984	122.804	-78.031	1.00	78.26	C
ATOM	49668	C	PHE R	29	171.973	134.394	-74.435	1.00	78.84	C	ATOM	49718	CD1	TYR R	34	175.632	122.446	-79.210	1.00	78.26	C
ATOM	49669	O	PHE R	29	171.428	134.413	-73.332	1.00	78.84	O	ATOM	49719	CD2	TYR R	34	173.607	122.642	-77.962	1.00	78.26	C
ATOM	49670	CB	PHE R	29	174.258	135.335	-74.721	1.00	86.83	C	ATOM	49720	CE1	TYR R	34	174.920	121.938	-80.295	1.00	78.26	C
ATOM	49671	CG	PHE R	29	174.683	135.377	-73.281	1.00	86.83	C	ATOM	49721	CE2	TYR R	34	172.886	122.137	-79.034	1.00	78.26	C
ATOM	49672	CD1	PHE R	29	175.051	134.213	-72.615	1.00	86.83	C	ATOM	49722	CG	TYR R	34	173.544	121.788	-80.193	1.00	78.26	C
ATOM	49673	CD2	PHE R	29	174.728	136.586	-72.594	1.00	86.83	C	ATOM	49723	OH	TYR R	34	172.809	121.282	-81.235	1.00	78.26	O
ATOM	49674	CE1	PHE R	29	175.463	134.255	-71.287	1.00	86.83	C	ATOM	49724	N	ARG R	35	176.931	126.105	-78.939	1.00	77.71	N
ATOM	49675	CE2	PHE R	29	175.137	136.639	-71.266	1.00	86.83	C	ATOM	49725	CA	ARG R	35	177.832	126.316	-80.072	1.00	77.71	C
ATOM	49676	CZ	PHE R	29	175.507	135.468	-70.610	1.00	86.83	C	ATOM	49726	C	ARG R	35	178.371	127.728	-80.146	1.00	77.71	C
ATOM	49677	N	ASP R	30	171.916	133.353	-75.257	1.00	63.06	N	ATOM	49727	O	ARG R	35	179.264	128.012	-80.938	1.00	77.71	O
ATOM	49678	CA	ASP R	30	171.172	132.154	-74.905	1.00	63.06	C	ATOM	49728	CB	ARG R	35	177.136	125.982	-81.384	1.00	71.31	C
ATOM	49679	C	ASP R	30	172.049	131.131	-74.215	1.00	63.06	C	ATOM	49729	CG	ARG R	35	176.772	124.534	-81.509	1.00	71.31	C
ATOM	49680	O	ASP R	30	172.746	130.360	-74.884	1.00	63.06	O	ATOM	49730	CD	ARG R	35	176.203	124.259	-82.881	1.00	71.31	C
ATOM	49681	CB	ASP R	30	170.551	131.521	-76.148	1.00	69.36	C	ATOM	49731	NE	ARG R	35	175.024	125.075	-83.160	1.00	71.31	N
ATOM	49682	CG	ASP R	30	169.988	130.147	-75.867	1.00	69.36	O	ATOM	49732	CZ	ARG R	35	174.573	125.345	-84.381	1.00	71.31	C
ATOM	49683	OD1	ASP R	30	169.488	129.956	-74.745	1.00	69.36	O	ATOM	49733	NH1	ARG R	35	175.203	124.869	-85.448	1.00	71.31	N
ATOM	49684	OD2	ASP R	30	170.029	129.262	-76.750	1.00	69.36	O	ATOM	49734	NH2	ARG R	35	173.489	126.093	-84.538	1.00	71.31	N
ATOM	49685	N	LEU R	31	172.000	131.118	-72.881	1.00	56.80	N	ATOM	49735	N	ASN R	36	177.835	128.617	-79.321	1.00	68.08	N
ATOM	49686	CA	LEU R	31	172.801	130.193	-72.085	1.00	56.80	C	ATOM	49736	CA	ASN R	36	178.299	129.991	-79.332	1.00	68.08	C
ATOM	49687	C	LEU R	31	172.674	128.758	-72.578	1.00	56.80	C	ATOM	49737	O	ASN R	36	179.631	130.069	-78.599	1.00	68.08	C
ATOM	49688	O	LEU R	31	173.540	127.922	-72.313	1.00	56.80	O	ATOM	49738	O	ASN R	36	179.760	130.736	-77.568	1.00	68.08	O
ATOM	49689	CB	LEU R	31	172.390	130.260	-70.608	1.00	65.43	C	ATOM	49739	CB	ASN R	36	177.266	130.906	-78.685	1.00	97.38	C
ATOM	49690	CG	LEU R	31	172.757	131.553	-69.872	1.00	65.43	C	ATOM	49740	CG	ASN R	36	177.565	132.367	-78.920	1.00	97.38	C
ATOM	49691	CD1	LEU R	31	172.337	131.509	-68.409	1.00	65.43	C	ATOM	49741	OD1	ASN R	36	176.690	133.222	-78.778	1.00	97.38	O
ATOM	49692	CD2	LEU R	31	174.252	131.734	-69.959	1.00	65.43	C	ATOM	49742	ND2	ASN R	36	178.812	132.668	-79.273	1.00	97.38	N
ATOM	49693	N	ARG R	32	171.603	128.479	-73.310	1.00	68.89	N	ATOM	49743	N	VAL R	37	180.621	129.379	-79.159	1.00	61.69	N
ATOM	49694	CA	ARG R	32	171.360	127.133	-73.804	1.00	68.89	C	ATOM	49744	CA	VAL R	37	181.958	129.327	-78.584	1.00	61.69	C
ATOM	49695	C	ARG R	32	172.045	126.838	-75.138	1.00	68.89	C	ATOM	49745	O	VAL R	37	182.409	130.692	-78.105	1.00	61.69	C
ATOM	49696	O	ARG R	32	171.898	125.744	-75.689	1.00	68.89	O	ATOM	49746	O	VAL R	37	182.654	130.894	-76.918	1.00	61.69	O
ATOM	49697	CB	ARG R	32	169.852	126.913	-73.918	1.00	81.21	C	ATOM	49747	CB	VAL R	37	182.988	128.823	-79.607	1.00	53.89	C
ATOM	49698	CG	ARG R	32	169.418	125.503	-73.597	1.00	81.21	C	ATOM	49748	CG1	VAL R	37	184.327	128.573	-78.904	1.00	53.89	C
ATOM	49699	CD	ARG R	32	167.935	125.439	-73.246	1.00	81.21	C	ATOM	49749	CG2	VAL R	37	182.473	127.548	-80.290	1.00	53.89	C
ATOM	49700	NE	ARG R	32	167.612	126.242	-72.069	1.00	81.21	N	ATOM	49750	N	GLU R	38	182.517	131.620	-79.048	1.00	77.85	N
ATOM	49701	CZ	ARG R	32	166.530	126.067	-71.315	1.00	81.21	C	ATOM	49751	CA	GLU R	38	182.942	132.978	-78.759	1.00	77.85	C
ATOM	49702	NH1	ARG R	32	165.658	125.112	-71.607	1.00	81.21	N	ATOM	49752	C	GLU R	38	182.402	133.476	-77.425	1.00	77.85	C
ATOM	49703	NH2	ARG R	32	166.318	126.852	-70.270	1.00	81.21	N	ATOM	49753	O	GLU R	38	183.128	134.123	-76.661	1.00	77.85	O
ATOM	49704	N	ASP R	33	172.811	127.805	-75.641	1.00	74.62	N	ATOM	49754	CB	GLU R	38	182.524	133.921	-79.897	1.00	136.19	C
ATOM	49705	CA	ASP R	33	173.507	127.656	-76.921	1.00	74.62	C	ATOM	49755	CG	GLU R	38	181.294	133.491	-80.700	1.00	136.19	C
ATOM	49706	C	ASP R	33	174.843	126.925	-76.794	1.00	74.62	C	ATOM	49756	CD	GLU R	38	181.566	132.329	-81.654	1.00	136.19	C
ATOM	49707	O	ASP R	33	175.858	127.526	-76.424	1.00	74.62	O	ATOM	49757	OE1	GLU R	38	181.588	131.162	-81.204	1.00	136.19	O
ATOM	49708	CB	ASP R	33	173.758	129.029	-77.544	1.00	105.22	C	ATOM	49758	OE2	GLU R	38	181.767	132.582	-82.863	1.00	136.19	O
ATOM	49709	CG	ASP R	33	174.162	128.937	-79.003	1.00	105.22	C	ATOM	49759	N	VAL R	39	181.140	133.165	-77.132	1.00	77.10	N
ATOM	49710	OD1	ASP R	33	174.798	127.929	-79.389	1.00	105.22	O	ATOM	49760	CA	VAL R	39	180.561	133.605	-75.865	1.00	77.10	C
ATOM	49711	OD2	ASP R	33	173.849	129.879	-79.762	1.00	105.22	O	ATOM	49761	C	VAL R	39	180.949	132.658	-74.720	1.00	77.10	C
ATOM	49712	N	TYR R	34	174.852	125.640	-77.131	1.00	69.31	N	ATOM	49762	O	VAL R	39	181.507	133.101	-73.709	1.00	77.10	O
ATOM	49713	CA	TYR R	34	176.077	124.855	-77.023	1.00	69.31	C	ATOM	49763	CB	VAL R	39	179.004	133.733	-75.943	1.00	76.61	C
ATOM	49714	C	TYR R	34	177.040	125.015	-78.166	1.00	69.31	C	ATOM	49764	CG1	VAL R	39	178.334	132.379	-75.769	1.00	76.61	C
ATOM	49715	O	TYR R	34	177.876	124.145	-78.405	1.00	69.31	O	ATOM	49765	CG2	VAL R	39	178.518	134.683	-74.879	1.00	76.61	C



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ATOM	49766	N	LEU R	40	180.681	131.362	-74.890	1.00	58.30	N	ATOM	49816	O	SER R	45	190.530	129.632	-68.945	1.00	59.05	O
ATOM	49767	CA	LEU R	40	180.994	130.382	-73.857	1.00	58.30	C	ATOM	49817	CB	SER R	45	189.775	129.577	-65.469	1.00	71.09	C
ATOM	49768	C	LEU R	40	182.427	130.524	-73.345	1.00	58.30	C	ATOM	49818	OG	SER R	45	190.382	128.292	-65.557	1.00	71.09	O
ATOM	49769	O	LEU R	40	182.662	130.625	-72.133	1.00	58.30	O	ATOM	49819	N	GLU R	46	191.831	130.157	-67.165	1.00	99.10	N
ATOM	49770	CB	LEU R	40	180.765	128.962	-74.380	1.00	47.09	C	ATOM	49820	CA	GLU R	46	193.112	130.030	-67.848	1.00	99.10	C
ATOM	49771	CG	LEU R	40	179.333	128.604	-74.793	1.00	47.09	C	ATOM	49821	O	GLU R	46	193.315	128.541	-68.088	1.00	99.10	C
ATOM	49772	CD1	LEU R	40	179.239	127.108	-75.103	1.00	47.09	C	ATOM	49822	C	GLU R	46	194.385	128.082	-68.488	1.00	99.10	O
ATOM	49773	CD2	LEU R	40	178.369	128.959	-73.686	1.00	47.09	C	ATOM	49823	CB	GLU R	46	194.217	130.603	-66.957	1.00	150.78	C
ATOM	49774	N	LYS R	41	183.380	130.536	-74.272	1.00	84.64	N	ATOM	49824	CG	GLU R	46	193.954	132.050	-66.515	1.00	150.78	C
ATOM	49775	CA	LYS R	41	184.793	130.677	-73.935	1.00	84.64	C	ATOM	49825	CD	GLU R	46	192.608	132.231	-65.798	1.00	150.78	C
ATOM	49776	C	LYS R	41	184.975	131.606	-72.724	1.00	84.64	C	ATOM	49826	OE1	GLU R	46	192.444	131.698	-64.678	1.00	150.78	O
ATOM	49777	O	LYS R	41	185.806	131.358	-71.853	1.00	84.64	O	ATOM	49827	OE2	GLU R	46	191.708	132.903	-66.356	1.00	150.78	O
ATOM	49778	CB	LYS R	41	185.547	131.242	-75.139	1.00	126.16	C	ATOM	49828	N	THR R	47	192.247	127.803	-67.820	1.00	64.99	N
ATOM	49779	CG	LYS R	41	187.050	131.042	-75.096	1.00	126.16	C	ATOM	49829	CA	THR R	47	192.191	126.365	-67.996	1.00	64.99	C
ATOM	49780	CD	LYS R	41	187.740	131.829	-76.208	1.00	126.16	C	ATOM	49830	C	THR R	47	190.766	126.067	-68.460	1.00	64.99	C
ATOM	49781	CE	LYS R	41	187.211	131.465	-77.595	1.00	126.16	C	ATOM	49831	O	THR R	47	189.875	126.920	-68.360	1.00	64.99	O
ATOM	49782	NZ	LYS R	41	187.734	132.374	-78.666	1.00	126.16	N	ATOM	49832	CB	THR R	47	192.442	125.641	-66.682	1.00	50.05	C
ATOM	49783	N	ARG R	42	184.176	132.667	-72.672	1.00	76.84	N	ATOM	49833	OG1	THR R	47	193.725	126.026	-66.159	1.00	50.05	C
ATOM	49784	CA	ARG R	42	184.227	133.647	-71.588	1.00	76.84	C	ATOM	49834	CG2	THR R	47	192.374	124.124	-66.901	1.00	50.05	C
ATOM	49785	C	ARG R	42	184.112	133.068	-70.176	1.00	76.84	C	ATOM	49835	N	GLY R	48	190.527	124.868	-68.968	1.00	85.17	N
ATOM	49786	O	ARG R	42	184.712	133.587	-69.229	1.00	76.84	O	ATOM	49836	CA	GLY R	48	188.177	124.497	-68.304	1.00	85.17	C
ATOM	49787	CB	ARG R	42	183.107	134.671	-71.780	1.00	126.93	C	ATOM	49837	C	GLY R	48	189.184	124.567	-69.435	1.00	85.17	C
ATOM	49788	CG	ARG R	42	183.449	135.850	-72.668	1.00	126.93	C	ATOM	49838	O	GLY R	48	187.084	123.950	-68.473	1.00	85.17	O
ATOM	49789	CD	ARG R	42	184.213	136.908	-71.884	1.00	126.93	C	ATOM	49839	N	LYS R	49	188.540	125.062	-67.156	1.00	65.99	N
ATOM	49790	NE	ARG R	42	184.104	138.230	-72.497	1.00	126.93	C	ATOM	49840	CA	LYS R	49	187.684	125.029	-65.985	1.00	65.99	C
ATOM	49791	CZ	ARG R	42	182.950	138.841	-72.755	1.00	126.93	N	ATOM	49841	C	LYS R	49	186.571	126.056	-65.963	1.00	65.99	C
ATOM	49792	NH1	ARG R	42	181.801	138.247	-72.454	1.00	126.93	N	ATOM	49842	O	LYS R	49	186.782	127.226	-66.311	1.00	65.99	O
ATOM	49793	NH2	ARG R	42	182.940	140.046	-73.314	1.00	126.93	N	ATOM	49843	CB	LYS R	49	188.529	125.179	-64.733	1.00	66.75	C
ATOM	49794	N	PHE R	43	183.337	131.997	-70.037	1.00	81.74	N	ATOM	49844	CD	LYS R	49	189.440	124.008	-64.489	1.00	66.75	C
ATOM	49795	CA	PHE R	43	183.112	131.395	-68.732	1.00	81.74	C	ATOM	49845	CG	LYS R	49	190.172	124.190	-63.195	1.00	66.75	C
ATOM	49796	C	PHE R	43	184.160	130.398	-68.268	1.00	81.74	C	ATOM	49846	CE	LYS R	49	191.192	123.112	-63.000	1.00	66.75	C
ATOM	49797	O	PHE R	43	184.047	129.832	-67.176	1.00	81.74	O	ATOM	49847	NZ	LYS R	49	192.022	123.424	-61.801	1.00	66.75	N
ATOM	49798	CB	PHE R	43	181.709	130.781	-68.702	1.00	64.76	C	ATOM	49848	N	ILE R	50	185.388	125.603	-65.540	1.00	53.77	N
ATOM	49799	CG	PHE R	43	180.617	131.802	-68.856	1.00	64.76	C	ATOM	49849	CA	ILE R	50	184.219	126.464	-65.448	1.00	53.77	C
ATOM	49800	CD1	PHE R	43	179.578	131.605	-69.754	1.00	64.76	C	ATOM	49850	C	ILE R	50	184.325	127.401	-64.252	1.00	53.77	C
ATOM	49801	CD2	PHE R	43	180.657	132.990	-68.132	1.00	64.76	C	ATOM	49851	O	ILE R	50	184.427	126.962	-63.104	1.00	53.77	O
ATOM	49802	CE1	PHE R	43	178.592	132.580	-69.937	1.00	64.76	C	ATOM	49852	CB	ILE R	50	182.930	125.654	-65.303	1.00	44.75	C
ATOM	49803	CE2	PHE R	43	179.680	133.969	-68.306	1.00	64.76	C	ATOM	49853	CG1	ILE R	50	182.783	124.694	-66.485	1.00	44.75	C
ATOM	49804	CZ	PHE R	43	178.645	133.763	-69.214	1.00	64.76	C	ATOM	49854	CG2	ILE R	50	181.752	126.602	-65.258	1.00	44.75	C
ATOM	49805	N	LEU R	44	185.182	130.184	-69.088	1.00	60.73	N	ATOM	49855	CD1	ILE R	50	181.426	124.042	-66.593	1.00	44.75	C
ATOM	49806	CA	LEU R	44	186.251	129.277	-68.704	1.00	60.73	C	ATOM	49856	N	LEU R	51	184.292	128.697	-64.523	1.00	58.21	N
ATOM	49807	C	LEU R	44	187.419	130.088	-68.165	1.00	60.73	C	ATOM	49857	CA	LEU R	51	184.398	129.681	-63.462	1.00	58.21	C
ATOM	49808	O	LEU R	44	187.523	131.290	-68.416	1.00	60.73	O	ATOM	49858	C	LEU R	51	183.297	129.539	-62.424	1.00	58.21	C
ATOM	49809	CB	LEU R	44	186.705	128.435	-69.892	1.00	49.21	C	ATOM	49859	O	LEU R	51	182.159	129.173	-62.745	1.00	58.21	O
ATOM	49810	CG	LEU R	44	185.677	127.410	-70.372	1.00	49.21	C	ATOM	49860	CB	LEU R	51	184.353	131.090	-64.052	1.00	61.03	C
ATOM	49811	CD1	LEU R	44	186.323	126.491	-71.412	1.00	49.21	C	ATOM	49861	CG	LEU R	51	185.499	131.421	-65.008	1.00	61.03	C
ATOM	49812	CD2	LEU R	44	185.152	126.585	-69.180	1.00	49.21	C	ATOM	49862	CD1	LEU R	51	185.352	132.841	-65.519	1.00	61.03	C
ATOM	49813	N	SER R	45	188.293	129.437	-67.411	1.00	59.05	N	ATOM	49863	CD2	LEU R	51	186.823	131.266	-64.288	1.00	61.03	C
ATOM	49814	CA	SER R	45	189.443	130.128	-66.855	1.00	59.05	C	ATOM	49864	N	PRO R	52	193.626	129.017	-61.152	1.00	70.48	N
ATOM	49815	C	SER R	45	190.656	129.954	-67.757	1.00	59.05	C	ATOM	49865	CA	PRO R	52	192.639	129.723	-60.071	1.00	70.48	C



Table 2. Sheet 500/520

ATOM	49866	C	PRO	R	52	181.669	130.867	-60.328	1.00	70.48	C	ATOM	49916	CA	LEU	R	58	175.530	134.019	-62.986	1.00	64.33	C
ATOM	49867	O	PRO	R	52	181.860	131.648	-61.261	1.00	70.48	O	ATOM	49917	C	LEU	R	58	174.692	133.752	-61.746	1.00	64.33	C
ATOM	49868	CB	PRO	R	52	183.470	129.962	-58.815	1.00	51.15	C	ATOM	49918	O	LEU	R	58	174.841	134.418	-60.725	1.00	64.33	O
ATOM	49869	CG	PRO	R	52	184.853	129.557	-59.218	1.00	51.15	C	ATOM	49919	CB	LEU	R	58	175.724	132.711	-63.745	1.00	69.78	C
ATOM	49870	CD	PRO	R	52	184.954	130.133	-60.607	1.00	51.15	C	ATOM	49920	CG	LEU	R	58	176.120	132.869	-65.204	1.00	69.78	C
ATOM	49871	N	ARG	R	53	180.639	130.990	-59.508	1.00	67.30	N	ATOM	49921	CD1	LEU	R	58	175.967	131.534	-65.942	1.00	69.78	C
ATOM	49872	CA	ARG	R	53	179.715	132.081	-59.725	1.00	67.30	C	ATOM	49922	CD2	LEU	R	58	175.211	133.901	-65.825	1.00	69.78	C
ATOM	49873	C	ARG	R	53	180.327	133.434	-59.375	1.00	67.30	C	ATOM	49923	N	SER	R	59	173.829	132.748	-61.823	1.00	51.70	N
ATOM	49874	O	ARG	R	53	179.989	134.438	-60.008	1.00	67.30	O	ATOM	49924	CA	SER	R	59	172.945	132.448	-60.710	1.00	51.70	C
ATOM	49875	CB	ARG	R	53	178.421	131.853	-58.951	1.00	75.97	C	ATOM	49925	C	SER	R	59	172.567	130.986	-60.679	1.00	51.70	C
ATOM	49876	CG	ARG	R	53	177.540	130.786	-59.585	1.00	75.97	C	ATOM	49926	O	SER	R	59	172.450	130.358	-61.726	1.00	51.70	O
ATOM	49877	CD	ARG	R	53	176.060	131.092	-59.374	1.00	75.97	C	ATOM	49927	CB	SER	R	59	171.666	133.257	-60.853	1.00	36.48	C
ATOM	49878	NE	ARG	R	53	175.586	130.676	-58.059	1.00	75.97	N	ATOM	49928	OG	SER	R	59	170.852	132.660	-61.852	1.00	36.48	O
ATOM	49879	CZ	ARG	R	53	174.583	131.262	-57.419	1.00	75.97	C	ATOM	49929	N	GLY	R	60	172.339	130.465	-59.476	1.00	50.87	N
ATOM	49880	NH1	ARG	R	53	173.964	132.290	-57.973	1.00	75.97	N	ATOM	49930	CA	GLY	R	60	171.968	129.071	-59.333	1.00	50.87	C
ATOM	49881	NH2	ARG	R	53	174.193	130.818	-56.235	1.00	75.97	N	ATOM	49931	C	GLY	R	60	171.369	128.471	-60.599	1.00	50.87	C
ATOM	49882	N	ARG	R	54	181.235	133.483	-58.398	1.00	77.88	N	ATOM	49932	O	GLY	R	60	171.953	127.572	-61.204	1.00	50.87	O
ATOM	49883	CA	ARG	R	54	181.839	134.770	-58.047	1.00	77.88	C	ATOM	49933	N	LYS	R	61	170.219	128.980	-61.029	1.00	57.64	N
ATOM	49884	C	ARG	R	54	182.443	135.350	-59.306	1.00	77.88	C	ATOM	49934	CA	LYS	R	61	169.573	128.430	-62.214	1.00	57.64	C
ATOM	49885	O	ARG	R	54	182.616	136.564	-59.429	1.00	77.88	O	ATOM	49935	C	LYS	R	61	170.386	128.621	-63.490	1.00	57.64	C
ATOM	49886	CB	ARG	R	54	182.948	134.631	-57.008	1.00	100.18	C	ATOM	49936	O	LYS	R	61	170.598	127.670	-64.247	1.00	57.64	O
ATOM	49887	CG	ARG	R	54	182.547	133.895	-55.770	1.00	100.18	C	ATOM	49937	CB	LYS	R	61	168.178	129.031	-62.384	1.00	60.53	C
ATOM	49888	CD	ARG	R	54	183.047	132.471	-55.843	1.00	100.18	C	ATOM	49938	CG	LYS	R	61	167.383	128.425	-63.522	1.00	60.53	C
ATOM	49889	NE	ARG	R	54	184.495	132.449	-56.027	1.00	100.18	N	ATOM	49939	CD	LYS	R	61	165.940	128.893	-63.512	1.00	60.53	C
ATOM	49890	CZ	ARG	R	54	185.234	131.345	-56.034	1.00	100.18	C	ATOM	49940	CE	LYS	R	61	165.195	128.296	-64.689	1.00	60.53	C
ATOM	49891	NH1	ARG	R	54	184.661	130.157	-55.866	1.00	100.18	N	ATOM	49941	NZ	LYS	R	61	163.787	128.760	-64.783	1.00	60.53	N
ATOM	49892	NH2	ARG	R	54	186.547	131.430	-56.213	1.00	100.18	N	ATOM	49942	N	GLU	R	62	170.840	129.845	-63.735	1.00	70.21	N
ATOM	49893	N	ARG	R	55	182.761	134.470	-60.246	1.00	56.54	N	ATOM	49943	CA	GLU	R	62	171.632	130.116	-64.928	1.00	70.21	C
ATOM	49894	CA	ARG	R	55	183.356	134.892	-61.499	1.00	56.54	C	ATOM	49944	C	GLU	R	62	172.858	129.195	-64.960	1.00	70.21	C
ATOM	49895	C	ARG	R	55	182.292	135.071	-62.570	1.00	56.54	C	ATOM	49945	O	GLU	R	62	172.996	128.371	-65.869	1.00	67.97	O
ATOM	49896	O	ARG	R	55	182.086	136.172	-63.069	1.00	56.54	O	ATOM	49946	CB	GLU	R	62	172.092	131.580	-64.949	1.00	67.97	C
ATOM	49897	CB	ARG	R	55	184.384	133.860	-61.935	1.00	112.56	C	ATOM	49947	CG	GLU	R	62	170.977	132.586	-64.774	1.00	67.97	C
ATOM	49898	CG	ARG	R	55	185.341	133.509	-60.821	1.00	112.56	C	ATOM	49948	CD	GLU	R	62	171.479	134.024	-64.725	1.00	67.97	C
ATOM	49899	CD	ARG	R	55	186.104	134.734	-60.359	1.00	112.56	C	ATOM	49949	OE1	GLU	R	62	172.531	134.288	-64.087	1.00	67.97	O
ATOM	49900	NE	ARG	R	55	186.799	135.343	-61.485	1.00	112.56	N	ATOM	49950	OE2	GLU	R	62	170.806	134.902	-65.313	1.00	67.97	O
ATOM	49901	CZ	ARG	R	55	186.339	136.377	-62.179	1.00	112.56	C	ATOM	49951	N	GLN	R	63	173.729	129.339	-63.956	1.00	54.55	N
ATOM	49902	NH1	ARG	R	55	185.179	136.936	-61.857	1.00	112.56	N	ATOM	49952	CA	GLN	R	63	174.964	128.557	-63.846	1.00	54.55	C
ATOM	49903	NH2	ARG	R	55	187.035	136.839	-63.211	1.00	112.56	N	ATOM	49953	C	GLN	R	63	174.736	127.079	-64.123	1.00	54.55	C
ATOM	49904	N	THR	R	56	181.618	133.986	-62.919	1.00	52.99	N	ATOM	49954	O	GLN	R	63	175.534	126.416	-64.792	1.00	54.55	O
ATOM	49905	CA	THR	R	56	180.578	134.049	-63.931	1.00	52.99	C	ATOM	49955	CB	GLN	R	63	175.574	128.699	-62.447	1.00	57.59	C
ATOM	49906	C	THR	R	56	179.568	135.144	-63.597	1.00	52.99	C	ATOM	49956	CG	GLN	R	63	176.991	128.135	-62.329	1.00	57.59	C
ATOM	49907	O	THR	R	56	179.041	135.814	-64.486	1.00	52.99	O	ATOM	49957	CD	GLN	R	63	178.063	129.180	-62.646	1.00	57.59	C
ATOM	49908	CB	THR	R	56	179.832	132.684	-64.066	1.00	79.77	C	ATOM	49958	OE1	GLN	R	63	177.898	130.003	-63.549	1.00	57.59	O
ATOM	49909	OG1	THR	R	56	179.176	132.356	-62.830	1.00	79.77	C	ATOM	49959	NE2	GLN	R	63	179.170	129.145	-61.904	1.00	57.59	O
ATOM	49910	CG2	THR	R	56	180.823	131.572	-64.429	1.00	79.77	C	ATOM	49960	N	ARG	R	64	173.634	126.564	-63.607	1.00	50.16	N
ATOM	49911	N	GLY	R	57	179.309	135.340	-62.312	1.00	70.94	N	ATOM	49961	CA	ARG	R	64	173.341	125.161	-63.786	1.00	50.16	C
ATOM	49912	CA	GLY	R	57	178.342	136.349	-61.926	1.00	70.94	C	ATOM	49962	C	ARG	R	64	173.166	124.838	-65.254	1.00	50.16	C
ATOM	49913	C	GLY	R	57	176.931	135.874	-62.228	1.00	70.94	C	ATOM	49963	O	ARG	R	64	173.435	123.717	-65.686	1.00	50.16	O
ATOM	49914	O	GLY	R	57	175.965	136.626	-62.067	1.00	70.94	O	ATOM	49964	CB	ARG	R	64	172.091	124.803	-63.015	1.00	49.35	C
ATOM	49915	N	LEU	R	58	176.817	134.620	-62.667	1.00	64.33	N	ATOM	49965	CG	ARG	R	64	171.959	123.342	-62.676	1.00	49.35	C



Table 2: Sheet 501/520

ATOM	49966	CD	ARG R	64	170.633	123.176	-61.993	1.00	49.35	C	ATOM	50016	N	LYS R	71	179.524	121.706	-71.215	1.00	48.50	N
ATOM	49967	NE	ARG R	64	170.406	124.339	-61.144	1.00	49.35	N	ATOM	50017	CA	LYS R	71	179.944	120.325	-71.395	1.00	48.50	C
ATOM	49968	C2	ARG R	64	169.209	124.794	-60.810	1.00	49.35	C	ATOM	50018	C	LYS R	71	179.712	119.849	-72.818	1.00	48.50	C
ATOM	49969	NH1	ARG R	64	168.109	124.194	-61.245	1.00	49.35	N	ATOM	50019	O	LYS R	71	180.587	119.209	-73.416	1.00	48.50	O
ATOM	49970	NH2	ARG R	64	169.122	125.859	-60.043	1.00	49.35	N	ATOM	50020	CB	LYS R	71	179.244	119.420	-70.383	1.00	55.43	C
ATOM	49971	N	ILE R	65	172.710	125.824	-66.019	1.00	64.98	N	ATOM	50021	CG	LYS R	71	179.906	119.514	-69.023	1.00	55.43	C
ATOM	49972	CA	ILE R	65	172.521	125.655	-67.459	1.00	64.98	C	ATOM	50022	CD	LYS R	71	179.064	118.965	-67.895	1.00	55.43	C
ATOM	49973	C	ILE R	65	173.886	125.823	-68.121	1.00	64.98	C	ATOM	50023	CE	LYS R	71	179.567	119.539	-66.578	1.00	55.43	C
ATOM	49974	O	ILE R	65	174.371	124.937	-68.833	1.00	64.98	O	ATOM	50024	N2	LYS R	71	178.767	119.114	-65.396	1.00	55.43	C
ATOM	49975	CB	ILE R	65	171.587	126.730	-68.042	1.00	63.17	C	ATOM	50025	N	ARG R	72	178.545	120.168	-73.371	1.00	71.36	N
ATOM	49976	CG1	ILE R	65	170.253	126.733	-67.290	1.00	63.17	C	ATOM	50026	CA	ARG R	72	178.233	119.782	-74.748	1.00	71.36	C
ATOM	49977	CG2	ILE R	65	171.369	126.462	-69.519	1.00	63.17	C	ATOM	50027	C	ARG R	72	179.300	120.358	-75.698	1.00	71.36	C
ATOM	49978	CD1	ILE R	65	169.421	127.997	-67.508	1.00	63.17	C	ATOM	50028	O	ARG R	72	176.852	120.304	-75.132	1.00	71.36	O
ATOM	49979	N	LEU R	66	174.493	126.979	-67.873	1.00	58.97	N	ATOM	50029	CB	ARG R	72	179.889	119.634	-76.507	1.00	71.36	C
ATOM	49980	CA	LEU R	66	175.798	127.285	-68.423	1.00	58.97	C	ATOM	50030	CG	ARG R	72	175.715	119.586	-74.452	1.00	71.01	C
ATOM	49981	C	LEU R	66	176.623	126.010	-68.453	1.00	58.97	C	ATOM	50031	CD	ARG R	72	174.396	120.283	-74.751	1.00	71.01	C
ATOM	49982	O	LEU R	66	177.057	125.566	-69.511	1.00	44.29	C	ATOM	50032	NE	ARG R	72	173.234	119.452	-74.441	1.00	71.01	N
ATOM	49983	CB	LEU R	66	176.502	128.333	-67.563	1.00	44.29	C	ATOM	50033	C2	ARG R	72	171.975	119.860	-74.561	1.00	71.01	N
ATOM	49984	CG	LEU R	66	177.935	128.560	-68.038	1.00	44.29	C	ATOM	50034	NH1	ARG R	72	171.709	121.092	-74.981	1.00	71.01	C
ATOM	49985	CD1	LEU R	66	177.866	128.985	-69.491	1.00	44.29	C	ATOM	50035	NH2	ARG R	72	170.981	119.030	-74.268	1.00	71.01	N
ATOM	49986	CD2	LEU R	66	178.655	129.613	-67.197	1.00	44.29	C	ATOM	50036	N	ALA R	73	179.539	121.662	-75.591	1.00	63.17	N
ATOM	49987	N	ALA R	67	176.810	125.417	-67.279	1.00	48.36	N	ATOM	50037	CA	ALA R	73	180.543	122.325	-76.410	1.00	63.17	C
ATOM	49988	CA	ALA R	67	177.583	124.186	-67.126	1.00	48.36	C	ATOM	50038	C	ALA R	73	181.838	121.534	-76.284	1.00	63.17	C
ATOM	49989	O	ALA R	67	177.228	123.125	-68.150	1.00	48.36	C	ATOM	50039	O	ALA R	73	182.519	121.253	-77.277	1.00	63.17	O
ATOM	49990	C	ALA R	67	178.076	122.693	-68.922	1.00	48.36	O	ATOM	50040	CB	ALA R	73	180.759	123.743	-75.917	1.00	51.17	C
ATOM	49991	CB	ALA R	67	177.387	123.629	-65.728	1.00	47.85	C	ATOM	50041	CA	ARG R	74	182.177	121.181	-75.049	1.00	62.03	N
ATOM	49992	N	LYS R	68	175.970	122.706	-68.137	1.00	45.83	N	ATOM	50042	N	ARG R	74	183.384	120.414	-74.797	1.00	62.03	C
ATOM	49993	CA	LYS R	68	175.475	121.690	-69.059	1.00	45.83	C	ATOM	50043	C	ARG R	74	183.391	119.217	-75.737	1.00	62.03	C
ATOM	49994	C	LYS R	68	175.852	122.075	-70.487	1.00	45.83	C	ATOM	50044	O	ARG R	74	184.291	119.071	-76.563	1.00	62.03	O
ATOM	49995	O	LYS R	68	176.369	121.262	-71.254	1.00	45.83	O	ATOM	50045	CB	ARG R	74	183.428	119.927	-73.339	1.00	52.94	C
ATOM	49996	CB	LYS R	68	173.951	121.584	-68.953	1.00	78.20	C	ATOM	50046	CG	ARG R	74	183.656	121.017	-72.280	1.00	52.94	C
ATOM	49997	CG	LYS R	68	173.390	120.231	-69.329	1.00	78.20	C	ATOM	50047	CD	ARG R	74	185.042	120.878	-71.642	1.00	52.94	C
ATOM	49998	CE	LYS R	68	173.497	119.278	-68.153	1.00	78.20	C	ATOM	50048	NE	ARG R	74	185.256	121.824	-70.537	1.00	52.94	C
ATOM	49999	CE	LYS R	68	172.879	117.918	-68.467	1.00	78.20	C	ATOM	50049	C2	ARG R	74	184.876	121.633	-69.272	1.00	52.94	C
ATOM	50000	N2	LYS R	68	171.468	118.040	-68.950	1.00	78.20	N	ATOM	50050	NH1	ARG R	74	184.251	120.516	-68.911	1.00	52.94	N
ATOM	50001	N	THR R	69	175.576	123.322	-70.844	1.00	47.45	N	ATOM	50051	NH2	ARG R	74	185.121	122.567	-68.365	1.00	52.94	N
ATOM	50002	CA	THR R	69	175.904	123.814	-72.171	1.00	47.45	C	ATOM	50052	N	ILE R	75	182.370	118.375	-75.626	1.00	60.39	N
ATOM	50003	C	THR R	69	177.403	123.624	-72.414	1.00	47.45	C	ATOM	50053	CA	ILE R	75	182.293	117.184	-76.457	1.00	60.39	C
ATOM	50004	O	THR R	69	177.813	122.950	-73.357	1.00	47.45	O	ATOM	50054	C	ILE R	75	182.362	117.459	-77.955	1.00	60.39	C
ATOM	50005	CB	THR R	69	175.545	125.306	-72.294	1.00	59.22	C	ATOM	50055	O	ILE R	75	182.979	116.693	-78.701	1.00	60.39	O
ATOM	50006	OG1	THR R	69	174.117	125.448	-72.344	1.00	59.22	O	ATOM	50056	CB	ILE R	75	181.025	116.369	-76.151	1.00	63.40	C
ATOM	50007	CG2	THR R	69	176.186	125.915	-73.537	1.00	59.22	C	ATOM	50057	CG1	ILE R	75	181.067	115.884	-74.703	1.00	63.40	C
ATOM	50008	N	ILE R	70	178.215	124.217	-71.549	1.00	53.42	N	ATOM	50058	CG2	ILE R	75	180.928	115.179	-77.098	1.00	63.40	C
ATOM	50009	CA	ILE R	70	179.652	124.103	-71.659	1.00	53.42	C	ATOM	50059	CD1	ILE R	75	180.067	114.784	-74.393	1.00	63.40	C
ATOM	50010	C	ILE R	70	180.124	122.675	-71.900	1.00	53.42	C	ATOM	50060	N	LEU R	76	181.734	118.538	-78.407	1.00	62.38	N
ATOM	50011	O	ILE R	70	181.035	122.450	-72.699	1.00	53.42	O	ATOM	50061	CA	LEU R	76	181.783	118.853	-79.827	1.00	62.38	C
ATOM	50012	CB	ILE R	70	180.320	124.617	-70.404	1.00	53.52	C	ATOM	50062	C	LEU R	76	183.113	119.524	-80.116	1.00	62.38	C
ATOM	50013	CG1	ILE R	70	180.114	126.121	-70.315	1.00	53.52	C	ATOM	50063	O	LEU R	76	183.185	120.454	-80.916	1.00	62.38	O
ATOM	50014	CG2	ILE R	70	181.801	124.283	-70.417	1.00	53.52	C	ATOM	50064	CB	LEU R	76	180.636	119.789	-80.221	1.00	51.20	C
ATOM	50015	CD1	ILE R	70	180.727	126.741	-69.070	1.00	53.52	C	ATOM	50065	CG	LEU R	76	179.238	119.181	-80.121	1.00	51.20	C



Table 2: Sheet 502/520

ATOM	50066	CD1 LEU R	76	178.236	120.079	-80.816	1.00	51.20	C	ATOM	50116	O	GLU R	83	195.498	123.884	-68.395	1.00	58.98	O
ATOM	50067	CD2 LEU R	76	179.241	117.807	-80.755	1.00	51.20	C	ATOM	50117	CB	GLU R	83	193.955	125.357	-70.814	1.00	1005.93	C
ATOM	50068	N GLY R	77	184.164	119.051	-79.456	1.00	59.78	N	ATOM	50118	CG	GLU R	83	192.875	125.511	-71.857	1.00	1005.93	C
ATOM	50069	CA GLY R	77	185.477	119.631	-79.650	1.00	59.78	C	ATOM	50119	CD	GLU R	83	192.518	126.971	-72.083	1.00	1005.93	C
ATOM	50070	C GLY R	77	185.443	121.139	-79.839	1.00	59.78	C	ATOM	50120	OE1	GLU R	83	193.421	127.749	-72.460	1.00	1005.93	O
ATOM	50071	O GLY R	77	186.271	121.693	-80.556	1.00	59.78	O	ATOM	50121	OE2	GLU R	83	191.340	127.348	-71.879	1.00	1005.93	O
ATOM	50072	N LEU R	78	184.500	121.823	-79.207	1.00	55.80	N	ATOM	50122	N	LYS R	84	196.784	124.232	-70.213	1.00	73.51	N
ATOM	50073	CA LEU R	78	184.440	123.263	-79.371	1.00	55.80	C	ATOM	50123	CA	LYS R	84	198.019	124.364	-69.448	1.00	73.51	C
ATOM	50074	C LEU R	78	184.997	124.004	-78.170	1.00	55.80	C	ATOM	50124	C	LYS R	84	198.076	125.770	-68.864	1.00	73.51	C
ATOM	50075	O LEU R	78	185.341	125.185	-78.259	1.00	55.80	O	ATOM	50125	O	LYS R	84	197.643	126.739	-69.501	1.00	73.51	O
ATOM	50076	CB LEU R	78	183.009	123.703	-79.636	1.00	69.03	C	ATOM	50126	CB	LYS R	84	199.234	124.127	-70.343	1.00	1004.35	C
ATOM	50077	CG LEU R	78	182.473	123.111	-80.933	1.00	69.03	C	ATOM	50127	CG	LYS R	84	199.337	122.716	-70.891	1.00	1004.35	C
ATOM	50078	CD1 LEU R	78	181.010	123.490	-81.113	1.00	69.03	C	ATOM	50128	CD	LYS R	84	200.643	122.515	-71.653	1.00	1004.35	C
ATOM	50079	CD2 LEU R	78	183.329	123.601	-82.090	1.00	69.03	C	ATOM	50129	CE	LYS R	84	200.787	121.071	-72.139	1.00	1004.35	C
ATOM	50080	N LEU R	79	185.074	123.317	-77.040	1.00	69.72	N	ATOM	50130	NZ	LYS R	84	202.104	120.813	-72.797	1.00	1004.35	N
ATOM	50081	CA LEU R	79	185.619	123.928	-75.841	1.00	69.72	C	ATOM	50131	N	LEU R	85	198.599	125.879	-67.648	1.00	77.81	N
ATOM	50082	C LEU R	79	186.576	122.961	-75.177	1.00	69.72	C	ATOM	50132	CA	LEU R	85	198.714	127.166	-66.967	1.00	77.81	C
ATOM	50083	O LEU R	79	186.332	121.757	-75.134	1.00	69.72	O	ATOM	50133	C	LEU R	85	200.053	127.820	-67.301	1.00	77.81	C
ATOM	50084	CB LEU R	79	184.504	124.306	-74.875	1.00	60.28	C	ATOM	50134	O	LEU R	85	201.099	127.176	-67.197	1.00	77.81	O
ATOM	50085	CG LEU R	79	183.733	125.577	-75.220	1.00	60.28	C	ATOM	50135	CB	LEU R	85	198.597	126.950	-65.457	1.00	1001.49	C
ATOM	50086	CD1 LEU R	79	182.645	125.828	-74.169	1.00	60.28	C	ATOM	50136	CG	LEU R	85	198.926	128.108	-64.514	1.00	1001.49	C
ATOM	50087	CD2 LEU R	79	184.705	126.743	-75.279	1.00	60.28	C	ATOM	50137	CD1	LEU R	85	198.128	129.344	-64.903	1.00	1001.49	C
ATOM	50088	N PRO R	80	187.680	123.478	-74.637	1.00	45.45	N	ATOM	50138	CD2	LEU R	85	198.617	127.684	-63.083	1.00	1001.49	C
ATOM	50089	CA PRO R	80	188.665	122.626	-73.980	1.00	45.45	C	ATOM	50139	N	VAL R	86	200.019	129.092	-67.696	1.00	117.70	N
ATOM	50090	C PRO R	80	188.157	122.052	-72.661	1.00	45.45	C	ATOM	50140	CA	VAL R	86	201.237	129.821	-68.052	1.00	117.70	C
ATOM	50091	O PRO R	80	187.393	122.707	-71.947	1.00	45.45	O	ATOM	50141	C	VAL R	86	201.751	130.658	-66.873	1.00	117.70	C
ATOM	50092	CB PRO R	80	189.814	123.583	-73.741	1.00	39.53	C	ATOM	50142	O	VAL R	86	201.455	130.326	-65.721	1.00	117.70	O
ATOM	50093	CG PRO R	80	189.081	124.844	-73.341	1.00	39.53	C	ATOM	50143	CB	VAL R	86	200.990	130.724	-69.265	1.00	64.44	C
ATOM	50094	CD PRO R	80	187.981	124.903	-74.399	1.00	39.53	C	ATOM	50144	CG1	VAL R	86	202.314	131.138	-69.883	1.00	64.44	C
ATOM	50095	N PHE R	81	188.576	120.829	-72.345	1.00	68.27	N	ATOM	50145	CG2	VAL R	86	200.141	129.988	-70.282	1.00	64.44	C
ATOM	50096	CA PHE R	81	188.221	120.226	-71.071	1.00	68.27	C	ATOM	50146	N	ARG R	87	202.505	131.731	-67.142	1.00	76.38	N
ATOM	50097	C PHE R	81	189.246	120.765	-70.082	1.00	68.27	C	ATOM	50147	CA	ARG R	87	203.059	132.565	-66.063	1.00	76.38	C
ATOM	50098	O PHE R	81	188.960	120.922	-68.897	1.00	68.27	O	ATOM	50148	C	ARG R	87	203.908	131.644	-65.177	1.00	76.38	C
ATOM	50099	CB PHE R	81	188.367	118.716	-71.095	1.00	57.56	C	ATOM	50149	O	ARG R	87	204.587	130.753	-65.690	1.00	76.38	O
ATOM	50100	CG PHE R	81	187.275	118.009	-71.816	1.00	57.56	C	ATOM	50150	CB	ARG R	87	201.917	133.178	-65.238	1.00	151.27	C
ATOM	50101	CD1 PHE R	81	187.370	117.761	-73.179	1.00	57.56	C	ATOM	50151	CG	ARG R	87	201.595	134.626	-65.572	1.00	151.27	C
ATOM	50102	CD2 PHE R	81	186.169	117.535	-71.123	1.00	57.56	C	ATOM	50152	CD	ARG R	87	202.454	135.558	-64.735	1.00	151.27	C
ATOM	50103	CE1 PHE R	81	186.381	117.045	-73.838	1.00	57.56	C	ATOM	50153	NE	ARG R	87	202.646	136.847	-65.386	1.00	151.27	N
ATOM	50104	CE2 PHE R	81	185.179	116.821	-71.774	1.00	57.56	C	ATOM	50154	CZ	ARG R	87	203.244	136.999	-66.564	1.00	151.27	C
ATOM	50105	CZ PHE R	81	185.284	116.573	-73.132	1.00	57.56	C	ATOM	50155	NH1	ARG R	87	203.703	135.939	-67.217	1.00	151.27	N
ATOM	50106	N THR R	82	190.444	121.052	-70.580	1.00	70.29	N	ATOM	50156	NH2	ARG R	87	203.395	138.210	-67.087	1.00	151.27	N
ATOM	50107	CA THR R	82	191.511	121.548	-69.729	1.00	70.29	C	ATOM	50157	N	LYS R	88	203.871	131.854	-63.860	1.00	120.95	N
ATOM	50108	C THR R	82	192.604	122.265	-70.528	1.00	70.29	C	ATOM	50158	CA	LYS R	88	204.598	130.998	-62.912	1.00	120.95	C
ATOM	50109	O THR R	82	192.781	122.003	-71.711	1.00	70.29	O	ATOM	50159	C	LYS R	88	206.123	131.159	-62.876	1.00	120.95	C
ATOM	50110	CB THR R	82	192.127	120.377	-68.946	1.00	85.43	C	ATOM	50160	O	LYS R	88	206.641	132.067	-63.559	1.00	120.95	O
ATOM	50111	OG1 THR R	82	193.211	120.845	-68.134	1.00	85.43	O	ATOM	50161	CB	LYS R	88	204.237	129.531	-63.187	1.00	85.02	C
ATOM	50112	CG2 THR R	82	192.635	119.325	-69.906	1.00	85.43	C	ATOM	50162	CG	LYS R	88	204.802	128.541	-62.202	1.00	85.02	C
ATOM	50113	N GLU R	83	193.329	123.170	-69.874	1.00	58.98	N	ATOM	50163	CD	LYS R	88	204.230	127.174	-62.477	1.00	85.02	C
ATOM	50114	CA GLU R	83	194.399	123.925	-70.518	1.00	58.98	C	ATOM	50164	CE	LYS R	88	204.590	126.222	-61.359	1.00	85.02	C
ATOM	50115	C GLU R	83	195.616	124.005	-69.614	1.00	58.98	C	ATOM	50165	NZ	LYS R	88	203.928	124.906	-61.565	1.00	85.02	N



Table 2: Sheet 503/520

ATOM	50166	OXT	LYS R	88	206.788	130.382	-62.151	1.00137.25	O	ATOM	50216	CE	LYS S	7	258.366	124.225	29.798	1.00	58.77	C
TER	50167		LYS R	88						ATOM	50217	N2	LYS S	7	257.199	125.179	29.816	1.00	58.77	N
ATOM	50168	N	PRO S	2	256.505	112.416	15.906	1.00135.32	N	ATOM	50218		GLY S	8	257.321	117.836	31.720	1.00	79.27	N
ATOM	50169	CA	PRO S	2	256.644	113.837	16.306	1.00135.32	C	ATOM	50219	CA	GLY S	8	256.524	117.249	32.780	1.00	79.27	C
ATOM	50170	C	PRO S	2	255.641	114.217	17.394	1.00135.32	C	ATOM	50220	C	GLY S	8	255.977	115.868	32.447	1.00	79.27	C
ATOM	50171	O	PRO S	2	254.880	115.174	17.239	1.00135.32	O	ATOM	50221	O	GLY S	8	255.103	115.370	33.161	1.00	79.27	O
ATOM	50172	CB	PRO S	2	256.428	114.671	15.049	1.00125.89	C	ATOM	50222	CA	VAL S	9	256.494	115.254	31.379	1.00	68.50	N
ATOM	50173	CG	PRO S	2	255.568	113.735	14.201	1.00125.89	C	ATOM	50223	N	VAL S	9	256.066	113.920	30.912	1.00	68.50	C
ATOM	50174	CD	PRO S	2	256.122	112.329	14.484	1.00125.89	C	ATOM	50224	C	VAL S	9	255.092	113.178	31.832	1.00	68.50	C
ATOM	50175	N	ARG S	3	255.652	113.467	18.495	1.00200.57	N	ATOM	50225	O	VAL S	9	255.454	112.214	32.498	1.00	68.50	O
ATOM	50176	CA	ARG S	3	254.738	113.702	19.613	1.00200.57	C	ATOM	50226	CB	VAL S	9	257.277	113.008	30.657	1.00	87.24	C
ATOM	50177	C	ARG S	3	255.092	114.963	20.405	1.00200.57	C	ATOM	50227	CG1	VAL S	9	256.818	111.684	30.080	1.00	87.24	C
ATOM	50178	O	ARG S	3	256.108	115.605	20.137	1.00200.57	O	ATOM	50228	CG2	VAL S	9	258.242	113.694	29.705	1.00	87.24	C
ATOM	50179	CB	ARG S	3	254.733	112.483	20.544	1.00179.34	C	ATOM	50229	N	PHE S	10	253.843	113.632	31.810	1.00	65.60	N
ATOM	50180	CG	ARG S	3	254.465	111.168	19.821	1.00179.34	C	ATOM	50230	CA	PHE S	10	252.731	113.128	32.620	1.00	65.60	C
ATOM	50181	CD	ARG S	3	254.331	109.994	20.782	1.00179.34	C	ATOM	50231	C	PHE S	10	252.554	111.633	32.919	1.00	65.60	C
ATOM	50182	NE	ARG S	3	254.153	108.731	20.066	1.00179.34	N	ATOM	50232	O	PHE S	10	252.728	110.774	32.052	1.00	65.60	O
ATOM	50183	C2	ARG S	3	253.880	107.566	20.647	1.00179.34	C	ATOM	50233	CB	PHE S	10	251.432	113.650	32.016	1.00	73.38	C
ATOM	50184	NH1	ARG S	3	253.747	107.490	21.965	1.00179.34	N	ATOM	50234	CG	PHE S	10	250.243	113.510	32.915	1.00	73.38	C
ATOM	50185	NH2	ARG S	3	253.737	106.472	19.908	1.00179.34	N	ATOM	50235	CD1	PHE S	10	249.726	114.620	33.572	1.00	73.38	C
ATOM	50186	N	SER S	4	254.249	115.314	21.377	1.00117.31	C	ATOM	50236	CD2	PHE S	10	249.619	112.277	33.085	1.00	73.38	C
ATOM	50187	CA	SER S	4	254.478	116.504	22.191	1.00117.31	C	ATOM	50237	CE1	PHE S	10	248.604	114.505	34.381	1.00	73.38	C
ATOM	50188	C	SER S	4	253.958	116.426	23.622	1.00117.31	C	ATOM	50238	CE2	PHE S	10	248.499	112.150	33.891	1.00	73.38	C
ATOM	50189	O	SER S	4	252.982	115.737	23.907	1.00117.31	O	ATOM	50239	CZ	PHE S	10	247.988	113.263	34.540	1.00	73.38	C
ATOM	50190	CB	SER S	4	253.859	117.727	21.529	1.00	81.70	ATOM	50240	N	VAL S	11	252.171	111.356	34.167	1.00	97.22	N
ATOM	50191	OG	SER S	4	253.799	118.799	22.456	1.00	83.95	ATOM	50241	CA	VAL S	11	251.897	110.003	34.658	1.00	97.22	C
ATOM	50192	N	LEU S	5	254.614	117.168	24.508	1.00	83.95	ATOM	50242	C	VAL S	11	250.922	110.076	35.833	1.00	97.22	C
ATOM	50193	CA	LEU S	5	254.270	117.212	25.920	1.00	83.95	ATOM	50243	O	VAL S	11	251.175	110.782	36.810	1.00	97.22	O
ATOM	50194	C	LEU S	5	254.843	118.491	26.509	1.00	83.95	ATOM	50244	CB	VAL S	11	253.162	109.279	35.170	1.00	68.01	C
ATOM	50195	O	LEU S	5	254.108	119.260	27.110	1.00	83.95	ATOM	50245	CG1	VAL S	11	252.791	107.862	35.611	1.00	68.01	C
ATOM	50196	CB	LEU S	5	254.860	116.006	26.660	1.00166.75	C	ATOM	50246	CG2	VAL S	11	254.233	109.244	34.087	1.00	68.01	C
ATOM	50197	CG	LEU S	5	254.354	114.605	26.304	1.00166.75	C	ATOM	50247	N	ASP S	12	249.807	109.355	35.733	1.00	104.35	N
ATOM	50198	CD1	LEU S	5	255.153	113.559	27.064	1.00166.75	C	ATOM	50248	CA	ASP S	12	248.815	109.340	36.806	1.00	104.35	C
ATOM	50199	CD2	LEU S	5	252.881	114.494	26.641	1.00166.75	C	ATOM	50249	C	ASP S	12	249.399	108.584	37.986	1.00	104.35	C
ATOM	50200	N	LYS S	6	256.155	118.691	26.339	1.00114.86	N	ATOM	50250	O	ASP S	12	249.685	107.392	37.896	1.00	104.35	O
ATOM	50201	CA	LYS S	6	256.894	119.874	26.818	1.00114.86	C	ATOM	50251	CB	ASP S	12	247.522	108.650	36.360	1.00	186.08	C
ATOM	50202	C	LYS S	6	257.902	119.648	27.949	1.00114.86	C	ATOM	50252	CG	ASP S	12	246.791	109.414	35.274	1.00	186.08	C
ATOM	50203	O	LYS S	6	259.082	119.365	27.714	1.00114.86	O	ATOM	50253	OD1	ASP S	12	247.321	109.506	34.148	1.00	186.08	O
ATOM	50204	CB	LYS S	6	255.933	120.982	27.253	1.00	71.13	ATOM	50254	OD2	ASP S	12	245.682	109.921	35.546	1.00	186.08	O
ATOM	50205	CG	LYS S	6	255.326	121.763	26.118	1.00	71.13	ATOM	50255	CA	ASP S	13	249.571	109.279	39.099	1.00	96.71	N
ATOM	50206	CD	LYS S	6	254.099	122.536	26.581	1.00	71.13	ATOM	50256	N	ASP S	13	250.139	108.656	40.278	1.00	96.72	C
ATOM	50207	CE	LYS S	6	252.892	121.610	26.818	1.00	71.13	ATOM	50257	C	ASP S	13	249.310	107.519	40.849	1.00	96.72	C
ATOM	50208	N2	LYS S	6	251.628	122.344	27.147	1.00	71.13	ATOM	50258	O	ASP S	13	249.628	107.011	41.918	1.00	96.72	O
ATOM	50209	N	LYS S	7	257.421	119.808	29.178	1.00	98.51	ATOM	50259	CB	ASP S	13	250.405	109.713	41.347	1.00	137.61	C
ATOM	50210	CA	LYS S	7	258.234	119.654	30.377	1.00	98.51	ATOM	50260	CG	ASP S	13	249.316	110.752	41.414	1.00	137.93	C
ATOM	50211	C	LYS S	7	257.356	119.155	31.542	1.00	98.51	ATOM	50261	OD1	ASP S	13	249.527	111.784	42.085	1.00	138.63	O
ATOM	50212	O	LYS S	7	256.716	119.941	32.246	1.00	98.51	ATOM	50262	OD2	ASP S	13	248.251	110.536	40.796	1.00	138.53	O
ATOM	50213	CB	LYS S	7	258.875	121.000	30.716	1.00	58.77	ATOM	50263	N	HIS S	14	248.249	107.116	40.150	1.00	117.30	N
ATOM	50214	CG	LYS S	7	257.867	122.082	31.048	1.00	58.77	ATOM	50264	CA	HIS S	14	247.437	105.992	40.621	1.00	117.35	C
ATOM	50215	CD	LYS S	7	258.515	123.453	31.108	1.00	58.77	ATOM	50265	C	HIS S	14	248.423	104.847	40.674	1.00	117.31	C



ATOM	50266	O	HIS S	14	248.732	104.304	41.733	1.00117.37	O	ATOM	50316	C	LEU S	20	257.256	101.541	44.182	1.00138.60	C
ATOM	50267	CB	HIS S	14	246.355	105.576	39.615	1.00121.82	C	ATOM	50317	O	LEU S	20	258.303	101.189	44.734	1.00138.65	O
ATOM	50268	CG	HIS S	14	245.384	106.654	39.268	1.00121.95	C	ATOM	50318	CB	LEU S	20	257.555	103.814	43.135	1.00112.12	C
ATOM	50269	ND1	HIS S	14	244.605	107.287	40.211	1.00122.74	N	ATOM	50319	CG	LEU S	20	256.411	104.635	43.732	1.00112.99	C
ATOM	50270	CD2	HIS S	14	245.047	107.195	38.075	1.00122.52	C	ATOM	50320	CD1	LEU S	20	256.320	104.406	45.239	1.00113.64	C
ATOM	50271	CE1	HIS S	14	243.831	108.174	39.613	1.00122.68	C	ATOM	50321	CD2	LEU S	20	256.656	106.104	43.436	1.00113.70	C
ATOM	50272	NE2	HIS S	14	244.079	108.139	38.316	1.00122.39	N	ATOM	50322	N	GLU S	21	256.048	101.270	44.672	1.00119.16	N
ATOM	50273	N	LEU S	15	248.909	104.501	39.488	1.00103.56	N	ATOM	50323	CA	GLU S	21	255.875	100.499	45.896	1.00119.19	C
ATOM	50274	CA	LEU S	15	249.854	103.418	39.313	1.00103.59	C	ATOM	50324	C	GLU S	21	256.156	99.043	45.562	1.00119.19	C
ATOM	50275	C	LEU S	15	251.295	103.835	39.544	1.00103.51	C	ATOM	50325	O	GLU S	21	256.714	98.307	46.372	1.00119.25	O
ATOM	50276	O	LEU S	15	252.140	102.994	39.833	1.00103.52	O	ATOM	50326	CB	GLU S	21	254.451	100.638	46.433	1.00198.40	C
ATOM	50277	CB	LEU S	15	249.701	102.811	37.911	1.00108.28	C	ATOM	50327	CG	GLU S	21	254.133	102.004	47.004	1.00198.89	C
ATOM	50278	CG	LEU S	15	249.450	103.718	36.699	1.00108.33	C	ATOM	50328	CD	GLU S	21	252.756	102.058	47.634	1.00199.75	C
ATOM	50279	CD1	LEU S	15	250.508	104.796	36.583	1.00108.45	C	ATOM	50329	OE1	GLU S	21	252.498	101.269	48.568	1.00200.27	O
ATOM	50280	CD2	LEU S	15	249.439	102.856	35.457	1.00108.46	C	ATOM	50330	OE2	GLU S	21	251.930	102.886	47.199	1.00200.25	O
ATOM	50281	N	LEU S	16	251.590	105.122	39.417	1.0093.54	N	ATOM	50331	N	LEU S	22	255.764	98.631	44.360	1.00116.62	N
ATOM	50282	CA	LEU S	16	252.961	105.554	39.631	1.0093.56	C	ATOM	50332	CA	LEU S	22	255.993	97.264	43.910	1.00116.66	C
ATOM	50283	C	LEU S	16	253.348	105.227	41.062	1.0093.54	C	ATOM	50333	C	LEU S	22	257.486	97.016	43.745	1.00116.67	C
ATOM	50284	O	LEU S	16	254.159	104.330	41.297	1.0093.58	O	ATOM	50334	O	LEU S	22	257.974	95.918	44.014	1.00116.74	O
ATOM	50285	CB	LEU S	16	253.122	107.053	39.372	1.0084.69	C	ATOM	50335	CB	LEU S	22	255.286	97.010	42.579	1.00162.38	C
ATOM	50286	CG	LEU S	16	254.562	107.581	39.435	1.0084.73	C	ATOM	50336	CG	LEU S	22	253.778	96.778	42.641	1.00162.60	C
ATOM	50287	CD1	LEU S	16	255.495	106.697	38.612	1.0085.01	C	ATOM	50337	CD1	LEU S	22	253.210	96.733	41.235	1.00163.51	C
ATOM	50288	CD2	LEU S	16	254.586	109.015	38.924	1.00105.08	C	ATOM	50338	CD2	LEU S	22	253.497	95.479	43.381	1.00163.14	C
ATOM	50289	N	GLU S	17	252.762	105.936	42.023	1.00105.52	N	ATOM	50339	N	ASN S	23	258.207	98.040	43.294	1.00123.32	N
ATOM	50290	CA	GLU S	17	253.079	105.669	43.418	1.00105.64	C	ATOM	50340	CA	ASN S	23	259.648	97.925	43.105	1.00123.36	C
ATOM	50291	C	GLU S	17	252.807	104.190	43.660	1.00105.63	C	ATOM	50341	C	ASN S	23	260.307	97.654	44.451	1.00123.40	C
ATOM	50292	O	GLU S	17	253.426	103.565	44.516	1.00105.72	O	ATOM	50342	O	ASN S	23	261.140	96.757	44.572	1.00123.46	O
ATOM	50293	CB	GLU S	17	252.217	106.524	44.349	1.00116.91	C	ATOM	50343	CB	ASN S	23	260.221	99.211	42.502	1.00115.68	C
ATOM	50294	CG	GLU S	17	250.847	105.943	44.652	1.00117.17	C	ATOM	50344	CG	ASN S	23	259.611	99.546	41.158	1.00115.72	C
ATOM	50295	CD	GLU S	17	250.046	106.803	45.618	1.00117.11	C	ATOM	50345	OD1	ASN S	23	259.461	98.678	40.302	1.00115.88	O
ATOM	50296	OE1	GLU S	17	248.970	106.346	46.066	1.00117.70	O	ATOM	50346	ND2	ASN S	23	259.267	100.813	40.962	1.00115.69	N
ATOM	50297	OE2	GLU S	17	250.489	107.936	45.923	1.00117.91	O	ATOM	50347	N	ALA S	24	259.924	98.431	45.460	1.00110.59	N
ATOM	50298	N	LYS S	18	251.886	103.635	42.880	1.0085.02	N	ATOM	50348	CA	ALA S	24	260.467	98.267	46.801	1.00110.66	C
ATOM	50299	CA	LYS S	18	251.519	102.229	42.988	1.0085.04	C	ATOM	50349	C	ALA S	24	260.473	96.795	47.211	1.00110.74	C
ATOM	50300	C	LYS S	18	252.575	101.298	42.409	1.0085.04	C	ATOM	50350	O	ALA S	24	261.304	96.372	48.014	1.00110.81	O
ATOM	50301	O	LYS S	18	252.667	100.142	42.810	1.0085.08	O	ATOM	50351	CB	ALA S	24	259.653	99.076	47.791	1.0093.96	C
ATOM	50302	CB	LYS S	18	250.190	101.971	42.272	1.0097.14	C	ATOM	50352	N	LYS S	25	259.542	96.022	46.656	1.00122.73	N
ATOM	50303	CG	LYS S	18	249.866	100.496	42.069	1.0097.26	C	ATOM	50353	CA	LYS S	25	259.441	94.595	46.952	1.00122.84	C
ATOM	50304	CD	LYS S	18	248.570	100.288	41.293	1.0098.21	C	ATOM	50354	C	LYS S	25	259.637	93.761	45.683	1.00122.83	C
ATOM	50305	CE	LYS S	18	247.355	100.806	42.060	1.0098.87	C	ATOM	50355	O	LYS S	25	260.750	93.649	45.174	1.00122.95	O
ATOM	50306	NZ	LYS S	18	246.060	100.446	41.401	1.0099.78	N	ATOM	50356	CB	LYS S	25	258.076	94.264	47.568	1.00148.21	C
ATOM	50307	N	VAL S	19	253.367	101.796	41.466	1.00126.70	N	ATOM	50357	CB	LYS S	25	257.734	95.016	48.849	1.00148.84	C
ATOM	50308	CA	VAL S	19	254.387	100.970	40.834	1.00126.74	C	ATOM	50358	CD	LYS S	25	257.405	96.477	48.578	1.00149.69	C
ATOM	50309	C	VAL S	19	255.708	101.008	41.585	1.00126.74	C	ATOM	50359	CE	LYS S	25	256.817	97.155	49.807	1.00150.52	C
ATOM	50310	O	VAL S	19	256.406	99.999	41.670	1.00126.78	O	ATOM	50360	NZ	LYS S	25	257.737	97.106	50.978	1.00151.48	N
ATOM	50311	CB	VAL S	19	254.630	101.396	39.364	1.00113.48	C	ATOM	50361	CA	GLY S	26	258.549	93.187	45.174	1.00103.78	N
ATOM	50312	CG1	VAL S	19	255.392	102.713	39.304	1.00113.88	C	ATOM	50362	N	GLY S	26	258.633	92.363	43.980	1.00103.86	C
ATOM	50313	CG2	VAL S	19	255.383	100.310	38.634	1.00113.84	C	ATOM	50363	C	GLY S	26	257.720	92.785	42.840	1.00103.94	C
ATOM	50314	N	LEU S	20	256.048	102.172	42.129	1.00138.58	N	ATOM	50364	O	GLY S	26	257.345	93.954	42.728	1.00104.06	O
ATOM	50315	CA	LEU S	20	257.292	102.328	42.873	1.00138.62	C	ATOM	50365	N	GLU S	27	257.358	91.823	41.992	1.00104.04	N



Table 2: Sheet 505/520

ATOM	50366	CA	GLU	S	27	256.500	92.082	40.836	1.00104.04	C	ATOM	50416	CD	LYS	S	32	241.563	95.539	38.359	1.00117.16	C
ATOM	50367	C	GLU	S	27	255.109	91.467	40.988	1.00104.04	C	ATOM	50417	CE	LYS	S	32	241.610	94.078	37.920	1.00117.16	C
ATOM	50368	O	GLU	S	27	254.957	90.244	40.997	1.00104.04	O	ATOM	50418	NZ	LYS	S	32	240.321	93.366	38.147	1.00117.16	N
ATOM	50369	CB	GLU	S	27	257.155	91.530	39.564	1.00138.52	C	ATOM	50419	N	THR	S	33	244.622	99.001	35.448	1.00106.68	N
ATOM	50370	CG	GLU	S	27	258.625	91.894	39.400	1.00138.52	C	ATOM	50420	CA	THR	S	33	244.573	100.456	35.499	1.00106.68	C
ATOM	50371	CD	GLU	S	27	258.868	93.393	39.423	1.00138.52	C	ATOM	50421	C	THR	S	33	243.622	101.015	34.449	1.00106.68	C
ATOM	50372	OE1	GLU	S	27	258.312	94.097	38.556	1.00138.52	O	ATOM	50422	O	THR	S	33	243.250	100.335	33.492	1.00106.68	O
ATOM	50373	OE2	GLU	S	27	259.617	93.867	40.305	1.00138.52	O	ATOM	50423	CB	THR	S	33	245.961	101.084	35.252	1.00103.66	C
ATOM	50374	N	LYS	S	28	254.094	92.316	41.103	1.00123.50	N	ATOM	50424	OG1	THR	S	33	246.932	100.443	36.083	1.00103.66	O
ATOM	50375	CA	LYS	S	28	252.728	91.828	41.239	1.00123.50	C	ATOM	50425	CG2	THR	S	33	245.941	102.565	35.594	1.00103.66	C
ATOM	50376	C	LYS	S	28	252.121	91.525	39.873	1.00123.50	C	ATOM	50426	N	TRP	S	34	243.232	102.266	34.656	1.00103.66	N
ATOM	50377	O	LYS	S	28	251.910	92.425	39.054	1.00123.50	O	ATOM	50427	CA	TRP	S	34	242.350	102.981	33.752	1.00 88.67	C
ATOM	50378	CB	LYS	S	28	251.848	92.849	41.965	1.00131.86	C	ATOM	50428	C	TRP	S	34	243.116	104.208	33.286	1.00 88.67	C
ATOM	50379	CG	LYS	S	28	250.409	92.377	42.138	1.00131.86	C	ATOM	50429	O	TRP	S	34	242.607	105.022	32.515	1.00 88.67	O
ATOM	50380	CD	LYS	S	28	249.518	93.436	42.757	1.00131.86	C	ATOM	50430	CB	TRP	S	34	241.076	103.402	34.481	1.00 92.04	C
ATOM	50381	CE	LYS	S	28	248.087	92.932	42.854	1.00131.86	C	ATOM	50431	CG	TRP	S	34	240.009	102.356	34.467	1.00 92.04	C
ATOM	50382	NZ	LYS	S	28	247.166	93.966	43.392	1.00131.86	N	ATOM	50432	CD1	TRP	S	34	239.029	102.204	33.534	1.00 92.04	C
ATOM	50383	N	ARG	S	29	251.840	90.246	39.642	1.00200.58	N	ATOM	50433	CD2	TRP	S	34	239.827	101.302	35.417	1.00 92.04	C
ATOM	50384	CA	ARG	S	29	251.254	89.795	38.387	1.00200.58	C	ATOM	50434	NE1	TRP	S	34	238.244	101.121	33.843	1.00 92.04	N
ATOM	50385	C	ARG	S	29	250.008	90.607	38.052	1.00200.58	C	ATOM	50435	CE2	TRP	S	34	238.713	100.549	34.994	1.00 92.04	C
ATOM	50386	O	ARG	S	29	248.992	90.520	38.742	1.00200.58	O	ATOM	50436	CE3	TRP	S	34	240.497	100.921	36.585	1.00 92.04	C
ATOM	50387	CB	ARG	S	29	250.896	88.309	38.481	1.00200.58	C	ATOM	50437	CZ2	TRP	S	34	238.252	99.436	35.698	1.00 92.04	C
ATOM	50388	CG	ARG	S	29	252.073	87.416	38.848	1.00200.58	C	ATOM	50438	CZ3	TRP	S	34	240.039	99.814	37.284	1.00 92.04	C
ATOM	50389	CD	ARG	S	29	251.641	85.976	39.075	1.00200.58	C	ATOM	50439	CH2	TRP	S	34	238.927	99.085	36.838	1.00 92.04	C
ATOM	50390	NE	ARG	S	29	252.751	85.148	39.542	1.00200.58	N	ATOM	50440	N	SER	S	35	244.350	104.334	33.769	1.00105.26	N
ATOM	50391	CZ	ARG	S	29	252.639	83.868	39.882	1.00200.58	N	ATOM	50441	CA	SER	S	35	245.192	105.461	33.405	1.00105.26	C
ATOM	50392	NH1	ARG	S	29	251.462	83.260	39.809	1.00200.58	N	ATOM	50442	C	SER	S	35	245.839	105.057	32.059	1.00105.26	C
ATOM	50393	NH2	ARG	S	29	253.703	83.196	40.299	1.00200.58	N	ATOM	50443	O	SER	S	35	247.058	105.097	31.929	1.00105.26	O
ATOM	50394	N	LEU	S	30	250.104	91.402	36.992	1.00116.81	N	ATOM	50444	CB	SER	S	35	246.266	105.705	34.459	1.00102.14	C
ATOM	50395	CA	LEU	S	30	248.998	92.235	36.539	1.00116.81	C	ATOM	50445	OG	SER	S	35	246.956	106.905	34.170	1.00102.14	O
ATOM	50396	C	LEU	S	30	248.701	93.363	37.514	1.00116.81	C	ATOM	50446	N	ARG	S	36	244.983	105.096	31.059	1.00 77.81	N
ATOM	50397	O	LEU	S	30	248.777	93.191	38.728	1.00116.81	O	ATOM	50447	CA	ARG	S	36	245.385	104.871	29.685	1.00 77.81	C
ATOM	50398	CB	LEU	S	30	247.739	91.385	36.332	1.00138.42	C	ATOM	50448	C	ARG	S	36	246.279	106.031	29.274	1.00 77.81	C
ATOM	50399	CG	LEU	S	30	247.874	90.174	35.404	1.00138.42	C	ATOM	50449	O	ARG	S	36	247.156	105.919	28.425	1.00 77.81	O
ATOM	50400	CD1	LEU	S	30	246.533	89.466	35.288	1.00138.42	C	ATOM	50450	CB	ARG	S	36	244.110	104.826	28.839	1.00 85.13	C
ATOM	50401	CD2	LEU	S	30	248.359	90.620	34.037	1.00138.42	C	ATOM	50451	CG	ARG	S	36	244.199	104.087	27.548	1.00 85.13	C
ATOM	50402	N	ILE	S	31	248.367	94.519	36.956	1.00111.00	N	ATOM	50452	CD	ARG	S	36	242.883	104.187	26.816	1.00 85.13	C
ATOM	50403	CA	ILE	S	31	248.043	95.710	37.725	1.00111.00	C	ATOM	50453	NE	ARG	S	36	243.052	103.770	25.435	1.00 85.13	N
ATOM	50404	C	ILE	S	31	247.011	96.470	36.911	1.00111.00	C	ATOM	50454	CG	ARG	S	36	243.352	102.530	25.070	1.00 85.13	C
ATOM	50405	O	ILE	S	31	247.355	97.367	36.145	1.00111.00	O	ATOM	50455	NH1	ARG	S	36	243.502	101.587	25.989	1.00 85.13	N
ATOM	50406	CB	ILE	S	31	249.288	96.603	37.920	1.00 83.81	C	ATOM	50456	NH2	ARG	S	36	243.528	102.235	23.791	1.00 85.13	N
ATOM	50407	CG1	ILE	S	31	250.338	95.844	38.727	1.00 83.81	C	ATOM	50457	N	ARG	S	37	246.045	107.194	29.916	1.00 82.19	N
ATOM	50408	CG2	ILE	S	31	248.906	97.908	38.621	1.00 83.81	C	ATOM	50458	CA	ARG	S	37	246.768	108.441	29.666	1.00 82.19	C
ATOM	50409	CD1	ILE	S	31	249.855	95.423	40.104	1.00 83.81	C	ATOM	50459	C	ARG	S	37	248.192	108.523	30.208	1.00 82.19	C
ATOM	50410	N	LYS	S	32	245.744	96.101	37.069	1.00102.03	N	ATOM	50460	O	ARG	S	37	248.896	109.488	29.915	1.00 82.19	O
ATOM	50411	CA	LYS	S	32	244.673	96.746	36.322	1.00102.03	C	ATOM	50461	CB	ARG	S	37	245.979	109.619	30.249	1.00200.58	C
ATOM	50412	C	LYS	S	32	244.624	98.251	36.550	1.00102.03	C	ATOM	50462	CG	ARG	S	37	244.733	110.013	29.480	1.00200.58	C
ATOM	50413	O	LYS	S	32	244.594	98.717	37.691	1.00102.03	O	ATOM	50463	CD	ARG	S	37	245.090	110.752	28.201	1.00200.58	C
ATOM	50414	CB	LYS	S	32	243.319	96.116	36.672	1.00117.16	C	ATOM	50464	NE	ARG	S	37	243.903	111.218	27.487	1.00200.58	N
ATOM	50415	CG	LYS	S	32	242.904	96.224	38.131	1.00117.16	C	ATOM	50465	CZ	ARG	S	37	243.936	111.927	26.363	1.00200.58	C



Table 2: Sheet 506/520

ATOM	50466	NH1	ARG	S	37	245.100	112.258	25.821	1.00200.58	N	50516	CB	MET	S	44	256.313	101.258	34.016	1.00	99.71	C	
ATOM	50467	NH2	ARG	S	37	242.807	112.303	25.777	1.00200.58	N	50517	CG	MET	S	44	255.666	102.444	34.705	1.00	99.71	C	
ATOM	50468	N	SER	S	38	248.613	107.536	30.996	1.00	87.47	N	50518	SD	MET	S	44	254.553	103.379	33.636	1.00	99.71	S
ATOM	50469	CA	SER	S	38	249.954	107.533	31.601	1.00	87.47	C	50519	CE	MET	S	44	253.513	104.207	34.860	1.00	99.71	C
ATOM	50470	C	SER	S	38	251.124	107.323	30.649	1.00	87.47	C	50520	N	VAL	S	45	258.974	99.478	33.509	1.00	77.87	N
ATOM	50471	O	SER	S	38	251.026	106.553	29.701	1.00	87.47	O	50521	CA	VAL	S	45	259.604	98.404	32.748	1.00	77.87	C
ATOM	50472	CB	SER	S	38	250.038	106.460	32.691	1.00102.31	C	50522	C	VAL	S	45	259.623	97.138	33.579	1.00	77.87	C	
ATOM	50473	OG	SER	S	38	249.279	106.816	33.829	1.00102.31	O	50523	O	VAL	S	45	259.672	97.203	34.801	1.00	77.87	C	
ATOM	50474	N	THR	S	39	252.236	108.006	30.912	1.00	82.49	N	50524	CB	VAL	S	45	261.057	98.749	32.347	1.00	63.10	C
ATOM	50475	CA	THR	S	39	253.429	107.842	30.087	1.00	82.49	C	50525	CG1	VAL	S	45	261.708	97.551	31.681	1.00	63.10	C
ATOM	50476	C	THR	S	39	254.253	106.728	30.707	1.00	82.49	C	50526	CG2	VAL	S	45	261.073	99.937	31.398	1.00	63.10	C
ATOM	50477	O	THR	S	39	254.446	106.706	31.921	1.00	82.49	O	50527	N	GLY	S	46	259.569	95.991	32.911	1.00	84.39	N
ATOM	50478	CB	THR	S	39	254.324	109.087	30.075	1.00	76.17	C	50528	CA	GLY	S	46	259.586	94.722	33.613	1.00	84.39	C
ATOM	50479	OG1	THR	S	39	253.655	110.171	29.418	1.00	76.17	O	50529	C	GLY	S	46	258.247	94.329	34.205	1.00	84.39	C
ATOM	50480	CG2	THR	S	39	255.622	108.777	29.348	1.00	76.17	C	50530	O	GLY	S	46	257.910	93.144	34.238	1.00	84.39	O
ATOM	50481	N	ILE	S	40	254.747	105.807	29.888	1.00	89.09	N	50531	N	HIS	S	47	257.484	95.316	34.673	1.00	94.18	N
ATOM	50482	CA	ILE	S	40	255.550	104.719	30.424	1.00	89.09	C	50532	CA	HIS	S	47	256.175	95.067	35.273	1.00	94.18	C
ATOM	50483	C	ILE	S	40	256.941	105.207	30.807	1.00	89.09	C	50533	C	HIS	S	47	255.170	94.502	34.277	1.00	94.18	C
ATOM	50484	O	ILE	S	40	257.577	105.958	30.065	1.00	89.09	O	50534	O	HIS	S	47	255.546	94.052	33.195	1.00	94.18	O
ATOM	50485	CB	ILE	S	40	255.694	103.566	29.419	1.00	65.02	C	50535	CB	HIS	S	47	255.618	96.354	35.870	1.00	100.23.50	C
ATOM	50486	CG1	ILE	S	40	254.357	102.828	29.284	1.00	65.02	C	50536	CG	HIS	S	47	256.282	96.765	37.145	1.00	100.23.50	C
ATOM	50487	CG2	ILE	S	40	256.794	102.630	29.876	1.00	65.02	C	50537	ND1	HIS	S	47	256.233	95.998	38.289	1.00	100.23.50	N
ATOM	50488	CD1	ILE	S	40	254.397	101.599	28.394	1.00	65.02	C	50538	CD2	HIS	S	47	256.990	97.873	37.464	1.00	100.23.50	C
ATOM	50489	N	VAL	S	41	257.404	104.769	31.974	1.00	99.15	N	50539	CE1	HIS	S	47	256.881	96.617	39.259	1.00	100.23.50	C
ATOM	50490	CA	VAL	S	41	258.717	105.147	32.480	1.00	99.15	C	50540	NE2	HIS	S	47	257.349	97.758	38.785	1.00	100.23.50	N
ATOM	50491	C	VAL	S	41	259.522	103.905	32.884	1.00	99.15	C	50541	N	THR	S	48	253.891	94.531	34.644	1.00	100.102.95	N
ATOM	50492	O	VAL	S	41	258.949	102.858	33.200	1.00	99.15	O	50542	CA	THR	S	48	252.840	94.018	33.771	1.00	100.102.95	C
ATOM	50493	CB	VAL	S	41	258.580	106.105	33.685	1.00	72.07	C	50543	C	THR	S	48	251.509	94.715	34.010	1.00	100.102.95	C
ATOM	50494	CG1	VAL	S	41	258.019	107.439	33.720	1.00	72.07	C	50544	O	THR	S	48	250.573	94.106	34.525	1.00	100.102.95	O
ATOM	50495	CG2	VAL	S	41	257.659	105.501	34.732	1.00	72.07	C	50545	CB	THR	S	48	252.627	92.515	33.986	1.00	82.69	C
ATOM	50496	N	PRO	S	42	260.866	104.013	32.877	1.00122.80	N	50546	OG1	THR	S	48	253.889	91.839	33.915	1.00	82.69	O	
ATOM	50497	CA	PRO	S	42	261.800	102.934	33.226	1.00122.80	C	50547	CG2	THR	S	48	251.702	91.958	32.922	1.00	82.69	C	
ATOM	50498	C	PRO	S	42	261.321	102.007	34.333	1.00122.80	C	50548	N	ILE	S	49	251.426	95.987	33.629	1.00	88.04	N	
ATOM	50499	O	PRO	S	42	261.347	100.789	34.189	1.00122.80	O	50549	CA	ILE	S	49	250.202	96.763	33.808	1.00	88.04	C	
ATOM	50500	CB	PRO	S	42	263.056	103.694	33.615	1.00	91.43	C	50550	C	ILE	S	49	249.091	96.360	32.838	1.00	88.04	C
ATOM	50501	CG	PRO	S	42	263.047	104.814	32.642	1.00	91.43	C	50551	O	ILE	S	49	249.315	96.254	31.631	1.00	88.04	O
ATOM	50502	CD	PRO	S	42	261.602	105.277	32.675	1.00	91.43	C	50552	CB	ILE	S	49	250.468	98.271	33.627	1.00	86.47	C
ATOM	50503	N	GLU	S	43	260.898	102.590	35.444	1.00	92.56	N	50553	CG1	ILE	S	49	251.402	98.774	34.728	1.00	86.47	C
ATOM	50504	CA	GLU	S	43	260.406	101.810	36.569	1.00	92.56	C	50554	CG2	ILE	S	49	249.152	99.035	33.637	1.00	86.47	C
ATOM	50505	C	GLU	S	43	259.338	100.828	36.106	1.00	92.56	C	50555	CD1	ILE	S	49	251.624	100.276	34.711	1.00	86.47	C
ATOM	50506	O	GLU	S	43	259.429	99.630	36.368	1.00	92.56	O	50556	N	ALA	S	50	247.891	96.144	33.371	1.00	87.09	N
ATOM	50507	CB	GLU	S	43	259.839	102.735	37.649	1.00100.17	C	50557	CA	ALA	S	50	246.746	95.768	32.544	1.00	87.09	C	
ATOM	50508	CD	GLU	S	43	259.511	104.128	37.149	1.00100.17	C	50558	C	ALA	S	50	245.885	96.998	32.280	1.00	87.09	C	
ATOM	50509	CG	GLU	S	43	260.728	104.841	36.586	1.00100.17	O	50559	O	ALA	S	50	245.375	97.626	33.208	1.00	87.09	O	
ATOM	50510	OE1	GLU	S	43	261.681	105.099	37.353	1.00100.17	O	50560	CB	ALA	S	50	245.923	94.689	33.234	1.00	57.47	C	
ATOM	50511	OE2	GLU	S	43	260.739	105.133	35.373	1.00100.17	O	50561	N	VAL	S	51	245.732	97.337	31.005	1.00	89.50	N	
ATOM	50512	N	MET	S	44	258.330	101.332	35.405	1.00115.79	N	50562	CA	VAL	S	51	244.948	98.500	30.616	1.00	89.50	C	
ATOM	50513	CA	MET	S	44	257.262	100.470	34.923	1.00115.79	C	50563	C	VAL	S	51	243.578	98.147	30.044	1.00	89.50	C	
ATOM	50514	C	MET	S	44	257.838	99.275	34.173	1.00115.79	C	50564	O	VAL	S	51	243.377	97.079	29.462	1.00	89.50	O	
ATOM	50515	O	MET	S	44	257.273	98.183	34.214	1.00115.79	O	50565	CB	VAL	S	51	245.725	99.364	29.608	1.00	83.60	C	



Table 2: Sheet 507/520

ATOM	50566	CG1 VAL S	51	246.777	100.181	30.333	1.00	83.60	C	ATOM	50616	ND1 HIS S	57	241.842	96.974	33.444	1.00	82.86	N
ATOM	50567	CG2 VAL S	51	246.402	98.479	28.590	1.00	83.60	C	ATOM	50617	CD2 HIS S	57	240.015	95.885	33.941	1.00	82.86	C
ATOM	50568	N TYR S	52	242.645	99.072	30.224	1.00	87.26	N	ATOM	50618	CE1 HIS S	57	241.091	97.785	34.168	1.00	82.86	C
ATOM	50569	CA TYR S	52	241.265	98.915	29.788	1.00	87.26	C	ATOM	50619	NE2 HIS S	57	239.977	97.149	34.482	1.00	82.86	N
ATOM	50570	C TYR S	52	241.056	99.316	28.322	1.00	87.26	C	ATOM	50620	N VAL S	58	243.626	94.421	29.570	1.00	123.65	N
ATOM	50571	O TYR S	52	241.632	100.301	27.855	1.00	87.26	O	ATOM	50621	CA VAL S	58	244.566	93.561	28.862	1.00	123.65	C
ATOM	50572	CB TYR S	52	240.378	99.769	30.702	1.00	67.06	C	ATOM	50622	C VAL S	58	245.964	93.581	29.447	1.00	123.65	C
ATOM	50573	CG TYR S	52	238.923	99.350	30.801	1.00	67.06	C	ATOM	50623	O VAL S	58	246.491	94.634	29.807	1.00	123.65	O
ATOM	50574	CD1 TYR S	52	238.571	98.026	31.094	1.00	67.06	C	ATOM	50624	CB VAL S	58	244.662	93.925	27.371	1.00	83.57	C
ATOM	50575	CD2 TYR S	52	237.898	100.291	30.660	1.00	67.06	C	ATOM	50625	CG1 VAL S	58	243.375	93.542	26.665	1.00	83.57	C
ATOM	50576	CE1 TYR S	52	237.243	97.652	31.243	1.00	67.06	C	ATOM	50626	CG2 VAL S	58	244.926	95.403	27.219	1.00	83.57	C
ATOM	50577	CE2 TYR S	52	236.565	99.928	30.813	1.00	67.06	C	ATOM	50627	N PRO S	59	246.584	92.399	29.547	1.00	95.02	N
ATOM	50578	CZ TYR S	52	236.245	98.608	31.104	1.00	67.06	C	ATOM	50628	CA PRO S	59	247.934	92.231	30.085	1.00	95.02	C
ATOM	50579	OH TYR S	52	234.926	98.244	31.258	1.00	67.06	O	ATOM	50629	C PRO S	59	248.969	92.866	29.162	1.00	95.02	C
ATOM	50580	N ASN S	53	240.238	98.548	27.601	1.00	86.79	N	ATOM	50630	O PRO S	59	249.092	92.478	28.001	1.00	95.02	O
ATOM	50581	CA ASN S	53	239.939	98.840	26.200	1.00	86.79	C	ATOM	50631	CB PRO S	59	248.076	90.715	30.164	1.00	97.89	C
ATOM	50582	C ASN S	53	238.787	99.809	26.263	1.00	86.79	C	ATOM	50632	CG PRO S	59	247.283	90.253	28.983	1.00	97.89	C
ATOM	50583	O ASN S	53	238.569	100.625	25.365	1.00	86.79	O	ATOM	50633	CD PRO S	59	246.041	91.107	29.091	1.00	97.89	C
ATOM	50584	CB ASN S	53	239.433	97.602	25.470	1.00	98.80	C	ATOM	50634	N VAL S	60	249.715	93.838	29.674	1.00	92.68	N
ATOM	50585	CG ASN S	53	240.293	96.393	25.695	1.00	98.80	C	ATOM	50635	CA VAL S	60	250.720	94.502	28.858	1.00	92.68	C
ATOM	50586	OD1 ASN S	53	239.969	95.303	25.227	1.00	98.80	C	ATOM	50636	C VAL S	60	252.111	94.501	29.494	1.00	92.68	C
ATOM	50587	ND2 ASN S	53	241.398	96.567	26.409	1.00	98.80	N	ATOM	50637	O VAL S	60	252.417	95.333	30.351	1.00	92.68	O
ATOM	50588	N GLY S	54	238.056	99.692	27.362	1.00	71.18	N	ATOM	50638	CB VAL S	60	250.299	95.958	28.551	1.00	92.13	C
ATOM	50589	CA GLY S	54	236.871	100.489	27.594	1.00	71.18	C	ATOM	50639	CG1 VAL S	60	251.324	96.619	27.645	1.00	92.13	C
ATOM	50590	C GLY S	54	235.861	99.384	27.801	1.00	71.18	C	ATOM	50640	CG2 VAL S	60	248.926	95.972	27.894	1.00	92.13	C
ATOM	50591	O GLY S	54	234.676	99.614	28.051	1.00	71.18	O	ATOM	50641	N TYR S	61	252.949	93.559	29.066	1.00	108.65	N
ATOM	50592	N LYS S	55	236.376	98.159	27.698	1.00	70.36	N	ATOM	50642	CA TYR S	61	254.314	93.446	29.573	1.00	108.65	C
ATOM	50593	CA LYS S	55	235.578	96.956	27.855	1.00	70.36	C	ATOM	50643	C TYR S	61	255.092	94.658	29.079	1.00	108.65	C
ATOM	50594	C LYS S	55	236.285	95.877	28.665	1.00	70.36	C	ATOM	50644	O TYR S	61	255.435	94.755	27.901	1.00	108.65	O
ATOM	50595	O LYS S	55	235.662	95.219	29.498	1.00	70.36	O	ATOM	50645	CB TYR S	61	254.962	92.154	29.060	1.00	129.32	C
ATOM	50596	CB LYS S	55	235.219	96.387	26.486	1.00	81.42	C	ATOM	50646	CG TYR S	61	256.289	91.795	29.732	1.00	129.32	C
ATOM	50597	CG LYS S	55	234.392	95.128	26.559	1.00	81.42	C	ATOM	50647	CD1 TYR S	61	256.727	90.470	29.732	1.00	129.32	C
ATOM	50598	CD LYS S	55	234.121	94.576	25.190	1.00	81.42	C	ATOM	50648	CD2 TYR S	61	257.101	92.768	30.288	1.00	129.32	C
ATOM	50599	CE LYS S	55	233.234	93.357	25.277	1.00	81.42	C	ATOM	50649	CE1 TYR S	61	257.936	90.120	30.328	1.00	129.32	C
ATOM	50600	NZ LYS S	55	232.898	92.854	23.919	1.00	81.42	N	ATOM	50650	CE2 TYR S	61	258.313	92.429	30.885	1.00	129.32	C
ATOM	50601	N GLN S	56	237.579	95.691	28.415	1.00	91.40	N	ATOM	50651	CZ TYR S	61	258.722	91.103	30.903	1.00	129.32	C
ATOM	50602	CA GLN S	56	238.356	94.668	29.117	1.00	91.40	C	ATOM	50652	OH TYR S	61	259.907	90.754	31.506	1.00	129.32	O
ATOM	50603	C GLN S	56	239.703	95.208	29.586	1.00	91.40	C	ATOM	50653	N ILE S	62	255.361	95.582	29.991	1.00	88.90	N
ATOM	50604	O GLN S	56	240.149	96.267	29.154	1.00	91.40	O	ATOM	50654	CA ILE S	62	256.078	96.803	29.660	1.00	88.90	C
ATOM	50605	CB GLN S	56	238.623	93.481	28.187	1.00	133.27	C	ATOM	50655	C ILE S	62	257.603	96.600	29.561	1.00	88.90	C
ATOM	50606	CG GLN S	56	237.438	93.037	27.356	1.00	133.27	C	ATOM	50656	O ILE S	62	258.256	96.207	30.526	1.00	88.90	O
ATOM	50607	CD GLN S	56	236.434	92.237	28.151	1.00	133.27	C	ATOM	50657	CB ILE S	62	255.704	97.918	30.685	1.00	85.38	C
ATOM	50608	OE1 GLN S	56	236.738	91.144	28.624	1.00	133.27	O	ATOM	50658	CG1 ILE S	62	256.726	99.045	30.644	1.00	85.38	C
ATOM	50609	NE2 GLN S	56	235.228	92.775	28.304	1.00	133.27	N	ATOM	50659	CG2 ILE S	62	255.572	97.332	32.067	1.00	85.38	C
ATOM	50610	N HIS S	57	240.351	94.468	30.476	1.00	93.56	N	ATOM	50660	CD1 ILE S	62	256.872	99.660	29.282	1.00	85.38	C
ATOM	50611	CA HIS S	57	241.673	94.839	30.965	1.00	93.56	C	ATOM	50661	N THR S	63	258.150	96.872	28.373	1.00	88.79	N
ATOM	50612	C HIS S	57	242.621	93.884	30.253	1.00	93.56	C	ATOM	50662	CA THR S	63	259.579	96.718	28.085	1.00	88.79	C
ATOM	50613	O HIS S	57	242.431	92.667	30.301	1.00	93.56	O	ATOM	50663	C THR S	63	260.349	98.039	28.058	1.00	88.79	C
ATOM	50614	CB HIS S	57	241.769	94.640	32.484	1.00	82.86	C	ATOM	50664	O THR S	63	259.764	99.116	27.928	1.00	88.79	O
ATOM	50615	CG HIS S	57	241.192	95.768	33.281	1.00	82.86	C	ATOM	50665	CB THR S	63	259.797	96.037	26.726	1.00	81.88	C



Table 2. Sheet 508/520

ATOM	50666	OG1	THR	S	63	258.927	94.908	26.610	1.00	81.88	O	ATOM	50716	C	LYS	S	70	251.103	104.971	26.931	1.00	73.59	C
ATOM	50667	CG2	THR	S	63	261.234	95.558	26.599	1.00	81.88	C	ATOM	50717	O	LYS	S	70	251.075	104.157	26.005	1.00	73.59	O
ATOM	50668	N	GLU	S	64	261.672	97.940	28.156	1.00	103.58	N	ATOM	50718	CB	LYS	S	70	250.557	107.326	26.290	1.00	108.49	C
ATOM	50669	CA	GLU	S	64	262.552	99.108	28.170	1.00	103.58	C	ATOM	50719	CG	LYS	S	70	250.869	108.797	26.493	1.00	108.49	C
ATOM	50670	C	GLU	S	64	262.610	99.843	26.833	1.00	103.58	C	ATOM	50720	CD	LYS	S	70	251.947	109.273	25.548	1.00	108.49	C
ATOM	50671	O	GLU	S	64	263.014	101.005	26.873	1.00	103.58	O	ATOM	50721	CE	LYS	S	70	252.162	110.776	25.678	1.00	108.49	C
ATOM	50672	CB	GLU	S	64	263.968	98.684	28.580	1.00	127.32	C	ATOM	50722	NZ	LYS	S	70	253.100	111.308	24.637	1.00	108.49	N
ATOM	50673	CG	GLU	S	64	264.938	99.833	28.842	1.00	127.32	C	ATOM	50723	N	LEU	S	71	250.669	104.680	28.158	1.00	115.95	N
ATOM	50674	CD	GLU	S	64	264.623	100.598	30.118	1.00	127.32	C	ATOM	50724	CA	LEU	S	71	250.086	103.374	28.443	1.00	115.95	C
ATOM	50675	OE1	GLU	S	64	264.521	99.958	31.186	1.00	127.32	O	ATOM	50725	C	LEU	S	71	248.914	103.217	27.502	1.00	115.95	C
ATOM	50676	OE2	GLU	S	64	264.486	101.839	30.058	1.00	127.32	O	ATOM	50726	O	LEU	S	71	248.584	104.142	26.760	1.00	115.95	O
ATOM	50677	N	ASN	S	65	262.206	99.170	25.762	1.00	112.82	N	ATOM	50727	CB	LEU	S	71	249.615	103.270	29.894	1.00	78.57	C
ATOM	50678	CA	ASN	S	65	262.240	99.781	24.439	1.00	112.82	C	ATOM	50728	CG	LEU	S	71	250.627	102.677	30.874	1.00	78.57	C
ATOM	50679	C	ASN	S	65	260.932	100.492	24.095	1.00	112.82	C	ATOM	50729	CD1	LEU	S	71	249.984	102.606	32.237	1.00	78.57	C
ATOM	50680	O	ASN	S	65	260.822	101.140	23.053	1.00	112.82	O	ATOM	50730	CD2	LEU	S	71	251.068	101.288	30.428	1.00	78.57	C
ATOM	50681	CB	ASN	S	65	262.551	98.718	23.389	1.00	128.18	C	ATOM	50731	N	GLY	S	72	248.253	102.072	27.537	1.00	114.95	N
ATOM	50682	CG	ASN	S	65	261.471	97.673	23.295	1.00	128.18	C	ATOM	50732	CA	GLY	S	72	247.182	101.904	26.585	1.00	114.95	C
ATOM	50683	OD1	ASN	S	65	260.979	97.181	24.309	1.00	128.18	O	ATOM	50733	C	GLY	S	72	248.022	101.988	25.332	1.00	114.95	C
ATOM	50684	ND2	ASN	S	65	261.095	97.320	22.074	1.00	128.18	N	ATOM	50734	O	GLY	S	72	249.199	101.629	25.392	1.00	114.95	O
ATOM	50685	N	MET	S	66	259.940	100.370	24.971	1.00	91.79	N	ATOM	50735	N	GLU	S	73	247.479	102.476	24.222	1.00	75.24	N
ATOM	50686	CA	MET	S	66	258.659	101.021	24.744	1.00	91.79	C	ATOM	50736	CA	GLU	S	73	248.269	102.561	22.995	1.00	75.24	C
ATOM	50687	C	MET	S	66	258.406	102.100	25.792	1.00	91.79	C	ATOM	50737	C	GLU	S	73	248.818	101.168	22.679	1.00	75.24	C
ATOM	50688	O	MET	S	66	257.293	102.606	25.923	1.00	91.79	O	ATOM	50738	O	GLU	S	73	249.371	100.925	21.611	1.00	75.24	O
ATOM	50689	CB	MET	S	66	257.524	99.996	24.755	1.00	82.06	C	ATOM	50739	CB	GLU	S	73	249.429	103.544	23.169	1.00	86.21	C
ATOM	50690	CG	MET	S	66	257.366	99.248	26.055	1.00	82.06	C	ATOM	50740	CG	GLU	S	73	250.057	103.984	21.861	1.00	86.21	C
ATOM	50691	SD	MET	S	66	256.077	97.985	25.970	1.00	82.06	S	ATOM	50741	CD	GLU	S	73	251.297	104.831	22.057	1.00	86.21	C
ATOM	50692	CE	MET	S	66	256.944	96.686	25.024	1.00	82.06	C	ATOM	50742	OE1	GLU	S	73	251.269	105.748	22.902	1.00	86.21	O
ATOM	50693	N	VAL	S	67	259.443	102.447	26.546	1.00	73.21	N	ATOM	50743	OE2	GLU	S	73	252.299	104.588	21.355	1.00	86.21	O
ATOM	50694	CA	VAL	S	67	259.315	103.491	27.556	1.00	73.21	C	ATOM	50744	N	PHE	S	74	248.664	100.267	23.642	1.00	79.58	N
ATOM	50695	C	VAL	S	67	259.012	104.801	26.832	1.00	73.21	C	ATOM	50745	CA	PHE	S	74	249.083	98.882	23.540	1.00	79.58	C
ATOM	50696	O	VAL	S	67	259.548	105.054	25.755	1.00	73.21	O	ATOM	50746	C	PHE	S	74	247.815	98.116	23.879	1.00	79.58	C
ATOM	50697	CB	VAL	S	67	260.627	103.663	28.364	1.00	72.14	C	ATOM	50747	O	PHE	S	74	247.810	96.888	23.980	1.00	79.58	O
ATOM	50698	CG1	VAL	S	67	260.503	104.833	29.324	1.00	72.14	C	ATOM	50748	CB	PHE	S	74	250.183	98.563	24.559	1.00	85.36	C
ATOM	50699	CG2	VAL	S	67	260.941	102.386	29.122	1.00	72.14	C	ATOM	50749	CG	PHE	S	74	251.500	99.228	24.262	1.00	85.36	C
ATOM	50700	N	GLY	S	68	258.159	105.633	27.416	1.00	100.60	N	ATOM	50750	CD1	PHE	S	74	251.661	100.599	24.430	1.00	85.36	C
ATOM	50701	CA	GLY	S	68	257.832	106.896	26.778	1.00	100.60	C	ATOM	50751	CD2	PHE	S	74	252.579	98.482	23.797	1.00	85.36	C
ATOM	50702	C	GLY	S	68	256.477	106.869	26.098	1.00	100.60	C	ATOM	50752	CE1	PHE	S	74	252.878	101.219	24.140	1.00	85.36	C
ATOM	50703	O	GLY	S	68	255.751	107.864	26.115	1.00	100.60	O	ATOM	50753	CE2	PHE	S	74	253.799	99.093	23.504	1.00	85.36	C
ATOM	50704	N	HIS	S	69	256.147	105.736	25.481	1.00	93.88	N	ATOM	50754	CZ	PHE	S	74	253.947	100.464	23.676	1.00	85.36	C
ATOM	50705	CA	HIS	S	69	254.861	105.579	24.818	1.00	93.88	C	ATOM	50755	N	ALA	S	75	246.738	98.877	24.054	1.00	75.32	N
ATOM	50706	C	HIS	S	69	253.838	105.637	25.929	1.00	93.88	C	ATOM	50756	CA	ALA	S	75	245.426	98.336	24.371	1.00	75.32	C
ATOM	50707	O	HIS	S	69	254.077	105.091	27.004	1.00	93.88	O	ATOM	50757	C	ALA	S	75	244.434	98.881	23.362	1.00	75.32	C
ATOM	50708	CB	HIS	S	69	254.754	104.215	24.135	1.00	105.83	C	ATOM	50758	O	ALA	S	75	243.659	99.782	23.664	1.00	75.32	O
ATOM	50709	CG	HIS	S	69	255.525	104.108	22.858	1.00	105.83	C	ATOM	50759	CB	ALA	S	75	245.013	98.748	25.762	1.00	120.09	C
ATOM	50710	ND1	HIS	S	69	255.324	104.959	21.793	1.00	105.83	N	ATOM	50760	N	PRO	S	76	244.451	98.337	22.140	1.00	69.46	N
ATOM	50711	CD2	HIS	S	69	256.472	103.226	22.460	1.00	105.83	C	ATOM	50761	CA	PRO	S	76	243.552	98.766	21.070	1.00	69.46	C
ATOM	50712	CE1	HIS	S	69	256.113	104.606	20.795	1.00	105.83	C	ATOM	50762	C	PRO	S	76	242.086	98.799	21.492	1.00	69.46	C
ATOM	50713	NE2	HIS	S	69	256.820	103.557	21.174	1.00	105.83	N	ATOM	50763	O	PRO	S	76	241.624	97.972	22.282	1.00	69.46	O
ATOM	50714	N	LYS	S	70	252.711	106.301	25.689	1.00	73.59	N	ATOM	50764	CB	PRO	S	76	243.819	97.741	19.970	1.00	90.10	C
ATOM	50715	CA	LYS	S	70	251.676	106.372	26.711	1.00	73.59	C	ATOM	50765	CG	PRO	S	76	245.261	97.410	20.173	1.00	90.10	C



Table 2: Sheet 509/520

ATOM	50766	CD	PRO S	76	245.330	97.252	21.675	1.00	90.10	C	ATOM	50816	CA	GLY S	82	237.908	93.150	7.829	1.00	95.98	C
ATOM	50767	N	THR S	77	241.357	99.759	20.940	1.00	92.77	N	ATOM	50817	C	GLY S	82	236.441	93.162	7.457	1.00	95.98	C
ATOM	50768	CA	THR S	77	239.950	99.936	21.245	1.00	92.77	C	ATOM	50818	O	GLY S	82	235.582	92.764	8.244	1.00	95.98	O
ATOM	50769	C	THR S	77	239.011	99.262	20.252	1.00	92.77	C	ATOM	50819	N	HIS S	83	236.151	93.634	6.252	1.00	86.21	N
ATOM	50770	O	THR S	77	238.163	98.457	20.633	1.00	92.77	O	ATOM	50820	CA	HIS S	83	234.781	93.681	5.775	1.00	86.21	C
ATOM	50771	CB	THR S	77	239.601	101.407	21.270	1.00	74.40	C	ATOM	50821	C	HIS S	83	234.539	92.457	4.919	1.00	86.21	C
ATOM	50772	OG1	THR S	77	240.305	102.048	22.335	1.00	74.40	C	ATOM	50822	O	HIS S	83	233.393	92.045	4.721	1.00	86.21	O
ATOM	50773	CG2	THR S	77	238.135	101.576	21.462	1.00	74.40	C	ATOM	50823	CB	HIS S	83	234.557	94.919	4.925	1.00	64.91	C
ATOM	50774	N	ARG S	78	239.155	99.615	18.979	1.00	60.51	N	ATOM	50824	CG	HIS S	83	234.590	96.195	5.697	1.00	64.91	C
ATOM	50775	CA	ARG S	78	238.311	99.066	17.923	1.00	60.51	C	ATOM	50825	ND1	HIS S	83	233.619	96.535	6.613	1.00	64.91	N
ATOM	50776	C	ARG S	78	238.526	97.573	17.757	1.00	60.51	C	ATOM	50826	CD2	HIS S	83	235.468	97.225	5.679	1.00	64.91	C
ATOM	50777	O	ARG S	78	239.606	97.057	18.030	1.00	60.51	O	ATOM	50827	CE1	HIS S	83	233.895	97.721	7.125	1.00	64.91	C
ATOM	50778	CB	ARG S	78	238.629	99.722	16.579	1.00	84.78	C	ATOM	50828	NE2	HIS S	83	235.013	98.161	6.576	1.00	64.91	N
ATOM	50779	CG	ARG S	78	239.243	101.096	16.664	1.00	84.78	C	ATOM	50829	N	GLY S	84	235.635	91.895	4.409	1.00	119.92	N
ATOM	50780	CD	ARG S	78	238.201	102.139	16.932	1.00	84.78	C	ATOM	50830	CA	GLY S	84	235.581	90.721	3.553	1.00	119.92	C
ATOM	50781	NE	ARG S	78	238.809	103.457	17.029	1.00	84.78	N	ATOM	50831	C	GLY S	84	234.541	89.684	3.936	1.00	119.92	C
ATOM	50782	C2	ARG S	78	238.113	104.583	17.039	1.00	84.78	N	ATOM	50832	O	GLY S	84	234.107	89.610	5.090	1.00	119.92	O
ATOM	50783	NH1	ARG S	78	236.796	104.527	16.952	1.00	84.78	N	ATOM	50833	N	LYS S	85	234.146	88.873	2.960	1.00	165.21	N
ATOM	50784	NH2	ARG S	78	238.723	105.755	17.143	1.00	84.78	N	ATOM	50834	CA	LYS S	85	233.147	87.837	3.188	1.00	165.21	C
ATOM	50785	N	THR S	79	237.488	96.883	17.302	1.00	80.25	N	ATOM	50835	C	LYS S	85	232.988	86.977	1.932	1.00	165.21	C
ATOM	50786	CA	THR S	79	237.575	95.454	17.044	1.00	80.25	C	ATOM	50836	O	LYS S	85	233.180	85.746	2.031	1.00	165.21	O
ATOM	50787	C	THR S	79	237.243	95.326	15.564	1.00	80.25	C	ATOM	50837	CB	LYS S	85	231.808	88.488	3.560	1.00	168.62	C
ATOM	50788	O	THR S	79	236.075	95.266	15.182	1.00	80.25	O	ATOM	50838	CG	LYS S	85	230.719	87.524	4.011	1.00	168.62	C
ATOM	50789	CB	THR S	79	236.559	94.642	17.884	1.00	87.80	C	ATOM	50839	CD	LYS S	85	229.419	88.270	4.282	1.00	168.62	C
ATOM	50790	OG1	THR S	79	236.955	94.647	19.262	1.00	87.80	O	ATOM	50840	CE	LYS S	85	228.308	87.325	4.710	1.00	168.62	C
ATOM	50791	CG2	THR S	79	236.498	93.207	17.397	1.00	87.80	C	ATOM	50841	NZ	LYS S	85	227.017	88.043	4.906	1.00	168.62	N
ATOM	50792	N	TYR S	80	238.278	95.315	14.733	1.00	95.72	N	TER	50842		LYS S	85						
ATOM	50793	CA	TYR S	80	238.096	95.219	13.292	1.00	95.72	C	ATOM	50843	N	ARG T	8	132.426	43.983	11.805	1.00	104.71	N
ATOM	50794	C	TYR S	80	238.883	94.068	12.672	1.00	95.72	C	ATOM	50844	CA	ARG T	8	131.907	43.712	10.435	1.00	104.71	C
ATOM	50795	O	TYR S	80	240.097	93.984	12.837	1.00	95.72	O	ATOM	50845	C	ARG T	8	130.378	43.633	10.420	1.00	104.71	C
ATOM	50796	CB	TYR S	80	238.522	96.527	12.637	1.00	89.44	C	ATOM	50846	O	ARG T	8	129.691	44.183	11.286	1.00	104.71	O
ATOM	50797	CG	TYR S	80	238.496	96.465	11.138	1.00	89.44	C	ATOM	50847	CB	ARG T	8	132.460	42.386	9.911	1.00	104.93	C
ATOM	50798	CD1	TYR S	80	237.330	96.121	10.463	1.00	89.44	C	ATOM	50848	CG	ARG T	8	133.958	42.213	10.009	1.00	104.93	C
ATOM	50799	CD2	TYR S	80	239.631	96.758	10.389	1.00	89.44	C	ATOM	50849	CD	ARG T	8	134.305	40.769	9.690	1.00	104.93	C
ATOM	50800	CE1	TYR S	80	237.291	96.071	9.084	1.00	89.44	C	ATOM	50850	NE	ARG T	8	135.636	40.397	10.152	1.00	104.93	N
ATOM	50801	CE2	TYR S	80	239.603	96.709	9.005	1.00	89.44	C	ATOM	50851	C2	ARG T	8	135.983	39.160	10.498	1.00	104.93	C
ATOM	50802	C2	TYR S	80	238.427	96.365	8.360	1.00	89.44	C	ATOM	50852	NH1	ARG T	8	135.092	38.176	10.434	1.00	104.93	N
ATOM	50803	OH	TYR S	80	238.379	96.302	6.987	1.00	89.44	O	ATOM	50853	NH2	ARG T	8	137.218	38.905	10.914	1.00	104.93	N
ATOM	50804	N	ARG S	81	238.197	93.189	11.951	1.00	80.58	N	ATOM	50854	N	ASN T	9	129.871	42.934	9.409	1.00	81.90	N
ATOM	50805	CA	ARG S	81	238.871	92.064	11.321	1.00	80.58	C	ATOM	50855	CA	ASN T	9	128.447	42.704	9.192	1.00	81.90	C
ATOM	50806	C	ARG S	81	238.636	92.011	9.821	1.00	80.58	C	ATOM	50856	C	ASN T	9	127.445	43.793	9.552	1.00	81.90	C
ATOM	50807	O	ARG S	81	238.886	90.987	9.182	1.00	80.58	O	ATOM	50857	O	ASN T	9	126.948	43.862	10.674	1.00	81.90	O
ATOM	50808	CB	ARG S	81	238.414	90.755	11.949	1.00	96.10	C	ATOM	50858	CB	ASN T	9	128.029	41.396	9.866	1.00	177.33	C
ATOM	50809	CG	ARG S	81	238.818	90.601	13.387	1.00	96.10	C	ATOM	50859	CG	ASN T	9	128.532	40.176	9.121	1.00	177.33	C
ATOM	50810	CD	ARG S	81	238.049	89.466	14.004	1.00	96.10	C	ATOM	50860	OD1	ASN T	9	128.190	39.960	7.958	1.00	177.33	O
ATOM	50811	NE	ARG S	81	237.554	89.825	15.326	1.00	96.10	N	ATOM	50861	ND2	ASN T	9	129.351	39.371	9.787	1.00	177.33	N
ATOM	50812	CZ	ARG S	81	236.479	88.359	15.886	1.00	96.10	C	ATOM	50862	N	LEU T	10	127.155	44.643	8.575	1.00	66.25	N
ATOM	50813	NH1	ARG S	81	235.787	88.325	15.233	1.00	96.10	N	ATOM	50863	CA	LEU T	10	126.167	45.697	8.739	1.00	66.25	C
ATOM	50814	NH2	ARG S	81	236.093	89.671	17.095	1.00	96.10	N	ATOM	50864	C	LEU T	10	124.929	45.009	8.175	1.00	66.25	C
ATOM	50815	N	GLY S	82	238.150	93.111	9.259	1.00	95.98	N	ATOM	50865	O	LEU T	10	124.852	44.746	6.974	1.00	66.25	O



Table 2: Sheet 510/520

ATOM	50866	CB	LEU T	10	126.556	46.926	7.909	1.00	75.66	C	ATOM	50916	CD2	HIS T	16	124.590	43.712	-3.239	1.00	58.49	C
ATOM	50867	CG	LEU T	10	125.577	48.101	7.723	1.00	75.66	C	ATOM	50917	CE1	HIS T	16	124.139	41.717	-4.027	1.00	58.49	C
ATOM	50868	CD1	LEU T	10	124.531	47.738	6.689	1.00	75.66	C	ATOM	50918	NE2	HIS T	16	124.847	42.810	-4.242	1.00	58.49	N
ATOM	50869	CD2	LEU T	10	124.928	48.477	9.047	1.00	75.66	C	ATOM	50919	N	ARG T	17	120.400	41.973	-0.565	1.00	39.58	N
ATOM	50870	N	SER T	11	123.976	44.695	9.047	1.00	56.22	N	ATOM	50920	CA	ARG T	17	119.643	40.744	-0.671	1.00	39.58	C
ATOM	50871	CA	SER T	11	122.772	43.988	8.633	1.00	56.22	C	ATOM	50921	C	ARG T	17	118.371	41.079	-1.447	1.00	39.58	C
ATOM	50872	C	SER T	11	121.956	44.563	7.483	1.00	56.22	C	ATOM	50922	O	ARG T	17	118.055	40.468	-2.468	1.00	39.58	O
ATOM	50873	O	SER T	11	121.077	43.878	6.982	1.00	56.22	O	ATOM	50923	CB	ARG T	17	119.295	40.271	0.735	1.00	41.23	C
ATOM	50874	CB	SER T	11	121.879	43.714	9.845	1.00	58.82	C	ATOM	50924	CG	ARG T	17	119.630	38.831	1.047	1.00	41.23	C
ATOM	50875	OG	SER T	11	122.476	42.737	10.690	1.00	68.82	O	ATOM	50925	CD	ARG T	17	119.235	38.494	2.495	1.00	41.23	C
ATOM	50876	N	ALA T	12	122.213	45.800	7.063	1.00	56.61	N	ATOM	50926	NE	ARG T	17	120.159	39.051	3.477	1.00	41.23	N
ATOM	50877	CA	ALA T	12	121.511	46.340	5.893	1.00	56.61	C	ATOM	50927	CZ	ARG T	17	119.809	39.407	4.708	1.00	41.23	C
ATOM	50878	C	ALA T	12	122.255	45.734	4.669	1.00	56.61	C	ATOM	50928	NH1	ARG T	17	118.547	39.266	5.103	1.00	41.23	N
ATOM	50879	O	ALA T	12	122.614	46.403	3.700	1.00	56.61	O	ATOM	50929	NH2	ARG T	17	120.719	39.908	5.545	1.00	41.23	N
ATOM	50880	CB	ALA T	12	121.571	47.851	5.873	1.00	108.37	C	ATOM	50930	N	GLN T	18	117.641	42.070	-0.956	1.00	39.13	N
ATOM	50881	N	LEU T	13	122.513	44.434	4.799	1.00	64.05	N	ATOM	50931	CA	GLN T	18	116.406	42.476	-1.602	1.00	39.13	C
ATOM	50882	CA	LEU T	13	123.148	43.558	3.814	1.00	64.05	C	ATOM	50932	C	GLN T	18	116.627	42.926	-3.040	1.00	39.13	C
ATOM	50883	C	LEU T	13	121.885	42.983	3.175	1.00	64.05	C	ATOM	50933	O	GLN T	18	115.952	42.449	-3.954	1.00	39.13	O
ATOM	50884	O	LEU T	13	121.882	42.402	2.091	1.00	64.05	O	ATOM	50934	CB	GLN T	18	115.746	43.582	-0.786	1.00	65.18	C
ATOM	50885	CB	LEU T	13	123.879	42.445	4.562	1.00	27.80	C	ATOM	50935	CG	GLN T	18	114.786	43.056	0.256	1.00	65.18	C
ATOM	50886	CG	LEU T	13	125.398	42.289	4.547	1.00	27.80	C	ATOM	50936	CD	GLN T	18	114.814	43.854	1.532	1.00	65.18	C
ATOM	50887	CD1	LEU T	13	125.819	41.352	5.653	1.00	27.80	C	ATOM	50937	OE1	GLN T	18	114.848	45.084	1.508	1.00	65.18	O
ATOM	50888	CD2	LEU T	13	125.847	41.748	3.190	1.00	27.80	C	ATOM	50938	NE2	GLN T	18	114.790	43.160	2.662	1.00	65.18	N
ATOM	50889	N	LYS T	14	120.813	43.153	3.938	1.00	37.55	N	ATOM	50939	N	SER T	19	117.583	43.831	-3.233	1.00	48.56	N
ATOM	50890	CA	LYS T	14	119.472	42.745	3.600	1.00	37.55	C	ATOM	50940	CA	SER T	19	117.893	44.355	-4.556	1.00	48.56	C
ATOM	50891	C	LYS T	14	119.103	43.533	2.363	1.00	37.55	C	ATOM	50941	C	SER T	19	117.995	43.243	-5.594	1.00	48.56	C
ATOM	50892	O	LYS T	14	118.427	43.041	1.460	1.00	37.55	O	ATOM	50942	O	SER T	19	117.401	43.335	-6.670	1.00	48.56	O
ATOM	50893	CB	LYS T	14	118.556	43.114	4.764	1.00	40.05	C	ATOM	50943	CB	SER T	19	119.208	45.127	-4.530	1.00	84.00	C
ATOM	50894	CG	LYS T	14	117.116	42.673	4.625	1.00	40.05	C	ATOM	50944	OG	SER T	19	120.302	44.234	-4.456	1.00	84.00	O
ATOM	50895	CD	LYS T	14	116.347	43.061	5.876	1.00	40.05	C	ATOM	50945	N	LEU T	20	118.745	42.192	-5.282	1.00	44.66	N
ATOM	50896	CE	LYS T	14	114.911	42.565	5.857	1.00	40.05	C	ATOM	50946	CA	LEU T	20	118.885	41.099	-6.230	1.00	44.66	C
ATOM	50897	NZ	LYS T	14	114.231	42.907	7.147	1.00	40.05	N	ATOM	50947	C	LEU T	20	117.533	40.541	-6.632	1.00	44.66	C
ATOM	50898	N	ARG T	15	119.561	44.775	2.330	1.00	54.61	N	ATOM	50948	O	LEU T	20	117.277	40.334	-7.812	1.00	44.66	O
ATOM	50899	CA	ARG T	15	119.280	45.625	1.199	1.00	54.61	C	ATOM	50949	CB	LEU T	20	119.734	39.992	-5.647	1.00	53.76	C
ATOM	50900	C	ARG T	15	119.799	44.990	-0.086	1.00	54.61	C	ATOM	50950	CG	LEU T	20	121.175	40.380	-5.364	1.00	53.76	C
ATOM	50901	O	ARG T	15	119.063	44.865	-1.064	1.00	54.61	O	ATOM	50951	CD1	LEU T	20	121.922	39.175	-4.859	1.00	53.76	C
ATOM	50902	CB	ARG T	15	119.902	46.988	1.422	1.00	39.84	C	ATOM	50952	CD2	LEU T	20	121.825	40.875	-6.622	1.00	53.76	C
ATOM	50903	CG	ARG T	15	119.026	47.956	2.197	1.00	39.84	C	ATOM	50953	N	LYS T	21	116.659	40.305	-5.661	1.00	49.93	N
ATOM	50904	CD	ARG T	15	117.812	48.396	1.376	1.00	39.84	C	ATOM	50954	CA	LYS T	21	115.343	39.764	-5.979	1.00	49.93	C
ATOM	50905	NE	ARG T	15	117.052	49.473	2.017	1.00	39.84	N	ATOM	50955	C	LYS T	21	114.536	40.732	-6.841	1.00	49.93	C
ATOM	50906	CZ	ARG T	15	115.892	49.943	1.564	1.00	39.84	C	ATOM	50956	O	LYS T	21	113.906	40.338	-7.825	1.00	49.93	O
ATOM	50907	NH1	ARG T	15	115.351	49.435	0.464	1.00	39.84	N	ATOM	50957	CB	LYS T	21	114.578	39.423	-4.694	1.00	71.32	C
ATOM	50908	NH2	ARG T	15	115.264	50.917	2.209	1.00	39.84	N	ATOM	50958	CG	LYS T	21	115.178	38.247	-3.938	1.00	71.32	C
ATOM	50909	N	HIS T	16	121.055	44.568	-0.096	1.00	49.72	N	ATOM	50959	CD	LYS T	21	114.285	37.761	-2.808	1.00	71.32	C
ATOM	50910	CA	HIS T	16	121.580	43.950	-1.310	1.00	49.72	C	ATOM	50960	CE	LYS T	21	114.346	38.675	-1.598	1.00	71.32	C
ATOM	50911	C	HIS T	16	120.802	42.665	-1.625	1.00	49.72	C	ATOM	50961	NZ	LYS T	21	113.477	38.179	-0.488	1.00	71.32	N
ATOM	50912	O	HIS T	16	120.573	42.313	-2.787	1.00	49.72	O	ATOM	50962	N	ARG T	22	114.561	42.006	-6.476	1.00	50.33	N
ATOM	50913	CB	HIS T	16	123.064	43.639	-1.150	1.00	58.49	C	ATOM	50963	CA	ARG T	22	113.837	43.016	-7.233	1.00	50.33	C
ATOM	50914	CG	HIS T	16	123.704	43.134	-2.398	1.00	58.49	C	ATOM	50964	C	ARG T	22	114.343	43.061	-8.672	1.00	50.33	C
ATOM	50915	ND1	HIS T	16	123.438	41.887	-2.920	1.00	58.49	N	ATOM	50965	O	ARG T	22	113.553	43.183	-9.615	1.00	50.33	O



Table 2: Sheet 511/520

ATOM	50966	CB	ARG T	22	114.017	44.369	-6.568	1.00	72.95	C	ATOM	51016	CG	LYS T	27	116.620	40.572	-15.849	1.00	76.16	C
ATOM	50967	CG	ARG T	22	113.367	44.436	-5.231	1.00	72.95	C	ATOM	51017	CD	LYS T	27	116.188	39.377	-16.676	1.00	76.16	C
ATOM	50968	CD	ARG T	22	113.718	45.708	-4.524	1.00	72.95	C	ATOM	51018	CE	LYS T	27	117.375	38.703	-17.352	1.00	76.16	C
ATOM	50969	NE	ARG T	22	112.629	46.076	-3.639	1.00	72.95	N	ATOM	51019	NZ	LYS T	27	116.970	37.547	-18.198	1.00	76.16	N
ATOM	50970	C2	ARG T	22	111.445	46.475	-4.081	1.00	72.95	C	ATOM	51020	N	ALA T	28	112.608	40.317	-15.755	1.00	52.36	N
ATOM	50971	NH1	ARG T	22	111.228	46.557	-5.387	1.00	72.95	N	ATOM	51021	CA	ALA T	28	111.665	39.461	-16.443	1.00	52.36	C
ATOM	50972	NH2	ARG T	22	110.476	46.774	-3.225	1.00	72.95	N	ATOM	51022	C	ALA T	28	110.524	40.225	-17.112	1.00	52.36	C
ATOM	50973	N	ARG T	23	115.664	42.964	-8.827	1.00	50.53	N	ATOM	51023	O	ALA T	28	110.234	40.024	-18.297	1.00	52.36	O
ATOM	50974	CA	ARG T	23	116.288	42.971	-10.147	1.00	50.53	C	ATOM	51024	CB	ALA T	28	111.111	38.451	-15.469	1.00	52.61	C
ATOM	50975	C	ARG T	23	115.730	41.828	-10.983	1.00	50.53	C	ATOM	51025	N	LYS T	29	109.868	41.096	-16.353	1.00	45.15	N
ATOM	50976	O	ARG T	23	115.155	42.046	-12.050	1.00	50.53	O	ATOM	51026	CA	LYS T	29	108.755	41.862	-16.894	1.00	45.15	C
ATOM	50977	CB	ARG T	23	117.808	42.830	-10.018	1.00	70.07	C	ATOM	51027	C	LYS T	29	109.116	42.618	-18.164	1.00	45.15	C
ATOM	50978	CG	ARG T	23	118.530	42.476	-11.314	1.00	70.07	C	ATOM	51028	O	LYS T	29	108.310	42.696	-19.099	1.00	45.15	O
ATOM	50979	CD	ARG T	23	120.045	42.574	-11.130	1.00	70.07	C	ATOM	51029	CB	LYS T	29	108.232	42.833	-15.843	1.00	62.19	C
ATOM	50980	NE	ARG T	23	120.810	41.840	-12.142	1.00	70.07	N	ATOM	51030	CG	LYS T	29	107.661	42.129	-14.646	1.00	62.19	C
ATOM	50981	C2	ARG T	23	120.715	40.527	-12.356	1.00	70.07	C	ATOM	51031	CD	LYS T	29	106.998	43.091	-13.702	1.00	62.19	C
ATOM	50982	NH1	ARG T	23	119.883	39.786	-11.634	1.00	70.07	N	ATOM	51032	CE	LYS T	29	106.278	43.226	-12.617	1.00	62.19	C
ATOM	50983	NH2	ARG T	23	121.460	39.947	-13.290	1.00	70.07	N	ATOM	51033	NZ	LYS T	29	105.923	43.230	-11.500	1.00	62.19	N
ATOM	50984	N	LEU T	24	115.878	40.607	-10.482	1.00	55.09	N	ATOM	51034	N	LYS T	30	110.331	43.165	-18.191	1.00	61.23	N
ATOM	50985	CA	LEU T	24	115.383	39.448	-11.200	1.00	55.09	C	ATOM	51035	CA	LYS T	30	110.803	43.924	-19.336	1.00	61.23	C
ATOM	50986	C	LEU T	24	113.899	39.581	-11.532	1.00	55.09	C	ATOM	51036	C	LYS T	30	111.035	43.048	-20.549	1.00	61.23	C
ATOM	50987	O	LEU T	24	113.402	38.955	-12.465	1.00	55.09	O	ATOM	51037	O	LYS T	30	110.844	43.492	-21.679	1.00	61.23	O
ATOM	50988	CB	LEU T	24	115.633	38.184	-10.385	1.00	107.92	C	ATOM	51038	CB	LYS T	30	112.066	44.705	-18.970	1.00	73.62	C
ATOM	50989	CG	LEU T	24	115.131	36.900	-11.038	1.00	107.92	C	ATOM	51039	CG	LYS T	30	111.734	46.019	-18.281	1.00	73.62	C
ATOM	50990	CD1	LEU T	24	115.628	36.800	-12.477	1.00	107.92	C	ATOM	51040	CD	LYS T	30	112.947	46.844	-17.884	1.00	73.62	C
ATOM	50991	CD2	LEU T	24	115.606	35.720	-10.215	1.00	107.92	C	ATOM	51041	CE	LYS T	30	113.521	46.386	-16.549	1.00	73.62	C
ATOM	50992	N	ARG T	25	113.200	40.415	-10.776	1.00	51.86	N	ATOM	51042	NZ	LYS T	30	114.524	47.348	-15.990	1.00	73.62	N
ATOM	50993	CA	ARG T	25	111.780	40.619	-10.997	1.00	51.86	C	ATOM	51043	N	SER T	31	111.427	41.798	-20.323	1.00	55.70	N
ATOM	50994	C	ARG T	25	111.491	41.544	-12.182	1.00	51.86	C	ATOM	51044	CA	SER T	31	111.651	40.879	-21.437	1.00	55.70	C
ATOM	50995	O	ARG T	25	110.676	41.206	-13.040	1.00	51.86	O	ATOM	51045	C	SER T	31	110.318	40.557	-22.108	1.00	55.70	C
ATOM	50996	CB	ARG T	25	111.143	41.193	-9.741	1.00	84.11	C	ATOM	51046	O	SER T	31	110.209	40.571	-23.333	1.00	55.70	O
ATOM	50997	CG	ARG T	25	109.635	41.118	-9.740	1.00	84.11	C	ATOM	51047	CB	SER T	31	112.311	39.584	-20.953	1.00	54.49	C
ATOM	50998	CD	ARG T	25	109.181	40.113	-8.712	1.00	84.11	C	ATOM	51048	OG	SER T	31	113.615	39.819	-20.453	1.00	54.49	O
ATOM	50999	NE	ARG T	25	109.676	40.472	-7.388	1.00	84.11	N	ATOM	51049	N	ALA T	32	109.305	40.263	-21.301	1.00	63.49	N
ATOM	51000	C2	ARG T	25	109.595	39.689	-6.316	1.00	84.11	C	ATOM	51050	CA	ALA T	32	107.992	39.960	-21.843	1.00	63.49	C
ATOM	51001	NH1	ARG T	25	109.035	38.486	-6.403	1.00	84.11	N	ATOM	51051	C	ALA T	32	107.594	41.129	-22.742	1.00	63.49	C
ATOM	51002	NH2	ARG T	25	110.075	40.115	-5.154	1.00	84.11	N	ATOM	51052	O	ALA T	32	107.235	40.958	-23.919	1.00	63.49	O
ATOM	51003	N	ASN T	26	112.145	42.710	-12.219	1.00	59.62	N	ATOM	51053	CB	ALA T	32	106.990	39.806	-20.714	1.00	49.28	C
ATOM	51004	CA	ASN T	26	111.947	43.686	-13.303	1.00	59.62	C	ATOM	51054	N	ILE T	33	107.670	42.322	-22.162	1.00	51.48	N
ATOM	51005	C	ASN T	26	112.486	43.104	-14.597	1.00	59.62	C	ATOM	51055	CA	ILE T	33	107.336	43.541	-22.859	1.00	51.48	C
ATOM	51006	O	ASN T	26	111.864	43.190	-15.657	1.00	59.62	O	ATOM	51056	C	ILE T	33	108.034	43.594	-24.195	1.00	51.48	C
ATOM	51007	CB	ASN T	26	112.718	44.981	-13.039	1.00	53.29	C	ATOM	51057	O	ILE T	33	107.383	43.620	-25.231	1.00	51.48	O
ATOM	51008	CG	ASN T	26	112.376	45.620	-11.719	1.00	53.29	C	ATOM	51058	CB	ILE T	33	107.726	44.746	-22.030	1.00	54.47	C
ATOM	51009	OD1	ASN T	26	111.207	45.806	-11.390	1.00	53.29	O	ATOM	51059	CG1	ILE T	33	106.775	44.842	-20.837	1.00	54.47	C
ATOM	51010	ND2	ASN T	26	113.402	45.986	-10.957	1.00	53.29	N	ATOM	51060	CG2	ILE T	33	107.695	46.001	-22.881	1.00	54.47	C
ATOM	51011	N	LYS T	27	113.681	42.540	-14.474	1.00	58.32	N	ATOM	51061	CD1	ILE T	33	107.053	45.995	-19.907	1.00	54.47	C
ATOM	51012	CA	LYS T	27	114.417	41.910	-15.559	1.00	58.32	C	ATOM	51062	N	LYS T	34	109.359	43.598	-24.185	1.00	51.35	N
ATOM	51013	C	LYS T	27	113.465	41.077	-16.420	1.00	58.32	C	ATOM	51063	CA	LYS T	34	110.100	43.642	-25.441	1.00	51.35	C
ATOM	51014	O	LYS T	27	113.487	41.141	-17.652	1.00	58.32	O	ATOM	51064	C	LYS T	34	109.567	42.581	-26.405	1.00	51.35	C
ATOM	51015	CB	LYS T	27	115.513	41.036	-14.933	1.00	76.16	C	ATOM	51065	O	LYS T	34	109.003	42.904	-27.453	1.00	51.35	O



Table 2: Sheet 512520

ATOM	51066	CB	LYS T	34	111.598	43.456	-25.172	1.00	69.86	C	ATOM	51116	CA	VAL T	41	105.366	44.824	-34.665	1.00	59.23	C
ATOM	51067	CG	LYS T	34	112.173	44.610	-24.354	1.00	69.86	C	ATOM	51117	C	VAL T	41	105.559	43.896	-35.866	1.00	59.23	C
ATOM	51068	CD	LYS T	34	113.612	44.401	-23.906	1.00	69.86	C	ATOM	51118	O	VAL T	41	105.115	44.188	-36.975	1.00	59.23	C
ATOM	51069	CE	LYS T	34	114.137	45.642	-23.157	1.00	69.86	C	ATOM	51119	CB	VAL T	41	106.738	45.442	-34.260	1.00	45.96	C
ATOM	51070	N2	LYS T	34	115.527	45.486	-22.599	1.00	69.86	N	ATOM	51120	CG1	VAL T	41	107.505	45.846	-35.507	1.00	45.96	C
ATOM	51071	N	THR T	35	109.703	41.318	-26.028	1.00	59.81	N	ATOM	51121	CG2	VAL T	41	106.530	46.657	-33.341	1.00	45.96	C
ATOM	51072	CA	THR T	35	109.243	40.212	-26.859	1.00	59.81	C	ATOM	51122	N	GLN T	42	106.216	42.771	-35.623	1.00	63.81	N
ATOM	51073	C	THR T	35	107.889	40.428	-27.530	1.00	59.81	C	ATOM	51123	CA	GLN T	42	106.484	41.789	-36.659	1.00	63.81	C
ATOM	51074	O	THR T	35	107.787	40.394	-28.753	1.00	59.81	O	ATOM	51124	C	GLN T	42	105.219	41.423	-37.422	1.00	63.81	C
ATOM	51075	CB	THR T	35	109.170	38.941	-26.040	1.00	62.56	C	ATOM	51125	O	GLN T	42	105.244	41.273	-38.637	1.00	63.81	O
ATOM	51076	OG1	THR T	35	110.460	38.616	-25.477	1.00	62.56	C	ATOM	51126	CB	GLN T	42	107.082	40.531	-36.035	1.00	106.00	C
ATOM	51077	CG2	THR T	35	108.745	37.755	-26.923	1.00	62.56	C	ATOM	51127	CG	GLN T	42	108.362	40.067	-36.693	1.00	106.00	C
ATOM	51078	N	LEU T	36	106.853	40.639	-26.727	1.00	56.41	N	ATOM	51128	CD	GLN T	42	108.187	39.793	-38.166	1.00	106.00	C
ATOM	51079	CA	LEU T	36	105.521	40.834	-27.271	1.00	56.41	C	ATOM	51129	OE1	GLN T	42	107.821	40.681	-38.935	1.00	106.00	O
ATOM	51080	C	LEU T	36	105.448	42.014	-28.225	1.00	56.41	C	ATOM	51130	NE2	GLN T	42	108.451	38.558	-38.572	1.00	106.00	N
ATOM	51081	O	LEU T	36	104.787	41.948	-29.261	1.00	56.41	O	ATOM	51131	N	LEU T	43	104.111	41.278	-36.706	1.00	73.37	N
ATOM	51082	CB	LEU T	36	104.507	41.012	-26.141	1.00	42.01	C	ATOM	51132	CA	LEU T	43	102.851	40.920	-37.344	1.00	73.37	C
ATOM	51083	CG	LEU T	36	104.108	39.746	-25.379	1.00	42.01	C	ATOM	51133	C	LEU T	43	102.290	42.057	-38.170	1.00	73.37	C
ATOM	51084	CD1	LEU T	36	102.786	39.977	-24.679	1.00	42.01	C	ATOM	51134	O	LEU T	43	101.898	41.854	-39.313	1.00	73.37	O
ATOM	51085	CD2	LEU T	36	103.948	38.593	-26.348	1.00	42.01	C	ATOM	51135	CB	LEU T	43	101.815	40.497	-36.303	1.00	74.16	C
ATOM	51086	N	SER T	37	106.123	43.099	-27.870	1.00	64.02	N	ATOM	51136	CG	LEU T	43	102.064	39.174	-35.580	1.00	74.16	C
ATOM	51087	CA	SER T	37	106.133	44.278	-28.715	1.00	64.02	C	ATOM	51137	CD1	LEU T	43	100.909	38.906	-34.639	1.00	74.16	C
ATOM	51088	C	SER T	37	106.630	43.862	-30.077	1.00	64.02	C	ATOM	51138	CD2	LEU T	43	102.201	38.045	-36.591	1.00	74.16	C
ATOM	51089	O	SER T	37	105.945	44.067	-31.077	1.00	64.02	O	ATOM	51139	N	ALA T	44	102.238	43.252	-37.589	1.00	64.43	N
ATOM	51090	CB	SER T	37	107.060	45.329	-28.141	1.00	54.11	O	ATOM	51140	CA	ALA T	44	101.718	44.412	-38.310	1.00	64.43	C
ATOM	51091	OG	SER T	37	106.643	45.697	-26.845	1.00	54.11	O	ATOM	51141	C	ALA T	44	102.478	44.488	-39.626	1.00	64.43	C
ATOM	51092	N	LYS T	38	107.821	43.270	-30.115	1.00	56.55	N	ATOM	51142	O	ALA T	44	101.916	44.797	-40.679	1.00	64.43	O
ATOM	51093	CA	LYS T	38	108.383	42.811	-31.375	1.00	56.55	C	ATOM	51143	CB	ALA T	44	101.935	45.685	-37.495	1.00	96.27	C
ATOM	51094	C	LYS T	38	107.329	41.972	-32.078	1.00	56.55	C	ATOM	51144	N	GLN T	45	103.766	44.183	-39.537	1.00	73.54	N
ATOM	51095	O	LYS T	38	107.003	42.214	-33.238	1.00	56.55	O	ATOM	51145	CA	GLN T	45	104.655	44.176	-40.685	1.00	73.54	C
ATOM	51096	CB	LYS T	38	109.621	41.957	-31.141	1.00	80.25	C	ATOM	51146	C	GLN T	45	104.060	43.193	-41.701	1.00	73.54	C
ATOM	51097	CG	LYS T	38	110.713	42.634	-30.350	1.00	80.25	C	ATOM	51147	O	GLN T	45	103.781	43.553	-42.842	1.00	73.54	O
ATOM	51098	CD	LYS T	38	111.847	41.650	-30.094	1.00	80.25	C	ATOM	51148	CB	GLN T	45	106.046	43.723	-40.229	1.00	114.36	C
ATOM	51099	CE	LYS T	38	112.756	42.114	-28.962	1.00	80.25	C	ATOM	51149	CG	GLN T	45	107.155	44.010	-41.200	1.00	114.36	C
ATOM	51100	N2	LYS T	38	113.661	41.019	-28.516	1.00	80.25	N	ATOM	51150	CD	GLN T	45	106.839	43.489	-42.572	1.00	114.36	C
ATOM	51101	N	LYS T	39	106.790	40.993	-31.357	1.00	53.45	N	ATOM	51151	OE1	GLN T	45	106.558	42.303	-42.750	1.00	114.36	O
ATOM	51102	CA	LYS T	39	105.769	40.091	-31.885	1.00	53.45	C	ATOM	51152	NE2	GLN T	45	106.873	44.375	-43.558	1.00	114.36	N
ATOM	51103	C	LYS T	39	104.690	40.899	-32.600	1.00	53.45	C	ATOM	51153	N	GLU T	46	103.858	41.955	-41.260	1.00	81.26	N
ATOM	51104	O	LYS T	39	104.381	40.642	-33.760	1.00	53.45	O	ATOM	51154	CA	GLU T	46	103.278	40.899	-42.088	1.00	81.26	C
ATOM	51105	CB	LYS T	39	105.154	39.284	-30.735	1.00	91.42	C	ATOM	51155	C	GLU T	46	101.975	41.379	-42.691	1.00	81.26	C
ATOM	51106	CG	LYS T	39	104.413	38.004	-31.130	1.00	91.42	C	ATOM	51156	O	GLU T	46	101.560	40.921	-43.747	1.00	81.26	O
ATOM	51107	CD	LYS T	39	103.792	37.358	-29.885	1.00	91.42	C	ATOM	51157	CB	GLU T	46	102.963	39.671	-41.234	1.00	95.81	C
ATOM	51108	CE	LYS T	39	103.036	36.067	-30.175	1.00	91.42	C	ATOM	51158	CG	GLU T	46	103.766	38.449	-41.552	1.00	95.81	C
ATOM	51109	N2	LYS T	39	103.941	34.919	-30.437	1.00	91.42	N	ATOM	51159	CD	GLU T	46	105.220	38.645	-41.247	1.00	95.81	C
ATOM	51110	N	ALA T	40	104.126	41.882	-31.905	1.00	57.88	N	ATOM	51160	OE1	GLU T	46	105.863	39.458	-41.945	1.00	95.81	O
ATOM	51111	CA	ALA T	40	103.086	42.714	-32.490	1.00	57.88	C	ATOM	51161	OE2	GLU T	46	105.714	37.993	-40.303	1.00	95.81	O
ATOM	51112	C	ALA T	40	103.614	43.451	-33.706	1.00	57.88	C	ATOM	51162	N	GLY T	47	101.322	42.297	-41.996	1.00	75.58	N
ATOM	51113	O	ALA T	40	102.983	43.452	-34.763	1.00	57.88	O	ATOM	51163	CA	GLY T	47	100.048	42.792	-42.466	1.00	75.58	C
ATOM	51114	CB	ALA T	40	102.566	43.712	-31.469	1.00	32.45	C	ATOM	51164	C	GLY T	47	98.911	42.078	-41.752	1.00	75.58	C
ATOM	51115	N	VAL T	41	104.772	44.084	-33.557	1.00	59.23	N	ATOM	51165	O	GLY T	47	97.747	42.446	-41.916	1.00	75.58	O



Table 2: Sheet 513/520

ATOM	51166	N	LYS T	48	99.244	41.053	-40.963	1.00	73.47	N	ATOM	51216	CG	LYS T	54	93.893	39.836	-31.546	1.00	123.78	C
ATOM	51167	CA	LYS T	48	98.240	40.302	-40.211	1.00	73.47	C	ATOM	51217	CD	LYS T	54	92.631	38.397	-31.975	1.00	123.78	C
ATOM	51168	C	LYS T	48	97.540	41.240	-39.217	1.00	73.47	C	ATOM	51218	CE	LYS T	54	92.467	38.309	-32.948	1.00	123.78	C
ATOM	51169	O	LYS T	48	98.039	41.495	-38.126	1.00	73.47	O	ATOM	51219	NZ	LYS T	54	92.285	36.918	-33.442	1.00	123.78	N
ATOM	51170	CB	LYS T	48	98.896	39.137	-39.466	1.00	103.50	C	ATOM	51220	N	ILE T	55	97.909	40.938	-30.068	1.00	53.42	N
ATOM	51171	CG	LYS T	48	99.577	38.110	-40.366	1.00	103.50	C	ATOM	51221	CA	ILE T	55	99.169	40.888	-29.347	1.00	53.42	C
ATOM	51172	CD	LYS T	48	99.885	36.831	-39.586	1.00	103.50	C	ATOM	51222	C	ILE T	55	99.502	42.272	-28.829	1.00	53.42	C
ATOM	51173	CE	LYS T	48	100.634	35.788	-40.414	1.00	103.50	C	ATOM	51223	O	ILE T	55	99.948	42.433	-27.687	1.00	53.42	O
ATOM	51174	NZ	LYS T	48	102.068	36.137	-40.641	1.00	103.50	N	ATOM	51224	CB	ILE T	55	100.299	40.425	-30.241	1.00	50.47	C
ATOM	51175	N	ALA T	49	96.377	41.744	-39.609	1.00	74.63	N	ATOM	51225	CG1	ILE T	55	100.112	38.952	-30.553	1.00	50.47	C
ATOM	51176	CA	ALA T	49	95.619	42.685	-38.792	1.00	74.63	C	ATOM	51226	CG2	ILE T	55	101.639	40.651	-29.562	1.00	50.47	C
ATOM	51177	C	ALA T	49	95.233	42.205	-37.400	1.00	74.63	C	ATOM	51227	CD1	ILE T	55	101.215	38.398	-31.409	1.00	50.47	C
ATOM	51178	O	ALA T	49	95.862	42.587	-36.414	1.00	74.63	O	ATOM	51228	N	MET T	56	99.289	43.277	-29.672	1.00	50.47	C
ATOM	51179	CB	ALA T	49	94.369	43.120	-39.548	1.00	156.07	C	ATOM	51229	CA	MET T	56	99.563	44.635	-29.262	1.00	50.41	C
ATOM	51180	N	GLU T	50	94.183	41.386	-37.329	1.00	93.13	N	ATOM	51230	C	MET T	56	98.887	44.926	-27.917	1.00	50.41	C
ATOM	51181	CA	GLU T	50	93.674	40.861	-36.063	1.00	93.13	C	ATOM	51231	O	MET T	56	99.482	45.581	-27.060	1.00	50.41	O
ATOM	51182	C	GLU T	50	94.773	40.528	-35.085	1.00	93.13	C	ATOM	51232	CB	MET T	56	99.073	45.621	-30.309	1.00	75.93	C
ATOM	51183	O	GLU T	50	95.047	41.297	-34.166	1.00	93.13	O	ATOM	51233	CG	MET T	56	99.413	47.047	-29.954	1.00	75.93	C
ATOM	51184	CB	GLU T	50	92.823	39.608	-36.291	1.00	155.68	C	ATOM	51234	SD	MET T	56	98.308	48.216	-30.723	1.00	75.93	S
ATOM	51185	CG	GLU T	50	91.467	39.870	-36.917	1.00	155.68	C	ATOM	51235	CE	MET T	57	99.248	48.606	-32.121	1.00	75.93	C
ATOM	51186	CD	GLU T	50	90.577	38.640	-36.919	1.00	155.68	C	ATOM	51236	CA	ARG T	57	96.660	44.436	-27.713	1.00	57.56	N
ATOM	51187	OE1	GLU T	50	90.964	37.624	-37.534	1.00	155.68	O	ATOM	51237	N	ARG T	57	97.719	44.088	-25.246	1.00	57.56	C
ATOM	51188	OE2	GLU T	50	89.490	38.688	-36.305	1.00	155.68	O	ATOM	51238	C	ARG T	57	97.853	44.738	-24.210	1.00	57.56	O
ATOM	51189	N	GLU T	51	95.404	39.380	-35.300	1.00	73.98	N	ATOM	51239	O	ARG T	57	95.532	44.165	-26.439	1.00	77.00	C
ATOM	51190	CA	GLU T	51	96.472	38.910	-34.431	1.00	73.98	C	ATOM	51240	CB	ARG T	57	94.569	44.911	-27.340	1.00	77.00	C
ATOM	51191	C	GLU T	51	97.473	39.982	-34.016	1.00	73.98	C	ATOM	51241	CG	ARG T	57	93.480	44.016	-29.386	1.00	77.00	N
ATOM	51192	O	GLU T	51	97.788	40.117	-32.828	1.00	73.98	O	ATOM	51242	CD	ARG T	57	92.570	43.222	-28.831	1.00	77.00	C
ATOM	51193	CB	GLU T	51	97.186	37.719	-35.080	1.00	154.36	C	ATOM	51243	NE	ARG T	57	92.756	42.734	-27.610	1.00	77.00	N
ATOM	51194	CD	GLU T	51	97.337	37.816	-36.584	1.00	154.36	C	ATOM	51244	C2	ARG T	57	91.475	42.906	-29.507	1.00	77.00	N
ATOM	51195	CG	GLU T	51	97.515	36.452	-37.234	1.00	154.36	C	ATOM	51245	NH1	ARG T	57	98.192	42.852	-25.374	1.00	60.97	N
ATOM	51196	OE1	GLU T	51	98.443	35.714	-36.838	1.00	154.36	O	ATOM	51246	NH2	ARG T	57	98.929	42.256	-24.266	1.00	60.97	C
ATOM	51197	OE2	GLU T	51	96.724	36.117	-38.142	1.00	154.36	O	ATOM	51247	N	LYS T	58	100.069	43.220	-23.969	1.00	60.97	C
ATOM	51198	N	ALA T	52	97.962	40.758	-34.976	1.00	76.14	N	ATOM	51248	CA	LYS T	58	100.245	43.674	-22.830	1.00	60.97	O
ATOM	51199	CA	ALA T	52	98.924	41.803	-34.652	1.00	76.14	C	ATOM	51249	C	LYS T	58	99.478	40.879	-24.643	1.00	125.22	C
ATOM	51200	C	ALA T	52	98.364	42.716	-33.571	1.00	76.14	C	ATOM	51250	O	LYS T	58	98.396	39.835	-24.847	1.00	125.22	C
ATOM	51201	O	ALA T	52	99.011	42.961	-32.553	1.00	76.14	O	ATOM	51251	CB	LYS T	58	98.970	38.438	-25.065	1.00	125.22	C
ATOM	51202	CB	ALA T	52	99.268	42.606	-35.891	1.00	58.10	C	ATOM	51252	CG	LYS T	58	97.857	37.412	-25.300	1.00	125.22	C
ATOM	51203	N	LEU T	53	97.154	43.214	-33.787	1.00	51.31	N	ATOM	51253	CD	LYS T	58	98.367	36.026	-25.529	1.00	125.22	N
ATOM	51204	CA	LEU T	53	96.533	44.099	-32.814	1.00	51.31	C	ATOM	51254	CE	LYS T	58	100.816	43.547	-25.021	1.00	47.83	N
ATOM	51205	C	LEU T	53	96.366	43.383	-31.484	1.00	51.31	O	ATOM	51255	NZ	LYS T	58	101.932	44.469	-24.920	1.00	47.83	C
ATOM	51206	O	LEU T	53	96.791	43.902	-30.446	1.00	51.31	C	ATOM	51256	N	ALA T	59	101.494	45.715	-24.149	1.00	47.83	C
ATOM	51207	CB	LEU T	53	95.180	44.595	-33.329	1.00	56.41	C	ATOM	51257	CA	ALA T	59	102.086	46.063	-23.121	1.00	47.83	O
ATOM	51208	CG	LEU T	53	95.273	45.722	-34.365	1.00	56.41	C	ATOM	51258	C	ALA T	59	102.412	44.848	-26.307	1.00	65.57	C
ATOM	51209	CD1	LEU T	53	93.914	45.975	-34.986	1.00	56.41	C	ATOM	51259	O	ALA T	59	100.454	46.386	-24.631	1.00	39.95	N
ATOM	51210	CD2	LEU T	53	95.805	46.987	-33.697	1.00	56.41	C	ATOM	51260	CB	ALA T	59	99.998	47.562	-23.929	1.00	39.95	C
ATOM	51211	N	LYS T	54	95.768	42.187	-31.525	1.00	78.52	N	ATOM	51261	N	GLU T	60	99.832	47.191	-22.451	1.00	39.95	C
ATOM	51212	CA	LYS T	54	95.540	41.370	-30.328	1.00	78.52	C	ATOM	51262	CA	GLU T	60	100.469	47.777	-21.575	1.00	39.95	O
ATOM	51213	C	LYS T	54	96.791	41.336	-29.466	1.00	78.52	C	ATOM	51263	C	GLU T	60	98.677	48.065	-24.503	1.00	49.57	C
ATOM	51214	O	LYS T	54	96.744	41.660	-28.277	1.00	78.52	O	ATOM	51264	O	GLU T	60						
ATOM	51215	CB	LYS T	54	95.159	39.940	-30.713	1.00	123.78	C	ATOM	51265	CB	GLU T	60						



ATOM	51266	CG	GLU	T	60	98.234	49.381	-23.880	1.00	49.57	C	ATOM	51316	C	ALA	T	67	103.639	51.066	-13.384	1.00	50.17	C
ATOM	51267	CD	GLU	T	60	96.991	49.977	-24.525	1.00	49.57	C	ATOM	51317	O	ALA	T	67	103.668	52.047	-12.637	1.00	50.17	O
ATOM	51268	OE1	GLU	T	60	96.536	51.036	-24.047	1.00	49.57	O	ATOM	51318	CB	ALA	T	67	103.850	52.047	-15.653	1.00	45.37	O
ATOM	51269	OE2	GLU	T	60	96.462	49.400	-25.501	1.00	49.57	O	ATOM	51319	N	LYS	T	68	102.920	49.977	-13.133	1.00	49.11	N
ATOM	51270	N	SER	T	61	99.004	46.189	-22.183	1.00	50.33	N	ATOM	51320	CA	LYS	T	68	102.107	49.875	-11.926	1.00	49.11	C
ATOM	51271	CA	SER	T	61	98.748	45.740	-20.819	1.00	50.33	C	ATOM	51321	O	LYS	T	68	103.052	49.910	-10.730	1.00	49.11	C
ATOM	51272	C	SER	T	61	99.991	45.561	-19.933	1.00	50.33	C	ATOM	51322	O	LYS	T	68	102.868	50.684	-9.801	1.00	49.11	O
ATOM	51273	O	SER	T	61	100.117	46.186	-18.872	1.00	50.33	O	ATOM	51323	CB	LYS	T	68	101.284	48.579	-11.943	1.00	88.53	C
ATOM	51274	CB	SER	T	61	97.969	44.430	-20.858	1.00	73.56	C	ATOM	51324	CG	LYS	T	68	100.188	48.546	-10.908	1.00	88.53	C
ATOM	51275	OG	SER	T	61	97.836	43.890	-19.559	1.00	73.56	O	ATOM	51325	CD	LYS	T	68	99.260	49.736	-11.083	1.00	88.53	C
ATOM	51276	N	LEU	T	62	100.906	44.701	-20.357	1.00	58.59	N	ATOM	51326	CE	LYS	T	68	98.445	50.030	-9.819	1.00	88.53	C
ATOM	51277	CA	LEU	T	62	102.097	44.462	-19.564	1.00	58.59	C	ATOM	51327	NZ	LYS	T	68	97.533	51.206	-9.998	1.00	88.53	N
ATOM	51278	C	LEU	T	62	102.861	45.740	-19.301	1.00	58.59	C	ATOM	51328	N	GLY	T	69	104.075	49.069	-10.766	1.00	69.75	N
ATOM	51279	O	LEU	T	62	103.449	45.921	-18.230	1.00	58.59	O	ATOM	51329	CA	GLY	T	69	105.043	49.058	-9.692	1.00	69.75	C
ATOM	51280	CB	LEU	T	62	102.998	43.456	-20.261	1.00	42.23	C	ATOM	51330	O	GLY	T	69	106.182	49.925	-10.171	1.00	69.75	C
ATOM	51281	CG	LEU	T	62	102.350	42.076	-20.368	1.00	42.23	C	ATOM	51331	O	GLY	T	69	105.972	50.777	-11.033	1.00	69.75	O
ATOM	51282	CD1	LEU	T	62	103.267	41.108	-21.118	1.00	42.23	C	ATOM	51332	N	SER	T	70	107.386	49.712	-9.653	1.00	38.16	N
ATOM	51283	CD2	LEU	T	62	102.043	41.573	-18.968	1.00	42.23	C	ATOM	51333	CA	SER	T	70	108.514	50.526	-10.077	1.00	38.16	C
ATOM	51284	N	ILE	T	63	102.854	46.630	-20.284	1.00	53.89	N	ATOM	51334	O	SER	T	70	109.459	49.831	-11.051	1.00	38.16	C
ATOM	51285	CA	ILE	T	63	103.551	47.895	-20.147	1.00	53.89	C	ATOM	51335	O	SER	T	70	110.648	49.761	-10.810	1.00	38.16	O
ATOM	51286	C	ILE	T	63	102.895	48.710	-19.041	1.00	53.89	C	ATOM	51336	CB	SER	T	70	109.289	51.034	-8.851	1.00	44.59	O
ATOM	51287	O	ILE	T	63	103.540	49.067	-18.057	1.00	53.89	O	ATOM	51337	OG	SER	T	70	109.933	49.991	-8.146	1.00	44.59	O
ATOM	51288	CB	ILE	T	63	103.520	48.666	-21.469	1.00	44.55	C	ATOM	51338	N	THR	T	71	108.926	49.329	-12.160	1.00	58.61	N
ATOM	51289	CG1	ILE	T	63	104.222	47.841	-22.548	1.00	44.55	C	ATOM	51339	CA	THR	T	71	109.737	48.645	-13.161	1.00	58.61	C
ATOM	51290	CG2	ILE	T	63	104.213	49.997	-21.311	1.00	44.55	C	ATOM	51340	C	THR	T	71	109.829	49.540	-14.374	1.00	58.61	C
ATOM	51291	CD1	ILE	T	63	104.250	48.504	-23.909	1.00	44.55	C	ATOM	51341	O	THR	T	71	110.728	49.376	-15.198	1.00	58.61	O
ATOM	51292	N	ASP	T	64	101.607	48.992	-19.195	1.00	51.66	N	ATOM	51342	CB	THR	T	71	109.099	47.318	-13.606	1.00	46.32	C
ATOM	51293	CA	ASP	T	64	100.897	49.754	-18.186	1.00	51.66	C	ATOM	51343	OG1	THR	T	71	108.760	46.546	-12.454	1.00	46.32	O
ATOM	51294	C	ASP	T	64	101.074	49.091	-16.829	1.00	51.66	C	ATOM	51344	CG2	THR	T	71	110.062	46.513	-14.453	1.00	46.32	C
ATOM	51295	O	ASP	T	64	101.180	49.767	-15.807	1.00	51.66	O	ATOM	51345	N	LEU	T	72	108.886	50.480	-14.474	1.00	72.68	N
ATOM	51296	CB	ASP	T	64	99.414	49.860	-18.541	1.00	92.72	C	ATOM	51346	CA	LEU	T	72	108.823	51.430	-15.587	1.00	72.68	C
ATOM	51297	CG	ASP	T	64	99.113	51.065	-19.419	1.00	92.72	C	ATOM	51347	C	LEU	T	72	108.269	52.778	-15.167	1.00	72.68	C
ATOM	51298	OD1	ASP	T	64	99.361	52.208	-18.972	1.00	92.72	O	ATOM	51348	O	LEU	T	72	108.884	53.840	-15.346	1.00	72.68	O
ATOM	51299	OD2	ASP	T	64	98.629	50.877	-20.555	1.00	92.72	O	ATOM	51349	CB	LEU	T	72	107.903	50.925	-16.683	1.00	41.18	C
ATOM	51300	N	LYS	T	65	101.126	47.763	-16.823	1.00	52.07	N	ATOM	51350	CG	LEU	T	72	108.370	50.000	-17.780	1.00	41.18	C
ATOM	51301	CA	LYS	T	65	101.289	47.021	-15.584	1.00	52.07	C	ATOM	51351	CD1	LEU	T	72	107.224	49.916	-18.784	1.00	41.18	C
ATOM	51302	C	LYS	T	65	102.681	47.161	-14.992	1.00	52.07	C	ATOM	51352	CD2	LEU	T	72	109.632	50.533	-18.442	1.00	41.18	C
ATOM	51303	O	LYS	T	65	102.846	47.192	-13.773	1.00	52.07	O	ATOM	51353	N	HIS	T	73	107.056	52.727	-14.648	1.00	99.40	N
ATOM	51304	CB	LYS	T	65	100.990	45.553	-15.813	1.00	52.08	C	ATOM	51354	CA	HIS	T	73	106.389	53.938	-14.230	1.00	99.40	C
ATOM	51305	CG	LYS	T	65	99.543	45.269	-16.033	1.00	52.08	C	ATOM	51355	C	HIS	T	73	106.208	55.004	-15.327	1.00	99.40	C
ATOM	51306	CD	LYS	T	65	99.286	43.797	-15.891	1.00	52.08	C	ATOM	51356	O	HIS	T	73	107.046	55.177	-16.223	1.00	99.40	O
ATOM	51307	CE	LYS	T	65	97.818	43.508	-15.965	1.00	52.08	C	ATOM	51357	CB	HIS	T	73	107.139	54.564	-13.059	1.00	104.00	C
ATOM	51308	NZ	LYS	T	65	97.591	42.051	-15.859	1.00	52.08	N	ATOM	51358	CG	HIS	T	73	106.863	53.914	-11.742	1.00	104.00	C
ATOM	51309	N	ALA	T	66	103.693	47.218	-15.847	1.00	56.14	N	ATOM	51359	ND1	HIS	T	73	105.585	53.687	-11.278	1.00	104.00	N
ATOM	51310	CA	ALA	T	66	105.049	47.372	-15.352	1.00	56.14	C	ATOM	51360	CD2	HIS	T	73	107.698	53.529	-10.750	1.00	104.00	C
ATOM	51311	C	ALA	T	66	105.134	48.739	-14.671	1.00	56.14	C	ATOM	51361	CE1	HIS	T	73	105.646	53.197	-10.053	1.00	104.00	C
ATOM	51312	O	ALA	T	66	105.807	48.904	-13.659	1.00	56.14	O	ATOM	51362	NE2	HIS	T	73	106.917	53.091	-9.709	1.00	104.00	N
ATOM	51313	CB	ALA	T	66	106.040	47.287	-16.496	1.00	39.09	C	ATOM	51363	N	LYS	T	74	105.081	55.704	-15.204	1.00	44.79	N
ATOM	51314	N	ALA	T	67	104.428	49.713	-15.227	1.00	50.17	N	ATOM	51364	CA	LYS	T	74	104.665	56.814	-16.037	1.00	44.79	C
ATOM	51315	CA	ALA	T	67	104.438	51.050	-14.665	1.00	50.17	C	ATOM	51365	C	LYS	T	74	105.125	56.868	-17.491	1.00	44.79	C



Table 2. Sheet 515/520

ATOM	51366	O	LYS T 74	104.802	56.010	-18.305	1.00	44.79	O	ATOM	51416	NH2	ARG T 80	111.958	51.081	-21.085	1.00	75.12	N
ATOM	51367	CB	LYS T 74	105.084	58.110	-15.325	1.00	63.61	C	ATOM	51417	N	LYS T 81	104.267	52.606	-25.189	1.00	52.91	N
ATOM	51368	CG	LYS T 74	106.624	58.455	-15.335	1.00	63.61	C	ATOM	51418	CA	LYS T 81	102.974	52.469	-25.836	1.00	52.91	C
ATOM	51369	CD	LYS T 74	107.537	57.404	-14.712	1.00	63.61	C	ATOM	51419	C	LYS T 81	102.845	53.268	-27.118	1.00	52.91	C
ATOM	51370	CE	LYS T 74	108.886	57.989	-14.445	1.00	63.61	C	ATOM	51420	O	LYS T 81	102.339	52.762	-28.124	1.00	52.91	O
ATOM	51371	N2	LYS T 74	108.717	59.103	-13.495	1.00	63.61	N	ATOM	51421	CB	LYS T 81	101.867	52.847	-24.853	1.00	54.26	C
ATOM	51372	N	ASN T 75	105.861	57.938	-17.776	1.00	50.27	N	ATOM	51422	CG	LYS T 81	101.754	51.857	-23.701	1.00	54.26	C
ATOM	51373	CA	ASN T 75	106.440	58.295	-19.059	1.00	50.27	C	ATOM	51423	CD	LYS T 81	100.972	52.427	-22.539	1.00	54.26	C
ATOM	51374	C	ASN T 75	107.083	57.158	-19.827	1.00	50.27	C	ATOM	51424	CE	LYS T 81	99.583	52.847	-22.965	1.00	54.26	C
ATOM	51375	O	ASN T 75	106.772	56.942	-21.005	1.00	50.27	O	ATOM	51425	N2	LYS T 81	98.833	53.444	-21.826	1.00	54.26	N
ATOM	51376	CB	ASN T 75	107.462	59.392	-18.812	1.00	53.64	C	ATOM	51426	N	SER T 82	103.301	54.514	-27.094	1.00	62.01	N
ATOM	51377	CG	ASN T 75	106.864	60.574	-18.077	1.00	53.64	C	ATOM	51427	CA	SER T 82	103.220	55.339	-28.292	1.00	62.01	C
ATOM	51378	OD1	ASN T 75	105.880	60.431	-17.355	1.00	53.64	O	ATOM	51428	C	SER T 82	104.055	54.738	-29.405	1.00	62.01	C
ATOM	51379	ND2	ASN T 75	107.460	61.749	-18.253	1.00	53.64	N	ATOM	51429	O	SER T 82	103.554	54.497	-30.493	1.00	62.01	O
ATOM	51380	N	ALA T 76	108.000	56.455	-19.164	1.00	53.14	N	ATOM	51430	CB	SER T 82	103.701	56.750	-27.999	1.00	62.30	C
ATOM	51381	CA	ALA T 76	108.691	55.319	-19.764	1.00	53.14	C	ATOM	51431	OG	SER T 82	104.832	56.685	-27.166	1.00	62.30	O
ATOM	51382	C	ALA T 76	107.649	54.461	-20.469	1.00	53.14	C	ATOM	51432	N	ARG T 83	105.326	54.479	-29.134	1.00	52.40	N
ATOM	51383	O	ALA T 76	107.736	54.210	-21.670	1.00	53.14	O	ATOM	51433	CA	ARG T 83	106.195	53.913	-30.159	1.00	52.40	C
ATOM	51384	CB	ALA T 76	109.381	54.519	-18.685	1.00	38.33	C	ATOM	51434	C	ARG T 83	105.684	52.581	-30.713	1.00	52.40	C
ATOM	51385	N	ALA T 77	106.650	54.033	-19.700	1.00	47.85	N	ATOM	51435	O	ARG T 83	105.969	52.229	-31.861	1.00	52.40	O
ATOM	51386	CA	ALA T 77	105.566	53.219	-20.217	1.00	47.85	C	ATOM	51436	CB	ARG T 83	107.618	53.761	-29.613	1.00	71.94	C
ATOM	51387	C	ALA T 77	104.815	53.949	-21.324	1.00	47.85	C	ATOM	51437	CG	ARG T 83	108.280	55.103	-29.331	1.00	71.94	C
ATOM	51388	O	ALA T 77	104.496	53.358	-22.354	1.00	47.85	O	ATOM	51438	CD	ARG T 83	109.710	54.981	-28.846	1.00	71.94	C
ATOM	51389	CB	ALA T 77	104.622	52.863	-19.100	1.00	46.16	C	ATOM	51439	NE	ARG T 83	110.252	56.291	-28.496	1.00	71.94	N
ATOM	51390	N	ALA T 78	104.529	55.230	-21.115	1.00	42.63	N	ATOM	51440	C2	ARG T 83	111.460	56.496	-27.980	1.00	71.94	C
ATOM	51391	CA	ALA T 78	103.818	56.019	-22.119	1.00	42.63	C	ATOM	51441	NH1	ARG T 83	112.271	55.472	-27.749	1.00	71.94	N
ATOM	51392	C	ALA T 78	104.603	56.032	-23.429	1.00	42.63	C	ATOM	51442	NH2	ARG T 83	111.857	57.728	-27.687	1.00	71.94	N
ATOM	51393	O	ALA T 78	104.037	55.861	-24.526	1.00	42.63	O	ATOM	51443	N	LEU T 84	104.919	51.848	-29.904	1.00	59.67	N
ATOM	51394	CB	ALA T 78	103.636	57.421	-21.628	1.00	29.04	C	ATOM	51444	CA	LEU T 84	104.376	50.562	-30.324	1.00	59.67	C
ATOM	51395	N	ARG T 79	105.914	56.232	-23.297	1.00	46.17	N	ATOM	51445	C	LEU T 84	103.178	50.792	-31.229	1.00	59.67	C
ATOM	51396	CA	ARG T 79	106.823	56.269	-24.435	1.00	46.17	C	ATOM	51446	O	LEU T 84	103.159	50.338	-32.366	1.00	59.67	O
ATOM	51397	C	ARG T 79	106.746	54.936	-25.171	1.00	46.17	C	ATOM	51447	CB	LEU T 84	103.939	49.741	-29.113	1.00	47.88	C
ATOM	51398	O	ARG T 79	106.682	54.893	-26.399	1.00	46.17	O	ATOM	51448	CG	LEU T 84	103.993	48.209	-29.219	1.00	47.88	C
ATOM	51399	CB	ARG T 79	108.251	56.517	-23.946	1.00	64.33	C	ATOM	51449	CD1	LEU T 84	102.915	47.618	-28.307	1.00	47.88	C
ATOM	51400	CG	ARG T 79	109.216	57.031	-24.997	1.00	64.33	C	ATOM	51450	CD2	LEU T 84	103.776	47.744	-30.655	1.00	47.88	C
ATOM	51401	CD	ARG T 79	110.457	56.154	-25.092	1.00	64.33	C	ATOM	51451	N	MET T 85	102.171	51.495	-30.725	1.00	68.33	N
ATOM	51402	NE	ARG T 79	110.995	55.749	-23.789	1.00	64.33	N	ATOM	51452	CA	MET T 85	100.986	51.759	-31.529	1.00	68.33	C
ATOM	51403	C2	ARG T 79	111.250	56.580	-22.779	1.00	64.33	C	ATOM	51453	C	MET T 85	101.398	52.513	-32.795	1.00	68.33	C
ATOM	51404	NH1	ARG T 79	111.015	57.882	-22.914	1.00	64.33	N	ATOM	51454	O	MET T 85	100.773	52.386	-33.846	1.00	68.33	O
ATOM	51405	NH2	ARG T 79	111.746	56.112	-21.636	1.00	64.33	N	ATOM	51455	CB	MET T 85	99.971	52.575	-30.727	1.00	68.16	C
ATOM	51406	N	ARG T 80	106.746	53.847	-24.410	1.00	50.03	N	ATOM	51456	CG	MET T 85	99.617	51.969	-29.380	1.00	68.16	C
ATOM	51407	CA	ARG T 80	106.668	52.510	-24.988	1.00	50.03	C	ATOM	51457	SD	MET T 85	98.267	52.837	-28.537	1.00	68.16	S
ATOM	51408	C	ARG T 80	105.405	52.353	-25.826	1.00	50.03	C	ATOM	51458	CE	MET T 85	97.711	51.583	-27.372	1.00	68.16	C
ATOM	51409	O	ARG T 80	105.463	52.006	-27.010	1.00	50.03	O	ATOM	51459	N	ARG T 86	102.466	53.294	-32.678	1.00	66.21	N
ATOM	51410	CB	ARG T 80	106.637	51.466	-23.883	1.00	75.12	C	ATOM	51460	CA	ARG T 86	103.001	54.068	-33.788	1.00	66.21	C
ATOM	51411	CG	ARG T 80	107.677	51.670	-22.826	1.00	75.12	C	ATOM	51461	C	ARG T 86	103.361	53.061	-34.881	1.00	66.21	C
ATOM	51412	CD	ARG T 80	108.908	50.862	-23.084	1.00	75.12	C	ATOM	51462	O	ARG T 86	102.685	52.968	-35.904	1.00	66.21	O
ATOM	51413	NE	ARG T 80	109.957	51.295	-22.180	1.00	75.12	N	ATOM	51463	CB	ARG T 86	104.261	54.802	-33.327	1.00	152.52	C
ATOM	51414	C2	ARG T 80	111.050	50.595	-21.921	1.00	75.12	C	ATOM	51464	CG	ARG T 86	104.594	56.056	-34.092	1.00	152.52	C
ATOM	51415	NH1	ARG T 80	111.233	49.414	-22.501	1.00	75.12	N	ATOM	51465	CD	ARG T 86	103.692	57.190	-33.677	1.00	152.52	C



Table 2: Sheet 516/520

ATOM	51466	NE	ARG T	86	104.098	58.441	-34.305	1.00152.52	N	ATOM	51516	C	LEU T	92	99.071	48.719	-42.242	1.00	70.96	O	
ATOM	51467	CZ	ARG T	86	103.504	59.612	-34.095	1.00152.52	C	ATOM	51517	O	LEU T	92	98.790	48.142	-43.294	1.00	70.96	O	
ATOM	51468	NH1	ARG T	86	102.470	59.698	-33.267	1.00152.52	N	ATOM	51518	CB	LEU T	92	98.508	47.913	-39.928	1.00	49.02	C	
ATOM	51469	NH2	ARG T	86	103.945	60.701	-34.712	1.00152.52	N	ATOM	51519	CG	LEU T	92	98.639	46.693	-39.011	1.00	49.02	C	
ATOM	51470	N	LYS T	87	104.421	52.294	-34.638	1.00	46.46	N	ATOM	51520	CD1	LEU T	92	97.553	46.720	-37.939	1.00	49.02	C
ATOM	51471	CA	LYS T	87	104.895	51.290	-35.579	1.00	46.46	C	ATOM	51521	CD2	LEU T	92	98.537	45.423	-39.858	1.00	49.02	C
ATOM	51472	C	LYS T	87	103.806	50.374	-36.132	1.00	46.46	C	ATOM	51522	N	GLU T	93	98.980	50.035	-42.098	1.00	92.68	N
ATOM	51473	O	LYS T	87	103.733	50.151	-37.342	1.00	46.46	O	ATOM	51523	CA	GLU T	93	98.531	50.876	-43.199	1.00	92.68	C
ATOM	51474	CB	LYS T	87	105.981	50.439	-34.928	1.00	78.79	C	ATOM	51524	C	GLU T	93	99.390	50.607	-44.428	1.00	92.68	C
ATOM	51475	CG	LYS T	87	107.170	51.237	-34.452	1.00	78.79	C	ATOM	51525	O	GLU T	93	98.869	50.358	-45.511	1.00	92.68	O
ATOM	51476	CD	LYS T	87	108.169	50.369	-33.702	1.00	78.79	C	ATOM	51526	CB	GLU T	93	98.605	52.349	-42.802	1.00	172.42	C
ATOM	51477	CE	LYS T	87	109.274	51.222	-33.089	1.00	78.79	C	ATOM	51527	CG	GLU T	93	97.635	52.714	-41.692	1.00	172.42	C
ATOM	51478	NZ	LYS T	87	110.238	50.422	-32.290	1.00	78.79	N	ATOM	51528	CD	GLU T	93	97.699	54.177	-41.314	1.00	172.42	C
ATOM	51479	N	VAL T	88	102.955	49.839	-35.263	1.00	60.54	N	ATOM	51529	OE1	GLU T	93	97.525	55.029	-42.210	1.00	172.42	O
ATOM	51480	CA	VAL T	88	101.921	48.931	-35.736	1.00	60.54	C	ATOM	51530	OE2	GLU T	93	97.919	54.475	-40.121	1.00	172.42	O
ATOM	51481	C	VAL T	88	101.001	49.618	-36.731	1.00	60.54	C	ATOM	51531	N	ALA T	94	100.707	50.639	-44.254	1.00	74.58	N
ATOM	51482	O	VAL T	88	100.807	49.115	-37.839	1.00	60.54	O	ATOM	51532	CA	ALA T	94	101.635	50.384	-45.351	1.00	74.58	C
ATOM	51483	CB	VAL T	88	101.119	48.334	-34.562	1.00	56.90	C	ATOM	51533	C	ALA T	94	101.342	49.030	-45.988	1.00	74.58	C
ATOM	51484	CG1	VAL T	88	99.976	47.472	-35.088	1.00	56.90	C	ATOM	51534	O	ALA T	94	101.331	48.886	-47.213	1.00	74.58	O
ATOM	51485	CG2	VAL T	88	102.045	47.478	-33.689	1.00	56.90	C	ATOM	51535	CB	ALA T	94	103.070	50.413	-44.839	1.00	56.96	C
ATOM	51486	N	ARG T	89	100.448	50.767	-36.349	1.00	64.69	N	ATOM	51536	N	ALA T	95	101.111	48.030	-45.147	1.00	101.85	N
ATOM	51487	CA	ARG T	89	99.571	51.533	-37.243	1.00	64.69	C	ATOM	51537	CA	ALA T	95	100.812	46.696	-45.637	1.00	101.85	C
ATOM	51488	C	ARG T	89	100.211	51.669	-38.613	1.00	64.69	C	ATOM	51538	C	ALA T	95	99.479	46.733	-46.374	1.00	101.85	C
ATOM	51489	O	ARG T	89	99.669	51.203	-39.613	1.00	64.69	O	ATOM	51539	O	ALA T	95	99.128	45.799	-47.094	1.00	101.85	O
ATOM	51490	CB	ARG T	89	99.342	52.944	-36.704	1.00	76.92	C	ATOM	51540	CB	ALA T	95	100.745	45.722	-44.473	1.00	109.83	C
ATOM	51491	CG	ARG T	89	98.135	53.121	-35.834	1.00	76.92	C	ATOM	51541	N	GLY T	96	98.751	47.832	-46.201	1.00	108.61	N
ATOM	51492	CD	ARG T	89	96.982	53.733	-36.597	1.00	76.92	C	ATOM	51542	CA	GLY T	96	97.456	47.969	-46.837	1.00	108.61	C
ATOM	51493	NE	ARG T	89	95.960	54.171	-35.656	1.00	76.92	N	ATOM	51543	C	GLY T	96	96.505	47.031	-46.127	1.00	108.61	C
ATOM	51494	CZ	ARG T	89	94.779	54.663	-36.000	1.00	76.92	C	ATOM	51544	O	GLY T	96	95.782	46.250	-46.750	1.00	108.61	O
ATOM	51495	NH1	ARG T	89	94.460	54.786	-37.280	1.00	76.92	N	ATOM	51545	N	ALA T	97	96.510	47.111	-44.803	1.00	97.71	N
ATOM	51496	NH2	ARG T	89	93.916	55.022	-35.061	1.00	76.92	N	ATOM	51546	CA	ALA T	97	95.673	46.249	-43.990	1.00	97.71	C
ATOM	51497	N	GLN T	90	101.368	52.325	-38.639	1.00	74.22	N	ATOM	51547	C	ALA T	97	94.654	47.019	-43.176	1.00	97.71	C
ATOM	51498	CA	GLN T	90	102.109	52.551	-39.869	1.00	74.22	C	ATOM	51548	O	ALA T	97	94.982	48.016	-42.535	1.00	97.71	O
ATOM	51499	C	GLN T	90	102.297	51.249	-40.642	1.00	74.22	C	ATOM	51549	CB	ALA T	97	96.540	45.446	-43.077	1.00	47.15	C
ATOM	51500	O	GLN T	90	101.854	51.133	-41.782	1.00	74.22	O	ATOM	51550	N	PRO T	98	93.398	46.558	-43.186	1.00	88.33	N
ATOM	51501	CB	GLN T	90	103.467	53.173	-39.550	1.00	134.62	C	ATOM	51551	CA	PRO T	98	92.318	47.205	-42.441	1.00	88.33	C
ATOM	51502	CG	GLN T	90	103.371	54.365	-38.612	1.00	134.62	C	ATOM	51552	C	PRO T	98	92.324	46.781	-40.972	1.00	88.33	C
ATOM	51503	CD	GLN T	90	104.721	54.981	-38.292	1.00	134.62	C	ATOM	51553	O	PRO T	98	92.266	45.589	-40.668	1.00	88.33	O
ATOM	51504	OE1	GLN T	90	105.678	54.277	-37.964	1.00	134.62	O	ATOM	51554	CB	PRO T	98	91.078	46.718	-43.169	1.00	88.33	O
ATOM	51505	NE2	GLN T	90	104.801	56.307	-38.373	1.00	134.62	N	ATOM	51555	CG	PRO T	98	91.454	45.306	-43.494	1.00	96.01	C
ATOM	51506	N	LEU T	91	102.937	50.264	-40.020	1.00	63.38	N	ATOM	51556	CD	PRO T	98	92.876	45.454	-44.008	1.00	96.01	C
ATOM	51507	CA	LEU T	91	103.168	48.988	-40.686	1.00	63.38	C	ATOM	51557	N	LEU T	99	92.397	47.755	-40.068	1.00	91.74	N
ATOM	51508	C	LEU T	91	101.904	48.355	-41.250	1.00	63.38	C	ATOM	51558	CA	LEU T	99	92.400	47.475	-38.633	1.00	91.74	C
ATOM	51509	O	LEU T	91	101.931	47.726	-42.307	1.00	63.38	O	ATOM	51559	C	LEU T	99	91.190	46.651	-38.224	1.00	91.74	C
ATOM	51510	CB	LEU T	91	103.847	48.005	-39.738	1.00	74.72	C	ATOM	51560	O	LEU T	99	90.083	47.180	-38.108	1.00	91.74	O
ATOM	51511	CG	LEU T	91	105.302	48.306	-39.391	1.00	74.72	C	ATOM	51561	CB	LEU T	99	92.386	48.772	-37.832	1.00	61.13	C
ATOM	51512	CD1	LEU T	91	105.896	47.091	-38.703	1.00	74.72	C	ATOM	51562	CG	LEU T	99	92.386	48.772	-37.832	1.00	61.13	C
ATOM	51513	CD2	LEU T	91	106.094	48.620	-40.646	1.00	74.72	C	ATOM	51563	CD1	LEU T	99	93.579	49.704	-38.023	1.00	61.13	C
ATOM	51514	N	LEU T	92	100.795	48.505	-40.544	1.00	70.96	N	ATOM	51564	CD2	LEU T	99	93.380	50.931	-37.166	1.00	61.13	C
ATOM	51515	CA	LEU T	92	99.562	47.934	-41.034	1.00	70.96	C	ATOM	51565	N	ILE T	100	91.404	45.360	-37.993	1.00	85.05	N



Table 2: Sheet 517/520

ATOM	51566	CA	ILE T 100	90.316	44.483	-37.596	1.00 85.05	C	ATOM	51616	CD	LYS V	3	244.840	129.602	-1.689	1.00 61.23	C
ATOM	51567	C	ILE T 100	90.163	44.415	-36.075	1.00 85.05	C	ATOM	51617	CE	LYS V	3	244.735	130.830	-2.602	1.00 61.23	C
ATOM	51568	O	ILE T 100	90.767	43.575	-35.406	1.00 85.05	O	ATOM	51618	NZ	LYS V	3	243.389	131.026	-3.228	1.00 61.23	N
ATOM	51569	CB	ILE T 100	90.513	43.065	-38.161	1.00139.25	C	ATOM	51619	N	GLY V	4	248.344	125.358	-0.350	1.00 42.94	N
ATOM	51570	CG1	ILE T 100	90.660	43.136	-39.681	1.00139.25	C	ATOM	51620	CA	GLY V	4	248.488	124.068	0.284	1.00 42.94	C
ATOM	51571	CG2	ILE T 100	89.317	42.195	-37.809	1.00139.25	C	ATOM	51621	C	GLY V	4	249.765	123.838	1.057	1.00 42.94	C
ATOM	51572	CD1	ILE T 100	90.923	41.800	-40.337	1.00139.25	C	ATOM	51622	O	GLY V	4	249.733	123.139	2.065	1.00 42.94	O
ATOM	51573	N	GLY T 101	89.352	45.329	-35.549	1.00165.98	N	ATOM	51623	N	ASP V	5	250.872	124.426	0.599	1.00 46.36	N
ATOM	51574	CA	GLY T 101	89.071	45.396	-34.125	1.00165.98	C	ATOM	51624	CA	ASP V	5	252.197	124.247	1.217	1.00 46.36	C
ATOM	51575	C	GLY T 101	90.218	45.307	-33.137	1.00165.98	C	ATOM	51625	C	ASP V	5	252.436	125.054	2.488	1.00 46.36	C
ATOM	51576	O	GLY T 101	91.338	44.925	-33.474	1.00165.98	O	ATOM	51626	O	ASP V	5	252.734	126.248	2.420	1.00 46.36	O
ATOM	51577	N	GLY T 102	89.915	45.675	-31.896	1.00 91.65	N	ATOM	51627	CB	ASP V	5	253.283	124.600	0.205	1.00 88.94	C
ATOM	51578	CA	GLY T 102	90.889	45.631	-30.821	1.00 91.65	C	ATOM	51628	CG	ASP V	5	254.583	123.899	0.491	1.00 88.94	C
ATOM	51579	C	GLY T 102	91.974	46.689	-30.848	1.00 91.65	C	ATOM	51629	OD1	ASP V	5	254.947	123.798	1.680	1.00 88.94	O
ATOM	51580	O	GLY T 102	92.733	46.768	-31.809	1.00 91.65	O	ATOM	51630	OD2	ASP V	5	255.241	123.452	-0.472	1.00 88.94	O
ATOM	51581	N	GLY T 103	92.050	47.494	-29.791	1.00 93.72	N	ATOM	51631	N	ARG V	6	252.353	124.394	3.642	1.00 81.65	N
ATOM	51582	CA	GLY T 103	93.069	48.529	-29.708	1.00 93.72	C	ATOM	51632	CA	ARG V	6	252.516	125.100	4.903	1.00 81.65	C
ATOM	51583	C	GLY T 103	92.978	49.575	-30.798	1.00 93.72	C	ATOM	51633	C	ARG V	6	253.892	125.714	5.122	1.00 81.65	C
ATOM	51584	O	GLY T 103	92.176	49.445	-31.722	1.00 93.72	O	ATOM	51634	O	ARG V	6	254.088	126.471	6.072	1.00 81.65	O
ATOM	51585	N	LEU T 104	93.799	50.615	-30.695	1.00 66.13	N	ATOM	51635	CB	ARG V	6	252.124	124.208	6.097	1.00124.30	C
ATOM	51586	CA	LEU T 104	93.800	51.687	-31.693	1.00 66.13	C	ATOM	51636	CG	ARG V	6	253.097	123.111	6.504	1.00124.30	C
ATOM	51587	C	LEU T 104	92.483	52.419	-31.873	1.00 66.13	C	ATOM	51637	CD	ARG V	6	252.752	122.624	7.927	1.00124.30	C
ATOM	51588	O	LEU T 104	91.498	51.863	-32.349	1.00 66.13	O	ATOM	51638	NE	ARG V	6	253.634	121.571	8.444	1.00124.30	N
ATOM	51589	CB	LEU T 104	94.241	51.168	-33.061	1.00 53.36	C	ATOM	51639	CZ	ARG V	6	253.560	121.065	9.678	1.00124.30	C
ATOM	51590	CG	LEU T 104	95.726	50.831	-33.130	1.00 53.36	C	ATOM	51640	NH1	ARG V	6	252.647	121.513	10.534	1.00124.30	N
ATOM	51591	CD1	LEU T 104	96.108	50.503	-34.559	1.00 53.36	C	ATOM	51641	NH2	ARG V	6	254.397	120.106	10.057	1.00124.30	N
ATOM	51592	CD2	LEU T 104	96.538	52.012	-32.595	1.00 53.36	C	ATOM	51642	N	ARG V	7	254.849	125.414	4.251	1.00 63.34	N
ATOM	51593	N	SER T 105	92.498	53.691	-31.504	1.00 79.67	N	ATOM	51643	CA	ARG V	7	256.165	126.005	4.428	1.00 63.34	C
ATOM	51594	CA	SER T 105	91.345	54.567	-31.613	1.00 79.67	C	ATOM	51644	C	ARG V	7	256.557	126.955	3.294	1.00 63.34	C
ATOM	51595	C	SER T 105	91.237	55.064	-33.050	1.00 79.67	C	ATOM	51645	O	ARG V	7	257.611	126.824	2.672	1.00 63.34	O
ATOM	51596	O	SER T 105	91.269	56.262	-33.311	1.00 79.67	O	ATOM	51646	CB	ARG V	7	257.226	124.921	4.640	1.00 79.74	C
ATOM	51597	CB	SER T 105	91.524	55.736	-30.632	1.00 50.19	C	ATOM	51647	CG	ARG V	7	257.396	123.974	3.500	1.00 79.74	C
ATOM	51598	OG	SER T 105	90.799	56.888	-30.996	1.00 50.19	O	ATOM	51648	CD	ARG V	7	258.729	123.258	3.603	1.00 79.74	C
ATOM	51599	N	ALA T 106	91.115	54.136	-33.989	1.00 71.66	N	ATOM	51649	NE	ARG V	7	258.685	122.097	4.479	1.00 79.74	N
ATOM	51600	CA	ALA T 106	91.011	54.519	-35.386	1.00 71.66	C	ATOM	51650	CZ	ARG V	7	259.719	121.292	4.683	1.00 79.74	C
ATOM	51601	C	ALA T 106	89.589	54.950	-35.716	1.00 71.66	C	ATOM	51651	NH1	ARG V	7	260.871	121.537	4.079	1.00 79.74	N
ATOM	51602	O	ALA T 106	89.093	54.538	-36.785	1.00 71.66	O	ATOM	51652	NH2	ARG V	7	259.592	120.226	5.464	1.00 79.74	N
ATOM	51603	CB	ALA T 106	91.423	53.362	-36.276	1.00145.39	C	ATOM	51653	N	THR V	8	255.673	127.916	3.038	1.00 36.84	N
ATOM	51604	OXT	ALA T 106	88.999	55.703	-34.910	1.00174.36	O	ATOM	51654	CA	THR V	8	255.877	128.954	2.029	1.00 36.84	C
TER	51605	ALA T 106							ATOM	51655	C	THR V	8	255.069	130.159	2.520	1.00 36.84	C
ATOM	51606	N	GLY V 2	251.344	125.909	-3.444	1.00 57.07	N	ATOM	51656	O	THR V	8	254.281	130.040	3.445	1.00 36.84	O
ATOM	51607	CA	GLY V 2	250.380	127.024	-3.224	1.00 57.07	C	ATOM	51657	CB	THR V	8	255.372	128.541	0.611	1.00 71.97	C
ATOM	51608	C	GLY V 2	249.831	127.043	-1.812	1.00 57.07	O	ATOM	51658	OG1	THR V	8	253.993	128.894	0.457	1.00 71.97	O
ATOM	51609	O	GLY V 2	250.462	126.533	-0.876	1.00 57.07	C	ATOM	51659	CG2	THR V	8	255.527	127.056	0.401	1.00 71.97	C
ATOM	51610	N	LYS V 3	248.648	127.635	-1.660	1.00 55.11	N	ATOM	51660	N	ARG V	9	255.270	131.314	1.904	1.00 45.47	N
ATOM	51611	CA	LYS V 3	248.000	127.741	-0.360	1.00 55.11	C	ATOM	51661	CA	ARG V	9	254.575	132.531	2.303	1.00 45.47	C
ATOM	51612	C	LYS V 3	248.166	126.438	0.392	1.00 55.11	C	ATOM	51662	C	ARG V	9	253.069	132.280	2.372	1.00 45.47	C
ATOM	51613	O	LYS V 3	248.168	126.403	1.615	1.00 55.11	O	ATOM	51663	O	ARG V	9	252.454	132.375	3.441	1.00 45.47	O
ATOM	51614	CB	LYS V 3	246.521	128.061	-0.547	1.00 61.23	C	ATOM	51664	CB	ARG V	9	254.872	133.642	1.284	1.00134.03	C
ATOM	51615	CG	LYS V 3	246.290	129.384	-1.261	1.00 61.23	C	ATOM	51665	CG	ARG V	9	254.577	135.057	1.755	1.00134.03	C



Table 2: Sheet 518/520

ATOM	51666	CD	ARG V	9	255.519	135.471	2.874	1.00134.03	C	ATOM	51716	CH2	TRP V	14	242.898	125.552	3.721	1.00	61.37	C	
ATOM	51667	NE	ARG V	9	255.225	136.814	3.366	1.00134.03	N	ATOM	51717	N	ARG V	15	246.978	129.131	6.239	1.00	51.39	N	
ATOM	51668	C2	ARG V	9	255.786	137.357	4.443	1.00134.03	C	ATOM	51718	CA	ARG V	15	246.732	128.577	7.556	1.00	51.39	C	
ATOM	51669	NH1	ARG V	9	256.677	136.671	5.149	1.00134.03	N	ATOM	51719	O	ARG V	15	246.706	129.706	8.594	1.00	51.39	C	
ATOM	51670	NH2	ARG V	9	255.449	138.583	4.821	1.00134.03	N	ATOM	51720	C	ARG V	15	246.534	129.468	9.795	1.00	51.39	O	
ATOM	51671	N	ARG V	10	252.493	131.948	1.217	1.00	69.40	N	ATOM	51721	CB	ARG V	15	247.786	127.531	7.920	1.00	81.62	C
ATOM	51672	CA	ARG V	10	251.066	131.694	1.093	1.00	69.40	C	ATOM	51722	CG	ARG V	15	247.602	126.196	7.213	1.00	81.62	C
ATOM	51673	C	ARG V	10	250.578	130.556	1.956	1.00	69.40	C	ATOM	51723	CD	ARG V	15	247.969	125.050	8.154	1.00	81.62	C
ATOM	51674	O	ARG V	10	249.487	130.617	2.511	1.00	69.40	O	ATOM	51724	NE	ARG V	15	248.707	123.974	7.490	1.00	81.62	N
ATOM	51675	CB	ARG V	10	250.711	131.436	-0.368	1.00105.18	C	ATOM	51725	CZ	ARG V	15	249.423	123.048	8.128	1.00	81.62	C	
ATOM	51676	CG	ARG V	10	250.667	132.707	-1.173	1.00105.18	C	ATOM	51726	NH1	ARG V	15	249.500	123.051	9.451	1.00	81.62	N	
ATOM	51677	CD	ARG V	10	250.394	132.450	-2.626	1.00105.18	C	ATOM	51727	NH2	ARG V	15	250.088	122.132	7.440	1.00	81.62	N	
ATOM	51678	NE	ARG V	10	250.143	133.704	-3.328	1.00105.18	N	ATOM	51728	N	GLY V	16	246.855	130.941	8.121	1.00	59.86	N	
ATOM	51679	C2	ARG V	10	250.052	133.818	-4.650	1.00105.18	C	ATOM	51729	CA	GLY V	16	246.841	132.082	9.017	1.00	59.86	C	
ATOM	51680	NH1	ARG V	10	250.196	132.749	-5.422	1.00105.18	N	ATOM	51730	C	GLY V	16	247.921	132.041	10.091	1.00	59.86	C	
ATOM	51681	NH2	ARG V	10	249.808	134.999	-5.203	1.00105.18	N	ATOM	51731	O	GLY V	16	247.787	132.669	11.149	1.00	59.86	O	
ATOM	51682	N	GLY V	11	251.378	129.508	2.072	1.00	67.62	N	ATOM	51732	N	THR V	17	249.000	131.308	9.829	1.00	68.37	N
ATOM	51683	CA	GLY V	11	250.960	128.399	2.903	1.00	67.62	C	ATOM	51733	CA	THR V	17	250.089	131.211	10.789	1.00	68.37	C
ATOM	51684	C	GLY V	11	250.598	128.924	4.277	1.00	67.62	C	ATOM	51734	C	THR V	17	251.269	132.110	10.442	1.00	68.37	C
ATOM	51685	O	GLY V	11	249.547	128.612	4.826	1.00	67.62	O	ATOM	51735	O	THR V	17	251.258	132.857	9.456	1.00	68.37	O
ATOM	51686	N	LYS V	12	251.486	129.744	4.823	1.00	62.55	N	ATOM	51736	CB	THR V	17	250.641	129.787	9.609	1.00	63.43	C
ATOM	51687	CA	LYS V	12	251.287	130.332	6.131	1.00	62.55	C	ATOM	51737	OG1	THR V	17	251.128	129.383	10.891	1.00	63.43	C
ATOM	51688	C	LYS V	12	250.057	131.220	6.133	1.00	62.55	C	ATOM	51738	CG2	THR V	17	249.584	128.831	11.360	1.00	63.43	C
ATOM	51689	O	LYS V	12	249.127	131.000	6.897	1.00	62.55	O	ATOM	51739	N	TYR V	18	252.287	132.005	11.287	1.00	76.22	N
ATOM	51690	CB	LYS V	12	252.521	131.150	6.527	1.00	68.59	C	ATOM	51740	CA	TYR V	18	253.526	132.748	11.171	1.00	76.22	C
ATOM	51691	CG	LYS V	12	253.461	130.461	7.508	1.00	68.59	C	ATOM	51741	C	TYR V	18	254.647	131.768	11.470	1.00	76.22	C
ATOM	51692	CD	LYS V	12	253.980	129.159	6.948	1.00	68.59	C	ATOM	51742	O	TYR V	18	254.444	130.785	12.180	1.00	76.22	O
ATOM	51693	CE	LYS V	12	254.951	128.504	7.910	1.00	68.59	C	ATOM	51743	CB	TYR V	18	253.558	133.879	12.198	1.00	52.81	C
ATOM	51694	NZ	LYS V	12	254.340	128.238	9.234	1.00	68.59	N	ATOM	51744	CG	TYR V	18	252.655	135.032	11.866	1.00	52.81	C
ATOM	51695	N	ILE V	13	250.061	132.230	5.275	1.00	54.58	N	ATOM	51745	CD1	TYR V	18	251.480	135.246	12.570	1.00	52.81	C
ATOM	51696	CA	ILE V	13	248.942	133.153	5.191	1.00	54.58	C	ATOM	51746	CD2	TYR V	18	252.977	135.907	10.828	1.00	52.81	C
ATOM	51697	C	ILE V	13	247.640	132.370	5.213	1.00	54.58	C	ATOM	51747	CE1	TYR V	18	250.638	136.310	12.250	1.00	52.81	C
ATOM	51698	O	ILE V	13	246.708	132.698	5.947	1.00	54.58	O	ATOM	51748	CE2	TYR V	18	252.149	136.972	10.493	1.00	52.81	C
ATOM	51699	CB	ILE V	13	248.984	133.965	3.891	1.00	39.00	C	ATOM	51749	CZ	TYR V	18	250.979	137.170	11.205	1.00	52.81	C
ATOM	51700	CG1	ILE V	13	250.356	134.611	3.721	1.00	39.00	C	ATOM	51750	OH	TYR V	18	250.147	138.218	10.861	1.00	52.81	O
ATOM	51701	CG2	ILE V	13	247.917	135.037	3.919	1.00	39.00	C	ATOM	51751	N	GLY V	19	255.833	132.032	10.943	1.00	67.70	N
ATOM	51702	CD1	ILE V	13	250.560	135.239	2.366	1.00	39.00	C	ATOM	51752	CA	GLY V	19	256.943	131.136	11.203	1.00	67.70	C
ATOM	51703	N	TRP V	14	247.582	131.326	4.401	1.00	53.16	N	ATOM	51753	C	GLY V	19	258.138	131.518	10.364	1.00	67.70	C
ATOM	51704	CA	TRP V	14	246.393	130.503	4.320	1.00	53.16	C	ATOM	51754	O	GLY V	19	258.230	132.655	9.892	1.00	67.70	O
ATOM	51705	C	TRP V	14	246.073	129.928	5.687	1.00	53.16	C	ATOM	51755	N	LYS V	20	259.058	130.580	10.175	1.00	86.36	N
ATOM	51706	O	TRP V	14	245.010	130.189	6.234	1.00	53.16	O	ATOM	51756	CA	LYS V	20	260.225	130.873	9.372	1.00	86.36	C
ATOM	51707	CB	TRP V	14	246.603	129.371	3.323	1.00	61.37	C	ATOM	51757	C	LYS V	20	259.784	131.355	8.001	1.00	86.36	C
ATOM	51708	CG	TRP V	14	245.328	128.817	2.820	1.00	61.37	C	ATOM	51758	O	LYS V	20	260.206	132.419	7.539	1.00	86.36	O
ATOM	51709	CD1	TRP V	14	244.538	129.343	1.845	1.00	61.37	C	ATOM	51759	CB	LYS V	20	261.115	129.639	9.213	1.00	60.16	C
ATOM	51710	CD2	TRP V	14	244.667	127.646	3.289	1.00	61.37	C	ATOM	51760	CG	LYS V	20	262.142	129.795	8.077	1.00	60.16	C
ATOM	51711	NE1	TRP V	14	243.421	128.567	1.675	1.00	61.37	N	ATOM	51761	CD	LYS V	20	263.465	129.085	8.352	1.00	60.16	C
ATOM	51712	CE2	TRP V	14	243.475	127.518	2.552	1.00	61.37	C	ATOM	51762	CE	LYS V	20	263.335	127.571	8.389	1.00	60.16	C
ATOM	51713	CE3	TRP V	14	244.966	126.693	4.265	1.00	61.37	C	ATOM	51763	NZ	LYS V	20	264.646	126.932	8.715	1.00	60.16	N
ATOM	51714	CZ2	TRP V	14	242.581	126.473	2.757	1.00	61.37	C	ATOM	51764	N	TYR V	21	258.913	130.584	7.360	1.00	85.13	N
ATOM	51715	CZ3	TRP V	14	244.077	125.654	4.472	1.00	61.37	C	ATOM	51765	CA	TYR V	21	258.463	130.935	6.027	1.00	85.13	C



Table 2: Sheet 519/520

ATOM	51766	C	TYR V 21	257.587	132.176	5.928	1.00	85.13	C	HETATM51816	MG	23	236.494	114.236	-6.972	1.15	38.55	MG
ATOM	51767	O	TYR V 21	257.428	132.746	4.848	1.00	85.13	O	HETATM51817	MG	24	229.630	112.397	13.535	1.11	38.55	MG
ATOM	51768	CB	TYR V 21	257.814	129.714	5.387	1.00	77.50	C	HETATM51818	MG	27	165.299	106.405	-5.369	1.01	38.55	MG
ATOM	51769	CG	TYR V 21	258.828	128.608	5.223	1.00	77.50	C	HETATM51819	MG	32	156.878	113.404	-64.295	0.77	38.55	MG
ATOM	51770	CD1	TYR V 21	258.936	127.580	6.162	1.00	77.50	C	HETATM51820	MG	34	172.851	112.993	-2.590	0.62	38.55	MG
ATOM	51771	CD2	TYR V 21	259.758	128.648	4.184	1.00	77.50	C	HETATM51821	MG	42	115.307	64.975	18.674	1.01	38.55	MG
ATOM	51772	CE1	TYR V 21	259.957	126.619	6.072	1.00	77.50	C	HETATM51822	MG	45	134.336	124.310	-58.526	0.72	38.55	MG
ATOM	51773	CE2	TYR V 21	260.781	127.699	4.085	1.00	77.50	C	HETATM51823	MG	48	171.500	94.401	-49.475	1.31	38.55	MG
ATOM	51774	C2	TYR V 21	260.878	126.691	5.033	1.00	77.50	C	HETATM51824	MG	49	178.618	94.891	-52.669	1.08	38.55	MG
ATOM	51775	OH	TYR V 21	261.913	125.785	4.953	1.00	77.50	O	HETATM51825	MG	50	181.017	86.923	-56.258	0.94	38.55	MG
ATOM	51776	N	ARG V 22	257.033	132.604	7.053	1.00	58.84	N	HETATM51826	MG	53	199.515	98.081	-53.747	0.83	38.55	MG
ATOM	51777	CA	ARG V 22	256.220	133.817	7.090	1.00	58.84	C	HETATM51827	MG	54	163.303	106.276	-38.525	1.35	38.55	MG
ATOM	51778	C	ARG V 22	256.467	134.480	8.431	1.00	58.84	C	HETATM51828	MG	55	159.904	127.898	-45.170	1.15	38.55	MG
ATOM	51779	O	ARG V 22	255.771	134.212	9.423	1.00	58.84	O	HETATM51829	MG	59	167.310	109.927	17.058	1.32	38.55	MG
ATOM	51780	CB	ARG V 22	254.731	133.518	6.964	1.00	61.49	C	HETATM51830	MG	60	150.739	100.294	-8.444	0.89	38.55	MG
ATOM	51781	CG	ARG V 22	253.872	134.775	6.968	1.00	61.49	C	HETATM51831	MG	61	180.471	109.083	-1.705	1.13	38.55	MG
ATOM	51782	CD	ARG V 22	252.428	134.445	7.257	1.00	61.49	C	HETATM51832	MG	63	159.302	106.020	-16.356	1.19	38.55	MG
ATOM	51783	NE	ARG V 22	251.580	135.622	7.126	1.00	61.49	N	HETATM51833	MG	65	118.693	102.374	-26.481	1.07	38.55	MG
ATOM	51784	C2	ARG V 22	250.344	135.700	7.597	1.00	61.49	C	HETATM51834	MG	68	166.743	127.785	-31.699	0.83	38.55	MG
ATOM	51785	NH1	ARG V 22	249.814	134.662	8.234	1.00	61.49	N	HETATM51835	MG	70	157.746	115.972	-16.212	0.94	38.55	MG
ATOM	51786	NH2	ARG V 22	249.649	136.816	7.434	1.00	61.49	N	HETATM51836	MG	71	161.314	131.957	-23.313	0.93	38.55	MG
ATOM	51787	N	PRO V 23	257.481	135.350	8.480	1.00	78.79	N	HETATM51837	MG	73	168.367	90.766	-12.022	1.13	38.55	MG
ATOM	51788	CA	PRO V 23	257.871	136.080	9.685	1.00	78.79	C	HETATM51838	MG	75	223.447	127.187	-21.356	1.24	38.55	MG
ATOM	51789	O	PRO V 23	256.875	137.166	10.071	1.00	78.79	C	HETATM51839	MG	76	217.897	137.343	-12.437	0.97	38.55	MG
ATOM	51790	C	PRO V 23	256.237	137.772	9.206	1.00	78.79	C	HETATM51840	MG	77	221.067	132.105	-11.400	0.46	38.55	MG
ATOM	51791	CB	PRO V 23	259.232	136.664	9.301	1.00	76.72	C	HETATM51841	MG	78	219.793	127.544	-13.993	0.69	38.55	MG
ATOM	51792	CG	PRO V 23	259.726	135.737	8.220	1.00	76.72	C	HETATM51842	MG	79	233.401	139.853	-3.281	1.22	38.55	MG
ATOM	51793	CD	PRO V 23	258.482	135.537	7.418	1.00	76.72	C	HETATM51843	MG	81	167.229	131.530	-7.612	0.79	38.55	MG
ATOM	51794	N	ARG V 24	256.750	137.404	11.374	1.00	74.07	N	HETATM51844	MG	82	125.619	96.858	26.990	1.23	38.55	MG
ATOM	51795	CA	ARG V 24	255.861	138.437	11.882	1.00	74.07	C	HETATM51845	MG	86	130.633	111.978	-37.216	0.90	38.55	MG
ATOM	51796	C	ARG V 24	256.451	139.810	11.612	1.00	74.07	C	HETATM51846	MG	87	126.895	118.941	-56.920	0.56	38.55	MG
ATOM	51797	O	ARG V 24	256.130	140.772	12.305	1.00	74.07	O	HETATM51847	MG	90	210.502	111.402	10.844	1.20	38.55	MG
ATOM	51798	CB	ARG V 24	255.657	138.286	13.383	1.00	78.39	C	HETATM51848	MG	91	232.435	110.903	25.666	0.70	38.55	MG
ATOM	51799	CG	ARG V 24	254.446	137.485	13.759	1.00	78.39	C	HETATM51849	MG	92	234.328	123.012	26.324	0.93	38.55	MG
ATOM	51800	CD	ARG V 24	253.908	137.924	15.109	1.00	78.39	C	HETATM51850	MG	95	203.557	116.998	10.537	1.13	38.55	MG
ATOM	51801	NE	ARG V 24	252.838	137.052	15.572	1.00	78.39	N	HETATM51851	MG	96	204.646	112.202	8.443	1.02	38.55	MG
ATOM	51802	C2	ARG V 24	252.979	135.741	15.759	1.00	78.39	C	HETATM51852	MG	113	148.207	103.173	-4.012	1.11	38.55	MG
ATOM	51803	NH1	ARG V 24	254.146	135.149	15.521	1.00	78.39	N	HETATM51853	MG	114	115.040	51.966	-11.523	1.06	38.55	MG
ATOM	51804	NH2	ARG V 24	251.955	135.016	16.191	1.00	78.39	N	HETATM51854	MG	115	192.449	107.587	-8.122	0.79	38.55	MG
ATOM	51805	N	LYS V 25	257.314	139.891	10.601	1.00	119.70	N	HETATM51855	MG	116	195.782	105.690	-6.992	0.44	38.55	MG
ATOM	51806	CA	LYS V 25	257.984	141.134	10.214	1.00	119.70	C	HETATM51856	MG	117	187.785	102.579	22.459	0.86	38.55	MG
ATOM	51807	C	LYS V 25	259.094	141.498	11.193	1.00	119.70	C	HETATM51857	MG	118	169.243	104.647	-25.755	1.20	38.55	MG
ATOM	51808	O	LYS V 25	259.301	140.728	12.154	1.00	119.70	O	HETATM51858	MG	126	169.381	75.179	-44.233	0.55	38.55	MG
ATOM	51809	CB	LYS V 25	256.983	142.293	10.121	1.00	119.12	C	HETATM51859	MG	130	205.539	144.704	-0.052	1.28	38.55	MG
ATOM	51810	CG	LYS V 25	256.060	142.245	8.913	1.00	119.12	C	HETATM51860	MG	132	171.367	125.248	-16.494	0.92	38.55	MG
ATOM	51811	CD	LYS V 25	255.364	143.582	8.738	1.00	119.12	C	HETATM51861	MG	133	198.070	137.319	-14.655	1.08	38.55	MG
ATOM	51812	CE	LYS V 25	254.867	143.771	7.317	1.00	119.12	C	HETATM51862	MG	134	195.021	145.232	-6.192	0.82	38.55	MG
ATOM	51813	NZ	LYS V 25	254.447	145.182	7.074	1.00	119.12	N	HETATM51863	MG	136	144.628	73.485	-19.852	0.76	38.55	MG
TER	51814		LYS V 25							HETATM51864	MG	149	186.610	103.437	-42.779	0.84	38.55	MG
HETATM51815	MG		MG	190.053	88.543	18.503	0.79	38.55	MG	HETATM51865	MG	150	185.609	96.813	-38.750	1.09	38.55	MG



HETATMS1866	MG	151	192.701	101.853	-31.153	1.22	38.55	MG	END
HETATMS1867	MG	152	196.341	103.094	-25.832	1.47	38.55	MG	
HETATMS1868	MG	153	194.166	104.951	-30.151	1.45	38.55	MG	
HETATMS1869	MG	160	113.309	24.966	-2.319	0.65	38.55	MG	
HETATMS1870	MG	161	91.975	45.704	-14.170	0.94	38.55	MG	
HETATMS1871	MG	162	84.348	59.402	-16.617	0.73	38.55	MG	
HETATMS1872	MG	167	144.730	70.693	-7.307	1.41	38.55	MG	
HETATMS1873	MG	169	135.307	54.738	6.307	1.33	38.55	MG	
HETATMS1874	MG	170	119.496	64.135	21.064	0.96	38.55	MG	
HETATMS1875	MG	174	200.644	97.773	-47.889	1.28	38.55	MG	
HETATMS1876	MG	178	197.076	91.664	-40.154	1.39	38.55	MG	
HETATMS1877	MG	183	203.804	121.035	13.634	1.08	38.55	MG	
HETATMS1878	MG	186	255.930	124.812	-3.840	0.92	38.55	MG	
HETATMS1879	MG	201	148.114	106.137	-18.755	1.27	38.55	MG	
HETATMS1880	MG	210	118.030	97.582	-9.575	0.64	38.55	MG	
HETATMS1881	MG	211	141.070	100.528	-43.357	0.85	38.55	MG	
HETATMS1882	MG	212	150.161	112.674	-22.837	0.87	38.55	MG	
HETATMS1883	MG	213	138.335	109.041	-17.677	0.72	38.55	MG	
HETATMS1884	MG	214	146.311	91.675	26.825	0.92	38.55	MG	
HETATMS1885	MG	215	136.222	111.178	13.482	0.96	38.55	MG	
HETATMS1886	MG	216	173.003	93.819	17.859	0.79	38.55	MG	
HETATMS1887	MG	217	154.327	104.063	45.687	0.94	38.55	MG	
HETATMS1888	MG	218	177.706	98.834	21.373	0.81	38.55	MG	
HETATMS1889	MG	219	172.891	99.743	15.780	0.84	38.55	MG	
HETATMS1890	MG	220	186.024	97.323	6.610	1.06	38.55	MG	
HETATMS1891	MG	221	134.429	86.179	-30.761	0.84	38.55	MG	
HETATMS1892	MG	222	129.249	62.998	-30.576	0.71	38.55	MG	
HETATMS1893	MG	223	130.311	79.355	-19.818	0.61	38.55	MG	
HETATMS1894	MG	224	137.649	84.212	-23.364	0.49	38.55	MG	
HETATMS1895	MG	225	101.930	45.308	-3.202	0.78	38.55	MG	
HETATMS1896	MG	226	126.382	54.672	1.243	0.67	38.55	MG	
HETATMS1897	MG	227	138.399	101.634	-13.174	0.61	38.55	MG	
HETATMS1898	MG	228	109.614	34.875	19.644	0.77	38.55	MG	
HETATMS1899	MG	229	115.491	46.497	7.815	0.88	38.55	MG	
HETATMS1900	MG	230	111.533	55.827	-0.058	0.54	38.55	MG	
HETATMS1901	MG	231	111.763	54.838	-4.799	0.45	38.55	MG	
HETATMS1902	MG	232	111.705	54.358	-2.006	0.66	38.55	MG	
HETATMS1903	MG	233	109.064	54.320	-4.103	0.45	38.55	MG	
HETATMS1904	MG	234	113.343	54.547	-0.969	0.70	38.55	MG	
HETATMS1905	MG	235	115.133	53.124	-1.652	0.58	38.55	MG	
HETATMS1906	MG	236	113.569	55.958	-2.272	0.47	38.55	MG	
HETATMS1907	MG	237	115.782	55.352	0.865	0.43	38.55	MG	
HETATMS1908	MG	238	117.388	52.091	-1.490	0.65	38.55	MG	
HETATMS1909	MG	239	116.214	55.248	-2.893	0.22	38.55	MG	
HETATMS1910	MG	240	114.791	55.443	-5.362	0.38	38.55	MG	
HETATMS1911	ZN	190	217.217	128.105	25.004	0.84	47.38	ZN	
HETATMS1912	ZN	300	154.622	114.176	39.017	1.01	47.38	ZN	
MASTER	1310	0	101	86	91	0	651995	22	107 323



TABLE 3 - PAROMOMYCIN (C23 H45 N5 O14)

HETATM51913	C11	PAR	1	190.683	88.111	-9.450	1.00	23.22	C
HETATM51914	O11	PAR	1	191.497	89.297	-9.532	1.00	23.22	O
HETATM51915	C21	PAR	1	189.371	88.414	-8.700	1.00	23.22	C
HETATM51916	N21	PAR	1	188.653	89.565	-9.314	1.00	23.22	N
HETATM51917	C31	PAR	1	189.683	88.700	-7.188	1.00	23.22	C
HETATM51918	O31	PAR	1	188.472	88.967	-6.441	1.00	23.22	O
HETATM51919	C41	PAR	1	190.412	87.486	-6.554	1.00	23.22	C
HETATM51920	O41	PAR	1	190.675	87.771	-5.184	1.00	23.22	O
HETATM51921	C51	PAR	1	191.733	87.185	-7.330	1.00	23.22	C
HETATM51922	O51	PAR	1	191.389	87.002	-8.766	1.00	23.22	O
HETATM51923	C61	PAR	1	192.432	85.898	-6.785	1.00	23.22	C
HETATM51924	O61	PAR	1	193.666	85.615	-7.478	1.00	23.22	O
HETATM51925	C12	PAR	1	193.984	91.226	-12.432	1.00	23.22	C
HETATM51926	N12	PAR	1	195.042	91.550	-13.429	1.00	23.22	N
HETATM51927	C22	PAR	1	194.695	90.726	-11.154	1.00	23.22	C
HETATM51928	C32	PAR	1	193.651	90.380	-10.060	1.00	23.22	C
HETATM51929	N32	PAR	1	194.403	89.894	-8.885	1.00	23.22	N
HETATM51930	C42	PAR	1	192.577	89.349	-10.522	1.00	23.22	C
HETATM51931	C52	PAR	1	191.961	89.780	-11.860	1.00	23.22	C
HETATM51932	O52	PAR	1	191.127	88.714	-12.362	1.00	23.22	O
HETATM51933	C62	PAR	1	193.029	90.090	-12.902	1.00	23.22	C
HETATM51934	O62	PAR	1	192.345	90.458	-14.085	1.00	23.22	O
HETATM51935	C13	PAR	1	189.836	89.065	-12.903	1.00	23.22	C
HETATM51936	C23	PAR	1	189.409	88.119	-14.000	1.00	23.22	C
HETATM51937	O23	PAR	1	189.985	88.500	-15.258	1.00	23.22	O
HETATM51938	C33	PAR	1	187.835	88.084	-13.889	1.00	23.22	C
HETATM51939	O33	PAR	1	187.155	89.099	-14.714	1.00	23.22	O
HETATM51940	C43	PAR	1	187.551	88.482	-12.434	1.00	23.22	C
HETATM51941	O43	PAR	1	188.826	88.962	-11.867	1.00	23.22	O
HETATM51942	C53	PAR	1	186.971	87.380	-11.575	1.00	23.22	C
HETATM51943	O53	PAR	1	186.439	88.014	-10.423	1.00	23.22	O
HETATM51944	C14	PAR	1	186.864	88.657	-16.024	1.00	23.22	C
HETATM51945	C24	PAR	1	187.390	89.586	-17.128	1.00	23.22	C
HETATM51946	N24	PAR	1	188.838	89.972	-16.927	1.00	23.22	N
HETATM51947	C34	PAR	1	186.489	90.798	-17.297	1.00	23.22	C
HETATM51948	O34	PAR	1	186.996	91.562	-18.353	1.00	23.22	O
HETATM51949	C44	PAR	1	185.048	90.349	-17.661	1.00	23.22	C
HETATM51950	O44	PAR	1	184.165	91.472	-17.892	1.00	23.22	O
HETATM51951	C54	PAR	1	184.457	89.519	-16.505	1.00	23.22	C
HETATM51952	O54	PAR	1	185.387	88.390	-16.222	1.00	23.22	O
HETATM51953	C64	PAR	1	184.192	90.395	-15.230	1.00	23.22	C
HETATM51954	N64	PAR	1	183.462	89.617	-14.178	1.00	23.22	N



TABLE 4 - SPECTINOMYCIN (C14 H24 N2 O7)

HETATM51955	O1	SCM	2	197.762	126.436	-3.695	1.00	23.22	O
HETATM51956	C2	SCM	2	196.714	125.759	-2.981	1.00	23.22	C
HETATM51957	C2M	SCM	2	196.814	124.258	-3.233	1.00	23.22	C
HETATM51958	C3	SCM	2	195.299	126.223	-3.395	1.00	23.22	C
HETATM51959	C4	SCM	2	195.196	127.643	-3.932	1.00	23.22	C
HETATM51960	O4	SCM	2	194.129	128.112	-4.245	1.00	23.22	O
HETATM51961	C5	SCM	2	196.464	128.426	-4.149	1.00	23.22	C
HETATM51962	O5	SCM	2	196.281	129.790	-3.797	1.00	23.22	O
HETATM51963	C6	SCM	2	197.618	127.784	-3.362	1.00	23.22	C
HETATM51964	O1B	SCM	2	196.792	128.499	-5.554	1.00	23.22	O
HETATM51965	O2B	SCM	2	198.871	128.435	-3.608	1.00	23.22	O
HETATM51966	C7	SCM	2	198.023	129.210	-5.754	1.00	23.22	C
HETATM51967	C8	SCM	2	198.300	129.278	-7.251	1.00	23.22	C
HETATM51968	N8	SCM	2	197.160	130.010	-7.883	1.00	23.22	N
HETATM51969	C8M	SCM	2	197.377	130.272	-9.304	1.00	23.22	C
HETATM51970	C9	SCM	2	199.663	129.990	-7.483	1.00	23.22	C
HETATM51971	O9	SCM	2	199.612	131.287	-6.973	1.00	23.22	O
HETATM51972	C10	SCM	2	200.787	129.233	-6.764	1.00	23.22	C
HETATM51973	N10	SCM	2	202.034	129.911	-6.972	1.00	23.22	N
HETATM51974	C1M	SCM	2	202.965	128.940	-7.480	1.00	23.22	C
HETATM51975	C11	SCM	2	200.489	129.195	-5.260	1.00	23.22	C
HETATM51976	O11	SCM	2	201.530	128.491	-4.610	1.00	23.22	O
HETATM51977	C12	SCM	2	199.158	128.470	-5.028	1.00	23.22	C



TABLE 5 - STREPTINOMYCIN (C21 H39 N7 O12)

HETATM51978	C11	SRY	3	180.439	94.877	-7.505	1.00	23.22	C
HETATM51979	N11	SRY	3	181.253	93.996	-8.427	1.00	23.22	N
HETATM51980	CA1	SRY	3	180.512	93.131	-9.083	1.00	23.22	C
HETATM51981	NB1	SRY	3	179.604	93.623	-9.868	1.00	23.22	N
HETATM51982	NC1	SRY	3	180.670	91.853	-8.964	1.00	23.22	N
HETATM51983	C21	SRY	3	180.722	96.359	-7.799	1.00	23.22	C
HETATM51984	O21	SRY	3	180.342	96.643	-9.132	1.00	23.22	O
HETATM51985	C31	SRY	3	179.939	97.305	-6.869	1.00	23.22	C
HETATM51986	N31	SRY	3	180.249	98.769	-7.156	1.00	23.22	N
HETATM51987	CD1	SRY	3	179.431	99.332	-8.036	1.00	23.22	C
HETATM51988	NE1	SRY	3	178.306	98.802	-8.439	1.00	23.22	N
HETATM51989	NF1	SRY	3	179.814	100.465	-8.499	1.00	23.22	N
HETATM51990	C41	SRY	3	180.328	96.972	-5.430	1.00	23.22	C
HETATM51991	O41	SRY	3	179.600	97.842	-4.578	1.00	23.22	O
HETATM51992	C51	SRY	3	179.994	95.484	-5.116	1.00	23.22	C
HETATM51993	O51	SRY	3	180.347	95.192	-3.778	1.00	23.22	O
HETATM51994	C61	SRY	3	180.802	94.576	-6.062	1.00	23.22	C
HETATM51995	O61	SRY	3	180.507	93.201	-5.800	1.00	23.22	O
HETATM51996	C12	SRY	3	180.479	98.633	-3.772	1.00	23.22	C
HETATM51997	C22	SRY	3	179.575	99.591	-3.008	1.00	23.22	C
HETATM51998	C32	SRY	3	179.421	98.926	-1.651	1.00	23.22	C
HETATM51999	O32	SRY	3	180.094	99.683	-0.626	1.00	23.22	O
HETATM52000	CG2	SRY	3	177.931	98.749	-1.408	1.00	23.22	C
HETATM52001	OG2	SRY	3	177.483	98.178	-0.424	1.00	23.22	O
HETATM52002	C42	SRY	3	180.051	97.558	-1.848	1.00	23.22	C
HETATM52003	CH2	SRY	3	180.616	96.961	-0.557	1.00	23.22	C
HETATM52004	O42	SRY	3	181.070	97.759	-2.832	1.00	23.22	O
HETATM52005	O13	SRY	3	180.094	100.891	-2.918	1.00	23.22	O
HETATM52006	C13	SRY	3	179.458	101.636	-3.947	1.00	23.22	C
HETATM52007	C23	SRY	3	179.424	103.143	-3.636	1.00	23.22	C
HETATM52008	N23	SRY	3	178.764	103.358	-2.391	1.00	23.22	N
HETATM52009	CI3	SRY	3	177.844	104.464	-2.577	1.00	23.22	C
HETATM52010	C33	SRY	3	180.813	103.719	-3.603	1.00	23.22	C
HETATM52011	O33	SRY	3	180.684	105.119	-3.667	1.00	23.22	O
HETATM52012	C43	SRY	3	181.640	103.267	-4.799	1.00	23.22	C
HETATM52013	O43	SRY	3	182.979	103.615	-4.579	1.00	23.22	O
HETATM52014	C53	SRY	3	181.551	101.740	-4.986	1.00	23.22	C
HETATM52015	O53	SRY	3	180.169	101.370	-5.188	1.00	23.22	O
HETATM52016	C63	SRY	3	182.377	101.223	-6.190	1.00	23.22	C
HETATM52017	O63	SRY	3	182.322	102.190	-7.239	1.00	23.22	O



TABLE 6

REMARK 465	MISSING RESIDUES						
REMARK 465	THE FOLLOWING RESIDUES WERE NOT LOCATED IN THE						
REMARK 465	EXPERIMENT. (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN						
REMARK 465	IDENTIFIER; SSSEQ=SEQUENCE NUMBER; I=INSERTION CODE.)						
REMARK 465							
REMARK 465	M	RES	C	SSSEQI	REMARK 465	MET	E 1
REMARK 465		U	A	0	REMARK 465	PRO	E 2
REMARK 465		U	A	1	REMARK 465	GLU	E 3
REMARK 465		U	A	2	REMARK 465	THR	E 4
REMARK 465		G	A	3	REMARK 465	GLU	E 155
REMARK 465		U	A	4	REMARK 465	ALA	E 156
REMARK 465		C	A	1535	REMARK 465	HIS	E 157
REMARK 465		C	A	1536	REMARK 465	ALA	E 158
REMARK 465		U	A	1537	REMARK 465	GLN	E 159
REMARK 465		C	A	1538	REMARK 465	ALA	E 160
REMARK 465		C	A	1539	REMARK 465	GLN	E 161
REMARK 465		U	A	1540	REMARK 465	GLY	E 162
REMARK 465		U	A	1541	REMARK 465	MET	G 1
REMARK 465		U	A	1542	REMARK 465	MET	I 1
REMARK 465		C	A	1543	REMARK 465	MET	J 1
REMARK 465		U	A	1544	REMARK 465	PRO	J 2
REMARK 465		MET	B	1	REMARK 465	VAL	J 101
REMARK 465		PRO	B	2	REMARK 465	GLY	J 102
REMARK 465		VAL	B	3	REMARK 465	GLY	J 103
REMARK 465		GLU	B	4	REMARK 465	GLY	J 104
REMARK 465		ILE	B	5	REMARK 465	ARG	J 105
REMARK 465		THR	B	6	REMARK 465	MET	K 1
REMARK 465		GLU	B	241	REMARK 465	ALA	K 2
REMARK 465		ALA	B	242	REMARK 465	LYS	K 3
REMARK 465		GLU	B	243	REMARK 465	LYS	K 4
REMARK 465		ALA	B	244	REMARK 465	PRO	K 5
REMARK 465		THR	B	245	REMARK 465	SER	K 6
REMARK 465		GLU	B	246	REMARK 465	LYS	K 7
REMARK 465		THR	B	247	REMARK 465	LYS	K 8
REMARK 465		PRO	B	248	REMARK 465	LYS	K 9
REMARK 465		GLU	B	249	REMARK 465	VAL	K 10
REMARK 465		GLY	B	250	REMARK 465	MET	L 1
REMARK 465		GLU	B	251	REMARK 465	VAL	L 2
REMARK 465		SER	B	252	REMARK 465	ALA	L 3
REMARK 465		GLU	B	253	REMARK 465	LEU	L 4
REMARK 465		VAL	B	254	REMARK 465	ALA	L 129
REMARK 465		GLU	B	255	REMARK 465	LYS	L 130
REMARK 465		ALA	B	256	REMARK 465	THR	L 131
REMARK 465		MET	C	1	REMARK 465	ALA	L 132
REMARK 465		ILE	C	208	REMARK 465	ALA	L 133
REMARK 465		GLY	C	209	REMARK 465	LYS	L 134
REMARK 465		GLY	C	210	REMARK 465	LYS	L 135
REMARK 465		GLN	C	211	REMARK 465	MET	M 1
REMARK 465		LYS	C	212	REMARK 465	MET	N 1
REMARK 465		PRO	C	213	REMARK 465	MET	O 1
REMARK 465		LYS	C	214	REMARK 465	ALA	P 84
REMARK 465		ALA	C	215	REMARK 465	ARG	P 85
REMARK 465		ARG	C	216	REMARK 465	GLU	P 86
REMARK 465		PRO	C	217	REMARK 465	GLY	P 87
REMARK 465		GLU	C	218	REMARK 465	ALA	P 88
REMARK 465		LEU	C	219	REMARK 465	MET	Q 1
REMARK 465		PRO	C	220	REMARK 465	MET	R 1
REMARK 465		LYS	C	221	REMARK 465	SER	R 2
REMARK 465		ALA	C	222	REMARK 465	THR	R 3
REMARK 465		GLU	C	223	REMARK 465	LYS	R 4
REMARK 465		GLU	C	224	REMARK 465	ASN	R 5
REMARK 465		ARG	C	225	REMARK 465	ALA	R 6
REMARK 465		PRO	C	226	REMARK 465	LYS	R 7
REMARK 465		ARG	C	227	REMARK 465	PRO	R 8
REMARK 465		ARG	C	228	REMARK 465	LYS	R 9
REMARK 465		ARG	C	229	REMARK 465	LYS	R 10
REMARK 465		ARG	C	230	REMARK 465	GLU	R 11
REMARK 465		PRO	C	231	REMARK 465	ALA	R 12
REMARK 465		ALA	C	232	REMARK 465	GLN	R 13
REMARK 465		VAL	C	233	REMARK 465	ARG	R 14
REMARK 465		ARG	C	234	REMARK 465	ARG	R 15
REMARK 465		VAL	C	235	REMARK 465	MET	S 1
REMARK 465		LYS	C	236	REMARK 465	GLY	S 82
REMARK 465		LYS	C	237	REMARK 465	HIS	S 83
REMARK 465		GLU	C	238	REMARK 465	GLY	S 84
REMARK 465		GLU	C	239	REMARK 465	LYS	S 85
REMARK 465		MET	D	1	REMARK 465	GLU	S 86



REMARK 465	ALA S	87
REMARK 465	LYS S	88
REMARK 465	ALA S	89
REMARK 465	THR S	90
REMARK 465	LYS S	91
REMARK 465	LYS S	92
REMARK 465	LYS S	93
REMARK 465	MET T	1
REMARK 465	ALA T	2
REMARK 465	GLN T	3
REMARK 465	LYS T	4
REMARK 465	LYS T	5
REMARK 465	PRO T	6
REMARK 465	LYS T	7
REMARK 465	LYS V	26
REMARK 465	LYS V	27



Table 7

## (a) Data collection

Data set	Beamline	Resolution limit (Å)	No. of observations	No. of unique reflections	Completeness(%)		<I>/<σ>		$R_{sym}$ (%)	
					Overall	Outer shell	Overall	Outer shell	Overall	Outer shell
Native	ID14-4+SBC 19ID	3.05	840101	254607	94.0	81.7	12.0	1.8	10.8	49.0
Os1	SBC 19ID	3.35	1355593	199999	98.4	90.3	16.4	2.4	13.9	59.2
Os2	ID14-4	4.00	362452	118494	97.4	97.1	8.5	2.3	10.9	38.9
Os3a	ID14-4	4.30	259175	93894	96.4	99.0	6.4	1.7	18.7	53.2
Os3b	SBC 19ID	3.50	714774	175049	97.3	94.7	10.4	2.5	16.7	66.5
Os4	X25	4.50	301216	79267	93.9	65.9	11.6	3.3	9.8	22.9
Lula	SBC 19ID	3.35	981691	180035	97.5	83.5	16.9	3.4	10.9	37.3
Lulb	SBC 19ID	3.20	929154	230296	98.1	97.6	10.0	2.1	14.7	60.5

Os1 = Osmium hexamine chloride; Os2 = Pentaamine(dinitrogen)osmium(II)chloride; Os3a,b =

Pentaamine(trifluorosulfonato)osmium(III)trifluoromethanesulfonate; Os4 = Osmium bipyridine; Lula,b = lutetium chloride.



Table 7 (b) Phasing

Derivative	SOLVE			SHARP		
	Number of sites used	$R_{cullis}$	Phasing power	Number of sites used	$R_{cullis}$	Phasing power
Os1	56	0.69	0.84	93	0.55	1.15
Os2	6	0.87	0.20	-		
Os3a	49	0.70	0.61	-		
Os3b	-	-	-	23	0.77	0.69
Os4	4	0.94	0.10	-		
Lula	18	0.78	0.33	-		
Lulb	14	0.77	0.39	19	0.83	0.60

$R_{cullis}$  is for centric reflections; Phasing power is for anomalous differences.

SOLVE (to 3.35 Å): Mean figure of merit: 0.48 (overall); 0.24 (outer shell)

SHARP (to 3.2 Å) : Mean figure of merit: 0.37 (overall); 0.03 (outer shell)



Table 7 (c) Refinement

Resolution Range:	99. – 3.05 Å
Reflections excluded for crossvalidation:	5%
Number of non-hydrogen atoms:	
Proteins	19198
RNA	32470
Metals	180
R-factor (conventional)	0.213
R-factor (free)	0.256
Cross-validated coordinate error	0.45 Å
Deviations from ideality:	
R.m.s. deviations in bond lengths	0.007Å
R.m.s deviations in bond angles	1.27 degs



Table 8. Summary of 30S protein structures

Protein	Figure No.	No. of residues (with N-term met)	Visible residues	Previously known structures	No. of Domains	Secondary structure in domains	RNA Contacts	Protein Interaction	Unusual Features
S2	10a	256	V7-S235	No	2	$\alpha_2, \alpha_1\beta_3\alpha_3$	H26, H35, H36, H37, H40	None	Extended $\alpha$ -hairpin
S3	9d	239	G2-V207	No	2	$\alpha_2\beta_3, \alpha_2\beta_4$	H16, H34, H35, H38, 530	S10, S14	N-terminal tail
S4	8a	209	G2-R209	Partial 38,39	3	Zn finger, $\alpha_4, \alpha_3\beta_4$	H1, H3, H4, H16, H17, H18, H21	S5	N-terminal Zn finger
S5	8b	162	D5-G154	Yes 40	2	$\alpha_1\beta_3, \alpha_2\beta_4$	H1, H2, H26a, H28, H34, H35, H36, H44 560	S4, S8	extended $\beta$ -hairpin
S6	7a	101	M1-A101	Yes 41	1	$\alpha_2\beta_4$	H22, H23	$\beta$ -sheet packs against S18	C-terminal tail
S7	9a	156	A2-W156	Yes 42,43	1	$\alpha_6\beta_2$	H23b, H28, H29, H41, H43	S9, S11	extended $\beta$ -hairpin
S8	7b,c	138	M1-W138	Yes 44,45	2	$\beta_2\alpha_3, \alpha_1\beta_3$	H12, H20, H21, H22, H25, H26a	S5, S12, S17	
S9	9b	128	E2-R128	No	1	$\beta\alpha_3\beta_4$	H29, H30, H31, H38, H39, H40, H41, H43	S7	Long C-terminal tail
S10	9c,d	105	K3-T100	No	1	$\alpha_4\beta_4$	H31, H34, H38, H39, H41, H43	S3, S14	Long $\beta$ -hairpin
S11	7a	129	K11-S129	No	1	$\alpha_2\beta_5$	H23, H23a, H23b, H24a, H45	S18 C-terminus	Long N-terminal tail
S12	8c	135	P5-A128	No	1	$\alpha_1\beta_3$	H3, H5, H11, H12, H18, H19, H25, H27, 560, H44	S8, S17	Long N-terminal tail + extended $\beta$ -hairpin loops
S13	9e	126	A2-K126	No	1	$\alpha_3$	H30, H31, H41, H42	S19	Long C-terminal tail
S14	9c,d	61	A2-W61	No	1	none	H31, H32, H34, H38, 980, H42, H43	S3, S10	Zn finger, mostly extended
S15	7c	89	P2-G89	Yes 22,23,46,47	1	$\alpha_4$	H20, H22, H23a, H24	None	
S16	7d	88	M1-A88	Yes 48	1	$\beta_1\alpha_2\beta_4$	H4, H6a, H7, H12, H15, H17, H21	None	C-terminal tail
S17	7c	105	P2-A105	Yes 49,50	1	$\beta_3$	H7, H9, H11, H20, 560	S12	C-terminal helix + $\beta$ -hairpin loops
S18	7a	88	K19-K88	Yes 23	1	$\alpha_4$	H22, H23, H23a, H26	S6; $\beta$ -Strand extends S11 sheet	Registry and loop different from ref. 23
S19	9e	93	P2-R81	No	1	$\alpha_1\beta_3$	H30, H32, H33b, H42	S13	Mostly extended
S20	7e	105	R8-A105	No	1	$\alpha_3$	H6, H7, H8, H9, H11, H13, H44	None	
Thx	10b	27	G2-K25	No	None	$\alpha_1$	H30, H41, H41a, H42, H43	None	Mostly extended



**Table 9.** Summary of crystallographic data

(a) Data collection

Beamline	Resolution limit (Å)	No. of observations	No. of unique reflections	Completeness(%)		<I>/<σ>		<i>R</i> <sub>sym</sub> (%)	
				Overall	Outer shell	Overall	Outer shell	Overall	Outer shell
ID14-4	3.0	1169437	259920	91.1	50.9*	13.7	2.3*	9.6	37.2*

\*Completeness = 94.8%, <I>/<σ> = 4.9, *R*<sub>sym</sub> = 30% in the penultimate shell (3.1-3.2 Å).

(b) Refinement

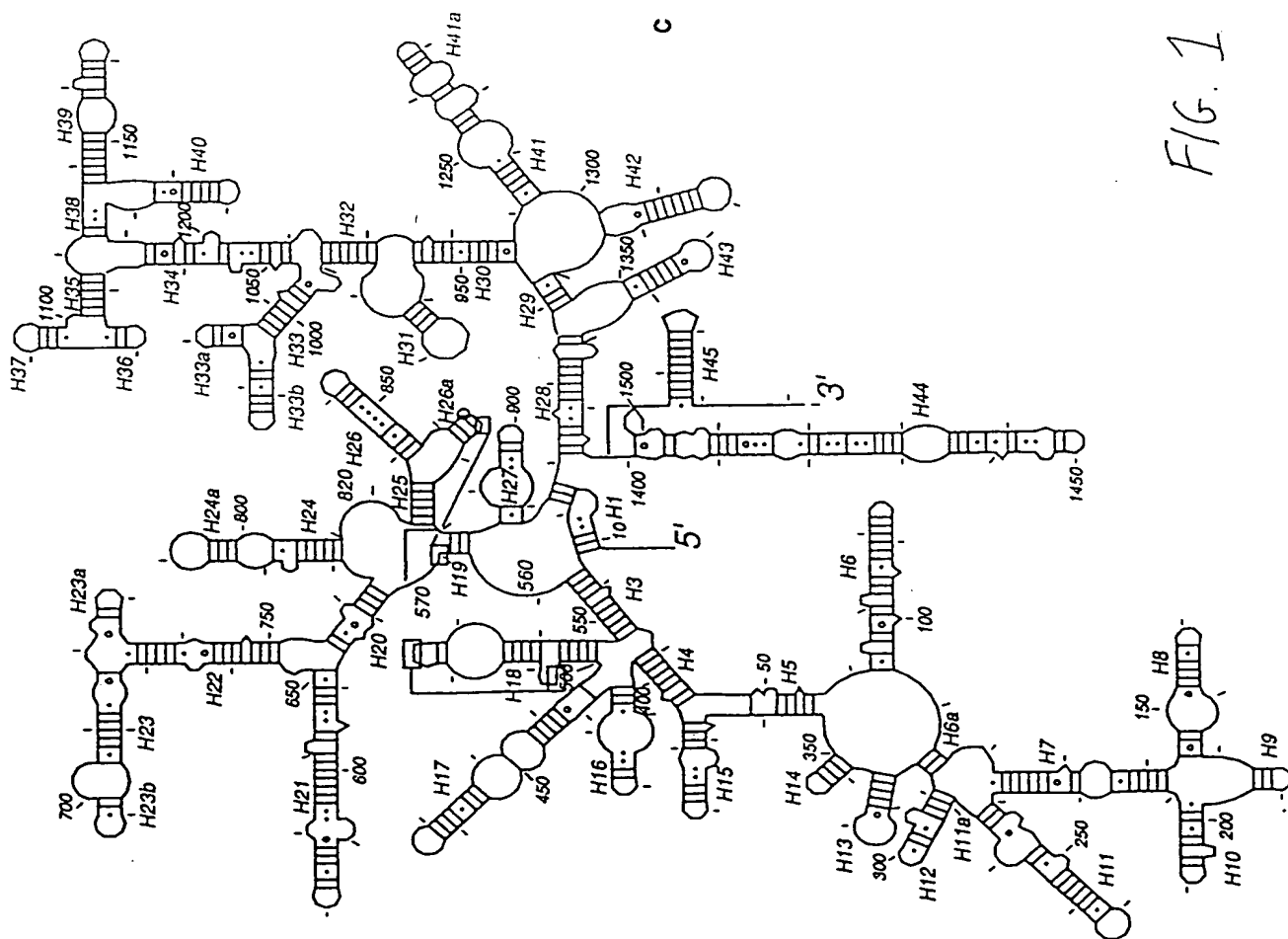
Resolution Range:	99. – 3.0 Å
Reflections excluded for crossvalidation:	5%
Number of non-hydrogen atoms:	
Proteins	19198
RNA	32470
Metals	67
R-factor (conventional)	0.225
R-factor (free)	0.258
Cross-validated coordinate error	0.47 Å
Deviations from ideality:	
R.m.s. deviations in bond lengths	0.007 Å
R.m.s deviations in bond angles	1.36 degs



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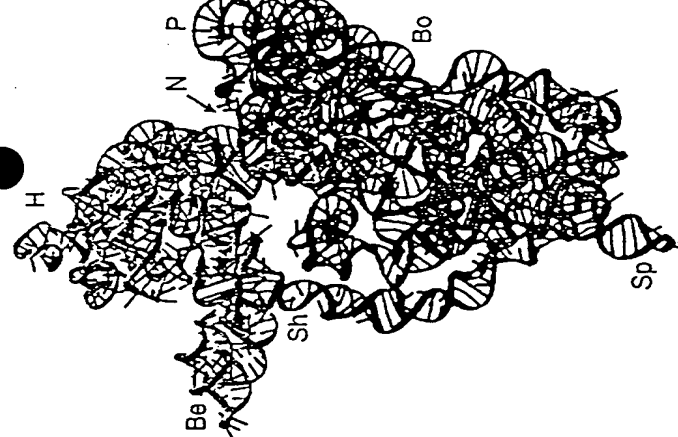


b

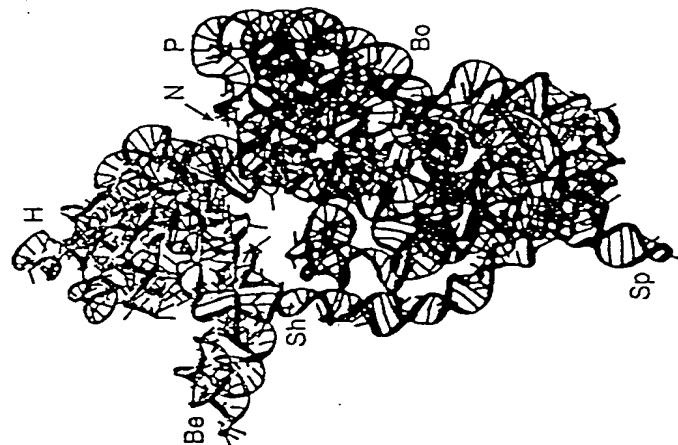


a

H



H



H

d



Back

Front

FIG. 1

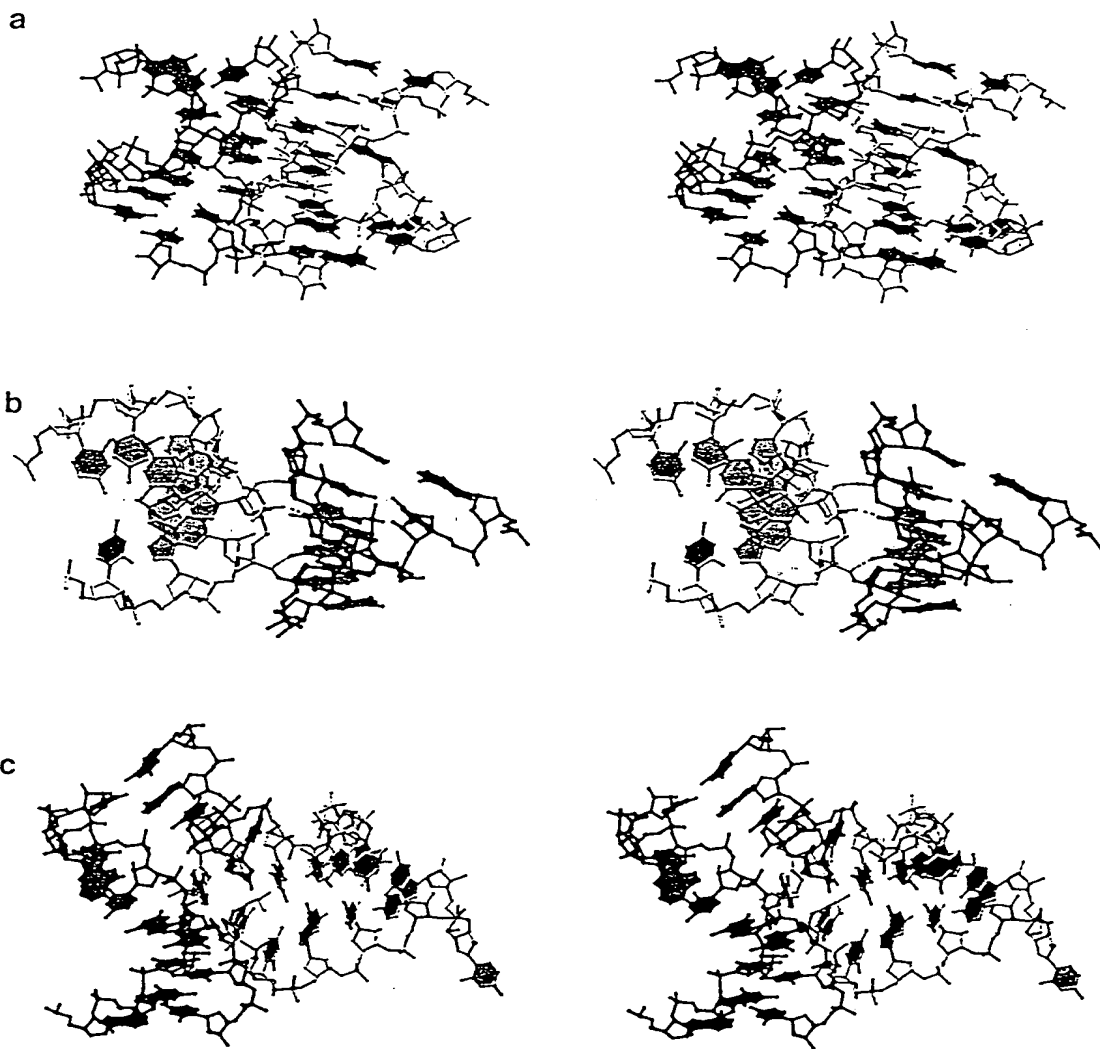
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FIG. 2





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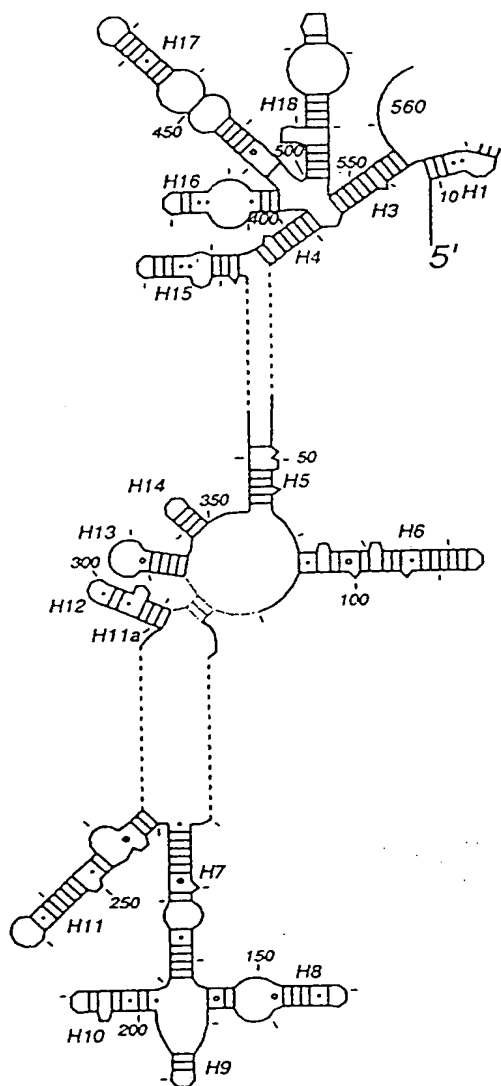


FIG. 3

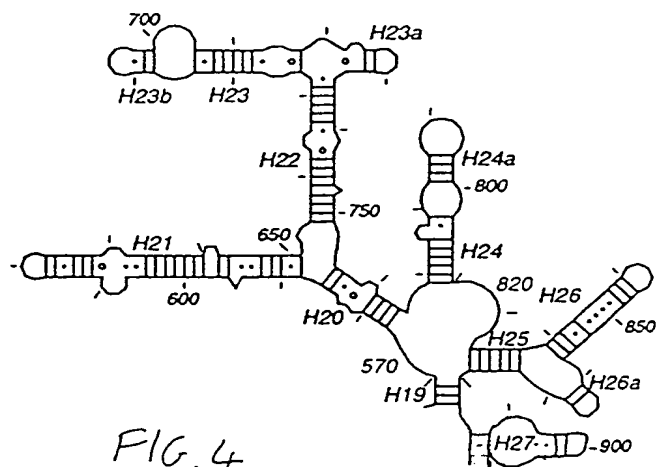


FIG. 4



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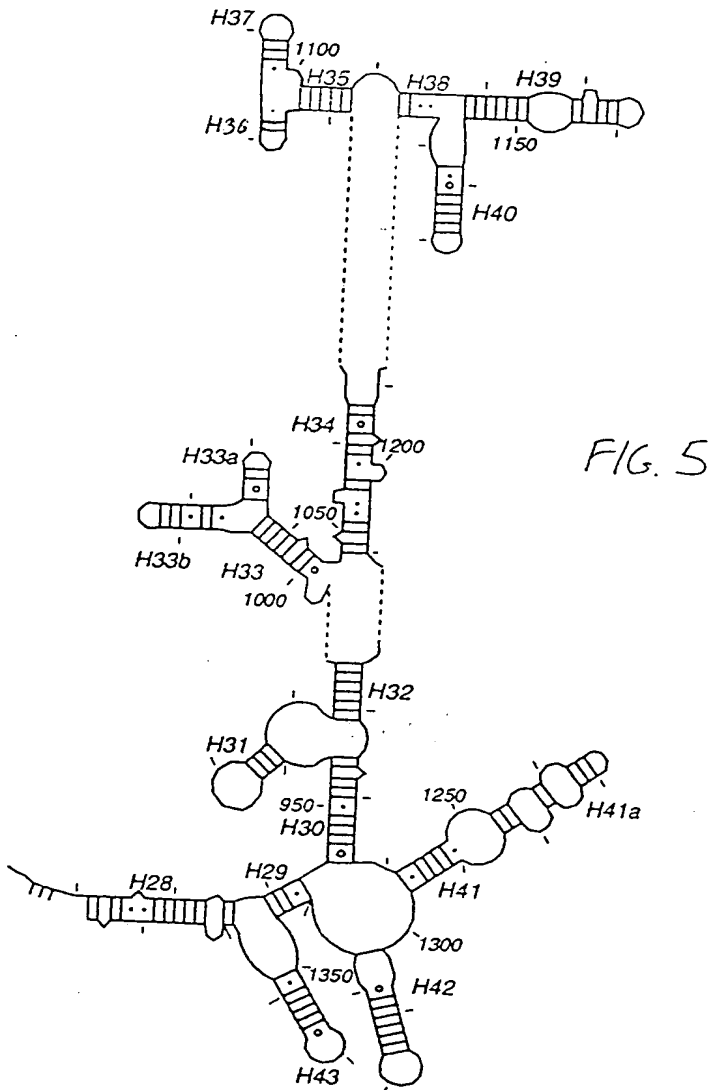


FIG. 5

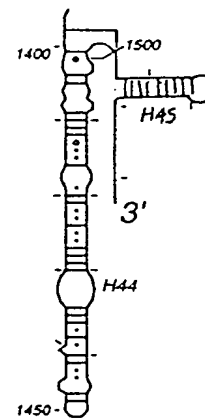


FIG. 6



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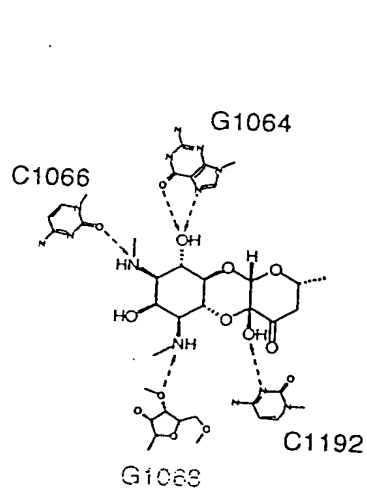


FIG. 7

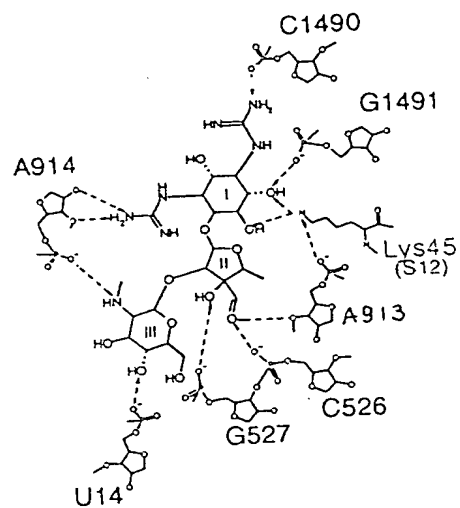


FIG. 8

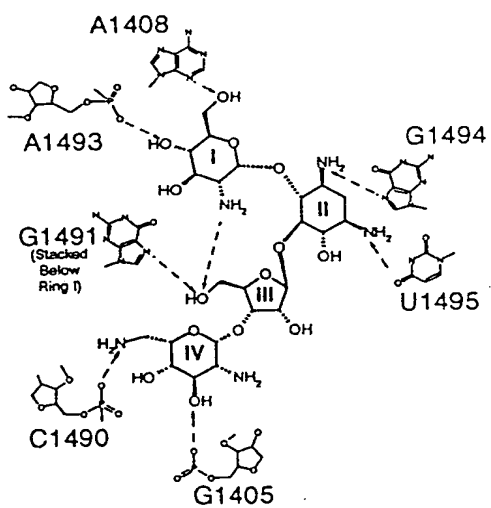


FIG. 9



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